Plastic Imprints.

Rethinking Plasticity with Material Aesthetics

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This essay explores the material and aesthetic aspects of the concept of plasticity. Catherine Malabou's influential account understands plasticity from a morphological perspective built on human subjectivity. Her account, however, overlooks the plasticity of nonliving materials as well as the origins of plasticity in the field of aesthetics and the arts. At the same time, Malabou rejects the figure of the imprint, which she associates to the Derridean trace. Drawing on Gilbert Simondon and Georges Didi-Huberman's theories, my argument is based on a reappraisal of the imprint understood as a non-reductive, non-hylomorphic way of conceiving of the event of material morphogenesis that is at stake in plasticity. By addressing these points - the imprint, the arts, aesthetics, and nonliving materials - it will be possible to gain a renewed understanding of plasticity and make it into the core concept of a new materialist account centered on the affects and the "sensations" of singular materials: a material aesthetics. This theoretical operation will prove possible only by remaining close to the materials (here, wood, clay, wax, plaster, ...) and to the practices (here, the technique of waste-mold casting).

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«How to respond to the insistent call of a word? [...] A word that asks thought to revive it, to reignite it? How to welcome this desire for lexical conflagration? To these questions, plasticity confronts us abruptly and unexpectedly» (Malabou 2000, 7; my trans.). With these words, at the end of October 1999, Catherine Malabou opened a conference on plasticity at Le Fresnoy. The event gathered scholars and thinkers such as Jacques Derrida, Georges Didi-Huberman, Baldine Saint-Girons, Peter Szendy, but also (neuro)biologists (Jean-Jacques Kupiec, Susan D. Healy) and plastic experts (Jeffrey L. Meikle and Bernadette Bensaude-Vincent). Going on in her introduction to the conference, Malabou argued that the time had come to finally turn plasticity into a full-fledged philosophical concept – even into an operative schema for thought in general. In her view, such an operation would have required to take on and prolong a theoretical movement that had already been initiated by Hegel: «For the first time with Hegel, plasticity reaches the essential», she explained, and went on: «The philosopher snatches plasticity from its strictly aesthetic anchorage in order to attach it to a problematic space which, so far, had not been its own: subjectivity. It is now that the subject is called plastic» (Malabou 2000, 8-9; my trans., my emphases). [1] Plasticity,

for Malabou, could become a concept only insofar as it would abandon aesthetics and the arts.

[1] On the historical inaccuracy of this reconstruction and on the possible theoretical reasons behind it, see Lawtoo 2017, 1205-1206.

Malabou resorts quite often to the strategy of creating concepts through displacement: philosophizing is for her a «matter of import-export» (Opelz 2022a, 660). As was for Georges Canguilhem, «to elaborate a concept [travailler un concept] is [...] to export it outside its original domain» (Canguilhem 1970, 206; qtd. in Malabou 2005a, 7). Such an original domain or «native land» (Malabou 2005a, 8) is often identified with the field of aesthetics and the arts – a field

that needs to be left behind in favor of a focus on human subjectivity. [2] If plasticity's first instances were indeed to be found in the artisanal and artistic practices of modelling and molding (the Greek πλαστικάι τέχναι) as well as in the sheer materiality of nonliving materials such as clay and wax (Dongowski 2002, 815; Saint-Girons 2000, 33), Malabou's philosophy understands plasticity in a different, human-oriented sense by stressing its connections to the neurosciences.

[2] The very same strategy is adopted by Malabou for other concepts too, such as the concept of fantastic (Malabou 2010, 38) or the concept of mimesis (Malabou 2023). On this strategy in general see Opelz 2022b, 629-630.

At the turn of the century, plasticity demanded «to gain access to the [domain of the] concept» (Malabou 2000, 7; my trans.). But «objects do not go into their concepts without leaving a remainder», as Theodor Adorno (1973, 5) once put it. My contention is that Malabou's philosophical operation leaves behind important aspects of plasticity by neglecting its origins in the artisanal and artistic practices. What about the materiality of clay and wax once plasticity has become a full-fledged concept? Is plasticity's only materiality that of neurons and brain cells? What about the plasticity of plaster – does it leave a trace, an imprint, on its concept? How do plastics shape the concept of plasticity?

In Malabou's account, plasticity becomes a philosophical concept on three conditions. First: plasticity needs to abandon its aesthetic and artistic origins. Second: it must come to concern the human subject. Third: it must be underpinned by a new materialist perspective; or, as she put it at Le Fresnoy: «It is not possible to conceptualize plasticity without elaborating anew a certain kind of materialism, which is to say, without updating the relationship [...] between matter and spirit» (Malabou 2000, 11; my trans.). A «non-reductive new materialism» (Malabou & Crockett 2010, 27) is not only one of the conditions for thinking plasticity philosophically, it is also the desired outcome of Malabou's operation. However, an inconsistency seems to lie between these points: the first condition undermines the third, since, as I would like to contend, the rejection of the artistic and aesthetic aspects of plasticity prevents Malabou's account from becoming a truly material-oriented new materialism.

