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ART THROUGH MATERIAL ENGAGEMENT…AND VICE VERSA

Paul Louis March and Lambros Malafouris

Introduction

In this chapter, we think through art, not about it. We call this way of engaging with the activity of making "creative thinging" (Malafouris, 2014). Instead of taking artistic practice as an object of study, we make use of its gestures to explore and describe what it is like for a human to be creative, or more exactly, what it is like to be part of a creative process. By suggesting an artistic approach, we appear right from the start to define our methodology as unscientific, and by describing creativity in relation to the externally visible activity of material rather than in terms of internally invisible cognitive processes, we depart from the representational perspective of mainstream cognitive science. However, one of the aims of this chapter is to introduce a position that is not defined by boundaries, such as the one that is actively maintained between art and science. We are not trying anything as ambitious as a rapprochement between art and science. Our aims are more specific and modest. We limit ourselves to establishing a functional link between the academic domain of archaeology/anthropology and the activity of art. Archaeologists and anthropologists have always conducted research into how things are crafted. They do this through the analysis of the artefacts themselves, and their academic output may take the form of ethnographic fieldnotes based on the observation of expert practitioners, participant-observation or quasi-experimental attempts to reproduce hypothesised *chaine opératoires*. Aside from making art, artists too (especially since the modernist movement) may use the creative possibilities of their chosen medium to explore in a direct way the nature of that medium. Renfrew, for example (2003, pp. 8–9), describes how art has transformed itself over its history from something obsessed with beauty into a radical exploratory methodology, offering not answers but paradoxical experiences that highlight some of the misconceptions we have about our relationship with the world. In this chapter, we use the capacity of art-making for self-reflection to dissolve the boundaries between archaeology, anthropology and art-making, allowing the creative and the academic to amalgamate. We look at creative activity, not as perceived through an ethnographic study of how things get made but in processual terms (Gosden & Malafouris, 2015), by experiencing how creative activity 'things' itself into existence.

Boundaries are not immutable features of the environment. They are cultural constructs, erected to divide the world into comprehensible bits according to certain concepts or

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assumptions. Boundaries, therefore, constrain as much as they contain, and, by their nature, they encourage categorical thinking. By taking an artistic approach, we do not intend to remove division altogether but to convert exclusionary boundaries into permeable borders, to extend the no-man's-land between domains in order to create sites of exchange and passage (Sennett, 2009; Malafouris, 2016, 2019). The approach comes with a price.

Scientific reductionism creates sharp and clinical distinctions that are supplemented with some degrees of freedom to manage and reduce uncertainty. The reliance of archaeology/anthropology on data obtained through observation and participation is predicated on concerns about whether objective validity is an effective measure of quality control. While less reductionist, the aim is to use the data obtained from observational and participatory studies to create clean, coherent, unambiguous arguments. In contrast to both, an artistic approach is simultaneously the tool and the medium, both overdetermined and indeterminate, and comes with a requirement to embrace messiness and confusion rather than to reduce them.

We will focus on the process of sculpting. Paul March is an artist who works mainly with clay. His hands provide access to the messiness of the artistic method. In turn, through his anthropological approach to the activity of potters and his research into the material ecology of the mind, Lambros Malafouris has found the plastic qualities of clay to be the ideal medium through which to study how the recursive, cognitive coupling between people and things-in-the-making is played out on a potter's wheel. By combining these two positions, we aim to engender an exploratory relationship between clay and gesture as it becomes manifest in the act of sculpting.

This chapter is organised as follows: we begin by introducing MET, developed by Malafouris to be an ecological description of the mind as a process at the interface of material and human activity. We show how key concepts of MET can be used to develop a framework for studying the creative process. Next, to illustrate the phenomenological approach, especially as it relates to the conversion of boundaries into borders, we borrow the well-rehearsed example of Merleau-Ponty's blind man's cane to challenge the structural assumption that the epidermis defines the limit of sensory experience. We then extend the argument by suggesting that the liminal interface at the cane's tip can be considerably extended by substituting the stick's rigidity with the plasticity of clay. This introduces the notion of clay in the hand as an organ of sensation. From this position, we present a case study in which the clay-in-the-hand transforms itself into the skull of a unicorn, creating a semiological rift between the linguistic phrase "unicorn skull" and the signification enacted by the materially unequivocal but ontologically ambiguous skull sculpture. The case study demonstrates that, although we have to start the story somewhere, it is difficult to locate exactly where and when an idea begins and to describe its initial form, physical state and even its temporal direction of travel. Instead of trying, we focus instead on the MET notion of 'creative thinging' – a process of enactive discovery in which ideas evolve smoothly by material transformation and change discontinuously by material substitution. The skull sculpture was not created to represent, symbolise or illustrate the meaning of the phrase "unicorn skull". We argue that the significance of sculpture is not linguistic but enacted. Nevertheless, in order to refer to this specific sculpture in writing, we must give it a name, and by calling it "skulpture", we aim to emphasise that the emerging thing and the sign of the thing are one and the same. Phenomenologically, the process of creative thinging feels more like 'learning the skulpture into existence', and it is this nascent awareness of its own becoming that we identify, not as a first-person perspective but as a systemically organised, phenomenological work of art.

