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## **Special issue on Heidegger, writing, and technology**

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## Is SF handwritten?

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I want to start with Heidegger's late work *Was heißt Denken?* (*What Is Called Thinking?*, 1951-52), and also with the reading of Heidegger Jacques Derrida undertakes in his essay 'Heidegger's Hand' (1987). The interaction of these two works constitutes, we might say, a handful; but also, I suggest, illuminates the nature of SF monstrosity.

In *What Is Called Thinking?* Heidegger is interested in addressing the question of the human, and what defines human-ness; and his answer is *the hand*. The human hand sets the human being apart from the rest of 'nature' because it is an organ of *signing* – of pointing, for instance – and man is a signing, or signifying, animal. Man uses his hand to indicate; and in this sense the hand is 'monstrous', both in the sense of being unusual (freakish, we might say) in nature, and in the root-etymological sense of the word – the Latin *monstrum* is behind both our 'monster' and our 'demonstrate'. In original usage, a 'monster' – let us say, a two-headed calf – was something more than merely bizarre: it would be *ominous*. Through it the gods would be *trying to tell us something*, something that might be interpreted by a soothsayer. Nowadays 'monster' in popular usage means primarily only a fantastical and usually alarming creature, a startling manifestation of Otherness (for example, an alien); but a ghost of the original meaning still haunts the word. Godzilla, for instance, is a monster both in the sense of being a frightening beast, and in the 'demonstrative' sense, the sense that 'it is trying to tell us something' (in this case, something about the malignity of American nuclear testing and weaponry). Heidegger sees

hands as monstrous in the sense that they set us apart from other animals, and in the sense that they show, they indicate or demonstrate. Indeed, for Heidegger, hands *think*. It is for this reason that (to quote a different Derridean engagement with Heidegger) 'the interpretation of the hand ... dominates Heidegger's most continuous discourse'.<sup>1</sup>

Thought, for Heidegger, is not a disembodied or merely cerebral process; it is part of the way our bodies function. More specifically he argues that thought is actually a species of *Handwerk* – 'handiwork', the valorized process of creative engagement with the world. Heidegger's examples are carpenters, joiners and cabinetmakers; craftsmen who both think and express that thinking with their hands. But we can extend what he says: not just for craftsmen but also for all humans the hand thinks before it is thought; it is a thinking.

Derrida's essay makes plain, amongst other things, the way Heidegger's essay concerns the mediation of the manual and the technological. He summarizes Heidegger: 'The hand is *monstrosité*, the proper of man as the being of monstration [*ie both the monstrous and the demonstrative*]. This distinguishes him from every other *Geschlecht* ['species'], and above all from the ape. The hand cannot be spoken about without speaking of technics'.<sup>2</sup> Human beings, of course, are not the only creatures to possess hands: think of apes. But Heidegger is adamant that apes do not possess hands in the way that humans do; he talks, instead, of them having 'prehensile organs which seize and grab'.<sup>3</sup> Humans have hands that do more than this; hands that signify, and therefore humans (and not apes) are capable of thought and speech. This is one of the distinctions between humanity and beasts. We might say (although this is not an example from Heidegger) that if I point my finger at something, another human will look at the thing at which I am pointing; where a dog will look *at my finger*. Heidegger indeed identifies 'an abyss' between a beast's hand and a human hand.

It seems likely that, at least as far as apes are concerned, Heidegger is wrong about this (the success with which Francine Patterson taught Koko the gorilla sign-language suggests that the higher apes at any rate can manifest thought and functioning language precisely manually). But that is not the focus of what I want to consider. Rather it is this question of the monstrosity of the hand, and the connection of the hand and Heideggerian technics, read especially via Derrida.

If man's hand is what it is since speech or the word (*das Wort*), the most immediate, the most primordial manifestation of this origin will be the hand's gesture for making the word manifest, to wit, handwriting [*l'écriture manuelle*], manuscripture (*Handschrift*) that shows and inscribes the word for the gaze.<sup>4</sup>

The question I want to air, in other words, is a simple one: is SF handwritten? This question unpacks into the larger issues of the place of technology, and 'technics' more broadly, in science fiction itself – the high-tech props and features of so much SF, extrapolated from the rapid technological advances of the twentieth century ... technological advances that Heidegger, of course, abhorred. 'The hand is in danger,' he claimed.

