KNOWING FROM THE INSIDE

Correspondences
Tim Ingold

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CONTENTS

FOREWORD

Sometimes one's best ideas come not from following the main lines of an investigation but from veering off course, in brief encounters with things, artworks and people that trigger reflections on quite unfamiliar and unexpected topics. In the past, when we wrote letters by hand and posted them in envelopes to family and friends, such reflections would often find a place in their pages. They would appear there with a certain freshness, not yet weighed down by subsequent elaboration. Nowadays, when this kind of letter-writing has all but ceased, to be replaced by the instant communication of phone and email, something of the care and spontaneity of letter-writing has been lost. Or rather, the spontaneity of communication, since it is over in an instant, lacks the care and attention that goes into the fashioning of lines on the page, in writing, and then in waiting: for the letter to reach its intended destination and for the response to come back from the recipient. And care, as it loses its spontaneity, seems more calculated and, by the same token, less personal, less imbued with feeling.

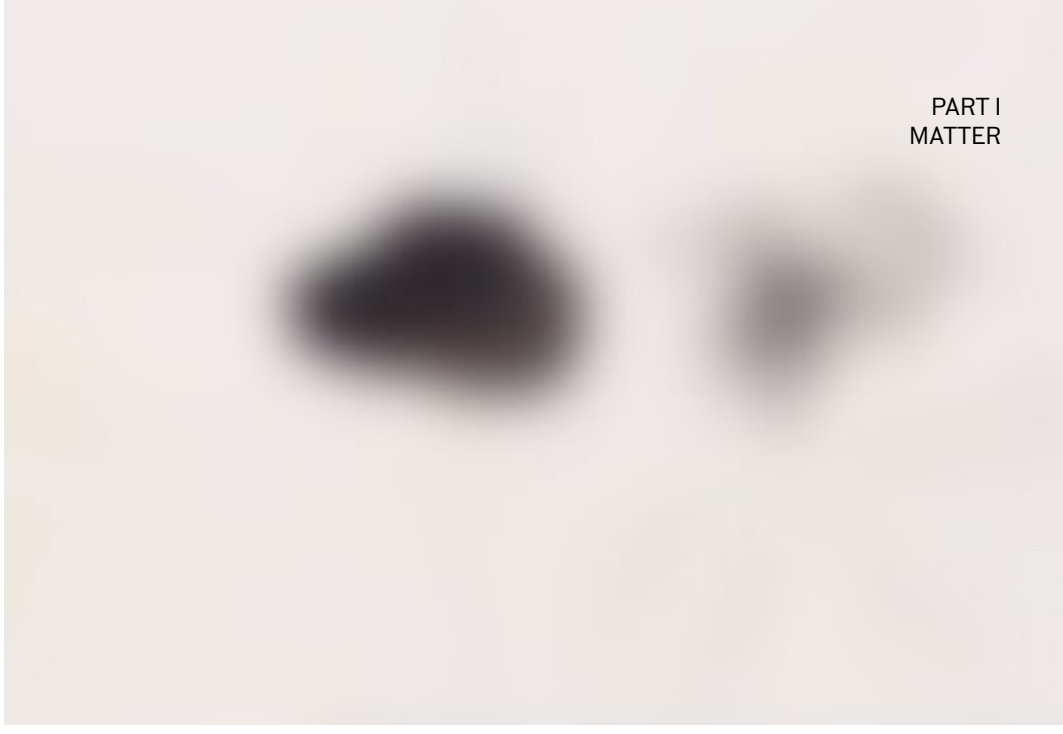
Some would say that it is merely nostalgic to attempt to bring care and spontaneity together again, or to take the written correspondence as an example of how this could be done. I disagree. For it is not a matter of going back into the past; it is rather about allowing the past once more to feel its way into the future. Corresponding with people and things – as we used to do in letter-writing – opens paths for lives to carry on, each in its own way but nevertheless with regard for others. This is not a retreat into nostalgia but a plea for sustainability. A world in which every communication is over almost before it begins, and in which life is reduced to a succession of instants, is not sustainable.

I have assembled this book as a series of correspondences, all of which have taken place over the last five years or so. These were the five years during which I have been preoccupied with leading a large project, funded by the European Research Council, entitled *Knowing From the Inside*. The project aims to forge a different way of thinking about how we come to know things – not through engineering a confrontation between theories in the head and facts on the ground, but rather through joining with the things themselves, in the very processes of thought. The essays assembled here all exemplify this aim in one way or another, and they range over the four disciplines that the project seeks to harness to it: of anthropology, art, architecture and design.

Short of time, as ever, I wrote this book in a day: Friday 10th March, 2017. It was a long day, and by the end of it I felt completely shattered. But of course it is not really possible to write a book in a day; nor is it something I would recommend! What I actually did was retrieve, from my computer, a selection of little essays, most previously published but in scattered and often obscure sources. All of them have taken their own time to write. The idea was to bring them into correspondence not only with the matters of which they tell, but also with one another. Somewhat to my surprise, they seemed to settle very readily into four general areas of concern, which I have called matter, world, lines and words. Each of these heads a part of the book. In the fifth and final part I have assembled the transcribed texts of three conversations which range over some of the same themes. I have written a separate introduction for each part, specifically for this volume.

A separate list of sources and acknowledgements is appended at the end of this book. I have many individuals to thank: David Joselit, Kitty Anderson, Carol Bove, Wolfgang Weileder, Colin Davidson, Kamni Gill, David Seamon, Ashkan Sepahvand, Nisha Keshav, Christine Murray, Anne Masson, Eric Chevalier, Nina Ferrer-Gleize, Phillip Vannini, Shauna McMullan, Robin Humphrey, Bob Simpson, Susanne Witzgall, Max Lamb, Lars Spuybroek, Marisabel Marratt, Katarzyna Wala and Magdalena Zych. I also want to thank Neil McGuire for the design and production of the book, everyone on the *Knowing From the Inside* project for their inspiration, and the European Research Council for the funding that made it all possible.

Tim Ingold, *Aberdeen, 30th April 2017*



PART I
MATTER

INTRODUCTION

How heavy is an idea? Does matter think? You may agree that it doesn't make much sense to weigh our thoughts in grams, or to attribute intellect to stones. Though we might say of thinking that it weighs heavily on the mind, or of a stone too heavy to lift that 'it refuses to move', these are surely metaphorical expressions whose very force lies in the way they lead us to draw parallels across domains that are, from the start, ontologically distinct. As a thing of nature the stone, we say, is literally weighty, the thought only figuratively so; likewise the human can literally decide whether to move or not, however to speak thus of the stone is to attribute to it the sorts of intentions that can properly only be adduced by a mind. In each instance, far from dissolving the division between mind and nature, the metaphor only reinforces it. This division has plagued philosophy for centuries. It has always carried a burden of duplicity, for in order to acknowledge our place in nature we have had, simultaneously, to take ourselves out it. But how can we be both inside nature and out of it at one and the same time?

The three short essays that follow are all in search of an alternative settlement: one in which weight or heaviness, for example, would be given not as an objective property of things in themselves but as an index of how, in a world undergoing ceaseless generation, things of every kind are necessarily held with or against other things in fields of force, of attraction and repulsion. In such a settlement, heaviness – the heft of things – is not so much measured as *felt*, in tension or in compression. But thought, too, is felt as it wells up in the imaginative consciousness of being. Intention and 'in tension': are they not one and the same? Do weight and thought, then, really lie on opposite sides of the divide between matter and mind, or are they rather unified, at a more fundamental level, in the movement of things' feeling-for-one-another? Matter is the mother of us all: we are wrought from it, over generations, as living beings endowed with certain powers of perception and action. But if life is forged in the turbulence of materials, so too are ideas conceived. Perhaps thought is weighed down by the histories that have shaped us, just as rocks are

weighed down by histories of sedimentation and trees by histories of growth. We have our stories, as do the rocks and trees, as indeed do other animals, mountains, mud and water. And in these stories, things are ever breaking loose from the hooks and hangers that thought has only retrospectively designed for them.

'On matter and materialisms' was my response to a questionnaire issued by the editors of *OCTOBER*, a magazine of art criticism and theory. They noted that in many fields of the arts and humanities, the centrality traditionally accorded to human subjects and their experience is currently being challenged by way of approaches that bring to the foreground a world that exists beyond human meanings, purposes and discourses – a world that is just *there*, of things each doing its thing in ways that have no necessary regard for us humans at all. I was one of around forty who accepted the editors' invitation to respond to their questions, among them artists, art historians, philosophers, critical theorists and literary scholars. I think I was the only anthropologist! In my response I introduce many of the threads that run through this collection as a whole. They include the idea of correspondence from which the collection takes its title, by which I mean to capture the dynamic of lives going along *with* one another. I show how correspondence-thinking necessarily entails a focus on ontogenesis – on the generation of being – and how this, in turn, allows us to imagine a world in which openness, rather than closure, is a fundamental condition of existence. And I show how, as surely as we are weighed down by the force of gravity, human histories have always been interwoven with the history of the earth. This interweaving is nothing new.

'The foamy saliva of a horse' was the title that artist and sculptor Carol Bove gave to an exhibition of her work at the Common Guild, in Glasgow, April–June 2013. Bove offered no explanation for the title: it was rather presented as a riddle, the answer to which was to be found not only in the work itself, but also in the way the various pieces on display were arranged over two floors of the gallery, linked by an imposing staircase. As a visitor to the exhibition, it only gradually dawned on me that the two floors spoke to one another, in

the gallery, rather as the sea speaks to the land along the tidal margin of the coast: that downstairs was underwater and upstairs on shore. Their conversation was about the weight of materials and the force of gravity, about the lightness of the air and the density of water, about what the sea swallows and what it casts back up. But it was also, and perhaps more fundamentally, about the dialogue between nature and artifice, and the ultimate futility of human attempts to conquer the world by force of reason. Ever since Plato we have assumed that the *polis* exists on land, and have sought to protect its rational order from the tumult of the sea. But in an era of global warming, these attempts are as futile as the efforts of engineers to shore up coastal defences against rising sea levels. As our more distant ancestors well knew, the sea always wins out in the end.

Catalyst is the title of a volume featuring the work of the sculptor Wolfgang Weileder. The volume grew from a project focusing on the jetty of Dunston Staiths, one of a number of derelict structures originally built along the banks of the River Tyne, near Newcastle, to facilitate the transfer of coal from rail to ship. The Jetty Project combined Weileder's experimental approach to using recycled materials in performances of building and dismantling with the work of his principal collaborator, sociologist Simon Guy, in urban planning and sustainable architecture. I was invited to write a foreword to the volume, and chose to focus on the work entitled *Cone*, a round, turret-shaped construction made from blocks of the material Aquadyne, manufactured from recycled waterborne plastic. Heavy as coal, black as coal, Aquadyne harvests the waterborne deposit of human manufactures for use on land, in a precise reverse of the extraction of naturally formed and landlocked deposits of coal for maritime use as fuel for steamships. Weileder's *Cone* brings together the stories of coal – of its geological formation and of the men who went on to mine it – with the stories of their descendants, surrounded by industrial decline, ruination and waste. In this work, the respective weights of coal and plastic, and of a past of extraction and a future of recycling, are folded into one another in a powerful assertion of a mode of sustainability that lies not in the final achievement of a steady state but in always building, unbuilding and rebuilding.

1. On matter and materialisms (2016)

I sometimes wonder where philosophers have been, all these years. Some of their number have recently taken to telling us – as though it were a startling new discovery – that the world does not actually revolve around human beings, that non-human entities of all sorts can enter into relations with one another, and even hold meanings for one another, which do not depend in the slightest on the ways they are used or perceived by humans, or even on any human presence at all. The fact that researchers in such fields as plant and animal ecology, geomorphology and soil science have been studying such relations for generations seems to have passed our philosophers by. There is of course good reason to be sceptical of some of the epistemological assumptions that underpin such scientific endeavours, insofar as they are predicated on the objectification of a material world 'out there', of nature, which can be known only through its mental or symbolic representation. Modern science remains duplicitous in its claims to offer an account of the workings of nature, including the mind as part of nature, given that the authority of such claims rests upon the sovereign perspective of a mind already freed from natural constraint. Arguably, then, the scientific mind continues to lurk as an uninvited guest at the table of non-human conviviality, amidst denials of its presence and influence. But philosophers who call for a more balanced or 'symmetrical' approach, which would allow the participation of non-humans with humans on a level playing field, are no less two-faced. For their approach is founded on the claim – which is wholly undemonstrable yet nevertheless central to modernist mytho-praxis – that human beings are without parallel in the animal kingdom in their enrolment of objects as a stabilising force in social relations.

This is why an actor-network theorist, for example, can declare that a sociology confined to the study of intra-specific relations is fine for baboons, who have only each other to deal with, but not for humans who are in among the manifold objects with which they have surrounded themselves. At the centre of the network, you can always find a human. In a world where things could truly be for

what they are, there would of course be non-humans for humans, but there would also be non-baboons for baboons and non-stones for stones. If baboons and stones are non-humans, then why cannot human beings be non-baboons and non-stones? Perhaps this is what the purveyors of object-oriented ontology are trying to say. In their vision, however, there is no time, no movement, no growth and no life. Theirs is a fossilised universe. It is dead. And the only way to liven it up again is to suppose that particles of magical mind-dust, alternatively known as agency or consciousness, are sprinkled among them. Our fixation with the grammatical categories that are currently standard in most European languages leads us to assume that action can only be an effect, set in train by a causal agent that stands as subject to the verbal predicate. But we need not think like this. Classical Greek, along with many non-Indo-European languages, has a middle voice of the verb which, unlike the active voice, does not separate agency from action or the doer from the deed. It is not, then, that things have agency; rather they are actively present in their doing – in their carrying on or perdurance. And as things carry on together, and answer to one another, they do not so much interact as *correspond*. Interaction is the dynamic of the assemblage, where things are joined *up*. But correspondence is a joining *with*; it is not additive but contrapuntal, not 'and…and…and' but 'with…with…with'.

Now it is all very well to refute the classical separation of knowing from being, or of epistemology from ontology. Surely, since we owe our very existence to the world we seek to know, our knowledge must grow from within the crucible of our involvement in this world, in its relations and processes. Yet we have things to know only because they have arisen. They have somehow come into existence with the forms they momentarily have, and these forms are held in place thanks to the continual flux of materials across their emergent surfaces. Things *become*, as does our knowledge of them. It follows that our primary focus should not be on the *ontologies* of things but on their *ontogenies*, not on philosophies but on generations of being. This shift of focus has important political ramifications. For it suggests that things are far from closed to one

another, each wrapped up in its own, ultimately impenetrable world of being. On the contrary, they are fundamentally open, and all are participants in one indivisible world of becoming. Multiple ontologies signify multiple worlds, but multiple ontogenies signify one world. And since, in their growth or movement, the things of this world answer to one another, or correspond, they are also responsible. All responsibility depends on responsiveness. In this regard, human beings have much to answer for, but not all humans are equally answerable. Here, the fashionable idea of the Anthropocene, denoting a new earth-historical era in which anthropogenic and geological processes have merged in their impacts and timescales, has the potential to mislead. For one thing, humanity does not act as one, but in different places, along with different non-humans, to different effect. And for another thing, while the massive industrial and technological interventions of the present era might draw attention to the inseparability of the history of humans from the history of the earth, this is not a novel state of affairs. There has never been a time when human history has not been part of earth history. For as much as any other creature, we belong to this earth. Despite the fantasies of some space scientists, we have nowhere else to go. Let's have an art, then, that acknowledges the oneness of the world, and our historical responsibility for what goes on in it.

2. The foamy saliva of a horse (2013)

Reflections on an exhibition of work by the artist Carol Bove

According to legend, Apelles – court painter to Alexander the Great in the fourth century B.C. – was once so enraged by his failure to depict the saliva of a panting horse as it foamed at the mouth that he threw the sponge with which he would clean his brushes at the picture. Instantly, the desired effect was achieved. Some five centuries later, this story reappeared in the writings of the Graeco-Roman physician Sextus Empiricus. He used it to illustrate the predicament of the sceptical philosopher, equally tormented by his inability to decide between objects of sense on the one hand, and objects of thought on the other. The sceptic's response, according to Sextus, should be simply to suspend judgement – to throw in the sponge, as we might say – and let chance decide. In that state of suspension, the philosopher finds release from torment and a certain peace of mind. Today, Carol Bove presents us with the same dilemma that once confronted the sceptic. Do we favour the forms of thought, that might lend order and regularity to the things we encounter, or the forms of things themselves? What happens when the neat, crystalline lattice of our conceptions comes up against the exuberance and excess of a world of life and death, of growth and decomposition? Can they be suspended in some kind of balance? And can this balance restore a sense of tranquillity amidst the turmoil of the elements?

A vertical metal stand, set upon a rectangular plinth, is equipped with horizontal branches and hooks which support a variety of sea-shells. In themselves, the shells are objects of great beauty. But they have not been made; they are not artefacts. Like soap bubbles caught in suspension, their rounded forms owe nothing to human thought and everything to the mathematics of growth. The linear stand, by contrast, owes everything to thought. With its branches and hooks, it is a three-dimensional diagram that sets the shells in relation to one another as part of a scheme, perhaps taxonomic, perhaps morphological. In the diagram, the objects

Carol Bove, 'The Foamy Saliva of a Horse', 2011. Found metal, bronze, driftwood, sea shells, peacock feathers, steel, gold chain, silver chain, foam, Styrofoam. © Carol Bove. Courtesy of Ovitz Family Collection, Los Angeles, Photo by Lorenzo Vitturi

of sense (the shells) are both suspended in, and supported by, an object of thought (the stand). That's upstairs, above sea-level, so to speak. Downstairs, set upon a mantelpiece, we find a similar stand, and similar shells. But all bar one of the shells have apparently fallen from the stand and lie scattered on the mantelpiece. Below sea-level, it seems, the turbulence of the world wins out over our efforts to contain it, and things will not conform to our conceptual delineations. This contrast between above and below, between over-sea and undersea, establishes a frame for the entire work. But it suggests, too, another meaning to its title. The foamy saliva of a horse? It is of course a riddle of the sea. Every horse is a wave, tipped with foam, and the work is about the things the white horses of the sea spit up upon the shore.

Over countless centuries, the ocean has swallowed up things of human manufacture and – after varying lengths of time – has spat them up again. Tossed from the foam of a raging sea, we discover the wreckage of tanks, drums, nets and decomposing timbers. In the very processes of corrosion, and of battering by the elements, once clean-cut artefacts can take on weird and wonderful forms, and their surfaces – originally polished to a reflective sheen that would have hidden the noxious substances that lay beneath or within – become like the surface of the earth itself: infinitely variegated, multi-textured, composite and reactive. This is what has happened to a rusty oil drum, exhibited here. As new, it had taken the form of a perfect cylinder, straight in elevation and circular in section. And its shiny, painted surface would have given no hint of the slick it contained. The visible exterior and invisible interior were kept absolutely separate. Now however, long since relieved of its contents, the drum's contorted surface embraces the outside like the folds of a fabric, while particles of rust, in the process of detaching themselves, or already detached and scattered around, attest to the gradual disintegration of the boundary between surface and medium.

One further piece, also downstairs, speaks of an oceanic struggle between nature and artifice. A massive block of driftwood, standing on end, slightly askew, could once have been a pillar for a groyne.

Carol Bove, 'The Foamy Saliva of a Horse', 2011. Found metal, bronze, driftwood, sea shells, peacock feathers, steel, gold chain, silver chain, foam, Styrofoam. © Carol Bove. Courtesy of Ovitz Family Collection, Los Angeles, Photo by Lorenzo Vitturi

One of the bolts still remains, emerging from one side, by which the cladding it supported would have been affixed. This timber would have stood fast against the sea, breaking the force of its surge, and holding in place the sediment of sand and shingle beneath. But it could not resist forever, and perhaps in the violence of a storm it could no longer withstand, it was washed away. Thereafter, its fortunes were reversed, for now the block that once broke the sea is at its mercy, tossed by white horses, only to be spat ashore in its foamy saliva. In the sea this massive block, far too heavy for a man to lift, would have been floatingly light. Back on earth, once again heavy and lethargic, it tells of its journeys in the gnarling, knotting and scouring of its flesh, in which the grain is very clearly revealed. Not only that, but the smell and blackened surfaces tell that it had once been coated with bitumen.

Upstairs downstairs; over-sea undersea: a stairwell offers passage between the two domains. Upstairs there's a vertical iron girder bolted to the floor on an irregularly shaped iron plate. A horizontal rod sticks out from the girder. This crane-like structure is massive, rigid and artefactual. But hanging on a thread from the rod, reaching down the stairwell to the lower level, is what looks like a boulder. Irregular in form and off-white in colour, streaked with rust, a pebble precariously balanced on one of its ledges, it could be a lump of chalk dredged up from the sea. But in fact it is not. This piece plays a trick on us. You are not supposed to touch, but I did! Very gently, but enough to ascertain that the 'boulder' was as light as a feather, and was actually polystyrene. Perhaps it had been part of an ice-box for fish before it ended up in the ocean, swimming with the very fish it once contained. But now it too, like the groyne support, had been washed up – still as white, and as light, as the foam of the sea.

Continuing our submarine explorations, downstairs, we discover a length of driftwood, smoothed and rounded by the scouring of the waves, and suspended in a rectangular frame of polished bronze. It is like a fish in a tank, but without water, and without glass. We seem to be presented here with a clear contrast between the artificial framing and the 'natural' wood. But on closer inspection,

it is not so simple. The wood, after all, had been a plank, cut for some purpose now unknown, and an old, rusty nail, wedged in its grain, indicates that it must have been part of a larger construction. And then there are the finely crafted, necklace-like chains by which the wood is hung from the frame. The weight of the wood holds them straight, but their loose ends lie higgledy-piggledy on the floor. Thus the chains, at once straight and twisted, geometric and tactile, rational and sensuous, seem to operate as a kind of hinge, mediating the dialogue between nature and artifice.

Another piece, made entirely from similarly fine chains, takes the same idea one step further. It is in the form of a hanging net, running from ceiling to floor. It might perhaps have caught the driftwood 'fish', before it was suspended in its 'tank'. Drawn on paper, the net would look like a perfect grid of criss-crossing, diagonal lines. But it does not hang like that, because its lines are not purely geometrical. They are substantial, and have weight. Gravity causes them to sag. And this sag deforms the diagonals and pulls the opposite sides of the net closer together as they stretch towards the floor. Once again, thought and substance have reached a settlement of their own accord. As a place where the conceptual grid meets the fluidity of the substantial world, the hanging net epitomises the suspension of judgement in which the sceptic finds tranquility.

Returning upstairs and over-sea, however, we find another structure that, at first glance, turns this balance upside down. Four hinged panels of a gridded metal fence – grey, sharp-edged and forbidding – are arranged to form a semi-enclosure. Here, it seems, rigidity has triumphed over flow, the iron cage of reason over the waywardness of life. There could be no greater contrast between the solid brutality of these upright, self-supporting fence-panels and the filigree delicacy of the hanging net. Move around the panels, however, and something astonishing occurs. For as your line of sight passes obliquely through two or even three panels, their respective grids set up a complex interference pattern. As you move the pattern also moves, like waves passing over a surface. You are no longer imprisoned but afloat. Lurking behind the fence, however,

Carol Bove, 'The Foamy Saliva of a Horse', 2011. Found metal, bronze, driftwood, sea shells, peacock feathers, steel, gold chain, silver chain, foam, Styrofoam. Installation at The Common Guild, Glasgow, 20 April - 29 June 2013, © Carol Bove, Courtesy of Ovitz Family Collection, Los Angeles, Photo by Ruth Clark

and supported on a stand, is another heavily corroded object, clearly recovered from the sea, and bent – like the oil drum downstairs – into a weird shape. It is open so you can see what is inside. It is some kind of foam. As with the fence, so with this object, there is lightness in solidity. It is what the sea does to weighty stuff.

