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In attending to the history of being, in his later work Martin Heidegger traces the effects of a powerful drive towards technical and objective knowledge which inexorably obliterates a sense of mystery in nature and mankind. The culmination of this trend, in his view, is a globalising technology with its threat, or promise, of 'limitless domination'. What has been termed a 'productionist metaphysics' lies at the heart of this development, through which instrumental or technological modes of thought are projected outwards upon the world at large. The dialectic which Heidegger perceives between concealment and a 'clearing' of being is neglected in favour of a world of useable or calculable objects 'ready-at-hand'. But although history is not, in Heidegger's view, under human control, it may be that the pressing danger of the technological also contains a 'saving power' which is located particularly, in Heidegger's later writings, in art and poetry. It is with some of these issues in mind that a reading of Victorian representations of landscape, nature and machine may be proposed through a juxtaposition of texts which offers a reinflection of both literary and philosophical responses to the advent of technology.

Towards the end of Thomas Hardy's *Tess of the d'Urbervilles* (1891), the steam threshing-machine makes its appearance on the 'starve-acre' farm of Flintcomb-Ash:

Close under the eaves of the stack, and as yet barely visible was the red tyrant that the women had come to serve – a timber-framed construction, with straps and wheels appertaining – the threshing-machine, which, whilst it was going, kept up a despotic demand upon the endurance of their muscles and nerves.¹

The machine's operations are directed by an 'indistinct figure' dressed in black, his engine functioning as 'the *primum mobile* of this little world'. The engine-man, 'a sooty and grimy embodiment of tallness', possessing 'the appearance of a creature from Tophet' and speaking 'in a strange northern accent', has strayed into the southern landscape 'with which he had nothing in common, to amaze and to discompose its aborigines'. He is, the narrator observes, 'in the agricultural world, but not of it', travelling from farm to farm because 'as yet the steam threshing-machine was itinerant in this part of Wessex', and wandering 'against his will in the service of his Plutonic master'. Despite the resistance of those field-labourers who 'hated machinery', the work proceeds apace, 'the inexorable wheels continuing to spin, and the penetrating hum of the thresher to thrill to the very marrow all who were near the revolving wire cage'. It is the 'ceaselessness of the work', as Hardy observes, which tries Tess so 'severely, and began to make her wish that she had never come to Flintcomb-Ash' (TD, 315-16).

A brief glance at agricultural history may help to contextualise this powerfully imagined scene. The threshing-machine was one of the most costly and technically sophisticated nineteenth-century farm implements, the other being the seed-drill such as the one Farfrae introduces into Casterbridge, a novel type of 'agricultural piano' which, Farfrae maintains, 'will revolutionise sowing heerabout' – a claim which prompts Elizabeth-Jane's poignant response, ' "Then the romance of the sower is gone for good"'.² The first practical threshing-machines, powered by horse and water, were pioneered in Scotland in the 1780s, and during the initial phase of the agricultural revolution they were

largely confined to northern Britain. This machinery became more widely adopted because of labour shortages during the Napoleonic Wars, and in the post-war period the threshing-machines were the particular focus of labouring resentment which culminated in the 'Swing' riots of the early 1830s in southern England, in a movement marked by 'widespread sympathy not only of the gentry but also of many *farmers* for the men who broke their machines'.³ In the ensuing period of high farming there was, as E.J.T. Collins has noted, 'unprecedented demand for implements and machinery of all kinds', with the result that 'by 1880 not only had the flail almost entirely disappeared from lowland Britain but also steam had become the predominant power-force'.⁴ Whilst the downturn signalled by the Great Depression might be thought to have offered a less congenial environment for technological innovation, authoritative evidence to the contrary has been put forward:

Increased technical possibilities for saving labour promoted the use of new machinery under less than optimal conditions; and, in the longer run, the mounting potential benefits of farm mechanisation ... became potent enough to once again initiate significant renovations of the landscape.⁵

Hardy's itinerant technician 'travelled with his engine from farm to farm, from county to county' (TD, 315), his movements reflecting Collins's observation that 'in the south portable engines operated by firms of specialist contractors were the general rule', though his further suggestion that 'to the Victorian mind steam was the symbol of technical progress'⁶ is qualified by the negative valence of Hardy's representation. Indeed, folk memory is tellingly invoked in *Tess* to problematise the efficiency claims of the new technology:

The old men on the rising straw-rick talked of the past days when they had been accustomed to thresh with flails on the oaken barn-floor; when everything, even to the winnowing, was effected by hand-labour, which to their thinking, though slow, produced better results. (TD, 316)

As Alice Meynell phrased it in her later poetic account of 'The Steam Threshing Machine':

No fan, no flail, no threshing floor!
And all their symbols evermore
 Forgone in England now – the sign,
 The visible pledge, the threat divine,
The chaff dispersed, the wheat in store.

