Confronting the Technical Aporia: Heidegger's and Stiegler's Technics-thinking

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Abstract:

Martin Heidegger and Bernard Stiegler have both famously argued that philosophy has hitherto been incapable of seeing, recognizing, or remembering technics. Both thinkers confronted this technical aporia by putting forward their own thought on technics, arguing to find themselves in a historically singular position from which technical thought proper can, for the first time, be questioned and invented. This article shows how both Heidegger's and Stiegler's conceptual projects are supported by a two-fold reading of the history of philosophy as at once devoid of technical thought proper, while at the same time harbouring, but only ever implicitly, the resources for thinking and remembering said technics. Their readings of the work of Immanuel Kant will be shown to be exemplary in this regard. This article ultimately concludes that, as a result of both Heidegger's and Stiegler's particular self-positioning within the history of technical thought, neither of them could recognize the technical thought proper within that history that they were at the same time so urgently looking for. Only in this way can the radical oversight regarding, for instance, Kant's explicit writings on technics proper make sense.

Keywords: technics, Martin Heidegger, Bernard Stiegler, history of technical thought, Immanuel Kant

1. Introduction

The twentieth century was witness to an outburst of continental thought on technics and technology. Among a whole array of perspectives, Martin Heidegger and Bernard Stiegler surely stand out as two of the most lucid and fruitful contributions. In their respective works, Heidegger and Stiegler have both famously argued that philosophy has hitherto been incapable of seeing, recognizing, or remembering technics. Both thinkers confronted this technical aporia by putting forward their own thought on technics[1]. While Heidegger took the route of questioning, arguing that the right question concerning technics has not yet been asked, Stiegler aimed to confront said technical aporia, which he considers to be the consequence of the repression of technics by philosophy, by way of remembering, that is, inventing technical thought anew.

The following article, containing a critical reading of Heidegger's and Stiegler's respective technical thinking, will show that and how their conceptual projects on technics are essentially supported and warranted by their readings of the history of philosophy, the role of which this article will argue to be two-fold. While on the one hand, and up until their own respective interventions, the history of philosophy is read by both Heidegger and Stiegler as the history of philosophy's confusion, forgetting, repression and thus ultimately aporia of technics, that same history of philosophy harbours, but only ever implicitly, the resources for thinking and remembering technics. Only by way of this double articulation, do Heidegger's and Stiegler's own, explicit projects on technics become possible. This article will trace this two-fold articulation of the history of philosophy and problematize the relegation of the history of philosophy to a merely implicit resource for the future of technical thought.

In the following pages, the double-articulation of the history of philosophy by Heidegger and Stiegler will be inquired into in two parts. The first part will introduce Heidegger's explicit technical thought in his *On the Question Concerning Technology*, before reconstructing the outlines of Heidegger's account of the history of technical thought up until his own intervention. By way of Heidegger's critique of Ernst Jünger, special attention will be paid to Heidegger's characterization of his own historical time, both concerning its nature as well as what can and needs to be done in the historical present. In a final moment, the first part of this article will then turn to Heidegger's reading of German enlightenment thinker Immanuel Kant as the example *par excellence* of the double-role played by the history of philosophy in Heidegger's engagement with technics. By reading Heidegger's *The Question Concerning Technology* with and through *The Question Concerning the Thing* this article will show that and how,

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1   I will employ the terms technical thought, technics-thinking as well as thinking of technics throughout this article, drawing on the German notion of *Technikdenken*, in order to highlight both Heidegger and Stiegler's essentially post-metaphysical "recovery" of technics within twentieth century European philosophy.

according to Heidegger, it was in fact Kant, who first articulated the essence of modern technics as "enframing" (Gestell) under the name of his "Transcendental Analytic". At the same time, however, this article will show that despite the crucial role given to Kant by Heidegger in the move from modern metaphysics to technics, Kant is ultimately portrayed as merely "suffering" from, in the sense of being determined by, enframing, rather than thinking it. This article thus argues that Heidegger transforms Kant into a symptom, possibly the symptom of modern technics, thereby mirroring his problematization and critique of Ernst Jünger. Only by way of this symptomatic reading of Kant can Heidegger hold on to his claim to be in the historically singular position from which technical thought proper can, for the first time, be inquired into.

The second part of this article will complement the preceding account of Heidegger's technical thought by way of a critical reading of Bernard Stiegler's *Technics and Time* series. While Heidegger argued that the right question concerning technics has not yet been asked, Stiegler engages philosophy's technical aporia from a different angle, essentially arguing that the history of philosophy is nothing but the history of the repression of technics by philosophy. Following a first reading of Stiegler's concept of technics in *Technics and Time 1*, including his critique of Heidegger who he argues to have himself "forgotten" about technics, this article will then move on to trace Stiegler's account of the history of philosophy as well as the periodization categories employed in *Technics and Time 3*. Immanuel Kant will once again function as the example par excellence for the role of the history of philosophy in Stiegler's argumentation. This article will show how Stiegler argues that Kant was incapable of seeing the essentially technical constitution of consciousness, referring at once to the consciousness of Kant the writer himself, as well as Kant's elaboration of consciousness undertaken in the *Critique of Pure Reason*. However, while on the one hand *Technics and Time 3* subsumes Kant's transcendental philosophy as part of philosophy's age-long repression of technics, this article will show that the structural role of Stiegler's engagement with Kant for the entire *Technics and Time* series is nothing but astonishing. Not only did Stiegler's engagement with Kant produce a restructuring and overall rethinking of the entire *Technics and Time* series, but Stiegler's reading of Kant was then positioned as nothing less than the introduction to it. This article will show how Kant is once again said to have "suffered" from philosophy's repression of the technical constitution of its own consciousness rather than thinking it, while at the same time preparing nothing less than the ground for Stiegler's own intervention. In both Heidegger and Stiegler, Kant is thus discussed as essentially incapable of seeing, understanding, let alone thinking technics, while at the same time articulating nothing less than modern technics for both these thinkers, but only ever implicitly.

This article thus aims to show how, despite the differences in each thinker's respective articulation of philosophy's technical aporia, Heidegger and Stiegler share the common claim that up until their intervention, there has only ever been an implicit or repressed technical thought. Following this claim

as well as their respective self-positioning within this history of technical thought, each thinker thus claims to be in a historically singular position from which technical thought proper can, for the first time, be developed, questioned, problematized, exhumed and invented. The aim of this article is to problematize both Heidegger's and Stiegler's account of the history of technical thought, showing how exactly due to their respective self-positioning within the history of technical thought, neither of them could, in a somewhat tragic turn of events, see the explicit technical thought within the history of philosophy that they were at the same time so urgently looking for. Only in this way can the oversight of Kant's own explicit writings on technics make sense. This article works through both Heidegger and Stiegler's reading of Kant because, such is my underlying argument, he lucidly exemplifies both their relationships to the history of philosophy. By returning to and problematizing Heidegger and Stiegler's accounts of the histories of technical thought that underlie and ultimately make possible their respective conceptual projects on technics, this article calls for an inquiry into "minor" histories of technical thought and the future of conceptual projects on technics that these histories make possible.

2. Martin Heidegger and the question of technics

In the 1954 seminal essay, entitled *The Question Concerning Technology* (*Die Frage nach der Technik*),[2] Martin Heidegger famously characterised modern technics as what "sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as a standing reserve. Enframing means that way of revealing which holds sway in the essence of modern [technics] and which is itself nothing [technical]."[3] With these famous words, Heidegger articulated the threat posed by modern technics. This threat is said to be the consequence of the curiously un-technical essence of technics, already indicating that this will not be a discourse on machines and tools: for Heidegger, if one remains within a so-called "technical" discourse on technics, primarily concerned with the concrete technical object, "we remain unfree and chained to [technics], whether we passionately affirm or deny it."[4] In order to bring forth the sought-after free relation to technics, Heidegger argues it instead to be necessary to shift the discussion from the concrete technical object in its relation to the human to that of the essence of technics in its

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2   Martin Heidegger, *The Question Concerning Technology,* trans. William Lovitt (New York & London: Garland Publishing, 1977). This essay is derived from material that Heidegger first presented at his 1949 Bremen lecture entitled *Das Gestell*. The title is usually translated as *The Question Concerning Technology*, but in order to uphold the conceptual distinction between the German terms *Technik* and *Technologie*, which was fully in place at the time of Heidegger's essay, I will henceforth translate the German term *Technik* with the English neologism *technics*, which is also employed in the English translations of Bernard Stiegler's works.

3   Martin Heidegger, *The Question Concerning Technology,* 20.

4   Martin Heidegger, *The Question Concerning Technology,* 4.

relation to *Dasein*.

