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<sup>18</sup> **CRITICAL  
PHENOMENOLOGY:  
ARCHITECTURE  
AND EMBODIMENT**





An appealing if somewhat provocative feature of the work of the late Italian-American scholar Marco Frascari, was his imaginative rethinking of the relationship between architecture and the body.\* Having encountered Frascari's work as both student and colleague I have also been occasionally puzzled by his seemingly unlikely combining of structuralist/semiotic and phenomenological/experiential approaches to questions of meaning in architecture. There is clearly in his ideas a lingering tension between the different starting assumptions of what are commonly seen as antagonistic schools of thought: socially and collectively structured symbolic systems versus the more subjective basis of individual bodily experience. It could also be argued, from a historical perspective, that a similar tension can even be identified in the different ways that phenomenological ideas have been received and appropriated in architectural theory – a process that I think can now be seen as both productive and prohibitive.

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From the perspective of the current moment, the impact of phenomenological thinking in architecture has been felt in two distinct phases. In the 1960s and 70s, particularly in the work of Christian Norberg-Schulz, there was a clear preoccupation with the study of large-scale patterns of spatial organization, inspired at least in part by the work of Martin Heidegger. In books like *Existence, Space and Architecture* (1971)<sup>1</sup> and *Genius Loci* (1980)<sup>2</sup> the Norwegian historian focused on the symbolic structuring of places and settlement patterns where broadly philosophical, theological, and cosmological ideas were seen as being mapped out across the landscape. The assumption was that these symbolic patterns allowed individuals to grasp their place within the larger scheme of things by establishing what Norberg-Schulz called an ‘existential foothold’ in space and time. Telescoping forward to what can now be seen as a second wave of phenomenological influence from the early 1990s onward, a different preoccupation emerges amongst both theorists and designers, with a dramatic shift of interest from the macro to the micro scale. Here the emphasis moves to the minutiae of architectural details, to questions of tectonics and materiality, and the sensory connections between the building and the individual experiencing subject. Key examples of this preoccupation are probably too familiar to need repeating, but include Kenneth Frampton’s *Studies in Tectonic Culture*, (1995)<sup>3</sup> the recently reprinted collection *Questions of Perception*, (1994 [2006])<sup>4</sup> plus Juhani Pallasmaa’s widely influential introductory book *The Eyes of the Skin* (2005).<sup>5</sup>

Now even more recently another chapter has been added to this story, in the form of a historical account of the impact of phenomenology on the emergence of postmodernism in architecture. Whether or not one agrees with all the details of the historiography, the recent book by Jorge Otero-Pailos from Columbia University called *Architecture’s Historical Turn*,<sup>6</sup> does at least provide an interesting re-reading of the early work of Kenneth Frampton. What is particularly provocative, and yet still incomplete, in Otero-Pailos’s narrative is the seemingly unlikely attempt to bring together the political and the aesthetic. In fact the book tries to draw out a political significance from what the author calls an ‘aesthetics of excess’, an almost Baroque over-elaboration of materiality and tectonic celebration that might threaten to defy formal containment and disrupt canons of taste. One problem is that the book avoids dealing with the kind of detailed philosophical arguments that might have helped to support this idea,

particularly the phenomenological analysis of the pivotal role of embodied experience. It therefore misses a long-overdue opportunity to explore the critical potential of this philosophy, and this is one of the areas that the current essay aims to briefly identify.

The approach taken here is to look back to the work done by the French phenomenologist Maurice Merleau-Ponty, (1908-61), partly inspired by the recent resurgence of interest in his ideas from some fairly unlikely areas. I am referring here to contemporary work on embodied perception in disciplines such as cognitive science, human-computer interaction, neuro-psychology, and even archaeology, as well as a renewed interest among philosophers from both Continental and Analytic traditions. Notable examples include the writings of: George Lakoff and Mark Johnson, Andy Clark, Shaun Gallagher, Alva Noë, and Evan Thompson.<sup>7</sup> Analytic philosophers who are also engaging with Merleau-Ponty include Stephen Priest and Thomas Baldwin, who have both recently published books about his work.<sup>8</sup>

