

'In his latest book, Tim Ingold persuasively argues for anthropology's transformational capacity and promotes serious reflection on the need for anthropologists to correspond with the world. His focus on handwork in art, building, and the making of tools beautifully illustrates "thinking through making" and learning by doing. This accessible book makes an excellent and timely contribution to a core area of anthropological research, and invites the reader to engage with the fascinating work emerging from it.' Trevor Marchand, *School of Oriental and African Studies, UK*

'Ingold is a joy to read. With *Making*, he continues to enliven the social sciences with his distinctively compelling and critical reflections on anthropological, archaeological, architectural and artistic practices. This volume will be useful to all who are striving to integrate art and research, making and thinking, practice and theory.' Ian Alden Russell, *David Winton Bell Gallery, Brown University, USA*

'For architects it is an absolute must to discover and absorb the work of this friendly outsider whose ideas touch the heart of what we do.' Lars Spuybroek, *Georgia Institute of Technology, USA*

'Unafraid to ask bold questions and propose daring answers, Tim Ingold has developed a distinctive voice. In the process, he has staked out an increasingly influential position that touches on a wide range of disciplines.' Webb Keane, *University of Michigan, USA*

Making creates knowledge, builds environments and transforms lives. Anthropology, archaeology, art and architecture are all ways of making. In this exciting book, Tim Ingold ties the four disciplines together in a way that has never been attempted before. Instead of treating art and architecture as compendia of objects for analysis, Ingold advocates a way of thinking through making in which sentient practitioners and active materials continually answer to, or 'correspond', with one another in the generation of form.

Making offers a series of profound reflections on what it means to create things, on materials and form, the meaning of design, landscape perception, animate life, personal knowledge and the work of the hand. It draws on examples and experiments ranging from prehistoric stone tool-making to the building of medieval cathedrals, from round mounds to monuments, from flying kites to winding string, from drawing to writing.

Tim Ingold is Professor of Social Anthropology at the University of Aberdeen, UK. His books for Routledge include *Lines*, *The Perception of the Environment* and *Being Alive*.

ANTHROPOLOGY

 **Routledge**
Taylor & Francis Group
www.routledge.com

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cover image: ©iStock

ISBN 978-0-415-56723-7



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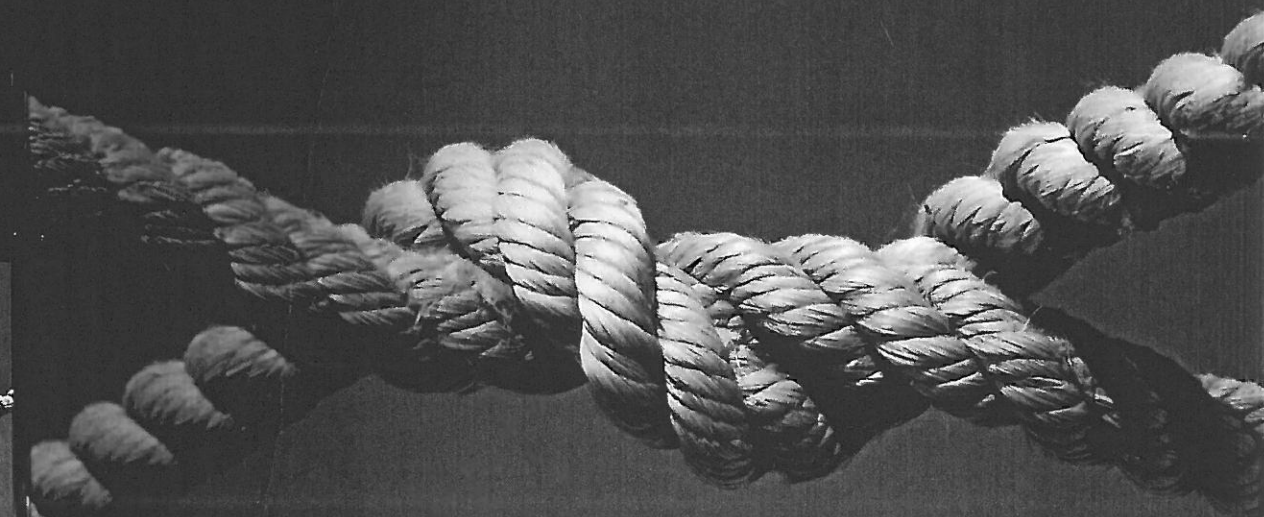
MAKING

TIM INGOLD

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MAKING



ANTHROPOLOGY, ARCHAEOLOGY, ART AND ARCHITECTURE

ROUTLEDGE

7

BODIES ON THE RUN

Being alive

In 1953, the British sculptor Henry Moore began work on a piece entitled *Warrior with Shield* (Figure 7.1). The idea for it, he said, came from finding a pebble on the seashore that reminded him of the stump of a leg, amputated at the hip. First he added the body, leg and one arm, to make a reclining, wounded warrior. Then he added a shield, altering the pose to make a seated figure, with a head that – in his own words – ‘has a blunted and bull-like power but also a dumb animal acceptance and forbearance of pain’ (in James 1966: 250). A year later, under somewhat controversial circumstances, Moore’s *Warrior* was purchased by the Toronto Art Gallery. Subsequently, in the mid-1980s, an apparently quite unconnected event occurred. A new species of zebra mussels (*Dreissena polymorpha*) was accidentally introduced into Lake St Clair, on the US/Canadian border, by way of bilge water from one or more transoceanic trading ships originating from ports along the Black Sea. The species found the plankton-rich waters of Lake St Clair and the adjoining Lake Erie much to their liking, and multiplied rapidly. Within a few years they had colonised virtually every firm surface in Lake Erie, to a density of up to 70,000 mussels per square metre, and by 1992 they had already spread via Lake Michigan to the Mississippi basin. It was an intervention by the artist Simon Starling, in 2006, that forged a link between these two events. Starling created a full-scale replica of Moore’s *Warrior* in steel, and then had it submerged in the waters of Lake Ontario. It remained there, on the lake bottom, until early in 2008, when it was raised from the depths. The surface of the figure was encrusted all over with mussels. The work was subsequently exhibited, under the title *Infestation Piece (Musselled Moore)*, at Toronto’s Power Plant Gallery of Contemporary Art (Figure 7.2).¹

For me, this piece makes a powerful statement about what it means for a body to be alive. The original *Warrior* is monumental in the strict sense of the term: closed in on itself, immobilised, presenting only its bronze-hard outer surfaces to our sight. Thrusting out its shield to the front, it tells us in no uncertain terms to back off. As Moore himself acknowledged, the figure has sunk into the solitude and paralysis of its



FIGURE 7.1 *Warrior with Shield* by Henry Moore (1953–1954, bronze, height 155 cm). © The Henry Moore Foundation. All Rights Reserved, DACS 2012 / www.henry-moore.org. Reproduced by permission.