By outlining a theoretical alternative based on the model of the imprint instead of that of the form, this essay aims to explore the material, nonhuman, and aesthetic aspects of the concept of plasticity. The first section illustrates Malabou's understanding of plasticity in terms of a dynamic and post-metaphysical morphology and introduces her rejection of the figure of the imprint, which she associates to the Derridean trace. The second section further discusses the latter point and, by stressing the activity of nonliving materials, advances the hypothesis of framing plasticity in terms of nonreductive imprint - a notion that is analyzed more thoroughly in the third section, where the imprint is described as a material system of morphogenesis. The fourth section explores the convergence of imprint and plasticity by considering the field of sculpture, casting, and molding: if plasticity as form concerns the statue, plasticity as imprint concerns the technical operation that takes place inside the mold. The practice, here, perturbs the standard theory of plasticity. The fifth section draws some of the theoretical conclusions that follow from such a different understanding of plasticity, hinting at a new materialist account centered on the affects and "sensations" of singular materials. Plasticity thus becomes the core concept of a material aesthetics.

1. From form to imprint

«"Plasticity" [...] describes the nature of that which is "plastic", being at once capable of receiving and of giving form», Malabou (2005a, 8; my emphases) claims. It is this undecidable oscillation between form-giving and form-taking that characterizes the conceptuality of plasticity, the well-defined logical structure that turns it into a concept. So, «on the one hand [plasticity] signifies the act of shaping [der Akt der Formgebung], the Bildung, on the other hand, the quality of assuming form [die Eigenschaft zur Formannahme], the Bildbarkeit [the fact of being moldable]» (Alloa 2018, 211; my trans.). Coming with a morphological duplicity, plasticity refers both to a «formative activity [gestaltende Tätigkeit]» that expresses the active aspect of «modelling [Modellierung]» and «form-giving», and to «the ability of possibly being formed», which can be understood as «being malleable [Modellierbarkeit]» to a certain extent (212; my trans.). In Malabou's view, plasticity goes even beyond such an active-and-passive formation, encompassing also destruction. In this sense, plasticity takes place in the undecidable entre-deux between opposite categories (formation and destruction, activity and passivity, mind and brain), therefore resisting all dichotomic description of reality. The inclusion of destruction, however, does not prevent Malabou from outlining an account centered

on the notion of form: even the plastic «power to annihilate form» (2010, 87) remains firmly tied to the formal dimension, which she never really wishes to overcome, positing it as the limit of her own thought (2010, 49; 2022a, 319). Destructive plasticity thus names the substitution of a form with another form (2005b, 37; see also 2012a; 2012b) rather than the actual explosion of the form into a formless state.

Form, thus, lies at the core of Malabou's plasticity. However, such form is not the static form of classic metaphysics (Malabou 2007, 438) - it is rather «the form that comes after presence» (2010, 57), a dynamic form caught up in the experience of a constant indecision. Oscillating between the activity of forming and the passivity of being formed, between formation and destruction (or negative deformation), plasticity refers to a morphological becoming. Such metamorphic movement does not come without constraints: it rather combines transformation and a certain reluctance to change. Moreover, plasticity entails irreversibility: the plastic element cannot return to its previous form after undergoing this kind of transformation. In this sense plasticity should not be conflated with endless polymorphism (2005a, 8, 10; 2008, 15), nor with flexibility (2008, 12-14), elasticity (2008, 15), or resilience (2012a, 181-184). Instead, plasticity describes the ability of changing form permanently while also maintaining the possibility of further change. Such further change, in turn, is not to be taken for granted; so that we might say that the active aspect of plasticity consists not only in a formative power, but also in the ability of partially resisting subsequent formation.

When connecting plasticity and form, Malabou usually starts off by recalling the etymology of the term, which can be traced back to the Greek verb πλάσσειν, meaning "to model", "to mold", "to shape", "to form". As Malabou aims to point out, reference to the form is a paramount feature of plasticity. However, the very first meaning of πλάσσειν was not "to form" in general, but rather «to form out of a malleable material (especially wax and clay)» (Dongowski 2002, 815; my trans.). In its first instance, plasticity had to do with the materiality of very specific materials, those that were used in the plastic arts of molding and casting. If we further examine the Greek vocabulary, this convergence becomes more and more evident. In Meteorology, Aristotle outlines a taxonomy of materials and notices:

Some things, e.g., copper $[\chi \alpha \lambda \kappa \delta \zeta]$ and wax $[\kappa \eta \rho \delta \zeta]$, are impressible $[\theta \lambda \alpha \sigma \tau \dot{\alpha}]$, others [...] are not [ἄθλαστα]. [...] Those impressionable that retain the shape impressed on them and are easily molded by the hand are called "plastic" [$\pi\lambda\alpha\sigma\tau\dot{\alpha}$]; those that are not easily molded, such as stone or wood, or are easily molded but do not retain the shape impressed, like wool or a sponge, are not plastic [où $\pi\lambda\alpha\sigma\tau\dot{\alpha}$]. (Aristotle 1931, IV, 9, 386a)