In the context of this reassessment of some key insights from phenomenology it seems timely to question the continued relevance of these ideas in architecture. The main part of this essay will aim to do this by addressing three specific issues that are often taken to be major problems for the phenomenological approach, particularly by those who see themselves as more socially oriented, politically radical and generally 'forward-looking' thinkers. A key question relates to the link between the individual and the social world, and asks whether phenomenology can help us at all in dealing with the wider social and political context. A further question asks what exactly is 'critical' about 'critical phenomenology', and whether it is possible to avoid the common accusation that phenomenology is fundamentally conservative and backward-looking, apparently too preoccupied with nostalgia for a supposedly subject-centred world. To begin to address these issues it will be necessary to clarify the pivotal role of what Merleau-Ponty called the 'body-schema', and as a preamble to this, also outline the more general role of concepts in the process of perception.

**FROM 'PERCEPTS' TO CONCEPTS – THE EMERGENCE OF THE BODY-SCHEMA**

The first issue concerns what might be called individual acts of perception. It asks: how is it even possible for anything to show-up in our awareness – to count as a meaningful stimulus – if we did not already have an understanding of what we are about to encounter? In other words, how is it possible to experience a 'percept' without already having a concept? In response to this, it seems reasonable to agree that perception must rely on some form of anticipation, a mechanism for recognition that allows a stimulus to stand out against a chaotic background. At the same time, it seems right to question whether this can properly be called a 'conceptual' process, since it happens far too quickly to give time for conscious deliberation.<sup>9</sup> So, rather than think of sensory perceptions as fitting into some kind of intellectual category – a mental model coded in the brain that would need to be applied to an incoming stimulus – it would be more accurate to think of it as a function of what has been called the 'body-schema'. For Merleau-Ponty this is an acquired and largely unconscious bodily ability to grasp, in a holistic way, the various elements of a situation – a set of motor-perceptual routines that we bring 'on-line' and put into operation when circumstances seem to demand it. This is what provides the ability to anticipate a range of incoming stimuli, based on the embodied memory of previous experiences that have been 'skillfully coped with' in the past.<sup>10</sup>

At a number of points in his writings Merleau-Ponty described this feeling of background awareness – a kind of implicit embodied knowledge that allows a person to navigate in a familiar environment: "When I move about my house, I know without thinking about it that walking towards the bathroom means passing near the bedroom, that looking at the window means having the fireplace on my left, and in

this small world each gesture, each perception is immediately located in relation to a great number of possible coordinates.”<sup>11</sup> Merleau-Ponty is suggesting a more dynamic understanding of what is often called the ‘body-image’, a term which misleadingly implies only a static picture of the body, like a mental map or diagram. Instead it is important to understand that the body-schema is actually a set of bodily capacities, or a *habitus*, a term which is usually attributed to Pierre Bourdieu although it is used by both Merleau-Ponty<sup>12</sup> and Edmund Husserl.<sup>13</sup> In this sense, according to Merleau-Ponty, the self is defined not by saying ‘I am’ but rather by saying ‘I can’ - in other words, what we *are* is defined by what we can *do*.<sup>14</sup>

All this is another way of saying that our ‘primordial grip’ on the world is actually initially a practical one, a bodily sense of how to engage with the environment which can only ever be partially captured in conceptual terms. <sup>15</sup> As Merleau-Ponty points out, what is initially given in perception is not a clear and distinct world already divided up into subjects and objects, contrary to the dualistic worldview long dominant in philosophy. Rather what is first confronted in experience is actually a confused (i.e. literally ‘fused-together’) world of more-or-less structured situations that can eventually, through exploration and reflection, come to be understood in abstract terms. In other words, out of a process of reflective judgment on the outcomes of bodily engagement, the world tends to become conceptualized as made up of conscious subjects and material objects. Practical bodily action and patterns of behavior taking place within structured environments could therefore be seen as an emergent process out of which the concepts of both the self and the world gradually come to be. “Thus,” Merleau-Ponty suggests, “by renouncing a part of his spontaneity, by engaging in the world through stable organs and preestablished circuits, man can acquire the mental and practical space that will free him, in principle, from his milieu and thereby allow him *to see it*.”<sup>16</sup>

### PHENOMENOLOGY AND SOCIETY – THE MEDIATING FUNCTION OF THE BODY-SCHEMA

The next question asks how a philosophy that appears to be all about individual subjectivity and the minutiae of perceptual experience can begin to deal adequately with the wider social and cultural context in which this experience takes place. Based on what has been said above regarding the dynamic role of the body in the process of perception, one response to this question would involve a consideration of how the body-schema also performs a mediating social function, acting as the means by which the individual engages with the social world.