Technology, Heidegger suggests, 'enframes' the world in a way characterized chiefly by an 'ordering' of things that risks alienating humanity from other modes of revelation and enframing:

Enframing does not simply endanger man in his relationship to himself and to everything that is. As a destining, it banishes man into the kind of revealing that is an ordering. Where this ordering holds sway, it drives out every other possibility of revealing. Above all, enframing conceals that revealing which, in the sense of *poiesis*, lets what presences come forth into appearance.<sup>5</sup>

In other words, for Heidegger, technology is hostile to the possibilities of poetry. In this sense, and in the fullest (making, revealing, care-full) sense of the word, a poetics of technology – a science fiction – would be a contradiction in terms.

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Is SF handwritten? The question implies a negative answer. SF is printed, and increasingly, latterly, digitized: online, on-screen. Handwriting is old technology; SF's fascinations are with novelty. (We might ask: is SF written with a quill pen?) There are of course many examples of SF writers who did indeed handwrite their SF, as H.G. Wells and Mary Shelley (for example) certainly did. But that is not what I am asking. We do not think of SF as mediated directly from the writer's hand; we think of it coming already mediated by technology, because it is itself, inherently technological. We think, in other words, of Philip K. Dick sitting at a typewriter. Christopher Johnson notes that Dick 'could type at the phenomenal rate of 120 words per minute' and that he told his third wife, Jane: 'the words come out of my hands, not my brain, I write with my hands.'<sup>6</sup> Johnson discusses this in the course of a discussion of Heidegger's hostility to the typewriter:

In one sense, Heidegger's resistance to the typewriter can be taken as being paradigmatic of the resistance to 'technology' in general, a resistance which is a doubtless and structural constant of all human relations to the artifact, the artificial, the supplement.<sup>7</sup>

He also quotes Derrida's essay:

Typographic mechanization destroys this unity of the word, this integral identity, this proper integrity of the spoken word that writing manuscripts, at once because it appears closer to the voice or body proper, and because it ties the letters, conserves and gathers the words ... The typewriter [*machine à écrire*] tends

to destroy the word: the typewriter 'tears' writing from the essential domain of the hand ... the machine 'degrades' the word or the speech it reduces to a simple means of transport, to the instrument of commerce and communication. Furthermore the machine offers the advantage, for those who wish for this degradation, of dissimulating manuscripted writing and 'character'. 'In typewriting, all men resemble each other', concludes Heidegger.<sup>8</sup>

I'd like to suggest that Dick at his 'writing machine' (more fully: Dick as 'writing machine') is the archetypal figure of SF productivity. Default SF is written rapidly, impersonally, and in a way that irons out the formal and stylistic peculiarities of individual expressiveness in favour of commercialized uniformity: 'hack writing' and 'pulp writing' rather than handiwork. But it also manifests a generic fascination with machine-work rather than hand-work; with the liberalization and trooping of hands as monstrous, alien, machinic and so on. It is remarkable how penetratingly alienness can be evoked by the metamorphosis of manual humanity. The overfamiliar trope of an extraterrestrial who manipulates its environment with tentacles rather than hands is only the most obvious of many instances of this. One of the main characters in Greg Bear's recent novel, *City at the End of Time* (2008) is a far-future superevolved human 'Tall One' or 'Eidolon' called Pahtun. Here he is in conversation with some less-evolved individuals:

He waved a long-fingered hand, and Tiadba noticed that on the tip of his sixth-finger – he had six fingers and an odd thumb, mounted in the center of his palm – there was a pink flower. Patient observation, as Pahtun spoke and waved his hand some more, rewarded her with the realization that this flower was in fact a cluster of six-smaller fingers – perhaps used in delicate tasks.<sup>9</sup>

What makes this little image so striking is its peculiarly fractal logic, its extension of our sense of a human being as (to appropriate Lear's words) a poor *forked* thing: a unitary, single 'body' (which we tend to mistake for 'us') branches into two arms, into two legs. Each arm branches at its end into five digits. Bear simply imaginatively extends this logic: it is hard, I submit, to think of the finger branching into six miniature fingers without wondering whether each of *these* mini-fingers does not also end in *even smaller fingers* – perhaps fractally extending the hand indefinitely into infinitesimal digits. Our hands, howsoever useful they are as manipulators and signifiers, also represent one place where our body *frays*. (The hand is in danger, as Heidegger claimed: in danger, in one sense, of unpicking the body itself, as the loose threads at the end of a woolen sweater can unspool the whole).