There's one more piece upstairs I have not yet mentioned. It is a mat assembled on the floor from individual peacock feathers. Here we are definitely back on land, in the open air. You don't need the sea to make the mat as light as a feather, when feathers are what it is actually made of! But like the net downstairs, the mat epitomises the same settlement between the forms of nature and those of human artifice. The rounded and colourful 'eyes' on the feathers are as perfectly wrought as the sea-shells on their stand, and yet the feathers have grown, they have not been made. But their arrangement on the floor, in a rectangular grid, once again submits them to a human geometry. One puff of wind, however, and the mat would scatter into a thousand feathery pieces, just as happened downstairs, we suppose, when the waves washed the shells from their stand. The settlement of nature and artifice may induce tranquility, but it also depends on it. 'The foamy saliva of a horse' is an oasis of calm in a storm-ridden world.

Carol Bove, 'The Foamy Saliva of a Horse', 2011. Found metal, bronze, driftwood, sea shells, peacock feathers, steel, gold chain, silver chain, foam, Styrofoam. Installation at The Common Guild, Glasgow, 20 April - 29 June 2013, © Carol Bove, Courtesy of Ovitz Family Collection, Los Angeles, Photo by Ruth Clark

3. Foreword to Catalyst (2015)

Art, sustainability and place in the work of Wolfgang Weileder

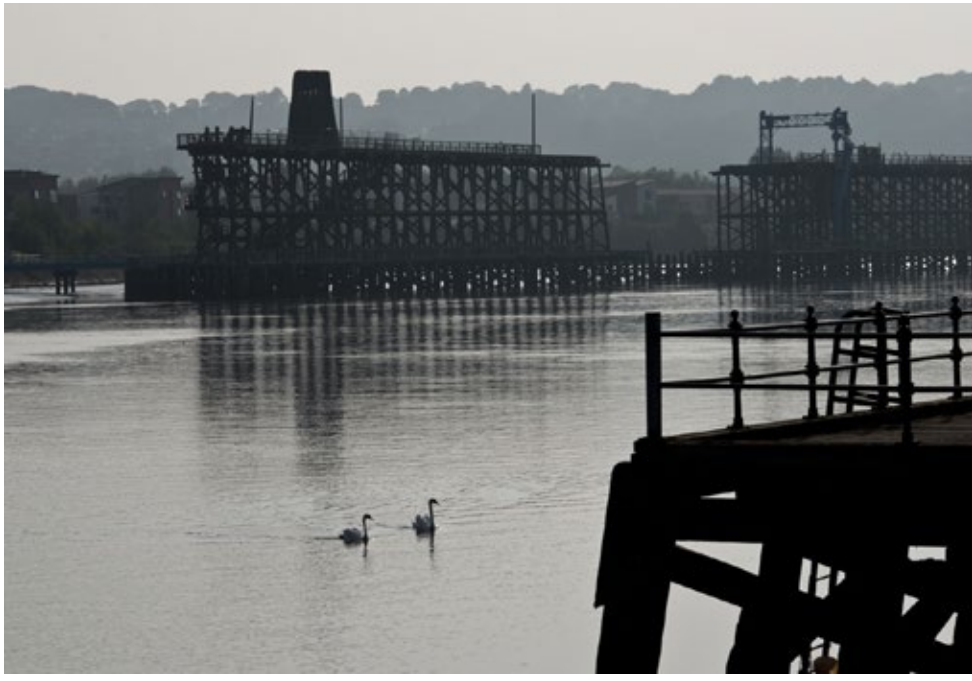
The engineers and construction workers who built the massive wooden jetty of Dunston Staiths, in Gateshead, must have given much thought to sustainability. Built to despatch mined coal into ships for onward transport by sea, the jetty had to be strong enough to bear the weight of a locomotive and a train of loaded wagons. More than three decades since the last ship sailed from the Staiths, the jetty has once again become a focus for thinking about sustainability. The argument, however, is no longer about the physical load it will bear, but about the weight of the past as it presses on the future. And it is not the efficient discharge of coal that brings it to a head but the presence of a work of art. You might be inclined to suppose that a million miles separates the weight of coal from the weight of the past, and a railway wagon from an artwork. You would be wrong.

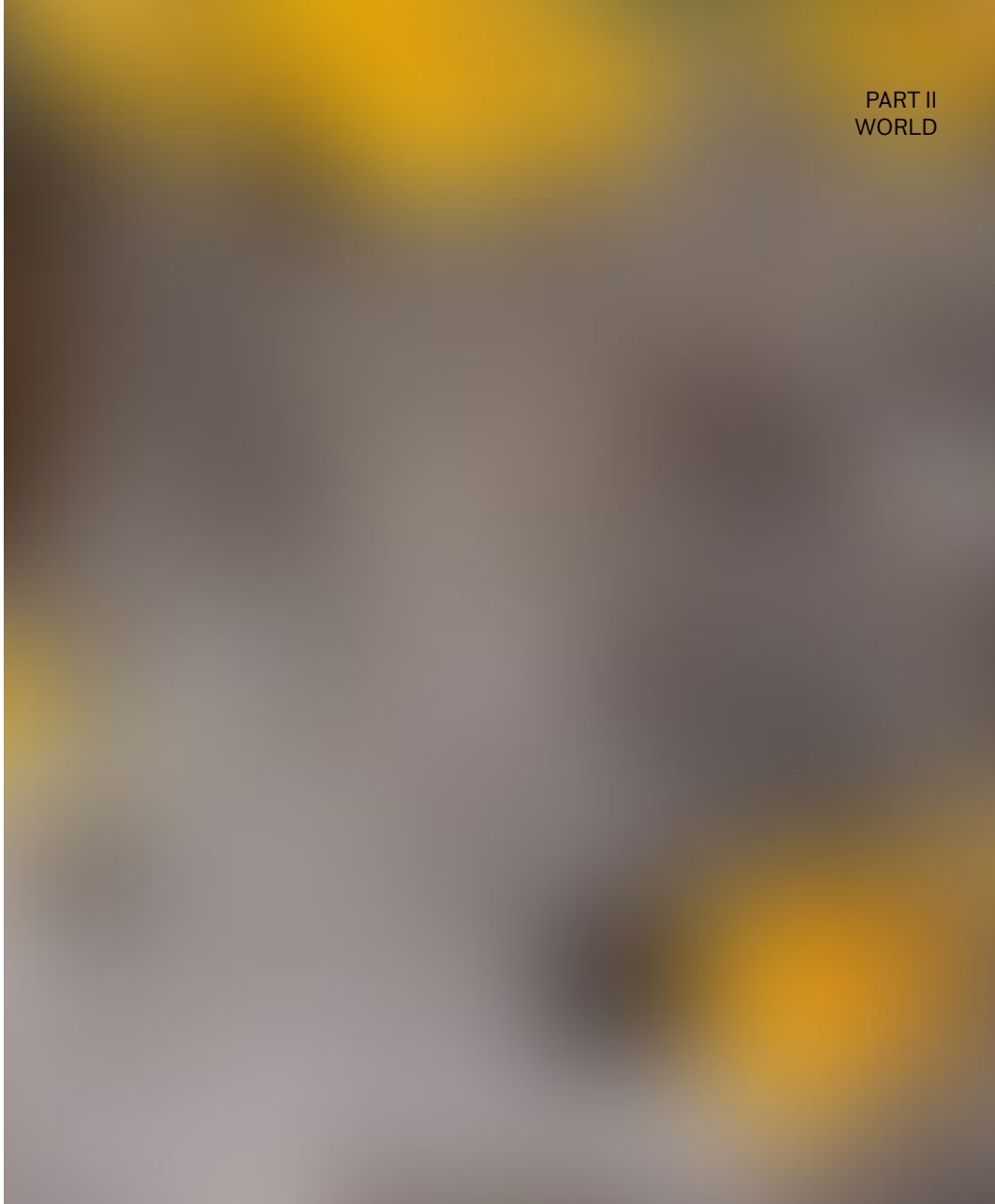
Consider the materials, for a start. Coal is our geological past, formed from ancient forests. The energy released from coal, when burned, comes from the summer sun which once bore down on trees in leaf, year in year out, fuelling their woody growth. For almost a century, that coal held the potential to produce the future: a future which, compared with what had gone before, carried the promise of material prosperity. And the artwork, Wolfgang Weileder's *Cone*, is built up from slabs of the material Aquadyne: black as coal, heavy as coal, and also extruded from the past. But this past is recent, for the material is made from the kind of plastic waste that is currently choking our oceans and filling our lands. What would a geologist of the distant future make of these deposits of plastic? Will they stand as enduring monuments to terminal destruction, or will they be seen as standing reserves of raw material for the manufacture of Aquadyne which, by then, could be as ubiquitous as concrete is for us now?

Then consider the work. The forefathers of those very apprentices who found employment in building *Cone* would, in their prime, have been mining coal, or shovelling it, or discharging it into the chutes that released it to the waiting ships. And as their present-day descendants stacked up the slabs of Aquadyne, this long overlooked past would once again have bubbled up in stories which told of bygone times even as they imagined times to come. It is not that slabs weigh *literally* – a total of 11,000 tons, to be exact – while the past weighs *metaphorically*. In performance, the weights of the past and of slabs are not measured but felt, and they are felt equally, at the same time. And here's another strange thing about performance: you could just as well be unmaking as making, putting things together as taking them apart. Do you not make your bed every morning, only to pull it apart the next night in your restless sleep? Coal is hacked from the face only to fill the wagon, and the wagon is filled only for it to be emptied. And true to form, *Cone* was erected only to be taken down, following which its slabs are to be reused elsewhere.

Finally, consider the structure. Thrust out into the tidal waters of the River Tyne, the jetty is a one-way thing. For the coal that made its way onto its platform, there was no going back. And so, too, there is no way back to the past. The wagons, however, come and go, as indeed artworks can if they are built first here, then there. It is the same with scaffolding: it goes up and comes down. I sometimes wonder, of buildings, whether we should think of them at all as finished structures. Perhaps they, too, are really scaffolds for the life process that unfolds in them. And this, surely, is what Weileder wants us to see with *Cone* and other works comprising the Jetty Project. In art as in architecture, sustainability is about *keeping life going*, not about hovering around an interminable equilibrium. And as long as the tides wash in and out, and the birds nest in the nooks and crannies of the Staiths, and as people come to tick them off in their books, time will keep passing, ever so slowly, on its course.

This, I believe, is the message of *Catalyst*. The purpose of a catalyst is to spark reactions: in this case around the meaning of sustainability. It is to rescue the term from the vacuous, rhetorical abstractions of environmental policy-speak, and to bring it down to earth in the vivid presence of materials, work and structure. And it is to bring people together – scholars of different disciplines, artists of different persuasion, people from different backgrounds and walks of life – in a shared, collaborative endeavour.





PART II
WORLD

INTRODUCTION

Karl Marx once observed that the earth is foremost among the instruments of labour, since it provides the platform for all human operations, and a field of employment for all our activity. Where would we be without it? We do not only need earth to stand on, however; we also need air to breathe, water to drink and fire to cook our food and keep us warm. How, then, are we to describe this world of elements: the world we manifestly inhabit? Do we break every element down into minimal constituents of matter – as in the elements of the periodic table, themselves resolvable into permutations and combinations of still more elementary particles, identical in kind? And do we then derive motion as the interaction of these punctual elements across the void of space, driven by forces both gravitational or electromagnetic, and leading to heterogeneity as their variable patterning and complexity as the ever-accumulating outcome? Such has been the overwhelming orientation of mainstream natural science. Yet the more that science drills down into the fine grain of matter, and at the same time to the explosive origins of our universe, the further removed is the world it describes from our experience. Even life appears reducible to elementary interactions, of a kind that one might hope to find on planets other than our own.

However a world found to contain life, in this molecular sense, cannot be experienced as a lifeworld. For we are alive to the world, and the world is alive to us, precisely because of everything that science – in its efforts to reduce nature to its minimal constituents – has stripped out. The lifeworld is a plenum: it is matter-full, not full of matter; its elements given not as discrete particles but in the variation and flux of materials: in the running waters of the river, the flickering flames of the fire, the turbulence of the wind and the heaving of the earth. Here the properties of things emerge not as the compound effects of punctuated interactions but as irregularities in the flow. The slightest deviation, amplified in its effects, can spin out a cascade of more or less ephemeral forms. Heterogeneity and complexity, then, are not so much statistical

as topological, given in the folding and crumpling of material surfaces and volumes rather than the aggregation and dispersal of particulate matter. Things in this world are not naturally solid; they have to be kept that way and, like eddies in a stream, they will do so only for as long as the flow carries on. Things are in life, not life in things – and in life nothing lasts forever. In the essays making up this part I consider what it means to inhabit a lifeworld.

'Crafting landscapes' was my response to an invitation from landscape architect Kamni Gill. She had asked me to reflect on what she considered to be the five primary constituents of landscape architecture, namely trees, ground, bodies of water, the weather and human movement. These reflections, however, drew me back to doubts that had long been on my mind as to the suitability of landscape itself as a word with which to describe the world we inhabit, and indeed of architecture as a word for the structures we design and build in it. These terms, and with them the profession of landscape architecture, attest to a modernist aesthetic according to which the material world figures as a blank canvas upon which the human imagination can project its designs and over which human industry can construct them. All eyes, then, are on the surfaces of things – of the land and of what is set there, as scenery on a stage – for it is these that meet the gaze of the spectator, and not the materials that lie hidden inside, above or below. Viewing the landscape, you see the world but not *into* it: you register the contours of the land but do not mingle with the earth beneath your feet or with the air you breathe. Viewing the trees and buildings you see their shapes and surface textures but not their roots and foundations, or the materials that rise therefrom.

But the world according to landscape architecture is not the world we inhabit. To inhabit a world is to walk the land and breathe the air: this is a world of earth and sky, in which the very ground we tread is not already laid out but ever formed as the soil below mixes with wind and weather above, in the ongoing generation of sentient life. This earth-sky world is not just an object of perception; it is also what we perceive *with*. It gets inside us and so

saturates our awareness that when we look, listen or touch, we do so with eyes, ears and hands that already know the light of the sky, the sonority of the earth and the feel of materials. In my essay 'A phenomenology *with* the natural world?' – written for the journal *Environmental and Architectural Phenomenology* in an issue to celebrate its 25th anniversary – I ask how an acknowledgement of what we owe to this world for our own sensory formation might help mend a relationship with the environment that surrounds and sustains us, which currently seems terminally broken. It means thinking of this environment not as a repository of data for collection and analysis but as place of study, wherein we learn not *about* but *from* its manifold human and more-than-human inhabitants. And it means leading a life alongside these other inhabitants that is both attentive and responsive to what they have to tell us – or in a word, an ethical life.

The anthropologist Bronislaw Malinowski famously described social life as a long conversation, a toing and froing that carries on indefinitely. But there is no reason why the conversation should be limited to human beings, or even to living things. Nor need humans be at the centre of it. In the long-term scheme of things, they might have no more than a walk-on part, making a brief appearance and then disappearing again, while the sun and the moon, the wind and the tides, earth and sea, trees and rivers, carry on regardless. At a time when scientists have declared the advent of a new geological era, the Anthropocene, in which human activity is judged to be the dominant force in shaping the earth, we are also more than ever troubled by the thought that human life may soon have run its course on the planet, and that little can be done to prolong our stay. Whatever comes after the Anthropocene is unlikely to include a significant human presence. We are caught, it seems, in a spiral of what the physicist Walter Behrmann, writing almost a century ago, called 'self-reinforcement'. In 'Three short tales of self-reinforcement' I have responded to Behrmann's text, on the invitation of the editors of the four-volume compendium *Grain, Vapor, Ray: Textures of the Anthropocene*. Each allegorical tale recounts a conversation: of sea-sand with wind, of river

with tree, of humans with their built environment. The first two conversations end up in a kind of settlement, or at least a perpetual stalemate; the third, however, leads to oblivion. It is the fate that inevitably awaits us if, instead of joining *with* the world, we strive – by ever more massive feats of engineering – to defend ourselves *against* it. Self-defence is ultimately self-destruction.

4. Crafting Landscapes (2014)

In conversation with Kamni Gill

The tree

Walking through the woods, your attention is caught by a particular tree. There it is, rooted in the earth, trunk rising up, branches splayed out, swaying in the wind, with or without buds or leaves, depending on the season. How should we define it? What is tree and what is not-tree? Where does the tree end and the rest of the world begin? These questions are not easily answered. Is the bark, for example, part of the tree? If I break off a piece in my hand and observe it closely, I will doubtless find that it is inhabited by a great many tiny creatures that have burrowed beneath it and made their homes there. Are they part of the tree? And what of the algae that grow on the outer surfaces of the trunk, or the lichens that hang from the branches? Moreover, if we have decided that bark-boring insects belong as much to the tree as does the bark itself, then there seems no particular reason to exclude its other inhabitants, including the bird that builds its nest there, or the squirrel for whom it offers a labyrinth of ladders and springboards. Even as they take wing, the birds of the air carry something of the tree with them – a memory, a sense of place, the perceived affordance of a perch. Given, too, that the character of this particular tree lies just as much in the way it responds to the currents of wind, in the swaying of its branches, and the rustling of its leaves, then surely the air, as well, participates in the tree's presence. It is a bright, sunny day, and the tree casts a shadow on the ground, which beckons as a place of shelter from the glare. Seated there, in the shade, with your back propped up against the trunk, are you not as much at home within the ambience of the tree as if you had climbed into its branches? Have you not joined with the birds, squirrels, and insects into tree-life? Beneath you lies a carpet of fallen seed-pods, leaves, and twigs, all of which bear a relation to the tree as intrinsic as the tree has to the seed from which it once grew. And below the surface, spreading out in all directions, are the ever-extending roots, tangling underground with the roots of everything else that grows in the vicinity. Every tree is a knot, and the characteristic feature of all knots is that their constitutive threads are joined not end to end but in the middle, with trailing ends that go in search of other threads to bind with. Life is a meshwork.

The ground

So trees do not stand erect *upon* the ground, like soldiers on parade. They are rather rooted *in* the ground. This point may seem obvious, but its implications are not. We are still inclined to think of the ground as a baseboard or stage, upon which all else is mounted. This is because we imagine the landscape as its model. If you were building a model, you would start with a flat sheet – perhaps of plywood or fibreboard – on which you would place the elements of your landscape: hills, trees, buildings, fences. To complete the scene, you might add some miniature people, animals, and vehicles. But in the real world, there is nothing equivalent to the baseboard. Dig down, and soil might give way to bedrock, but you will find no ground zero such that we might truly say of things that they are *on* the ground rather than *of* it. Nor do the world's inhabitants clamber over the scenery, as do the miniatures in your model. They walk the ground itself, experiencing its contours in the alternation of close and distant horizons, and in the greater or lesser degrees of muscular exertion entailed in first toiling against, and then surrendering to, the force of gravity. Thus, in the first place, the ground is perceived *kinaesthetically*, in movement. Secondly, far from comprising a homogeneous and perfectly level plane, the ground appears *infinitely variegated*. Variation is intrinsic to the ground, not added to it as diversity upon uniformity. This variation is not just of contour but also of substance, colouration, and texture. Of course, the ground can be observed at different scales, from close-up to far away, and each will reveal different patterns, textures, and grains. However, whatever the scale of observation we adopt, it is liable to appear just as puckered, mottled, and polymorphic. In that sense, the ground surface has a fractal quality, whence follows a third characteristic: it is *composite*. It is, if you will, the surface of all surfaces, matted from the interweaving of a miscellany of different materials, each with its own peculiar properties. Finally

and perhaps most critically, the ground surface is not pre-existent but undergoes *continuous generation*, within an unstable zone of interpenetration in which the substances of the earth mingle and bind with the medium of air. These blending reactions, of which photosynthesis is the most fundamental, are essential to all life. In its exposure to light, moisture, and currents of air – to sun, rain and wind – the earth is forever bursting forth, not destroying the ground in consequence but creating it.

The weather

If that is so, then we should surely concede that the track, worn in the ground, is equally a phenomenon of the air. Formed by creatures – human or non-human – that must necessarily breathe as they walk, it is not only impressed in the earth but also suspended in the currents of wind and weather that, dragging the earth's surface, conspire to erase it. Thus, the track is at once terrestrial and aerial. So too the pedestrian body simultaneously walks and breathes. Exhalation follows inhalation, as step follows step, in a closely coupled, rhythmic alternation. However, our tendency to envision the material world as a clutter of solid objects mounted on a baseboard has led, in the writings of many theorists, to a certain suppression of the aerial dimension of bodily movement and experience. While emphasizing the solid forms of the landscape, they have neglected the fluxes of the medium in which they are immersed. In a word, they have shut out the weather. Yet, even the residents of the hyper-modern city have to contend with the weather, despite their best efforts to banish it to the exterior of their air-conditioned, temperature regulated, artificially lit, and glass-enclosed buildings. For the walker out of doors, however, the weather is no spectacle to be admired through picture windows but an all-enveloping infusion, which steeps their entire being. The weather is not so much what we perceive as what we perceive *in*. We see in sunlight whose shades and colours reveal more about the composition and textures of the ground surface than about the shapes of objects, we hear these textures in the rain, from the sounds of drops falling on diverse materials, and we touch and smell in the keen wind that – piercing the body – opens it up and sharpens

its haptic and olfactory responses. Indeed, a strong wind can so overwhelm the senses as virtually to drown out the perception of contact with the ground. 'Around, up, above, what wind-walks!', exclaimed Gerard Manley Hopkins in his poem *Hurrahing in Harvest*. The wind-walker does not, however, literally fly. The philosopher Gaston Bachelard compares him to a reed. Like the reed, the walker remains earthbound. But whereas the reed bends backwards in the wind, the walker leans forwards, tilting against the current. 'His walking stick pierces the hurricane, makes holes in the earth, thrusts through the wind'.

The river

As the wind blows, the river flows. Yet, the relation of the river to its flowing, like that of the wind to its blowing, is not one of subject to predicate. Rather, its grammatical form is of the gerund: the wind *is* its blowing; the river *is* its flowing. So the river is not a body of water that moves but the movement of water. No movement, no river. But what is this movement, this flow? It is not a mechanical displacement, a transport of substance from A to B. Perhaps in the days before road and rail, when timber was floated downstream to the sawmill, we could have said that the timber was transported – though not without hazard –from an origin to a destination. The water that carries the timber, however, does not go from point to point. It carries on, tearing and scouring the ground through and over which it passes. The source of the river is not a starting point but a place of emergence, from which water wells from under the ground. And its mouth is not an end point, but a place from which it issues into the sea. The environmental artist David Nash once placed a wooden boulder in the headwaters of a Welsh mountain stream. Alternately borne along by waters in spate and wedged between rocks by the force of the current, after many years it found its way to the sea and was lost. Thus, the river is a perpetual escapement, and its course is a line of flight. It is in the nature of such lines that they do not connect but pass forever in between. But if the path of escape is blocked, for example through the construction of dams for generating hydroelectric power, then the river's continuous flow is broken into a sequence of episodes of

stability, divided by precipitous change. Just as hard surfacing, for example with concrete or asphalt, converts the ground into the kind of surface of support that modern thought has always imagined it to be, so the construction of hydroelectric installations turns the river from a movement of water into a body of water that moves, and whose vertical displacement, under the force of gravity, can be made to do work. In a hard-surfaced world, nothing grows; in a dammed watercourse, nothing flows.

