Towards a Materialist Conception of Sound as *Thing*

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This article proposes a conception of sound as the material of artistic experimentation. It centres on a discussion of the nature of sound's ontological status and aims to contribute to a new understanding of the role of materiality in artistic practices. A central point of discussion is Pierre Schaeffer's notion of the sound object, which is critically examined. The phenomenological perspective that underlies the concept of the sound object depicts sound as an ideal unity constituted by a subject's intentionality. Thus, it can barely grasp the physicality of sounds and their production or their reality beyond individual perception. This article aims to challenge the notion of the sound object as a purely perceptual phenomenon while trying to rethink experimentation as a practical form of thought that takes place through interacting with sonorous material. Against the background of recent object-oriented and materialist philosophical theories and by drawing on the Heideggerian concept of the thing and Gilbert Simondon's theories of perception and individuation, this article strives to outline a conception of sound as a non-symbolic otherness. The proposed idea of thingness revolves around a morphogenetic conception of the becoming of sonorous forms that links their perception to their physicality.

1. INTRODUCTION

The French poet Paul Valéry famously described a poem as a 'long-drawn hesitation between sound and sense' (Valéry 2016: 211). While language use normally presumes coherence between signification and the phonetic signifier, poetry suspends their unity. It operates in a gap that reveals the meaningless materiality of the signifier beyond its functioning as a carrier of signification. In moving beyond itself, language makes the medium of language itself aesthetically experienceable. In Valéry's formulation, on the one hand there is a sensuous material, 'sound', and on the other hand there is meaning that can be comprehended, 'sense' – both are of course almost homophones in French. It can be argued that art – in particular experimental and avant-garde artistic practices since the early twentieth century – stages this difference in an oscillation between material and meaning, between the withdrawn recalcitrance of non-signifying matter and the presence of signification. Experimental artistic practices destabilise the ostensible coherence of sound and sense that our everyday use of language takes for granted: the interdependence of signifier and signified, of function and material support.

The sound of a word, the particular timbre of a voice, or the visual appearance of a written word reveal themselves as a material surplus that goes beyond a word's meaning. In his psychoanalytical theory of language, Jacques Lacan described the 'non-sensical' materiality of the signifier outside its relational meaning. According to Lacan, 'every real signifier is, as such, a signifier that signifies nothing' (Lacan 1993: 185). Without being functionally related to other signifiers, the signifier becomes a self-referential material mark of nothingness, or what Tom Eyers has termed the 'signifier-in-isolation' (Eyers 2012: 5). Artistic attempts to give presence to the concealed 'non-sensical' materiality of things have often proceeded by way of a self-referential exposure of their own medium. Language can be experienced where the coherence of the symbolic is disturbed and where the recalcitrant materiality of sound or writing itself is disclosed, where language no longer functions as a carrier of meaning and where it refers to its own constitutive gap: the hesitation between sound and sense. In Valéry's description, 'sound' stands for the non-signifying materiality of language, demonstrating that, as the philosopher Mladen Dolar writes with regard to the voice, '[t]he ideality of meaning can emerge only through the materiality of the means' (Dolar 2006: 15). Valéry's 'long-drawn hesitation' suspends coherence and creates a gap in which the materiality of the signifier reveals itself. No longer subservient to the transmission of a message, material thus comes to matter itself. Vibration, space, instrument, timbre, acoustic environment and voice are ways in which the physicality of sound becomes the object of perception.

While the materiality of musical sound, or the exposure of 'sound-in-itself', can be said to have been a defining characteristic of diverse electroacoustic, contemporary, and experimental musical and sound art practices since the beginning of the twentieth century (Solomos 2013), its ontological and epistemic status has become increasingly central in current debates. Recent materialist approaches have conceptualised

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sound as a virtual flux of vital forces (Cox 2011), as an expression of an all-pervasive and immersive noise (Hainge 2013), and as an ephemeral and liminal 'territory of convergence between author and listener' (Wanke 2017: 435). At the same time, the notion of the sound object, which is perhaps the most seminal concept of musical sound brought forth in the twentieth century, continues to define artistic and technological discourses and practices. The critique of anthropocentrism developed by current object-oriented metaphysical tendencies (Harman 2011), recent studies on the nature of digital objects (Hui 2016) and environmental aesthetics (Morton 2007) attest to the significance of the question of the object and its perceptual, technological and ontological entanglements.