own pain, solidly impervious to its environs. It belongs to another place and another time, as though caught in a battle fought thousands of years ago, or overcome by a volcanic eruption. Staring hollow-eyed at a world it neither knows nor even recognises, it will not respond to us, nor can we respond to it. On the lake bed, however, the figure has effectively been turned inside out. Under water, the surface in which it was once encased has become a substrate for life and growth, which in turn has been made possible by way of the continual exchange of substance with a nutrient-rich medium. Through the mussels that infest the surface, the figure seems to extrude itself into the surroundings, literally oozing from every pore, as though opened up from the inside. It has become a real living organism, albeit one sorely afflicted. Like a person whose body is covered in scabs, weals or boils, perhaps due to some acute infection, the musselled figure may be repulsive to look *at*, but we can at least look *with* it and feel some sympathy for its plight. It is of our time and place. Indeed it has become, in many ways, more



FIGURE 7.2 Simon Starling, *Infestation Piece (Musselled Moore)*, 2007/8 (bronze, mussels, variable dimensions). Installation view, The Power Plant, Toronto, 2008. (Courtesy of Steve Payne.)

mound-like than monumental, formed from a process of encrustation that carried on right up to the moment of its recovery from the water.

Every living organism, like the musselled Moore, is itself a site of infestation: a seething colony of lively, jostling materials alternately compressed into blobs and stretched into filaments that twist and coil around one another to form configurations of extraordinary complexity. The organism may look outwardly composed. Lift the lid, however, and you find something more like a compost heap than the formal architecture that anatomists and psychologists like to imagine. Indeed as a gathering together of materials in movement, the organism fully qualifies as a thing in the sense outlined in the last chapter. But it is not a thing that moves; it is rather composed (or better, composted) in movement. This is to say that it is fundamentally *animate*. Yet for just this reason, it would be wrong to describe it as embodied. It would be hard to imagine a figure more embodied, for example, than Moore's *Warrior*. The figure is so completely

wrapped up in itself that any residue of animate life has been stilled. Starling's *Infestation Piece*, to the contrary, is animate precisely to the extent that its surfaces have opened up to the surrounding medium. Comparison of the two pieces vividly demonstrates how animacy and embodiment pull in opposite directions: where the former is a movement of opening, the latter is bent on closure. For the living, animate beings we are, argues dance philosopher Maxine Sheets-Johnstone, the term 'embodiment' is simply not experientially apposite. We do not, she insists, experience ourselves and one another as 'packaged' but as moving and moved, in ongoing response – that is in *correspondence* – with the things around us (Sheets-Johnstone 1998: 359; Ingold 2011b: 10). Of course we have bodies – indeed we *are* our bodies. But we are not wrapped up in them. The body is not a package, nor – to invoke another common analogy – a sink into which movements settle like sediment in a ditch.² It is rather a tumult of unfolding activity. As such, according to dance anthropologist Brenda Farnell, it is something to think *from* rather than *about* (Farnell 2000: 413).

The change of perspective entailed here precisely parallels our earlier injunction, taken from Gilles Deleuze and Félix Guattari, to 'follow the materials' (Chapter 2, p. 25). To think from materials, they say, is to find 'the consciousness or thought of the matter-flow' (Deleuze and Guattari 2004: 454). As the artisan thinks *from* materials, so the dancer thinks *from* the body. In the living, dynamically composed body, person and organism are one. The body *is* the organism-person. But as noted above, the body is also a thing. Thus we should no longer speak of relations between people and things, because *people are things too*. To highlight the overlap between personhood and thinghood, as Jane Bennett observes (2010: 4), is to acknowledge 'the extent to which the us and the it slip-slide into each other'. Or as the title of a recent article by archaeologists Timothy Webmoor and Christopher Witmore declares, 'Things are us!' (Webmoor and Witmore 2008). This is not to treat persons as anything less than what they are, let alone to compare them to objects rather than subjects. It is rather to find a way beyond this troublesome dichotomy. Objects and subjects can exist only in a world already thrown, already cast in fixed and final forms; things, by contrast, are in the throwing – they do not exist so much as carry on. And as the things they are, people too are 'processes, brought into being through production, embroiled in ongoing social projects, and requiring attentive engagement' (Pollard 2004: 60).

In this regard, persons are just like pots (Figure 7.3). In a study of ceramics from Northwest Argentina dating from the first millennium AD, Benjamin Alberti argues that it would be a mistake to assume that the pot is a fixed and stable object, bearing the imprint of cultural form upon the 'obdurate' matter of the physical world (Alberti 2007: 211, see also Alberti and Marshall 2009: 354). On the contrary, evidence suggests that pots were treated like bodies, and with the same concern: namely, to counteract chronic instability, to shore up vessels for life against the ever-present susceptibility to discharge that threatens their dissolution or metamorphosis. The living body, likewise, is only sustained thanks to continually taking in materials from its surroundings, and in turn discharging into them, in the processes of respiration and metabolism. Yet as with pots, the same processes that keep it alive also render it forever vulnerable to dissolution. That is why constant attention is necessary, and also why bodies and other things are poor containers. Left to themselves, materials can run riot. Pots crumble; bodies disintegrate. It takes effort and vigilance to hold things together, whether pots or people.



FIGURE 7.3 La Candelaria-style ceramic vessel showing biomorphic 'protrusions', Northwest Argentina, first millennium AD, from the collection of the Museo de La Universidad Nacional de Tucumán. Photo by Benjamin Alberti, reproduced with permission.

Much ado about agency

We may conclude that things can exist and persist only because they *leak*: that is, because of the interchange of materials across the surfaces by which they differentiate themselves from the surrounding medium. The bodies of organisms and other things leak continually, indeed their lives depend on it. Now this propensity of things to leak, and for material flows to override or seep through their surfaces, bears crucially on the question of material agency. This question has been discussed ad nauseam, and it is beyond the scope of this chapter to review the literature that has amassed around it in any depth (for wide-ranging treatments, see Knappett and Malafouris 2008; Jones and Boivin 2010; Johannsen 2012) save to venture that it is largely beside the point. The question only arises on account of the reduction of things to objects consequent upon the application of the hylomorphic model. Cut off from the life-support system comprising the flux of vital materials, things suffer the fate of Moore's *Warrior*. They suffocate and die. It is no wonder that theorists have been compelled to invoke a concept of object agency in a futile effort to resuscitate them! The appeal to agency, in other words, is a corollary of the logic of embodiment, of turning things in on themselves. To undo this logic is, once and for all, to exorcise the spectre of

embodied agency and to bring things back to animate life. As a bundle of potentials in an ever-unfolding field of forces and energies, the body moves and is moved not because it is driven by some internal agency, wrapped up in the package, but because as fast as it is gathering or winding itself up, it is forever unravelling or unwinding, alternately breathing in and out.