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Naturally I am looking at my hand now, in between using my hand to type out (hand-write only in the sense that a machine mediates hand and writing) this sentence. Now, one way of addressing this *peculiarity* – this *monstrosité* – of my hand is to talk not of 'hands' but of 'the Hand'. It is Derrida's contention that this is precisely what Heidegger does: he 'always thinks of hands in the singular.'

What comes to man through *logos* or speech (*das Wort*) can only be one single hand. Hands, that is already or still the organic or technical dissipation. So one will not be surprised faced with the absence of all allusion, for example in the Kantian style, to the play of difference between right and left, to the mirror or the pair of gloves. This difference cannot be *sensible*.<sup>10</sup>

But something is not right here. Will McNeill quotes this passage in order to challenge its assumptions, pointing out that Heidegger is specifically engaged in 'Dasein's becoming spatialized into "corporeality"' and what's more with 'the problem of Dasein's hands, left and right.' McNeill quotes

from Heidegger's 1925 lectures, *History of the Concept of Time*: 'Dasein is oriented as corporeal, as corporeal it is in each case its right and left ... This means it belongs to the Being of corporeal things that they are also constituted by orientation. There is no hand in general, rather every hand and every glove is right or left.' There is no hand in general. McNeill, relating this to Heidegger's later *Was heißt Denken?*, continues:

If the hand – the singular hand – is that which originally points, shows, signs, designates and draws us into a particular direction of thinking, then this hand is not the embodied hand as merely at hand (*vorhanden*). It is not the hand as inscribed. Yet neither is it to be understood as the hand in general, abstracted from all embodiment. The singularity of the hand, the singularity of its draw, is not that of an individuated hand, nor that of a unitary essence of the hand.<sup>11</sup>

This is the hand that 'draws' science fiction, often by precisely 'withdrawing' from it.<sup>12</sup> It is, for instance, striking how often SF marks its difference to other modes by 'withdrawing' the hand; a withdrawing that seems to take the form, in many cases, of outright hostility. Frank Herbert's *Dune* (1965) begins with Paul Atreides being tested by the Bene Gesserit with the 'gom jabbar'. The purpose of the test is precisely to establish this crucially Heideggerian datum: is Paul a human or an animal?

Paul put his hand in the box ... The burning! The burning! He thought he could feel skin curling black on that agonized hand, the flesh crisping and dropping away until only charred bones remained.<sup>13</sup>

If he snatches his hand out of the box the Reverend Mother will kill him with a poisoned needle at his neck. The test, in other words, is partly a test of the strength of Paul's willpower, to rationally accept the

destruction of his hand instead of death. But the test, positioned right at the start of the novel in this manner, is also precisely initiatory. After the test, the B.G. Reverend Mother commands him 'take you hand from the box, young human, look at it.' Paul is reluctant: 'reason told him that he would withdraw a blackened stump from that box.' But in the event the hand shows 'not a mark. No sign of agony on the flesh'.<sup>14</sup> This box makes no further appearance in the novel; nor does it need to. *Dune* has only pretended to destroy Paul's hand; and the irony of the entire *Dune* trilogy – that Paul, though seemingly human, is precisely monstrous, a unique monster that will remake the galaxy and demonstrate the actions of futurity upon the present – proceeds from this initial hand-play.