Material Engagement Theory and the Mind-Matter Singularity

MET was introduced by Renfrew and Malafouris (Renfrew, 2004) in an archaeological context and has since been considerably developed by Malafouris (see Malafouris, 2013, for a detailed description, and Malafouris, 2014, 2015, 2018a, 2018b, for further elaborations). In parallel, Malafouris has used MET to study the process of creation in contemporary pottery making (Malafouris, 2008, 2014; Koukouti & Malafouris, 2020). MET links three overarching hypotheses.

1 *The extended mind:* The idea that the mind extends outwards into the environment in order to co-opt inanimate objects into the cognitive process was proposed by Clark and Chalmers (1998). Although they argue that artefacts can play a determinate role in cognition, whether and when the mind is extended is, according to them, under cortical control. With the brain as chief executive, Clark and Chalmers succeed in maintaining a neat distinction between what is human and what is not. In contrast, from a MET perspective, the extended mind is seen not so much as something that ventures outwards from its cranial headquarters but rather as an interactive process of extended activity between a person and his/her environment. The MET concept of the extended mind traces the borders of the self along functional rather than anatomical lines. The distinction between Clark and Chalmer's extended mind and the MET version has important consequences for how we conceive of agency, as we will see below. It also raises questions about the extent to which phenomenological experience is first-person or systemically organised. Too big to tackle here, this question will hover, present but unaddressed, in the background of this chapter.
2 *The enactive sign:* The MET version of the extended mind, as described above, provides a mechanism for a sensemaking experience that is unmediated by language. It allows for the process of engaging with material to be meaningful in itself, obviating the need for any interpretation of symbolic content. Seen this way, the enactive sign throws light on how an artistic encounter (whether as viewer or maker) becomes an integrated experience.
3 *Material Agency:* The above two hypotheses have important implications for agency. If cognition is orchestrated in partnership with material change and signification takes place through the strategic, localised dissolution of the human-environment boundary, then agency must also be seen in such terms. Instead of humans as the sole vectors of change, an extended intentional state is woven from the threads of preceding human–environment interactions. This view is similar to the concept of 'skilled intentionalities' (Rietveld, Denys & Van Westen, 2018) and is consistent with the radical embodied cognitive science approach taken, for example, by Baber, Chemero and Hall (2019).

Searle (1983) broadly accounted for intention along internalist lines but nevertheless understood patterns of habitual activity to be intention-forming in themselves. Malafouris generalises Searle's concept of *intention-in-action* by arguing that all intention is embedded in an arc of ongoing activity.

The activity considered in this chapter concerns the sort of work done by art, which is often viewed as explicitly disconnected from the work of the quotidian. But, in his analysis of "Art as Experience", Dewey (1934, 1984) provides two reasons to suggest that aesthetic[1] actions are no different from more clearly functionally oriented activity. First, Dewey identifies aesthetics as a wholehearted engagement with the environment and artwork as a prolonged interaction

with a medium. The implication of Dewey's formulation is that the origin of purpose develops from and through the medium of expression and therefore drives activity in a more diffuse way than human agency alone. We can use intention-in-action as the mechanism by which artwork and the medium collapse themselves into the wholehearted engagement that Dewey proposes. In addition, by making purpose central to aesthetic experience, Dewey undermines the definition of art as something devoid of utility. Once again, intention-in-action describes how this may take place by relocating judgements about goal-oriented behaviour away from a causal intentional self, towards a recursive intentional (semi-permeable) system.

Second, although not couched in these terms, Dewey suggests that naturally occurring human-environment dynamical systems influence cultural development and that human nature is recursively shaped by these emerging patterns of activity. Yet again, intention-in-action shows how the rhythms of nature and culture may become aligned, integrated and indistinguishable. Dewey's position makes art and human development phylogenetically and ontogenetically inseparable, integrating human becoming and aesthetic experience. This means, as Shusterman (2010) points out, that rather than existing as an esoteric concept of little relevance to ordinary life, the wholehearted nature of aesthetic experience offers a measure by which all human experience can be understood.

There is another MET concept that is key to the materially embedded phenomenological approach that we will develop in the second part of this chapter and that brings together the three hypotheses outlined above.

Creative thinging: Heidegger took a particular ontological view about the status of things: he saw them existing not as inert substances but as bundles of self-affirming, "thinging" activity (Heidegger & Hofstadter, 1975). In "creative thinging" (Malafouris, 2014), human behaviour is brought into interactive contact with thinging. However, it is important to note that, in creative thinging, it is not the human who supplies the creative ingredient, but rather, it is the intention-in-action of human gestures, interacting with thinging that enables human becoming. By joining 'creative' and 'thinging', Malafouris focusses the effects of the three material engagement hypotheses at the same temporal-spatial point: when-where movement makes mind and matter indistinguishable. In order to emphasise the radical nature of this mind-matter singularity, let us return to Dewey and compare creative thinging to his position. Although Dewey accepted the mutability of the self, he continued to formulate art as the experience of something by someone. For example, when Dewey (1934, p. 47) writes, "[A] painter must consciously undergo the effect of every brush stroke or he will not be aware of what he is doing and where he is going", he emphasises the sensorial and emotional importance of the brushstroke to the painter. We think his use of the word "undergo" is exactly right, but we suggest that it is not the painter that undergoes the emotions; it is the stroking of the brush that is emotional: collapsing material and feeling into a single dynamic, aesthetic gesture.