In Meynell's Hardy-esque vision, the 'unbreathing engine marks no tune, / Steady at sunrise, steady at noon, / Inhuman, perfect, saving time'.⁷ These nostalgic literary accounts stand in marked contrast with the historical evidence amassed by Collins that, compared to the machine, 'the flail was slow, inefficient and expensive of supervision time', and that in practice few men were 'dexterous at handling the flail'.⁸ Nonetheless, a different politics is suggested by Collins's observation that the field-labourer regarded the threshing-floor as his 'little freehold': 'He opposed the machine not out of any special affection for the flail, for hand-threshing was hard, monotonous and dusty work, but because it infringed upon the rights of labour'.⁹ At the local level Hardy's scenario may allude to the establishment by Francis Eddison of a steam ploughing works in Dorchester at the beginning of the 1870s, an event preceded by an address to the Dorchester Farmers' Club by a representative of the leading agricultural implement firm, Fowlers of Leeds, which suggests the origins of Hardy's engineer with his 'strange northern accent'. Eddison himself also hailed from Leeds, and was 'bewitched by steam and drew even farmers on chalk downland under

its spell', operating a hiring system such as that pertaining at Flintcomb-Ash.¹⁰

This form of 'latter-day industrialisation', B.A. Holderness has observed, 'brought with it much social dislocation',¹¹ and it is this massive process of dislocation which Heidegger addressed more widely in relation to the technical innovations of the last two centuries, in his 1953 essay, 'The Question Concerning Technology'. Here and elsewhere in his later work Heidegger's position is at times opaque, but his originality lies in the way he treats technique not merely as function but as a mode of 'revealing' through which a 'world' is shaped or defined. Such structures constitute history, and serve, in his argument, as an 'opening' through which Being is revealed. The objects of the world are 'revealed' to being as they are encountered in use as 'equipment'. In the period of modernity technological thinking reduces human beings to components in the technical system: for Heidegger, a world 'enframed' by technology is both alien and life-threatening in its domination of nature. Yet somehow, Heidegger goes on to claim, a 'saving power' is discernible if we pay heed to the coming to presence of technology, and this redemptive possibility is especially located in the work of art. If the *Dasein* expounded in the earlier work, notably in *Being and Time* (1927), is to relate to technology, Heidegger tells us, this relationship must be founded in a new attitude or 'releasement' (*Gelassenheit*). The essence of technology, in the essays of his last period, is not reducible to the technological; that is to say, it is distinct from what man does with tools. But as far as we use technology purely as an instrument, we remain held fast by a will to mastery similar to that through which Alec d'Urberville seeks to dominate and control Tess in Hardy's novel. The 'saving power' to which both Heidegger and Richard Jefferies bear witness allows us to see Being as a 'sending' whilst adapting our lives to technicity – an adaptation which Hardy's characters tragically fail to encompass.

'Wherever ends are pursued and means are employed, wherever instrumentality reigns, there reigns causality',¹² Heidegger contends. Whilst the earlier world of arts and crafts, as exemplified by ancient Greece, offered a means of 'revealing', modern technology in contrast takes the form of a 'challenge' which 'puts to nature the unreasonable demand that it supply energy which can be extracted and stored' (BW, 320). Thus it is that in the period following the industrial revolution 'a tract of land is challenged in the hauling out of coal and ore' so that the earth 'now reveals itself as a coal-mining district' (BW, 320). As a result of this process, nature is reduced to what Heidegger designates the 'standing-reserve' in a form of instrumentalisation which operates, like Hardy's steam threshing-machine, 'in a dry, monotonous, and therefore oppressive way' which serves to 'subordinate' human beings to its laws (BW, 323). Whereas the 'work of the peasant does not challenge the soil of the field', in the period of modernity 'even the cultivation of the field has come under the grip of another kind of setting-in-order, which *sets upon* nature' to the extent that 'Agriculture is now the mechanised food industry' (BW, 320). At an earlier point in *Tess*, Hardy observes of his heroine delivering the milk to the train that 'No object could have looked more foreign to the gleaming cranks and wheels than this unsophisticated girl' (TD, 188). His similarly alienated evocation of the threshing-machine, a 'timber-framed construction, with straps and wheels appertaining' (TD, 315), is echoed by Heidegger's ascription of those 'standard parts of assembly, such as rods, pistons, and chassis' as features which specifically 'belong to the technological' (BW, 325). According to Heidegger's argument here, 'So long as we represent technology as an instrument, we remain transfixed in the will to master it' (BW, 337). This will-driven compulsion, however, does not encompass the real significance of technology, in which Heidegger discerns a 'coming to presence' which exceeds the 'enframing' of the standing-reserve. The Heideggerian sense of the 'ambiguous essence of technology', that 'stellar course of the mystery' (BW, 338) which eludes