What is at stake in Heidegger's approach is ultimately not a rejection of technics. In his posthumously published notes on technics, entitled *Techne und Technik*, he explains that his "thinking is not *against* technics […] but against the superficiality and naivety [*Ahnungslosigkeit*] with which we consider technics."[5] His point is, then, that despite the fact that technics is everywhere and in everyone's mouths and minds, it is subject to the general thoughtlessness that he diagnoses in the historical moment at large. And thus, the right question concerning technics has not yet been asked. "The question concerning technics. The tone lies on the *question*. It is necessary to develop it above all. To endure the question. The question is more pressing than technics itself."[6] Differentiating between the right and the true, in the sense that the right makes accurate observations without, however, revealing inner truth, Heidegger consequently aims to inquire in and through what is right in order to arrive at the truth of technics.[7] To this end, Heidegger works through two common approaches to technics, the instrumental and the anthropological approach. According to both approaches, technics is a means (an instrument) for the human to bring about an end, and thus an essentially anthropological characteristic.

From *Techne* to Technics

Heidegger begins his discussion of the anthropological and instrumental discourses on technics in reference to the ancient Greek Aristotelian distinction between *techne* and nature (*physis*), taking place within an ontological discussion of technical bringing forth (*poiesis*) on the one hand, as well as in contradistinction to the systematic and unchanging Greek notion of science (*episteme*), its epistemological counterpart. What is famously at stake in both these determinations according to Heidegger, is revealing (*entbergen, aletheia*).[8] In his post-humously published notes *Techne und Technik,*[9] the ancient Greek notion of *techne* is at the same time differentiated from modern technics by way of the machine (*die Kraftmaschine*). No longer characterized as "the imitation of handicraft and the natural process,"[10] the machine has a "motoric character which is essentially related to the generation of

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5   Martin Heidegger, "Vorstudien zum Technik-Vortrag," in *GA Band 76,* (Frankfurt aM.: Vittorio Klostermann, 2009), 347. My translation from hereon. In Heidegger, *GA Band 76*, 373, Heidegger further writes: "Die Technik ablehnen? Ist um nichts weniger töricht als die Sonne ablehnen. Was soll diese Ablehnung? – eine Selbsttäuschung!"

6   Heidegger, *GA Band 76,* 358.

7   Heidegger, *The Question Concerning Technology*, 6.

8   Heidegger, *The Question Concerning Technology*, 13-14.

9   Heidegger, *GA Band 76,* 401. The cover of the first Fascicle containing the manuscript is entitled *Technik 1940*.

10   Heidegger, *GA Band 76,* 309.

energy,"[11] meaning that it generates *Kraft* and thus energy rather than force, since the modern machine is thermodynamic in character. While the above section from *Techne und Technik* was already drafted around the year 1940, the same argument will be employed later in *The Question Concerning Technology*.[12] Modern technics is here primarily characterized as a demand directed at nature "to supply energy that can be extracted and stored as such."[13] In this essential demand of generating and storing energy, modern technics is fundamentally distinguished from its pre-modern predecessor by the thermodynamic revolution. At the same time, however, Heidegger claims that modern technics retains its function of revealing, nonetheless. But rather than revealing as a mode of bringing forth, modern technics reveals as a mode of challenging (*herausfordern*).[14]

Modern technics remains a mode of revealing because it challenges the real to reveal itself as what Heidegger calls a standing reserve (*Bestand*). What this means is that through modern technics the real no longer comes into view as an object (*Gegenstand*), but instead as what he famously calls a standing reserve (*Bestand*). The modern world, Heidegger claims, can only come into view by being put in reserve, subjected to acts of "unlocking, transforming, storing, distributing and switching."[15] As a standing reserve, the real no longer stands against us the same way that an object (*Gegenstand*) does, but instead has been "ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering."[16] The name standing reserve "designates nothing less than the way in which everything presences that is wrought upon by the challenging revealing."[17] The mode of existence of that which has been challenged and revealed by modern technics is subsequently no longer objective, but a standing reserve.

Heidegger's posthumously published collection of notes on technics includes the following remarkable passage on the essence of technics in its relation to the human: "The essence of technics is nothing human, but technics belongs to the human because the human belongs to the essence of technics. Depending on the essential form [*Wesensgestalt*] of technics, the affiliation of the human to the essence of technics is different and, accordingly, the nature of his technical acts [*technischen Tuns*] is different."[18] While the essence of technics is here explicitly said to be neither technical nor human, the human is at the same time said to "belong" to the essence of technics in different, that is, changing, ways. Heidegger's

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11   Heidegger, *GA Band 76*, 308.

12   The essay *The Question Concerning Technology* is derived from material that Heidegger first presented at his 1949 Bremen lecture under the name *Das Gestell* before being published in 1954.

13   Heidegger, *The Question Concerning Technology*, 14.

14   Heidegger, *The Question Concerning Technology*, 14.

15   Heidegger, *The Question Concerning Technology*, 16.

16   Heidegger, *The Question Concerning Technology*, 17.

17   Heidegger, *The Question Concerning Technology*, 17.

18   Heidegger, *GA Band 76*, 339.

point here is that there is no un-mediated relation between "the human" and technics.[19] This very point was also made by Ernst Jünger in his 1932 essay *The Worker* (*Der Arbeiter*), who claimed that "man is bound up with [technics] not directly, but indirectly."[20] For Jünger, the relation between the human and modern technics is mediated by a metaphysical figure (*Gestalt*), which he named the worker, and technics is the mode in which this figure of the worker mobilizes the world.[21] Heidegger engaged with Jünger's writing throughout his life, and was particularly fond of *The Worker.* "Band 90" of the *Heidegger Gesamtausgabe* contains the posthumously published comprehensive collection of Heidegger's notes on Jünger, where we find an important passage from 1954, the same year that *The Question Concerning Technology* was published. Here, Jünger's claim about the mediated relation between the human and technics is explicitly discussed in contradistinction to a conference paper written by the quantum physicist Werner Heisenberg, who claimed that "the proposition that man faces only itself is valid in a much broader sense in the age of technics."[22] Responding to Heisenberg, Heidegger asks "who is this man [*Mensch*] – that meets himself," and a few lines further down he continues by asking "*man*, whether such a thing is possible at all? And *if* thought possible – if not in this opinion the greatest delusion."[23] *On the Question Concerning Technology* explicitly references the same sentence from Heisenberg, but here Heidegger omits any explicit reference to Jünger. Heidegger now writes that when called upon by enframing to reveal the real as a standing reserve, the human is itself threatened with disappearing into the standing reserve. And once faced with this threat, "man, precisely as the one so threatened, exalts himself to the posture of lord of the earth. In this way the impression comes to prevail that everything man encounters exists only insofar as it is his construct. This illusion gives rise in turn to one final delusion: It seems as though man everywhere and always encounters only himself."[24] Heidegger's point here is very much in line with Jünger, meaning that it only appears as if modern technics has made the world into the mirror-image of man, while in fact, man is called upon by enframing in a specific way, which Jünger called the figure of the worker and which Heidegger can here be seen to call the figure of the lord of this earth (*Gestalt des Herrn der Erde*). Being mediated in its relation to the world by such a figure means that the human can no longer reflect itself anywhere in its inner being. Consequently, the human is essentially endangered by modern technics in its truthful relation both to itself as Dasein as

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19   Heidegger, *GA Band 90. Zu Ernst Jünger* (Frankfurt a.M.: Vittorio Klostermann, 2004), 287. My translations from hereon.

20   Ernst Jünger, *The Worker*, trans. Bogdan Costea, Laurence Hemming (Evanston: Northwestern University Press, 2017), 97.

21   Ernst Jünger, "Der Arbeiter" in *Sämtliche Werke, Zweite Abteilung Essays II* (Stuttgart: Klett-Cotta, 1981), 77. My translations from hereon.

22   Werner Heisenberg, "Das Naturbild der heutigen Physik" In *Die Künste im technischen Zeitalter.* (München: R. Oldenburg, 1954), 42. My translation

23   Heidegger, *GA Band 90,* 297.

24   Heidegger, *The Question Concerning Technology*, 27.

well as to everything else that exists.