Nowhere is the dead hand of objectification more clearly at work than in the essay that launched much of the current debate, Alfred Gell's *Art and Agency* (1998). Here, the question is explicitly posed as one about the ascription of agency to what Gell does not hesitate to call 'art objects'. The presumption is that in the making of such objects, intentions initially framed within the mind of the artist are projected onto the material: thus the intention is the cause, the artwork the effect. And the viewer, subsequently observing the work, is supposed to look through the work to the agency within and behind it (Knappett 2005: 128). But as we saw from Simondon's example of making bricks, introduced in Chapter 2 (pp. 24–25), this scenario focuses on an arbitrary starting point (the image in the artist's mind) and an equally arbitrary end point (the allegedly finished work), while missing out all that goes on in between. The living work of art, however, is not an object but a thing, and the role of the artist is not to give effect to a preconceived idea but to follow the forces and flows of material that bring the work into being. To view the work is to join the artist as a fellow traveller, to look *with* it as it unfolds in the world, rather than *behind* it to an originating intention of which it is the final product (Ingold 2011a: 216). The vitality of the work of art, then, lies in its materials, and it is precisely because no work is ever truly 'finished' (except in the eyes of curators and purchasers, who require it to be so) that it remains alive.

Indeed the entire question of agency rests on a false premise. Assuming that persons are capable of acting because they possess an agency, the question was one of how objects in the vicinity of these persons could nevertheless 'act back', causing them to do what they otherwise might not. The facile answer was to say that the objects, too, possess agency. The speed bump, for example, is credited with an agency that causes the driver to slow down (Latour 1999: 186–190). Yet the causal attribution of action to an 'agency', of which that action is the effect, is perverse, even for human beings. Take a thinker like Jane Bennett, who is convinced – as we are – that materials are inherently lively, but who remains so spellbound by the grammar of agency that she cannot bring herself to renounce it. 'Why speak of the agency of assemblages?' she asks herself. Why indeed? 'No one really knows', she goes on to admit, 'what human agency is, or what humans are doing when they are said to perform as agents.' It remains 'something of a mystery' (Bennett 2010: 34). In a curiously backhanded argument, however, she professes that since we have no idea what agency is or how it works for humans, we have no a priori reason to deny agency to non-humans. But if our aim, like Bennett's, is to counter human exceptionalism, why not argue to the contrary, that there is absolutely no reason to credit humans with agency in the first place? Would it not make more sense to remove the wool from over our own eyes than to wrap the rest of the world up in it?

That all living beings, humans included, are forever 'immersed in action' – as the philosopher Alfred North Whitehead once put it – from the moment of birth if not before, is not in doubt (Whitehead 1938: 217). All are at sea in the tumult. However, to attribute this action to an agency, of which it is supposed to be the effect, seems

like putting everything back to front. For only in the retrospective reconstruction of action already undertaken – in tracing it *back* to a putative point of origin – can we derive the agency that is supposed to have given rise to it. Otherwise put: humans do not *possess* agency; nor, for that matter, do non-humans. They are rather possessed by action. Karen Barad admits as much when she argues that agency 'is an enactment, not something that someone or something has' (Barad 2003: 826–827). Taking up the same theme, Andrew Jones and Nicole Boivin allow that 'causality does not lie with human agents... Instead it is the reiterative quality of performance that produces agency and causality' (Jones and Boivin 2010: 351). However, to read into action, a priori, what we have read off from it, a posteriori, is manifestly circular. Agency becomes the cause and effect of itself (Alberti and Marshall 2009: 346). Here's Bennett again, valiantly trying to decide whether to use the term 'agents' or 'agencies' for her vital non-humans. 'As I struggle to choose the right term', she confesses, 'I confront a profound ambiguity in both terms regarding wherein lies the cause and wherein the effect' (Bennett 2010: 108, 151 fn. 37). This ambiguity, however, and the convolutions to which it gives rise are no more than the results of trying (and failing) to express processes of growth and becoming in a language of causation that is wholly unsuited to them. As we have seen, the generativity of action is that of animate life itself, and lies in the vitality of its materials. We need a theory not of agency but of life, and this theory must be one – as Barad puts it – 'that allows matter its due as an active participant of the world's becoming' (Barad 2003: 803).

Running flying thinking

Traditionally, of course, this due has been accorded to mind rather than matter. Where, then, does our emphasis on the flow of materials leave the mind? Should we, as archaeologist Chris Gosden urges, do away with the concept of mind altogether (Gosden 2010)? Or can we retain an ecology of mind, as Gregory Bateson thought, alongside and complementing an ecology of substance, the first dealing with information, the second with the exchange and circulations of energy and materials (Bateson 1973)? Drawing inspiration from Bateson, cognitive theorist Andy Clark has charted just such a way forward in his theory of the 'extended mind' (Clark 1997, 2001; Clark and Chalmers 1998). In a nutshell, the theory postulates that the mind, far from being coextensive with the brain, routinely spills out into the environment, enlisting all manner of extra-somatic objects and artefacts in the conduct of its operations. The artefactual world then becomes a kind of 'wideware' (Clark 1998) or 'distributed mind' (Jones 2007: 225). For many archaeologists the theory was a godsend, since it implied that in their studies of material culture they could claim to contribute directly to understanding the cognitive processes of people in the past (Malafouris and Renfrew 2010). As Lambros Malafouris argues, if we acknowledge (with Clark 1997: 98) that cognition is fundamentally a way of engaging with the world – if, in that sense, cognition is indissociable from action – 'then material culture is consubstantial with mind' (Malafouris 2004: 58).

For Malafouris, the mind is not a mirror on the world. It is not there to represent what is or could be 'out there' but rather emerges in practice, from the synergistic conjunction of brains, bodies and things. There is, however, a catch in the argument. For in identifying things with 'material culture', Malafouris inadvertently reproduces

the very division between mind and world that he hopes to erase. For material things to be enrolled in cognitive processes, must they already have been rendered in cultural forms? Why should people think with artefacts alone? Why not also with the air, the ground, mountains and streams, and other living beings? Why not with materials? And if cognition is indeed enacted, as Malafouris claims (2004: 59), then how does it differ from life itself? Does thought lie in the *interactions* between brains, bodies and objects in the world, or in the *correspondences* of material flows and sensory awareness wherein consciousness, to recall the words of Deleuze and Guattari, is the 'thought of the matter-flow' and material 'the correlate of this consciousness' (Deleuze and Guattari 2004: 454)?