the instrumental drive embodied in Hardy's representation of the machine, might be framed by some observations of Walter Benjamin:

Only a thoughtless observer can deny that correspondences come into play between the world of modern technology and the archaic symbol-world of mythology. Of course, initially the technologically new seems nothing more than that.¹³

In a Heideggerian sense, the essence of technology is not in itself technological. Modern technology, that is to say, also takes the form of a revelation or bringing forth which serves as a 'challenge' (*Herausfordern*) in the endless pursuit of efficiency in the exploitation of resources. Disclosure of being becomes, in this reading, a means to an end. As Heidegger phrases it elsewhere, 'Man is the most important raw material because he remains the subject of all consumption'.¹⁴ Technology is thus to be construed as the end-result of centuries of metaphysical subjectivism, and yet, quoting Hölderlin, Heidegger observes that 'where danger is, grows / The saving power' (BW, 340): 'We can affirm the inevitable use of technical devices, and also deny them the right to dominate us, and so to warp, confuse, and lay waste our nature'. We can do this by 'saying both yes and no to technical devices' in a process of '*releasement toward things*'.¹⁵ In Véronique Fóti's insightful account, Heidegger 'holds that, even though the reductive totalisation of technicity constitutes the extremity of the danger involved in all unconcealment, technicity or "posure" (*Gestell*) still remains a modality of the granting of manifestation'. The technological, that is to say, 'harbours within itself the positivity of another and more salutary understanding'.¹⁶ To make sense of this somewhat opaque argument, it is helpful to return to the earlier thinking of Heidegger, in which he urges us to distinguish between an authentic sense of *Dasein* as exposed to Being and, on the other hand, the everyday activities of 'productive' man. Heidegger seeks to distinguish between an everyday sense of *techne* which preoccupies 'the they' and a

superior kind of *techne* which is the province of artists or politicians. As he puts it in the *Introduction to Metaphysics* (1953): 'Unconcealment occurs only when it is achieved by work: the work of the word in poetry, the work of stone in temple and statue, the work of *polis* as the historical place in which all this is grounded and preserved'.¹⁷

A sense of Heideggerian 'releasement' and the consequent assimilation of the machine into the larger cycle of the natural world was the subject of a suggestive essay by Richard Jefferies entitled 'Notes on Landscape Painting'(1884), an article which demonstrates how, in Heidegger's terms, 'Enframing means the way of revealing that holds sway in the essence of modern technology and that is itself nothing technological' (BW, 325). In this reading the 'merely instrumental' definition of technology is 'untenable' (BW, 326). At the outset of his essay, Jefferies puts it like this:

The earth has a way of absorbing things that are placed upon it, of drawing from them their stiff individuality of newness, and throwing over them something of her own antiquity. As the furrow smooths and brightens the share, as the mist eats away the sharpness of the iron angles, so, in a larger manner, the machines sent forth to conquer the soil are conquered by it, become a part of it, and as natural as the old, old scythe and reaping-hook.¹⁸

The argument is thus one of absorption, of nature converting the new-fangled technologies into objects of colour and beauty, as in Jefferies' memorable depiction of the threshing-machine:

In the second of its presence a red handkerchief a woman wears on the ricks stands out, the brass on the engine glows, the water in the butt gleams, men's faces brighten, the cart-horse's coat looks glossy, the straw a pleasant yellow. (LF, 115)

In this transmutation of Hardy's demonic vision, 'The vast profound is full of the rushing air' (LF, 115). As Heidegger remarks, 'where everything that presences exhibits itself in the light of a cause-effect coherence' we lose the 'mysteriousness', and all sinks to 'the level of a cause, of *causa efficiens*' (BW, 331), and argument that calls to mind Hardy's steam-engine functioning as 'the *primum mobile* of this little world' (TD, 315). Jefferies' sense of a mysterious 'shadow of thickness in the air' gestures towards a Heideggerian 'destining of revealing' in which the 'danger' of technology is subsumed. In a key passage, Heidegger insists,

The destining that sends into ordering is consequently the extreme danger. What is dangerous is not technology. Technology is not demonic; but its essence is mysterious. The essence of technology, as a destining of revealing, is the danger (BW, 333).

