

ON PLASTICITY'S OWN CONCEPTUAL EPIGENESIS: MALABOU ON THE ORIGIN AND HISTORY OF PLASTICITY

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ABSTRACT: This paper proposes an immanent critique of Catherine Malabou's account of the origin of plasticity, arguing that Malabou's account of plasticity—as a philosophical concept or form—does not meet the standard of her own conception of the epigenetic development of form. Using Malabou's *Before Tomorrow: Epigenesis and Rationality*, this paper argues that Malabou's own account of plasticity hews closer to theories of formation Malabou explicitly abjures: spontaneous generation and preformationism. Accordingly, Malabou's articulation of plasticity lacks an account of its conceptual epigenesis that would fulfill the epigenetic standards of her own thinking. First, we will characterize the origin and history of plasticity as described by Malabou as consisting of two primary claims: plasticity arrives in and with Hegel, and that it is through Hegel's substantialization of plasticity that it becomes a concept. Plasticity first emerges in Hegel and that it becomes-substantive through Hegel, attaining the dignity of a proper philosophical concept. We then move to an exegesis of Malabou's account of theories of generation in her analysis of Kantian epigenesis in *Before Tomorrow*, arguing that the extant account of plasticity provided by Malabou resembles paradigms of formation she rejects. Lastly, we sketch out some possible pathways to explore to furnish the epigenetic becoming-substantive of plasticity currently missing in Malabou's account.

KEYWORDS: Malabou; Plasticity; Epigenesis

In *Before Tomorrow*, Malabou argues that all form—whether biological or philosophical—emerges through epigenesis rather than the competing paradigms of spontaneous generation or preformationism. All form must become and, thus, cannot emerge miraculously (spontaneous generation) or simply unfold from a predetermined origin (preformationism); plasticity as a philosophical form must or should develop epigenetically. If plasticity is a substantive form and

substance, as Malabou insists, is born of or emerges processually through the incorporation of its accidents: what then of the becoming-substantive of plasticity; what of the history of its accidents? If substance is the history, the singular expression, of its accidents—the becoming essential or substantial of the accident—then what of the history of the epigenetic becoming-substantive of plasticity?

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“Everything began,” Catherine Malabou writes, “when, ‘falling’ one day onto the term ‘plastic,’ I was brought to a stop, at once intrigued and grateful... [i]t was an accident... that brought me to the essential.”¹ Let us gather and explicate what Malabou, the *plastiquese*,² specifically states about the *history* and *origin* of plasticity—the threefold capacity to give, receive, and destroy form—as a concept: how this accident became essential or *substantial*. In her self-described “conceptual portrait”³ and intellectual “autobiography”⁴ *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction* (2005; tr. 2010), Malabou recounts and explicates the trajectory of her philosophical development, giving an account of her philosophical self and of how her central concept of ‘plasticity’ emerges in her thinking. The first key claim Malabou makes in her account of the history and origin of plasticity is that “...the concept of plasticity” was “discovered for the first time in the preface to Hegel’s *Phenomenology of Spirit*... discovered in the heart of Hegelian philosophy...”⁵ Hegel’s philosophy is, Malabou writes,

¹ Catherine Malabou, *The Future of Hegel: Plasticity, Temporality, and Dialectic* (trans.) Lisbeth During (New York: Routledge, 2004), 185-6.

² Catherine Malabou, *Changing Difference: The Feminine and the Question of Philosophy* (trans.) Carolyn Shread (Malden: Polity, 2011), 120, 137: “the bringing to light of plasticity can only be the work of a ‘*plastiquese*,’ that is, an *explosive plastic artist*. So I was well and truly granted the role of creator”; “...don’t tell me that I hide behind the ‘authority’ of Hegel or Heidegger too often. I’ve worked hard in my own way to make their lives impossible too...*Plastiquese*. That’s what Derrida called me. The plastic explosive artist...”

³ Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction* (trans.) Carolyn Shread (New York: Columbia University Press, 2010), 2.

⁴ Malabou, *ibid.* 65.

⁵ Malabou, *ibid.* 8-9. Malabou also reiterates this, among elsewhere, in a 2010 interview when asked to clarify the development of the concept of plasticity: “I found it for the first time in Hegel.” See Catherine Malabou and Noelle Vahanian, “A Conversation with Catherine Malabou,” *Journal for Cultural and Religious Theory* 9, no. 1 (Winter 2008): 1-13, here 6.

plasticity's "place of birth."⁶ It is through this accidental discovery of the term plasticity in Hegel that Malabou arrives at the essence of answering the provocation of her doctoral thesis and inaugural major work: against the broad anti-Hegelian consensus of the 20th century, represented first by Martin Heidegger, then in France, in various ways, through Gilles Deleuze, Michel Foucault, and Jacques Derrida, was there a way to offer "the existence of a true conception of the future in Hegel and, beyond that, a future for Hegelianism itself"?⁷ Crystallizing numerous objections to Hegel and ventriloquizing critics, Malabou rhetorically muses, when we encounter and try to tarry with Hegel,

...don't we begin to feel constricted, as if ontology has closed in on us? The System: doesn't it seem to be a tight loop which envelops everything – all exteriority, all alterity, all surprise?...Spirit, whose task is to comprehend itself, to anticipate itself in everything that is now and is to come, can never encounter anything wholly other, can never come face to face, one might say, with the *event*. How, then, could there be room in Hegelian thought for the question of the future, if everything has already been permeated by spirit and, in this fashion, already completed?⁸

This, according to Malabou, captures in essence all fundamental objections to Hegel: that his thought lacks a future. In Hegel, Spirit determines everything, divesting life (ourselves, us, nature, the world) of all possible surprises, voraciously subsuming every difference into a system predicated on an expansionist, imperializing identity. In Hegel, in the last instance, there is nothing to be done, because everything is already completed—there is nothing that *can happen*: no happenstance, chance, or the swerve of an otherwise, only the adamant realization or actualization of the Absolute as absolutely necessary. This "absence of a conception of the future *in* Hegel," Malabou writes, is tantamount to asserting, "the absence *of* a future *for* the philosophy of Hegel."⁹ Against this claim, Malabou proposes to demonstrate the contrary and "affirm that there is indeed a 'future of Hegel'"¹⁰ and it is *plasticity* that promises this possibility.