A key point to note at the outset is that the body-schema is not structured entirely from within, as if it were simply a mental model of the biological capacities of the body as a physical organism. Rather it is structured just as strongly by forces from ‘outside’, being a largely unconsciously acquired collection of behavioural practices based on the social norms and conventions of the culture in which we live. The notion of the body-schema as developed by Merleau-Ponty<sup>17</sup> relied heavily on the research of the Austrian psychoanalyst Paul Schilder, particularly on the book *Das Körperschema*, published in Berlin in 1923. While the English versions of Schilder’s work tended to use the misleading translation ‘body image’, it is clear that the concept also carried the dynamic and social emphasis suggested above. As the following quote from *The Image and Appearance of the Human Body*, first published in 1935, clearly shows: “Just as one’s own body-image gains its full meaning only by its motion and by its function, which expresses itself again in a sensory way, the motion of another person’s body-image, its changes concerning function and its prospects concerning action, give the body image a deeper meaning.”<sup>18</sup>

Merleau-Ponty in Part 2 of the *Phenomenology of Perception* also stressed the importance of considering the social context as the all-important background against which our conceptual understanding of the world of subjects and objects gradually emerges: “We must return to the social world with which we are in contact through the simple fact of our existence, and that we inseparably bear along with us prior to every objectification. (...) The social world is already there when we come to know it or when we judge it. An individualistic or sociological philosophy is a certain perception of coexistence systematized and made explicit. Prior to this coming to awareness, the social exists silently and as a solicitation.”<sup>19</sup>

What is first given to us in perception, according to Merleau-Ponty, is the body ‘thrown into’ a structured situation – a game already underway, in other words, where we have to play according to the rules established already. These pre-existing behavioural conventions that are largely unconsciously assimilated – habitual gestures, bodily movements, styles of dress, forms of greeting, etc. – act as the very medium of everyday existence. And, just like the oxygen we rely on to keep us alive, this invisible support remains almost unnoticed. As these techniques and routines become sedimented into the body-schema they also provide a medium in which communication can take place, and just like a native language their patterns are learnt by an intuitive process of trial-and-error, not by first memorizing and then consciously applying their rules of grammar and syntax. What has more recently been labeled as a ‘usage-based theory of language acquisition’<sup>20</sup> also suggests that linguistic ability is first and foremost a bodily skill – gradually honed in the give-and-take of conversational interaction - and based on a tacit, intuitive grasp of the principles by which it operates.

The body-schema in Merleau-Ponty's formulation suggests a mechanism by which the individual can 'meet the world half-way', and therefore how it might also perform a key role in preserving our free agency as individuals. Rather than seeing the body as basically a passive victim of top-down processes of cultural 'inscription', as later thinkers such as Bourdieu and Michel Foucault tended to do, it may in fact be possible to see the body-schema as the means by which the individual can fight back against the forces of social and political domination. There may of course be good historical reasons why many in this later generation of post-war French thinkers wanted to distance themselves from what they saw as the a-social approach of phenomenology. But there is still a lot to be gained by reconsidering the social potential of a phenomenological understanding of embodiment, as some more recent sociological thinkers outside the French tradition have tried to do, including for example, Nick Crossley in *The Social Body*, and Ian Burkitt in *Bodies of Thought*.<sup>21</sup>

### **‘WHAT EXACTLY IS CRITICAL ABOUT CRITICAL PHENOMENOLOGY’?**

Recent commentators on Bourdieu’s account of the social role of the *habitus* have also been concerned by his apparent neglect of individual agency. David Couzens Hoy, for example, writing in 1999: “ask(s) whether Bourdieu’s approach allows for conscious, critical resistance to oppressive socialization.”<sup>22</sup> But it could be argued that both Foucault and Bourdieu have already excluded this possibility, given that the real force of the so-called ‘disciplinary society’ is based on the fact that it works more or less unconsciously. This is precisely why its exercise of power is so difficult to resist, even after these thinkers have performed their sophisticated acts of unveiling. It could be argued therefore that Hoy is actually asking the wrong question, or at least is looking in the wrong place for an answer.