Consider also George Lucas's *Star Wars* films. In the second film *The Empire Strikes Back* (1980), Luke Skywalker is mutilated in a light-saber battle with his father Darth Vader. Vader chops off Luke's right hand at exactly the moment he reveals that he *is* his father. This dismemberment, in other words, marks the transition of Luke from ignorance to knowledge, and his proper entry into the science fictional logic of the text. What is striking is that this chopped-off hand is replaced immediately (in the film) with a robotic hand indistinguishable from a fleshly hand; and more striking still is the fact that no further reference is made to this artificial hand in *Empire* or in the next film in the sequence, *Return of the Jedi* (1982). The closest that the text comes to acknowledging the artificial handedness of Luke is in the climactic light-saber battle of the latter film: here Vader is the one whose hand is chopped off, but the amputation reveals that his hand was a robotic one all along. (The prequel films reveal that all four of Vader's limbs are artificial). The purpose of this moment in *Jedi* is for Luke to experience a sudden epiphanic sympathy with his father. Seeing that he and Vader share this monstrous robotic handedness he switches off the light-saber with which he had, moments before, been trying to kill his father. The ground of filial connection, in other words, is precisely in the mechanic.

He is recognizing himself not as the son of a particular father (something which, after all, he already knew), but as monstrous after the fashion of his father's monstrosity.

This monstrosity is both particular ('There is no hand in general') and non-particular (as McNeill puts it, 'The singularity of the hand, the singularity of its draw, is not that of an individuated hand, nor that of a unitary essence of the hand.'). In Philip K. Dick's *Three Stigmata of Palmer Eldritch*, Eldritch himself both focuses and disperses the monstrosity with which the text is centrally concerned (the monstrosity that is SF, and is of SF, itself): focuses it in the sense that he acts as the locus for all the other characters' anxieties about alienness (the alien contamination, or invasion, that Eldritch perhaps experienced after traveling to Alpha Centauri); and disperses it in the sense that encountering Eldritch disseminates his three 'stigmata': his metal teeth, artificial eyes, and above all his robotic right hand. He is 'Palmer' both in the archaic religious sense of a pilgrim – he travels to the stars and back – and also in the sense that the palm of his hand, the place where Christ's stigmata are located, focuses a specifically SFnal monstrosity. At one point Eldritch appears to several of the novel's characters in human form; but once he is recognized (recognized because of his hands) he metamorphoses before their eyes:

To Barney [Roni] said, 'Ask to see both his hands'.

Barney said, 'Your hands'. But already the creeping alteration in the seated man had begun ... 'Forget it', he said thickly. He felt dizzy ... The metamorphosis was complete and Palmer Eldritch sat tilted back at the desk, tall and gray, rocking slightly in the wheeled chair, a great mass of timeless cobwebs shaped, almost as a cavalier gesture, in quasi-human form.<sup>15</sup>

A few pages later, Barney is himself monstrously transformed:

Looking down at his hands, he distinguished the left one, pink, pale, made of flesh, covered with skin and tiny, almost invisible hair, and then the right one, bright, glowing, spotless in its mechanical perfection, a hand infinitely superior to the original one, now long since gone.<sup>16</sup>

Kubrick's *Dr Strangelove* is behind this transformation somewhere, the difference of course being that for Kubrick *Strangelove's* monstrous artificial hand (which performs the Nazi salute its organic body has repudiated) is played for laughs, where Dick takes it seriously. Another Dick novel of the 1960s wears its indebtedness to *Dr Strangelove* rather obviously in its title, *Dr Bloodmoney: Or How We Got Along After The Bomb*; and here the malign character of Hoppy Harrington is identified by his monstrous lack of hands: thalidomide having left him a phocomelus with flippers instead of arms.

This monstrosity of these specific SFnal hands is the monstrosity of SF itself. SF as a genre hands us, or draws us, into thinking as Handwerk. It is not a 'literature of ideas' in the banal sense that phrase often invokes, but in the more profoundly Heideggerian enframing of the ways in which thinking happens.<sup>17</sup> But the withdrawal of the hand that constitutes SF is not a simple matter of revealing the alien as less-than-human. Though many SF aliens bear a superficial resemblance to mundane animals, this resemblance is often combined and estranged. Take Spielberg's *E.T.: The Extraterrestrial* (1982). There is something of the monkey about E.T.'s expressive, child-like face, and something of the deshelled tortoise about his body and neck. But he also, of course, possesses a hand; and this is simultaneously freakish – its fingers very elongated, its skin dun and wrinkled like mummified flesh – and demonstrative in a transcendent sense. Spielberg visualizes this latter by having the end of E.T.'s finger glow like a lit cigar; but it is by its