The vocabulary of plasticity largely overlaps with that of impressionability, as both series of words – $\theta\lambda\alpha\sigma\tau\delta\varsigma$ (impressible) and $\pi\lambda\alpha\sigma\tau\delta\varsigma$ (plastic) – are clearly related to πλάσσειν. If the formal aspect is definitely a part of the story, the figure of the imprint would seem better suited for characterizing plasticity, as it combines form-giving and form-taking with the materiality of those materials that "retain the shape" acquired by means of contact. Malabou, however, does not consider a material like clay as

properly plastic, "at once capable of receiving and of giving form", and attributes to it only passivity instead. «On one hand, [plasticity] designates the capacity of certain materials, such as clay or plaster, to receive form. On the other hand, it designates the power to give form – the power of a sculptor» (Malabou 2012a, 17). By attributing the passive aspect of plasticity to inorganic materials and the active one to the human agent, Malabou ends up separating the two poles that plasticity was supposed to bring together. If, for Malabou, it is not clay that can be regarded as plastic, what is

then? In her account, it is the human subject that which is properly plastic; moreover, if we were to consider the human from a material point of view, then proper plasticity would be attributed to the brain (Watkin 2016, 77-109). In this sense, plasticity serves to describe the auto-formation of the brain more than the morphogenetic system set in motion by the imprint, which is drastically rejected. [3]

Why is it so?

2. $(m\hat{a}t + x)$: Being friends with the wood

The reasons behind Malabou's rejection of the imprint are worthy of reconstruction, and they are to be traced back to the many and complex ties that connect and distance Malabou's philosophy and Jacques Derrida's. Derrida served as Malabou's doctoral supervisor, and deconstruc-

tion greatly influenced her thought, arguably provoking in her what could be described as an attitude of «mimetic agonism» (Lawtoo 2023, 45). It is in their theoretical relationship that, I believe, the alternative between form and imprint as models for plasticity can find an explanation.

In a 2007 essay titled The end of writing? Grammatology and plasticity, later to be included in Changer de différence. Le féminin et la question philosophique, Malabou (2007; 2009, 51-79) reproached Derrida's inability to elaborate a true materialism: despite the aspirations expressed in the initial pages of his Of Grammatology, Derrida - Malabou claimed - was never able to account for matter in terms that could go beyond the idea of a mere material substrate for cultural inscription. The imprint was to be assimilated to such dynamic of graphic inscription (which, in Derrida's thought, goes together with generalized writing and with the figures of text, code, language, discourse, trace).

The issue became even clearer in a subsequent essay, titled Are there still traces? (Malabou 2022b). Here the imprint, understood as graphic inscription, seems to work by violently imposing a form onto a pre-existing, formless matter, thus complying with the hylomorphic paradigm of classical metaphysics. The imprint is thereby framed as a reductive figure, as an image of the opposition between form and matter (Goldgaber 2018). In contrast to this, Malabou aims to conceive of matter and form in non-dichotomic and non-oppositive terms. Considering novelty as an immanent transformation of a material form rather than as a formal inscription on a material surface, Malabou sets an exclusive alternative between Derrida's graphic imprint and her own plastic form: «The formation of form is not the simple flip side of the being-imprinted of the imprint; it designates a dramatically different economy than that of the imprint» (Malabou 2022b,

[3] In fact, on one occasion Malabou did describe plasticity in terms of an irreversible imprint that can be further transformed, see Malabou 2008, 15-16. However, in that passage the imprint is treated quite generically, and its conceptual implications and richness in theoretical potential are left behind. When discussing the imprint specifically, Malabou rejects all possibility of resorting to it for better grasping the concept of plasticity.

289). [4] Instead of understanding the imprint as the oscillating coexistence of form-taking and form-giving that is at stake in plasticity, Malabou reduces it to the imposition of form on matter that characterizes the hylomorphic paradigm, and attributes this theoretical position to Derrida.

However, it should be noticed that Derrida himself aimed at overcoming the hylomorphic tradition as an offshoot of Western metaphysics, and that his very scepticism towards the notion of form found reason in the light of this overall goal. For Derrida, form is presence (Derrida 1982, 157-158), whereas the imprint is the never-present

[4] The implicit reference goes to a passage of Derrida's Of Grammatology: «Différance is [...] the formation of form. But it is on the other hand the being-imprinted of the imprint» (1997, 63). Constituted signs (forms) result from the trace (the imprint) that does not exist as presence but is the condition of possibility of the articulation of all forms. In this sense, the activity of the process of formation and the passivity of the already occurred impression can appear as interrelated in the figure of différance.

trace that logically and ontologically precedes all forms, making them possible. The very dynamic of inscription is for Derrida more complex than it is presented by Malabou - suffices it to recall his reflections on the subjectile (Derrida 1994) and on χώρα (Derrida 1993), where these "places of inscription" are said to exceed and precede the very opposition between «the anthropomorphic schemas of the verb to receive and the verb to give» (Derrida in Kipnis & Leeser 1997, 17). [5]

In yet another context, that of the 1985 exhibition *Les* Immatériaux, Derrida outlined the pars construens of his understanding of the relations between form and matter.