Human movement

If the wind *is* its blowing, and the river its flowing, then the body *is* its growing. It exists in the continual movement of its coming-into-being, its ontogenesis. As infants, we come into the world moving, and continue on our way, now in pursuit, now in retreat, carried along, and in turn carrying, approaching or leaving, or just going around, continually overtaking any destinations to which we might be drawn in the very course of reaching them. We – our bodies – are rivers: each one a stream of life and consciousness that continually issues forth in the midst of things but *does not connect*. Our awareness of ourselves is thus, fundamentally, of our own movement, or in a word, it lies in the experience of *kinaesthesia*. Thanks to kinaesthetic awareness, our movements are not only outwardly visible, as linear trajectories that could, in principle, be measured, recorded, and plotted on a graph, but also inwardly felt. In our experience, our riverine bodies are not things that move but are movements in themselves. Movement – along the ground, in walking, in the air, in respiration – is what a body does but what it *is*. That is why any attempt to describe human movement in terms of some notion of embodiment is bound to fail. For it makes it sound as though the movement were wrapped up inside – that is has been packaged, sedimented, stilled, rendered quiescent or tacit. And it is why theorists of embodiment feel compelled to invoke a notion of agency in order to set the self-digested body-package back into motion. Movement, for them, is an effect, agency the cause. To undo this causal logic – to exorcise the spectre of embodied agency – is to recognize that 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. But breathing out and breathing in are not the precise reverse of one another. The one is a movement of propulsion; it is haptic. The other is a movement of gathering; it is atmospheric. Herein lies the hinge between the lines of the meshwork and the fluxes of the weather world, between movements and moods, between our awareness of the world and the ways the world conditions our awareness, between sensitivity and sentience, and between the temporality of becoming and the temperament of being.

5. A phenomenology *with* the natural world? (2014)

Phenomenology has not, for me, been a point of departure. I have never thought of it as an approach, method or way of working that I might apply. Like most things philosophical, it has grown on me more or less serendipitously, and has wormed its way into my thinking without my really noticing it. No doubt, this home-grown phenomenology of mine takes all kinds of liberties with the canonical texts, many of which I am happy to leave unread. Textual exegesis is a task for trained philosophers, and not for amateurs like me. Indeed I have always been slightly bemused by scholars who bury their heads in the most arcane and impenetrable of texts in the effort, they tell us, to get to the bottom of our experience as beings in a world. You would think that the best way to fathom the depths of human experience would be to attend to the world itself, and to learn directly from what it has to tell us. This, of course, is what inhabitants do all the time, in their daily lives, and they have much to teach us. That's why I remain, both by training and at heart, an anthropologist and not a philosopher. If we are to begin to resolve the crisis in our relations with what we call the 'natural world', then we should be listening to the wisdom of its inhabitants, both human and non-human, rather than taking shelter in the closeted self-referentiality of philosophical discourse.

Nevertheless, in much the same way as phenomenology, anthropology also struggles with what looks like a mismatch between ethical principle and scholarly practice. For while claiming to study with and to learn from our interlocutors, we anthropologists have a nasty habit of turning lessons learned into material for analysis. This is what happens when we say that what we are actually doing is ethnography. It is like turning the telescope to look through the wrong end. Instead of calling on the experience we have shared with those among whom we have worked to enlarge our vision of the world, we take our sights from the Olympian heights of theory to scrutinise the thinking of our erstwhile teachers. The source of the problem, I believe, lies with that little word *of*. I have long held doubts about the fundamental postulate

of phenomenology, namely that consciousness must always be consciousness *of*, precisely because it puts the telescope the wrong way round. Likewise, when we invoke the phenomenology or the anthropology *of* this or that, it seems that we run rings around the thing in question, turning the places or the paths from which we observe into circumscribed topics of inquiry. The operative word, I think, should not be *of* but *with*. I would start from the postulate, then, that consciousness is always consciousness *with*, before it is ever consciousness *of*. Whereas '*of*-ness' is intentional, '*with*-ness', I would argue, is attentional. And what it sets up are relations not of intersubjectivity but correspondence.

The problem in our relations with the natural world, then, is that we have forgotten how to correspond with the beings and things of which it is comprised. We have been so concerned with the interaction *between* ourselves and others that we have failed to notice how both we and they *go along together* in the current of time. This, surely, is what sustainability means: not the perpetuation of a completed form or stable state but the capacity to keep going, to carry on, or to perdure. If interaction is about othering, then correspondence is about togethering. It is about the ways along which lives, in their perpetual unfolding or becoming, answer to one another. This shift from interaction to correspondence entails a fundamental reorientation, from the between-ness of beings and things to their in-between-ness. Think of a river and its banks. We might speak of the relation of one bank to the other, and crossing a bridge, we might find ourselves halfway between the two. But the banks are continually being formed and reformed by the waters of the river as they sweep by. These waters flow in between the banks, along a line orthogonal to the span of the bridge. To say of beings and things that they are in-between is to align our awareness with the waters; to correspond with them is to join this awareness with the flow. Just such a shift of orientation is needed, I believe, if we are to understand the world of nature as one that we do not only experience but can also live with or inhabit both now and for the foreseeable future.

6. Three short tales of self-reinforcement (2015)

I

A shell lies on the beach. Once it had housed a living mollusc that had found a place upon the rocks, and had fed itself by filtering particles of nutrient-rich material washed over in the ebb and flow of the tides. For this it had the moon to thank. But now, stranded under the relentless glare of the sun, empty and lifeless, holed and fractured by collisions with the shingle, it awaits its end. Eventually, it knows, it will be ground into the self-same sand upon which it now rests: the ever-accumulating deposit of countless others who have met the same fate. Yet up above, the air is growing restless. Moist vapour, warmed by the ground, is rising and – meeting with little pressure from higher layers – is cooling as it goes, condensing into clouds which blot the sun and diffuse its rays. The little shadow that the shell had cast upon the sand disappears. A sudden coolness causes a party of human beachcombers, who had been wandering along the shore, to huddle up. One of them, who had been on the point of retrieving the shell and pocketing it as a memento, thought better of it and left it untouched. How differently things would have turned out had he picked it up!

The clouds, dense with moisture, turn grey and threatening. Along comes the wind – just a gentle breath at first, enough to scuttle a few grains here and there. A stronger puff follows, then stronger still. Soon the puffs become a howl. Our humans run for shelter. Save for the shell, the beach is deserted. The wind, it seems, has taken command of an almost empty kingdom.

'I blow, therefore I am', proclaims the wind, haughtily, as it sweeps over the shell, scarcely pausing in its passage. 'You, little shell, are nothing to me', it bellows. 'I can tear down trees and whip the sea into giant waves. I can demolish houses and sink ships. Why, those very waves that cast you up upon the shore: I caused them'. The shell cowers: it has not encountered this mighty force before. Tossed in the waves, it had known the turbulence of the sea, but not the reason for it.

But when the gust has past, the shell feels an irresistible urge to scratch. Something is tickling it. Though beaten in the face by the heavier of the grains of sand the wind had hurled against it, some finer grains seem to have landed on its back. Some, whipped up by the wind in its passage, have been casually discarded on the lee side. But others have been pulled in from behind. For in sweeping over the summit of the shell, the wind had left a void, and the undertow of air that rushed to fill it had deposited grains in its wake. Along comes the wind again, and where the initial irritation had been, something begins to swell. The swelling grows and grows. Before long, a little mound is formed.

'I blow, therefore I am', proclaims the wind, condescendingly, as it sweeps over the mound, briefly pausing in its passage. 'You, little mound, are almost nothing to me', it says. But nevertheless, it feels some momentary hindrance as though, forced upwards, it has to slow its pace a little. And as it slows, its grip slackens – ever so slightly – letting slip a few more grains. And with every grain, the mound rises. Soon it shows up as a conspicuous bump on the beach.

'I blow, therefore I am', proclaims the wind, more in hope than in glory, as it thrusts into the upward slope of the mound. But it needs a big push to overtop the summit, and having done so, with one big sigh, it releases its entire load of windborne sand, which goes sliding and tumbling down on the other side. Then the mound addresses the wind:

'You wind – you who created me – are indeed your blowing. When you do not blow you are nothing. I cannot catch you, or put you in a bottle and say "there, inside that bottle, lies the wind". You cannot, like the shell, become a collector's item. I lay a trap for you, and you vanish. But I stand my ground. When you cease your blowing I am still here, until perhaps the rain or the spring tide washes me away. For whilst you are all movement, I am all settlement. You shriek; I slumber. Your shapes are eddies in the swirl of time; mine are heaps that have fallen out of it. You are history; I am archaeology. Your cessation is my formation. I last and am lasting; you are ephemeral.

You boast of how you can uproot trees, sink ships and destroy buildings. But with me it is the other way around: the harder and longer you blow, the higher I rise. You try to blow me down and my strength only increases. Indeed, I am invincible!'

At this, the wind is mightily provoked. 'I suppose you think', says it to the mound, 'that you can just go on rising, up and up, until you reach the sky. The truth is that you rise up only because the grains which make you are continually falling down. Your form is nothing but a perpetual state of collapse. My strength is your inertia'. And with that, the wind again begins to blow, stronger and stronger. As it does so, it whips off the sand from the summit of the mound, scattering it far afield. Soon, the mound begins to flatten out until, once again, more sand is deposited by the wind as it ascends than is blown off from the top.

For ever after, the wind and the mound have carried on their argument, fought with vapour and with grains. They know now that neither side will win, and have called an uneasy truce. And that's how our party of humans find them now, as they reappear on the beach. Human beings – especially the children among them – love to dig, and one of them begins to excavate the mound. As she delves deeper and deeper with her spade, as though searching for buried treasure, another mound is formed. As in all human endeavours, digging down means building up, and building up means digging down. Only because we dig, only then can we build. And the ground? It is simply the difference between the two, where rising and falling cancel each other out.

As for the shell that started it all: if you dig down far enough, you might just find it. But most likely it will already have broken into smithereens, no longer distinguishable from the sand that once surrounded it.

II

Once there lived a tree. It had grown close to a riverbank, and the current of the river, as it dragged the bank, had exposed many of its roots. Sometimes, in times of flood, these roots would be submerged and the trunk surrounded by water. But it was the wind that eventually brought the tree down, during a great storm that devastated the woods. Having toppled towards the stream, the roots were left high and dry while the trunk and branches were now submerged, bent and beaten by currents of water rather than wind. Not that the river's flow was completely blocked, since the fallen tree extended only halfway across to the opposite bank, and there was room for the water to find its way around the new obstruction. Moreover even where they lay, the trunk and branches formed only a partial barrier. They slowed the flow but did not stop it altogether.

As it lay there, the tree wistfully recalled bygone days. It remembered how, as a little sapling sporting its very first leaves, it had taunted its elders and betters. 'Look at me', it had said, 'I can catch the light. You can't put me in your shade'. And kindly waving their leaf-heavy boughs, the big trees had replied: 'You will one day grow great and strong like us, but you will eventually fall and rot. No tree stands forever. If the wind doesn't knock you down, then fungi will eat you from the inside, and the woodpeckers will pick at your rotting flesh to feed on the bugs that will inhabit it'.

Every year, without fail, the big trees cast their leaves, rain fell, and fungi got to work on the sodden litter, turning it into a rich, nourishing humus. The sapling grew and grew: not by a laborious process of heaping stuff up, as the forest ants were doing in building their nest nearby, but by the extrusion of materials along its grain. For the grain of the tree consists of lines of growth, not of particles of matter, and it is held together by knots and not by the equilibrating force of gravity. The more it rose in height and expanded in girth, the further its roots extended underground. And the greater was its thirst for light. Wherever a ray of light penetrated the canopy, the tree would set out a leaf to catch it. More leaves meant more humus, more humus meant more root growth, more root growth meant more new

shoots and leaf-buds, more leaves meant more energy for growth and more litter to decompose, and so on and on. When would the cycle ever cease?

Well, the gale put an end to that. And here it lay, that once proud tree, humiliated, no longer erect but prostate, and drenched in an element that it had never known except as rainfall from the sky. The river waters gurgled and chortled all around it, laughing at the tree's ignominy. 'You grow old and die', they tittered, 'but we are forever young. We never stop running'. The tree was not amused, and as the taunts of the waters surged to a chorus, the tree's humiliation turned to grumpiness, and its grumpiness to obduracy. 'You wait', it said to itself, 'I will teach these waters a lesson they won't forget'. And that is exactly what it did.

As the waters approached, the tree would hold them up. And in the hold-up, the waters would inadvertently let loose the dirt they were carrying, washed from the banks and beds of upper reaches. Gradually, a bank of sediment began to build, filling in the gaps between the boughs that had before allowed the waters through. And as the sediment rose, the waters shallowed, slowing their movement even further due to friction with the bed. The waters following behind were growing increasingly impatient. 'Get moving', they cried; 'we cannot wait – there's more behind us. Swing out around that tree!' So the waters swung out, only to collide at full force with the bank on the opposite side of the river from where the tree had fallen.

The impact on the bank, however, was enough to send the waters careering back towards the other side. And at the turning point, where the waters were swung around, the bank began to crumble. The constant collision with the waters was wearing it away. The rising sandbank on one side was causing the waters to cut a curve on the other. And further downstream, another curve was being cut on the first side by the waters that were striking it on the rebound. And so on. The waters' once straight descent had become a slalom run. 'Watch me!', cried the waters to the embanked tree as they swooshed by; 'this is cool'. But with each swoosh, their speed slowed.

Soon it was reduced to a slack meandering.
The old tree, now high and dry on the sandbank in which it was almost completely embedded, sighed in satisfaction. It had, at length, secured its comeuppance: not perhaps a resounding victory, but a settling of scores. For the river that had once taunted it with claims of everlasting youth was now condemned forever to wander impotently, this way and that. No longer did it laugh and chuckle. It rather crawled along, sulky and brooding.

That is, until another terrific storm, and the ensuing flood, washed away the sandbank and took the whole tree with it, breaking through the meanders and leaving them as bow-shaped ponds. And the tree? It finally found its way to the sea, where it is floating still, lost among the countless other trunks and boughs cast as driftwood on the oceans. Some wash up on land, and are used by people for fuel or as building material. But others sail the seas forever, or join the wooden shipwrecks down below. Maybe that is what will happen to our tree, or maybe – washed up on a sandy beach – it will kick-start the formation of another mound.

III

The townspeople were complaining. 'Our streets are clogged with traffic', they grumbled. 'They were meant for donkeys, not for cars. They are too narrow, they twist and turn, and there's no space for anyone to park. Local businesses are suffering. We need a town plan that is fit for tomorrow's world, not for the world of yesteryear'. After a long campaign, the town's council agreed to do something about it. 'We will widen and straighten the streets', they said, 'even if it means knocking down a few old buildings. And we will build a bypass for all the traffic that does not want to stop here'.

The people were happy. Big machines arrived: bulldozers, excavators, steamrollers. Men with hard hats appeared. So did the Prime Minister, who put on a hard hat to have his photograph taken for the press. There he was, standing shoulder to shoulder with the construction workers, dressed for the job. 'Our government means business', people thought. 'We should vote for them!'

After many months the work was done. The noise subsided; the men and their machines left. The Prime Minister reappeared, no longer in a hard hat but with scissors and red tape. First they closed the road with the tape, after which the PM cut the tape to declare the road open. Everybody cheered, and life carried on.

At first, all went well. Local trade was brisk, and many businesses decided to expand. With limited room in the town centre, they resolved to take advantage of the new bypass to build spacious complexes on the outskirts. The expansion drew in new residents who needed houses. Hastily built estates popped up on low-lying land around the edge of town. The people who came to live there also needed cars to travel to work and to the new shopping centres. The showrooms were busy.

More people, more cars. After a while the people began to complain again. Instead of racing down the bypass they found themselves stuck in traffic jams. Fumes from exhaust pipes and rising tempers filled the air. Asthmatic and stress-related conditions were on the rise. 'We need a new bypass', the people said, 'that will take the through traffic out of our town, as the old one is already clogged. And we need an underground car park in the town centre'. Back came the machines, the construction workers, and the Prime Minister – a different one now – in his hard hat. But this time, the people had something else to complain about.

'We need petrol to drive our cars', they said. 'But oil supplies are running out, and the price goes up and up. We cannot afford it'. The PM told them not to worry. 'My government', he said, 'is committed to investment in new technology that will enable us to access unlimited supplies of oil. We will drill holes up and down the land, deeper than have ever been drilled before. And oil will come pouring out of them'.

So they built the new bypass, drilled the holes, brought up the oil. People drove around and life went on. Then the rain came.

First there was just a spot of heavy rain, leading to warnings from the government meteorological office of difficult driving conditions. But then came more rain, and yet more. The Prime Minister returned yet again, to have is photograph taken not with a hard hat, but wearing freshly acquired wellington boots. He waded through the town's streets and sympathised with the residents. He promised that no expense would be spared in cleaning up the mess, once the rain stopped. But money cannot stop the rain. And the rain did not stop.

Some blamed the politicians. Some blamed farmers, whose agricultural methods – geared to the maximisation of profit – had led to increased run-off from the land. Some merely glanced heavenwards and rolled their eyes. But others argued that exhaust fumes from traffic must have polluted the atmosphere, and that this is what had turned the weather upside down. Scientists appeared on television and put it down to anthropogenic climate change, caused by the accumulation of greenhouse gases. And they warned that a tipping point had already been passed. Every increment of warming would only have the effect of releasing gases into the atmosphere or redirecting ocean currents in such a way as to cause further destabilisation. The spiral of climate change, they said, was self-reinforcing and irreversible.

The rain kept falling, and the town – now completely underwater – was no longer habitable. The few who had stayed on packed their bags and left. Life went on, but it was always somewhere else.

Many centuries have passed, and you are wandering through a desert landscape, under the hot glare of the sun. For the most part it has been taken over by wind-blown sand, but a few shrubs, adapted to the arid conditions, poke out here and there. And in places, too, the sand has formed small mounds. Digging into them, you sometimes come across a fragment of concrete, a broken brick, a lump of asphalt, rusty metal. 'There were people here once', you say, 'but we do not know who they were'. And the sand and the wind, absorbed in their everlasting argument, were too busy to notice.

PART III
LINES

INTRODUCTION

Much of the land of East Anglia is very flat. Once it was fresh and saltwater marsh, perilous to those who did not know its ways, and navigable only by watercraft. Over the last several centuries, however, the fens have been drained. The reclaimed land has been turned over to agriculture; rich in minerals, it yields abundant crops. In a stunning series of images, photographer Nisha Kishav has sought to capture the essence of this agricultural landscape, with its great expanses of earth, huge skies, and wide horizons. She asked me to write an introduction to an exhibition of her work, and I was happy to oblige, not just because of its quality but also because I was intrigued by the title she had decided to give to it – 'Lines in the landscape'. Why lines? One of her photos featured a large, recently ploughed field under a spring sky. The image could be divided roughly into four horizontal bands: in the foreground a yellow-green bed of tall grass, then the rust brown of ploughed earth receding into the distance to give way to a thin, dark green band of leafy trees, and – above the horizon marked by the canopy – the blue-giving-way-to-white of a cloud-flecked sky. If you were to copy the picture using only pencil and paper, you might draw the grasses as lots of short, upright lines, the furrows of the plough as straight lines converging towards a vanishing point, and the field boundary and the canopy-horizon as rough horizontals stretching right across the sheet. The question is: are any of these lines really there, or do they exist only in the mind's eye? In drawing them, are you merely following a graphic convention that anyone accustomed to perspectival depiction can understand and 'read', or are you participating – in the roaming of your eyes and corresponding gestures of the hand – in the formative processes of the landscape itself?

Rather similar questions arise if we think not about the landscape but about the buildings that are set in it. 'Of blocks and knots', an essay originally written for *The Architectural Review*, takes us back to childhood, when we were given sets of building blocks to play with. Our parents were no doubt convinced that such play is

essential for proper cognitive development. Through our play, we learn to think of the ground as a solid surface, plane and featureless as the floor of a room, and of buildings as constructions laid upon it. We understand that to construct things is to build them *up*, uniting parts into wholes that then become parts of larger wholes, and so on. And we learn to think of thought in the same way: the thinker, we suppose, is a block-builder, and great thinkers – like master-builders – aim high, erecting great theoretical edifices by joining elementary ideas into ever larger structures. But can you draw the structures you have built? How, first, would you draw the floor? If it were really a perfectly level, plane surface, you could not draw it. Renaissance draughtsmen used to draw palace floors as pavements, marked out in squares. With a wooden floor, you might attend to the cracks between the boards and draw them as straight lines; you might even note the grain of the wood and sketch it in to give an impression of the surface texture. You might discover that the surface is, in fact, a little uneven. Then, turning to your blocks, your eye again follows the cracks and joins, not hierarchically but following a narrative which re-enacts, in graphite, the story of your building work. You notice that the blocks make only rough contact, and that the structure stands not as a perfectly integrated totality but as an approximate settlement among its multiple vectors of force and friction. The building holds together like the strands of a knot. It is a thing of lines.

With landscape as with buildings, in a world of materials there cannot be lines without surfaces, or surfaces without lines. Wherever surfaces exist, they must have somehow formed through a linear weaving of materials. And wherever lines exist, they must either be traced in a surface or threaded through it. But as kinds of line, traces and threads have fundamentally different properties, and that is my theme in 'Taking a thread for a walk'. I wrote this essay after visiting the studio of the Brussels-based textile artists Anne Masson and Eric Chevalier. To enter the studio was to find oneself in a world where all the familiar things with which we surround ourselves in everyday life, such as clothes and furniture, are ravelling and unravelling, forming marvellous and unexpected

patterns in the process. The lines had taken over. A ball of wool was becoming a vest, or was it the vest that was becoming a ball of wool? Chairs, their matted seats unravelling, were getting tangled up together, leaving us with nowhere to sit. Hooks meant to hang things on were hanging themselves on one another, with no regard for the things that should have hung on them. Winding, tangling and hanging are things you can do with threads that you cannot with traces. This is because the thread itself has substance. It is not made in a material but is material itself. Any thread has first to be spun, and it is the spinning that turns the original material, such as a fleece, into a line. Thanks to this spinning, a thread can be stretched, plucked and wound. Cut into a ball of wool and it opens like flesh. Is there a connection between the winding of the ball and the flesh-wound? In a now obsolete sense, 'to wind' was indeed to wield a weapon in a curvy trajectory, designed to wound one's opponent. Living tissue, like the ball of wool, is a skein of thread-lines.