The second component in Malabou's account is the *becoming substantive* of

⁶ Malabou, *Plasticity at Dusk*, 1.

⁷ Malabou, *Changing Difference*, 67.

⁸ Malabou, *Future of Hegel*, 4.

⁹ Malabou, *Future of Hegel*, 5.

¹⁰ *Ibid.*

plasticity, a becoming substantive which has a twofold sense: one that refers to plasticity's becoming substantive in and through Hegel, and, second, the implicit sense that plasticity becomes essential or substantive in Hegel *through* Malabou's interpretive intervention. The first is that Hegel decisively modifies the register in which plasticity operates by displacing it from its originary domain and conferring upon it the status of a substantive. According to Malabou, Hegel novelly enlarges plasticity's scope of application by amplifying and expanding it from a previous strict aesthetic meaning to encompass a more comprehensive philosophical, ontological or metaphysical purview. Hegel is the first philosopher to authorize, elevate, and substantialize plasticity, to "accord it the value of a concept."¹¹ In *The Future of Hegel: Plasticity, Temporality and Dialectic* (1996; 2005), Malabou documents that the substantive 'plasticity' enters the English, French (*plasticité*), and German (*Plastizität*) languages in the eighteenth-century, developing closely from two existing related words that shared the same root of the Greek *plassein*, meaning to model or to mold: the substantive 'plastics' (*die Plastik*), and the adjective 'plastic' (*plastisch*).¹² The words 'plastics' and 'plastic' were deployed, Malabou attests, in the "native land" or "original domain" of plasticity, "the field of the art," with plastic arts characterizing "the art of 'modelling,' and, in the first instance, the art of sculpture" while generally referring to or being inclusive of those arts "whose central aim is the articulation and development of forms" such as "architecture, drawing and painting."¹³ According to Malabou, Hegel "rips [plasticity] away from" these traditional "strict aesthetic ties (or sculptural ties, to be precise), definitively conferring the metaphysical dignity of an essential characteristic of subjectivity upon it."¹⁴ Malabou re-affirms this position in a 2016 interview, "The Future of Plasticity," recapitulating her claims in *The Future of Hegel* that the term *Plastizität* appears at the end of the eighteenth century and that "in the beginning, it was specifically devoted to aesthetics" but that it is Hegel who "displaced it from the aesthetic realm into the metaphysical one in order to characterize subjectivity and time in

¹¹ Malabou, *Changing Difference*, 79.

¹² Malabou, *Future of Hegel*, 8.

¹³ Malabou, *Future of Hegel*, 8.

¹⁴ Malabou, *Plasticity at Dusk*, 13.

general.”¹⁵ This priority of becoming substantive is reiterated by Jacques Derrida, who as Malabou’s supervisor guided the composition and completion of Malabou’s text, stating in a footnote accompanying his preface to *The Future of Hegel*:

If the substantive *plasticity* (*Plastizität*), implying that the term is always to be promoted to the dignity of a philosophical notion or concept, has been written in the French language since before the Revolution (1785) and entered the German language in the ‘Age of Goethe’ (according to the Brockhaus dictionary), it is an adjectival form, *plastisch*...¹⁶

Prior to Hegel, then, plastics, plastic, and plasticity were used exclusively with respect to aesthetics and it is through Hegel’s exportation of plasticity from its originary field of aesthetics to that of having a wider philosophical and metaphysical purchase that plasticity obtains a new substantive, and decisively philosophical, meaning.

The second critical manner plasticity becomes substantive is the implicit sense concerning Malabou’s own role in this process: it is Malabou herself who catalyzes plasticity’s transformation from an accident in Hegel to the very essence or substance of his thought. As Malabou recounts in *Changing Difference: The Feminine and the Question of Philosophy*, affirming the future of Hegel implicated and required a consideration of ‘recovery’ and its related “gestures” of what it means “to heal, to repair, to relocate a lost object or normal state, to reclaim, to recuperate” in the context of reading and interpreting philosophy.¹⁷ The long siege on Hegel, stretching from the Young Hegelians and Marx, to Kierkegaard, to Heidegger, Adorno, Sartre, Deleuze, Foucault, and Derrida, is figured in Malabou’s reading as tantamount to an attack: Hegel was effectively wounded and in need of mending or saving if he were to ‘survive’ or to have a future. To accomplish this, Malabou conceptualizes her treatment of Hegel as a way to heal Hegel through a recovery operation of bringing his thought back through a kind

¹⁵ Catherine Malabou and Kate Lawless, “The Future of Plasticity,” interview by Kate Lawless in *Chiasma: A Site for Thought* 3, Article 7 (2016): 99-108, here 103-4

¹⁶ Jacques Derrida, “A Time for Farewells: Heidegger (read by) Hegel (read by) Malabou,” *The Future of Hegel: Plasticity, Temporality, Dialectic* (trans.) Lisbeth During (New York: Routledge, 2004), 195, fn. 11. Emphasis mine.

