L'Objet Sonore Maintenant: Pierre Schaeffer, sound objects and the phenomenological reduction*

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The work of Pierre Schaeffer (theorist, composer and inventor of *musique concrète*) bears a complex relationship to the philosophical school of phenomenology. Although often seen as working at the periphery of this movement, this paper argues that Schaeffer's effort to ground musical works in a 'hybrid discipline' is quite orthodox, modelled upon Husserl's foundational critique of both 'realism' and 'psychologism'. As part of this orthodoxy, Schaeffer develops his notion of the 'sound object' along essentialist (eidetic) lines. This has two consequences: first, an emphasis is placed on 'reduced listening' over indicative and communicative modes of listening; secondly, the 'sound object' promotes an ahistorical ontology of musical material and technology. Despite frequent references to Schaeffer and the 'sound object' in recent literature on networked music, concatenative synthesis and high-level music descriptors, the original phenomenological context in which Schaeffer's work developed is rarely revisited. By critically exploring Schaeffer's theorising of the 'sound object', this paper aims at articulating the distance between contemporary and historical usage of the term.

1. INTRODUCTION

'For years, we often did phenomenology without knowing it, which is much better than talking about phenomenology without practicing it' (Schaeffer 1966: 262). This suggestive sentence from Pierre Schaeffer's *Traité des objets musicaux* opens a series of questions about the relationship of the phenomenological method to Schaeffer's work as a theorist and composer. If doing phenomenology is distinct from knowing it, how does Schaeffer's practice compare with his method? When Schaeffer began to realise that what he was 'doing' was phenomenology, how did this realisation change his practice? Considering the lack of consensus amongst phenomenological thinkers over what constitutes phenomenology proper, what kind of phenomenology was Schaeffer unknowingly doing? Perhaps more provocative than illuminating, Schaeffer's tantalising sentence leaves these questions wide open to a variety of responses.

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Yet, throughout the *Traité*, Schaeffer remains quite close to the letter of Husserlian phenomenological orthodoxy, calling upon it especially often when trying to clearly articulate his theory of the sound object (*l'objet sonore*). Furthermore, without a serious consideration of the Husserlian influence on Schaeffer's thought, I feel that it is impossible to give a satisfactory account of two themes in Schaeffer's work: (i) that a phenomenological investigation into listening will disclose the original ground of our musical practices; (ii) that the correlate of this investigation is the discovery of an objective, yet ideal, entity – i.e. the sound object.

Today, the sound object is undergoing something of a revival, especially in the recent literature on networked music and concatenative synthesis (Ricard and Herrera 2003; Barbosa 2005; Casey 2005; Schwarz 2005). However, for good or ill, the philosophical context within which the sound object was originally theorised is quite generally neglected. To rectify this situation, this essay attempts to revisit Schaeffer's musical phenomenology in order to clarify some of its potentially troubling aspects. In section 2, I suggest that Schaeffer's 'hybrid discipline' is modelled on Husserl's own foundational critique of 'realism' and 'psychologism'. In section 3, I trace the process of reduction (*epoché*) in defining the acousmatic and 'reduced listening'. In Section 4 and 5, I discuss the emergence of the sound object within the context of reduced listening and essentialism. Sections 6 and 7 address the ontological and teleological dimensions of the sound object and present a critique of its implications for musical material and technology. *By rehearsing the logic of Schaeffer's argument for the sound object, I am by no means endorsing it*. Rather, I want to reinvestigate the original context of Schaeffer's theory of the sound object, comparing it with Husserlian orthodoxy, in order to articulate the distance travelled between its current and historical usage.

2. THE 'HYBRID DISCIPLINE'

2.1. Realism and psychologism

Phenomenology begins as a critique of both 'realism' and 'psychologism'. From the *Logical Investigations*

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onwards, Husserl was preoccupied with discovering a foundation for logic and mathematics, a foundation that neither discipline could provide for itself. If logic is to be an *a priori* science, the discovery of its laws cannot be based upon (i) induction from empirical facts given in the external world, nor (ii) psychological dispositions or generalisations based on previous associations and subjective experiences. In both cases, the principles induced or generalised would be *a posteriori*, incapable of providing the apodictic certainty that logical laws require. Rather than look to empiricism to provide a solution, Husserl sought an objective, but non-empirical foundation for logic. Logic must be a transcendental science, one that, unlike realism and psychologism, is not bound to any particular set of experiences or facts.

Schaeffer's own theoretical work follows in the train of Husserl's thinking, by identifying an analogous problem in the musical domain. Schaeffer writes:

> Let us note, at the very least, that a void exists between musical acoustics and music properly speaking, that it is necessary to fill this void with a science describing sounds, joined to an art of hearing them, and that this hybrid discipline clearly grounds our musical efforts [*que cette discipline hybride fonde évidemment la musique des oeuvres*]. (Schaeffer 1966: 30–1)

Between the 'realism' of acoustical research and the 'psychologism' of habitual (and conventional) musical practice, Schaeffer proposes an investigation to disclose what is *essential* to both domains. The final clause of Schaeffer's quote is of great importance (the French verb *fonder* means *to found*, *to establish* or, in the case of a philosophical or theoretical claim, *to ground*): musical research, which includes a descriptive taxonomy of sounds and a theory of listening, can only proceed upon a well-defined ground, a ground which musical research has hitherto been incapable of providing itself. Schaeffer's desideratum to found a 'hybrid discipline' bears comparison with Husserl's own claims about the goals of phenomenology. According to Husserl, both realism and psychologism, '… stand in need of "criticism", and indeed of a criticism which they are not able on principle to supply themselves, and that, on the other hand, the science which has the unique function of criticising all the others and itself at the same time is none other than phenomenology' (Husserl 1928: 165–6).