What our comparison of threads and traces shows is that it is not enough to consider lines in themselves. Everything depends on the relation between lines and surfaces. Consider for example a path made by walking. It is worn into the ground through the passage of many feet. If the wear is intense, perhaps augmented by run-off from heavy rain, the path can scar the landscape like a body-wound. The winding path cuts a wound in the earth. Nevertheless the path remains *of* the ground, and inseparable from it. It would be quite different were we to mark a line, as surveyors and gardeners sometimes do, by stretching a cord between stakes driven at intervals into the ground. For while the path continually differentiates itself from the ground, without ever parting from it, the cord is perfectly indifferent to the ground above which it is suspended, as is the ground to the cord. We could say that the relation between line and surface is unilateral in the former case, and bilateral in the latter. Perhaps it is the same if we were to compare the path with a metalled road, or a river with an aqueduct. The path and the river are *of* the earth, and ever-emergent *from* it; the road and the aqueduct are superimposed *upon* it. The

geographical term for the line of lowest elevation formed where two slopes intersect, forming a natural watercourse or pathway through the hills, is *talweg* (literally the 'way of the vale'). In effect, the *talweg* is a fold in the landscape, and the river and the path follow it. No wonder that TALWEG, an artistic and literary review dedicated to reflections on the line, took 'fold' as the theme for its inaugural issue. My contribution was a little poem that traces the meaning of the term, from the fold of the newspaper, through folding clothes and folded rock to the gathering of the flock. Folds are multiple. But like the fold-lines that make up the surfaces of the world, they all add up to one.

7. Lines in the Landscape (2015)

Reflections on the photographic work of Nisha Keshav

Are there lines in the landscape? Many would say there are not. '*Lines*? I see no lines', the great artist Francisco Goya is reputed to have declared. Observe the furrows of a ploughed field: the surface of the ground is corrugated and the angling sunlight illuminates the ridges on one side while leaving troughs on the other in their shade. No lines, however, are apparent in the ground itself. Observe the seedlings growing on the ridges, perhaps we remark that they are planted along lines, yet it is we who line them up, in our imagination: the plants themselves, each rooted to a particular spot, have no such connection. Now observe the trunks of trees: to our sight they might present limits of occlusion, obscuring from a particular vantage point what lies immediately behind. We might draw these limits as parallel lines, yet we know that the actual forms of tree-trunks are variations on the cylindrical. Even the rungs of a field-gate or electrical cables appear lineless, when you look at them close-up.

So it seems, too, with the fern, the thistle and the reed. In growth, they reveal a dendritic pattern, but a stem is a stem, a stalk a stalk and a leaf a leaf – these are not lines. Nor are the ditches that have been cut in the land to drain the fens: straight they may be, but where water meets earth, and mingles with the stems of plants, there are no lines. The edge of a field, where brown earth gives way to green grass, presents a colour contrast, but no line is inscribed there. Cast your eyes towards the sky on a fine, breezy day: the cirrus clouds look feathery, you say, but they are no more composed of lines than the wings of the bird; the reeds, blown by the wind, all sway in one direction, but directions are abstractions of our own, they are not present in the world. As for the line of the horizon, however far you seek, no more will you find it than the legendary end of the rainbow.

But if there really were no lines in the landscape, then how is it that equipped with pencil and paper, we can so readily delineate the furrows or boundaries of a ploughed field, the trunks and branches of trees, marching pylons and suspended cables, the stems and leaves of plants, the edges of a ditch or the billowing of a cloud, even the very horizon where in our perception, the earth appears to meet the sky? And how is it that these features are so instantly recognisable when we show our sketch to a friend who has never before visited the scene? Where do the drawn lines of the sketch come from if there are none to be observed in the world of phenomena? Are they merely in our heads? Can we interpret the sketch only because we share a common set of more or less arbitrary, representational conventions that enable us to 'read' straight lines converging upon a vanishing point as furrows, scribble of varying density as foliage, short upright lines as reeds and longer parallels as trunks, and a single straight line dividing top from bottom as the horizon?

Generations of writers and theorists have argued precisely thus. Lines, they say, are a visible expression of the way the human mind cuts up the continuum of nature into regions, objects or entities that can be identified and named. They set things apart: here the land, there the sky; here the earth, there water; here a pylon, there

a wire; here a canopy of trees, there the open air. Without lines, it is said, we would never be able to tell anything from anything else: the world would just be one big multi-coloured blur. But in her beautiful series of photographs, Nisha Keshav has proved, beyond doubt, that those who say that lines are but figures of thought, without any counterpart in the inhabited world, have got it completely wrong. There *are* lines in the landscape. Indeed these photographs offer vivid testimony to the fact that every living landscape is no more, and no less, than a composition of lines and the elements.

Pencil a line on paper and look at it closely, under magnification. What is there but an elongated smudge of graphite, of varying width and density, ragged at the edges, and rubbed off by the abrasions of the paper surface? Well, if this still counts as a line, then why not ruts left by tyres in the snow, why not the raked striations of a harrowed field, why not the groove of a drainage trench? You can't have it both ways, allowing the pencil-mark on paper, but not the marks of toil and habitation in the land. Why should the meeting and mingling of graphite and paper, along your pencilled line, be any different in principle from the meeting and mingling of water with reed-banks along the length of the ditch? If the drawn line is formed from the friction of graphite on paper, are not the furrows of the field equally formed from the laborious drag of the rake or the plough against the resistance of the earth? If the former is a line, then the latter are lines too. Lines like this have a material presence, they are not just floating signifiers whose proper place lies in the domain of images. They are not metaphorical but real. And the most important thing about them is that they have not yet broken off from, or parted company with, the elements out of which they are formed – elements that include the crumpled earth, the turbulent air, precipitation and sunlight.

There are lines in the landscape because every landscape is forged in movement, and because this movement leaves material traces along the manifold ways of its proceeding. To perceive these lines is not to see things as they are but to see the ways along which things are

going. It is to see their grains, textures and flows, not their layout or their formal envelopes. We perceive the smudge of graphite on paper as a line because we see the way it is going, and it is no different with the furrow, the cloud and the reed. In every case, the line can be distinguished from its element, but not the element from the line. The pencil mark is distinguished from the paper, but not the paper from the mark; the furrow is distinguished from the earth, but not earth from furrow; the clouds from the sky, but not sky from clouds; the reeds from water-logged beds, but not beds from reeds. Observe again the striations of the field, carved by human labour, doused in rainwater and whipped by the wind under the luminous sky. These are lines of force and friction, and they criss-cross the landscape as the labours of agriculture intersect with power-cables, running water and the flights of birds. Yes, there are lines in this landscape, and we have Nisha Keshav's photographs to prove it.

8. Of blocks and knots (2014)

We are continually being told these days, by scientists of repute, that the world is built from blocks: not just the world that we ourselves have made – of artefacts or the built environment – but the worlds of nature, the mind, the universe and everything. Biologists speak of the building blocks of life, psychologists of the building blocks of thought, physicists of the building blocks of the universe itself. So pervasive has this metaphor become that we are inclined to forget how recent it is. I had not even realised this myself until a couple of years ago, when I chanced to read a little book, entitled *The most beautiful house in the world*, by the architectural historian Witold Rybczynski.

It was not until the middle of the nineteenth century, Rybczynski tells us, that the metaphor of 'building blocks' came into common use, along with a domestic architecture – of prosperous homes equipped with dedicated nurseries – in which building with blocks could literally become child's play. Before that time, most play was out of doors, and even when it took place indoors, floors were too uneven, and too busy and cluttered, for any construction to stand up. From the 1850s onwards, however, the architectural profession actively promoted the development and marketing of sets of building blocks for children. Inculcated from our earliest years, the assumption that the world is built from blocks has since become part of the stock in trade of modern thought. For the most part, it is invoked uncritically, and without a moment's hesitation or reflection.

But writing at the very moment when the idea of building blocks was on the rise, Gottfried Semper argued in just the opposite direction. In his pioneering treatise on *The Four Elements of Architecture*, Semper insisted that the threading, twisting and knotting of linear fibres were among the most ancient of human arts, from which all else was derived, including both building and textiles. 'The beginning of building', he declared, '*coincides with the beginning of textiles*'. And the most fundamental element of both building and textiles, he thought, was the knot. Fascinated by etymology, Semper found support for his idea of the evolutionary priority of the textilic arts in the affinity of the Germanic words for joint (*Naht*) and knot (*Knoten*), both of which share the Indo-European root *noc* (whence *nexus* and *necessity*).

The affiliation of knots and joints is not just a relation in the genealogy of techniques. At stake here, as Semper realised, is the much more fundamental question of what it means to make things. Does making proceed through the hierarchical assembly of preformed parts into larger wholes, and these latter into still larger ones, until everything is joined up and complete? Or is it more like weaving a pattern from ever unspooling threads that twist and loop around one another, growing all the while without ever reaching completion? Is making a matter of building up or of carrying on? In the first case, the parts may be regarded as components of a totality that already exists, albeit in the virtual form of an image, plan or blueprint, in advance of the construction. But in the second, there are initially no parts and no wholes. Rather the form of a thing emerges from the process itself, within a field of forces (both tensile and frictional) established through the engagement of the practitioner with materials that have their own inclinations and vitality.

Most of us today tend to think of the joint in terms of a part-whole model, as an articulation of rigid elements. However a world assembled like a jig-saw puzzle, from perfectly fitting, externally bounded pieces could harbour no life. Nothing could move or grow. It was Semper's insight to recognise that in a world of things that are continually coming into being through processes of growth and movement – that is, in a world of *life* – knotting is the fundamental principle of coherence. It is the way forms are held together and conserved within what would otherwise be an inchoate flux. This applies as much to forms that grow, like organisms, as it does to forms that are made, like artefacts. Indeed, once we abandon the conceit that form is simply imposed upon the stuff of the material world – either from within, by a genetic template, or from without,

by an architectural one – the conventional division between growing and making no longer seems so hard and fast as we are inclined to think.

Consider the trade of the carpenter. Colloquially, he is known as a joiner. He joins pieces of wood in making boats, buildings, furniture and diverse utensils. Yet in joining every piece, he cuts, shaves and drills to make it fit, fast and snug, beside its predecessor. These pieces are not parts to begin with – they are not, in that sense, the building blocks from which things are made. They only *become* parts as the work proceeds, and as they gradually acquire a feel for each other, holding each other ever more tightly in place as the work advances asymptotically towards completion without ever finally reaching it. It is here that the affinity lies between joinery and knotting. The carpenter, no differently from the basket-maker, weaves with his woody materials, and the form of the structure emerges from the weave. It is no accident that the Latin *texere*, 'to weave' (whence *text* and *textile*) comes from the Sanskrit words for axe, *tasha*, and carpenter, *tashan*.

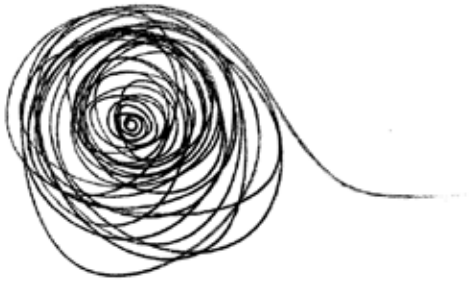
The joiners of old, then, were world-weavers, not block-builders. But in their weaving, they only continued where nature had herself left off. Boats, buildings and furniture, we say, are artificial structures. They are made. But trees grow. Yet trees, like the things crafted from their timber, are also knotted structures. The tree-knot is a whorl in the grain that is formed as the material of a growing trunk enwraps an emerging branch. Since the branch is simultaneously growing, the material of the knot is compressed into a hard core or nodule. If the branch subsequently dies, or when the wood is sawn into planks, the core can drop out, leaving a hole. Though knots are what hold the tree together, they also present the greatest challenge to the carpenter. Perhaps the difference between the tree-knot and the carpenter's joint is the key to the contrast between things that grow and things that are made. But it is a difference within the nexus of the textilic.

In short, the block and the knot represent mutually exclusive master-tropes for describing the constitution of the world, predicated on philosophies, respectively, of being and becoming. What, then, would a world be like that is knotted rather than block-built? Is there a connection between thinking-though-knotting and an understanding of the world 'in the round', as a manifold of earth below and sky above, rather than as a solid globe upon the outer surface of which all human life is lived? What if we were to think of the ground not as a level platform – like the nursery floor – upon which to raise an edifice, but as a permeable zone in which substances welling up from the earth bind with the air and moisture of the atmosphere in the ongoing production of life? Is not everything that lives and grows a place where this binding – this knotting – is going on? If so, then the same, perhaps, could be said of buildings.

9. Taking a thread for a walk (2015)

Reflections on a visit to the studio of Anne Masson and Eric Chevalier

Of drawing, Paul Klee famously remarked that it is to take a line for a walk. Every drawn line is the trace of a gesture, a mark left on a surface by a moving point. But the trace is just one kind of line. Another kind, just as ubiquitous, is the thread. What would happen if we were to take a thread for a walk? There are some differences, to be sure. For one thing, unlike the trace which simply extends as you go along, the thread has first to be spun. Even before you start your walk, the line must already have been prepared, and it will in all probability have been wound up, either in a ball or onto a spool. You can wind up a drawn line too, by a coiling movement of the pencil which is not unlike the movement of spooling a thread, like this:



What you cannot do with the trace, however, is unwind it; nor, having done so, can you wind it up again. Nor can you move it around or change its layout – though you can of course rub it out, which you cannot do with the thread.

For another thing, it is possible to stretch a thread. A stretched thread is straight and taut, like the strings of a violin. Pluck or bow the string, and it vibrates. A trace cannot vibrate. Maybe it can record vibrations, as a seismograph, for example, registers the vibrations of the ground during an earthquake. But on the violin it is the string itself that vibrates. Another example of the stretched thread is the warp of the loom. There are reasons to believe that the loom's warp-lines were the prototype for the ruled lines of the manuscript, leading to the parallel between the oscillations of the weft in weaving and of the letter-line in writing that still survives in the notion of writing as text. But as practical operations, the stretching of a thread and the ruling of a line are quite different, for the former establishes a tension that the latter does not. The stretched line is energetic, the ruled line inert. The one owes its straightness to the play of forces intrinsic to the material and that have been imparted to it through the mechanics of spinning. The other's straightness is a mere reflex of the edge of the ruler that has been used as a jig to guide the movement of the marking point. If you stretch threads across a pliable surface, such as of card or even wood, the tension can be enough to warp the surface; no amount of ruling, however, will have the same effect. If the ruled lines are scored, then the likely result will be not to warp the surface laterally but to cut it longitudinally.

With these differences between trace and thread in mind, let us embark on our walk. We have a supply of thread – let us say of wool – rolled up into a ball. This ball is an interesting thing in itself. You might compare it to the many kinds of balls that are designed to be rolled or hurled in games of various sorts. Gaming balls are discrete objects with continuous, spherical surfaces. If they make contact with other things – with the ground, with the hands or boots of players or with one another – it is through surface-to-surface impact. The ball of yarn, however, though spherical in form, has no coherent surface. In just the same way, the wound-up trace that I drew earlier has no coherent perimeter. If you start looking for the surface of a ball of wool you will end up unwinding it until nothing of the ball remains. Alternatively, if you have sufficient material

in reserve, you could carry on winding. Would you, in so doing, cover up the ball's surface with a new layer? Not at all; for there was no surface to begin with. To put it another way, the ball of wool is never complete, it is always 'becoming ball', and the line of becoming is the thread. What holds it all together is the tension in the thread, which makes it so that with every turn, one is in effect binding that which is bound so far. The ball is a binding, but it is a binding of nothing but itself. It can just as well be an unbinding, however, and that is precisely what happens when you begin to walk.

Taking your thread for a walk may require some tools. The most basic tool is the needle: a long, thin implement, pointed at one end, which may or may not be pierced by an eye at the other. In stitching and embroidery, the thread passes through the eye; in knitting it is looped around the shaft. Either way, whether in sewing or knitting, the primary function of the tool is not to inscribe a trace, even though you could in principle use the sharp point to do just that. The tool does not make the line, for the line is already made. It rather does with the thread precisely what cannot be done with the trace – that is, to rearrange it into a pattern of loops or knots, where the purpose of the point is to find the opening, and that of the eye or shaft to pull through. Here, instead of spiralling on itself, as in the ball, the line forms an intricate tangle that can only be unravelled by undoing its loops. In the hands of the skilled seamstress the needle facilitates a kind of miniature acrobatics: on a larger scale it would be like a walk that proceeds not by putting one foot before the other but by a series of somersaults. Through regular repetition, the loops intertwine to form a fabric. And so, on your acrobatic walk, the thread is rebound into the fabric, as fast as it unwinds from the ball. The thread line is neither ball nor fabric, nor is it something connecting the two as though ball and fabric were separate objects to be linked up. It is rather 'ball becoming fabric'. But it could just as well be 'fabric becoming ball'. The beauty of the thread is that what has once been ravelled can always be unravelled, only to be ravelled again so as to yield new and previously unanticipated forms and patterns.

In both the ball and the fabric, however, there is a balance of tension and relaxation. This is why one can use such words as ‘tight’ or ‘loose’ to describe them, rather than the more conventional binary of ‘closed’ and ‘open’. Cutting through a ball of yarn is almost like dissecting living flesh: the tension in the thread is immediately released on cutting, so that the two sides of the cut pull away to leave a gaping wound. Similarly, cutting the threads of a fabric can generate patterned distortion, as the threads rearrange themselves to reach a new equilibrium, without any manual intervention on the part of the weaver. Rather like the exquisite patterns of bubbles that form in a dish of soapy water through the equilibration of forces of surface tension, so textile patterns express an equivalent equilibrium in the tensile forces of their constituent threads. And just as when you burst a bubble, so too when you cut a thread, the entire pattern is reconfigured. It arises, as we often say, ‘of its own accord’, though it would be more accurate to say that this accord is a kind of settlement arrived at through a negotiation of forces among the cords – that is, the threads – themselves.

Another word for accord might be sympathy. The concordant threads of the textile are bonded in a sympathetic union. Like lines of choral polyphony, but unlike the components of a sculptural assembly, they are bound not *up* but *with*. Indeed, with their alternations of tension and resolution, their rhythmic structure, their counterpoints and harmonies, textiles are much more akin to musical compositions than to works of sculpture. So when we see two chairs bound together, their objectness seems subordinated to their textility rather than the other way around. Originally, fresh from the shop or showroom, these chairs might have had matted seats, but this woven element would have been framed by the joined-up, carpentered assembly. But after many years of cohabitation they have developed a certain affinity, even love, framed within the mutual affections of their sitters. If the furniture we use every day is as much a part of us as the clothes we wear, then why cannot furniture embrace as people do? Chairs too can love one another; though once they do they might be of little use for sitting on. In such an upside-down world, it would be

the fate of humans to carry the weight of amorous furniture, and perhaps to withstand the pressures of discord as well, if and when amity turns to strife.

It is as if these ball-chairs were dancing the tango, with the same intimate intensity. No longer separate or separable objects, they are joined in a spherical embrace, two-in-one. To make a dance out of furniture is to show how they carry on their lives *with* us, as do we with them. Woven lives intermingle at their surfaces which, like those of the ball of wool, do not cover up an interior world of private individuality so much as confound the layering of experience which such covering implies. Like the still water of a pond, in whose surface the reflected sky mingles with floating weed and refractions from the murky depths, the surface of fabric is a play of light and shadow, colour and tone, harmony and melody. You can get the same effect by punching superimposed layers of fabric with a barbed tool that catches the threads of lower layers and pulls them up at the same time as it drags down the threads from above, or by sandpapering multiple layers of coloured paper pasted on board. The texture is, in every case, a surface not of concealment or covering up but of intermingling. And it is on surfaces such as these that we walk our ever-extending threads of life.

10. Fold (2014)

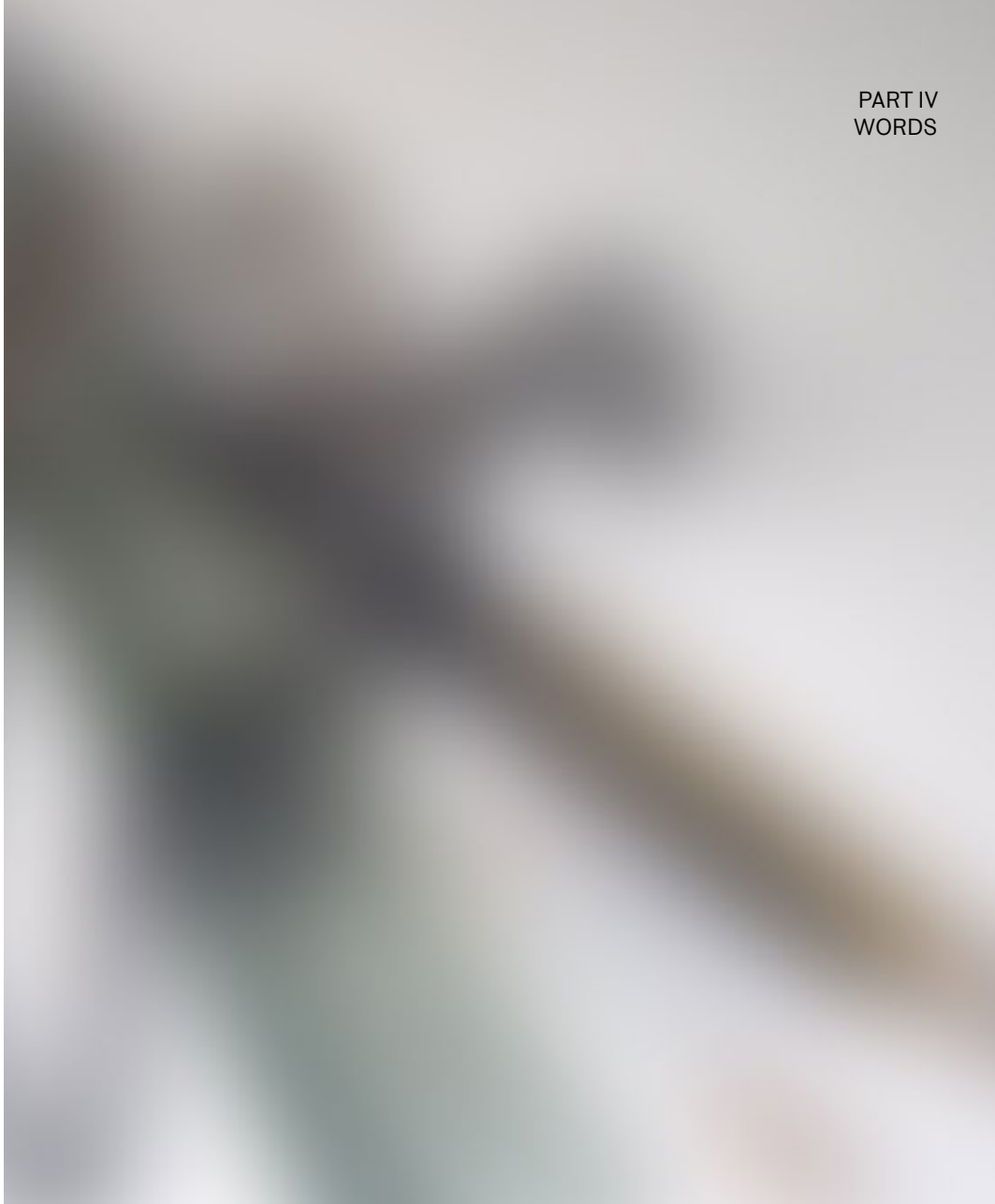
Fold
Where side by side is back to back or face to face.
What secrets lie between the sheets of bed or newspaper
Where words like bodies touch and kiss in unseen intimacy?
To read, the pages must be opened up, and words that once had felt each other's pulse
Must stand apart as though they'd never known each other,
Divided by a crease.