¹⁷ Malabou, *Changing Difference*, 67.

of interpretive revivification. The challenge was to genuinely recuperate Hegel and not bring him back as merely a ghost¹⁸—to actually have Hegel be a viable, live option that could meet the demands of both the destruction and deconstruction of metaphysics (the challenges of Heidegger and Derrida). This rescue requires a particular recuperative procedure of philosophical reinvention, an interpretive gesture that, Malabou elaborates, consists not in the “creation of an entirely new concept or philosophical category, but rather in identifying a word or notion already present within a corpus, but to which no one has ever paid any attention.”¹⁹ One starts “with that which has been ignored within the text by readers and, to some extent, by author alike” and, through this process, produce “novelty by bringing back the ancient, revealing an unimagined force through the old text.”²⁰ Such was, Malabou proposes, the concept of plasticity, which was “long ignored by Hegel’s critics” and “had never really been noticed by his commentators.”²¹ So, it is Malabou herself that by the fortune of an accident discovers plasticity and transforms Hegel anew: from unacknowledged margins in the history of Hegel’s thought, Malabou draws the resource of plasticity to re-shape and re-form the essence or substance of Hegel in the present to give this thought a future.

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The origin story of plasticity upon which Malabou’s philosophical project rests has become practically rote in both Malabou’s own account and secondary engagements with her work: Malabou’s decisive philosophical intervention and contribution is the theorization of the notion of plasticity and that Malabou finds this in and extrapolates this concept from Hegel. Strangely, the veracity of this origin story has never been challenged. It has never been asked if this is *true* but has seemingly been accepted by *fiat*, becoming a kind of *doxa* through a curious uncritical recapitulation, attaining the status of something like a natural fact: plasticity lay ready-made and dormant in Hegel, awaiting excavation and given life through Malabou’s surgical, plastic hands. To return to the 2016 interview,

¹⁸ Ibid. 80.

¹⁹ Malabou, *Changing Difference*, 68.

²⁰ Ibid.

²¹ Ibid.

“The Future of Plasticity,” while Malabou largely recapitulates her standard account of the history and origin of plasticity, she interestingly adds something to the story of plasticity absent in previous accounts. Malabou states again that the term *Plastizität* emerges in the eighteenth century, but, here, this emergence does not float anonymously, but is ascribed to a figure: Goethe. Malabou concedes, “in some sense, [Hegel] stole the concept from Goethe. So Goethe invented the substantive, *Plastizität* to designate the capacity to be sculpted. And Hegel distorted that to make it characterize the temporal being of subjectivity.”²² Here, then, we have an added character to the story, a twist in the narrative to reconsider—the suggestion of a past to or history of plasticity. The introduction of the figure of Goethe then adds an antecedent to what has been an otherwise miraculous birth: plasticity does not emerge fully formed in Hegel, but is, Malabou relays, stolen from Goethe. The admission of this prefigurative source however only invites another question in the manner of regress: if Hegel ‘stole’ this concept from Goethe, from where did Goethe himself take or develop this concept?

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In *Before Tomorrow: Epigenesis and Rationality*, Malabou proposes an “*epigenetic reading of Kantian epigenesis*,”²³ elaborating the development of the idea of epigenesis in Kant and the transferences between biological and philosophical theories of generation in Kant’s conceptualization of the transcendental from the *Critique of Pure Reason* to *Critique of the Power of Judgment*. As part of her exposition on the primacy of epigenesis as a paradigmatic model shaping Kant’s thought, Malabou outlines three predominant positions corresponding to three different modes of understanding how forms generate: equivocal or spontaneous generation, preformationism, and, lastly, the position Malabou ultimately advocates, epigenesis. The first, spontaneous generation, explains the emergence of living form from inert matter, postulating “an inorganic origin out of which the living...miraculously appears.”²⁴ This occasionalist position maintains that “the

²² Malabou and Lawless, “The Future of Plasticity”, 103-4.

²³ Catherine Malabou, *Before Tomorrow: Epigenesis and Rationality* (trans.) Carolyn Shread (New York: Polity Press, 2016), 37.

²⁴ Malabou, *Before Tomorrow*, 22.

living is endowed with no formative force at all and is always, on every occasion, created or re-created by God.”²⁵ The second, preformationism, maintains that form is effectively predetermined or *preformed*: the essence of a form is innate, preexisting its material actualization; all that form requires is to unfurl, unfold, or unwrap and become what it already is, like “an already constituted and amassed treasure that asks only to pour out before our eyes.”²⁶ Lastly, there is epigenesis which asserts that form does not emerge by either the “magical animation”²⁷ of spontaneous generation nor the “divine decree”²⁸ of preformationism but actually *becomes* or *develops* through a process of self-differentiation. Epigenesis countenances that form is not preformed or determined from the beginning, once and for all, but gradually or processually adopts its particular shape through acquisition, adaptation, and adjustment: form earns its substantial appearance through the intra-actions and intrications of history, experience, time. Malabou ultimately inveighs against both spontaneous generation and preformationism, arguing that they both improperly account for the epigenetic nature of biological and philosophical forms, an identity upon which she insists. In terms of the development and interpretation of philosophical concepts, then, we can extrapolate that spontaneous generation as a paradigm would resemble something of an interpretive occasionalism whereby a supervening agent creates or generates something categorically different from its source material: the interpreter as deity, summoning a meaning and power that does not actually exist in the original. A preformationist approach would be that of the discoverer: the interpretive agent uncovers a concept, some kind of textual treasure, full and replete to itself, with their task being only to simply uncover and present it, hauling it from its textual encasement. An understanding of conceptual development based on epigenesis, conversely, would not posit a concept’s substantial meaning as intact from the outset, attributable to the creative act or hand of a singular author, but view this conceptual meaning as the product or result of a history: as an amassing and incorporating, differentiating and

²⁵ Ibid. 161.

²⁶ Ibid. 26.

²⁷ Ibid. 25.

²⁸ Ibid. 24, 31, 97.

complexifying, of texture through its philosophical ‘life.’