Heidegger, Jünger, the Nature of the Historical Present and What is to Be Done

Band 90 of the *Heidegger Gesamtausgabe* shows that Heidegger engaged with Ernst Jünger's writing from as early as 1932, and continued to do so until the end of his life.[25] With both thinkers living through the far reaching technological change imparted on the world by the industrialized warfare of the First and Second World Wars, including nuclear warfare, the emergence of Fordism and the production line, Heidegger admired Jünger, who fought as a soldier during the abysmal First World War and experienced its large-scale technological developments on the front line. For Heidegger, Jünger essentially experienced his life through the fundamental insight that was first carved out by Nietzsche's metaphysics.[26] Jünger, he writes, "gained a foothold in the actuality [*Wirklichkeit*] that Nietzsche has suffered in thought."[27]

Furthermore, however, Heidegger does not see in Jünger only a soldier who lived and suffered the material reality of what Nietzsche had anticipated in thought, but also someone who then, in a second step, was able to find "the strength and determination of reflection and of the word."[28] For Heidegger, Jünger is thus at once a highly decorated soldier during the *Materialschlacht* (battle of materiel) that was the First World War and a literary genius who was able to give word to "the historical ground of the essence of the completed era of the modern age [*Neuzeit*]"[29] Jünger's writing, and in particular his essay *The Worker* (*Der Arbeiter*), is read by Heidegger as the key to reflecting on the historical present in its most inner truth. It is by way of the encounter between Heidegger and Jünger, that Heidegger's account of both the history of technical thought as well as Heidegger's account of the nature of the historical present, in which both Jünger and Heidegger lived and wrote, will unfold in the following. Since how is one to understand Heidegger's claim that Jünger articulated the "completed epoch" of modernity, when Jünger himself explicitly aimed to bring a new reality into view, which Jünger believed to have just begun, and which he discussed under the name of the worker, total mobilization, and will to power?

Despite the explicit aim and content of Jünger's *The Worker,* Heidegger claims that Jünger did not articulate the beginning of anything new, but that his contribution was rather the astute and lucid

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25   Heidegger, *GA Band 90.*

26   Heidegger, *GA Band 90,* 217. Also see p.218: "Jünger did not only carry the book entitled *Nietzsche, The Will to Power* in his knapsack - but he was affected by the fire and blood, by death and work, by the silence and thunder of the battle of materiel *as appearances of the will to power.*"

27   Heidegger, *GA Band 90,* 214.

28   Heidegger, *GA Band 90,* 218.

29   Heidegger, *GA Band 90,* 37.

articulation of the completion of the modern epoch.[30] For Heidegger understood his time to be the fulfilment of a process that had long been underway and that is now, finally, coming to a close under the name of modern technics. Thus, while for Jünger his time was the beginning of a new millennium and epoch, Heidegger believes Jünger's *Worker* to have articulated the conclusion and end of the modern epoch. At the heart of Heidegger's reading of Jünger thus lies an underlying disagreement with Jünger's interpretation of the historical nature of their time.

Further to this point stand the two authors' respective methodologies and the resulting self-reflexive conclusions regarding their own function and vocation within the historical present. There are, Heidegger claims, two possible relations to Nietzsche. One can either take root and settle in the reality (*Wirklichkeit*) as will to power that was first revealed to us by Nietzsche. Or one can try and overcome this reality.[31] According to Heidegger, Jünger's contribution was precisely to take root within the space first carved out by Nietzsche.[32] From within that space, Jünger begins to describe what he sees and experiences, and this he is said to do in the clearest and most precise of ways. That same astute use of observation and description which is admired on the one hand, is however on the other hand also the focus of Heidegger's point of critique. Description, Heidegger argues, "inscribes ourselves into what belongs to this real [*diesem Wirklichem*]."[33] The problem that ensues for Heidegger is that Jünger himself takes on the character of that very reality which he is trying to describe. Subsequently, his thinking is said to become calculation (*Rechnen*)[34] and a "calculating opinion [*rechnendes Meinen*],"[35] until finally, Heidegger argues that Jünger's thinking itself gains the "character of work [Arbeitscharacter]."[36] Heidegger's diagnosis of Jünger's thought as work, calculation and in the last instance technical/ instrumental reason, leads him to formulate the following conclusion. While on the one hand, Heidegger charges Jünger with first giving word to the "the historical ground of the essence of the completed era of the modern age,"[37] he is at the same time critiqued and characterized as suffering from the essence of modern technics, that is, enframing, whereby Jünger's work itself must be read as a symptom, rather than self-reflexive account of, modern technics. Jünger is said to "carry out […] the lead [*Hinführung*] to the real [*das Wirkliche*] of the will to power and is ruthlessly serious about this real."[38] Moreover, Heidegger charges Jünger with being guilty of having brought about "the utmost culmination and

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30   Heidegger, *GA Band 90*, 37.

31   Heidegger, *GA Band 90*, 214.

32   Heidegger, *GA Band 90*, 215.

33   Heidegger, *GA Band 90*, 255.

34   Heidegger, *GA Band 90*, 265.

35   Heidegger, *GA Band 90*, 265.

36   Heidegger, *GA Band 90*, 227.

37   Heidegger, GA Band 90, 37.

38   Heidegger, *GA Band 90*, 213.

unrestrained expansion and unleashing of what we have to recognize as the reality of the 'modern age' [N*euzeit*], which has already lasted for 300 years."[39] In so perfectly and precisely describing the reality he finds himself in, Heidegger argues that Jünger ends up affirming, furthering, and unleashing the very reality he initially set out to critique.

What becomes clear at this point, then, is that Heidegger's ruthless critique of Jünger allows for insight into Heidegger's account of the historical present, as well as his own vocation within that present. The question of what can and needs to be done as well as in what way is pressing for Heidegger, who understands his time to be that of a transition (*Übergang*). On the one side of this transition, he places metaphysics, which is completing itself. On the other side of the transition, he places a "new time", which, however, has not yet begun.[40] Our vocation, he then writes, is to bear witness to this transition. Heidegger's characterization of his time as transitory in nature illuminates why *The Question Concerning Technology* self-reflexively understood itself as merely preparing (*vorbereiten*) a new, and ultimately free, relation between technics in its essence and *Dasein*. In contradistinction to Jünger, Heidegger's methodology aims to prepare, rather than describe a different time through the act of questioning. "If we are able to inquire into the essence of technology properly, the questioning changes into the discussing saying [*das erörternde Sagen*], the thinking changes. We no longer move in the representation of objects [...]. We are on the way - where to? Such thinking is no longer enframeable [*stellbar*] in and through enframing [...]."[41] Heidegger's proposition is thus, that asking about the essence of technics sends us on a journey towards a different kind of thinking which, differently to Jünger's methodology, is precisely not enframeable (*stellbar*) and who's endpoint cannot be pre-determined from where we currently find ourselves. What is clear, then, is that the path that Heidegger aims to embark on could not stand in starker relief to Jünger's descriptive, laborious method, which is said to have not only greatly misinterpreted the temporal nature of the historical present, but further, in this misinterpretation, ended up affirming and unleashing the very reality he set out to critique.[42]

Heidegger's History of Technical Thought: From Metaphysics to Technics

Despite Heidegger's ruthless critique of Jünger's method and self-reflexive position within the movement of history, Heidegger nevertheless grants Jünger an important position within his account of the history of technical thought. Concerning Heidegger's account of the history of technical thought,

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39   Heidegger, *GA Band 90,* 258-9.

40   Heidegger, *GA Band 90,* 282.

41   Heidegger, *GA Band 76,* 339.

42   In his later book *An der Zeitmauer*, Jünger returns to and develops the themes of the worker further, as he becomes more critical of the age of the worker and moves closer to Heidegger's position. See Jünger, *An der Zeitmauer* (Stuttgart: Klett-Cotta, 2013).

including his periodization claims, it is important to keep in mind that he differentiates between the chronologically right and the historally (*geschichtlich*) true.[43] What this means is that when considered chronologically, the emergence of modern technics post-dates the emergence of modern natural science, because modern technics is dependent on the exact natural sciences for its functioning.[44] Subsequently, modern technics emerged two centuries after the advent of modern science, with the invention of the modern machine (*Kraftmaschine*), and thus around the year 1750. This chronological history of the emergence of modern science followed by modern technics is most certainly right. There is plenty of material evidence in the form of concrete technical objects to support it. But is it also true?

Heidegger's critique of the chronological periodization of the advent of modern technics hinges, once again, on the difference and overlap between the concrete technical object and the essence of technics. While the modern machine, meaning the concrete modern technical object, most certainly matters, it is necessary to keep in mind that it is ultimately the phenomenal manifestation of the essence of modern technics. And this very essence, Heidegger claims, already "holds sway" in physics. "Modern physics is the herald of Enframing, a herald whose origin is still unknown."[45] The essence of modern technics is thus, according to Heidegger, already "active," so to speak, in the modern exact sciences, which emerged during the seventeenth century, before coming into the open with the modern machine. What this means, then, is that what chronologically appears as later (that is, modern technics), in truth and when considered in terms of its inner essence, predates modern science.[46] Heidegger thus claims that the essence of modern technics first emerged during the seventeenth century with modern physics, after which, two centuries later, the concrete technical object emerged, by way of modern natural science, in the form of the modern machine.