In Jefferies' poetically inflected account of the reaping-machine, for instance, that which is new or threatening is 'lost in the corn': 'The straw covers over the knives, the rims of the wheels sink into the pimperl, convolvulus, veronica; the dry earth powders them, and so all beneath is concealed'. Thus, Jefferies argues, 'the cranks, and wheels, and knives, and mechanism do not exist — it was a machine in the workshop, but it is not a machine in the wheatfield' (LF, 116). In this nuanced interpretation of the impact of technology on nature, Hardy's 'straps and wheels' (TD, 315) and Heidegger's 'rods, pistons, and chassis' (BW, 325) are transformed into natural effects blending into the landscape in a vision which can even encompass the impact of the steam-plough, whose 'massive wheels leave their imprint' as 'footsteps of steam' in what initially appears to be a destructive process: 'Like the claws of some prehistoric monster, the shares rout up the ground; the solid ground is helpless before them; they tear and rend it' (LF, 117-18). In language which prefigures Hardy's, Jefferies adds, 'Humming,

panting, trembling, with stretched but irresistible muscles, the iron creature conquers, and the plough approaches'. The scene takes on a quasi-apocalyptic resonance:

By the panting, and the humming, and the clanking as the drum revolves, by the smoke hanging in the still air, by the trembling of the monster as it strains and tugs, by the sense of heat, and effort, and pent-up energy bubbling over in jets of steam that struggle through crevices somewhere, by the straightened rope and the jerking of the plough as it comes, you know how mighty is the power that thus in narrow space works its will upon the earth (LF, 118).

And yet, as the eye gazes round the February landscape, there occurs a change of perspective whereby 'the distant view is softened by haze' (LF, 119) in an aestheticisation of the import of new technology which hints at the mode of 'revealing' or 'clearing' discerned by Heidegger as the 'essence' of technology:

Freedom governs the free space in the sense of the cleared, that is to say, the revealed. To the occurrence of revealing, i.e., of truth, freedom stands in the closest and most intimate kinship. All revealing belongs within a harbouring and a concealing. But that which frees – the mystery – is concealed and always concealing itself. All revealing comes out of the free, goes into the free, and brings into the free... Freedom is that which conceals in a way that opens to light, in whose clearing shimmers the veil that hides the essential occurrence of all truth and lets the veil appear as what veils (BW, 330).

The potency of the agricultural machine in the Victorian countryside, as portrayed with unparalleled insight by Jefferies and Hardy – Jefferies' sense of 'the sentient iron, the wrestler straining' (LF, 118) or Hardy's

description of the operations of the 'Plutonic master' (TD, 316) – might be construed as a form of the 'enframing' in Heideggerian terminology which 'blocks the shining-forth and holding sway of truth' (BW, 333). Heidegger is insistent upon this point: 'The threat to man does not come in the first instance from the potentially lethal machines and apparatus of technology' (BW, 333). Thus, in contradistinction to the implications of Hardy's scene, dominated by the 'Plutonic master', he argues that 'technology is not demonic', whilst endorsing Jefferies' sense that 'its essence is mysterious' (BW, 333). It is enframing, the conversion of nature and humanity to the status of standing-reserve, that constitutes 'the extreme danger', but this risk also contains within itself 'the growth of the saving power' (BW, 334), just as the barns which Jefferies describes as 'passing out of the life of farming' may be converted and thus 'saved' (LF, 121). Each type of machine, as Heidegger notes, is construed as an 'available resource' (BW, 335), but beyond this there is a sense in which technology 'unfolds', and it is thus that, in an almost religious sense, 'the essential unfolding of technology harbours in itself what we least suspect, the possible rise of the saving power' (BW, 337). If we 'represent technology as an instrument', as Hardy does in *Tess*, 'we remain transfixed in the will to master it' (BW, 337), but to the contrary, Heidegger insists, 'Here and now and in little things...we may foster the saving power in its increase' (BW, 338).