One thing that remains unclear in Bourdieu’s analysis of the *habitus* is the crucial difference between the collective idea of a set of social norms and the ‘internalized’ embodied version that individuals carry within themselves.<sup>23</sup> The internalization of the *habitus* can never be perfectly smooth and seamless, given that it relies so much on a bodily process of mimetic and imitative learning. The inevitable inaccuracies, ‘copying errors’, and accidental distortions that arise during the ongoing and iterative process of acquisition and implementation, introduce a level of imprecision that may in fact be fundamental to the whole possibility of transformation. Even Bourdieu himself hints at just this opportunity when he defines a person’s individual style as: “never more than a deviation in relation to the style of a period or class.”<sup>24</sup>

The very ambiguity implied in the phenomenological notion of a ‘bodily grasp’ of a situation is what actually provides the flexibility needed when confronted with the challenge of dealing with a new environment. A degree of slippage or mismatch in the ‘call and

response' process – the deployment of particular behavioural routines in answer to what Merleau-Ponty calls the 'solicitations' of our surroundings<sup>25</sup> - provides a mechanism for dealing with a degree of unpredictability and novelty in the situations we encounter.

In support of these claims one could look back to Merleau-Ponty's analysis of language, specifically the distinction he suggested between what he called 'speaking' and 'spoken' speech.<sup>26</sup> The latter referred to the more conventional speech used in everyday conversation, the kind of heavily codified functional language meant to communicate factual information. 'Speaking speech' on the other hand involves the kind of poetic or literary language that pushes at the boundaries of existing conventions. It does this by suggesting multiple layers of meaning, sometimes through ambiguous semantic references, but often through its acoustic or visual 'materiality'. It could be argued that the ambiguity of 'speaking speech' is what allows language to move forward, providing a mechanism for the invention of new forms of expression and hence for the 'standard' lexicon to gradually evolve. To explain this Merleau-Ponty borrowed a phrase from André Malraux, claiming a positively productive role for the kind of deviations referred to later by Bourdieu: "It is just this process of 'coherent deformation' of available significations which arranges them in a new sense and takes not only the hearers but the speaking subject as well through a decisive step."<sup>27</sup>

Another way of understanding this inherent creativity within the process of communication is to think of language as operating on a kind of 'deficit and surplus' principle. Any individual act of expression will inevitably end up by saying both *less* and *more* than was intended, generating both a deficit and a surplus in relation to the thought it tries to capture. The fleeting impression, or the bodily felt sense of a structured situation – as well as the so-called 'gut reactions' to events as they rapidly unfold around us – none of these can ever be comprehensively captured in the ready-made words and phrases that existing language offers up. But, by the same token, a language invented by others out of previous attempts to capture thoughts as

they continually slip by, also carries more along with it than can ever be anticipated. What is sometimes referred to as the ‘baggage’ that those preformed linguistic containers inevitably bring with them, suggests in the mind of the listener - as well as the mind of the speaker – additional layers of meaning beyond the original intention. As Merleau-Ponty himself succinctly pointed out: “my spoken words surprise me myself and teach me my thought.”<sup>28</sup>