The shift from individual experience to mind-material movement is methodologically significant because brush strokes, unlike cortical consciousness, can be seen, tracked, judged and debated. Let us take the simple action of wrapping a parcel as an example. This should be done in a manner that ensures that the parcel's content arrives at its destination safely. It is this primary task that organises the extended intentional state, which is expressed by the visible gestural pattern of activity. Safe arrival does not require a parcel to be wrapped in an aesthetic manner, but we argue that the primary task can be supported by taking such a wholehearted approach: an attention to the choice of wrapping, the cutting of the paper, the quality, position and execution of a fold, the tying of a knot or a bow and so on. Each gesture can thereby manifest aesthetic intention, distinguishing it from gestures promoted by prosaic intention alone.

In this section, we described how art-making can be understood as intention-in-action. In the next section, we demonstrate that sculpting with clay can be used as an exploratory tool. We take Merleau-Ponty's description of the ontological status of the blind man's cane and apply it to a ball of clay in the hand of an artist.

From Cane to Clay

When a blind person uses a cane to find his/her way around the world, the sense of touch substitutes for vision. But where is this sense of touch located? In the somatosensory region or the visual cortex? At the fingertips? At the end of the stick? In the roughness of the kerbstone as the stick traces its course? From a phenomenological perspective, Merleau-Ponty (1962) argues that the cane drops from awareness as the individual's sensory frontier extends to incorporate it. The stick ceases to be an object to be sensed and becomes a way of sensing the world. Does this mean the stick moves inside the boundary that separates the self from the world? We argue that the important lesson here does not concern location but the quality of separation, which reveals itself to be a permeable and negotiable one. The cane teaches us that the human mind is mediated through objects whose material qualities are phenomenologically and functionally constitutive (Malafouris, 2019).

Now, if we take the lesson of the blind man's stick and try and think in a similar way about a ball of clay in the hand of a sighted sculptor, we are immediately confronted by an obvious difference. Whereas the cane-in-hand becomes an extended sensory organ, the hands of a sculptor appear to have a motor role, while vision retains its position as the primary sensory pathway. As the sculptor's hand reaches out into the world and grasps the clay, there is no sign of a mediating object blurring the boundary between person and world. But what happens if we understand the goal of the grasping action differently? What if the intention-(in-action) is not to make the ball of clay into a new shape but to allow the process of sculpting to deconstruct the relationship between shape and identity – to undermine the intransigence of form? We shape something by drawing a boundary around it. We create an object by dissociating it from the shapes of objects that surround it. By focussing on its shape, we recognise an object, capture it and get the impression that we know it. By emphasising, in this way, the stability of form, we fail to notice and experience how bits and pieces of the world temporarily bind together, not to make a shape but to make a transient common cause.

The contrast between perspective as shape and perspective as an alliance of ephemeral assembly is vividly brought to life in Merleau-Ponty's analyses of Cezanne's approach to painting (1964; Merleau-Ponty et al., 1993). Cezanne did not compose a landscape painting using contours. His aim was not to make a picture of a landscape. Cezanne understood painting to be a process of nature that grows organically from within its own origins. He applied paint to the canvas, unbounded by lines, allowing the painting to emerge through the melding and merging of colours on the one hand and their differentiation on the other. Importantly, by not separating a landscape on the basis of shape, Cezanne made himself phenomenologically continuous with both landscape and painting, hence his famous quote, "The landscape thinks itself in me and I am its consciousness." (1964, p. 17) For Cezanne, the work of painting was a gathering of itself, which Merleau-Ponty et al. call 'autofiguration', describing how the paint-loaded brushstroke grows outwards to generate both the painting and the painter (1993, p. 141).

> …it is the painter to whom the things of the world give birth by a sort of concentration or coming-to-itself of the visible… by breaking the "skin of things" to show how things become things.

In what we would describe as a process of creative thinging, there is no clearly defined Cezanne and no landscape that are separate from the painting strokes that join and create the two on the canvas. Later, Cezanne and landscape go their separate ways, or rather, they become separated and are drawn into other transient alliances of assembly.

Let us return to the ball of clay in the hand of the sculptor. If we ignore shape and focus on the movements of sculpting as exploratory gestures, then the clay ball becomes ontologically ambiguous. While remaining a part of the world that is available for exploration, it also becomes a cognitive organ of exploration. In this way, the clay-in-the-hand becomes a sensori-motor tool within a phenomenological system. As it takes up the role, the sculpting system loses awareness of the clay in a way that is analogous to the cane becoming a sensorial conduit. This highlights an important area of possible confusion. Creative thinging, as an act of material engagement, is not about experiencing materiality. Material properties are integrated into a system of creation, and so, during the act of creative thinging, the sculptor does not experience the clay separately from the process or from him/herself any more than he/she experiences his/her cortical activity as separate from what the neurons are firing about.[2] Clay, gesture and cortical activity come together to be **about** something. Merleau-Ponty described Cezanne and paint to be engaged in a phenomenological activity. We think that sculpting clay can be seen similarly. Indeed, without the intermediaries of canvas and brush, clay and hand make the interdependence between gesture, material behaviour and the emergence of material ideation even more stark.

We propose to consider sensations as acts of discovery rather than signals about the state of the world. Sensations teach us about ourselves in relation to our environmental activity, or, put systemically, they provide a perspective from within the system of the moment. If this is the case, we cannot jump out of the system and see it from outside. What we can do instead is follow the developmental trajectory of a sculpture as it sensorially influences its sculpting human partner towards making specific gestures that, in turn, bring into existence gestural patterns that were previously unconceivable.