If these are the paradigms of generation, and Malabou advocates epigenesis as the proper way of understanding the development of biological and philosophical forms, how are we to adjudicate the account of the origin of plasticity provided by Malabou? Given our initial description of Malabou’s account above, Malabou’s own explication of the origin and account of plasticity appears to actually hew closer to the two models of generation that she abjures. First, it appears that plasticity emerges out of nowhere: long dormant, it takes the intervention of Malabou to give it life. In this respect, plasticity resembles a product born of the “magical animation” of equivocal generation, characterized as “the existence of birth foreign to its source, offspring born of nothing[?]”²⁹ Did Malabou orchestrate the occasionalist gesture of creating a philosophical entity that is *not there in the original*—plasticity as a “theoretical monstrosity” that is not Hegel or in Hegel, but is purely the arbitrary production of Malabou as interpretive God?³⁰ Such a reading would invalidate Malabou’s elaboration of plasticity, as it would mean that Malabou’s philosophical operation would be tantamount to a miraculous invention that admits or implies that there was nothing in the source material of Hegel’s text that could meaningfully produce or inform the notion of plasticity; a dead text that Malabou externally vivifies, granting a power and vitality that is not originally there. This reading is redolent of those unsympathetic to Malabou’s treatment of Hegel: it is a creation, an act of undue license that *exceeds* the nature or essence of the original; summoning a life and a form that is not there but through an act of interpretive occasionalism. One can alternatively approach Malabou’s account of the development of plasticity through the model of preformationism: plasticity is definitively *in* Hegel and Hegel is the genetic origin of plasticity. In this mode, Malabou would simply act as explorer and discoverer, facilitating the excavation of a concept Hegel created, in all its philosophical depth and rigour, as if by ‘divine decree.’ The corpus of Hegel acts as a chest out of which the “already constituted and amassed

²⁹ Ibid. 22.

³⁰ This could have two senses: the one discussed here, but also the sense in which Hegel himself spontaneously generates this concept, imbuing the word with a substantial or essential meaning that was not there previously; animating plasticity, making it alive.

treasure” of plasticity “asks only to pour out before our eyes.”³¹ The essence or substantial meaning of plasticity is authored uniquely by and from Hegel. However, if this were the case, plasticity’s meaning is, then, delimited, already circumscribed, preformed, or predetermined by an innate matrix of possibilities inscribed at the outset by Hegel. The future of plasticity is preestablished, curtailed and contoured from the beginning: all that is left to do, as readers, is to unfurl the meaning inherent in its original articulation; we are beholden to a source, origin, or *arché* of plasticity. Hegel’s provision of the essential or substantial form of plasticity acts as a grid of intelligibility, functioning as a kind of Kantian understanding: it determinatively regulates the possibilities of how we *understand* plasticity. This, however, contravenes Malabou’s understanding of plasticity in two principal respects. First, this would mean that plasticity lacks exactly the future that Malabou’s elaboration of plasticity is supposed to demonstrate: if the possibilities of this concept are guaranteed in advance, this confirms precisely the traditional image of Hegel that Malabou intends to undermine. A preformationist Hegel is exactly the Hegel of received tradition Malabou seeks to modify through the very notion of plasticity. The second connected point is that this approach would entail that the reception of the form of plasticity is decidedly unilateral: Malabou acts as a passive vessel or conduit of something already constituted or completed. The purely genetic or preformationist reading of ‘plasticity’, where Hegel is the proprietary and unique author, means that Malabou adds nothing to plasticity itself, thereby flouting the essential character of plasticity as being both the reception *and* giving of form. Moreover, this characterization of plasticity as being inaugurated by and through Hegel disavows that Hegel himself was influenced or informed by any precedent notions of plasticity, and thus Hegel would be represented as a pure origin, authoring plasticity out of nothing. It is here where the two approaches—spontaneous generation and preformationism—come full circle to reveal their speculative identity and shared implication, a fact that Malabou highlights with help from Kant. Malabou adduces Kant’s insight that, despite appearances to the contrary, advocates of both spontaneous generation and preformationism commonly eschew the formative power and life of individual form, that is, its historical becoming,

³¹ Ibid. 26.

sharing the fundamental position that form ultimately derives from the “hand of the creator;” that the “supreme intelligent world-cause” forms a “fruit with his own hand and [leaves] the mother only its development and nourishment.”³² This is to say, form does not become but emerges or is created directly by the intervention or authority of a creator. In the first sense, plasticity is spontaneously generated by Hegel or by the occasionalist interpretive intervention of Malabou; in the second, plasticity is a product born directly by the hand of its creator, Hegel: predetermined, preestablished, preformed. We, as readers, simply inherit a treasure discovered by Malabou and preserved for philosophical posterity. Measured against the indices of Malabou’s own thought, then, the extant account of plasticity’s own generation does not meet the requisite epigenetic standard stipulated of genuine biological and philosophical form. If plasticity obtains its substantial form in Hegel, should there not be an account of plasticity’s own conceptual becoming, its epigenesis? If Malabou insists on epigenesis as a paradigm for multiple modes of generation—biological, philosophical, and otherwise—should her own concept of plasticity not be subjected to or demonstrated to have emerged through the same regime or process of development?

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The provision of Goethe as a forebearer, the admittance of a history *before* Hegel, corroborates a curious presentiment experienced when confronting plasticity: the strange fulsome and profundity of this concept without antecedent, without precedent, without history, appearing almost as a kind of conceptual driftwood fortuitously discovered washed ashore in Hegel. If Malabou’s argument is to be internally consistent, there must be an epigenesis of plasticity: there must be some accounting for how plasticity *becomes*, otherwise it remains like the very subject of presence Malabou abjures, a concept “announcing itself in the naïve movement of a birth without history.”³³ To rely on one of Malabou’s privileged metaphors, if the life of form processually emerges in the way that a sculpture is progressively formed or shaped, then what of the distinctive contours or ‘accidents’ that contribute to plasticity’s ‘substantial’ form

³² Kant qtd in Malabou, *Before Tomorrow*, 162.