Fold
Makes volumes out of surfaces
Packed up in drawers and suitcases,
Even as the smoothing iron makes surfaces from volumes.
The crumpled handkerchief and bulging pockets lie flat upon the board,
The life ironed out of them. Their rectilinear creases
Crying foul to sweaty brows and running feet.
Only cardboard figures and their luggage hurry through airports.

Fold
The very surface of the earth,
Bends and buckles when compressed by forces unimaginable.
To walk old mountains is to cross the ridges of a concertina,
Worn down by ages of erosion. Time itself loses its alignment, so that
Much to the perplexity of geologists,
More ancient strata overtop their followers.

Fold
Two, four, many;
A thing that multiplies in growth and differentiation
Like herdsman's flock or pastor's congregation.
Wanderings and ways of life gathered up in church or pen.
Where they can be counted.
Multiplicity enfolded in a place, all adding up to one.

PART IV
WORDS



INTRODUCTION

For most of us, as we go about our lives, words are our way of telling. With them, we converse with others, join our own life-stories with theirs, attend and respond to what they say and do. Words enable us to feel the pulse of things, whether silently to ourselves or out loud, or in the gestures of the hands in signing or writing. They can caress, startle, enchant, repel. As the philosopher Maurice Merleau-Ponty once put it, words are so many ways we have of singing the world and its praises. Yet there is one conspicuous exception: a community for whom words have none of this power to move, to affect or to evoke. For the members of this community, words are (or should be) bereft of feeling, untainted by their contact with things. Like the instruments of the surgeon, they are kept immaculately clean to prevent any risk of infection. Once infected, a word should immediately be sterilised, lest it should pollute other things with it might come into contact. If a word too closely associated with one thing is applied to another, then the division between them might become blurred, heralding cognitive dissonance. In the surgery of human thought, dedicated to the repair of such dissonances, it is essential that categorical boundaries are maintained, and it is the job of words to do so: to put things at a distance, to pin them down, to impose a discipline, and to hold an otherwise unruly world to account.

Who are these surgeons for whom words are at once so important, as tools of the trade, and yet so sterile that they can harbour no feeling at all? They are, in fact, scholars – or to be more precise, those scholars who would regard themselves as academics. Scholars are people who study; academic scholars, however, think of study in a particular way. For far from studying *with* the world, or allowing themselves to be taught by it, they make studies *of* the world, claiming in so doing to have reached heights of intellectual superiority from which things are revealed with a clarity and a definition denied to ordinary folk. This sovereign perspective requires of academics that they keep their distance from the matters of their concern, and do not get their hands dirty by mingling

with them. This is what they mean by objectivity. And words are the means by which they achieve it. This is why academic words so often sound neutered, their force annulled by a triple lock of suffixes: *-ise*, *-ate*, and *–ion*. Thus does 'use', for example, become 'utilisation'. To use something, after all, is to draw it into your habitual (or usual) pattern of activity, so that both you and it become brothers-in-arms, working together to joint effect. And conversely, to be used to a thing is to accept it into your life, as part of your custom. Not so, however, with utilisation. For to utilise an object is to turn it to one's benefit while holding it at a remove. It is to deny any affective involvement, or common feeling.

The same goes for many other weapons of the academics' armoury. If they never use anything if not to 'utilise'; then nor do they say anything if not to 'articulate', mean anything if not to 'signify', tell anything if not to 'explicate'. The academic does not feel words welling up in his mouth as he speaks or in his hand as he writes. They do not form as affectations of the soul, nor do they take shape in the inflections of vocal or manual gesture. Words for him are objects, to be arranged and rearranged like building blocks, in different combinations and permutations, to form sentences. In short, the academic is an articulator of verbal compositions. To articulate is to join things up, not to join with them. That is why the idea of word-processing, anathema to the writer's craft, found such a warm reception in the land of academia. If words are objects, to be arranged at will, what could be more natural than serving them to a machine for processing? The combination of keyboard, screen and printer allows for verbal composition without any sentient involvement on the part of those who 'write' with them. The appeal to signification, likewise, is a way of holding the world at a distance. To find what things mean, you only have to work with them. But in a world of signs we never touch anything directly; feeling is interrupted. Signification breaks the link of direct perception, just as articulation breaks the link between hand and word. If meaning is hands-on; signification is hands-off.

So it is, too, with explication. It is not enough for the academic to tell of what he knows. It must be explicated, spelled out in a joined-up (articulated) sequence. Every such sequence is a sentence. But 'sentence' has a double meaning: it is also a term of incarceration imposed by a judge. As the criminal is sentenced in the court of law, so words are sentenced in the court of explication. Here in this court, academics are both judge and jury, both author and reviewers. Between them, they conspire to hold all words captive, and to prevent their escape into sentient life. Yet ironically, the very word 'sentence' comes from the same root as 'sentience', and has acquired its current meanings – in the fields of both language and law – from the *repression* of feeling. It is a repression, clearly, for which most academics feel a shadow of guilt. Their tendency, however, is to shift the guilt onto their accessories, onto the words themselves. For having first used words to put things at a distance they then blame them for it, accusing not just *their* words but *all* words of setting up obstacles, of getting in the way of the unmediated relation with lived experience for which they yearn. To resonate with the feel of things, they say, it is imperative to go *behind the words* – behind the screen or verbal signification that comes between them and the lifeworld. One can dwell in the pages of a written correspondence, but it is not possible to dwell in an academic text.

The three short pieces that follow are all in the nature of attempts to release words – particularly written words – from their academic incarceration: to restore them to the hand, to the movement of their production, and to the feeling that such movement calls forth. 'On not giving up on words' was originally written as the foreword to a volume of essays on the theme of non-representational methods: these were experiments that sought, in their different ways, to offset the traditional academic standoff, bringing the art of inquiry into closer correspondence with that of which it inquires. It seemed to me curious, however, that none of these experiments went so far as toying with alternatives to the keyboard and screen, in the act of writing itself. However, the artist Shauna McMullan has done just this, in an installation entitled 'Something about a word'. I

wrote the second piece in response to her invitation to reflect on the work for an accompanying book, and this led me to think again about what happens to words when what begin as gestural traces are solidified into objects. The third and final piece once again recommends the restoration of writing to the hand. It was written for a series entitled 'Writing Across Boundaries' hosted online by the Department of Anthropology at the University of Durham, for which a number of academic writers in the humanities and social sciences were invited to reflect on their practice. I was one of them.

11. On not giving up on words (2014)

One night, a few years ago, I woke from a dream with the following lines in my head:
Often in the midst of my endeavours
Something ups and says
'Enough of words,
Let's meet the world'.
I do not know who put these lines there. Certainly, I did not invent them. But immediately upon waking, and before they had time to evaporate, I rose from my bed to write them down. They remain, pinned to a notice-board in my office, and every so often I take a look at them, to remind myself of the message they contain.

They could perhaps be taken as a manifesto for a non-representational way of working. This is not exactly a theory, nor is it a method or technique as this is commonly understood. It is not a set of regulated steps to be taken towards the realisation of some predetermined end. It is a means, rather, of carrying on and of being carried, that is of living a life with others – humans and non-humans all – that is cognisant of the past, finely attuned to the conditions of the present and speculatively open to the possibilities of the future. I call it *correspondence*, in the sense not of coming up with some exact match or simulacrum for what we find in the things and happenings going on around us, but of *answering* to them with interventions, questions and responses of our own. It is as though we were involved in an exchange of letters. 'Let's meet the world', for me, is an invitation – an exhortation or command even – to join in such a correspondence. It is, at the same time, a complaint against the cowardice of scholars who would preferably retreat into a stance that I once heard described as 'tangentialism', in which our meeting is but a glance that shears away from the uncomfortable business of mixing our own endeavours too closely with the lives and times of those with whom our researches have brought us into contact. Indeed, correspondence and tangentialism are precise opposites, and they entail quite different understandings of what is meant by scholarly research.

'Enough of words', my muse declared, and I sympathise. We are suffering, in academic life, from a surfeit of words. It would not be so bad if these words, like good food, were rich in flavour, varied in texture, and lingering in the contemplative feelings they evoke. Carefully selected and well prepared words are conducive to rumination. They enliven the spirit, which responds in kind. But the fact that word-craft of this kind has been hived off to a restricted domain, known as poetry, is indicative of where the problem lies. If writing had not lost its soul, then what need would we have for poetry? We go there to find what otherwise is lost. Relentlessly bombarded by the formulaic concoctions of academic prose, weighed down with arcane vocabulary, honorific name-calling and ever extending lists of citations, my muse had had enough. So have I. But I would not want to go the whole way, and to give up on words altogether. Words are, indeed, our most precious possessions and should be treated as such, like a casket of sparkling jewels. To hold such a jewel is to hold the world in the palm of your hand. We *can* correspond with words, as letter-writers used to do, but only if we allow our words to shine.

The challenge, then, is to find a different way of writing. We have to experiment: to try things out and see what happens. To date, however, our experiments have been constrained by the conventions of the printed word. These conventions make writing seem like an act of verbal composition, rather than one of inscriptive performance. With a keyboard wired up to a mechanical printer – the typical apparatus of the academic writer – the expressive possibilities of the word, as a concatenation of marks on paper, are sorely limited. To be sure, one can vary the font, and use various means of highlighting, but these are nothing compared with the continuous modulations of feeling and form in a simple calligraphic line – a line that registers every nuance of the hand that draws it. If our words are truly to shine like jewels, must they not be restored to the hand?

Surely, our reflections on ways of working cannot be confined to matters of style and composition. They must also extend to the

instruments we use, and their orchestration. How does the keyboard compare with the pen, pencil and brush? Let's try them out and see. Perhaps, then, we will find that working with words, the writer can once again become a draughtsman or an artist, or even a musician of sorts. We might cease our endless writing *about* performance, and become performers ourselves. The art of correspondence demands no less. It could be because of our addiction to the keyboard that we academics are so taken with the idea of tacit, embodied knowledge. We think, like my muse, that the only way to join with the world – that is, to participate in its unfolding from the very inside of our being – is by escape from the domain of the word, of representation. It seems to us that words are always on the outside: they articulate, specify, make explicit. As such, their role is to pin things down, to define them and render them immobile.

Yet behind these tapped-out words of ours, the beating heart of the tacit continues to animate our movements and feelings, and to show its hand in voice and gesture. Why, then, should this voice and gesture be wordless? Only because we start from a notion of the word from which all traces of vocal and manual performance, of expression and affect, have been stripped away. This is the kind of word we academics are used to, and it puts us in league with the professions for which an academic training is deemed essential: statesmen, bureaucrats, lawyers, doctors and managers. But this is not the word of poets, singers, actors, calligraphers and craftsmen. For them, the word is performed, often noisily and turbulently, in skilled and sensuous bodily practice – not just in the practice of handwriting, signing, singing or speaking, but in reading aloud. If this is the domain of the tacit, then the tacit is neither wordless nor silent. It is raucously verbal. It is in the realm of the explicit, not the tacit, that silence reigns. Here alone, adrift upon the printed page, the word has lost its voice. Tacit is to explicit as voiced to voiceless, not the other way around.

Perhaps, then, we need a new understanding of language, one that brings it back to life as a practice of 'languaging'. In a living language – one that is not semantically locked into a categorical

frame but endlessly creating itself in the inventive telling of its speakers – words can be as lively and mobile as the practices to which they correspond. They can be declarative, as when the practitioner cries out with the satisfaction of a job well done, inviting others to join in its appreciation, or alternatively, when things go off course, leading to error and mishap. And they can be discursive, as in their use in narrative and storytelling. But in neither case are they joined up, or articulated, in explicit, propositional forms. Does that make them any less verbal? Who, other than those whose lives are confined to the academy, would be so pompous, and so limited in their imaginative horizons, as invariably to put the word 'articulate' before the word 'speech' or 'writing', in such a way as to relegate to the sub-linguistic or non-verbal any utterance or inscription that is not syntactically structured as a joined-up assembly? In truth, it is articulation that has silenced the word, by drawing it out and fixing its co-ordinates of reference, independently of the vocal-gestural currents of its production.

Let's not be afraid, then, to meet the world with words. Other creatures do it it differently, but verbal intercourse has always been our human way, and our entitlement. But let these be words of greeting, not of confrontation, of questioning, not of interrogation or interview, of response, not of representation, of anticipation, not of prediction. This is not to say that we should all become poets or novelists, let alone that we should seek to emulate philosophers who, when it comes to their worldly involvements, have signally failed to practice what they preach, and for whom neither coherence of thought nor clarity of expression has ever been among their strongest suits. But it does mean that we should work our words as craftsmen work their materials, in ways that testify, in their inscriptive traces, to the labour of their production, and that offer these inscriptions as things of beauty in themselves.

12. Something about a word (2012)

Reflections on work by the artist Shauna McMullan

For some days, I have been carrying around a very peculiar object in my pencil case. There it is, jostling with assorted pens and pencils, ruler, rubber, pencil-sharpener and paper-clips. I show it to people and ask them whether they can tell me what it is. None has any idea. The object is, in fact, a word. Now words are not usually the kinds of things you would carry in a pencil-case. The case is for the tools you need to make words, not for the words themselves. Of course we carry words around with us as well; they are in our heads, in memory, and on paper, between the covers of notebooks. Yet surely, if a word is to be held and carried rather than uttered – if it is to be something we take with us, care for and cherish rather than allowed to escape our lips into oblivion – then it must be traced, inscribed or embroidered into some surface or other, whether neural or material. But my word is not graven in my memory, emblazoned on my clothing or scribbled on a slip of paper that I keep in my pocket lest I forget. Nevertheless, wherever I go, my word comes with me. How is this possible? And why can no-one else recognise the word for what it is?

Here's how, and why. The word had indeed first been written on paper, in a cursive and somewhat hurried hand. If there is anything out of the ordinary about this hand, it is that the writer had based the letter forms on Roman capitals, which had been contrived to run into one another along a single line so that the whole word could still be written without having to raise the pen. And this required some bending and stretching of forms classically designed to stand alone or side by side and to be chiselled into solid stone. The next step was to scan the handwritten word and to feed the scan into a machine capable of cutting mild steel, six millimetres thick, with pin-point precision. The result is a rigid, hard and weighty three-dimensional object, having the form of a strip of constant width and thickness, but with bends, loops and protrusions corresponding exactly to those of the original script. The line of ink has become

a ribbon of steel. I can pick the word up or set it down, hold it between my fingers and feel the edges of the letter-line, examine it from front and back and every possible angle, and even wave it about while grasping it from one end or the other! These are not things you can do with words on paper.

Yet this freedom, it seems, comes at a cost. For without your knowing what I have just told, you would be unable to read my word, or even to recognise it as a word at all. It would appear, as to everyone to whom I have shown it, simply as a mystery object, an enigma. This cannot be just because it is cast in three dimensions. After all, we urban dwellers are quite used to seeing solid letters, often on a grand scale and even illuminated, attached to shop fronts and in signage, and we have no trouble in recognising them and in spelling out the words they compose. What is striking about these urban letters, however, is that they are for the most part passive and immobile, and bear not the slightest trace of the processes that went into their formation. Most often they are capitals. From infancy, we are taught to recognise capitals by their shapes, not by the movements by which they are formed. Even before they can read, we give children capital letters cut from wood or moulded from plastic to play with. Through this early training, we encourage them to think of words as assemblies built up from blocks rather than compositions of movement and gesture.

Indeed in the passivity and immobility of block capitals that is, in their monumentality lies the very source of their power and authority. They rule over us as the state over its citizens, and are there to stifle or stamp out any traces of voice, feeling and affect. They remind us of the caustic conclusion of the anthropologist Claude Lévi-Strauss, namely that the true purpose for which writing was invented was to facilitate slavery. Yet the writer of my word has cleverly subverted the authority of capitals by co-opting them into the practice of a cursive script. In this, the monument has been put to everyday use and its pretentions to power laid bare. The once rigid letters bend and stretch; they become part of a movement. When we write by hand, we remember letters and

words as movements, as gestures, not as shapes. Moreover these gestures, which are both inspired by and carry forth our feelings, moods and motivations, translate directly and without interruption into the lines on the page. In this regard, the pen of the hand-writer is like the bow of the string-player: the writer s line, like the player s, is at once dynamic, rhythmic and melodic. And if it is by movement that the line is laid, so it is by movement, too, that we read it.

To read handwriting on paper, however, is to follow the trace left behind by a hand that has moved on. We can pick up the trail, but the impulse that created it is already spent. We have always arrived a little too late. Cut in steel, however, it is as though the word were preserved in the very moment of its formation, like an insect caught in amber. The force of the word, the energy of the writer's hand and the feeling that impelled it, have not passed by only to leave a trace but remain pent up in the metal, whence they can be released at any time. But here's the rub. The word cannot be made to release its power just by looking *at* it, as one might look at the block capitals of a sign or monument. That is why, were I to ask you to take a look at my object, you would see no word. No amount of hard staring will reveal what it is. But if I ask you to draw it, by tracing either with pencil and paper or in your mind's eye the bends and loops of the metallic strip, then all at once the word will reappear under your hand or before your eyes, like a submarine resurfacing from the sea. The word is truly an Aladdin's lamp: apparently just an inert lump of metal of a curious design, gently stroke it with the eyes and fingers – as Aladdin rubbed the lamp – and whole worlds are unloosed, of vast oceans and empty skies, of warmth and chill, of immense possibility. All it takes is a soft touch – a little gesture, manual or visual – to rekindle the genie of the word and to release an atmosphere.

I can now reveal the identity of my word. It is 'cold', and comes from the following phrase: 'Through Picasso's period, the musical Nile, *cold* Scottish sun, warm French sea and my favourite tee shirt'. The phrase was written by one of the hundred people of Bridgeton,

Glasgow, whom the artist Shauna McMullan asked to contribute – in their own handwriting – with their thoughts about the colour *blue*. These handwritten lines were cut out in steel, powder-coated to give a blue-grey sheen, and suspended in parallel rows aligned on a single, vertical plane. My word is just one sample, then, kindly donated to me by the artist, from a much larger composition, and it is time now to turn to the composition as a whole. It is in many ways like a polyphonic choral work. Each line has its own voice, distinguished not only by the particular choice of words, which give it melody and rhythm, but also by the specific timbre manifest in the character of the handwriting. Sounding together, however, these voices create a harmony. Thus the work may be read in the manner of a musical score, either horizontally (for melody, rhythm and timbre) or vertically (for harmony), or both ways at once. The relation between melody and harmony, here, is between line and colour. And that colour is blue.

There has been a certain tendency among western writers on art to regard colour as mere embellishment or 'make-up' with the power to seduce or charm but not, as in drawing or writing, to convey the processes of thought. But there is more to it than that. As a phenomenon of light, colour lends a particular radiance to things: an atmosphere or aura that overwhelms the consciousness of those who come under its influence. For example the philosopher Maurice Merleau-Ponty had this to say about the blue of the sky: 'I am not set over against it as an acosmic subject; I do not possess it in thought or spread out towards it some idea of blue such as might reveal the secret of it… I am the sky itself as it is drawn together and unified…; my consciousness is saturated with this limitless blue'. We do not, in short, see light but see *in* the light; since the sky *is* light we see in the sky; since the sky is blue we see in its blueness.

Colour, then, is not just an adornment, conferring an outer garb to thought, but the very milieu in which thought occurs. Like the weather, or the atmosphere in its meteorological sense, it gets inside us and makes it so that whatever we do, say or write is done with a certain mood or disposition. It is the temperament of our

being. We inhale it as we breathe the air, and on the outward breath of exhalation we weave our lines of speech, song and handwriting into the fabric of the world. Conversely, as we retrace the ways of the hand, crouching in the undulating ribbons of blue-grey steel, so colour is once again released like the genie from the lamp. Line is haptic, colour atmospheric. In the polyphony of *Something about a word*, the multiple lives, voices and scripts of a community, differentiated in melody, rhythm and timbre, are unified under the harmonic blue of a sky that arches over all.

13. In defence of handwriting (2009)

I normally write by hand, with a fountain pen. In the past I would never use a typewriter unless I had to, and I must have been among the last to succumb to the temptations of the word processor. The very idea that writing involved a processing of words appalled me. Today, however, I catch myself tapping more and more on the keys of my laptop. I find this both worrying and frustrating. I know I am doing it only because, like most academics, I am pressed for time. The computer is nothing more, and nothing less, than a box of short-cuts. Admittedly, some are handy. When, for example, I am trying to get the sentences of a paragraph in a sensible order, it helps to be able to try out different permutations until the solution eventually falls out. Other short-cuts merely facilitate the correction of errors that arise from the technology itself. I rarely make spelling mistakes when I write by hand, but do so frequently when I type. This is in part because my clumsy and untrained fingers keep hitting the wrong keys. More importantly, however, it is because my hand knows words as continuous, flowing gestures and not as sequences of discrete letters.

In a cursive script the line, as it unravels upon the page, issues directly from this gestural movement, with all the care, feeling and devotion that goes into it. I compare it to practising my cello. When I practise – which I do as often as I can – the sound pours out from the contact between bow and strings. In just the same way, handwriting flows from the moving point of contact between pen and paper. The keyboard ruptures this connection. The tapping of my fingers on the keys bears no relation to the marks that appear on the page or screen. These marks carry no trace of movement or feeling. They are cold and expressionless. Typing on the computer, I find, is joyless and soul-destroying. It rips the heart out of writing.