The new agricultural technologies, Jefferies argues, 'fit in with trees and hedges, fields and woods' so that 'the surface of the ground presents more varied colours even than before, and the sunlight produces rich effects' (LF, 123-4). These 'actual machines', Jefferies finally avers, 'prepare the mind to see and appreciate the colouring, the design, the beauty' which comprise 'the soul of the picture' (LF, 124-5). In a later essay, 'Walks in the Wheatfields' (1887), Jefferies would further explore the aesthetic impact of agricultural technology:

If I were a painter I should like to paint all this; I should like to paint a great steam-ploughing engine and its vast wheels, with its sweep of smoke, sometimes drifting low over the fallow, sometimes rising into the air in regular shape.... A wonderful effect it has in the still air; sweet white violets in a corner by the hedge still there in all their beauty. For I think that the immense realism of the iron wheels makes the violet yet more lovely; the more they try to drive out Nature with a fork the more she returns, and the soul clings the stronger to the wild flowers.¹⁹

Jefferies' purpose in these essays may be defined in Heidegger's terms, in his critique of Hebel, as producing a writing which works 'to restore the calculable and technological nature into the open secret of a newly experienced naturalness of nature'.²⁰ Thus it is in Heidegger's account also that we may discern a 'more primally granted revealing that could bring the saving power into its first shining-forth in the midst of the danger that in the technological age rather conceals than shows itself' (BW, 339). It is, according to Heidegger, the work of art that stabilises and manifests Being as *technē*. The aesthetic reinflection of technique enables an 'unconcealment' of Being, a clearing in the midst of beings to which we may fruitfully be exposed.

This 'constellation' of texts both literary and philosophical, taken together, pose what Hans Robert Jauss defines as 'the crucial question' – namely, 'whether industrial epochs are able to liberate their own poesy and whether the dwindling of experience in the realm of human activity could be compensated for in an aestheticisation of industrial production'.²¹ The question of the 'dwindling of experience' under the impress of the technological is meditatively dealt with in Heidegger's late essay on Hölderlin and Rilke, gnomically entitled 'What are Poets For?'. In *Tess*, Hardy's steam-threshing scene extends sombrely towards nightfall:

From the west sky *a wrathful shine* – all that wild March could afford in the way of sunset – had burst forth after the cloudy day flooding the tired and sticky faces of the threshers, and dyeing them with a coppery light, as also the flapping garments of the women, which clung to them like dull flames (TD, 322, my emphasis).

Hardy's scene here registers something of that auratic *Schein* of the aesthetic which is fading under the impact of the technological: 'if artworks shine', Adorno notes, 'the objectivation of aura is the path by which it perishes'. Such objectivation, Adorno argues, although 'a condition of aesthetic autonomy, is also rigidification'.²² In this apocalyptic light Tess is reduced to an integer of the agricultural economy, such that the 'incessant quivering in which every fibre of her frame participated had thrown her into a stupefied reverie, in which her arms worked on independently of her consciousness' (TD, 322). It is 'as the evening light in the direction of the Giant's Hill by Abbot's-Cerne dissolved away' (TD, 323) that the communal rat-catching can begin, the 'cold moon' shining 'aslant on Tess's fagged face' (TD, 324) as she fends off Alec d'Urberville's renewed interrogation. According to Heidegger's diagnosis, 'The time of the world's night is the destitute time, because it becomes ever more destitute. It has already grown so destitute, it can no longer discern the default of God as a default'.²³ If 'the world's night is now approaching its midnight', then the world's time 'is now becoming the completely destitute time' (PLT, 91) – a sense of destitution mirrored and refracted in the rat-infested bleakness of Flintcomb-Ash through which the figures of Farmer Groby and Alec d'Urberville stalk their female prey. It is at this juncture that Alec significantly announces to Tess, 'My religious mania, or whatever it was, is over' (TD, 324). This encounter takes place in a terrain physical and metaphysical marked by what Heidegger terms the 'default of God', a liminal space from which 'Not only have the gods and the god fled, but the divine radiance has become extinguished in the world's history' (PLT,

89). It is the process of 'self-assertive production', according to Heidegger, which means that 'The earth and its atmosphere become raw material' (PLT, 109). In Heidegger's later thinking, as in Hardy's penultimate novel, we are not so much plunged into darkness, but rather, that which we seek to understand holds itself back and eludes our grasp. For Heidegger, truth is not a statement but an event, and his thought is balanced between *aletheia* (disclosure) and concealment. The work of art offers a kind of disclosure or clearing, but our relation to the 'Open' of the aesthetic is one of estrangement. Indeed, it is this exposure which is expunged in the technological era. The alteration in the 'destining' of Being is embodied, for example, in the transformation of the river Rhine into 'something at our command' (BW, 321). This concept is part of what is sometimes identified as the 'turn' in Heidegger's thought, in which the development of technology is conceived as preventing us from understanding our own being, a sense of human identity concealed by a pervasive means-ends rationality.