³³ Malabou, *Plasticity at Dusk*, 9.

or shape as conferred on it in Hegel. In a fortuitous turn of phrase that connects the two registers of language operative here, between substance, essence, accident and epigenesis, “epigenesis,” Malabou attests, “cannot be thought without its accidents...”³⁴ Substance or essence does not emerge out of nowhere but is rather, as Malabou argues, constituted by a history of accidents that confer upon it its singular expression, shape, or form. If substance is the history, the singular expression, of its accidents—the becoming essential or substantial of the accident—then what of the history of the epigenetic *becoming substantive* of plasticity?

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In her various accounts of plasticity, Malabou has always acknowledged its Greek origin, highlighting that its modern emergence derives from the originary Greek *plassein* which means “‘to model,’ to ‘mould.’”³⁵ The adjective, plastic, then furnishes two simultaneous meanings: “on the one hand” plastic means to be ‘susceptible to changes of form’ or malleable...and on the other hand, ‘having the power to bestow form, the power to mould.’”³⁶ To nominate or characterize something as plastic is to say at once that it is passive and formable—like one would say of clay—and that it is also active and formative, as one would convey in expressions like plastic surgeon and plastic artist: the plastic surgeon and plastic artist are individuals who give or bestow form, having the power to shape and mold.³⁷ Plasticity is the capacity *to fashion* and *to be fashioned*. However, Malabou’s

³⁴ Malabou, *Before Tomorrow*, 30.

³⁵ Malabou, *Future of Hegel*, 8.

³⁶ *Ibid.*

³⁷ *Ibid.* The speculative or double nature of plasticity as a concept should be remembered here in the examples of both the plastic surgeon and plastic artist: while the plastic surgeon and plastic artist are active and formative—in that they are understood to give shape or form, to have a capacity to produce form—they nonetheless do not do so frictionlessly as the materials they work on are also plastic and thereby do not placidly yield; both the materials and instruments of the surgeon and artist offer their own forms of resistance: they do not simply accede and receive the form of the ostensibly ‘active’ surgeon and artist, but impart form by requiring work, negotiation, and improvisation. As a plastic artist, say, as a sculptor, one works with clay or marble and responds to the particular character of the material: whether it is soft, hard, recalcitrant or pliable; is it being agreeable—suitably placid—or is it being difficult and resistant? As an artisan, say a baker, one has to work and knead dough, responding to how it *acts*: the supposed docile material becomes an agent, forming and imparting shape to the artisan. A critical component of any plastic enterprise is learning and learning to work with the singularity of one’s materials—in this sense, the putative ‘materials,’ typically rendered as passive, should be seen as a co-agent in the production of form.

recognition is primarily etymological and she quickly returns to Hegel's specific discussion of 'plastic' in his own oeuvre.³⁸ So, even though Malabou announces that plasticity "...has a long philosophical past, which has itself remained too long in the shadows,"³⁹ she somewhat strangely leaves this shadow draped across millennia. Between ancient Greece and Hegel, apparently, there is nothing substantial to consider: a historical void with nothing of essential interest. The immediate impression that there is nothing essential or substantial from Greece to Hegel inadvertently but nonetheless objectionably rehearses some of the worst accusations against Western, European philosophy (an appearance which is particularly acute and unfortunate given the relevance of both Hegel *and* Heidegger to Malabou's thinking). The "birth place"⁴⁰ of plasticity is Hegelian philosophy, effected through some kind of immaculate conception, having no origin but a distant Greek homeland.

Yet, other scholars have taken more of a historical interest in the idea of 'plastic' and 'plasticity.' The fact of the matter is that 'plastic' has a long philosophical history. Scholars agree with Malabou that plasticity can be traced back to Greek antiquity, with some attesting to its specific presence in thinkers such as Aristotle.⁴¹ However, most accounts seem to agree that the first determinate and meaningfully conceptual use is in the work of ancient Greek physician Galen (126-216) and his development of the idea of *dunamis diaplástike*.⁴² Deployed in the context of Galen's discussion of embryological theories of

³⁸ Ibid., 9-10.

³⁹ Malabou, *What Should We Do*, 13.

⁴⁰ Malabou, *Plasticity at Dusk*, 27.

⁴¹ See Maurizio Meloni, *Impressionable Biologies: From the Archaeology of Plasticity to the Sociology of Epigenetics* (New York: Routledge, 2019), 6. Meloni's examples from Aristotle are simply adjectival and, admittedly, somewhat unconvincing. For example, Meloni quotes from the Aristotle's *Meteorology* where Aristotle writes: "Those impressibles that retain the shape impressed on them and are easily moulded by the hand are called 'plastic'; those that are not easily moulded, such as stone or wood, or are easily moulded but do not retain the shape impressed, like wool or a sponge, are not plastic" (6). The mere presence or use of an adjective does not indicate a conscious or meaningful philosophical investment in the concept itself as an organizing or substantial notion on the level of 'plasticity' itself.

⁴² Hiro Hirai, *Medical Humanism and Natural Philosophy: Renaissance Debates on Matter, Life and the Soul* (Boston: Brill, 2011), 19; William B. Hunter "The Seventeenth Century Doctrine of Plastic Nature," *The Harvard Theological Review* 43, No. 3 (Jul., 1950): 197-213; Diana Stanciu, "The Sleeping Musician: Aristotle's Vegetative Soul and Ralph Cudworth's Plastic Nature," *Blood, Sweat and Tears: The Changing Concepts of Physiology from Antiquity to the Present* (Leiden: Brill, 2012): 713-751, see 732 specifically.

generation, the neologism *dunamis diplastike* has its root in the notions of ‘to mold’ (*diaplattein*) and ‘molding’ (*diaplasia*) and is translated variously by different commentators to mean molding or formative (*diplastike*) faculty or power (*dunamis*)⁴³ as well as constructive power.⁴⁴ Writing in *On the Natural Faculties*, Galen describes this “special alternative faculty of Nature” as a “shaping [*diaplasen*] or formative [*diplastiken*] faculty [*dunamis*]” that he repeatedly characterizes throughout his work as “artistic.”⁴⁵ Combining this notion of ‘to mold’ or ‘molding’ with *dunamis*—variously rendered as faculty, power, or capacity—Galen creates this expression to provide an explanation of the generation and formation of living beings and to capture what he believed to be the artistic power of nature operating through living organisms.⁴⁶

From Galen, *dunamis diplastike* then moves through the work of Persian physician Avicenna (980-1037) and then Averroes (1126-98), who translate it as ‘formative power’ (*virtus formativa*) or ‘informative power’ (*virtus informativa*),⁴⁷ with Avicenna specifically referring to a “plastic faculty (lit. as in making a sculpture or a painting).”⁴⁸ From the Latin-Arabic world, the concept enters into Medieval Scholasticism through the work of German friar and philosopher Albert the Great (1193-1280) and sees widespread use in scholastic discussion of theories of natural generation.