So, while the world continually exceeds the ability of linguistic expression to capture it completely, language at the same time effectively serves as a creative tool of the reasoning mind. Likewise, behavioural practices also have a similar double function, being both techniques for exploration and forms of expression. And as with the limitations inherent in preexisting patterns of speech, the bodily routines acquired from previous experiences are never fully adequate to each new situation. But there are also two sides to this social equation: however closely we might try to conform to the behavioral norms of a given setting, our actual bodily performances inevitably fall short. In other words, even well-practiced habitual actions can never be perfectly reproduced due to the inherent inertia and resistance of our physical embodiment. As suggested by Merleau-Ponty in his analysis of expressive speech, this ‘thickness’, or ambiguity in the material embodiment of behaviour again appears to preserve the critical agency of the individual subject. According to Gail Weiss’s recent analysis of Merleau-Ponty’s understanding of the creativity of habit: “even in the most sedimented patterns of conduct, ambiguity and indeterminacy are nonetheless present, guaranteeing that the repetition of old habits will never be a complete repetition of the same.”<sup>29</sup> This observation highlights the important gap between intention and realization involved in any individual action – that inevitable element of slippage between the behavior that seems to be called for and that which is actually performed. It is this gap at the very centre of the process of ‘social reproduction’ that seems to be something of a blind-spot in the account of the *habitus* given by Bourdieu, whereas for Merleau-Ponty it offers the promise of creative adaptation and change. As Gail Weiss again points out: “Rather than presenting transformation and sedimentation as mutually exclusive binaries of openness and closure where each presents a threat to the other, Merleau-Ponty locates innovation at the very heart of sedimentation, and his primary example of how this occurs is through language...”<sup>30</sup>

I would like to claim that this very inadequacy in our attempts to reproduce habitual behaviours is precisely what allows space for new forms and new meanings to emerge. As variations in behavior solicit new responses from those around us, and the most effective ones begin to be repeated and thus preserved, the 'canon' of available actions gradually evolves. Thus, by attempting to take up and reproduce existing conventions – and while doing it, inevitably, always less than perfectly – we are, rather like over-zealous actors, effectively re-writing the scripts we were attempting to perform.

### TOWARDS A 'CRITICAL POETICS' OF ARCHITECTURE

The above discussion has treated both language and habitual behavior as forms of embodied social interaction, and the body-schema as the means by which this interaction takes place. I have tried to show that the structuring of the body-schema through habitual practices must take place through the material medium of the moving, experiencing body. As Merleau-Ponty notably claimed the body is far from being an obstruction to the efficient workings of the thinking mind, it is in fact “the sole means I have to go unto the heart of the things”.<sup>31</sup> Any ‘transfer of information’ between the mind and the world – and hence between the individual and society – must therefore inevitably pass through the material conduit of embodied experience. Like all materials, physical bodies offer both potentialities and limitations, certain characteristic refractory qualities that show up in their resistance to transformation. And I have tried to show how this natural resistance of the materiality of things offers opportunities for innovation and hence for what I am calling ‘criticality’ – a mechanism for questioning ‘received solutions’ by continually producing novelty that cannot itself be easily resisted. It is this potential for unexpected excess in all forms of material embodiment that I believe points the way to a source of critical invention and innovation, a radical potential that seems to contradict what we have been led to expect from phenomenology in architecture. I am thinking of the all too familiar accusation that phenomenology is inevitably backward-looking, concerned only with a recuperative project of recovering lost meaning, lost places, lost experience and lost identity.

Instead I am suggesting a new understanding of embodiment as the source of what could be called a ‘critical poetics’ in architecture: an emergent effect of experimental engagement with materiality in the process of both design and construction. In this instance I am using the term ‘materiality’ in terms of both tectonic and typological canons, and therefore suggesting an embodied exploration of the opportunities offered by both the physical and formal ‘stuff’ of architecture. I say ‘poetic’ because this process promises to release new possibilities, just as with Merleau-Ponty’s idea of ‘speaking speech’: new forms of expression suggest new levels of meaning, even though they initially risk being dismissed as meaningless. And by the same token I would call this ‘critical’ because of the way these new forms resist consumption. By blocking an unthinking assimilation into tried and trusted categories they challenge us to question the adequacy of our existing interpretive frameworks.

This last observation should encourage us to reconsider one of the ways in which the word ‘critical’ has previously been applied in architectural theory: for example in the highly influential term ‘critical regionalism’ popularized in the 1980s by Kenneth Frampton. Frampton had adopted the term from Tzonis and Lefaivre’s 1981 essay “The Grid and the Pathway”, in which they discussed the work of the Greek architects Dimitris and Susana Antonakakis. They saw this work as demonstrating an alternative to the recently prevalent forms of ‘historicist regionalism’ in Greece, where self-conscious attempts to revive a sense of regional and national identity were being made through a kind of ‘top-down’ process of stylistic imposition: “Historicist regionalism here had grown not only out of a war of liberation; it had emerged out of interests to develop an urban elite set apart from the peasant world and its rural ‘backwardness’ and to create a dominance of town over country: hence the special appeal of historicist regionalism, based on the book rather than experience...”<sup>32</sup>