In describing the 'aboutness' quality of consciousness, Merleau-Ponty (1962) points out that it is difficult to have a sensation while simultaneously being conscious of doing so.

> In so far, then, as there is consciousness of something, it *is* because the subject is absolutely nothing and the 'sensations', the 'material' of knowledge are not phases or inhabitants of consciousness, they are part of the constituted world.
>
> (p. 127)

If we expand the "subject" of Merleau-Ponty's sentence and use phenomenology as a method for understanding consciousness in systemically intentional terms (in the sense of both being directed towards and including something in the world), then we can argue that, during the process of sculpting, sensations leave a trace of aboutness in the clay. The trace provides a way of making a temporal separation between sensation and the awareness of being part of a creative sensorial system. By following the sculptural traces of creative thinging in slower time (through notes, photos, video recordings, etc.), we can track changing patterns of awareness during a sensorial act.

By introducing a temporal separation, we are not advocating studying sensation separately from experiencing sensation, quite the reverse. As we see it, the final sculptural form is a material vestige of a sensorial-emotive-cognitive process that was constituted within the activity of clay and mediated by its vicissitudes. We are suggesting that intentionally directed consciousness manifests as visible traces. Sculptural change is not the result of putting an idea into practice; sculptural change **is** ideation. In order to show how all this gets acted

out materially, we now present a case study from the perspective of a system of creation that included Paul March, who, for want of a neat, verbal conjugation that expresses systemically embedded, phenomenological experience, will speak in the first person.

Skull - Rupture- Skulpture

In a museum one day, I came across a 6-million-year-old fossilised horse's skull (*equus stenonis*). Recalling it weeks later, I was not sure exactly what I was remembering – not the skull itself, but more like standing in front of the vitrine and being drawn towards its contents. Intrigued, I went back to see it again and found that, as fossils go, the skull was not a good example – broken and twisted, discoloured and deformed (Figure 33.1). But it was its damaged status as a fossil that made it appealing as a sculpture. The twisted way the bone had turned to stone gave it a touching expression of vulnerability. My first impulse was to make a sculpture of it, as though, by doing so, I could bring the expressive powers of the fossil into my creative possession. But I have learned that the outcome of acting on this impulse is usually disappointing because the sculptural power I wish to create already exists. It cannot be shared or transferred into something else; the attempt only produces a tame version of the original. Nevertheless, a few weeks later, I returned to take detailed photographs. Any onlooker might reasonably have assumed that I was preparing to ignore my own advice.

About a year later, towards the end of 2015, I came to the end of a big project and found myself in my workshop feeling listless. By definition, a workshop imposes the requirement to work, but I had nothing to work on. I opened a bag of clay and pushed its contents around

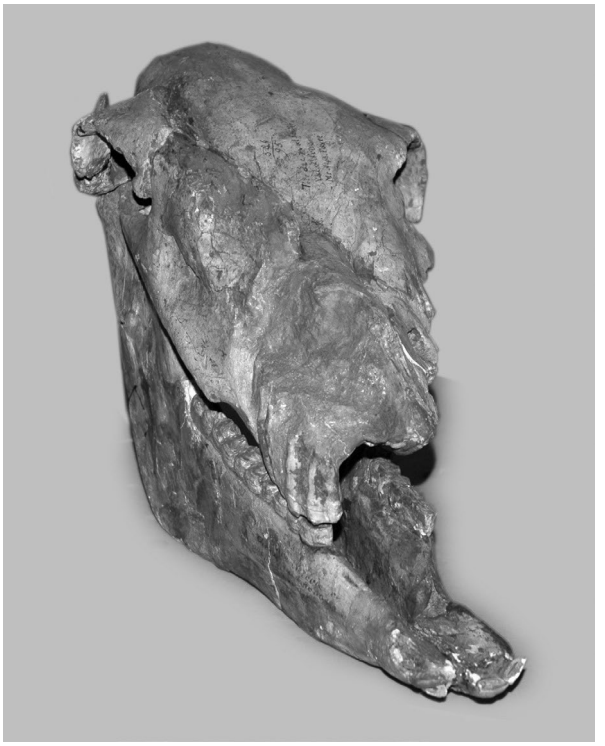

Figure 33.1 Fossilized horse skull (equus stenosis), Museum of Natural History, Geneva, Switzerland

Figure 33.2 Skull of a modern horse in the workshop, Geneva, Switzerland

in a desultory way. After a while, the gestures became more purposeful, and I realised that a specific intention was forming to make something – a thing-in-itself – something that was indistinguishable from a fossilised unicorn skull. At this point, I fetched and spread out the photos of the fossilised skull to serve as anatomical guides, along with the skull of a modern horse, which was already hanging in my workshop (Figure 33.2).

To explain the presence of the horse's skull, about two years before seeing the museum skull, I had spent several months creating a series of skulls of imaginary horned animals. (*Le Troupeau*, Figure 33.3). The work on *Le Troupeau* had developed, in turn, from an earlier project that explored the concept of the "extended phenotype" (Dawkins & Dennett, 2016, Figure 33.4). In making *Le Troupeau,* I was interested to see how fantastical a skull could become and yet remain perceptually believable. The next step in exploring believable fantasy beasts was to create a pair of unicorn skulls. (*Juments Dizygotes*, Figure 33.5), for which I needed the skull of the modern horse as a guide.