It was in an attempt to answer this latter question that the students and I, in our investigations of the 4 As, embarked on another experiment. This time, it was to make and fly kites. Fashioned quickly and simply from thin card, matchstick bamboo (for the struts), strips of newspaper (for the streamers) and twine (for the harness), and held together with glue and sticky tape, it had seemed to us that the kites we had made would qualify under any conventional definition as artefacts. They would not be out of place in any catalogue of objects of material culture. As soon as we took our creations out of doors, however, something odd happened. The kites began to leap around (Figure 7.4). And we ran! The more we ran, the more they leapt, higher and higher into the air, straining at the nylon threads by which we held them, just as fast as we could pay them out. Now of course there is a simple aerodynamic explanation for the kites' behaviour. They rose because as they were dragged through the air, with their noses tilted upwards at a slight angle to the horizontal, a pressure differential was set up between the air beneath and above the planar surface, which was enough to countervail the force of gravity. But a purely mechanical account of this kind will only take us so far. For the aerial gymnastics of the kites were not only outwardly visible, as linear trajectories of object displacement that could in principle be measured and plotted just like the path of a cannonball. They were also inwardly felt. We were aware of the kites' flying in the same way that we were aware of our running, through the bodily sense we had of our own movement, or in a word, through *kinaesthesia*.

Mindful of what we were doing, and improvising as we went along, our kite-flying could be reckoned as an instance of what Sheets-Johnstone calls 'thinking in movement'. This is not to think *by means of* movement, or to have our thoughts *transcribed into* movement. Rather, the thinking *is* the movement: 'To think is to be caught up in a dynamic flow; thinking is, by its very nature, kinetic' (Sheets-Johnstone 1998: 486). In the context to which I have just referred, Sheets-Johnstone is speaking of improvisation in dance. Might we suggest, then, that flying a kite is also a kind of dance? Philosopher and sociologist of science Andrew Pickering would certainly agree, having coined the expression 'dance of agency' to describe the kinds of back-and-forth engagements with the material world in which humans and non-humans alternately take the upper hand, not just in the conduct of scientific investigations but quite generally (Pickering 2010: 194–195, see Pickering 1995). Let us, then, make a provisional attempt at analysing the situation along the lines that Pickering proposes.

Here we have a person running; and there a kite flying. They are connected by a thread. So we have an interaction between a human being and a material object. At one moment the flyer makes the running while the kite is dragged along behind, but

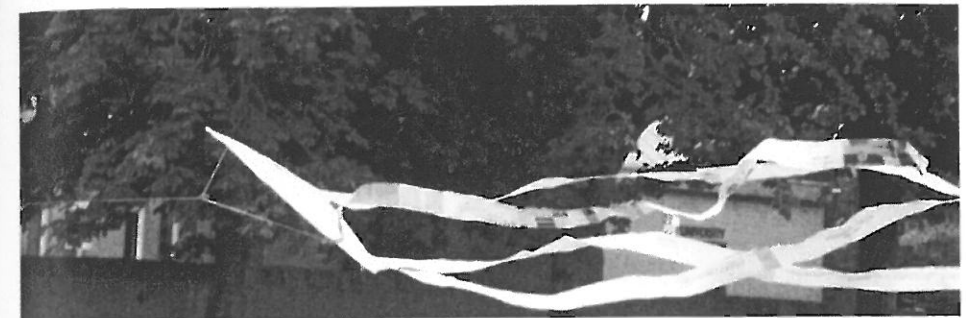


FIGURE 7.4 The kite in flight. The string can be seen on the left, harnessed to the main body of the kite, from which attached streamers, cut from strips of newspaper, flutter towards the right. (Courtesy of Susanna Ingold.)

at the next it is the kite that pulls at the hand of the flyer, as if struggling to get away. This certainly seems to fit Pickering's description of the dance as one 'in which activity and passivity on both sides are reciprocally intertwined' (2010: 195). But that cannot be the whole story. For if the kite is to act on the human flyer as well as the flyer to act on the kite – if, that is, the kite-object is to join the dance – then it must be endowed with some kind of agency. So where did this come from? So long as the kite remained indoors, it had been limp and lethargic. By what magic, then, was the power of agency contrived to jump into the kite at the moment it was carried out of doors? The answer, of course, hangs in the air. Because the air is invisible, we had temporarily forgotten about it. But now, all becomes clear. The kite's flying is surely the combined effect of the flyer, the kite *and* the air. The dance of agency, it turns out, is a threesome in which each partner acts upon, and is in turn acted upon by, the other two (Figure 7.5). Take away any one partner, and the performance will fail. Even in the air, a kite will not fly without a flyer; even with a flyer, the kite will only fly in the air; even if the flyer is out in the air, there will be no flying without a kite. The air, then, was the missing link that activated the kite, allowing an action potential that was already immanent within it – in its very construction – to be expressed in motion.

In his efforts to show how mind emerges from practitioners' engagements with the stuff of the material world, Malafouris also toys with the idea of the dance of agency. His key example is pottery. At the potter's wheel, he writes, 'brain, body, wheel and clay relate and interact with one another throughout the different stages of this activity' (Malafouris 2008: 19). But does the potter dance with the wheel or with the clay, or with both at once? Curiously, when Malafouris (2004: 59) first introduces the idea, he has the potter dancing with the wheel, which may at one moment 'subsume the plans of the potter and define the contours of activity', but at another, 'serve as a passive instrument for his or her manufacturing purposes'. Otherwise put, the wheel alternately governs and is governed by what the potter does. In a subsequent elaboration of the argument, however, the potter is dancing not with the wheel but with the clay. Noting that at any time, either potter or clay may take the lead, Malafouris nevertheless insists that the dance 'is between equal partners' (2008: 25). It is enacted, for example, in the grasping and fingering movements of the potter's hands in the initial task of centring a lump of clay on the wheel. These movements may indeed be compared to