powers – lifting Elliot and his bicycle into the sky with a twitch of the finger, touching Elliot on the chest to inscribe or mark the mystic bond between them – that it makes its greatest impact. When, in Cameron's *Terminator 2* (1991), Arnold Schwarzenegger's Terminator wishes to demonstrate to a couple of disbelieving humans that he is indeed a monstrous future machine and not what he appears to be, a muscular human, he does so by taking a knife and cutting the skin from his right hand, revealing the metallic robot-skeleton beneath. (Similarly, in *Terminator 3*, where the fluid leatherclad female terminator is damaged in combat, her true nature is revealed by the fact that her right hand becomes 'stuck' in the monstrously malformed shape of a futuristic weapon).

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Bernard Stiegler's *Technics and Time* (1994) is an ambitious attempt to think the Heideggerian *technē* through more recent developments in science and technology (and more recent paleological scholarship on the origin of the human). At one point Stiegler suggests, not without a certain playfulness, that as far as the human is concerned '*everything begins with the feet*': that in other words 'the acquisition of an erect posture' enables the development of humanity. But what it enables, more specifically, is the vector of hand / face / language.

If paleontology thus ends up with the statement that the hand frees speech, language becomes indissoluble from technicity and prostheticity; it must be thought with them, like them, in them, or from the same origin as theirs: from within their mutual essence.<sup>18</sup>

SF is amongst other things precisely the language of prostheticity: the manifold prosthetic enhancements that constitute its subject (spaceships, robots, time-machines and so on) also reflecting on SF as

discourse that prostheticises more conventional literatures. SF, as fans are fond of saying, is a language that must be acquired. But this language is less a function of 'intelligence' (the old notion of SF as a 'literature of ideas' again) so much as it is of mobility. This, for Stiegler, is why everything begins with the feet:

Mobility, rather than intelligence, is the 'significant feature', unless intelligence is intelligible only as a type of mobility. What is specific to the human is the movement of putting itself outside the range of its own hand, locking onto the animal process of liberation ... the hand never has anything within its range. Prostheticity, here a consequence of the freedom of the hand, is a putting-outside-the-self that is also a putting-out-of-range-of-oneself. Pursuing the 'process of liberation', the installation of this techno-logical complex nevertheless brings on a rupture. The conquest of mobility, *qua* supernatural mobility, *qua* speed, is more significant than intelligence – or rather intelligence is but a type of mobility.<sup>19</sup>

ET lifts his finger, and mobility becomes a matter of flying effortlessly through the air; its hand gives it access to a speed that is simultaneously out of the range of its hand, just as it propels him beyond the reach of the grasping hands of the law-enforcement officers on the ground below. (By the same token, if the human begins with the feet, can we even *think* of the feet of most of the aliens with which SF is populated?) Another Spielberg film, *Minority Report*, delights in the technical prostheticity of its law-enforcement agents, moving their hands through their data-fields to manipulate both present and future.

But this manual SF engagement with mobility is as much a process of stoppage as of movement. Think of Spock, from *Star Trek*, whose alienness is signified (beyond, that is to say, his strange-shaped ears) by the strange position in which he holds his hand; and who, more to

the point, can apply his hand to the shoulder or neck of a human in the 'vulcan nerve pinch' in a way that stops humans and humanoids dead in their tracks. This is the monstrosity of SF itself: what SF hands out. It is not that SF is handwritten; it is that it writes the hand, or handles its material in a properly (demonstrative, monstrous) manner. SF is a stigmata: the demonstrating hand marked and containing within it its impossible, monstrous robotic other.

Adam Roberts is Professor of Nineteenth-Century Literature and Culture at Royal Holloway, University of London. His job title notwithstanding, he has written widely on postmodernism and on science fiction (including *Science Fiction* (Routledge, 2000) and *The History of Science Fiction* (Palgrave 2006)), as well as publishing more than a dozen science fiction novels. The most recent of these latter are *Swiftly* (Gollancz 2008), *Yellow Blue Tibia* (Gollancz 2009) and *New Model Army* (Gollancz 2010).

**Notes**

<sup>1</sup> Jacques Derrida, *Of Spirit: Heidegger and the Question*, trans. Geoffrey Bennington and Rachel Bowlby (Chicago: University of Chicago Press, 1989), p. 11.