The above summary illustrates that when the "idea" for a sculpture is considered in the context of a long-term, ongoing art-making process, it becomes much more difficult to identify a single conceptual moment in time and space that could be called "prior intention". In a similar manner, both Keller (1996) and Baber, Chemero and Hall (2019) describe how the organisation of a workshop, the arrangement of tools, the positioning of the craftsperson, etc. are all causally implicated in creative making.

> …our view of creativity is one in which human-technology relations create an interplay between the state of the material and the action of the jeweller. In contrast

Figure 33.3 *Le troupeau* (2013)

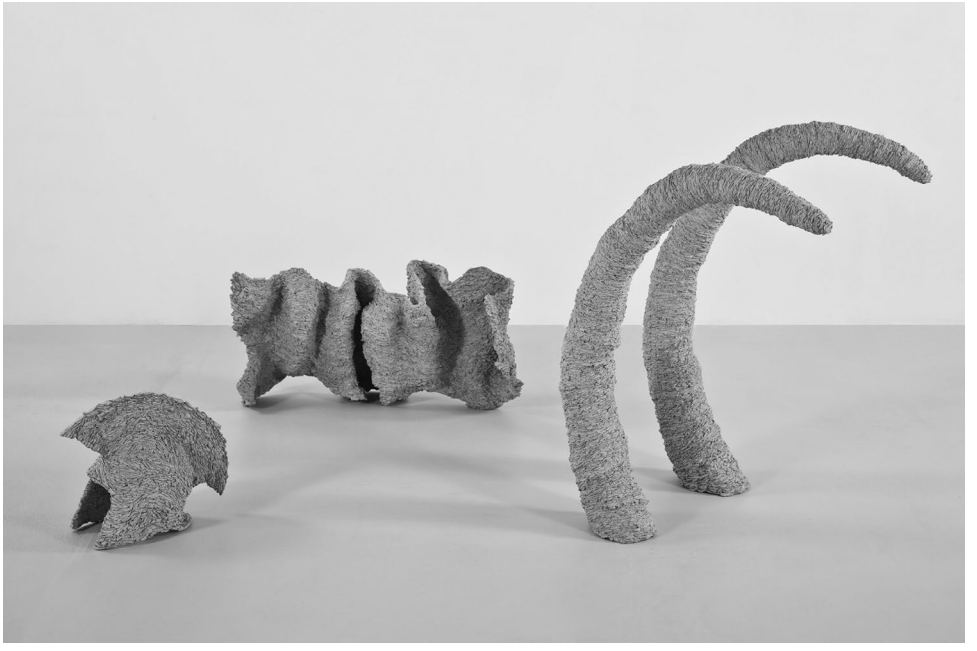

Figure 33.4 *Extended phenotype* installation (2010)

> to the idea that creativity begins with an end in mind, we argue that it involves the discovery of the end.
>
> Baber, Chemero and Hall (2019, p. 300)

Although these antecedent projects came to mind during work on the fossilised unicorn skull, I did not experience the start of the new project as a simple, linear progression of previous work. Whereas the semantic, perceptual and contextual evolution of the work is, as I have just laid it out, pretty obvious and presumably valid, it nevertheless feels like

Figure 33.5 *Juments Dizygotes* (2013)

these types of interpretive connections come from another perspective: that of a "system of beholding" – a systemic extension of Gombrich's (1961) notion of 'the beholder's share'. Inside the system of creation, things feel different. Previous projects certainly came to mind while making the sculpture, but the memories of the projects themselves did not feel like they were causally related to the action of sculpting. The development of skull-making felt more like it was recursively associated with the emergence of the clay-gestural memories of previous projects. What I mean by this is that, during such an act of creative thinging, a thought or memory is difficult to separate from the material and difficult to distinguish, on the one hand, from the clay-gesture that preceded it and, on the other hand, from the clay-gesture that develops from the previous gesture-memory association. In the language of cognitive psychology, these clay-gesture-memories might be said to be on the cusp between episodic and procedural memory. In mainstream psychology, episodic memory is viewed as representational, in the sense that a record or image of an event is stored neurologically. Procedural memory – for example, the way finger movements remember a four-digit code at an automat – is more easily translated into interactional terms. A clay-gesture-memory gathers a specific historical context around itself, which differentiates it from gestural memory (AKA "implicit knowledge").[3] As outlined above, I had already sculpted a number of skulls using the same clay, and so when I started this work, each new sculpting gesture was informed by previous gestures, bringing their history into an extended, creative mind, not as a memory of past events but by becoming gesturally present. As emerging gesture memories were worked and reworked into, by and through the clay, they combined with structural information from the skull of the modern horse as well as the manifestations of destruction,

erosion and deformation captured in the photos of the museum skull. In a similar vein, in his chapter on tool use, Baber uses the notion of 'grip' both literally and metaphorically to describe the gathering together of a creative system. What I am trying to get across here is how ideas in various states of materialisation jostle and juxtapose themselves along an ongoing creative-temporal thread. In this sense, an idea is a physical gesture that stands in relation to an arc of morphological change – here manifested by the plastic qualities of clay. By moving ideas out of the head and into the world like this, it is easier to see how they rub up against each other, transpose themselves from one material to another and, in doing so, change their signification and learn something new into existence.