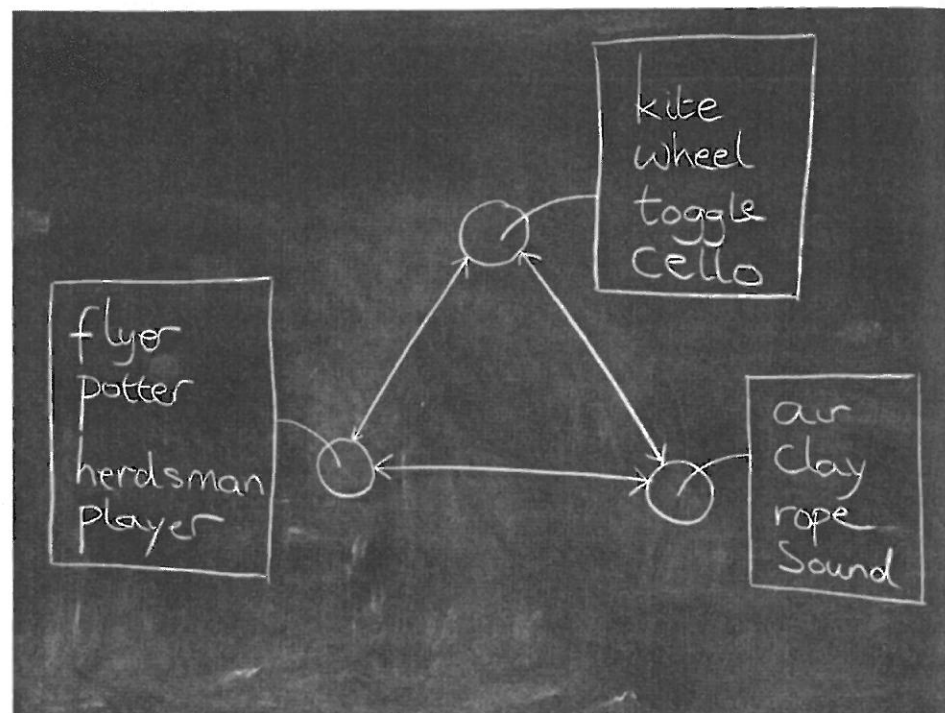


FIGURE 7.5 The dance of agency, understood as a threesome in which the partners may be flyer–kite–air, potter–wheel–clay, herdsman–toggle–rope, or player–cello–sound. Chalk on blackboard. (Courtesy of Susanna Ingold.)

dance. They observe a certain choreography. And as we saw in the comparable instance of metallurgy discussed in Chapter 2 (pp. 25–26), this gestural dance is coupled with a modulation in the material. But is it a dance of *agency*? Do potter, wheel and clay, as indicated in Figure 7.5, make up a threesome analogous to that comprising flyer, kite and air?

The dance of animacy

Let me return for a moment to the example of kite-flying.³ Following Pickering, we had assumed that what we were witnessing was an interaction between a person (the flyer) and an artefact (the kite). The question, then, was how the kite could exert any kind of agency, and in order to explain this we had to bring in the air. Our conclusion was that you cannot dance with a kite without introducing the air as a 'third party'. There is, however, a snag in this argument. For how can air possibly be regarded as an agent? The very idea of agency, as we have seen, is the corollary of a logic of embodiment, of closing things up in themselves. But air cannot be closed. More than any other element, as the philosopher Luce Irigaray reminds us, air is 'opening itself' (Irigaray 1999: 8). The flow of air – the wind (*anemos*), the breath of life – is the very antithesis of embodied agency. But if the air cannot be closed upon itself, then no more, as we have seen, can the organism–person that lives and breathes. Thus even if we allow that in flying a kite, the flyer dances with the air, it cannot be a dance of

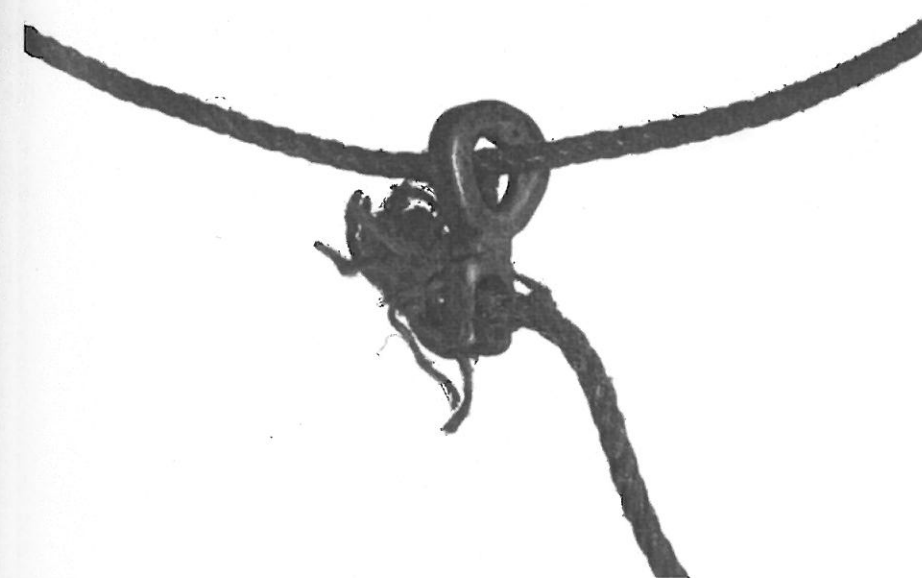


FIGURE 7.6 Lasso and toggle. (Courtesy of Susanna Ingold.)

agency. It can only be a *dance of animacy*. And in this dance, flyer and air do not so much interact as correspond. The kite, in effect, sets up a correspondence between the animate movements of the flyer and the currents of the aerial medium in which he or she is immersed. It is not that you need air to interact with a kite; rather, you need a kite to correspond with the air.

A moment's reflection, moreover, indicates that the same is true of what happens at the potter's wheel. This is not, as we have seen in the parallel case of brick making (Chapter 2, p. 25), an imposition of form on matter but a contraposition of equal and opposed forces immanent respectively in gesturing hands and wet clay, set up thanks to the rotations of the wheel. You do not, then, need clay to interact with the wheel, but you do need a wheel to correspond with the clay. In both cases, of pottery and kite-flying, the mindful or attentive bodily movements of the practitioner, on the one hand, and the flows and resistances of the material, on the other, respond to one another in counterpoint. As with any dance, this should be read not laterally, back and forth, but longitudinally as a movement in which partners take it in turns to lead and be led or – in musical terms – to play the melody and its refrain. In the dance of animacy, bodily kinaesthesia interweaves contrapuntally with the flux of materials within an encompassing, morphogenetic field of forces.

The kite puts me in mind of another example, familiar to me from my fieldwork among reindeer herdsman in Finnish Lapland. This is the lasso (Ingold 1993). The operative component of the lasso is the toggle. You often find toggles, expertly crafted and sometimes beautifully decorated, in collections or exhibited in museums of Saami material culture. Traditionally carved from antler, the toggle has two holes: one small, the other larger. The small hole secures the end of a long rope that is looped through the larger one (Figure 7.6). In operation, of course, the toggle is nothing without the

rope, and indeed without the herdsman for whom the manual-gestural skill of casting the lasso, requiring years of practice, is one of the most highly prized of the herding repertoire. It is a task that calls for intense concentration. But in the mindfulness of casting the lasso, do we witness an interaction between a person (the herdsman) and an artefact (the toggle) that has been endowed with agency thanks to the rope? Of course not! To argue along these lines would be as absurd as claiming that pottery entails an interaction between potter and wheel made possible by the intervention of clay. Rather, just as it is the wheel that allows the potter's gestures to be carried over into the evolving contours of the clay, so the toggle allows the skilled gestures of the herdsman to be cast into the ever-emergent form of a flying noose.