Aside from the more insidious political issues involved, the passage also implies that vernacular traditions historically emerged from a process of ‘experiential learning’, where both design and construction practices were passed on through behavioural routines. This direct ‘body to body’ process contrasts with the mainly ‘conceptual’ model prevalent today, where knowledge is usually communicated through instruction manuals or textbooks in a formalised academic setting. This conceptual form of learning tends to act as a brake on innovation, binding practices to fixed principles that are often unable to adapt to changing requirements. By contrast, where you have techniques passed on directly through some form of material embodiment, the inherent looseness and ambiguity of this process means it can act as a kind of ‘engine of innovation’ – where novelty is more than just possible, it’s actually inevitable.

I would argue that this kind of innovation is also more responsive to evolving social needs, as well as being difficult to legislate against from above by the imposition of top-down principles. This is in contrast to the kind of rule-driven methods that are described in written form. We might then think of the regional as in itself inherently critical, despite the fact that local traditions can of course become moribund - particularly when they are corrupted by historical dogma and forced to conform to an external ideology. This can happen at the point where they become canonized into a set of formal academic principles, when much of their natural vitality begins to be suppressed.

Another useful example of the kind of ‘creative indeterminacy’ that seems inherent in embodied transmission is the biological process of genetic duplication, which also seems – somewhat paradoxically – deliberately designed to work less-than- perfectly. Much as we are encouraged to think of DNA protein chains as a kind of neutral and immaterial ‘code’, their informational capacity in fact results from their specific configuration of material parts. It seems as if the stubborn materiality of the gene inevitably generates ‘copying errors’ and these inaccuracies continually throw-up genetic mutations, some of which will happen to give the resulting organism an advantage. When these random changes in the genome structure confer some kind of selective benefit, they will tend to preserve themselves for a time within a population and if successful, gradually proliferate. Of course this process also relies on a changing environment which serves as a kind of external or ‘top-down’ selective mechanism, throwing up new

challenges to a living organism that offer new opportunities for chance adaptations to exploit. So, as a final speculation, it might be worth considering whether there is a similar kind of ‘natural selection’ in the realm of architectural form – do new kinds of spaces gradually find new uses and do new meanings inevitably follow?

So to conclude this discussion of the *critical* in relation to another great philosophical tradition, we might say that we have been enquiring not merely into the ‘conditions of possibility’ of architectural experience, but more importantly for creative designers, it has also been an enquiry into the conditions of *new possibilities*. As Merleau-Ponty suggests, again in relation to language, the constant renewal of expressive forms is the nearest we can ever get to recovering supposedly ‘lost’ meanings:

“Each act of philosophical or literary expression contributes to fulfilling the vow to retrieve the world taken with the first appearance of a language, that is, with the first appearance of a finite system of signs(.) Each act of expression realizes for its own part a portion of this project, and by opening a new field of truths, further extends the contract which has just expired. This is possible only through the same ‘intentional transgression’ which gives us others; and like it the phenomenon of truth, which is theoretically impossible, is known only through the praxis which creates it.”<sup>33</sup>