[5] For further elaboration on $\chi \dot{\omega} \rho \alpha$ and plasticity, see Martell 2023.

Resorting to the ancient Sanskrit root of the word "material", mât, he wrote:

What we need [...] is not to invent something to cancel out mât, but something to make all its supplements $(m\hat{a}t + X)$ resonate and sing throughout the equally potent forces of laughter and love [de faire vibrer ou chanter tous ses suppléments (mât + X) par la puissance du rire ou de l'amour]. You know how to make the material laugh. (Derrida 1985, 126; 2015, 208)

The formula $(m\hat{a}t + X)$ does not express the imposition of form on matter, it rather expresses the form as a prolongation of material forces that traverse it. By experimenting with the possibility of adding ever-new determinations (+ X) to mât, Derrida singled out an approach to matter marked by a certain "eroticism": love and laughter call into question the φιλία that can characterise the relationship with the material.

Gilles Deleuze and Félix Guattari's joiner comes to mind: the one who, thanks to a «competent intimacy», is «the friend of the wood» (1994, 3; my emphasis). A good example of this idea can be found in the work of Italian artist Giuseppe Penone – a woodworker who is so familiar with the wood that he can actually feel with it, in a gesture of sympathy (as in συμπάθεια, "feeling together"). Penone's art is famously built on lived relationships with natural entities such as trees and rocks: when carving a cedar, for example, Penone engages in a corporeal confrontation that becomes a poïetic dialogue with the material [FIG. 1]. Even in those artworks where the material seems to be grabbed and dominated by the artist's hand, like Alpi Marittime - Continuerà a crescere tranne che in quel punto, Penone actually aims at a productive interaction with the material's own agency. «I feel the flowing of the tree around my hand / leaning against the tree», he writes. «The hand sinks in the tree trunk which for the speed of its growth and the plasticity of its matter is the ideal fluid element to be molded» (Penone 2009, 27; my trans.).



[FIG. 1] Giuseppe Penone working on Cedro di Versailles (Cedar of Versailles) in his studio, 2000. © Archivio Penone

Interestingly, Penone's debarked trees are also one of the very few artistic cases ever mentioned by Malabou, and he is most likely the only sculptor she ever names in her writings. In a footnote of her Plasticity at the Dusk of Writing, Malabou states: «With the series Trees and Repeat the forest, Penone established a principle of the self-formation of the work. The sculptor does not create. Instead, he causes the form to appear by removing the tree's growth rings until he finds its heart: the tree, as a prefiguration of itself, thereby comes to light» (2010, 115). Malabou understands the artwork as a plastic self-formation in which the artist acts as a facilitator at best, merely witnessing the natural form spontaneously emerge. But this is not how Penone, an artist of the imprint, actually proceeds. In his practice, the artwork is not just a natural form that forms itself thanks to a plastic life that might seem reminiscent of the theories by Cambridge Platonists: it is rather the result of a complex, at times conflictual material encounter - an "erotic" relation, a φιλία, a «dance of agency» (Malafouris 2008, 34) in which the woodworker "makes the wood laugh".

With a single theoretical gesture, Malabou's description of Penone's work obliterates both the material and the imprint: as James Martell notices, «the trace [the imprint] (the [...] technical splitting and cutting of bark and wood [...]) disappears completely as the self-forming form emerges by/from/to itself. In this artwork, as [Malabou] sees it, there is no more

trace of the rejected matter and wood, no more trace of the trace itself» (2021, 97). [6] The imprint, as we shall see in more detail, describes a morphogenetic system based on differential relationality instead of substantive forms, however dynamic they might be. This allows to maintain the plasticity of materials, showing material forces – $m\hat{a}t$

[6] Tellingly, ὅλη meant both "matter" and "wood" (see Bensaude-Vincent 2011, 109). This allows to anticipate a further point in my argument: that the generic and abstract notion of matter is always to be traced back to specific materials. On this in more detail see *infra*, section 5.

- that do not negate the forms but rather traverse them, couple with them, make them emerge as they do: $(m\hat{a}t + X)$ as an alternative to the hylomorphic schema.

Derrida's thought was not hylomorphic in its inspiration nor in its results (and not even in its legacy, one might add). [7] And Malabou's? Her focus on the self-formation of the form as well as her understanding of plasticity on the model of the plastic human brain make her quite insensitive to *mât*. Her plasticity describes the activity of form without matter, «morphè sans hylé», «plasticity without (need of) support, surface, beyond, or even elsewhere» (Martell 2021, 96). In Malabou's account, the rejection of the imprint goes hand in hand with the rejection of the domains of aesthetics and the arts and with the rejection of inorganic materials' plasticity (intended not as mere malleability but as the complex oscillation and co-presence of activity and passivity). This results in an account that cannot be regarded as a material-oriented new materialism, but rather as a mate-

[7] It is worth recalling that both Karen Barad and Vicki Kirby's new materialisms stem from a materialist reading of Derrida. On the reasons why their accounts are more coherent new materialisms than other equally or more well-known accounts, see Gamble et al. 2019. It might also be worth noticing that, in spite of her intention to outline a new materialism, Malabou's account is never included among the new materialist accounts (see for instance Hoppe & Lemke 2021), which, contrary to hers, are usually concerned with the activity of nonhuman and non-living matter.

rialism of the flesh, if not as a full-fledged embodied spiritualism. By addressing these points (the imprint, the arts and aesthetics, and inorganic materials), it may be possible to obtain a different concept of plasticity one that more thoroughly underpins a new materialist account.