Here is one more example to clinch the point. Apart from my ham-fisted attempts to throw a lasso, I also play the cello. There is a close parallel between the two (Ingold 2000: 413–414). Both call for finely honed manual-gestural skills; both carry forward a mindfulness that is immanent in the action itself, in its attentiveness to surrounding movements (of the conductor and other instrumentalists; of the throng of animals in the round-up enclosure); and both create sinuous forms – whether of the musical phrase or the flying noose – that are suspended in the current of ongoing activity. Moreover like the toggle for the herdsman, the cello is an artefact, a thing of great beauty that requires immense craftsmanship to make. But to perform music is not – or at least not just – to interact with a cello. It is to correspond with sound. In the performance, the player's gestures describe a melodic line. What part, then, does the cello play in this? What does it do? And what, for that matter, does the toggle do? Or the kite? Or the potter's wheel?

Transduction and perdurance

The answer is the same in every case. In the dance of animacy, cello, toggle, kite and wheel are all examples of what we could call *transducers*.⁴ That is to say, they convert the *ductus* – the kinetic quality of the gesture, its flow or movement – from one register, of bodily kinaesthesia, to another, of material flux. In the vibration of bowed strings, amplified by a soundbox, the cellist's manual gesture is rendered audible, as melody. In the sliding of the toggle, the herdsman's throw is cast as a loop of rope. In the rotation of the wheel, the potter's hand and finger movements are registered in the contours of soft clay. And finally, in the kite, slicing the air like an axe through wood (see Chapter 3, p.45), following its undulations and torsions, the running of the flyer becomes a line of flight. In each case, the transducer slides along the thread of time, like a toggle on a rope, ever present on the threshold of emergence of things. It is this ever-presence that lends it an aura of immutability (Figure 7.7).

Consider the following, offered by Bjørnar Olsen as simple statements of the obvious: 'Things are more persistent than thought. They evidently last longer than speech or gestures. Things are concrete and offer stability...' (Olsen 2010: 158). Of transducers, all three statements may be broadly true. They are still there, changed but little after the performances they have mediated have come to a close. The toggle, for example, outlasts the throw of the lasso; the cello outlasts the concert. But the work of art lies not in the transducer but in what issues from it, and of such a work the question of its duration is not so easily answered. Let us return to the potter at the

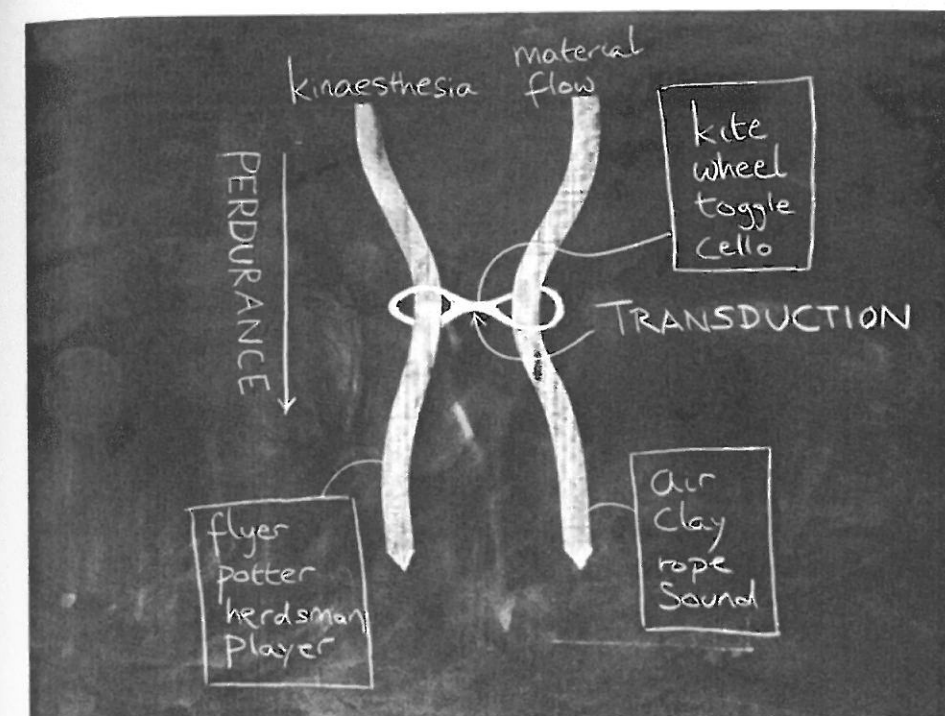


FIGURE 7.7 Transduction and perdurance. The movement of kinaesthetic awareness (respectively of the flyer, the potter, the herdsman and the player) is converted by way of a transducer (respectively kite, wheel, toggle and cello) into a corresponding flow of material (respectively of air, clay, rope and sound). In terms of this diagram, the perdurance – or 'carrying on' – of awareness and materials runs downwards, while transduction couples across. Chalk on blackboard. (Courtesy of Susanna Ingold.)

wheel. It is not just because it is made of the material stuff of clay that the pot lasts longer than the gestures which helped to shape it. The pot retains its form only because it has been fixed by subsequent processes of drying and firing (Ingold 2000: 418). In an installation by the artist Clare Twomey, tables were laid with rows of clay pots that had been thrown on the wheel but not yet fired. The pots were filled with water from a jug. Before the eyes of the viewer, they were seen to buckle, crack and collapse, as if in slow motion, discharging their contents over tabletops and floor to the accompaniment of the quiet tinkling of running water, while new ones were continually added in their place (Figure 7.8). In this enactment, every pot had become a living thing, not so much the fixed and final realisation of a prior design as the passing envoy of ever-replenished but ultimately forlorn hope.

As this example shows, we cannot assume that pots are stable simply on account of some aspect of their 'materiality'. Alberti's study of ceramics from prehistoric Northwest Argentina has already taught us that despite the assertions of Olsen (2003: 88) and many others to the contrary, there is nothing intrinsically *hard* about the world of materials. Indeed for the people who originally made and used them, Alberti suggests, ceramics 'may have been considered less stable and reliable even than other forms of discourse' (Alberti 2007: 219). How long then, compared with these other discursive