The concept of the sound object, initially formulated by Pierre Schaeffer, in many ways aimed to uncover a concreteness of lived aural experience that is overshadowed by signification. In what follows, I attempt to develop a brief critique of the sound object, both pertaining to Schaeffer's original formulation and to later theoretical and practical adoptions of the notion. By drawing on concepts developed by Martin Heidegger and Gilbert Simondon, I try to outline an alternative materialist concept of sound as *thing*, which seeks to avoid the reification and idealisation inherent to the notion of the sound object. Sound as *thing* rather aims to think its partial independence from the listening subject while seeking to shift attention to relational processes of material individuation that give rise to sonic identities. The discussion of the 'concreteness' of sound and its mediatedness has long centred on the well-worn question of its mimetic nature and its representational possibilities. This article instead proposes a perspective on sound's material potentiality to give rise to forms through connections and interactions between machines, bodies, signals and ideas.

Martin Heidegger's famous determination of the work of art as a 'strife' between the 'setting up of a world' and the 'setting forth' (or production) of 'earth' reflects the difference between meaning and materiality. While 'world' refers to the signifying context of relations that orients us, 'earth' denotes the recalcitrant and non-signifying material basis of a work of art. It alludes to the material beyond its mere functioning as support. However, both terms, which can be understood as distinct ways of referring to the same object – the planet 'earth' – only exist in relation to each other. Under normal conditions, such as in the manufacture of an axe, to use Heidegger's example, a material, in this case a stone, 'is used and used up. It disappears into usefulness' (Heidegger 2002: 24). The stone as stone is no longer present itself but disappears from view in its functioning as an axe. Hence, the materiality of the stone does not appear in itself but becomes support for another object. This is different in artworks and this difference becomes one of their defining characteristics. As Heidegger writes:

> [The work of art] in setting up a world, does not let the material disappear; rather, it allows it to come forth for the very first time … into the open of the world of the work. The rock comes to bear and to rest and so first becomes rock; the metal comes to glitter and shimmer, the colors to shine, the sounds to ring, the word to speak. All this comes forth as the work sets itself back into the massiveness and heaviness of the stone, into the firmness and flexibility of the wood, into the hardness and gleam of the ore, into the lightening and darkening of color, into the ringing of sound, and the naming power of the word … The work moves the earth into the open of a world and holds it there. *The work lets the earth be an earth.* (Heidegger 2002: 24)

In many ways, sound – or the timbral physicality of sound – can be identified as the 'earth' of musical composition. In the twentieth and twenty-first centuries, artistic practices have developed numerous divergent approaches to thinking 'sound-in-itself'; that is, attempts have been made to grasp the real materiality of sound beyond traditional forms of representation or subservience to the expression of harmonic, narrative and structural musical sense. The sound object in Schaeffer's conception no longer points to a physical event that caused it, nor does it act as a carrier for a message to be comprehended. Both of these functions perform an abstraction of the perceived. In contrast, the phenomenologically intended sound object that reduced listening seeks to expose is prior to any such abstractions; the concreteness of aural experience beyond signification is regarded as primary. The inception of the concept of the sound object corresponds to Husserl's appeal to return 'to the "things themselves"' (Husserl 2001: 168) by way of prioritising the immediacy of phenomenological experience. In its Schaefferian guise, the sound object is understood as a sensible, or *intended*, object of subjective perception. Its unity and persistence depend upon listening while its sonorous properties are the results of 'acts of consciousness' and are thus not to be conflated with objective acoustic properties or the properties of digital or electronic signals. For Schaeffer, the scientific study of sound is thus secondary to the sound object as an ideal unit in perception. Yet sound's precise identity and functioning depend on its relation to structure and to formal contexts; it is what Heidegger calls the 'strife' of 'earth' and 'world'. Sound is mediated and produced in relation to form and structure.