<sup>2</sup> Jacques Derrida, 'La main de Heidegger (*Geschlechte II*)', in *Psyché. Invention de l'autre* (Paris: Galilée, 1987); 'Geschlechte II: Heidegger's Hand', trans. John P. Leavey Jr., in John Sallis (ed.), *Deconstruction and Philosophy* (Chicago: University of Chicago Press, 1987), p. 169.

<sup>3</sup> Martin Heidegger, 'The Question Concerning Technology', trans. William Lovitt and David Farrell Krell in Martin Heidegger, *Basic Writings*, ed. David Farrell Krell (London: Routledge, 1993), p. 332.

<sup>4</sup> Derrida, 'La main de Heidegger', p. 434; 'Heidegger's Hand', p. 178.

<sup>5</sup> Heidegger, 'The Question Concerning Technology', p. 332.

<sup>6</sup> Christopher Johnson, 'Derrida and technology', in Simon Glendinning and Robert Eaglestone (eds), *Derrida's Legacies* (London: Routledge, 2008), p. 63.

<sup>7</sup> Johnson, 'Derrida and technology', p. 63.

<sup>8</sup> Derrida, 'Heidegger's Hand', p. 178.

<sup>9</sup> Greg Bear, *City at the End of Time* (London: Gollancz, 2008), p. 287.

<sup>10</sup> Derrida, 'Heidegger's Hand', p. 182.

<sup>11</sup> Will McNeill, 'Spirit's Living Hand', in David Wood (ed.), *Of Derrida, Heidegger and Spirit* (Evanston, Illinois: Northwestern University Press, 1993), p. 144.

<sup>12</sup> Drawing and withdrawing are part of Heidegger's discussion of the *Handwerk* of thinking, something McNeill discusses: 'What withdraws from us precisely draws us along with it in so doing, whether or not we immediately take note of this at all. Whenever we enter the draw of withdrawal [*den Zug des Entziehens*], we are drawn [*auf dem Zug*] – only in quite a different way than migratory birds [*Zugvögel*] – towards what attracts, draws us towards it in its withdrawing. If as the ones thus drawn [*die so Angezogenen*], we are drawn towards what draws us, then our essence is already stamped by this "drawn towards –" [*"auf dem Zuge zu"*] ... Drawn towards what withdraws, man is a sign [*ein Zeichen*]. Because however this sign points towards that which there with-draws, but rather towards the withdrawing. The sign remains without interpretation' (Heidegger, *Was heißt Denken?*, quoted in McNeill, 'Spirit's Living Hand', p. 112.) McNeill's gloss is perceptive: 'what withdraws, therefore, is nothing determinate. It is nothing, no thing. It is the withdrawing itself. This withdrawing is not other than the sign, it is *of* the sign. The sign itself remains without interpretation because all interpretation would already be drawn in a particular direction' (McNeill, 'Spirit's Living Hand', p. 113). In turn it may be worth adding that science fiction gives a particular temporal context for this withdrawing – the future into which we are drawn, and which withdraws before us continually, that same future that is the primary

ground of SF textuality – precisely because, in science fiction time loses its unidirectionality. Time for Wells’s Time Traveller is not drawn *in a particular direction*, but draws rather in any direction, and all.

<sup>13</sup> Frank Herbert, *Dune* (London: Gollancz, 2001), p. 16.

<sup>14</sup> Herbert, *Dune*, p. 17.

<sup>15</sup> Philip K Dick, *Four Novels of the 1960s*, ed. Jonathan Lethem (New York, NY: Library of America, 2007), pp. 402-3.

<sup>16</sup> Dick, *Four Novels of the 1960s*, pp. 404-5.

<sup>17</sup> This, more or less, is the argument advanced in my *History of Science Fiction* (London: Palgrave, 2006), although the elaboration of the idea works more deliberately against the Heideggerian grain.

<sup>18</sup> Bernard Stiegler, *Technics and Time: the Fault of Epimetheus*, trans. Richard Beardsworth and George Collins (Stanford: Stanford University Press, 1998), pp. 143-45.

<sup>19</sup> Stiegler, *Technics and Time*, p. 146.