The 'total state' or the administered society which was evolving in Hardy's lifetime are thus 'necessary consequences of the nature of technology' (PLT, 109). Jefferies himself, in *Hodge and His Masters* (1880), had noted the contradictory consequences of mechanisation on the land:

The original idea was that the introduction of machinery would reduce all this labour. In point of fact, it has, if anything, increased it. The steam-plough will not work itself; each of the two engines requires two men to attend to it; one, and often two, ride on the plough itself; another goes with the water-cart to feed the boiler; others with the wagon for coal.²⁴

'The threshing-machine', Jefferies pertinently adds, 'employs quite a little troop to feed it'. Thus, 'many men are wanted ... to feed the machine, to tend the "elevator" carrying up the straw to make the straw

rick, to fetch water and coal for the engine, to drive it, etc.'. In this scene of labour, 'a troop are wanted one day, scarcely anybody the next'.²⁵ 'By degrees', Hardy observes in *Tess*, 'the freshest among [the labourers] began to grow cadaverous and saucer-eyed' under the stress of their work on the machine:

Whenever Tess lifted her head she beheld always the great upgrown straw-stack, with the men in shirt-sleeves upon it against the grey north sky: in front of it the long red elevator like a Jacob's ladder, on which a perpetual stream of fresh straw ascended; a yellow river running up-hill, and spouting out on the top of the rick (TD, 323).

In Heidegger's argument, the 'formless formations of technological production interpose themselves before the Open' so that 'Things that once grew now wither quickly away' (PLT, 110), to the extent that mankind is now 'exposed to the growing danger of turning into mere material and into a function of objectification' (PLT, 113). Such a danger is always present in the 'desolate drab' and 'stubborn soil' of the Flintcomb-Ash fields:

The sky wore, in another colour, the same likeness; a white vacuity of countenance with the lineaments gone. So these two upper and nether visages confronted each other, all day long the white face looking down on the brown face, and the brown face looking up at the white face, without anything standing between them but the two girls crawling over the surface of the former like flies (TD, 277).

It is against this background of destitution that the female labourers seek to recuperate the 'Open' clearing of being earlier embodied by Talbothays Dairy, 'that happy green tract of land where summer had been liberal in her gifts', poignantly discerned by Marian as 'a gleam of a

hill' in the far distance (TD, 278).²⁶ In such moments we may identify what Fredric Jameson dubs 'a Utopian moment put to flight ... by the mechanised present of history'.²⁷

These issues of the mastery of external nature, with the consequent sacrifice of man's inner nature, and the deep ambivalence inherent in the domination and mastery of the natural by the mechanical, are superbly addressed in a mid-Victorian sonnet which, in alluding to the classical Virgilian world of hand-labour, embodies the danger and the mystery of the steam threshing-machine as a symbol of means-ends rationality in a resonant synthesis of image and rhythm:

Flush with the pond the lurid furnace burn'd
At eve, while smoke and vapour fill'd the yard;
The gloomy winter sky was dimly starr'd,
The fly-wheel with a mellow murmur turn'd;
While, ever rising on its mystic stair
In the dim light, from secret chambers borne,
The straw of harvest, sever'd from the corn,
Climb'd, and fell over, in the murky air.
I thought of mind and matter, will and law,
And then of him, who set his stately seal
Of Roman words on all the forms he saw
Of old-world husbandry: *I* could but feel
With what a rich precision *he* would draw
The endless ladder, and the booming wheel!²⁸

This sonnet on the steam-threshing machine aptly illustrates the Marxian diagnosis of labour in a commodified economy. As in Lukács's account, for example, work here becomes 'the contemplative stance adopted towards a process mechanically conforming to fixed laws, enacted independently of man's consciousness and impervious to human intervention, i.e. a perfectly closed system'.²⁹ Indeed, Charles Tennyson