2. THE DICHOTOMY OF THE SOUND OBJECT

Despite emphasising the concrete and immediate, however, the sound object is caught in a dichotomy of the particular perception of a sound and the ideal

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generality that the sound object represents. A sound object can only ever be heard in a specific form, that is, as a particular perceived sound, yet its conception as an intentional object points to an essence beyond any of its particular appearances. Beyond the particular 'adumbrations' there is assumed to be an ideal unit that specific appearances reveal in different ways. The *objectivity* of the sound object 'throughout the flux of impressions and the diversity of modes' (Schaeffer 2017: 207) can only be ensured by positing an ideal unity beyond the grasp of perception itself. As Michel Chion writes, the sound object 'is a perception of a totality which remains identical through different hearings; an organised unit which can be compared to a "gestalt" in the psychology of form' (Chion 2009: 32). Hence, the sound object is not a material or physical event, signal, inscription, or body but an ideal whole, a form beyond particular perceived sounds. Drawing on Husserl's concept of intentionality, Schaeffer terms this the 'transcendence of the object' (Schaeffer 2017: 206), that is, the ideal unit of the sound object beyond its various concrete manners of appearance. By means of variations and transformations, that is, by creating 'adumbrations', the kernel of the sound object, its essence, is revealed. This essence is supposed to unite the multitude of sonorous properties into a single object. The ostensible concreteness of the sound object vanishes if we realise that it exists purely as an object of consciousness, yet it is not any particularly perceived sound, but the ideal whole transcending specific perceptions. The philosopher Graham Harman aptly criticises Husserl's intentional object as being caught in this dichotomy, unable to achieve any independent objective power:

> Stripped of its objectivity, though obviously more unified than the separate appearances that announce it, the object is trapped in a difficult position. It is irreducible to its series of appearances, yet it exists outside of them only as an ideal principle, not as something truly independent. (Harman 2005: 25)

Instead of trying to account for the physical, perceptual and morphogenetic processes that give rise to sonic identity, including timbral and gestural forms, the prioritisation of the sound object shifts the focus from the heterogeneous multiplicity of the sonorous to the coherence of reified sounds. The sound object is assumed to be a coherent entity instead of an incoherent or ambiguous disorderly set of sensory data because it complies and correlates with given laws of sensibility. Instead of engaging with the ways in which vibrational forms relate, emerge and propagate, the sound object always already presumes a given ideal form. In doing so, the act of perception, which constitutes the unit, is conceived as a form of pattern recognition based on innate structures. Listening is thus not an encounter with an other, but only ever reflects itself in the sound object. It constitutes its own other by reflecting in it its subjective forms of sensibility.

The idea of a reified sonic identity characterises diverse conceptions of sound as object, be they technological or compositional. For example, it underlies Dennis Smalley's theory of spectromorphological archetypes of sound objects. Smalley's morphological models, typologies and archetypes are fenced in by the ostensibly innate universal – or at least habitual – limits of aural perception, or, as Smalley writes, by what is 'acceptable to the ear' (Smalley 1986: 70). The multidimensional potentiality of sound and its manifold nature that cuts across different sensory modalities is thereby reduced to a set of a priori forms, structural functions, and shapes.

Instead of trying to account for material connections and the partial independence of perception and the perceived as well as material forces and potentials involved, Schaeffer can only guarantee the objectivity of the object by positing it as an ideal unity. As he writes, 'the sound object is … *entirely contained within our perceptual consciousness*', it is an 'object of our listening *alone*' (Schaeffer 2017: 67). The acoustic, social, technological and material manifestations and mediations of sound that may go beyond 'immediate' human perception and that offer physical, technological and scientific interactions with sonic phenomena are thereby dismissed.