I am saddened by the rule, observed in my own institution as in most others, that requires students to produce work in a standardised, word-processed format. I am told that one reason

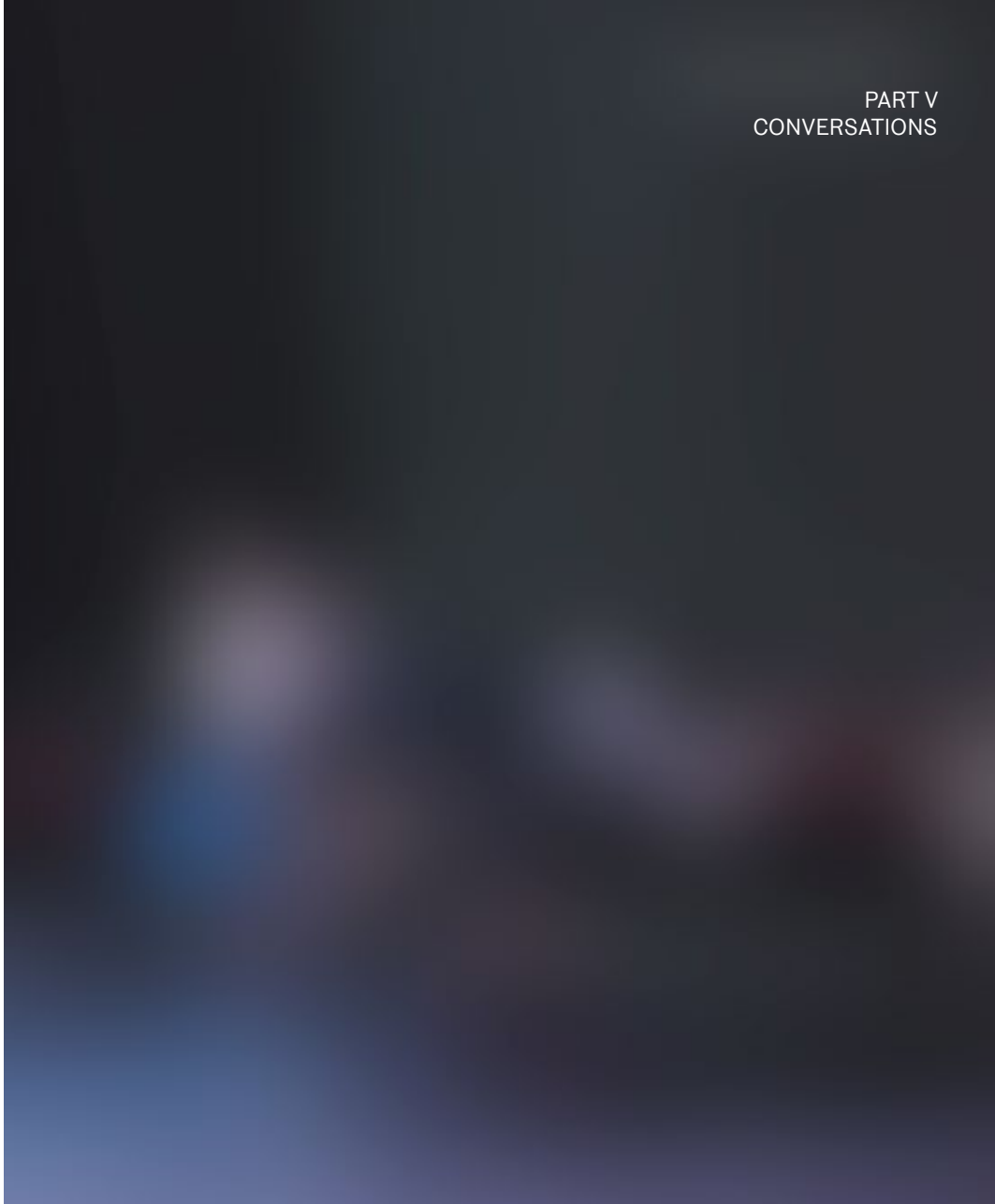
for this rule is that it allows work to be checked for originality, using anti-plagiarism software. From the start, students are introduced to the idea that academic writing is a game whose primary object is to generate novelty through the juxtaposition and recombination of materials from prescribed sources. Word processors were expressly designed as devices with which to play this game, and it is one that many academics, having been trained in its conventions, are only too keen to carry on. But the game is a travesty of the writer's craft. Contrary to university regulations, I encourage my students to write by hand, as well as to draw, and to compare their experience of doing so with that of using the computer. The response has been unequivocal. Handwriting and drawing, they report, re-awaken long-suppressed sensibilities and induce a greater sense of personal involvement, leading in turn to profound insight.

Colluding in a culture of expectation that values novelty over profundity, and product over process, institutions have got their priorities back to front. There is nothing intrinsically wrong with copying stuff out. As musicians and calligraphers have always known, whether practising a piece or writing out a text, copying is a form of meditation that can slowly but assuredly lead to deep understanding. It involves the practitioner's entire being: the hand that writes or plays the work, the mind that dwells on its meaning, and the memory that fixes it. Thus the problem lies not in copying *per se*, but in the possibility that the computer affords to short-cut the laborious processes of rewriting and redrafting by the mere touch of a button. As copying *is* thinking, to short-cut copying is to bypass thought itself. By its nature, thinking twists and turns, drifts and meanders. A hunter who followed a bee-line from a point of departure to a predetermined destination would never catch prey. To hunt you have to be alert for clues and ready to follow trails wherever they may lead. Thoughtful writers need to be good hunters.

Yet thinking is not confined to moments while you hold a pen, let alone to periods spent staring at the computer screen. It is

continually on the go, and at any time of day and night it can unexpectedly congeal into a revelation that catches the essence of what you have been trying to say. You have to be ready to write it down, for it can otherwise pass as quickly as a dream on waking. Many writers keep a hardback notebook with them at all times, precisely for such eventualities. I do too.

I would like to conclude, however, with a word in praise of breakfast cereal. Sheets of card cut from used cereal packets are perfect for catching thoughts on the fly. They are sufficiently stiff that you do not need anything to press on, and large enough to allow ample, unruled space. Sometimes I wake up in the early morning with a problem paragraph that I had been struggling with for all of the previous day perfectly formed in my head. Propped up in bed, I quickly write it down on a cereal packet card. I can write a few hundred words in as many minutes, and having done it, and with the words securely saved, I can then move on. Many of the passages I am most proud of started life in this way. I have never come across anything that works quite as well as cereal packets. They beat the computer hands down. Try it, and you'll see!



PART V
CONVERSATIONS

INTRODUCTION

All knowledge is crap: the waste product of a metabolic reaction. That, at any rate, is the conclusion which inevitably follows from the model of knowledge production imposed by our political masters, whether they be business corporations or agents of the state. According to this model, knowledge is produced by harvesting quantities of data, and feeding it into machines that digest or process this 'input' and excrete the results, also known as 'output', at the other end. This excrement is the marketable currency of the knowledge economy. To the extent that human beings are involved at all in the productive process, they are but operators or technicians, there to serve the machines: to keep them supplied and in working order. Ideally, their presence and activity – beyond ensuring that the machines work – should have no bearing whatever on the results. Inputs go in, outputs come out, what happens in between is of no particular consequence. And as the results pile up, and the excremental heaps of knowledge relentlessly enlarge, life itself is consigned to the margins, fated to scavenge what it can from the accumulated waste of data processing on an industrial scale.

Imagine an alternative world, in which the machines have been replaced with people. When these people speak of 'data', they intend the term to be taken literally, as that which is *given* to them, that they might live and know. They accept, with good grace, what the world offers to them, rather than attempting to extract – whether by force or subterfuge – what is not. They are nourished by this offering, just as they are by the food they eat, and – as with food – they go on to digest it. But for them digestion is, above all, a process of life and growth. In producing knowledge, then, they are also producing their own selves as people who know. They are aware, of course, that any such process entails a degree of friction: not everything can be incorporated into growth and some things pass through undigested. There is surely no craft that does not, in the fashioning of its materials, generate copious quantities of waste, whether in the form of dust, shavings, chips and off-cuts. It is no different with the crafts of the intellect. But in this alternative

world, waste is not knowledge. It only becomes knowledge when it is re-entered into a process of life.

No living being, however, can persist indefinitely, nor can it carry on its life in isolation. The continuity of life – and hence of knowledge – requires of every being that it should play its part in bringing other lives into being and sustaining them for however long it takes for the latter, in turn, to engender further life. It follows that all life, and all knowing, in intrinsically social. Life is one long conversation. More precisely, it is a tangled web of concurrent conversations, all going on at once, that weave into and around one another. They flow, spinning here and there into topics like eddies in a stream. And they have three distinguishing properties. First, conversations are *processes*: they carry on. Secondly, conversations are *open-ended*: they do not aim towards a fixed destination or a final conclusion, for everything that might be said invites a follow-on. Thirdly, conversations are *dialogical*. They are not solitary but go on between and among people. It is from these dialogical engagements that knowledge continually emerges. To join a conversation is to be ever-present at the cusp where ideas are on the point of making their appearance, of taking shape.

This is what it means to know from the inside. Because conversations are of the essence of knowing from the inside, I have chosen to conclude this volume with the transcripts of three conversations, in each of which you find me searching for the words to fashion ideas that are forming in the very act of giving expression to them. Every conversation is unfinished, and you are invited to carry on from where it leaves off.

'Materials are constantly astonishing' is the edited text of a public discussion, one of a series of discussions held at the Academy of Fine Arts in Munich during the autumn of 2012 on the power of material and the politics of materiality. On this occasion the designer Max Lamb was also present, and the discussion followed separate presentations by Max and myself. The conversation between us, facilitated by design and architecture theorist Karianne

Fogelberg, dwelt in particular on the protean character of materials, and on their sometimes startling capacity to change in shape, consistency, texture and appearance. Even in the most experienced hands, you can never be sure what materials will do next. Paying attention to what they do, and responding in kind, is therefore essential to any process of design and making.

'Matter thinks!' was the title of a symposium on materiality and architecture held at the School of Architecture, Georgia Institute of Technology, in March 2014. Following up on the theme of the symposium, I conducted a conversation over the email with Marisabel Marratt, a researcher at the Institute, between October 2014 and May 2015. At that time I had just finished work on a new book, entitled *The Life of Lines*, and the edited text of the conversation, not previously published, unsurprisingly dwells on many of the themes of the book concerning lines and blobs, movement and skilled practice, and what it means to say of all life that it is in-between.

Finally, 'Letters from Cracow is the edited text of a conversation with Katarzyna Wala and Magdalena Zych, both students at the Ethnological Museum of the Jagiellonian University, on the occasion of a visit to the University, and to the city of Cracow, Poland, in December 2013. Here, although the discussion began with buildings, it followed a more anthropological bent, touching on the thorny issue of the difference, and the relation, between anthropology and ethnography, as well as on the importance of drawing to anthropological work, and on why we need to pay more attention to the weather. It concludes with a discourse about the politics of representation. To say of anything that it is a representation, I argued, is to make a claim concerning what it purportedly represents, a claim that – if it is to hold – must be backed by power. Therefore every representation is intrinsically political. Why then, Katarzyna and Magdalena wanted to know, do I scarcely address the political in my work? One does not do politics, I answered, by writing about it, or by subjecting it to learned analysis. One does it by writing against the grain of representations that both sustain, and are sustained by, those in power. And that's what I do.

14. Materials are constantly astonishing (2014)

Karianne Fogelberg in conversation with Max Lamb and Tim Ingold

KF: There seem to be several interesting parallels between the ways both of you work, most notably you are both dealing with the process of making and with materials. According to you, Tim, the maker is more of an alchemist than a chemist, because as an alchemist the maker is actually looking at what materials can *do* rather than what materials *are*. Would you agree with this description, that you as a maker work as an alchemist, Max?

ML: It is funny that you, Tim, use that terminology because although I couldn't credit myself with that term as I don't consider myself to be an alchemist, I feel that alchemy plays a big part in what I do; it informs what I do and dictates how I behave. Without the material I can't do anything, so it is really important that I understand the material in order for me to act.

TI: Yes, you once even remarked: 'I was literally just sticking my hands into materials and seeing what happened'. That is exactly it. You don't know what is going to happen exactly, but you just put your hands in and see... well, we don't have to use the word alchemy for it, but it is basically that sort of experimental attitude...

KF: At the same time you are both advocating that we should get our hands dirty even if we are not makers. We are all finding ourselves in the kitchen cooking and we are all finding ourselves maybe dealing with some torn pair of trousers. So we are all being exposed to the resistance of materials or the way materials correspond with us. Would you, Tim, be interested in engaging students of ecological anthropology and of material culture to a greater degree with materials – as designers do for instance?

TI: Absolutely, and that's what I have been doing with my own students in Aberdeen. I have been teaching a course called 'The 4 As' on anthropology, archaeology, art and architecture, and one of

its key aspects is that in various kinds of activities students do get their hands dirty. In the very first week of this course I get them to come back with a selection of objects they have found lying around and we talk about them and they inspect them carefully, so as not to break them. And the next week I say: 'Bring back some materials'. So they come back with bags full of sand and leaf litter and stuff. And then I tell them to get their hands dirty with these materials. I use sheets of hardboard covered with wallpaper paste, and then tell them to bring their materials and do a sort of Jackson Pollock exercise. And you get remarkable artworks. But then they start thinking: 'What difference does it make: I have some stuff here, what difference does it make if I think of it as an object or if I think of it as materials?' And it is completely different. With materials you say you get your hands dirty, you are not worried about maintaining things in exactly their pristine form, but you can break them, you can smash them, you can throw them around and see what they do, because they become potential for things.

ML: Yes, I was thinking that the problem with material already having been transformed into an object is that you no longer see the material, you see the object. So you are just there taking into account what it does rather than what it is.

TI: That's exactly it.

ML: But that's also a similar approach to how we began the sand casting workshop at the Academy of Fine Arts in Munich. Numerous times students have approached me and said: 'Well, do you think I can do this?', taking me to be an expert in sand casting or bronze casting and I'm not. In fact I have never sand-cast bronze until I started teaching how to sand-cast bronze. And my answer to the question always is: 'I don't know, let's try and see what happens'. Because when you listen to the rules set by the foundry as I was told all those rules, these preconceptions as to what a material can do and how it should be treated and how the process should be engaged with, or when you read what has been written about it, that is when you take things for granted. You no longer question. I

think it is incredibly important to question what the material is and why it is, how it behaves and why it behaves, and therefore, what I can do with it. It is a sequence that can't be told to you, you have to discover it.

TI: And recognize that knowledge grows out of that experimentation rather than being given didactically, in advance.

ML: Yes.

TI: I was recently reading a lovely book by the architectural design theorist Lars Spuybroek. He is from the Netherlands and the book is called *The Sympathy of Things*. He was arguing that our models for design ought to be taken from cookery and gardening and not from manufacture. If you are a cook or a gardener that kind of experimentation with materials is what you have to do all the time. In the kitchen or in the garden the principal problem is to prevent everything from running completely out of control. It is not imposing form or a design on a material; it is keeping some kind of order amidst the chaos.

ML: But then I suppose that's what design is: it is controlling material.

KF: And then again, you are describing in some of your projects how the material seems almost to suggest itself to a certain form giving process. I think it was with regard to your 'China Granite Project' that you have been quoted saying that you selected the boulders according to their qualities and some of them you discarded immediately because of their shape or the way the granite structure had already cracked, while others seemed to suggest themselves to being worked upon. There was one boulder, I seem to remember, that had a seam and you considered the seam to be a good opportunity to find your way into the granite. So yes, it is about control of the material but you also take into consideration the actual properties of the material at hand, letting yourself be guided by the material.

ML: Yes, I always do. I wouldn't say that I ever purposely discard a material but I definitely select material. In the case of the granite project, I actually didn't need to make anything in particular. I was invited to produce a body of work for an exhibition that was due to happen in Beijing two weeks later. So I had two weeks to produce something. That was the first time that I really collaborated with a big quarry with huge quantities of boulders, almost a mountain full of boulders, and I had to identify with the material somehow. Having the choice of selection, I began to make sort of sensible decisions, I suppose, as to what each individual boulder suggested to me, the form of it, the character, the grain. So it is developing this correspondence, as Tim talks about it, with the material, and that conversation with the material is incredibly important. So it is not me imposing myself on this material and telling it to do something it doesn't want to do. It's sort of listening as well. It is this reciprocal exchange of me wanting to make something and the stone wanting to be made into something.

KF: You are teaching at the Royal College of Art in London, Max. What role does the engagement with materials have in British design education?

ML: I would say that we are currently witnessing a return to the active making and to a physical interaction with the material – and this goes for the design industry as a whole. I think this trend or rather, this change of attitude is a reaction to what we have done before. With computers having become a standard design tool, it seems that the first enthusiasm about digital processes has given way to the sensation that we have been deprived of this material connection. Against this context, a number of practising designers and design students return to working with the hands – without this being a rule.

AUDIENCE 1: Max, you said that you often make things without having an idea of what the result will be like. Could you refer this to the image Tim has proposed of the 'flow- lines of materials'? Tim, would you say that the idea you have of something you want

to produce is like a small temporal instance where different lines of growth, like the lines of the development of your skills and the development of the materials, could merge at some point, so this merging of lines could just for a brief moment in time materialise your idea? And then again the lines might actually not become this idea and might change very quickly to become something else again? Could you both comment on this?

ML: I agree with Tim's observation that every material is a kind of continuation. So if I adopt Tim's language and apply it to my objects, they are still just materials and they continue to change with time. The copper of the copper stool for instance, which at first was bright and glossy when it came out of the electro forming tank, has changed colour since. It has oxidised and now it looks like leather. It has a deep dark brown colour and in my eyes it has matured, it has improved. When people say: 'Can I polish your pewter stool? Can I polish the copper?' My answer is: 'Of course, but I would not'. You know, let it be.

TI: Materials are constantly astonishing. You keep noticing how extraordinary they are, or suddenly something is flashing up in front of you, as if it's telling you something. I even had the same experience in writing. If you are writing a book there comes a funny moment. Up to that moment you are writing what you think needs to be written; but then you suddenly discover that the book is actually telling you what to write. This is an inversion. You don't know quite how it happens, but it's a good thing when it *does* happen, because then you know you've cracked it. But when, for example I am repainting a room in my house, it always starts off with me in control of the paint, in a pot which is still beautifully clean. In the contest of me versus the paint, the score is one nil in my favour. By the end of it, however, it's the other way around. And I stop at the point not when the job is finished but when I completely lose control and paint is everywhere.

AUDIENCE 2: I would like to ask you two questions, one to each of you. My first one is to Max Lamb. From what you say, I gather that you

approach the materials very innocently. Pewter for instance has been worked with for millennia, and the same goes for many of the materials that you have used. There must be great quantities of accumulated knowledge about the qualities of these materials and the way they are being processed. But you don't seem to get involved with that. Instead, you seem to communicate with the material in some sort of isolation.

ML: You may be surprised to know that I actually start with quite a lot of research usually, even with the metal casting. But there is a lot to be said for trying things out rather than just assuming that you already know the answer. Of course on a strictly scientific level I know that a liquid can't just hold its form but needs to be contained – but I had to try it. So through the process of pouring the liquid metal over the sand, I get to see how it travels, how fast it travels and how quick it slows down and maybe if I had carved this channel even more delicately, the differential in temperature would have caused the metal to cool down more quickly... I didn't pursue that any further, but at least I learnt something. And this childlike naivety in these processes is how we discover and how we learn. If we just absorb what we are being told, we will never really know what we know.

TI: I agree with everything that Max has been saying. It has been said: 'If you know too much about things, you see your knowledge and not the things themselves'. If you know the name of every plant, you recognise the plant and give its Latin name, but you don't actually see the plant. The thing is being obscured by the veil of knowledge you have about it. So there is a certain virtue in being always able to see the world as if it were for the first time. When I first taught my course on 'The 4 As', I called my dad, who was a mycologist, a very sober and empirical scientist, and he bellowed down the phone at me and said: Is this a university or a kindergarten?' My answer was: 'Well, actually both'. The whole point about it is to bring a kind of curiosity that small children have and to reconcile that with the kind of material knowledge of a 20- or 21-year old. The result of putting those things together can be remarkable.

AUDIENCE 2: Thank you very much. And here is my question to Tim Ingold: I was surprised to hear that the notion of the imposition of form on material is still very prevalent in anthropology because as I understand it, many artists throughout the ages have talked about how, basically, they are just giving form to something that is already there. And you actually mentioned the example of the text starting to write itself or the book starting to impose itself. I wonder about the role of inspiration? Could the focus on inspiration help to reconcile these apparently disparate ideas: of imposition on the one hand, and growing out of something on the other?

TI: What you say is right about the problem with anthropology. As you say, artists, sculptors, makers through the ages – not just from our own society but from many other societies as well – have been telling us about how the form emerges from the material, about how the form arises out of the creative process and is not given in advance. But anthropologists have been shackled for so long with different versions of cultural constructionism that they have to suppose somehow that the cultural forms are being inscribed upon the material world. And in doing so they have been reproducing an ontology which is flatly contradicted by the people they have been working with. I think we are beginning to get out of this, but it's been a hard-fought struggle and I don't think we are completely there yet. When we are there we won't any longer need divisions in the subject between people who study aesthetics and symbolism and people who study ecology. Those divisions, which are still very much present today, will collapse.

But on inspiration... it is difficult to know exactly what inspiration means. The concept I have been working with is improvisation, trying to show how creative processes generally are improvisatory and how we need to understand creativity in terms of improvisation rather than innovation. The point is that one is bringing something into being. On a recent trip to Argentina I visited the house where the composer Manuel de Falla lived in his last years, and up on the wall was a quotation, something he had said: 'When I compose music I feel as if I am bringing something

into being. It's like giving birth to a person and you have to nurture it'. I want to think of making and creativity in terms of this notion of growth, of continually bringing things into being that weren't there before. It is not the novelty that matters, but the vitality, the carrying on of life.

AUDIENCE 3: Listening to you during the talk and right now, I find what you say all very convincing, and yet I see a certain danger in the mystification of the material and also in suggesting that access to the material is somehow esoteric. Perhaps this comes from the association you were making with alchemy as a model for working with material. I would like to see some restrictions on how that works. Could you qualify this further?

TI: This is an important and serious point. A number of contemporary authors, such as Jane Bennett, are seeking to revive a kind of vitalism, and speak of the intrinsic vitality of materials through reference to such philosophers as Henri Bergson. And there is of course a certain danger of mystification. We have to be careful about it. One way to deal with it might be to recognise the extent to which our own vocabulary for talking about things like desires, intentions and feelings actually comes from close observation of the material world. If you take a word like intention, for example, you might say: 'Look, it is going a bit far to claim that granite boulders or lumps of clay have intentions'. But then remember that the word itself is related to things like tension, to tensile strength, to the twisting of fibres in rope, and you think: 'Well, perhaps it's not so far-fetched after all'. Perhaps it is perfectly reasonable to say, for example, that 'This rope has the intention to twist in a certain way', because you can understand the twist of the rope in terms of the properties of cellulose, actually in terms of molecular structure. And if we can talk about the intentions of a rope to twist, then why do we have to be so worried about using a language for materials that, classically, we reserved only for human beings? We are used to thinking that there is a language for talking about human mental states and dispositions and so on, that are unique to ourselves or perhaps to ourselves and some other animals.

And yet the language we use is one that has come from observations of the way stuff behaves under certain circumstances. So perhaps we don't have to be quite so worried about it; we should in other words be a little more generous in our understanding of materials than we have tended to be – or perhaps a little less generous in our understanding of ourselves. Then perhaps we can erode that gap in the middle that separates us.

15. Matter Thinks! (2014-15)

Interview with Marisabel Marratt

Introduction

In his books, *Making* and *Being Alive*, anthropologist Tim Ingold refers to a 'wayfarer', whose movement is an essential 'feeling forward', an engagement with a 'process of life'. He refers to this movement as a convergence, or a 'concrescence', after Whitehead. Ingold sees this convergence as essential to growth, and to the world 'continually surpassing itself'. The convergence comprises the 'thing', the node in a 'meshwork' of lines; this meshwork forms a web of engagement with the world. In *Making*, Ingold describes working with his students in the 4 A's seminar (Architecture, Art, Archaeology and Anthropology) as a 'hive of activity', a collective coming together. Ingold's books often contain hand-drawn diagrams describing the movement of animate and inanimate things or beings in the world. In some of these diagrams, he shows lines that come to a literal point-of-no-return, where the energies preceding and those to follow somehow meet. He refers to this as an 'embarkation', the point from which 'lines of flight', so central to his work, are traced.