Turner's poem also offers a suggestive gloss on the predicament of the artist in the age of mechanised (re)production. In his seminal essay on this topic, Walter Benjamin would trace the loss of the aesthetically unique and the concomitant fading of the 'aura' from the work of art under the impress of technical innovation. As Benjamin phrases it, 'that which withers in the age of mechanical reproduction is the aura of the work of art'.³⁰ Adorno reinflected this thesis by arguing that art is modern 'when, by its mode of experience and as the expression of the crisis of experience, it absorbs what industrialisation has developed under the given relations of production'.³¹ Art in the modern period, that is to say, 'is equally determined socially by the conflict with the conditions of production'³² – a conflict refracted for example in Hardy's steam-threshing scene in which the subordination of Tess and her co-workers mirrors that of their creator *vis à vis* the literary market. Indeed, it is Adorno's contention that 'Technological requirements drive out the contingency of the individual who produces the work'. In this sense, technologisation 'purges artworks of their immediate language'.³³ It is certainly clear that Hardy's simultaneous alienation from, and exploitation of, the new commodified mode of aesthetic production leaves its traces throughout his oeuvre, and it was precisely such a problematic configuration of the field of artistic production that would ultimately lead to his abandonment of the novel in favour of a cultivation of the less 'contaminated' realm of poetry.

In conclusion, we may note how in Hardy's depiction of the implacable machine with its 'incandescent' fire and 'high-pressure' steam, the workers are reduced to the role of operatives penetrated 'to the very marrow' by its 'revolving wire cage'. Thus, in this scenario, do the field-labourers become subjugated to their 'red tyrant' with its 'despotic demand' (TD, 315-16), their situation thereby serving as a dramatic endorsement of Max Weber's famous notation of the way in which a rationalised and disenchanting modernity is to be imagined as 'an iron cage'.³⁴ In addressing the vexed question of agricultural technology in

agrarian England, it is clear, both Thomas Hardy and Richard Jefferies framed and posed crucial issues which would be explicated philosophically in Heidegger's essay. In these poetic evocations of the impact of the steam threshing-machine in the English countryside we may discern the rejection of what Kate Rigby defines as 'a specific kind of naming':

that of the technologically enhanced (and phenomenologically impoverished) scientific gaze, incorporating a claim to knowledge, which, although in part delusory, nonetheless facilitates the instrumentalisation and exploitation of the natural world.

The poet's 'calling', in this analysis, 'is thus to counter the naming practices of the "cunning Men" with a way of speaking that disclaims the positivity of the scientific-technological bid for knowledge and power'.³⁵ Because, in Heidegger's paradoxical argument, the essence of technology is in the last analysis 'nothing technological', the 'essential reflection upon technology' which each of these texts performs 'must happen in a realm that is, on the one hand, akin to the essence of technology and, on the other, fundamentally different from it'. In Heidegger's eloquently propounded view, 'Such a realm is art'. Hardy and Jefferies, whatever their differences of emphasis, might therefore here be construed as endorsing Heidegger's argument that 'the more questioningly we ponder the essence of technology, the more mysterious the essence of art becomes' (BW, 340-41).

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Notes

¹ Thomas Hardy, *Tess of the d'Urbervilles*, ed. S. Gatrell and J. Grindle (Oxford: Oxford University Press, 1988), p. 315. Hereafter referred to in the text as TD.

² Thomas Hardy, *The Mayor of Casterbridge*, ed. D. Kramer (Oxford: Oxford University Press, 1998), p. 169. Although published in 1886, the action of *The Mayor* takes place in the 1840s.

³ E.J. Hobsbawm and George Rudé, *Captain Swing* (Harmondsworth: Penguin, 1973), p. 322. The judicial invoking of rick-burning as a capital offence at this juncture is dramatically handled in Hardy's short-story, 'The Withered Arm' (1888).

⁴ E.J.T. Collins, 'The Diffusion of the Threshing Machine in Britain, 1790-1880', *Tools and Tillage* 2:1 (1972), 19, 20. The distribution of such machines was the subject of a debate in the *Agricultural History Review* between Stuart MacDonald and N.E. Fox (26:1,(1978), 26-32) centring upon MacDonald's earlier account, 'The Progress of the Early Threshing Machine', *Agricultural History Review*, 23 (1975), 63-77.

⁵ Paul A. David, 'The Landscape and the Machine', in *Essays on a Mature Economy*, ed. D.N. McLoskey (London: Methuen, 1971), p. 181.