3. A material system of morphogenesis

Conceiving of plasticity on the model of the imprint requires understanding the imprint in a way that makes it diverge from the oversimplistic idea of the imposition of an active form on a passive matter. Plasticity would thus not go back to the two-dimensional, reductive imprint of hy-

lomorphism but rather to the imprint as a material system of morphogenesis, [8] a multi-dimensional system characterized by the ontological precedence of the relations that animate it. Such a renewed understanding of plasticity can be attained by closely considering the concrete practices at work in the arts and crafts.

It is precisely by examining a technical operation the production of a clay brick - that Gilbert Simondon has been able to call into question the hylomorphic paradigm - «the idea that the generation of form is reducible to the imposition upon inert matter of a pregiven abstract form» (Massumi 2009, 39). Technical procedures and their practical aspects undermine the conceptual validity of a long-standing metaphysical tradition: it is by getting in touch with the process of the making that a change in perspective becomes possible. This is why Simondon in-

[8] It may be debated whether "morphogenesis" (however mitigated within the expression "material system of morphogenesis") is the most accurate term here, since it maintains the form (μορφή) as its guiding principle and refers to the making in the sense of creation (γένεσις) more than in the sense of a technical and material collaboration. I thank Professor James Martell for bringing up this point and for suggesting the invention of a new concept based on $\theta\lambda\alpha\sigma\tau\dot{\alpha}$ (rather than μορφή) and on τέχνη (rather than $\gamma \dot{\epsilon} \nu \epsilon \sigma \iota \varsigma$) to solve the problem. To this, I will devote further effort in my forthcoming texts. In this essay, I maintain the term "morphogenesis" with this important caveat in mind.

vites to "enter the workshop" and to get closer to the mold and to the clay: «The hylomorphic schema corresponds to the knowledge of someone who remains outside the workshop and considers nothing but what enters and exits it» (Simondon 2020, 30).

According to Simondon (2020), the fundamental flaw of hylomorphism consists in considering form and matter exclusively as the two

extremes of the formative operation - a perspective that reduces them to an abstract dichotomy. The hylomorphic dualism hypostatizes both form and matter while at the same time making any real mediation between the two disappear. Making a brick would seem to require pressing soft clay into a rectangular mold, which, in turn, would simply give form to the formless material. But by observing the formative practice more closely, one notices that pure form and pure matter never exist as such: the mold is not an abstract, immaterial form; the clay has been worked and kneaded before being put in the mold. The transformative encounter between the two must be prepared in order to occur properly: the brick is not produced by the union of just any form and just any matter, but by the energy system in which this specific form («a certain defined mold, prepared in a certain fashion», Simondon 2020, 23) is related to this specific matter (a certain lump of clay and not another, submitted to a specific preparation). Form-taking is not about some material passively receiving a shape: it is about a transformative relation, a generative contact, a productive encounter. Commenting on Simondon's passage, Tim Ingold illustrates this shift in perspective: «The brick [...] results not from the imposition of form onto matter but from the contraposition of equal and opposed forces immanent in both the clay and the mold. In the field of forces, the form emerges as a more or less transitory equilibration» (2013, 25).

Form and matter never exist in general, nor do they exist as purely immaterial form and as matter absolutely devoid of formal dispositions. Each form (in this case, the mold for making the brick) is already always also embodied and material; each matter is always already formed (the clay has undergone a specific preparation that made it available for acquiring the shape of the brick - a "preparation" that can be traced back before all human processing: «before any elaboration, the clay in the marsh is already in a form, since it is already colloidal», which makes it «not just passively deformable, [but] actively plastic», Simondon 2020, 24). The craftsperson or the artist do not understand themselves as the only active party: they relate to the material and lend themselves to carefully listening to its tendencies and reactions, predisposing themselves to cooperate with it, to challenge it, to provoke it. This way of articulating form and matter in the process of making an imprint relies logically and practically on a no longer univocal distribution of activity and passivity. Plasticity thus becomes a matter of imprint, where the imprint is intended, in turn, as an energy system where a transformative contact occurs, perturbating both sides in an active and passive reciprocity.

To understand the plastic imprint as a system of forces, «it [would] not [even] be enough to enter the workshop»: «it would be necessary to be able to enter the mold with the clay, to be both mold and clay at once [il faudrait pouvoir entrer dans le moule avec l'argile, se faire à la fois moule et argile], to live and feel their common operation in order to be able to think the process of taking form in itself» (Simondon 2017, 248-249; 1989, 243; see also 2020, 30). This understanding of the imprint requires proximity and intimacy, it asks us to participate in the operation of material morphogenesis and, in turn, it allows to conceive of the relationship between matter and form in energetic and experiential terms.