The lines multiply in Ingold's work. The errant lines of flight of the wayfarer recall the scripted line he traces on a blackboard during a conference, or the gestures he forms with his body to say his name during a movement workshop. He is struck by the similarity of their making, 'the rhythm and shape of the gesture' that they reveal. In the same way, Ingold's diagrams are drawn from the experiences he lives, with his cello, a kite, or the toggle of a lasso. The diagrams convey something less tangible and more real than a concept; they are a dynamic he is living. His desire to follow along with this movement leads Ingold to engage extensively with the dynamic of making, its processes and flows, both phenomenal and material. In contrast to the 'hive of activity' of the 4 A's seminar, he will refer to this engagement as a 'correspondence'.

Interview

In your experience, what compels this 'concrescence', to propel itself onward?

Your question here points to an inadequacy in my argument that I have tried to remedy in more recent work (specifically, in my book *The Life of Lines*). There I have suggested that all animate life is characterised by a rhythmic alternation of gathering and propulsion, akin to breathing in and breathing out. That is, a living being has alternately to 'take in' the energies afforded by the environment, from a certain place or position, in order that it can then 'push out' along a line of flight. I have linked this to a distinction between prehension and anticipation, arguing that life is lived somehow in the tension between the two. A good analogy is with the breast stroke in swimming, where the sweep of the arms and infolding of the legs stores up the energy for the subsequent propulsive thrust. In my earlier work I had concentrated on the propulsion and ignored the gathering of forces that makes it possible.

'Anticipation' seems to refer to an abstract form of knowing and 'prehension' seems to be a tactile or sensorial technique for shaping knowledge. Do the contours of the 'line of flight' express an ongoing tension between these two, or are they the result of some kind of resolution?

Anticipation is abstract only in the sense that it is an impulse purified of specific referential content. It is to think (following John Ruskin) not of the way things are but of the way they are going. Thus anticipation pushes out in front, beyond any conceptual delineation or geometric mapping of what has already settled. Prehension brings up the rear, in a bodily engagement with materials. This is not exactly shaping, but it is a taking hold of things. There's an ongoing tension between anticipation and prehension, yes, but there is resolution as well, as in musical harmony.

Is there a difference between being in the midst of 'the hive of activity' and the correspondence involving the musician and his cello?

There's a difference between between and in-between. 'Between' is a double-headed arrow that points at once to A and to B. 'In-between' is a one-way movement of becoming that flows midstream, orthogonally to the connection between A and B. To be in the midst of the hive of activity is to be in the in-between. As a transducer, however, the cello is between. But on second thoughts, the cello is not *just* a transducer. In one sense it is, as it converts my manual gesture into a line of sound. But in another sense – at the moment I begin to play – the cello seems to explode. What had been a recognisable, coherent entity becomes something more like a bundle of affects, a meeting of bowhair, rosin, metallic strings, wood and fingers, coupled with resonant air. Bundle them together and sound erupts as through a fissure.

The 'bundle of affects' is quite a tangle! As a transducer, the cello seems to be simultaneously transforming point of departure A and destination point B, at the same time that it no longer exists as a thing apart. Yet 'hive of activity' reminds one of an ensemble performance; there are more participants involved and it seems harder to know what to expect. How do your arrows work in this context?

The arrows are all pointing in the direction of time passing. There is no A and no B, since transduction is not between one point and another but between one line and another. I suppose the transducer is something like a zip. As it slides through time, it alternately zips and unzips the lines it couples and uncouples.

When you handwrite your name on a blackboard, your scripted name does not really represent you, it is you; there is an engagement with something in between the blackboard and your body. The question is: where is Tim Ingold?

I don't think I have a precise location. The question is a bit like asking to know where is a tree, knowing that the tree's roots trail

out through the ground along multiple lines. The roots are surely part and parcel of the tree. The traces I draw with chalk on the blackboard are, in this regard, like tree-roots. A living body is not wrapped up in itself but continually spilling out into the world. It cannot be contained. And because it can't be contained, you can never say exactly where it is.

As with the writing/speaking, is there a relation between these diagrams, the movement of the body and technique/skill?

There is, exactly, a relation between the lines of a diagram, drawn by hand with chalk on a board, the movements of the body that made them, and the skill that guided these movements. That's why, in *Making*, I deliberately drew my diagrams on a blackboard and then photographed them. The result is completely different from a formal, computer-generated design. This is also what distinguishes handwriting from typing with a keyboard, as I'm doing now. Handwriting sings.

Does the diagram precede the movement or does the movement inform 'the what' of the diagram?

Both. The point is that the hand-drawn diagram is always unfinished. So the movement already gone through, and which has left its trace, anticipates, through the diagram, the movement that is still to come.

How do you relate these embodied lines, these diagrams, with the generation of intensities of relation you describe as 'animacy'?

The lines of the diagrams are the traces of animate (not embodied) movement. I don't think I would want to say that these material traces are 'embodied'. In *The Life of Lines* I start off with a distinction between the line and the blob. Blobs have volume, mass, density; lines have torsion, flexion and vivacity. 'Embodiment' brings to mind the blob.

The Life of Lines *is a quite compelling title. I am reminded of one of my favourite books as a child,* The Borrowers*, miniature people forming a life amidst the flotsam and jetsam set adrift by the world.* The Life of Lines*, calls to mind a fertile tangle of strings, knots and things. Could you share a bit more about the book?*

I remember *The Borrowers* too. It was a classic, but I don't know whether anyone reads it nowadays. As for *The Life of Lines*, it has three parts, respectively entitled 'Knotting', 'Weathering' and 'Humaning'. A world of life is woven from knots; not built from blocks as commonly thought, and in the first part I show how knotting underwrites both the way things join with one another, in walls, buildings and bodies, and the composition of the ground and the knowledge we find there.

In the second part I show that to study living lines we must also study the weather. To complement my linealogy, I develop a meteorology that seeks the common denominator of breath, time, mood, sound, memory, colour and the sky. This denominator is the atmosphere. Then in the third part I carry the line into the domain of human life. For life to continue, I argue, the things we do must be framed within the lives we undergo. In continually answering to one another, these lives enact a principle of correspondence that is fundamentally social.

The term 'embodied' does seem misplaced. In order for your lines to animate, it would seem they would require some sort of generative charge, to follow some sort of relational dynamic?

Yes. My lines actually *grow*. Growth is the relational dynamic of which you speak.

Blob has somewhat of a dense connotation in contemporary architectural discourse, so I'd like to make sure I understand your use of the word. Do you mean something that lacks structure or something that is intrinsically static or non-communicative?

For me the blob is intrinsically static and centripetal. It recoils into itself. Blobs can expand or contract, encroach or retrench. They are territorial, and have insides and outsides. They can certainly have structure (think of frog-spawn, for example), and they can also communicate.

You have mentioned that though skill involves practice and the rigour of repetition, every performance is an original. 'You can never go over the same line twice'. Clearly this line you speak of seeks to delineate neither shape nor form. Does this line describe something material?

The drawn line describes, but does not represent. In Paul Klee's terms, it does not reproduce the visible but makes visible. So I might say that, with pencil and compass, I *describe* a circle. But by that I mean that I am bringing into being a circle that was not there before; I am not replicating one that was already there. The movement of description is generative.

So by generative do you mean that, in this movement of description, the circle forms itself, animates itself?

Yes I do.

Taken in this sense, what do you feel the life of lines is generating?

It generates the meshwork.

What is the connection between the abstraction of these lines and the potential for movement? Between the specificity of an encounter, and growing a web of relations?

The lines I describe are abstract in the sense that they harbour what Kandinsky called an 'inner necessity' – some kind of vital force or impulse – divested of all superficial and environmentally contingent figurative elements. You could call this inner necessity a potential for movement. What I call the 'correspondence' of these abstract lines creates a *meshwork*. Connecting up specific,

environmentally situated encounters, however, creates a *network*. The conventional notion of the 'web of relations' is ambiguous with regard to the meshwork/network distinction. But for me it is absolutely crucial.

So how does your meshwork engage the contingencies of material relation?

It doesn't engage, as a totality, with material contingencies. Rather it is the *sum* of these contingencies.

With the meshwork you seem to locate a different conception of space and position. Could we discuss what is involved for this 'inner necessity' to regenerate itself through time?

With the meshwork, space can only be understood in geographer Doreen Massey's sense, as 'the simultaneity of stories so far'. In other words, 'space' denotes the possibility that every thing is its story, and that these stories are multiple. Together, they weave the meshwork. What is important for regeneration, then, is that these stories can keep on going. That's why I emphasise the concept of *perdurance*. So far as position is concerned, the important thing is that every story – every walk of life – is not the taking up of a position but an experience of being continually pulled *out* of position. Regeneration, then, implies exposure.

You have observed that etymologically, the word landscape comes from 'land-shape', which encompasses the land formation and also the immense effort it entails. We move from a phenomenon of action and feeling, which was our environment then, to the contemplation of an object, which seems to be our environment now. In discussing correspondence, you often use the term 'transduction', and describe it as a mediation. It seems that for mediation to work, we must remain in the middle, in the midst.

Participation seems to be a key ingredient; could you discuss why that is?

This comes back to my earlier distinction between 'between' and 'in-between'. Personally, I tend to avoid the term 'mediation', as I find it ambiguous and confusing. You can never be sure what any particular author means by it. But it is exactly the case that to participate with anything, you have to go along with it – to join your own lifeline to that of the thing that captures your attention – and that is what I mean by 'correspondence'. So to correspond with things we must carry on in their midst. In *The Life of Lines* I have called this *midstreaming* (as opposed to *intermediacy*). Intermediacy is across and between, midstreaming is along and in-between.

Allow me to clarify: I understand mediation in a more earthy, material sense, as in medium. We have been discussing abstract lines for a while, but is that really what we are immersed in?

No. We are immersed in what I call the *atmosphere*.

There would seem to be a plane of operations your lines begin to define. I am struck that in your work you almost never discuss surface or topology. Could you discuss why that is?

But I *do* discuss surface and topology, quite a lot! For example in my *Lines* book, there is a whole chapter on 'Traces, threads and surfaces', in which I show how surfaces are generated in the conversion of threads into traces, and dissolved in the conversion of traces into threads. And I return to this theme in *The Life of Lines*, with a particular focus on the topology of that surface we call *the ground*. I argue that the ground surface is perceived kinaesthetically; it is composite, infinitely variegated and continually growing over.

Working with the term transduction, you make a clear point of distancing yourself from Simondon's use of the term, describing it as 'idiosyncratic'. It would seem that what Simondon wishes to convey with his concept of transindividual is a surpassing of oneself that recalls this mediatory movement you are also engaged in. Could you discuss the possible difference between the used terms?

I do find Simondon's use of the term 'transduction' idiosyncratic and rather unhelpful. His example, as I recall, is the growth of a crystal in a super-saturated solution. I suppose we could call the solution the 'medium' and then argue – as Simondon does – that when a crystal grows its structure ramifies through the medium. But for me, transduction means something quite different: the carrying across (*trans-*) of the kinetic quality (*ductus*) of the gesture from one register to another. That's close to the way the term is conventionally used in acoustics.

Simondon's crystal describes the transductive process in the material world; you seem more concerned with the energetic end of things. But there seems to be a subtle gradation between 'kinaesthetic awareness' and material flows. Could you discuss how 'midstreaming' operates in this scenario?

Midstreaming is where both kinaesthetic awareness and materials run together, in correspondence.

It seems that, in the land-shaping, part of this immense effort involves a series of miniscule decisions made along the way. Could you discuss the phases of this shaping?

With 'land-shape' I want to emphasise that giving shape to the land, for the agrarian communities of medieval times, was not a question of lending form to material (as in classical post-Renaissance landscape architecture) but of *working* the earth, with axe, plough and hoe. Of course this involves lots of decisions, for example about when to plough, which trees to cut, and so on. These are the kinds of decisions that any subsistence farmer would have to make in wresting a livelihood from the earth, and they are sensitive to all kinds of things from weather to market prices.

You distinguish shaping from the 'working'. It seems the distinction you make is one of process and of result. Does the 'working' also construct our consciousness of that 'land-shape'?

Yes, the two emerge hand-in-hand: form and our awareness of it.

Your movement with material flows seems aimed at revealing connections between animate and inanimate. In this, knowledge can be a vice; more and more we are plagued by habits of making sense that are about inflexible correspondences between things. You have mentioned that whenever you need to think through something, you pick up your cello.

In this correspondence between the embodied movement and the relating of diverse things what happens to make thinking possible?

In correspondence, movement and relating are effectively the same thing, insofar as the movement is responsive to other movements with which it goes along (as in musical polyphony). They are the same precisely because movement is not embodied but animate. In fact, 'embodied movement' sounds to me like a contradiction in terms. And this animate movement, in a sense, releases thinking from the gridlock of thought. That's what the cello does for me. It is perfectly true, as you observe, that knowledge can be a vice. It traps us in its categories so that we become blind to the things themselves. But this is because we believe that thinking ought to be articulate or 'joined up'. If everything is joined up, then there is no room for further growth. The point about correspondence, however, at least in the sense in which I use the term, is that it is about joining *with* rather than *up*. The cello helps me to jump back into the current. Then, instead of having my head packed with thoughts, I can begin to think again.

The movement, as you describe it, seems to determine what to attract and what to reject, as if it itself was developing its own electromagnetic charge along the way. Isn't this true of thinking, as well?

I suppose it is, though I'm not sure that I fully understand the question. I think of both the movement and the thinking as steering some kind of course, in which you enter the grain of things, and bend it to an evolving purpose.

You emphasize movement as a means of marking reference points (a land-shape, a feeling), however transitory. This method seems very different from classic empirical field research in Anthropology. It feels quite romantic, yet also very methodical, as if these different reference points were being mapped to form a different kind of knowing. Am I off-mark?

You are right on the mark, and that is why I am so insistent on distinguishing anthropology from ethnography. Most of my colleagues don't understand this distinction, and see anthropology and ethnography as pretty much the same thing. I think they are being disingenuous. Ethnography is essentially retrospective: it gathers material and then writes it up. But anthropology, in my view, is a forward looking exploration of the possibilities and potentials of human life. Anthropological fieldwork, in my view, is integral to that exploration; it is not just a data-gathering exercise.

The 'joining with' of correspondence means things do not add up, are not very orderly in the classical sense. Yet to be a method, doesn't there need to be some kind of structuring that allows you to build on the experience?

The logic of correspondence is not additional but rather contrapuntal, as it is in polyphonic music. Just because music doesn't 'add up' doesn't mean that it is disorderly. It is only that we have to think about order in a different way, in terms of harmony rather than structure. There is method in harmony, but it is a method of attunement, not of assembly.

Could you discuss how your notion of 'perdurance' addresses the conflicting notions of intention and growth?

Perdurance means carrying on through time. More simply put, it is about lasting – but lasting in the sense of a life cycle, not of persisting in an unchanged, steady state. I would say that perdurance is not so much intentional as attentional: it is about drawing out (along a line) rather than withdrawing (to a point of origin).

Is there a sense emerging from the movement that allows 'the wayfarer' to know where and when to pause and place his mark?

This is like asking how the mariner 'knows' when to drop anchor, or the walker 'knows' to light a fire and brew a pot of tea, or the musician 'knows' to pause. Like I said earlier, in any activity there is a rhythmic alternation of movement and rest, but precisely how this goes, and how the practitioner knows, cannot be answered in a general sense. It depends on the activity.

The rhythmic alternation seems fairly repetitive, and automatic. Isn't this the same as habit?

Absolutely not. The essence of rhythm is that it is repetition *with difference*: it is the phased synchronisation of movements that are continually attentive to one another. It is a great mistake to confuse repetition with automation. Many crafts involve repeating 'the same' movements over and over again, yet the evenness can only be sustained (as in juggling) through continual micro-adjustments as the task unfolds. The practitioner has to concentrate. Without concentration, the rhythm breaks down and the work becomes uneven.

Your term 'knowing from the inside' seems to rely as much on time as it does on extension in space; this immediately suggests the scope of Architecture to me. This 'knowing from the inside' seems to be coming not simply from within; it also requires a correspondence with without. How does the within engage with the without in this process?

I admit that the term 'inside' in the phrase *Knowing From the Inside* is a bit problematic and open to misinterpretation. The trouble is that the term brings to mind the image of a container, with a boundary like a skin, separating what is inside the container from what is outside it. A cognitive scientist, for example, might nod with approval, thinking that what I mean is that knowing goes on inside our heads, leading to the construction of representations of an external world. My view is, of course, the very opposite of that.

Maybe *Knowing From Within* would have been better; at any rate the point is that precisely because the world we inhabit is not bounded, the condition of being *in* the world is existentially inevitable. We cannot get out of it. Thus in correspondence, it is not that a within engages with a without. Maybe a conscious awareness corresponds with materials. But if consciousness knows from within, then likewise materials flow from within.

When you say 'knowing from within' the term that comes to mind is 'intuition', and this seems to be continually operating under the radar as a kind of 'kinaesthetic' material flow. The question is how to operate with it as a conscious flow. Is this what animates The Life of Lines*?*

Yes, intuition is at the heart of it: here I follow the philosophy of Henri Bergson. It is intuition that animates the life of lines; intellect that retrospectively cuts them up. Just as you cannot create continuity out of discontinuity, so intuition must be ontologically prior to intellect.

16. Letters from Cracow (2013)

Interview with Katarzyna Wala and Magdalena Zych

Your theory is full of life, and movement seems to be the main principle of the world that we inhabit. We know that people, animals, insects, bacteria, viruses, fungi and plants are in motion. But is it possible to say that the building we are in is in motion too? How should we think about it, to feel, to see, to understand its movement, or as movement?

That is an interesting question, and I think that yes, a building is in movement. It might move in a quite physical sense. Recently I visited the cathedral in Cologne, and our guide explained how, since it is a very high building, the walls of the cathedral rock back and forth all the time. A Brazilian doctoral student, Alberto Goyena, who has been visiting our department in Aberdeen, is working with demolition crews who blow up large buildings or blocks of flats when they are no longer habitable. He explained to me that in order to demolish a large building the first thing you have to do is to reinforce it, to strengthen it using concrete and steel, because an ordinary building is so flexible that if you try to blow it up, it will merely bend a little this way and that. It only falls if it is absolutely rigid. So you have to strengthen it first, and with this strengthening the building could actually last another fifty years. Thus although we might not be able to see it, all buildings are moving, in relation particularly to the wind, perhaps also due to movements of the ground. And I suppose that one development in architecture over the course of history has been that buildings become less and less flexible, which means that they are increasingly vulnerable to earth tremors. Thus earthquakes in modern times are much more destructive than they would have been in the ancient times, even in Japan. Since Japanese architecture was mainly wooden, the main problem with earthquakes was fire rather than building collapse. Most traditional building techniques were apparently quite flexible, acknowledging that buildings are not set on a solid base, but in a world of living earth, soil, wind and weather.

Does this mean that architects and constructors nowadays know nothing about the movement you are talking about?

Well, they do know, in the sense that they're developing techniques to counteract that kind of movement. If you want build a skyscraper in Tokyo, it has to be earthquake resistant. But there is another sense in which, even if the building is absolutely static, we still apprehend it in movement. This is because we ourselves are normally moving in and around the building. And as we move, so does our apprehension of the building. The windows and the door, they are apprehended in motion too. And that's why, if I sketch the door freehand, the picture often looks more lifelike, more realistic, than a technical drawing which is drawn with a ruler. The freehand drawing conveys the sense that for us, the door is something that we open and move through. The movement is a sort of transfer from ourselves into the lines of the drawing. So even if the buildings themselves don't move, we apprehend them in movement.

Processes like corrosion, fading, disintegration, crumbling, unguing, deforming – processes, that we consider as the breaking of objects, their dying – are in your opinion expressions of the life of things; they are flows of materials. Could you say more about this perspective?

The overall trend in modernity has been to try to engineer the world so that it conforms as closely as possible to what theorists of modernity have always had to say about it. These theorists tend to think of the earth as a solid, flat base upon which life is lived. It's not really like that, but what they do is engineer an infrastructure of roads and concrete foundations so as to make it as close to the ideal as they can, and then they build big structures upon this base. But in reality, the infrastructure has itself been constructed. Nothing can grow through asphalt or concrete, since the hard surface blocks the absorption of moisture into the earth and access of seedlings to sunlight. Wherever anything lives, the infrastructure is cracking and things find their ways through. Wherever the world has been hard-surfaced, unless people constantly keep it under repair, it will eventually crack due to frost, rain, or other forces of erosion. Stuff

gets through. And life can only carry on because stuff gets through. In that sense all this crumbling and corrosion is part of the cycle of growth and regeneration. You can't have life going on unless stuff is also crumbling. It is part of the cycle.

This is related to your critique of hylomorphism.

Yes, my argument is that the forms of things are transient, as they continually grow and change. If you buy something from the shop you tend to suppose that it was made to a particular form, and that it was finished at the point when it assumed that form. You buy it, and in the process of use it loses its form. We think of a process of production that is followed by a process of consumption: of first building things up, then breaking them down. But in my view, this point of transition between making and using is arbitrary. What actually happens is that things change their form all the time in relation to the contexts in which they are used. The point of completion is a moving target: though at any one moment we may have an idea about a complete object and project it onto material, the idea moves along, even as the thing itself does. There is a continual process of form-generation, which always overshoots any ends we might posit within it. In that sense, nothing is ever final.

So it's part of the cycle.

It's part of the cycle, yes.

Or of the line.

Yes. Whatever we think to be final is really just a moment of punctuation along the way.

There are many drawings in your articles and books. In the introduction to the book Redrawing Anthropology *you propose a kind of graphic anthropology. What role might drawing play in science?*

I think drawings have huge potential as ways of thinking.

The beautiful thing about drawing is that it describes, not in representational sense, but in the sense of trace-making. It describes a process of thought, and this is a process again and not a final product. That's why I argue that a drawing is not an image, not a representation of anything, but the trace of a maturing idea as it develops. You think about something, and as you think with your hands, it leaves a trace as it goes along. So the reason I think drawing can be so productive, why I think graphic anthropology is quite different from ethnographic film, or why I think it is anthropology and not ethnography, has to do not with the power of representation, but with what I call *correspondence*. I have developed this idea about drawing as a process of correspondence, in which one thing is continually answering to another as in a conversation. And the thing about the drawing hand is that it is both observing something and making a trace at the same time. So that the movement of your hand, and the movement of your thought that is guiding the hand, correspond with the movement of whatever it is that you are attending to in the world and that you are corresponding with. So I see drawing and graphic anthropology as parts of a conception of anthropology as a correspondent discipline rather than a representational one. Herein lies the difference between anthropology and ethnography.

We don't quite understand this distinction. We read your works and know your argumentation, but we still have a problem with this division. Maybe the reason lies in the Polish context, which takes us more into ethnography.

It's not just the Polish context; it's exactly the same everywhere. I can't get anybody to understand, but I still think it's important! People say that what I'm calling anthropology rather than ethnography is precisely what they're calling ethnography. It is not that what they are doing is wrong; only that they are giving it the wrong name, because as long as you call it ethnography you are bound by a residual commitment to representing the truth of things for the people whose lives and times are being described. I want to liberate anthropology from that, so that it can become

a speculative discipline, comparable in that respect to art and architecture. I found that I had to distinguish between ethnography and anthropology in working out how one could do anthropology together *with* art, rather than anthropology *of* art. This distinction between 'of' and 'with' is a bit like the distinction between history of art and arts practice: arts practice is 'with' and history of art is 'of'. And so the distinction I'm calling for between anthropology and ethnography is parallel to that between arts practice and history of art. I think that anthropology as ethnography has been too close to the history of art – and of architecture too.