In his posthumously published notes on technics, Heidegger further qualifies the relation between modern technics and modern science. They are both said to derive from the same metaphysical root (*dieselbe metaphysische Wurzel*).[47] At the same time, there is an asymmetry between metaphysics' two descendants, since modern technics does not only derive from metaphysics, but is furthermore "the actual completion of 'metaphysics'."[48] In its last stage, metaphysics is here famously said to determine itself as technics.[49] Subsequently, and when considered from the historial rather than the chronological point of view, the question concerning technics turns out to be nothing but the question concerning metaphysics. What this means for our purpose here, then, is that our inquiry into Heidegger's account of

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43   Heidegger, *The Question Concerning Technology*, 21.

44   Heidegger, *The Question Concerning Technology*, 21.

45   Heidegger, *The Question Concerning Technology*, 22.

46   Heidegger, *The Question Concerning Technology*, 23

47   Heidegger, *GA Band 76*, 299

48   Heidegger, *GA Band 76*, 294.

49   Heidegger, *GA Band 76*, 285.

the history of technical thought demands nothing less than an inquiry into the history of metaphysics, since in its final stage metaphysics becomes technics.

However, working with a category as broad as metaphysics goes beyond the limits of this present discussion. The following discussion will subsequently employ a more restricted notion of metaphysics, namely that of modern metaphysics and with it, philosophical modernity. In his notes on Jünger, Heidegger writes that philosophical modernity was "opened" with Machiavelli's 1532 *Il Principe*, while the closing figure is none other than Jünger's *The Worker*.[50] In between the prince and the worker, Heidegger positions Descartes and Newton. Descartes, because Heidegger agrees that Descartes performed the "foundation of modern mankind [*Grundlegung des neuzeitlichen Menschentums*]"[51] and modern thought with his *Discourse on the Method*,[52] the essential feature of which *The Question Concerning the Thing* characterizes as "the mathematical" (*mathemata*).[53] While the first effects of the mathematical are said to have arisen during the late scholasticism of the fifteenth century, and thus sufficiently earlier than the previously mentioned seventeenth century, Descartes's contributions in the seventeenth century allowed for the mathematical to be further clarified and determined. Complementing Descartes, Newton is credited with having subsequently produced the "first systematic and creative conclusion"[54] of modern metaphysics with his *Principia Mathematica* in 1686/87.

In a next step, Heidegger then goes on to introduce a new protagonist into the question of metaphysics qua the question of technics. Immanuel Kant, and specifically his 1781/1787 *Critique of Pure Reason*, is introduced by Heidegger as performing a crucial role within the movement of modern metaphysics to technics and exemplifies Heidegger's broader two-fold relation to the history of technical thought. Heidegger claims that from its outset the *Critique of Pure Reason* already takes place in a world of mathematical-physical objects, never even questioning whether there could be another access to the world of things than the one prescribed by Newtonian science. The *Critique of Pure Reason* is thus said to essentially lay open and further inscribe the modern foundational attitude (*Grundstellung*) which remains the "basic historical and spiritual stance [*geschichtlich-geistige Grundstellung*], which supports and determines us today."[55]

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50 Heidegger, *GA Band 90*, 80.

51 Heidegger, *GA Band 76*, 152.

52 Heidegger, *GA Band 76*, 152.

53 Martin Heidegger. *Die Frage nach dem Ding. (*Tübingen: Max Niemayer Verlag, 1987), 74.

54 Martin Heidegger, *The Question Concerning the Thing*, transl. J. Reid, B. Crowe, (London: Rowman & Littlefield, 2018), 52.

55 Heidegger, *The Question Concerning the Thing*, 38.

Heidegger and Kant

The important question here is, then, how to conceive of the relation between the mathematical, as the characteristic feature of modern metaphysics, and what was discussed earlier as enframing, that is the essence of modern technics. The work best suited to addressing the question of the relation between enframing and the mathematical in the Heideggerian corpus is without doubt the 1962 *The Question Concerning the Thing,* the reworked, published transcript of what was initially presented by Heidegger as a lecture course in the winter semester of 1935/36. This work is thus situated at once before and after the 1954 *The Question Concerning Technology*, to which it stands in a quasi-complementary relation. *The Question Concerning the Thing* not only asks the metaphysical question par excellence – what is a thing? – but narrows this question: it asks what is, and how something can become a thing for us in the modern period. And since, as shown earlier, the standing reserve is seen as the mode of existence of things subjected to enframing, the question is, then, if and how *The Question Concerning the Thing* allows us to narrate the history of metaphysics as the movement from the objective mode of existence (*Gegen-Stand*) to that of the standing reserve (*Be-Stand*).

Heidegger begins his inquiry into the thing by pointing out the intrinsic historial dimension of thingness. The old metaphysical question "What is a thing?" here immediately turns out to be a historial question, asking how something can become a thing for us in and for a specific time. The hypothesis put forward by Heidegger is, that when it comes to the modern age, the "thingness of things" is determined by the mathematical (*mathemata*), which is "that 'in' things [*jenes >>an<< den Dingen*] which we really already know; hence, what we do not first have to fetch from things, but what we bring along with us in a certain way."[56] The mathematical is thus the thingness of things which *a priori* allows things to come into view as things for us in the modern period.

From the point of view of the mathematical, "the givens of everyday getting around in the world [*das umgänglich alltägliche gegebene*] are construed as mere material and splintered into a manifold of sensations,"[57] which, once ordered and organized, can then come into view as an object of mathematical-physical science. In *The Question Concerning the Thing*, "material" thus designates material for the *a priori* forms of the mathematical sketch of the thingness of things. But, is this consideration of something as sheer material not also precisely what Heidegger had in mind in *The Question Concerning Technology*, when he wrote that "man's ordering attitude and behavior display themselves first in the rise of modern physics as an exact science?"[58] The notion of "material" is here the hinge between both the mathematical sketch of the thingness of things, which orders "material" according to its a

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56   Heidegger, *The Question Concerning the Thing*, 50.
57   Heidegger, *The Question Concerning the Thing*, 145.
58   Heidegger, *The Question Concerning Technology*, 21.

priori forms, and enframing, which challenges the real to reveal itself as a standing reserve and thus as "material" for further ordering and organization. Reading Heidegger's *The Question Concerning the Thing* with and through *The Question Concerning Technology*, we can see that Kant's *Critique of Pure Reason* describes nothing less than the ordering attitude (*bestellendes Verhalten*) of the mathematical sketch, for Heidegger, which in *The Question Concerning Technology* is also called enframing.

We can add to this that the relation between the mathematical and enframing is further confirmed by Kant's self-professed aim in his "Transcendental Analytic" to replace "the proud name of ontology [with] the more modest title of a transcendental analytic."[59] The "Transcendental Analytic", and specifically the section entitled "Analytic of Principles", is the very place in which Kant lays out what Heidegger calls the mathematical sketch (*Entwurf*) of the thingness of things. When thinking the perspective of Heidegger's reading of Kant performed in *The Question Concerning the Thing* together with Kant's self-professed aim, the Kantian move from metaphysics to the "Transcendental Analytic" is thus, in essence, the very moment in which modern thought self-reflexively did away, so to speak, with metaphysics. Thus, while on the one hand the question of metaphysics has always already been the question of technics, on the other hand the Kantian intervention into the history of metaphysics by way of his "Transcendental Analytic", which lays open the mathematical sketch of the thingness of things that at heart is nothing but enframing and thus the essence of modern technics, marks the very moment in which metaphysics "became" technics. Consequently, thinking the Kantian intervention from Heidegger's point of view, the "Transcendental Analytic" could or rather should have been called "Transcendental Technics".

On the one hand, then, we can say that from the perspective of Heideggerian thought, Kant marks the moment in which metaphysics "became" technics. On the other hand, the fact that Kant called his intervention "Transcendental Analytic" rather than "Transcendental Technics" means that Kant ultimately misunderstood the nature of his own intervention. Must Kant, in a similar way to Jünger, who in the Heideggerian account finally concluded and fulfilled the move from modern metaphysics to technics, then not also be read as having described and further inscribed the modern foundational attitude? Kant's explicit aim in the *Critique of Pure Reason* is to show that and how there can be no other access to the world of objects than the one prescribed by the conditions of possibility of the objects of experience put forth in the "Transcendental Analytic" and which Heidegger calls the mathematical sketch of the thingness of things.[60] [61] This is the case, because according to the Kantian so-called "Copernican revolution", it is the objects that must conform to our forms of cognition, rather than the other way around. In a similar way to Jünger, we must consequently conclude that Kant essentially "suffers" from

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59   Immanuel Kant, *Critique of Pure Reason,* transl. Paul Huyer, Allen W. Wood, (Cambridge: Cambridge University Press, 1998), CPR A247/B304.