The question of sound's concreteness is thus not primarily related to the oft-discussed issue of semantic relation to reality versus its abstract musical character, or what Simon Emmerson terms 'aural' and 'mimetic' discourse (Emmerson 1986). The concreteness of sound has to be grasped as the particular material potential of sounding processes and the perceptional transformations they interact with, beyond the idealising stability of archetypal spectromorphological forms or the reification of technological recording.

3. FROM IDEAL FORM TO MORPHOGENESIS

The identity of sound has to be grasped in its systemic and dynamic becoming. Sound and its perception come to be in processes that connect the emergence of the interiority of the listening subject and the independent exteriority of specific material sonic events and differences. The sound object presumes the existence of a stable form as an ideal gestalt recognised by the subject, and thus fails to acknowledge the emergent nature of transitory perceptual identities that are brought forth in the dialectic of the subject and the world. We should try to understand how sonic forms emerge, both within listening experiences and within

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material processes. Gilbert Simondon's theory of perception, which revolves around the central idea of individuation, can help us grasp the *morphogenetic* potential of sound and its perception in terms of the becoming of subject and object. Instead of prioritising archetypal stable forms, as in gestalt theory or in Schaeffer's conception of the sound object, Simondon argues that we need to focus on the dynamics of generative processes in order to understand how forms emerge:

> If the form was truly given and pre-determined, there would be no genesis, no plasticity, no uncertainty relative to the future of the physical system of an organism, or a perceptual field; but this is precisely not the case. There is a genesis of forms as there is a genesis of life. (Simondon 1989: 74, as translated in Mills 2014: 177–8)

According to Simondon, the perceived object 'is not solely a unity but also an autonomy and a relative energetic independence which makes it a system of forces' (Simondon 1989: 74, as translated in Scott 2014: 51). Within this system of forces, subjective perceptual capacities and material vibrations relate and co-individuate. We can understand perception as a transductive process, that is, as an activity that propagates from medium to medium, from region to region, and between different orders of magnitude and different timescales. Transduction gives rise to perceived forms as a result of dynamic connections, potentials, tension, thresholds and forces that link perceptual and material fields. In this way, contingent events can affect and trigger the emergence of stable forms. In contrast, Schaeffer's sound objects assume that form stems from the unity of the intentional object and thus reflect the a priori constitution of sensibility. If we follow Simondon, however, perception is not based on an ideal given or the subjective conditions of appearance. The subject rather perceives a formal identity as a (provisional) resolution of a perceptual problem, a material disparity that harbours a formal potential. The perceived form and the forms of sensibility that condition its appearance thus emerge and transform together. As long as the subject him- or herself is transforming, the potential that drives this process is not resolved. As Simondon writes:

> Before perception, before the genesis of form which is precisely perception, the relation of incompatibility between the subject and the milieu exists just as potential … Perception is not the seizure of a form, but the solution of a conflict, the discovery of compatibility, the *invention* of a form. (Simondon 1989: 76, as translated in Mills 2014: 180)

Perceived sonorous identity is brought forth not by recognising spectromorphological archetypes but by active, situated, and inventive ways of relating to the world. A sound is thus no given entity that can be isolated. Sound can thus never be reduced to a mere 'parametrical object that describes a form through time, with a certain spectral evolution' (Teruggi 2007: 214). The identity of perceived sound is the outcome of individuating processes between a subject and its milieu that are transductively coupled with material and symbolic processes of individuation. The sound object as an ideal worldless object fails to grasp the tensions and dynamics that constitute its genesis as perception, as compositional function, and as acoustic phenomenon.