The Material Sign in Action

You may think it is easy to imagine what a unicorn skull looks like – a horse's skull with a horn emerging from the forehead. It is certainly easy to draw a recognisable picture of such a thing (Figure 33.6). Shapes are not the only things that beguile us into thinking that we know what the world looks like; signs and language do so too. Merleau-Ponty's analysis of Cezanne's oeuvre and Malafouris's notion of enactive signification both point to the difference between drawing a pictorial sign of a linguistic concept and being in the world (Heidegger, 1967) until the sculpture emerges from the clay. By following the sculptural process, we want to show that the only means of knowing what the world looks and feels like is to be in a synergistic relationship with it.

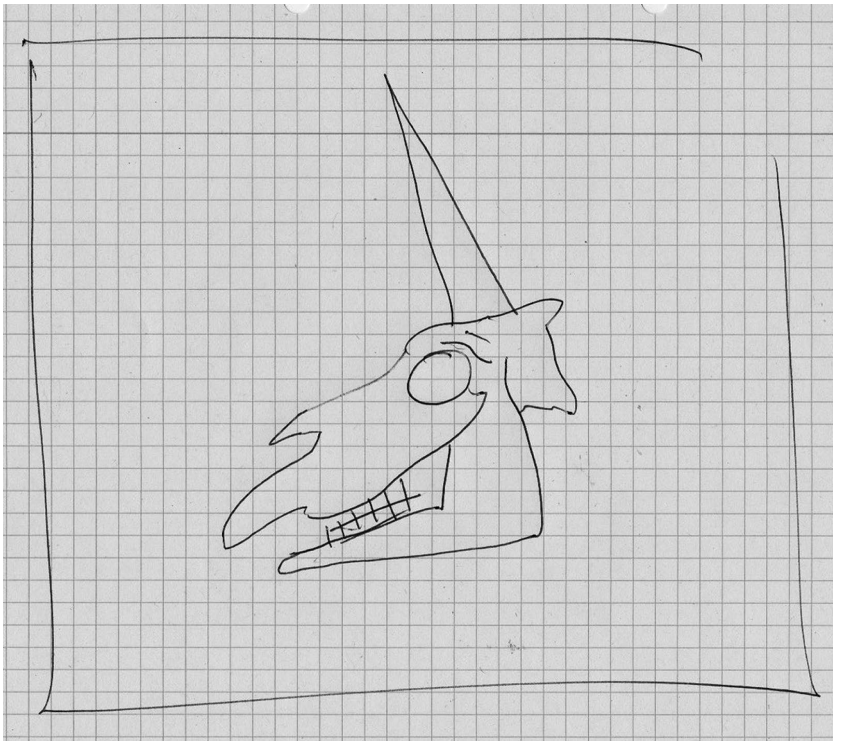

Figure 33.6 Drawing of a unicorn skull

Consider the modern horse's skull, left in my workshop from a previous project. In the centre of its forehead, just above the position from which a unicorn horn would emerge, there is a hole from the bolt gun used to slaughter the beast. The hole shows the bone to be barely 2 mm thick (Figure 33.2). Such a fragile base could never support a horn, and this anatomical incoherence can be sensed when looking at Damien Hirst's *Skull of a Unicorn* (2017, Figure 33.7). The bone of the skulls of cattle, sheep and antelopes is reinforced around the horns (Figure 33.8); unicorn skulls would be similarly adapted.

In addition to the issue of reinforcement, a judgement was needed concerning the dimensions of the horn and its exact position on the forehead. The three variables – reinforcement, dimensions and position – are interrelated and cannot find their equilibrium without being brought into dynamic relationship with each other. To do this, I followed a method I developed during the *Juments Dizygotes* project. I made a number of cardboard horns of variable dimensions and tried each against the skull of the modern horse. By varying size and position, it was possible to arrive at a reasonable approximation for both while also providing an idea about reinforcement structure. The final resolution took place by fine-tuning the morphology of reinforcement in relation to position and then readjusting the size of the model horn in response. It is important to emphasise that this decision-making process did not occur within some internal conceptual space but in direct relation to the physical presence of these variables. This was not an uncertain process of weighing up pros and cons or making compromise judgements. When the relationship was correct, it felt obvious. The decision took place in front of me through a process that Vallée-Tourangeau and March (2019) call "outsight". What made the

Figure 33.7 *Skull of a Unicorn*, Damien Hirst's *Wreck of the Unbelievable* at the Venice Biennale 2017
Source: https://www.shutterstock.com/image-photo/view-san-giorgio- cathedral-venice-terrace-644071798-

Figure 33.8 Skulls hanging in the workshop, Geneva, Switzerland

procedure aesthetic was not the exact specifications of each of the three parameters but the ways they combined to reach agreement (Malafouris, 2011). For Heidegger and Hofstadter (1975), the aesthetic outcome is brought forth from within the work itself, and what distinguishes an artwork from other works is when "createdness is expressly created into what is created, with the result that it expressly rises up out of the work" (p. 39). The work of art is a process of re-structuring material in such a way as to express the restructuring process in the work of art; it is this that we refer to as 'learning into existence'. Efficient, day-to-day work is characterised by smooth transitions from one activity to the next, whereas artwork exhibits a paradox: the work of art advances by creating ruptures that expose and undermine the well-worn paths of habit.

Having presented the relationship between reinforcement, position and size as an aesthetic process, I finish this section with a final example of material ideation by describing how the horn came to know its character by translocating from wood to clay, via plaster of Paris. The horns of cattle, sheep and antelopes consist of a bony core covered by a visible keratin sheath. However, skulls are often found without this sheath, revealing the pitted and striated surface of the bony interior (Figure 33.9). This was to be the case for the sculpture. This pitted aspect is difficult to model in clay but easy to carve from decayed, denatured wood. So I took an old branch and carved it into the shape of a horn. I took a plaster mould of the carving, from which I cast a version in clay.