60   Kant, CPR B163

61   Except for beautiful and living things described in Kant's later, 1790 *Critique of the Power of Judgment.*

enframing, rather than thinking it, as he inscribes and consolidates the modern foundational attitude as our only possible access to the world of things. Consequently, the insight into the mathematical and enframing provided by Kant is merely symptomatic, transforming Kant into a symptom, possibly *the* symptom of modern technics, who articulates, but only implicitly, the "basic historical and spiritual stance [*geschichtlich-geistige Grundstellung*], which supports and determines us today."[62]

Consequently, then, Kant occupies a central but two-fold role in Heidegger's account of the movement of metaphysics to technics. While Kant articulates the modern foundational stance, he is at the same time credited with no "proper" insight into it. Essentially, however, Heidegger's symptomatic reading of Kant only makes sense under the assumption that Kant never put forth any explicit writings on technics himself. As German philosopher Gerhard Lehmann first pointed out, however, Kant's last, unfinished manuscript, the *Opus Postumum*,[63] contained the manuscript of what would have become Kant's critique of technical-practical reason, had he lived to complete it.[64] The fact that Heidegger referred to the *Opus Postumum* on numerous occasions[65] proposes that this eclipse was not simply a matter of Heidegger "not doing his reading". Furthermore, any quick defence of Heidegger's omission by way of the argument that Kant's explicit technical thought might simply have contained "bad" technics—further proving that Kant indeed forgot the question of Being as technics—has, since Lehmann, also been put into question by Yuk Hui. Hui follows Gilbert Simondon in arguing that it was in fact already in the earlier 1790 *Critique of The Power of Judgment* that Kant explicitly "thought" technics.[66] [67] Rather, the preceding engagement with Heidegger aims to suggest that it was in fact Heidegger's damning diagnosis, according to which the right question of technics had not yet been asked, and his consequent self-positioning within the history of philosophy, which led Heidegger, in a somewhat tragic turn of events, to further conceal technical thinking prior to his own intervention. For Heidegger, the history of philosophy, lucidly demonstrated by his reading of Kant, is read as devoid of technical thought proper, while it implicitly harbours the seeds for Heidegger's technical thought alone.

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62   Heidegger, *The Question Concerning the Thing*, 38.

63   Immanuel Kant, *Opus Postumum*, trans. by E. Förster, M. Rosen (Cambridge: Cambridge University Press, 1993).

64   Lehmann, Gerhard, "Die Technik der Natur" in *Beiträge zur Geschichte und Interpretation der Philoso-phie Kants.* (Berlin: Walter de Gruyter & Co., 1969), 293.

65   There are, however, plenty of references to the *Opus Postumum* in Heidegger's lecture course on Schell-ing and German Idealism (1941-1943), cf. Martin Heidegger, *GA Band 86: Hinweise und Aufzeichnungen*, 246; Heidegger, *Die Frage nach dem Ding,* 53

66   See Yuk Hui, *Recursivity and Contingency* (Washington D.C.: Rowman&Littlefield Publishers, 2019).

67   See also Franziska Aigner, *Kant and Technics: From the Critique of Pure Reason until the Opus Postumum.* (PhD Thesis, Kingston University London, 2020). <https://eprints.kingston.ac.uk/id/eprint/47553/>

II. Stiegler and The Repression of Technics

While the first part of this article showed that for Heidegger the right question concerning technics had not been asked prior to his own intervention, this second part will show that and how Bernard Stiegler repositioned the narrative of philosophy's technical aporia as a problem of repression. *Technics and Time, 1: The Fault of Epimetheus* (*La technique et le temps, 1: La faute d'Epiméthée*)[68] opens with a familiar refrain: technics "is the unthought."[69] However, a new undertone can be detected in Stiegler's particular reiteration. The problem here is not of living in a technological world devoid of the adequate conceptual tools for addressing it. It is not that philosophy is out of time with technics, or that it simply forgot about technics. Rather, Stiegler frames the relation between philosophy and technics as one of repression: "At its very origin and up until now, philosophy has repressed technics as an object of thought,"[70] meaning that technics "is not un-identified in the sense in which something forgotten is not thought: it is largely thought and felt to be unthinkable."[71] The way that justice is to be done in the face of this long history of philosophy/repression according to Stiegler, is by exhuming technical thought as a mode of inventing it anew.[72] Stiegler stages his own intervention into the history of technical thought as an act of liberation, in which technics is finally to be set free.

Stiegler's project of the liberating of technics proceeds by way of cross-reading twentieth century French paleoanthropology on the one hand, and ancient Greek mythology as philosophy's pre-history on the other, so as to critique and reshape the canonical texts through which technics has hitherto been determined. Firstly, and following the French paleoanthropologist André Leroi-Gourhan, who famously put forward the thesis of the "originary characterization of the anthropological by the technological,"[73] Stiegler argues that technics is the originary prosthetic supplement of the human. With a strong Derridean inflection, Stiegler's claim is that this supplement does not replace something that has gone astray and is now lacking. The argument is rather that the human is in "default of origin,"[74] in the sense of originarily being without either quality and predestination.

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68   forming the first part of his *Technics and Time* series, was published in 1994, in the wake of deconstruction and at the time of a French resurgence of interest in Simondon's work.

69   Bernard Stiegler, *Technics and Time, 1. The Fault of Epimetheus,* transl. R. Beardsworth, G. Collins (Stanford: Stanford University Press, 1998), ix.

70   Stiegler, *Technics and Time 1*, ix.

71   Bernard Stiegler, *Technics and Time, 3. Cinematic Time and the Question of Malaise,* transl. S. Barker, (Stanford: Stanford University Press, 2011), 176-177.

72   Stiegler, *Techncis and Time 3*, 142: "I mean 'invention' in the archaic sense of 'exhumation' ('in-vention of the holy cross')."

73   Stiegler, *Technics and Time 1*, 25.

74   Stiegler, *Technics and Time 1*, 114.

Secondly, this default of origin is then further determined by way of the ancient Greek myth of Prometheus and Epimetheus, which Stiegler reads through Jean-Pierre Vernant's interpretations of Plato and Hesiod. In this myth, Prometheus' brother Epimetheus forgot to give attributes to the human despite having been charged with the distribution of qualities to all beings. In order to make up for the initial fault of his brother, Prometheus engages in the cunning theft of fire from Hephaestus so as to provide the human with a prosthetic supplement after the fact, thereby doubling up on the initial fault of Epimetheus. The concept of prosthesis developed by Stiegler through a reading of these two texts engages the human in a threefold relation. It firstly establishes a spatial relation, in the sense that the human is placed in front and outside of itself: "In order to make up for the fault of Epimetheus, Prometheus gives humans the present of putting themselves outside themselves."[75] At the same time prosthesis also establishes a temporal relation in a double sense. The prosthetic both sets in advance – in the sense of what lies in the past – as well as giving the human the capacity of anticipation and foresight, and thus its relation to the future as its ultimate possibility.[76] In this temporal relation, Stiegler argues that technical prosthesis in fact functions as a special kind of memory, which he calls epiphylogenesis.[77] Epiphylogenesis designates the accumulation of individual experiences and traces inscribed and collected in technical artefacts, through which they are passed on through time. As such, the technical artefact functions as an external memory-support of a past that none of "us" have lived, but which is inherited and adopted as "our" own: it is our "already there." Essentially performing a powerful critique of Heidegger's notion of the "already there,"[78] Stiegler ultimately argues that Heidegger has forgotten the originary prostheticity of the "already there" that is essentially constitutive of Dasein.[79] The implication of Stiegler's point is indeed powerful, as it follows that despite Heidegger's technical critique of Kant's "Transcendental Analytic", and in moving from Kant's "Transcendental Analytic to his own "Existential Analytic" in *Being and Time* (*Sein und Zeit*),[80] Heidegger has himself forgotten the technical prostheticity constitutive of Dasein.