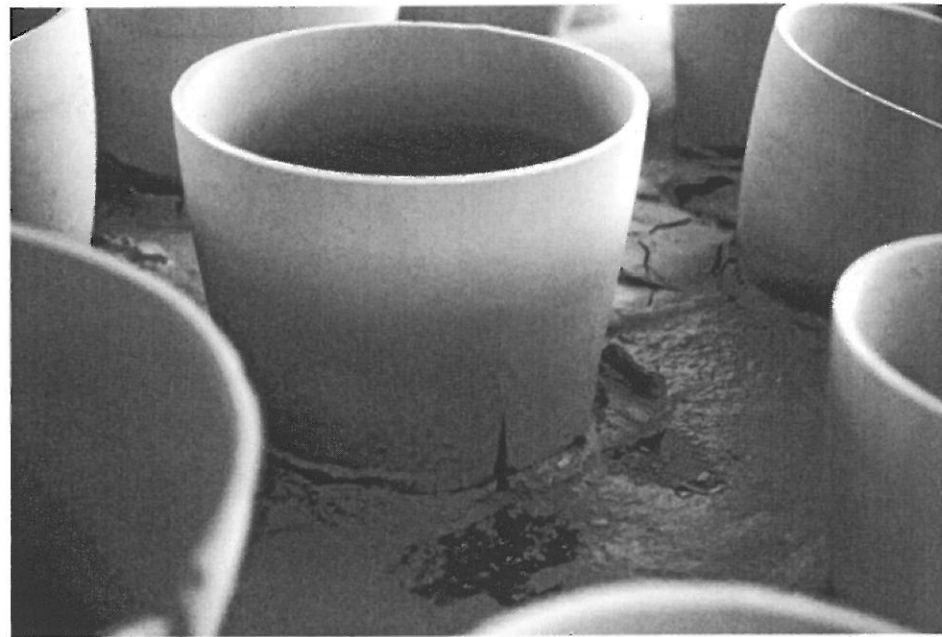


FIGURE 7.8 'Is it madness. Is it beauty.' Close-up of installation by artist Clare Twomey. In the performance of this work, according to the artist's statement, 'the repetitive action of continually filling unfired ceramic bowls with water, that then collapse, isolates the notion of action and continued hope within the human condition'. Reproduced by courtesy of the artist.

modalities – dialogical, gestural, verbal – do pots last? How long do bodies last? Which lasts longer, Moore's *Warrior* or its mussel-infested double? If longevity be judged by the preservation of form, then no doubt the former wins. But if our concern is with the continuity of process – that is with the *perdurance* or life expectancy of a thing, or with how long it can keep on going – then the *Infestation Piece* is easily the victor, since it gained a new lease of life from its sojourn underwater, whereas the *Warrior's* life was already over by the time the sculpture was completed. So, too, did Twomey's pots come alive, if only for a brief while, when water was poured into them.⁵

Joshua Pollard (2004: 51–53) describes how contemporary environmental artists have challenged our assumptions about the durability of things by producing works that are transitory and ephemeral. When Andy Goldsworthy, for example, throws a handful of sticks into the air, the resulting work lasts no longer than the gesture that animates it, and can be fixed only as a photographic record. Yet as a gathering of materials in motion, of sticks and air, it is undoubtedly a thing (Figure 7.9). For Goldsworthy, the strength of a work lies precisely in the 'energies' emanating from materials in their movement, growth and decay, and in the fleeting moments when they come together as one (quoted in Friedman 1996: 10). Here it is the materials that perdure, not the more or less transitory forms into which they are cast. Throwing, as Goldsworthy shows us, and as our experiments in kite-flying proved, is not so much the outward effect of an embodied agency as the propulsion of animate being as it spills out into the world. Such, indeed, is the propulsion of life itself.



FIGURE 7.9 A bundle of sticks thrown in the air, on the shore of Lake Pielinen in eastern Finland. (Courtesy of Susanna Ingold.)

Interaction and correspondence

In the days before the keyboard severed all traces of writing from the hand, and before email lifted them from the page, people used to send handwritten letters to one another. In them, they would tell of their affairs, of how they were doing, at the same time answering to recollections and sentiments expressed in letters most recently received. For such a drawn-out exchange of letters, it was customary to use the word *correspondence*. This is a word to which I have also had recourse at a number of points in my argument, and I would like to conclude this chapter by explaining more fully what I mean by it. The case of letter writing highlights two aspects that I take to be central to correspondence: first, that it is a movement in real time; and second, that this movement is sentient. On the first point: writing letters takes time, as does waiting for them and reading them when they arrive. A correspondence is rather like a relay, in which each participant takes it in turns to pick up the baton and carry it forward, while others remain temporarily quiescent, awaiting their turn. They may of course wait forever, and gradually give up hope, yet there is no knowing whether, or when, a lapsed correspondence may be rekindled. Thus while letters may go back and forth, the correspondence has no starting point or end point. It simply carries on. On the second point: the lines of correspondence are lines of feeling, of sentience, evinced not – or not only – in the choice of words but in the manual gestures of the writing and their traces on the page. To read a letter is not just to read *about* one's respondent, but to read *with* him or her. It is as though the writer was speaking from the page, and you – the reader – were there, listening.

Long ago, Alfred Schutz, phenomenologist of the social world, hit on much the same idea in his characterisation of social life as a process of 'growing older together'. Sharing a community of time, Schutz maintained, every consociate participates in the on-rolling life of every other (Schutz 1962: 16–17). In a celebrated paper, he compared this participation to making music. The players in a string quartet, for example, are not exchanging musical ideas – they are not *interacting*, in that sense – but are rather moving along together, listening as they play, and playing as they listen, at every moment sharing in each other's 'vivid present' (Schutz 1951). In our studies of everyday walking, my colleague Jo Vergunst and I came to a very similar conclusion (Lee and Ingold 2006). We found that walking abreast was generally experienced as a particularly companionable form of activity. Even while conversing, as they often did, companions would rarely make immediate eye-to-eye contact, at most inclining their heads slightly towards one another, while co-ordinating their gait and pace by means of peripheral vision, which is especially sensitive to movement. Direct face-to-face interaction, by contrast, was found to be far less sociable. A key difference is that in walking along together, companions share virtually the same visual field, whereas in face-to-face interaction, each can see what is behind the other's back, opening up possibilities for deceit and subterfuge. As they turn to face one another, stopped in their tracks, each blocking the other's path, they appear to be locked in a contest in which views are no longer shared but batted back and forth.

Now in a classic essay on 'visual interaction', dating from 1921, the sociologist Georg Simmel argued that eye-to-eye contact 'represents the most perfect reciprocity in the entire field of human relationships', inducing a kind of union between the persons involved. This union, he surmised 'can only be maintained by the shortest and straightest line between the eyes' (Simmel 1969: 146). Do lovers, then, look straight at one another? Not according to John Donne who, in his poem *Exstasie*, penned three centuries earlier, described their vision thus:

Our hands were firmly cimented
With a fast balme, which thence did spring,
Our eye-beames twisted, and did thred
Our eyes, upon one double string;

(in Grierson 1947: 16)

Donne's poem begins with the two lovers joined by the hands and yet entirely separate, over and against one another, lying immobile – 'like sepulchral statues'. The conjunction of their bodies was not enough to make them one. To achieve the union they crave, their souls must rise up from their bodily moorings and stream out through the eyes, whence they twist around one another in a space between, 'hung 'twixt her, and mee', as between two opposed armies. Negotiating there, on their double eye-beams, while the bodies they have exited remain stationary, they eventually achieve a blend wherein each soul speaks with the other's voice. Only when they have thus come into unison can the two souls descend back into the bodies from whence they came, bringing about the desired unity of body and soul in the consummation of love and its ensuing bounty.