⁶ E.J.T. Collins, 'The Age of Machinery', in *The Victorian Countryside*, vol. 1, ed. G.E. Mingay (London: Routledge & Kegan Paul, 1981), p. 208.

⁷ Alice Meynell, *The Poems of Alice Meynell* (Westport, CT: Hyperion Press, 1990), p. 163.

⁸ Collins, 'Diffusion', p. 21.

⁹ Collins, 'Diffusion', p. 28.

¹⁰ Barbara Kerr, *Bound to the Soil* (London: John Baker, 1968), p. 240.

¹¹ B.A. Holderness, 'Agriculture and Industrialisation in the Victorian Economy', in *The Victorian Countryside*, ed. Mingay, p. 180.

¹² Martin Heidegger, 'The Question Concerning Technology', trans. William Lovitt & David Farrell Krell, in Martin Heidegger, *Basic Writings*, ed. David Farrell Krell (London: Routledge, 1993), p. 313. Hereafter referred to in the text as BW.

¹³ Walter Benjamin, *The Arcades Project*, trans. H. Eiland & K. McLoughlin (Cambridge, Mass.: Belknap Press, 2002), p. 461.

¹⁴ Martin Heidegger, *The End of Philosophy*, trans. J. Stambaugh (New York: Harper & Row, 1973), p. 103.

¹⁵ Martin Heidegger, *Discourse on Thinking*, trans. J. Anderson and E. Freund (New York: Harper & Row, 1966), p. 54.

¹⁶ Véronique M. Fóti, *Heidegger and the Poets* (New Jersey: Humanities Press, 1992), p. xvii.

¹⁷ Martin Heidegger, *Introduction to Metaphysics*, trans. R. Manheim (New Haven: Yale University Press, 1959), p. 146.

¹⁸ Richard Jefferies, 'Notes on Landscape Painting', in *The Life of the Fields* (London: Chatto & Windus, 1908), p. 114. Hereafter referred to in the text as LF. This essay conflates two pieces originally published in the *Magazine of Art*, March and November 1882, under the titles 'The Beauty of the Fields' and 'New Facts in the Landscape'.

¹⁹ Richard Jefferies, 'Walks in the Wheatfields', in *Field and Hedgerow* (London: Longmans, Green & Co., 1910), p. 142.

²⁰ Cited in Jan Rosiek, *Maintaining the Sublime: Heidegger and Adorno* (Bern: Peter Lang, 2000), p. 252.

²¹ Hans Robert Jauss, 'The Literary Process of Modernism', in *Theodor W. Adorno*, vol. 4, ed. G. Delanty (London: Sage, 2004), p. 310.

²² T.W. Adorno, *Aesthetic Theory*, trans. R. Hullot-Kentor (London: Continuum, 1997), pp. 112, 130.

²³ Martin Heidegger, 'What are Poets For?', in *Poetry, Language, Thought*, trans. A. Hofstadter (New York: HarperCollins, 2001), p. 89. Hereafter referred to in the text as PLT.

²⁴ Richard Jefferies, *Hodge and His Masters*, ed. H. Williamson (London: Methuen, 1937), pp. 30-1.

²⁵ Jeffries, *Hodge and his Masters*, p. 33.

²⁶ I examine the resonance of this scene more fully in 'Prophetic Landscapes: Thomas Hardy and Richard Jefferies', in *Moment of Earth*, ed. C. Meredith (Aberystwyth: Celtic Studies Publications, 2007), pp. 114-34.

²⁷ Fredric Jameson, *Marxism and Form* (Princeton, NJ: Princeton University Press, 1974), p. 77.

²⁸ Charles Tennyson Turner, 'The Steam Threshing-Machine' in *Collected Sonnets* (London: Kegan Paul, 1880), p. 242.

²⁹ Georg Lukács, *History and Class Consciousness*, trans. R. Livingstone (Cambridge, Mass.: MIT, 1971), p. 89.

³⁰ Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction' in *Illuminations*, trans. H. Zohn (London: Pimlico, 1999), p. 215.

³¹ Adorno, *Aesthetic Theory*, p. 43.

³² Adorno, *Aesthetic Theory*, p. 43.

³³ Adorno, *Aesthetic Theory*, p. 78.

³⁴ Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, trans. T. Parsons (New York: Scribner's, 1958), p. 181.

³⁵ Kate Rigby, *Topographies of the Sacred* (Charlottesville, VA: University of Virginia Press, 2004), p. 124.