What remains to be said by way of this introduction to Stiegler's account of technics, is that his concept of prosthetic external memory support puts forward a quasi-transcendental account of technics. As both in front and outside of "us" while also being our "already there," the technical prosthetic mediates our relation to the world in the sense of first giving us access to the world in the sense of a pro-position. Technics, Stiegler writes, "is what is placed before us [*la technique est ce qui nous est pro-posé*] (in an

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75 Stiegler, *Technics and Time 1*, 193.
76 Stiegler, *Technics and Time 1*, 152.
77 Stiegler, *Technics and Time 1*, 140.
78 Stiegler, *Technics and Time 1*, 16.
79 Stiegler, *Technics and Time 1*, 244.
80 Martin Heidegger, *Sein und Zeit* (Tübingen: Max Niemeyer Verlag, 2006).

originary knowledge, a *mathesis* that "pro-poses" us things)."[81] Stiegler can thus be seen to at once follow Heidegger's reading of *mathesis* as enframing (*Gestell*), while at the same time pushing Heidegger's thought outside of itself. For Stiegler, technics *is* always and essentially transcendental *mathesis*, an "originary" knowledge that opens us onto the world. His engagement of the concept of epiphylogenesis at the same time however suspends the very distinction between the transcendental and the empirical. The prosthetic, always encountered in the empirical world and thus in a sense *a posteriori*, at the same time precedes "this consciousness in time as the possibility of its already-there,"[82] thereby revealing the apriority of the transcendental to be the strange after-effect of the prosthetic.

Stiegler's Account of the History of Technical Thought

Stiegler's liberation of the concept of technics has so far been seen to proceed by way of a transdisciplinary determination, at once critiquing and aiming to reshape the western philosophical canon held to be responsible for the repression of technics up until Stiegler's own intervention. Complementing his reading of paleoanthropology, Stiegler's engagement of the Promethean myth stages a return to the "beginning" of the western philosophical canon, that is, the moment of philosophy's self-constitution via the repression of technics in classical Greece. "At the beginning of its history philosophy separates *tekhne* from *episteme*, a distinction that had not been made in Homeric times. The separation is determined by a political context, one in which the philosopher accuses the Sophist of instrumentalizing the *logos* as rhetoric and logography, that is, as both an instrument of power and a renunciation of knowledge."[83] In an attempt to cleanse itself from the danger of instrumentalization, philosophy pitches scientific knowledge against technical knowledge, and through this opposition technical knowledge will become disparaged for several centuries to come. Stiegler then points out that the issue with the Platonic resolution to the problem of instrumentality is that it is based on a fundamental misinterpretation. If *logos* is indeed in danger of being instrumentalized, this is because the possibility of instrumentalization is inscribed in *logos* itself, rather than being an effect of a corruption by *technics*. The fundamental problem, then, is not the relation that *logos* does or does not have to instrumentality, nor is it instrumentality itself. Rather, Stiegler locates the fundamental problem in the misconception and consequent reduction of the instrument "to the rank of means,"[84] resulting in the subsequent attempt to altogether distance oneself from the instrumental, together with the political intention to master it.

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81   Stiegler, *Technics and Time 1*, 235.

82   Stiegler, *Technics and Time, 3*, 141.

83   Stiegler, *Technics and Time 1*, 1.

84   Stiegler, *Technics and Time 1*, 206.

Following philosophy's first, fateful self-constitution by way of the repression of technics, Stiegler follows by way of two broad periodization categories. Firstly, he engages the notion of philosophical modernity, with Descartes and Kant as opening and closing figures, and secondly the "old metaphysical doxa,"[85] with Aristotle and Kant as the two, respective orienting figures. The following will critically engage both these periodization categories, carefully tracing out Stiegler's multi-layered argument about the emergence of the conditions of possibility for technical thought proper, that, in the last instance, make Stiegler's own intervention possible.

Stiegler's brief account of philosophical modernity begins with the seventeenth century and Descartes, who first posited the "I think" as the constituting subject that faces an object constituted by the subject, and which is, in a further step, to be mastered by the subject through the instrument of technics. But while this new consciousness of the "I think" had been in effect since the seventeenth century, Stiegler's claim is that it was only fully "authorized"[86] by the subsequent technoscientific modernity that set in with the nineteenth century, characterized by the thermodynamic and industrial revolutions. Stiegler's claim about the relation between philosophical and technoscientific modernity is complex. Firstly, and in reference to the Enlightenment project of public education and discourse, his claim is that the "I think" and its complementary discourse of technical mastery over nature was "concretized and generalized during the nineteenth century at the heart of the first Industrial Revolution."[87] As such, his argument is here one of historical continuity between the philosophical invention of modern consciousness and its large scale implementation two centuries later, giving rise to the technical consciousness that would essentially drive technoscientific modernity. Alongside the role played by public education, the full authorization of modern consciousness also stands in an important relation to the thermodynamic concepts of energy and metastability, thoroughly unsettling, and in fact reversing, the old metaphysical order, according to which stability was the rule and change the exception.[88] It was thus not until the thermodynamic claim of a thoroughly unstable world in which change is the norm, that the idea of an all-powerful subject, who ventures to transform this formless, chaotic nature, was brought full circle.[89]

Stiegler follows up his argument on the continuity between the philosophical invention of modern consciousness and its large-scale implementation two centuries later by arguing that the same

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85   Stiegler, *Technics and Time 3*, 67.

86   Stiegler, *Technics and Time 3*, 197.

87   Stiegler, *Technics and Time 3*, 145.

88   Stiegler, *Technics and Time 3*, 92.

89   See also Alvin Toffler, "Science and Change" in Isabelle Stengers & Ilya Prigogine, *Order out of Chaos* (London: Verso Books, 2017), xiii

technoscientific modernity which first completed philosophical modernity would however also lead to the eventual break with the modern subject position and the accompanying understanding of science and technics that has been in place from Descartes until Kant. Stiegler's argument here is that the experience of technoscientific modernity, of living in a technological world in which technics seems to have gone out of control and can no longer adequately be understood as the application of science, revealed—to the "naked eye"[90]—the problems with the modern understanding of technics. Stiegler's reading of the history of technical thought is here supported by a phenomeno-materialist argument which one also finds in the work of Gilbert Simondon, according to which it was the invention of modern, technical machines and the phenomenological experience of living amongst those machines that demanded the elaboration of a new thought of technics.[91] As Stiegler writes: "Since the Industrial Revolution, 'technical becoming' [...], has compounded its systematic dimensions, becoming visible to the naked eye in various ways and sensible to the bodies and minds devastated by an entire universe of hellish machines."[92] Stiegler's point is thus that, prior to the experience of the industrially produced technical system, the inventiveness, evolutionary logic, and systematic dimension characteristic of technics proper had not been thinkable. For Stiegler, it is thus the industrially produced technical object, which is the condition of possibility of a "new" technical thought. Consequently, Stiegler argues that it was only in the nineteenth century that the possibility of a "techno-logy that would constitute a theory of the evolution of technics,"[93] first became possible.[94] This new technical thought is thus conceptualized by Stiegler as the after-effect of the phenomenological experience of living amongst "hellish machines." What follows from this first *opening* of the possibility of techno-logy is, however, first a nihilist techno-pessimistic discourse, from Nietzsche's will to power, to Husserl's *Crisis of the European Sciences*, until Heidegger's account of technics as *Gestell*, all of which broke with the historical link between technics and objectivity, as well as the modern understanding of science, put in place by philosophical modernity.[95]

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90   Stiegler, *Technics and Time 3*, 188.

91   In *On the Mode of Existence of Technical Objects* Gilbert Simondon argues that insight into technical operation proper could remain structurally unquestioned until the invention of post-artisanal technical objects. While in artisanal, pre-modern times, it was indeed the human who was responsible for the mediation between form and matter, with the the advent of the technical machine taking over the responsibility of mediation, the representation of the "way of functioning that coincides with technical operation, which accomplishes it" was necessarily put into question. See Gilbert Simondon, *On the Mode of Existence of Technical Objects*, transl. Ceclie Malaspina, John Rogove (Minneapolis: Univocal Publishing, 2017), 249.

92   Stiegler, *Technics and Time, 3*, 188.

93   Stiegler, *Technics and Time, 1*, 2.

94   For Stiegler, Karl Marx's *Grundrisse* was the first to begin work on the theory of the evolution of technics. See Stiegler, *Technics and Time, 1. 2.*

95   Stiegler, *Technics and Time, 3*, 172.

The second periodizing category employed by Stiegler is that of the "old metaphysical doxa"[96] which, according to Stiegler, spans the entirety of the history of western philosophy that opens with Aristotle and closes, once again, with Kant. Stiegler here writes that "at least from Aristotle to Kant, technics […] arises from neither the practical domain as such nor the theoretical domain, in which it is cancelled."[97] He then goes on to insist that "no dynamic proper exists for Aristotle, any more than for any other metaphysician – nor thus for Kant: this is their common feature."[98] What is shared by Aristotle and Kant is thus an understanding of technics in terms of a means/ends rationality devoid of the systematicity of science and devoid of a universal tendency driving technical evolution from within. Given their vastly different historical contexts, Stiegler points out that Aristotle and Kant are nevertheless differentiated by the modern concept of science. While both Aristotle and Kant consider science to be "what announces and formalizes the real *as what cannot be otherwise*,"[99] modern science sees in technics an "application of science,"[100] while, for Aristotle, technics was still constituted in opposition to science.