We do not have to subscribe to Donne's complex and somewhat esoteric metaphysics to appreciate the force of the distinction he draws between the 'overagainstness' (the

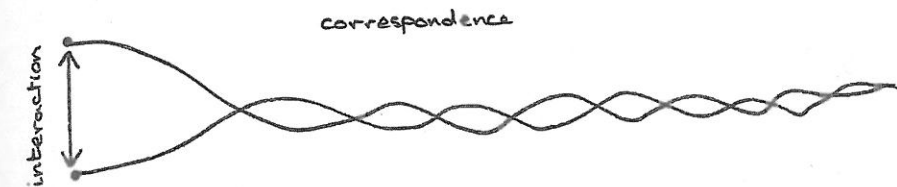


FIGURE 7.10 Interaction and correspondence.

word Donne used was *entergraff*) of embalmed, cemented bodies and the entwinement of evanescent, light-borne souls. In our terms, this is the distinction between interaction and correspondence – that is, between the dance of agency and the dance of animacy (Figure 7.10). A straight line drawn between two points, as Simmel describes eye-to-eye contact, leaves each point motionless and unfeeling. Such contact may be rational, but it cannot be sentient. Like walkers who have turned in discord to square up to one another, or passengers in that kind of carriage known as the *vis-à-vis*, or indeed like Donne's lovers as they hold hands, or even Moore's *Warrior*, there is no way forward. The implication of the prefix *inter-*, in 'interaction', is that the interacting parties are closed to one another, as if they could only be connected through some kind of bridging operation. Any such operation is inherently detemporalising, cutting across the paths of movement and becoming rather than joining along with them. In correspondence, by contrast, points are set in motion to describe lines that wrap around one another like melodies in counterpoint. Think, for example, of the entwined melodic lines of the string quartet. The players may be seated opposite one another, and their bodies fixed in place. But their movements and the ensuing sounds correspond, seeking a blend not unlike that of Donne's souls in ecstasy, neither here nor there but in-between.

The notion of correspondence, admittedly, comes with a certain amount of theological baggage. It was central, for example, to the thought of the eighteenth century mystic Emanuel Swedenborg, for whom it described the relations of mutuality and harmony between all things natural and spiritual, earthly and celestial. From there it found its way into the writings of Charles Baudelaire, whose celebrated poem *Correspondences* has man making his way in the natural world, surrounded by a polyphony of voices and a forest of eyes, in which 'perfumes, sounds and colours correspond' (in Aggeler 1954). Perhaps it was at the back of Johann Wolfgang von Goethe's mind when he wrote of the relation between sunlight and vision that 'were the eye not sun-like, it could not see the sun' (Luke 1964: 282). By this he did not mean that the eye resembles the sun, but that it is so formed as to be able to respond to its light. In his *Bedeutungslehre* ('Theory of Meaning') of 1940, the Estonian-born biologist Jakob von Uexküll turned this around to argue that 'were the sun not eye-like, it could not shine in any sky'. His point was that the sky, and the sun as a celestial light that illuminates the sky, could exist only in the phenomenal world – what he called the *Umwelt* – of creatures with eyes. In just the same way, the bee corresponds with the pollen-bearing flower, and the spider with the fly. The lives of creatures, von Uexküll suggests, proceed contrapuntally, each taking into itself something of the characteristics of the other so as to be able to respond to it (von Uexküll 2010: 190).

In a recent meditation on the same theme, Lars Spuybroek imagines that as he walks through a field, he comes across a little group of stones with a seedling growing between them, and he likes what he sees:

Clearly the stones are lying there in a certain correspondence, if not accordance, because the wind and water have moved them, rolled them over the ground and made them find an impression, create a little group, a little nest where a plant could start growing and be protected – but where does my liking fit in? Is it merely in me, subjectively enjoying the sight, or is it an ... extended correspondence? I am with the stones and plant immediately, fitting in with them ... What ... flows in and out, like the enjoyment of the stones? Feeling does. All relations are *felt* relations.

(Spuybroek 2011: 152)

My argument in this chapter has been that in the same way, too, the potter's feeling flows in and out in a correspondence with the clay, the herdsman's in correspondence with the airborne rope, the flyer's running with the wind, and the cellist's bowing with musical sound.⁶ Even the *Musselled Moore* develops a feeling for the waters of Lake Ontario. To correspond with the world, in short, is not to describe it, or to represent it, but to *answer to it*. Thanks to the mediating work of transduction, it is to mix the movements of one's own sentient awareness with the flows and currents of animate life. Such mixture, where sentience and materials twine around one another on their double thread until – like lovers' eye-beams – they become indistinguishable, is of the essence of making.

8

TELLING BY HAND

Personal knowledge

It is a fact, declared Michael Polanyi, introducing a series of lectures on *The Tacit Dimension*, 'that *we can know more than we can tell*' (Polanyi 1966: 4). Polanyi was referring to those ways of knowing and doing that grow through the experience and practice of a craft, but which adhere so closely to the person of the practitioner as to remain out of reach of explication or analysis. His argument was that knowledge of the sort that can be rendered formally and self-consciously explicit is but the tip of an iceberg compared with the immense reservoir of know-how that lies beneath the surface and without which nothing could be practicably accomplished. Whereas Polanyi, however, was primarily interested in what it means to *know*, my concern just now is with what it means to *tell*. In his reflections on the nature of personal knowledge, Polanyi seems to have assumed that telling is tantamount to putting what one knows into words, in speech or writing, and that this entails two things: *specification* and *articulation*. Thus he regards as the unspecifiable part of knowledge 'the residue left unsaid by defective articulation' (Polanyi 1958: 88). In this chapter I want to argue, to the contrary, that we *can* tell of what we know through practice and experience, precisely because telling is itself a modality of performance that *abhors* articulation and specification. It follows that personal knowledge is not quite as tacit as Polanyi thought. Part of the problem is that the term 'tacit' has many shades of meaning, ranging from the silent through the unspoken to the implicit. What remains unspoken need not be left unvoiced; nor need what remains unwritten be left without any inscriptive trace. Moreover, what is not explicated may still find expression in spoken or written words. As anthropologists who have worked with skilled practitioners are all too aware, their mentors are often inclined to expound upon their crafts vociferously, demonstrably and at very great length. The figure of the silent craftsman who is struck dumb when asked to tell of what he does, or how he does it, is largely a fiction sustained by those who have a vested interest in securing an academic monopoly over the spoken and written word.

The verb 'to tell' has two related senses. On the one hand, a person who can tell is able to recount the stories of the world. On the other hand, to tell is to be able to