So in this case anthropology is knowing-by-doing.

Yes, knowing by doing, knowing by making, knowing by performing, knowing by drawing.

...or knowing by playing an instrument and making music, as when you said about the hand that is drawing, that playing music is also an improvisatory way of corresponding with the world.

Yes, this is exactly so, and that's why I find that I can't draw a clear line between my cello playing (which is the other thing I do) and anthropology – that it is the same sort of exercise. Even though I was trained in the classical tradition, and am quite unable to improvise as a jazz player would, in playing classical music one is actually improvising just as much. You have to find your way around the instrument and the music, and the only way to find your way around is to improvise. I would like to think of an anthropology that would be analogous or even identical to musical performance, to calligraphy, to drawing – and even to arts and architectural practice, since artists and architects also draw. And so do archeologists. Artists, architects and archeologists are all trained to draw, even if they go on to work with different media. Arts educators still think it is important that students learn to draw, and so do architects. For archeologists, learning to draw is crucial to training in techniques of excavation. The really puzzling thing, and the reason why we got into this whole question of drawing in my

Department, was the surprising discovery that the one discipline in which students are *not* trained to draw is anthropology. They are only trained to use cameras and to make films. At least, that's how it is in my country.

In our country too, but in the past it was obligatory.

Before cameras – today's easy-to-use cameras – then anthropologists used to draw.

But it was a different kind of drawing. It was realistic drawing, and you are talking about something else. As far as I understand in this case the act of drawing helps us to learn how movement, observation and description become one. I really like one of your drawings, which I find transformative, and often use in my work: it's the circle. I might spend much time explaining to students the difference between a place understood as a point, and a place understood as a movement. But if I draw it, they get it immediately.

Yes exactly, you have to draw it to get it. That's why blackboard and chalk is such a wonderful thing to have. I don't know how it is here, but at our University, the management stripped out all the blackboards and chalk and instead spent an enormous amount of money on complicated technology, which is not the same...

...like paper and pen, or blackboard and chalk. In your work, we may distinguish four phases – maybe there are more now, but we don't know about them – each revolving around a single key term. The first phase was about the meaning of production, the second was about the meaning of history, in the third phase you were preoccupied with the notion of dwelling. The latest phase is an exploration of the idea that life is lived along lines. What is the nature of change in your works?

What is the nature of change? What is change, what is it to remain the same? If I look back, it seems that I'm continually coming home. I think of anthropology as a process of coming home. I've been discovering who I really am. So when you start off as a young

person you really have no idea who you are. There are people who serve as role models: they are the people you want to be like, or to emulate. You read their works and think, 'Oh, I wish I could write like that'. Different ideas go in different directions. You are not sure, you try this, and you try that. Some directions seem right for you, and others don't. It's like trying on different clothes: some fit, and some don't. Gradually you begin to discover who you are – you begin to discover your voice, so that when you write, you feel that it is you who is writing. But it takes a very, very long time. I'm still discovering who I am. But then, just as I am beginning to discover who I am, I find that it turns out to be a child, me as a child growing up in the home of my parents. There are some things – some sorts of attitude, or ways of thinking and being – that were instilled very early on, that have been there all along, and these are what I'm gradually discovering. If I look back, and ask why I have become so engaged with this or that issue, it is because I want to counter ways of thinking that cover up or destroy the creativity and generativity of childhood. In other words, mainstream theories are all to an extent adult-centric. We need to discover the kind of child that we are, and that we were. In that sense I have the feeling that anthropology is a continual coming home: a process of self-discovery. In the end, it comes down to writing honest text, such that it is actually you who writes and not some simulacrum of yourself. That is what I've been aiming for.

It is very personal project!

Yes! I think every scholarly project should be, and usually is, a personal project, but the institutional context in which we operate denies that; it does everything it can do to prevent us from finding that path. So if you ask why I get so bothered about dualistic ways of thinking or about ways of separating biology from culture, and things like that, it's because these separations deny childhood; they treat children as lesser beings compared to adults because they haven't got so much culture yet and are still more biological. That's the sort of thinking I have felt compelled to argue against... I don't know what will come after lines; I'm still into lines and the weather.

Why are lines – in your opinion – a good word to describe or to think about the world?

It's a way of thinking which really takes processes first. It's processual way of thinking. In this way of thinking, we can take anything there is – it could be a human being or an animal; it could be a stone or a table – everything there is has its own trajectory. It's not *being* what it is, but *becoming* something else. And that's a trajectory in time, so to think about everything as a line rather than a point is simply to say that what is given to the world are not entities but becomings. Every line is a line of becoming. Line fits in the philosophy of becoming rather the being; that's all there is to it.

OK, I'm the line, I'm moving; I'm in the process of becoming. The building that we are in is also in the process of becoming. You wrote in your works that the world is a sort of meshwork made up of entangled lines, but what about time – the fact that some things are moving faster, others slower, and some of them are waiting for their move?

Yes, absolutely, and most things are alternately between movement and rest. One of the gaps in my thinking – something I felt I had not addressed sufficiently – was what it means to rest, because you can't have movement without rest. That's exactly where the weather comes in. When we say that we are beings in the world, and that our lines are all entangled in the meshwork, where is the atmosphere? The atmosphere doesn't look like a meshwork of lines at all. So I asked myself: which is it, this life-world? Is it meshwork or atmosphere? My argument is that it is ultimately both. It is like breathing in and out – when we breathe out, we propel ourselves, it is a movement of propulsion which draws a line. But when we breathe in, that is a gathering, a taking-in. It's like in swimming: alternately you push forward against the resistance of the water, and then gather the water up for the next push. It seems to me that all of life is ultimately caught up in this oscillation between atmospheric gathering and linear propulsion. So the next step, which I'm into right now, is to understand the relationship between the

atmospheric and the linear. That's why I'm working on lines and the atmosphere. I haven't worked it out yet. But I know it has to do with the temporality and rhythmic character of life processes.

Yes, when I was thinking about lines and meshwork and being in the weather-world I thought that what is missing here is pulse, rhythm – all the things that I found in Lefebvre's works.

That's right. The thing that was a discovery for me was realizing that propulsion and gathering, or breathing out and in, are not simply the reverse of one another. You can't describe them in terms of reciprocity or interaction between A and B. It is more like a cycle in which, while you propel yourself outwards, the world gets in behind you. This is a sort of loop rather than a back-and-forth movement.

This is a new thing, but we would like to say something more about the weather-world. The beginning of the winter is snowless here in Poland, but night falls early. How do you like the weather in Cracow?

It's really nice!

While we really like to talk about the weather in our everyday life, this subject is virtually absent from most philosophical, anthropological and architectural debates. In your works, however, it seems to play an important role. I have found only a few of papers in anthropology and philosophy which were not about climate change but about the weather. In your case it seems to be a crucial theme, even now, in the stage of lines. Could you explain why we should pay more attention to changes in the weather?

It's true that very little is written about the weather. In anthropology a handful of edited volumes discuss the weather, and now of course many scholars are writing about it in connection with climate change – but this is a very different context. The same goes for science studies and philosophy: there is very little literature on weather. The reason I think it is so important is – as I have put

it elsewhere – that weather is the *temperament* of being, so much so that you can't distinguish in any clear-cut way between the weather and our own human moods and motivations. In English, weather-words and mood-words have the same etymological roots in *tempo* (time) and *tempera* (mixture).

These are Latin roots.

Yes, and they underpin our words like 'tempest' and 'temperature' but also 'temperament' and 'temper'.

In our language it's different.

Of course, weather-words and mood-words vary from one language to another, but there is clearly a close relationship between them. You can use the analogy of flying a kite. When you fly a kite, an interaction is going on between flyer and the kite. They pull on one another, and there is a string in between them which mediates this interaction. But this interaction is not going to happen unless there is some wind. Without airflow, a kite won't fly and we humans can't breathe.

We know this by our experience, but it is really hard to explain using theory. We have actor-network theory, but this doesn't give us the tools to cope with the nature of the wind.

That's why I don't like it! I'm against it. With my students I fly kites and then ask, what is going on here? Then they understand that the wind is not just another thing that we interact with. Rather, the wind establishes the possibility for interaction to take place. So the interaction between flyer and the kite is made possible because both are immersed in the flux of the medium, that is, in the wind. So if you generalize from that, the reason why weather is important is because the fluxes in the medium – the weather – establish the conditions of possibility for interaction. Therefore the quality of that interaction will be modulated by what is going on in the medium. That's why weather is important.

A crucial assumption in your theory, in my opinion, is that the world is divided into medium, substance and surface. You took this from James Gibson's theory of ecological perception. But, taking inspiration from Maurice Merleau-Ponty, you also said that the surface of the world is not as hard as Gibson thought, so that substance and medium mix, mingle, interact, and penetrate one another.

That's right. I started with Gibson, but then I felt that there is something wrong with this framework, because it imposes a very rigid division when what we call surfaces are really zones of movement and interpenetration (as in a textile) where everything is going on. For a long time, both in anthropology and in other disciplines, surfaces have been ignored or simply taken for granted. It is remarkable that in a number of fields – we are doing it in anthropology, in our group, but I know of other research groups in cultural geography, and in language and literature – the notion of surface is beginning to be re-examined. We are finding that surfaces are much more interesting than previously thought; we are breaking the link that equates surface with superficiality. Surfaces are not superficial at all, they are often *interstitial*, and it is there, in the interstices, that everything is going on. So we are thinking about surface as an active weaving together of stuff rather than as a ready-made envelope. We have a group of people working on that: 'surfacing anthropologists'.

Interesting, and it brings us to another question: what is creativity, or as we should probably say, improvisation, when an architect, artist or craftsperson is at work in the weather-world?

I'm not convinced that creativity is a good word. I have written about it, but one half of me thinks that perhaps we should forget the whole word, because it has so many wrong associations due to its having been hijacked by the corporate business community. Much of the problem comes from the '-ity' suffix. It's alright to talk about creating things, and alright to talk about actions as creative if they generate things, but once you talk about creativity – about this '-ity' that has been abstracted out, and that maybe

some people have and others don't – then it becomes a nonsense. We don't want it. I don't mind keeping the word 'creation', or the verb 'to create', simply to talk about the generativity of processes: that is, the way in which they can bring stuff, things of all sorts, and even people, into being. There is nothing more creative, for example, than conceiving and having a baby. Not because people will look at the baby and say: 'wow, this is a novelty, an innovation', but because you are actually introducing a person, a living being, which previously was not. What can be more creative than that? So we need a language to talk about how processes of growth and movement can generate new life, without having to turn this life into a kind of commodity or faculty. But creativity is a problematic word, and it has attracted associations that are unhelpful. We have to do so much work to explain that creativity is not the same as innovation. In some ways I prefer the word 'generate' to 'create'; or when I use the word 'create', then 'generate' is what I really mean: the genesis of things. So it is ontogenesis – bringing into being. Ontogenesis means the genesis of being. That coming into being, *becoming*, that's what I'm interested in.

I like the way you work with language.

But it's difficult, because even when I have been teaching anthropology to our own students, they say, 'you anthropologists, you just play with words'. Even scientists say to me 'all you do in anthropology is squabble about the meanings of words! You are not actually discovering anything, all you are doing is arguing about what this or that word means'. We need to be able to answer this objection. Years ago, Eric Wolf effectively did this by focusing on the word 'race' – here is a word that can be and has been directly or indirectly responsible for the genocide of large numbers of people. So when somebody says, 'Oh, just words', the point to make is that words have consequences. But people do not always understand that, so it is terribly important – I think – to be very, very precise about words. However the trouble with verbal precision is that the more emphasis we place on it, the more difficult it becomes to translate between languages. I recall that one concept caused particular

problems when I was lecturing in Argentina. Everything had to be translated simultaneously into Spanish. The concept was 'to tell', and in English it has a significant double meaning (to detect imminent things from their signs, and to relate what has already happened). This double meaning was important for my argument, but it was completely impossible to render it in Spanish. If you can't do it in the other language, then you really have a problem.

Of course. We have tried to translate a couple of your words: 'taskscape' and 'meshwork'. We did it using words that were totally different!

It's very tricky!

Yes. We take the words from English and try to find equivalents in Polish, and there are plenty of possibilities. But each has its own meanings... Crazy thing to do.

It's a problem.

I have a question that has bothered me since I started to read your books. You devote much effort to explaining why the excessive preoccupation of scientists with representations such as texts, images and symbols (but also mental representations) is wrong. But the question that bothers me is: do representations, or what we might regard as culture, policy, or system, play any role – as a force or as another tissue of lines – in weaving the meshwork we were talking about? We have spent hours talking about this...

The question here is: how can we reject a representational approach, given that our world is nevertheless full of words and images that appear to be representations, and that have a very great influence on the way we live our lives. That's the question, right?

We feel that representations are important.

So there are all these images around the place which purport to represent things and also come to be a part of the currency of policy

making. What do we do about representations if we don't ourselves endorse a representational approach? I think the answer is that things are not automatically representations. To say that something represents something else is to make a claim. Such claims are political, and they carry force to the extent that they are backed by a degree of power. So when we see images all around us and all those images are claiming to have some sort of representational authority, then our job, I suppose, is to look behind then to see what are the relations of power, politics or practice that lie behind them. Behind every representation is a power play of some kind or other. My work has been often and rightly criticized for leaving politics and power out. To a large extent that is what I have done. As to why, that's another question...

It is a question we want to ask ...

OK. You could argue that because I've not really addressed that question, neither have I properly addressed the question you just asked me, about what to do with all the things we call representations. It is easy to argue for a non-representational approach in anthropology or in any other discipline. But to do that without going into the question of power relations is perhaps too simple. I think the answer is that it is not our job to accept representations at face value but to unpack the dynamics that support the claim that these things have representational value. Does that make sense?

Yes, I understand. But still I don't know why you decided not to go with policy... I really want to know that!

Well, that's the other question! There is a weak answer to it, and strong answer. The weak answer sounds like an excuse. Which is: why should I write about politics and power? For example, if I am interested in how and why people, half a million years ago, made so-called 'hand-axes' of flaked stone – a question that is fascinating in itself – why should I worry about contemporary neoliberalism and globalization, and all the rest of it? Why can't I just write about

the prehistory of hand-axes and leave it at that? And the same goes for everything else. If you are an art historian and you are just fascinated by the art, can't you just talk about that? Or if you are a biologist interested in snails, should we conclude that your work is of no value because you not address questions of politics and power in the snail-world? That's the weak answer: namely, I'm just not terribly interested in politics and power. I'm more interested in other things.

The strong answer is that writing against the grain of positions that are supported by powerful political interests is itself a political act. If I'm writing against hylomorphism, for example, or against neo-Darwinism, then I think I'm writing against deep-seated ways of thinking which are supported by institutions of state power. My feeling is that you address the politics of the situation much more immediately and directly by writing against those arguments than you do by writing an analysis of how, say, neo-Darwinism or cognitive science is supported by the apparatus of power. You could – if you were a political scientist or even an anthropologist – decide that you want to study how cognitive science both supports and is supported by dominant institutions and how these institutions are also effective in educational structures, and so on. This would be a perfectly legitimate thing to do, but it would still be like standing on the margins and explaining what is going on, or like watching from the sidelines, rather than actually going on to the pitch. I think we should be on the pitch. When people in other disciplines, or in other fields, come up with arguments that we feel are wrongheaded, we should not be standing on the sidelines, providing an analytical commentary on why they say what they do, but rather showing that there are alternative of ways of arguing. This is very important because, at least in public debates in our country, the anthropologists are not present in the discussion. Economists, historians, even some philosophers, and of course scientists of various kinds, are spouting all kinds of nonsense about human nature, about economy, and about sustainability, all of which can easily be shown to rest on questionable if not false premises. But we anthropologists are not there to show how this is so. Instead we are

somewhere on the edge producing learned analyses of why all this is going on. That's the strong answer.

I like the answer a lot. Thank you for that. I was very curious and I didn't find the answer anywhere...

I was talking recently to student who is back from doing fieldwork in Kenya. He spoke of the situation of cattle pastoralists who were unable to take their cattle down to the edge of the lake to drink because the land around the edge of the lake had all been appropriated by wealthy landowners who were using the land to cultivate cash crops. Here was a very typical sort of situation involving power relationships and a struggle for land and water. Obviously, if you are a pastoralist, your cows need to drink, but they cannot get to the water if their path is blocked by a fence! One person's line is being blocked by another. It seemed to me that to talk of lines and movement, and of how one kind of line can block another, takes us to the heart of the problem in a way that abstract talk of power relations or politics cannot. It takes us straight there. I think that's what we should have in anthropology: a way of thinking that maybe sounds theoretical but is actually right down at the ground level. That's where we should be: doing our theory on the ground.

I like this vision. But anthropology as science – what does that mean for you?

Anthropology is science. Well... I am not against science. It is very annoying when critics accuse me of being against science. I'm not. But I think we can do better science than we are doing at the moment. We can do better science by recognizing the necessary involvement of scientists themselves in the world which they are trying to find out about. Institutionalised science has gone to extraordinary lengths to deny this involvement: not in its practice so much as in its modes of publication – in its public pronouncements. The results of science are presented as if scientists themselves were not part of the world they are talking about. Of

course it is not really like that. Most scientists are great human beings and are doing as good a job as they can. Indeed, I find that scientists themselves are really frustrated by the sorts of pressures and conventions to which they are expected to conform.

Are they are not free?

They are not free to say what they want to think, what they want to do to be creative in the way they want to be. So they feel hamstrung. If we recognize that all scientific activity is founded in a 'poetics of dwelling', as I call it, then we will do better science. And we will have better and less frustrated scientists. Perhaps a little less arrogant …

When we know that we are part of the world, then maybe we can think differently about the previous question we asked.

SOURCES AND ACKNOWLEDGEMENTS

ON MATTER AND MATERIALISMS:
This essay was written in response to a questionnaire 'On matter and materialisms', devised by the editors of the magazine *OCTOBER*, and to which I – along with a number other writers and thinkers – was invited to respond. It was published in *OCTOBER* 155, pp. 59–60, Winter 2016, and is reproduced by courtesy of the journal.

THE FOAMY SALIVA OF A HORSE:
This essay was written in response to an eponymous exhibition of work by the artist Carol Bove, held at the Common Guild, Glasgow, 20 April – 29 June 2013. It was published in a booklet to accompany the exhibition, and is reproduced here by permission of the Common Guild. I am grateful to Carol Bove for furnishing and allowing me to reproduce the images.

FOREWORD TO CATALYST:
This essay was written as a foreword to the book *Catalyst: Art, Sustainability and Place in the Work of Wolfgang Weileder* (Bielefeld/Berlin: Kerber Verlag, 2015). The book was published as part of the Jetty Project, comprising a series of artworks and installations centred on the jetty of Dunston Staiths, Gateshead, Northumberland. I am grateful to Wolfgang Weileder for permission to reproduce the essay, and to the photographer Colin Davidson for the accompanying images and allowing me to use them.

CRAFTING LANDSCAPES:
This essay was written in response to an invitation from Kamni Gill, and was published in *Journal of Landscape Architecture* 9(2): 50–53, 2014. It is reproduced by courtesy of the journal.

A PHENOMENOLOGY WITH THE NATURAL WORLD?
This essay was written in response to an invitation from David Seamon and published in *Environmental and Architectural Phenomenology* 25(3): 22, 2014. I am grateful to David Seamon for allowing me to reproduce it here.

THREE SHORT TALES OF SELF-REINFORCEMENT:
I wrote these three stories in response to a text by the physicist Walter Behrmann, 'Der Vorgang der Selbstverstärkung' [The Process of Self Reinforcement], *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* (1919), pp. 153 157. They are published in the 4-volume compendium *Grain, Vapor, Ray: Textures of the Anthropocene (Volume 1, Grain)*, edited by Katrin Klingan, Ashkan Sepahvand, Christoph Rosol and Bernd M. Scherer, Cambridge, MA: The MIT Press, 2015, pp. 137–146.

LINES IN THE LANDSCAPE:
This essay was written to accompany an eponymous the exhibition of photographic work by Nisha Keshav, held at the City Gallery, Peterborough Museum, 8 May – 8 July 2015. I am grateful to Nisha Keshav for permission to reproduce the essay, along with the accompanying image.

OF BLOCKS AND KNOTS:
This essay was written by invitation and published in *The Architectural Review*, 25th October, 2013. I am grateful to the journal's editor, Christine Murray, for allowing me to reproduce it here.

TAKING A THREAD FOR A WALK:
This essay was written following a visit to the studio of textile artists Anne Masson and Eric Chevalier in April 2015, and was published in their joint exhibition work, *des choses à faire*, Gent: MER, 2015, pp. 71–79. I am grateful to Anne Masson for permission to reproduce it here, along with the accompanying images.

FOLD:
This short poem was published in the first edition of the review TALWEG, published by Pétrole Editions, Strasbourg, in 2014. I am grateful to Pétrole Editions for allowing me to reproduce it here.

ON NOT GIVING UP ON WORDS:
This is a slightly revised and retitled version of the 'Foreword' which Phillip Vannini asked me to write for his edited volume

Non-Representational Methodologies: Re-Envisioning Research, Abingdon: Routledge, 2015, pp. vii–x. I am grateful to Phillip Vannini for permission to reproduce it here.

SOMETHING ABOUT A WORD:
This essay was written for a book to accompany the eponymous artwork by Shauna McMullan, and published by Glasgow School of Art. The work was commissioned by Clyde Gateway, and is permanently located in Eastgate, Bridgeton, Glasgow. I am grateful to Shauna McMullan for allowing me to reproduce it here.

IN DEFENCE OF HANDWRITING:
This essay was commissioned as part of the series 'Writing Across Boundaries' hosted by the Department of Anthropology, University of Durham. It is published online at www.dur.ac.uk/writingacrossboundaries/writingonwriting/timingold/. I am grateful to Robin Humphrey and Bob Simpson for permission to reproduce it here.

MATERIALS ARE CONSTANTLY ASTONISHING:
This is the edited text of a public conversation which Karianne Fogelberg conducted with myself and the designer Max Lamb, held at the Academy of Fine Arts in Munich on 27th November 2012. It is published in the volume *Power of Material/Politics of Materiality*, eds. Susanne Witzgall and Kerstin Stakemeier, Zürich-Berlin: diaphanes, 2014, pp. 75–81. I am grateful to Susanne Witzgall, and to the Munich Academy of Fine Arts, for allowing me to reproduce it here.

MATTER THINKS!
This is the edited text of an email conversation with Marisabel Marratt, of the School of Architecture, Georgia Institute of Technology, conducted between October 2014 and May 2015. It followed on from the symposium *Matter Thinks!*, organised by Lars Spuybroek at the Institute in March 2014. The text has not been previously published, but is reproduced here courtesy of Marisabel Marratt.

LETTERS FROM CRACOW:
This is the edited text of an interview with students Katarzyna Wala and Magdalena Zych, and is reproduced here with their permission. The interview was conducted on the occasion of a visit to the Jagiellonian University, Cracow, in December 2013. It has been published (in Polish) in the magazine *Autoportret*.