Many compositional theories and artistic practices have exposed the materiality of sound, its resistance to reification, and the contingency of sonorous identities, including their production and perception. Seminal works by Alvin Lucier, such as *Bird and Person Dyning* (1975), *I Am Sitting in a Room* (1969) or *Music for Solo Performer* (1965), may serve as examples of conceptions of sound and its perception that resist ideal reification and, rather, exploit the processual and relational becoming of sonic identity. Trevor Wishart reflects on Lucier's *I Am Sitting in a Room* in terms of the changing perception of a sound object:

> At the beginning of the piece we would unreservedly state that the sound-object is the voice. At the end of the piece the sound-object is clearly a more 'abstract' entity whose characteristics derive from the room acoustic. Somewhere in between these extremes our perception passes over from one interpretation to the other. (Wishart 1996: 158)

It is possible to read *I Am Sitting in a Room* as a performed acousmatic reduction that rids the sound of its indexicality and association with its causes. It almost literally performs Valéry's hesitation between sound and sense: every iteration in the process works to dissolve language and reveal a purely sonorous and non-sensical remainder. What comes to the fore, however, is not so much an object to be described in morphological and typological terms, but the congealed traces of mediating processes – the immersive and pervasive nature of sound in space. Lucier's famous work exposes sound and its spatiality as a conditioning medium and demonstrates how a timbral identity that is tied to a site and to technological conditions comes into existence. It renders palpable our involvement in audible environments in which, as Tim Ingold writes, 'sound … is not the object but the medium of our perception. It is what we hear *in*' (Ingold 2007: 11).

In its perception, production and propagation, sound vacillates between being a relational phenomenon that emerges in the interstices of bodies, objects, media and spaces and being an individuated identity. In his works and writings, Agostino Di Scipio deals with this tension and argues for a conception of sound as an emergent event. Di Scipio critiques the notion of

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the sound object as a form of reification, a way of turning sound into a commodity that effaces its spatial and temporal contextual relations and its origins and production. By drawing on Heidegger's idea of *Bestand* (reservoir) as a form of being dominated by associated purposes, Di Scipio argues instead for an understanding of sounds as relational events that 'take place' and involve actual technologies, bodies and media. Sounds cannot be abstracted from the forces that give rise to them. For Di Scipio, they are rather mediated traces that traverse bodies. As he writes:

> The sound object shapes (and is shaped by) cognitive modalities that lead us to experience sound as something that can be handled, moved in time and space, stored, exchanged, independent of the ephemeral temporal and spatial contingencies of its coming into presence … In its manner of working, the sound object turns off the relational and contextual meaning inherent to a musical way of knowing. It prevents a becoming-aware of sound as the fragile trace of agencies belonging to the actual place and time. (Di Scipio 2014: 11–12)

4. TOWARDS THE THING

While sound is a medium in which we hear relations, actions and events, sounds cannot be reduced to these relations. In other words, objective identities and patterns can take shape within the medium of sound. These identities can exceed their relational production and, at least at certain orders of magnitude, gain the status of independent objects. These entities can be understood as bodies and behaviours that move and transform. Musical performance involves body-to-body contacts: instrumental, human and electromechanical bodies that can be said to fabricate sonorous bodies, or 'musical phantom limbs' (Szendy 2016). Musical instruments and sound synthesis methods define structured spaces of possibilities, which interact with other bodies and produce individuated forms. In Helmut Lachenmann's famous work *Pression* (1970) for solo cello, for example, we perceptually grasp a sonorous *thing* with a certain transforming identity, which is the emergent result of composed frictions and forces and which can never be fully grasped by representation. The interactions of the musician's body and the instrument as a material object produce a plastic identity that is encountered by listening. We hear how *things* sound but we also hear sounds as *things*.

Being both medium and trace, continually transforming percept and physical event, the ambiguous autonomy of sonorous forms challenges subject–object distinctions. In its propagation, spatiality and ephemerality, the ontological status of sound appears to vacillate. In order to account for the simultaneous autonomy and relationality of sound, for its identity and its withdrawn character, we need to turn to an alternative concept to the object, one that is able to articulate the materiality of individuation: the *thing*. Sound as *thing* can never be fully described or known without practically engaging with it.