The point has been stressed also by art historian Georges Didi-Huberman. Resorting to Simondon's argument, he claims for «the gesture of the imprint [empreinte] [...] to be first and foremost the experience of a relationship» (2008, 33; my trans.). His work, both as theoretical and art historical research and as curatorial practice (Didi-

Huberman & Semin 1997), [9] has a specific merit: that of applying the discourse on the nonreductive imprint to a

specific set of objects, casts. [10] By examining molds, frottages, death masks, votive offerings – that is to say, by tying the imprint and its plastic logic to objects that have most often failed to find a place in the art historical discourse –, Didi-Huberman makes the argument on the imprint even

[9] See the exhibition *L'empreinte*, held at the Centre Pompidou in 1997 and co-curated with Didier Semin, where, significantly, also artworks by Penone were displayed.

[10] DidiHuberman's
concept of
empreinte maintains the focus both
on the cast as an object and on casting

more concrete and tangible, bringing casting and molding practices into play. At the same time, however, Didi-Huberman's discourse maintains a strong theoretical core, which allows him to conceptualize the imprint in explicit proximity to Derrida's trace (2008, 314). Both singular and multiple, both origin and copy, neither present nor absent, neither inside nor outside, the imprint – just like Derrida's trace, and, in fact, not too differently from Malabou's plasticity – is conceptually crafted to eschew metaphysical dichotomies.

4. Lost forms: From the statue to the mold

Let us go back, for a moment, to the turn of the century, when plasticity was still "demanding to gain access to conceptuality". In the academic year 1998-1999, Malabou was invited by Didi-Huberman to hold a lecture at his seminar at the École pratique des hautes études. The seminar was devoted to Julius von Schlosser's *Geschichte der Porträtbildnerei in Wachs* (*History of Portraiture in Wax*). There, Malabou stated: "Georges Didi-Huberman's work and mine currently share the same concern: responding to the call of a motif, a strangely persistent one – the motif of *plasticity*» (2005b, 31; my trans.). There was, however, a difference in approach: in addressing the wax portraits and ex-votos, Malabou's focus was on the plasticity of the suffering subject who made the votive offerings, while Didi-Huberman's attention was being devoted, in the very same years, to the plasticity of wax itself (Didi-Huberman 2000).

On at least one occasion, then, Malabou came close to seeing the possible convergence of the conceptuality of plasticity, on one hand, and the materiality of the molding practices, on the other. However, she did not really explore this possibility, which would have brought her closer to the "artistic origins" of plasticity. When considering the topic of plasticity's beginnings in the arts and crafts, Malabou's claims are in fact quite hasty: «Plasticity characterizes the art of "modeling" and, in the first instance, the art of sculpture» (2005a, 8; my emphasis), she states for instance; or, by retracing the argument to which we are now used: «speculative Hegelian philosophy rips the concept [of plasticity] away from its [...] sculptural ties [...], definitively conferring the metaphysical dignity of an essential characteristic of subjectivity upon it» (2010, 13; my emphasis). With such cursory statements, Malabou aligns with other authors (e.g., Lawtoo 2022, 150-152;

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Meloni 2019, 7-8) in seeing plasticity as originating in *sculpture*, whereby sculpture is equated to the beautiful and concluded *form* of the statue (e.g., Malabou 2010, 9-10).

A different paradigm of plasticity, one that understands it on the model of nonreductive imprint, considers more carefully the complexity of the relations between plasticity and sculpture. The reasons to bring together plasticity and molding are theoretical as well as historical. If we go back to the Greek πλαστικάι τέχναι, it is possible to observe that in the Classical Greece period (5th and 4th centuries BCE) the expression referred exclusively to the activity of modeling three-dimensional figures in clay or wax, and, occasionally, to casting bronze by using clay or wax models. It was only later on, during the Hellenistic period (323-31 BCE), that the expression "plastic arts" extended to include also statuary and carving, progressively leading to the identification of plastic arts and sculpture that we take for granted today (Dongowski 2002, 815-816; Saint-Girons 2000, 34; Chateau 1999, 16-17). Despite the Hellenistic extension, moreover, as late as in the 1st century CE it was still common to refer to the so-called "plastica" as a whole different category than those of fusoria and scultura (Wittkower 1977, 30).

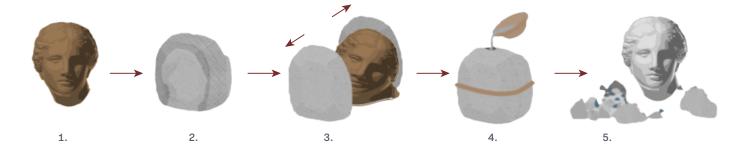
In Antiquity, then, plasticity referred to a $\tau \acute{\epsilon} \chi \nu \eta$ (intended as a craft or a "mechanical art") that was not to be conflated with the art of sculpture. What I would like to contend at this point, is that plasticity does not originate in sculpture, as most authors hastily as-

sume. On the contrary: it is sculpture that finds its origins and conditions of possibility in plasticity. [11] Here, it might be useful to adopt Simondon's method and consider more closely the techniques involved in sculpture-and cast-making, in order to see which theory may stem from the practice.