In a problematic move on the part of Stiegler himself, his designation of the second periodization as the "old metaphysical doxa" must, however, be seen to reduce practically all of the history of philosophy, from Aristotle to Kant, to a problem of conjecture and belief.[101] Doxological critique was historically employed by Plato in order to separate *logos* from its instrumentalization by the sophists.[102] In a strange turn of events, Stiegler thus employs the same metaphysical distinction between philosophy and sophism, or science and technics, that he himself aimed to displace otherwise. It nonetheless performs a powerful function within Stiegler's account of the history of technical thought. Essentially, Stiegler argues that this "old metaphysical doxa" came to a close after Kant. Stiegler's account of the end of metaphysics thus differentiates itself from that of Heidegger. As the previous section has shown, Heidegger located his own intervention at the long tail end of the completion of metaphysics which is to be brought about by his discourse of questioning, while according to Stiegler, the conditions of possibility for a post-metaphysical technical thought were opened by Marx after the "old metaphysical

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96   Stiegler, *Technics and Time, 3,* 67.

97   Stiegler, *Technics and Time, 3,* 67.

98   Stiegler, *Technics and Time, 3,* 188.

99   Stiegler, *Technics and Time, 3,* 193.

100   Stiegler, *Technics and Time, 3,* 189.

101   In both *Technics and Time 1,* 3 and Bernard Stiegler, *Pharmacology of Spirit*, transl. D. Ross (Cambridge: Polity, 2017), 295, Stiegler employs the ancient Greek term *doxa* in line with the Platonic distiction between *episteme* and *doxa*, that is, knowledge and belief or opinion. See for instance Plato *Republic* 476e–480a

102   See for instance Jessica Moss, *Plato's Epistemology: Being and Seeming* (Oxford: Oxford University Press, 2021), 151, who translates from Plato, *Sophist 234c-d* "[The sophist can] bewitch people who are young and standing still further from the truth of things, showing them spoken images about everything, (a) so as to make the things spoken *seem* true, and the speaker [seem] to be the wisest of all about everything… [But when later the students] grasp clearly the things that *are*, they will (b) change their former *doxai*."

doxa", which closed with Kant.

Stiegler's account of the history of technical thought can be seen to move through the history of European philosophy in broad strokes, beginning from the argument that after philosophy's self-constitution by way of the repression of technics in ancient Greece, it was not until the thermodynamic and industrial revolutions of the 19th century, that contemporary thought on technics proper first became possible. And while Marx first opened the possibility of theorizing the systematicity and evolution of technics, Heidegger still forgot about the technical prostheticity constitutive of *Dasein* seventy years later in his *Being and Time*. In his own project of, at last, exhuming/inventing technical thought proper, Stiegler had initially envisioned his *Technics and Time* project to encompass three volumes in total. However, upon embarking on the third volume, he encountered a problem of connection, a "connective fault."[103] This problem of connection, he goes on to argue, could only be resolved through an in-depth engagement with the very "heart of modern philosophy": Kant's *Critique of Pure Reason*. Stiegler explains that it was his engagement with Kant which finally allowed him to recognize and work through this "connective fault", that is, how to bring into view "the focal point of the very idea that, despite many attempts had escaped me [Stiegler]."[104] Following a reading of the *Critique of Pure Reason*, Stiegler thus decided, in the year 2000, to push back what was initially supposed to have been the third and last volume of the Technics and Time series to a fifth position, inserting new third and fourth volumes. How, then, could Kant, who in the preceding discussion was shown to occupy the problematic closing positions in both the categories of philosophical modernity and the old metaphysical doxa before the conditions of possibility for technical thought proper were even opened, possibly help Stiegler in his project of the liberation of technics proper?

Stiegler and Kant

The new, third volume of *Technics and Time* occupies a convoluted position in relation to the overall *Technics and Time* series. Structurally speaking, there are two aspects to Stiegler's engagement with Kant. Firstly, and most importantly, Stiegler's engagement with Kant demanded, as we have seen, nothing less than the restructuring and overall rethinking of the entire *Technics and Time* series, which now spans a total of five rather than merely three volumes. Secondly, however, Stiegler's reading of Kant now explicitly prepares the ground for and serves as the introduction to the entire *Technics and Time* series. Essentially performing a reading of Kant, *Techncis and Time 3* is said to be both autonomous

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103   Stiegler, *Technics and Time, 3*, p xii.

104   Stiegler, *Technics and Time, 3*, p xii.

of the series while at the same time functioning as an introduction to the preceding two volumes.[105]

On the level of conceptual engagement, Stiegler's reading of Kant's *Critique of Pure Reason* centres on four main points: synthesis, schematization, orientation, and finally critique. Of these four issues, it will be the question of synthesis "that will constitute the heart of the reflections [Stiegler] offer[s] here through a reading of Kant's *Critique of Pure Reason*."[106] In line with the argument that the *a priori* is the after-effect of prostheticity, Stiegler accuses Kant of not having seen how, behind the a priori three-fold synthesis of consciousness loomed always already a fourth synthesis. This fourth synthesis, Stiegler argues, is technological and synthetic, in the sense in which "we call the artifice of prosthetic replication 'synthetic.'"[107] Stiegler's point is thus that Kant himself always already relied on a number of technical "retentional instruments,"[108] and that it is precisely due to these material, technical traces that Kant's conscious activity first became accessible to both himself as well as his public. Functioning as a prosthetic milieu, at once consciousness and its other,[109] Stiegler argues that the unity of Kant's own thought is only accessible to Kant through his books, notes and other technical traces, functioning as the understanding's "veritable crutch."[110] While Kant always relied on this fourth, technological synthesis, he nevertheless remained incapable of seeing, understanding, or thinking it in his transcendental idealist insistence on the interiority of phenomena.

Stiegler's second point of engagement with Kant sets off from Adorno and Horkheimer's critique of the culture industry in their 1944 *Dialectic of Enlightenment.* Their critique of the culture industry, and specifically Hollywood cinema, hinges on the claim that its "prime service to the customer is to do his schematizing for him [*sic*]."[111] Hollywood cinema is here said to have finally deciphered and gained control over what, according to Kant, was a "hidden art in the depth of the human soul."[112] Stiegler's engagement with Adorno and Horkheimer's argument on schematization asks how it is possible to schematize for someone else. Essentially employing the Kantian methodology of inquiring into the conditions of possibility while at the same time arguing against Kant, Stiegler's claim is that it was first Kant who did not acknowledge the primordial role that mnemotechnical retentions (technical objects) have always already played in the constitution of consciousness. Stiegler thus ventures to show how

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105   Stiegler, *Technics and Time, 3*, xi.

106   Stiegler, *Technics and Time, 3*, 1.

107   Stiegler, *Technics and Time, 3*, 141

108   Stiegler, *Technics and Time, 3*, 144.

109   Stiegler, *Technics and Time, 3*, 49.

110   Stiegler, *Technics and Time, 3*, 48.

111   Theodor W. Adorno and Max Horkheimer, *Dialectic of Enlightenment,* transl. John Cumming (New York: Continuum, 1989), 124.

112   Kant, CPR A141/B181.

image and schema, material trace and concept are co-emergent and interrelated, the reality of which is said to have escaped both Kant as well as Adorno and Horkheimer. Neither of them recognized the "technical substratum"[113] of the "third" provided by the schema. For Stiegler, then, there can only be such a thing as an industrial schematism "because the schematics are originarily, in their very structure industrializable: they are functions […] of technics, technology, and, today, industry."[114]

Stiegler's third and fourth points of engagement with Kant equally do not stop short of being thoroughly unsettling. In naming the *Critique of Pure Reason* "Critique," without a grammatical proposition that would concede the possibility of there ever being other possible critiques of pure reason, Kant put forward the performative claim to have completed the project of reason's critique once and for all. However, in his discussion of the current technoscientific paradigm, Stiegler joins in the choir of post-Kantian thinkers who challenge this Kantian position. Stiegler's particular reiteration is that when it comes to technoscience, by which he means contemporary scientific practice, the relation between the real and the possible has essentially been reversed. This is the case because technoscience, rather than describing or accounting for an already existing reality, aims to "create a new reality."[115] As such, the Kantian founding distinction between theory and practice, including the restrictions put on theoretical reason, is not only transcended but essentially invalidated. The questions at stake in Stiegler's discussion of technoscience firstly point to the necessity of a new, post-Kantian critique informed by technics, which, secondly, asks about the conditions of possibility of judging the technological fictions produced by technoscientific practice as a problem of how to orientate oneself in the "darkness of scientific possibles."[116]