In his later writings, Heidegger distinguishes between the object (*der Gegenstand*) and the thing (*das Ding*). The object refers to something represented, transparent and isolated, either calculable or merely ready-to-hand. The *object* thus disappears from view because we simply command and dispose of it. The *thing*, on the other hand, connects presence with concealment, that is, it gives presence to what is beyond representation and is thus in many ways independent. Heidegger uses the famous example of a jug to explicate the difference between thing and object:

> As a vessel the jug is something self-sustained, something that stands on its own … As the self-supporting independence of something independent, the jug differs from an object. An independent, self-supporting thing may become an object if we place it before us, whether in immediate perception or by bringing it to mind in a recollective re-presentation. However, the thingly character of the thing does not consist in its being a represented object. (Heidegger 1971: 164–5)

The thing, while connected to practical production and perception, reaches beyond human access and signification. It oscillates between presence and concealment. As Heidegger writes, 'The jug remains a vessel whether we represent it in our minds or not' (Heidegger 1971: 165). The thing in its independence is thus always partly withdrawn and can never be fully represented or perceived. Lacan described *das Ding* as the beyond-of-the-signified, which cannot be reached but which structures our psychic apparatus by means of its absence. Some of its properties and behaviours are not present and remain concealed as potential. Its thingness thus resides in its resistance to being reduced to a number of properties; it cannot quite be exhausted and thus harbours a form of indeterminacy. There is an otherness to the thing that exceeds any knowledge of it; however, this makes it the object of experimental processes of knowledge production. Although Heidegger saw science precisely as a way of reducing things to objects, we can say that a thing is in many ways close to certain conceptions of the scientific object.

Das Ding dingt, 'the thing things' (Heidegger 1971: 172), Heidegger famously wrote. If we did not conflate the distinction between object and thing, we could more aptly translate the sentence as 'the object objects'. To be a thing means to do something, to object, to condition (*bedingen*), to resist. To think sound as thing means to embrace this resistant depth and independence of sonorous events and forms, the

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tensions and forces that produce it, their connection to a 'world', their materiality, their mediatedness, their contingent potential and the processes of perception and affection they can initiate. This independence manifests itself in the contingent potential of sound that becomes the object of research in artistic experimentation.

Drawing on the science historian Hans-Jörg Rheinberger, we can term sound an *epistemic thing* in experimental compositional practice. In contrast to *technical objects*, which embody functioning technological knowledge, *epistemic things* are a form of non-knowledge. They are things 'in a state or condition such that we simply *cannot* yet point to them' (Rheinberger 2009: 23). The thing is not yet formed; it is not yet known or the object of representation. As Bill Brown writes, 'thingness amounts to a latency (the not yet formed or the not yet formable) and to an excess (what remains physically or metaphysically irreducible to objects)' (Brown 2001: 5). Yet things structure experimental research and drive the genesis of concepts. New concepts, theories, questions and, ultimately, new technologies are products of practical engagement with these things, which – much like the Lacanian *objet petit a* – create a desire by being, at least partly, absent (Lacan 1993).

5. CONCLUSION

I understand artistic practice as an experimental mode of thinking that cannot be reduced to language and extends into perception, presentation and performance. Speech and writing have long been the privileged sites of thought, producing transferable knowledge and propositional statements. Artistic thought, on the other hand, does not necessarily produce facts or propositional knowledge; its concepts are rather performed and embodied, they arise in the practical experimental engagement with material, with 'earth', and with things. The sound object as thing is the object of experimentation as far as experimentation is understood as a practice that deals with a partly autonomous entity that can only be grasped by manipulating it. Experimentation is thus characterised by an openness towards the contingency of the material, which neither the phenomenological nor the technical reduction can account for. Sound as thing emerges in the interactions of transformations (sound transformations, instrumental techniques, transformations of compositional material, etc.), that is, not as a representation but as a dynamic material entity. To open compositional practice to the potential of its materials and to conceive of perception as a creative invention of forms, I think we should develop concepts of material (including sound) that avoid reducing it to purely perceptual idealities or to reified ready-to-hand entities that can be isolated or fully known. As Adorno wrote in his text on a *musique informelle*: 'The aim of every artistic utopia today is to make things of which we don't know what they are' (Adorno 1997: 322, translation changed).

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