Plasticity thus referred first and foremost to those techniques that concerned the humble model realized in wax or clay and employed in a number of practices that would subsequently lead to the sculptural object. For this reason, the journey of the plastic model (which turns it eventually into a nobler and more durable sculpture) is worthy of close consideration. In most cases, the object modelled by hand needs to be destroyed in order to obtain a fundamental, yet often overlooked object: the plaster master-copy, or original cast. As Didi-

Huberman noticed, such *plastic* plaster cast is not a proper sculpture, but «constitutes the basis of sculpture [ce par quoi procède la sculpture]. [...] The molding process is a necessary step in the production of all bronzes and marbles that are not obtained through direct carving» (2008, 149-150; my trans.). Leaving aside the techniques that translate the form from plaster to stone or metal, let us focus on the technical procedure to make the original plaster cast. This technique is called waste-mold casting, and can be schematized as follows [FIG. 2]. First of all, a mold in liquid plaster is built over the clay or wax model, with the aim of creating a hollow mold: a negative of the form modelled by hand. At this point, the clay or wax is removed from inside the mold, thereby destroying the model. Subsequently, liquid plaster is poured into

[11] At the same time, we must be wary of regarding plasticity as a principle, a chronological beginning, or a foundational element. In fact, plasticity avoids the characteristics of the origin, metaphysically intended. In what follows, then, all reference to the origins of sculpture in plasticity and to the origins of plasticity in the πλαστικάι τέχναι will not be intended in the sense of a stable, unitary, univocal origin but rather in the sense of a weak, plural, fragmented origin of Derridean fashion. As we will see, what pertains to plasticity in the sculptural process is lost for historical, cultural, technical, and material reasons, and it is therefore the very materiality of plasticity that makes it a defective. ungrounding origin.



[FIG. 2] Schematic illustration of waste-mold casting. (1) A clay model is realized by hand; (2) a plaster mold is built on the clay model; (3) a hollow mold is obtained and the clay model is destroyed; (4) the mold is filled with liquid plaster; (5) the plaster mold is destroyed to demold and thereby obtain the original plaster cast. Illustration by the author.

the hollow mold and left to solidify and take shape. Finally, the cast is demolded: the mold is broken in order to retrieve the new, more durable positive – that is, the plaster master-copy. [12]

This procedure raises many theoretical issues – the status of "originals" and "copies", for instance. Among these issues, there is also the one that has been one of the central concerns of these pages: the relation between form and imprint. Let us consider a simple fact: that the mold, in some

[12] For a technical overview on these topics, see for instance Beale 1975; D'Alessandro & Persegati 1987; Haak et al. 2019.

languages, is referred to as "form". In Italian, the mold of waste-mold casting is called *forma persa* or *forma a perdere* ("lost form" or "form to be lost"); in German, one speaks of *Verfahren mit verlorener Form* ("technique with lost form"). Not only is in fact this *form* a hollow negative, it also needs to be destroyed, to be lost, in order for the "other of the form" to emerge. This other form, the counter-form that is extracted by demolding and that emerges as the positive cast, is not actually a form, but an *imprint*.

If plasticity has to do with modeling and molding, with clay and wax and plaster, with the morphological and material complexity of the imprint, then it is possible to claim that plasticity does not originate in sculpture: on the contrary, plasticity precedes sculpture technically and represents its condition of possibility. The clay model is destroyed in order to produce the plaster master-copy, from which marble and bronze statues are realized. Sculpture thus begins where its plastic origins are lost; the various sculptural forms – which appear as positive, pacified figures – are in fact haunted, from the very beginning, by just as many plastic imprints.

5. Material aesthetics

According to Malabou, the origins of plasticity were to be traced back to aesthetics and the arts, but, being non-philosophical or pre-conceptual, such origins seemed to be unworthy of attention. In this way, both the material aspect of this aesthetic origin and the aesthetic aspect of this material origin were left unquestioned by the "standard" philosophy of plasticity. After having brought plasticity back to the material techniques of the arts and crafts, it now seems possible to retrieve

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the aesthetic aspects of plasticity too. In which sense is the materiality of plasticity also an aesthetic matter? It would be simplistic to claim that aesthetics is summoned because works of art are at stake, especially since plasticity does not really coincide with the art of sculpture but is related to the technical practices that underpin it. The aesthetic element inherent to material plasticity is to be found elsewhere: in nonhuman sensation. The chance, here, is to develop the concept of plasticity into a material aesthetics.