After Albert the Great, ‘formative power’ emerges in the work of two Italian Renaissance thinkers—Nicolas Leonicensis (1428-1524) and Marsilio Ficino (1433-

⁴³ Hirai, *Medical Humanism*, 19.

⁴⁴ George Boys-Stones and Simon Swain, *Seeing the Face, Seeing the Soul: Polemon's Physiognomy from Classical Antiquity to Medieval Islam* (New York: Oxford University Press, 2007), 100.

⁴⁵ Galen, *On the Natural Faculties* (Cambridge: Harvard University Press, 1916), 19, 25.

⁴⁶ Specifically, Galen originally invokes this principle in mounting an argument against Aristotle's theory of embryology. Justin E.H. Smith, *The Problem of Animal Generation in Early Modern Philosophy* (New York: Cambridge University Press, 2006), 7. For Aristotle, the male is the active force or ‘form’ that shapes the passive female ‘matter’. Against this, Galen proposes that both the male and female contribute a formal or formative principle, thereby both giving shape or form to the product or offspring.⁴⁶ In this way, *dunamis diplastike* is intended to demarcate a power or capacity (*dunamis*) to shape across or between (*dia-plastike*), that is, as a plastic ability to give and receive form.

⁴⁷ Hirai, *Medical Humanism*, 19-20

⁴⁸ See Avicenna, *The Canon of Medicine of Avicenna* (AMS Press: New York, 1973), 112-114.

1499)—as well as touches the thought of Pico della Mirandola (1463-1494).⁴⁹ Leonicensio's *On Formative Power* (1506) is the first to introduce Galen's work in the "context of Renaissance humanism" and Ficino takes up the 'formative power' in his interpretation of Plotinus and the notion of *anima mundi* or world soul.⁵⁰ Leonicensio and Ficino then influence the transmission of 'formative power' to France in the thought of Jean Fernel's idea of formative or shaping power (*vis conformans* or *vis conformatrix*) (1497-1558).⁵¹ From Fernel's work in France, 'plastic faculty' is deployed by Julius Ceaser Scaliger (1540-1609) before moving through German polymath Jacob Schegk (1511-1587) as the *vis plastica* or 'plastic force', influencing thinkers such as Daniel Sennert (1572-1637) and William Harvey (1578-1678). Lastly, all roads in this journey of *dunamis diplastike* tend to lead to one conduit for this concept's life in the modern imaginary: there is universal consensus that the notion enters the modern imaginary in a new, conscious philosophical articulation in the work of Cambridge Platonist Ralph Cudworth's (1617-1688) concept of *plastic nature*. With minor differences and emphases, this genealogy essentially comprises the skeletal map outlined out by scholars about the history of 'plastic' leading into the seventeenth century and modern Western, European philosophy.⁵²

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The extensive documentation of 'plastic' in the history of philosophical thought evinces sufficient material to merit subjecting the implicit, unacknowledged premise of Malabou's account of plasticity—there is nothing essential or substantial that transpires from Greece to eighteenth-century Germany (Hegel)—to critical scrutiny and invites the question of how one is to respond to this capacious conceptual past. One approach offered by Maurizio Meloni's *Impressionable Biologies: From the Archaeology of Plasticity to the Sociology of*

⁴⁹ Tobias Rees, *Plastic Reason: An Anthropology of Brain Science in Embryogenic Terms* (Oakland: University of California Press, 2016), 227.

⁵⁰ Hirai, *Medical Humanism*, 94.

⁵¹ Kuni Sakamoto, *Julius Caesar Scaliger, Renaissance Reformer of Aristotelianism: A Study of His Exoteric Exercises* (Boston: Brill Publishing 2016), 113.

⁵² Hunter, "Plastic Nature"; Hirai, *Medical Humanism*; Smith, *Animal Generation*; Augustín Ostachuk "The Evolution Concept: The Concept Evolution," *Cosmos and History: The Journal of Natural and Social Philosophy* 14, no. 3 (2018): 340.

Epigenetics (2019)—the first monograph dedicated to a historical archaeology of plasticity—is to claim that plasticity has *always been with us*. In his assessment of critical accounts of plasticity, Meloni singles out Malabou for praise, writing that while most commentators “avoid...historical depth and genealogical awareness,” Malabou notably represents an exception.⁵³ Meloni identifies Malabou as “unique” amongst modern scholars for tracing plasticity back to “its original Greek moment.”⁵⁴ However, Meloni laments that “Malabou’s reading” of plasticity ultimately “reflects an idealized view of plasticity that remains unsatisfactory from a genealogical point of view,” contending that his proposed historical and sociological *longe durée* perspective is a necessary “corrective to idealized philosophical readings” such as Malabou’s.⁵⁵ Meloni argues that accounts like Malabou’s are deficient because they are insufficiently historical and presentist: plasticity is treated as new when it is not. Against historically amnesic treatments of plasticity, Meloni proposes “a longer genealogical perspective to suggest a more complicated state of affairs” about plasticity.⁵⁶ If, Meloni states, “plasticity means an ongoing interaction with the surrounding environment...plasticity seems the standard, not the revolutionary, view in a global history of body-world configurations.”⁵⁷

To adduce one representative line of argumentation, Meloni mounts his argument for the global historical existence of plasticity by citing the traditional role of the environment as a decisive ‘moulding’ factor in ancient discourses: geography and climate were seen as critical agents in shaping or forming the particular character of different peoples and nations. Meloni refers to the way that particular discursive constructions of different populations depended on the notion of the malleability and permeability of the body with respect to various factors such as environment and geography. For example, some people and cultures are referred to as ‘soft’ or ‘temperate’ or, conversely, ‘hot’ or ‘warlike.’⁵⁸

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Meloni, *Impressionable Biologies*, x.