- 1 Christian Norberg-Schulz, *Existence, Space and Architecture* (London: Studio Vista, 1971).
- 2 Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (London: Academy Editions, 1980).
- 3 Kenneth Frampton, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, ed. John Cava (Cambridge MA: MIT Press, 1995).
- 4 Steven Holl, Juhani Pallasmaa, and Alberto Perez-Gomez, "Questions of Perception: Phenomenology of Architecture" (Tokyo: A+U, 2006).
- 5 Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Chichester: Wiley-Academy, 2005).
- 6 Jorge Otero-Pailos, *Architecture's Historical Turn: Phenomenology and the Rise of the Postmodern* (Minneapolis MN: University of Minnesota Press, 2010).
- 7 See, for example: George Lakoff and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought* (New York: Basic Books, 1999); Mark Johnson, *The Meaning of the Body: Aesthetics of Human Understanding* (Chicago: University of Chicago Press, 2007); Andy Clark, *Being There: Putting Brain, Body and World Together Again* (Cambridge MA: MIT Press, 1997); Shaun Gallagher, *How the Body Shapes the Mind* (Oxford: Clarendon Press, 2005); Alva Noë, *Action in Perception* (Cambridge MA: MIT Press, 2004); and Evan Thompson, *Mind in Life: Biology, Phenomenology and the Sciences of Mind* (Cambridge MA: Belknap Harvard, 2007).
- 8 Stephen Priest, *Merleau-Ponty* (London: Routledge, 2003); Thomas Baldwin, *Reading Merleau-Ponty: On Phenomenology of Perception* (Abingdon, Oxon: Routledge 2007).
- 9 Daniel C. Dennett, *Consciousness Explained* (London: Penguin Books, 1993).
- 10 On the process of 'skilful coping' as drawn from Martin Heidegger's famous tool analysis, see Hubert L. Dreyfus, *Being-in-the-World: A Commentary on Heidegger's Being and Time, Division I* (Cambridge MA: MIT Press, 1991) 60-69.
- 11 Merleau-Ponty, *Phenomenology of Perception*, 129-30.
- 12 Ibid., 139 and 307.
- 13 Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, (book II), trans. Richard Rojcewicz and André Schuwer (Dordrecht : Kluwer Academic, 1989) 118 and 279-308.
- 14 Merleau-Ponty, *Phenomenology of Perception*, 139 and Edmund Husserl, *Ideas II*, 159-60.
- 15 It is interesting to note how the word 'grasp' refers to both physical and intellectual states. See George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980) 20.
- 16 Merleau-Ponty, *Phenomenology of Perception*, 89.
- 17 Ibid., 101.
- 18 Paul Schilder, *The Image and Appearance of the Human Body: Studies in the Constructive Energies of the Psyche* (Abingdon, Oxon: Routledge, 2000. First published 1935 by International Universities Press) 226.
- 19 Merleau-Ponty, *Phenomenology of Perception*, 379.
- 20 Michael Tomasello, *Constructing a Language: A Usage-Based Theory of Language Acquisition* (Cambridge MA: Harvard University Press, 2003).
- 21 Nick Crossley, *The Social Body: Habit, Identity and Desire* (London: Sage, 2001) and Ian Burkitt, *Bodies of Thought: Embodiment, Identity and Modernity* (London: Sage, 1999).
- 22 David Couzens Hoy, "Critical Resistance: Foucault and Bourdieu," in *Perspectives on Embodiment: The Intersections of Nature and Culture*, ed. Gail Weiss and Honi Fern Haber (New York: Routledge, 1999) 12.
- 23 See, for example: Pierre Bourdieu, *Outline of a Theory of Practice*, trans. Richard Nice (Cambridge: Cambridge University Press, 1977), 78-87; and *The Logic of Practice*, trans. Richard Nice (Cambridge: Polity Press, 1990) 52-65.
- 24 Bourdieu, *Logic of Practice*, 60.
- 25 Merleau-Ponty, *Phenomenology of Perception*, 323-24.
- 26 Ibid., 202-03.
- 27 Merleau-Ponty, "On the Phenomenology of Language," in *Signs*, trans. Richard C. McCleary (Evanston, IL: Northwestern University Press, 1964) 91.
- 28 Ibid., 88.
- 29 Gail Weiss, "Can an Old Dog Learn New Tricks?" in *Refiguring the Ordinary*, ed. Gail Weiss (Bloomington IN: Indiana University Press, 2008) 96.
- 30 Ibid., 96.
- 31 Merleau-Ponty, "The Intertwining – The Chiasm" in *The Visible and the Invisible*, trans. Alphonso Lingis (Evanston IL: Northwestern University Press, 1964) 135.
- 32 Alexander Tzonis and Liane Lefaivre, "The Grid and the Pathway", *Architecture in Greece*, 15, 1981. (Quoted in: Kenneth Frampton, *Modern Architecture: A Critical History* (London: Thames and Hudson, 1985) 325.
- 33 Merleau-Ponty, "On the Phenomenology of Language," 95-96.

#### ILLUSTRATION CREDITS

Figs. 1–3 Wang Tao, courtesy Jonathan Hale.