Rethinking plasticity by privileging the imprint led us inside the studio or the workshop, first, and then deep down inside the mold, where the materials experience a transforming contact. The imprint allowed us to appreciate both the morphological and the material aspects of plasticity, bringing them together not in a dichotomy but in a complex system. In this framework, the opposition between form and matter proved to be but a sterile abstraction. Now, it is possible to appreciate yet another aspect: namely, that this conceptual framework also shows the impossibility of speaking of "matter in general". When discussing the entanglements of form and matter in the imprint, the discourse was never actually on matter as such: what was at stake was instead the lump of clay, the piece of wax, the pour of plaster... The imprint exposes the ontological autonomy of the single materials and the fact that "matter" is nowhere to be found. What we find, instead, are the specific materials with their peculiarities. In the process of form-taking, every material exhibits specific behaviors that depend on the relations it maintains with its milieu, on the ecological context into which it is inserted and with which it interacts. Plaster is responsive to the encounter with water; once liquid, it takes some time for it to "cure" or solidify. A material like glass, instead, is "sensitive" to temperature: it behaves very differently - as a solid or as a liquid - depending on this specific characteristic of the environment.

It is in this sense that plasticity understood on the relational model of the imprint can pave the way to a material aesthetics, or an aesthetics of materials. The focus of such aesthetics is not on artworks but on αἴσθησις, as the Greek etymology of "aesthetics" suggests: aesthetics as a science of sensation or sensibility. But $\alpha i \sigma \theta \eta \sigma i \varsigma$ is not ascribed solely to the human participants involved in the relational context: it is the sensation of materials too, therefore relating to affects rather than percepts.

On this point, it seems possible to partially align with some trends in contemporary art history, such as the German Materialästhetik [13] or the French tradition of the École

des hautes études en sciences sociales. [14] These trends, which aim to highlight art's materiality, suggest to adopt a methodology of "complicity with the materials" (Rübel 2012, 15; Lange-Berndt 2015, 15), a methodology of intimacy that

embraces specificity - since, as Didi-Huberman remarked in one of his writings on wax, «it is always improper to reflect upon "matter" in general» (Didi-Huberman 2000, 210; my trans.). In this sense, they do not recommend to consider materials alone and discard the human side of the

[13] Materialästhetik is associated

art historical tradition, to which

2020, 7.

for instance to the research carried on [14] On EHESS' unconventional by Monika Wagner and her group at Didi-Huberman belongs as one of its Universität Hamburg. most prominent scholars, see Larsson According to Petra Lange-Berndt (2015, 15), this tradition is to be traced back to

> Aby Warburg, and today it extends to authors such as Didi-Huberman too. Tellingly, Materialästhetik is also well represented by Dietmar Rübel and by his book on plasticity in the art of the 20th century, in which he aligns with new materialisms and the debates in favor of material agency (Rübel 2012, 236).

equation: rather, they invite to investigate the relationship between humans and materials by adopting a nonhierarchical perspective.

First of all, this approach requires to come closer to those who work with materials and to consider the relationship between worker and material as fundamental in constituting both. If the wood is the flip side of the activity of the woodworker, then the identity of the woodworker too results, at least in part, from their relation to the material. The relation between wood and woodworker precedes both the material and the human. In the second place, material complicity requires to "follow the materials" (Lange-Berndt 2015, 16). This implies an intimacy that goes together with a degree of passivity, a certain vulnerability even, since by adopting this posture, one accepts to become entangled in an interaction where they cannot unequivocally control or direct the "matter-flow". Finally, a method of material complicity requires to consider materials as performative rather than static entities. Considering materials in their ecological context, which involves human actors too, makes the focus shift from the essential properties of materials (what a material "is") to their performative behaviors (what a material "can do"). From this perspective, a given material is not plastic per se: it can rather behave plastically if it is involved in certain relations with its environment.

Let us circle back, then, to plasticity as the core concept of a material aesthetics. Here, it would be with a subjective genitive that one could speak of the sensation of clay or the sensation of plaster: «sensation of this or that material, sensation embodied as and in material forms» (Lange-Berndt 2015, 15). Taking seriously the deconstruction of the hylomorphic paradigm and regarding the encounter between mold and clay in terms of a relational experience requires to acknowledge the existence of a material, nonhuman sensation that exceeds organic life. It is once again inside the mold, at the point of contact where wax and plaster meet, that plasticity proves to concern both materiality and aesthetics.

6. **Conclusions**

In Malabou's philosophy, which represents the standard theory of plasticity today, the aesthetic and artistic origins of the concept are left unthought. It is precisely by bringing the concept of plasticity back to the field of the plastic arts, to the techniques of modeling and molding, to the materiality of clay and plaster, that an alternative perspective on plasticity may open up. In this essay, I have tried to outline a different account of plasticity - an account in which theory stems from practice and in which the aesthetic, nonhuman, and material elements of this concept are fully appreciated. Here, the form gives way to the imprint, just as molds and casts precede statues and sculptures, representing their condition of possibility. The plasticity of each material manifests not as an essential property but as a relational behavior: the material has its own "sensations" that make it interact, both actively and passively, with its environment. A reappraisal of the techniques involved in the arts and crafts, of the role and sensitivity of inorganic materials, and of the theoretical meaning of the imprint is the operation that allows to think the concept of plasticity anew - or, perhaps, to perform a productive return to plasticity's neglected origins.

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