⁵⁷ Ibid.

⁵⁸ Ibid., 21

Meloni refers to this “plasticity of traits” to show that we have long depended on the idea of plasticity—that bodies have always been adaptable and porous given that many ancient thinkers testified to the fact that environment, climate, and geography shape people differently. The fact that we historically recognized “the moulding influence of geography” and “the plastic power of places” burnishes proof, Meloni attests, of an ancient understanding of plasticity.⁵⁹ Accordingly, Meloni affirms and seeks to elaborate the myriad and multiple plastic “impressionable biologies,” of the “original non-modern intuition of a body constantly exposed to an immense number of external influences” that has been variously and complexly articulated from antiquity to the present.⁶⁰

Meloni’s putatively corrective approach of asserting a long, historical existence of plasticity, however, exhibits decisive faults. First, Meloni’s choice example reveals a misunderstanding of the double nature of plasticity as the giving and receiving of form. While it is certainly true that the historical formative or shaping power of climate and geography reveals a certain ‘porosity of bodies’ or the ability for human beings to be differentially formed, appeals to the plastic power of the environment refer simply to the ability to receive form. The fact that the climate or environment was invoked to say that people are formed to be essentially, say, weak, soft, or lethargic is not evidence of plasticity, but of a simple, crude determinism. The relationship of formation implicit here is decisively unilateral, describing the furnishing of an essence of which the subject being formed is allowed no latitude or escape. To think plasticity proper would be to say that while people are formed by their climate, there is no putative essence of a people or character to speak of in terms of fundamentally being one way or another: one’s climate or environment is not fate. Such is, patently, the antonym of plasticity. Second, by asserting a transhistorical existence of plasticity—plasticity has always conceptually existed—Meloni effectively de-historicizes plasticity, critically ignoring or abjuring in particular Malabou’s cardinal emphasis on both the qualitative jump from adjective to substantive, from plastic to plasticity. This is made evident in a footnote where Meloni rebuffs Malabou, writing: “[h]owever, the usage of adjective ‘plastic’ is documented in all main

⁵⁹ Ibid., 22.

⁶⁰ Ibid., 31.

European languages well before what Malabou suggests... [it] already appears in English in the first half of the seventeenth century..."⁶¹ Malabou is clear with respect to her claim that what she is interested in is the emergence of the particular substantive form of plasticity not the myriad accidental use of the word plastic in the history of thought—she never disputes the adjectival use of plastic (she in fact depends on it for the construction of her argument). It is not that the adjectival form is unrelated or unimportant—it is both—but that there is something philosophically significant about the development of a substantive that transforms a term of “indeterminate use” into one of invested and determinate “conceptual value.”⁶² In the attempt to read a *long durée* history of plasticity, Meloni strips it of the very *definition* that Malabou seeks to bestow.

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Plasticity is ancient and everywhere. Plasticity is born in Hegel. Whereas the latter foregoes an epigenesis of its form and occults the process of becoming or formation, the former tends toward an indiscriminate account where plasticity diffuses amongst an almost atomistic history. Lost amidst a plenum of fragmented points that are here, there, and, everywhere, plasticity thus loses its particular form and the critical definition which confers upon it its philosophical power and purchase, failing to meaningfully account for how these isolated iterations conspire to provide a determinate form and, as Malabou attests, become-substantive in Hegel. Plasticity never arrives but was always there. For one, a history so capacious it loses definition and, for the other, hardly a history at all: a missing history, a mysterious conception. How, then, between the two do we mark out a path?

The first point of agreement is that, conceptually, and etymologically, plasticity has its embryological echo in Greek thought. Second, that from this initial inception, the idea of plastic enjoys a rich and complex history, peregrinating across both centuries and continents in a variety of forms. The original remit of this concept, through its various permutations, iterations, or

⁶¹ Meloni, *Impressionable Biologies*, 33, fn. 4.

⁶² Catherine Malabou, “Plasticity,” *Dictionary of Untranslatables: A Philosophical Lexicon* (ed.) Barbara Cassin, (Princeton: Princeton University Press, 2004), 786.

guises, is the realm of embryology or generation, answering the query of how particular biological or natural forms *form* themselves. The conundrum that each modulated iteration of *dunamis diplastike* seeks to relieve is the issue of how life *forms* itself: how does something that obviously has a power to shape life but that lacks intelligence or consciousness conceivably execute or accomplish the level of complexity on display in the construction of organic bodies.⁶³ This archaeology is extrapolated from scholarship with the specific, regional focus of the history of theories of embryology and generation—specifically fetal formation. While potentially interesting in a *long durée* approach to plasticity, the impact that these ideas would have in their particular instantiations on the intellectual milieu and imaginary of eighteenth-century German thought in which Malabou claims that plasticity becomes-substantive seems somewhat remote to plausibly endorse. The capacious conceptual past of plastic is too expansive, distracting from the task of explaining with requisite economy how plasticity arrives in Goethe and then Hegel. If plasticity becomes-substantive in Hegel through the appropriation of this concept from Goethe, instead of attempting to catalogue and offer a totalizing world history of plasticity, one's focus might rightly tighten on furnishing a particularized history to offer the most plausible account of the basis of plastic and plasticity in the eighteenth-century German imaginary. Epigenesis implies a particular history of a form (biological or philosophical)—to understand plasticity as it becomes a conceptual substantive, we need to hone in on the specific history or genealogy of its emergence. So, while the history of 'plastic' is certainly part of its emergence—representing dormant, latent, or virtual traits that can be variably expressed through the concept's actualization—we should attend to the more local development of the form itself.