Clay in Transition

The sections above describe how various material ideas met during the act of sculpting and synergistically transformed each other. To paraphrase Gosden (2005, p. 766): the clay made use of my muscles and skills to bring about its final form. A point arrived in the process when I began to experience the resulting sculpture as a fossilised unicorn skull. The work became the skulpture by circling round and around, pulling some activity towards itself while letting other actions spin away: finding its resolution by disengaging from those bits

Figure 33.9 Subfossilized horn, Museum of Natural History, Geneva, Switzerland

of me that were not essential to the autogenetic creative system. I experienced this separation as a diminution in my sense of self (March, 2019), but the separation occurred with other parts of the system too: the images of the fossil, the modern horse skull, sculpting gestures, the material plasticity of clay and so forth. Merleau-Ponty had Cezanne to help him understand. What is astonishing about Heidegger is that, despite never having explicitly linked his understanding to any direct experience of material engagement, he clearly grasped the process of becoming an artwork, even if the clarity of his expression leaves something to be desired:

> In the work…the fact that it is as such a thing, is what is unusual. The happening of its createdness does not simply reverberate through the work; rather, the work casts before itself the eventful fact that, as a work, this work is, and exhibits this fact constantly. The more essentially the work opens itself, the more luminous becomes the uniqueness of the fact that it is rather than is not. The more essentially this thrust comes into the open, the stranger and more solitary the work becomes. In the bringing forth of the work there lies the offering forth of the "that it is."
>
> (1975, p. 40)

A qualitative leap has been made from a prior verbal description and the experience of the skulpture as a thing-in-itself. It is possible to express the resolution of an artwork in advance because language offers only broad constraints on the concept: the phrase "fossilised unicorn skull" describes a multitude of physical possibilities. But the enacting signification of the skulpture is a very different matter. It exists, not as a copy or representation of an original that exists elsewhere (even as a Platonic ideal), but only as the material sign of itself. Deleuze's subversive reversal of the meaning of the term simulacrum expresses this well. Rather than being ontologically dependent on original versions…

> Things are simulacra themselves, simulacra are the superior forms, and the difficulty facing everything is to become its own simulacrum, to attain the status of a sign in the coherence of eternal return.
>
> (Deleuze & Patton, 2001, p. 67)

As sculpting proceeds, symbiotic exchanges create material constraints that close down certain possibilities within the creative system until, with no further change possible, the skulpture brings itself and the creative system to an end, only to immediately regenerate by facilitating the emergence of a system of beholding in which the finished artwork and the network of associated memories begin to create a different relationship with each other. (See also Keller, 1996, on the different perspectives between maker and observer.) Although the memories and associations were kneaded into existence and linked by, to and through clay during sculpting, when I looked at the newly configured thing-in-itself, the associations rearranged themselves from a moving-into-the-future, creative perspective towards a chronological, historical and narrative perspective. It felt as though these memories travelled backwards in time, transforming themselves as they did so into causal events. The end result was that I experienced the skulpture, as any spectator might do, in relation to meaningful and relevant personal experiences – even if the experiences themselves were not explicit in the work.

There are two subsequent stages in the making of a ceramic sculpture that highlight the passage between the creative and the beholding systems. Once the form has found its resolution, it must be left to dry before being fired. As the clay body loses water content, its aspect changes. The surface becomes flatter and less nuanced, leading to an overall deadening effect: loss of humidity leads to an inevitable, if temporary, loss of vitality. In contrast, the next stage, firing, is more unpredictably dynamic, being associated with four transformative possibilities. First, there are potential problems arising from poor technique. Pieces that are carelessly constructed are more likely to crack or explode during firing. Second, fired ceramic can reveal certain gestures or decisions that were invisible in raw clay. Third, the ceramic that emerges from the kiln is a chemical transformation of the clay that went in. Fourth, firing takes ceramic close to its melting point. At this temperature, the sculptural body becomes malleable and therefore susceptible to deformation by gravity. When the kiln has cooled and is opened to reveal a newly fired sculpture, it unveils something that is simultaneously recognisable and unfamiliar. There is a heightened sense of perceptual awareness, which is both precipitated by and results in the piece appearing familiar yet uncannily transformed: a rift that for a while simultaneously holds the past and the future within the awareness of the present. This sensation is similar to what Wittgenstein calls "noticing an aspect" (1953, p. 193) – the sort of perceptual reconfiguration that occurs when you bump into an acquaintance in the street who you have not seen for 20 years.

From Skulpture to Model

The drying and firing stages emphasise the change of role from maker to spectator, and 'noticing an aspect' describes the paradoxical juxtaposition of experiencing the transient coexistence of past and future in the course of an abrupt rupture between the two. The transition of clay to ceramic is a further, particularly vivid, demonstration of the capacity for ideas to migrate across materials, mutating as they proceed towards their next material manifestation. The raw sculpture had resolved itself into the sculpture, but when I opened the kiln, I saw at once that the fired piece was on the move again (Figure 33.10). Extreme heat

Figure 33.10 Fired Skulpture (2016)

undid the raw skull's resolve and replaced it with intentions of grandeur. No longer content to remain a skull, it presented itself as a model for a unicorn skull landscape.