Throughout this four-partite, critical discussion of Kant, Stiegler refers to Kant's explicit writings on technics only once in order to underscore his point that Kant indeed mistook the relation between science and technics as a problem of mere application.[117] Concluding that Kant had little to say about technics himself, Stiegler then posits Kant as the closing figure of both his periodization categories preceding the possibility of techno-logy. At the same time, however, the preceding discussion has shown

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113   Stiegler, *Technics and Time, 3*, 42.
114   Stiegler, *Technics and Time, 3*, 41.
115   Stiegler, *Technics and Time, 3*, 191.
116   Stiegler, *Technics and Time, 3*, 191.
117   Immanuel Kant, "On the Common Saying: That may be correct in theory, but is of no use in practice." In *Practical Philosophy,* transl. M. Gregor (Cambridge: Cambridge University Press, 1996), 277. "Now if an empirical engineer tried to disparage general mechanics, or an artilleryman the mathematical doctrine of ballistics, by saying that whereas the art of it is nicely thought out it is not valid in practice since, when it comes to the application, experience yields quite different results from theory, one would merely laugh at him (for, if the theory of friction were added to the first and the theory of the resistance of the air to the second, hence if only still more theory were added, these would accord very well with experience)."

just how important Kant was for Stiegler's own technics-thinking. It was Stiegler's engagement with Kant, that first revealed to Stiegler the "connective fault."[118] And it was Kant, who, in the following, catalysed the complete restructuring of the *Technics and Time* series, with the third book, containing Stiegler's reflections on Kant, being repositioned as the introduction to the entire, newly restructured series. Thus, similarly to the preceding discussion on Heidegger, Kant occupies once again a two-fold position. At once denied insight into technics, Kant at the same time prepares the ground and catalyzes Stiegler's own intervention.

Concerning Stiegler's engagement with Kant on the level of conceptual content, one is reminded of Heidegger's symptomatic reading of Kant. While Heidegger argued that Kant could not see, understand, or think the technical nature of the *a priori*, in Stiegler's narrative Kant is read as the last pre-industrial thinker, who so powerfully repressed the technical conditions of possibility for both synthesis, schematization, orientation, as well as critique in the last instance. Taking Stiegler's discourse of technical repression to its logical consequences, it indeed appears that Kant could not "know" anything about the technical constitution of schematization. According to Freud, a forgetting accompanies repression, due to which "the motives for the prohibition (which is conscious) remain unknown; and all attempts of disposing of it by intellectual processes must fail."[119] And indeed, when faced with the question of laying open the mysterious process of schematization, Kant could only characterize it as a "hidden art in the depth of the human soul."[120] It is this very unthinkability of technics, which Stiegler ultimately has in mind, when he writes that once repressed, technics "is not un-identified in the sense in which something forgotten is not thought: it is largely thought and felt to be unthinkable."[121] Consequently, then, while catalyzing Stiegler in articulating the mnemo-technical nature of schematization, Kant is at the same time not read as a thinker of technics. Instead, Kant "unthought" technics in all of its aspects: heavily relying on mnemo-technical prosthetics, technics is said to have remained an implicit object of thought for Kant. Thus, in a similar way to Heidegger, Kant is read by Stiegler as conditioned by and thus ultimately suffering from rather than thinking technics, as well as philosophy's age-old repression of it. It is not until his own intervention, that technics, according to Stiegler, is liberated at last.

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118   Stiegler, *Technics and Time, 3*, xii.

119   Sigmund Freud, *Totem and Taboo,* transl. J. Strachey (London: Routledge Classics, 2004), 35.

120   Kant, CPR A141/B181.

121   Stiegler, *Technics and Time, 3*, 176-177.

3. Conclusion

The preceding discussion has traced both Heidegger's and Stiegler's arguments according to which technics articulates the limits of philosophical thought understood as metaphysics. If philosophy is to finally open itself up to technics it will have to undergo a radical transformation, with specific programmes for this transformation to be found in their respective projects on technical thought. As this article traced, the history of philosophy is thus read as the history of philosophy's technical aporia by both Heidegger and Stiegler. At the same time, however, that same history of philosophy was shown for Heidegger and Stiegler to nevertheless contain, but only ever implicitly, the seeds of technical thought proper. This two-fold role played by the history of philosophy was exemplified by way of Heidegger's and Stiegler's respective readings of one of philosophy's most prominent thinkers, who supposedly could not think technics: Immanuel Kant. Both Heidegger and Stiegler were on the one hand shown to argue that Kant must ultimately be left behind, since Transcendental Philosophy marks a fundamental limit to technical thought proper. On the other hand, however, the preceding discussion has also shown just how important Kant is for both Heidegger's and Stiegler's conceptual projects on technics. For Heidegger, Kant's "Transcendental Analytic" laid open the *a priori* principles of the thingness of things, thus articulating the very moment in which metaphysics "became" modern technics as well as the basic historical and spiritual stance, which for Heidegger determined the historical present up until the twentieth century. Kant was here argued to have only implicitly articulated modern technics, without however self-reflexively "understanding" it. Within Stiegler's project, Kant was said to have "unthought" technics while at the same time always already relying on mnemo-technical prosthetics, in the form of notes, books, correspondences. At the same time, however, Kant was shown to have led to nothing less than the restructuration of the entire *Technics and Time* series, at last enabling Stiegler to overcome a "connective fault" that had hitherto escaped him. Consequently, then, and despite the prominent place in both these accounts of technics, Kant is essentially not read as a thinker of technics himself. Instead, this article argued that and showed how he is read merely symptomatically. According to both self-proclaimed thinkers of technics, technics is philosophy's symptom, and Kant's transcendental philosophy is the symptom of a philosophy that could not think technics.

In concluding, there are two last points to be made regarding both Heidegger and Stiegler's double-articulation of the history of philosophy which this article has traced out so far. On the one hand, and first of all, this article aimed to show, by way of Heidegger and Stiegler's omission of Kant's explicit technical thought and combined with their relegation of Kant to a mere symptom, how their double-articulation of the history of philosophy as at once devoid *and* containing implicit seeds only, functioned somewhat as the condition of possibility for the individuation of their own technical thought. With this statement, I do not propose that their omission and symptomatic readings were done wilfully. Rather,

their self-positioning within the history of technical thought meant that neither Heidegger nor Stiegler could see what they themselves were looking for (technical thought proper in the history of philosophy prior to their own intervention). Only this way, can one understand both Heidegger and Stiegler's claim that they found themselves in a historically singular position from which technical thought proper could, for the first time, be developed, questioned, problematized, exhumed, invented and liberated.

Following on from this first point, the second point addresses a wider issue. What follows from Heidegger and Stiegler's readings of the history of philosophy as only implicitly containing the seeds for their own technical thought proper, is that historical thought on technics, such as Kant's for instance, remained veiled, or in an unfortunate turn of events were veiled once again. To say with Heidegger and Stiegler that Kant does not speak of technics, "unthought" technics, or did not ask the right question concerning technics, ultimately means that Kant does not have a future beyond the status of the symptom granted to him. Heidegger and Stiegler's readings of Kant and their consequent development of their own technical thought out of their problematization of Kant's technical aporia would not be a problem if Kant had never written anything explicitly about technics proper. I have already pointed out that as early as 1938 Lehmann questioned Kant's status as having had nothing to say about technics proper, and since then Hui has undertaken similar critiques. I have myself argued elsewhere that there is indeed a proper thought on technics at stake in Kant's oeuvre, which reaches its clearest expression in the last fascicles of the *Opus Postumum*.[122] Ultimately, however, this is not an article about Kant's technical thought. Rather, this article worked through both Heidegger and Stiegler's reading of Kant precisely because, such is my underlying claim, Kant exemplified both their relationships to the history of philosophy. And to employ Heidegger and Stiegler's concepts of technics means to work from within, at least, the outlines of their respective readings of the history of philosophy; that is, the supposed history of philosophy's technical aporia. By returning to and problematizing Heidegger and Stiegler's accounts of the histories of technical thought that underlie and ultimately make possible their respective conceptual projects on technics, what is at stake in this article is thus ultimately a call to inquire into 'minor' histories of technical thought that neither Heidegger nor Stiegler could see, and which might then, in a second step, be able to open different futures for technical thought.

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122   Franziska Aigner, *Kant and Technics: From the Critique of Pure Reason until the Opus Postumum*. (PhD Thesis, Kingston University London, 2020). <https://eprints.kingston.ac.uk/id/eprint/47553/>

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