If the first point of unanimity about the concept of plasticity is its Greek origin, the second is the consensus amongst scholars that that the various instantiations of 'plastic' gather and experience a significant, critical consistency, and new conscious theoretical articulation in the middle of the seventeenth century in Britain in the work of Cambridge Platonist Ralph Cudworth's concept of *plastic nature*. It is here that these 'accidental' instances of plastic first crystallize, formalizing into something uniquely and philosophically substantial. How, then,

⁶³ Sakamoto, *Scaliger*, 111-12.

from the marginalia of seventeenth century British philosophy to late eighteenth century Germany: how do we get from Cudworth to Hegel? Plotting this map would begin to provide the answer to how plasticity becomes-substantive in Hegel.

The outline of a such a map can only be briefly gestured to here. Any possible connections between Cudworth and Hegel are not at first immediately clear. Again, this is due to the fact of Cudworth's largely marginal, if not completely neglected, role in the development of modern, European philosophy. However, it is Malabou's tipping of the hand towards Goethe's invention of the concept of plasticity and Hegel's appropriation of it that opens the possibility of tracing a clear path from Cudworth to plasticity. From Cudworth to Goethe we can trace or mark out a plausible path. Cudworth develops the notion of 'plastic nature' in the late seventeenth century as a conceptual way to mediate between what he considers to be two equally objectionable positions: it is equally implausible, according to Cudworth, to maintain that "all things are produced Fortuitously, or by the Unguided mechanism of Matter" or that "God himself...do all things Immediately and Miraculously."⁶⁴ The former position—materialism—is insufficient and improper because it absents God from the world, whereas the latter—theological voluntarism—suffers the opposite conundrum: God is *too present* in the formation and operation of the world. While one cannot say God is nowhere and responsible for nothing, one also cannot say that God is everywhere and responsible for everything. To escape the impasse between the untenable positions of a world shaped entirely by matter or God, Cudworth proposes the concept of "*Plastick Nature*."⁶⁵ Plastic nature is a more-than-material but less-than-divine formative agent that acts as "an Inferior and Subordinate Instrument of God," relieving God from doing everything "Immediately" but still guaranteeing that the formation of the world is still "Disposed and Ordered by the Deity."⁶⁶ Plastic nature thus moves beyond either strict passivity or activity: it receives form—it follows God's designs—but gives form as well, as it is the plastic force

⁶⁴ Ralph Cudworth, *True Intellectual System of the Universe: Wherein All the Reason and Philosophy of Atheism Is Confuted and Its Impossibility Demonstrated*, (London: Richard Royston, 1678), 147.

⁶⁵ *Ibid.*, 150.

⁶⁶ *Ibid.*

implementing these designs. Cudworth's conceptual invention is then adopted by Shaftesbury in the early eighteenth century. Cudworth's imagining of a plastic nature—a nature that shapes or forms itself as a kind of unconscious artist in service of God—made a strong impression on Shaftesbury, influencing Shaftesbury's ideas about aesthetics and nature. Shaftesbury extends and deepens Cudworth's initial idea, exhorting each of his readers to become a “moral artist” who is a “second Maker, a just Prometheus under Jove,” shaping or forming themselves like “that sovereign artist or universal plastic nature.”⁶⁷ Through the notion of this plastic nature, Shaftesbury re-imagines both the individual and nature as self-forming artists, constantly in a process of transformation and creation. Shaftesbury's vision of the individual and nature as creative or plastic artists—as genius, Promethean-like formative agents—then migrates to Germany in the middle of the eighteenth century, capturing the imagination of Herder, who calls Shaftesbury “the beloved Plato of Europe,”⁶⁸ and, finally, Goethe. As Ernst Cassirer explains, “[i]n the development of German thought Shaftesbury's apostrophes to nature exert a decisive influence; they give expression to those fundamental forces which shaped the philosophy of nature of Herder and the young Goethe.”⁶⁹ Through Herder, Goethe embarks on a study of Shaftesbury in the early 1770s, and his view of nature is transformed, becoming “...less naive” and inflected with “more esthetic and pantheistic implications.”⁷⁰ The hidden fundament of Goethe's pantheistic conception of nature, of Nature as a dynamic, pervasive, formative and self-forming force, as *Plastizität*, is Shaftesbury's, and implicitly, Cudworth's, conception of nature as *plastic*. More fulsomely tracing out the development of plastic nature from Cudworth, to Shaftesbury, and then to Goethe may promise to fulfill the requisite conceptual

⁶⁷ Shaftesbury, “Soliloquy: Or, Advice to an Author,” *Characteristics of Men, Manners, Opinions, Times* (ed.) Lawrence E. Klein (Cambridge: Cambridge University Press, 1999), 93.

⁶⁸ See Stanley Grean, *Shaftesbury's Philosophy of Religion and Ethics: A Study in Enthusiasm* (Ohio: Ohio University Press, 1967), ix-x.

⁶⁹ Ernst Cassirer, *The Philosophy of the Enlightenment* (trans.) Fritz C.A. Koelln and James P. Pettegrove (Princeton: Princeton University Press, 1951), 84-5. See also Wilhelm Dilthey, “Berlin Plan,” *Introduction to the Human Sciences* (eds.) Rudolf A. Makkreel and Frithjof Rodi (Princeton: Princeton University Press, 1989), 489.

⁷⁰ Mark O Kistler, “The Sources of the Goethe-Tobler Fragment ‘Die Natur’,” *Monatshefte* 46, no. 7 (1954): 383-89, here 388.

epigenesis of the becoming substantive of plasticity in Hegel currently absent in Malabou.

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