The horn, cast from a carved, decayed branch, now displayed its intention to become a blasted and petrified tree trunk. A similar attitude of self-aggrandisement emanated from the front of the skull, and the projective process spread across the skull. The point where the fossilised bone disappeared into rock became a potential rock outcrop, cracks became chasms and the buccal cavity - a cavern. I did not experience this massive scaling up as something I wanted to do, and although the desire appeared to emanate from the sculpture, I think the intention to become a landscape was inseparable from and equivalent to the act of gazing on the fired sculpture for the first time.

This declaration of intent by the skulpture[4] evoked the memory of a detail in the painting *Two Men Contemplating the Moon* by Caspar David Friedrich (1825–1830, Figure 33.11) of a tortured and fissured tree emerging from a rock outcrop at a similar angle as the horn from the skull. Or perhaps the projective aggrandisement was provoked by the painting and was an attempt to align the skulpture with the landscape. Whatever the direction of causation, the association between skulpture and painting changed the emotive quality of intention: the skull quickly became imbued with the same melancholy romanticism as the painting. Two years later, in 2017, the unicorn landscape had become a physical reality (Figure 33.12). One day I was retrospectively writing up some notes about the project. While doing so, I received an email from one of the editors of this book, Frédéric Vallée-Tourangeau, in which, in an unrelated context, he mentioned Mary Shelley. Turning from the email back to the notes and an image of the work, I re-experienced the final, large

Figure 33.11 Two men contemplating the moon (1825-30) Casper David Friedrick — Wi-kimedia commons

Figure 33.12 Final installation. *Another part of the World* (2017) at Trésor, Basel

sculpture as an outsized, unwitting monster. In *Frankenstein* (1818 – the book is contemporaneous with David Friedrich's painting), Shelley gives a description of the monster's walk across Geneva – his despair, loneliness and bitter feelings of being misperceived. This morbid atmosphere transferred itself retrospectively to the finished unicorn installation, dragging in its wake the still-life curiosity of Victorian natural history collections and the hopes and fears of scientific progress. The process of creative thinging does not stop when the system of creation becomes the system of beholding but continues to spin, transforming materials and ideas as it does so.

Discussion

In this chapter, we used the plastic quality of clay to turn the boundary between what is human and what is not into a permeable border. For the most part, humans are oblivious to the workings and physiological processes of their internal organs (including the brain). We suggest therefore that our sense of self comes not so much from inside the body as from our membership in and quality of engagement in a series of transient systems that include somatic activity but which also lie beyond the body itself. When bodily functions run smoothly, we do not notice them. The same applies to these transcorporeal systems. A tool in the hand of an expert becomes lost to conscious experience when it is systematised along an arc of intention-in-action. Expert tool use (and smooth-running activity in general) is predicated on habit and implicit knowledge and operates below the radar of awareness (Baber et al., 2019 and Baber chapter here). In addition, as Merleau-Ponty points out, it is difficult to simultaneously experience a sensation and experience awareness of having a sensation. A ball of clay in the hand of a sculptor pinpoints this ontologically ambiguous moment. The ball and hand exist within the creative environment of the workshop while simultaneously being part of a sculpting system that busies itself exploring the environment in which it exists. If clay is allowed to act both as a tool and as a medium, then sculpting clay can turn the tacit into the explicit, transforming the role that implicitness plays in human action into something paradoxical and inconsistent. The ontological duality of clay during sculpting is what distinguishes 'creative thinging' from 'thinging'. Thinging, as we have seen, refers to the vitality of things in themselves. Creative thinging refers to the capacity of a system to investigate its own vitality by creating itself – what we have called 'learning itself into existence'. The skulpture could not exist without the knowledge of its existence. And could not know itself until it existed.

The above formulation – that being and knowing are existentially interdependent – was not made from the position of an observer. Rather than engaging in an anthropology of art (in which the practices of the former are used to study the practices of the latter), we began by using MET to highlight the enactive significative possibilities of art-making before showing, via the case study, that the materialisation of these possibilities during art-making is able to explore and describe the process of enactive signification, as well as other key features of MET, directly. The case study describes a process of auto-generation by concrescence. Events, materials and habitual practices coalesce and organise themselves into a series of clay-memory gestures, learning a skulpture into existence. But, no sooner conceived, the concrescence disperses, releasing elements, some of which reconfigure as past events and arrange themselves along a pathway with the skulpture at its end, giving the impression that the process was under the control of a linearly directed agency, such as the one often attributed to the human brain. The post-hoc historical reorganisation obscures the experience

of being within a system of creation that existed as a transient, gestural and materially mediated conceptual process. Creative intention was not born in a conceptual space, separated from the world, but in a messy and confusing physical system of materials, artefacts and human activity. Ideation and materialisation occurred within the same system of activity, and neither existed anywhere else.

Notes

1 We use « aesthetic » to refer to an engagement with the world that focuses on the sensorial qualities of an action; be it making, looking, touching or other sensation-seeking activity.
2 This relates to the question we raised, in relation to the extended mind, concerning the limits of equating phenomenology with a first-person perspective.
3 See also Baber's Chapter where he addresses the shortcomings of procedural knowledge in more detail.
4 I ascribe intentional feelings to the sculpture, as a figure of speech – as a way of expressing that the intention did not appear to belong to me. It could reasonably be argued that this comes about through projection on my part space prevents me exploring the issue further here.

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