2.2. Fact and essence

In order to perform this foundational critique, phenomenology distinguishes real, datable psychic events from the content immanent to such events. Psychologists can investigate the former through scientific means, but the latter is the special realm of phenomenology. In other words, while the psychologist is interested in *factual* objects (i.e. states of affairs or dispositions), the phenomenologist is interested in *intentional* objects. Intentionality entails: '… 1) the ability of the mind to identify and hold before itself "objects" which can be meant as *identically the same* through a multiplicity of acts of consciousness, and 2) the active and selective operation of constituting objects for *itself*' (Edie 1987: 8).

The difference between datable psychic events and immanent intentional objects is clarified in this passage from Husserl's *Ideas*:

> We start by taking an example. Keeping this table steadily in view as I go round it, changing my position in space all the time, I have continually the consciousness of the bodily presence out there of this one and self-same table, which in itself remains unchanged. But the perception of the table is one that changes continuously; it is a continuum of changing perceptions. I close my eyes. My other senses are inactive in relation to the table. I have now no perception of it. I open my eyes, and the perception returns. The perception? Let us be more accurate. Under no circumstance does it return to me individually as the same. Only the table is the same, known as *identical* through the synthetic consciousness which connects the new perception with the recollection … But the perception itself is what it is within the steady flow of consciousness, and is itself constantly in flux; the perceptual now is ever passing over into the adjacent consciousness of the just-past, a new now simultaneously gleams forth, and so on. The perceived thing in general, and all its parts, aspects, and phases … are necessarily transcendent to the perception. (Husserl 1928: 117–18)

The table is seen always from some particular perspective. From no single point are all parts of the table visible at once. In order to see those parts that are invisible from *this* location, I must circle around to the backside of the table; but from *that* location, I can no longer behold what I saw from *this* location. Perceptually, all I am given is a stream of various perspectives, each unique and distinct from the last. Husserl refers to this stream of perspectival views as a series of 'adumbrations' (*Abschattungen*).

How is the table ever known as the same? If we take only the series of adumbrations, we have nothing but the various ways in which the table is qualified, i.e. multiple acts of consciousness, but nothing that definitively holds these adumbrations together. Husserl's answer is that the identity of the object is provided through an act of consciousness, a synthesising together of the stream of adumbrations. As each new percept is connected to the one just past, and grasped as a whole, an object emerges which can be identified as the same through a variety of acts of consciousness. Carried along by the flow of experience we have only a series of indubitable *qualities*, but through the synthesis of these qualities, we are able to posit the *identity* of the object, as transcendent to perception.

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This object of intentionality is not the same as the physically material object, which, from a scientific perspective, causes my perceptions. Being the correlate of an act of synthesis on my part, the intentional object is no longer bound to any particular spatio-temporal adumbration. It is independent of any factual context – it has become an *essence*. Schaeffer echoes Husserl's thinking, by arguing that the sound object is an intentional object. Synthesised together from a continuum of auditory perceptions, the sound object, like Husserl's table, transcends its particular adumbrations. It has become a specific essence, identifiable as the same across a variety of acts of consciousness. Schaeffer writes, '… it is *in my experience* that this transcendence *is constituted … To each domain of objects corresponds thus a type of intentionality. Each of their properties returns to activities of consciousness which are "constitutive": and the object perceived is no longer the cause of my perception. It is "the correlate"*' (Schaeffer 1966: 267).

3. SCHAEFFER'S REDUCTIONS

3.1. The natural standpoint

Husserlian phenomenology then proceeds by neutralising a common-sense view of the world, which it calls the 'natural standpoint' (Husserl 1928: 45). In the natural standpoint we faithfully assume ourselves to be subjects situated within the external world; we take the reports of our senses to be causal effects of externally existent things (*ibid.*: 96). Any claims that posit physical subsistence to exterior objects depend upon the natural standpoint, and this includes the claims of the physical sciences. According to the phenomenologist, the natural sciences remain bound to the natural standpoint in that they faithfully accept, without examination, a *belief* in the exterior world. As Schaeffer states: 'The elaborate discourse of science is founded on this initial act of faith' (Schaeffer 1966: 266).[1]

This is not to criticise the results of science as useless or mistaken. In fact, 'to know it [the external world] more comprehensively, more trustworthily, and more perfectly than the naïve lore of experience is able to do … is the goal of the *sciences of the natural standpoint*' (Husserl 1928: 96). However, classical scientific method has minimised the contribution made to this knowledge by the observer's experience. Phenomena become reduced to the effects of stimuli upon an organ; from the scientific perspective, the viewer's experience is hopelessly subjective.

For Schaeffer, the natural standpoint must be overcome if we are ever to uncover the grounding of our musical practices. By bracketing out the physically subsisting fact-world, by allowing us to make no judgements in relation to it, and by leaving us only with perceptual experience in itself, hearing can no longer be characterised as a subjective deformation in relation to external things (Schaeffer 1966: 92). Listening becomes a sphere of investigation containing its own immanent logic, structure and objectivity.

3.2. The acousmatic reduction

The term *epoché* names this methodological process of reduction, the general abstention from theses bound to the natural standpoint. According to Husserl, the *epoché*, '*… bars me from any judgement that concerns spatio-temporal existence*' (Husserl 1928: 100). But one never just abandons such theses immediately; phenomenology is a process of ongoing reduction. In Schaeffer's application of the *epoché*, the first step is to bracket out the spatio-temporal causes, and distinguish them from what we are immanently hearing. What remains after the reduction is the *acousmatic*. The *acousmatic* is defined as: '*Acousmatic, adjective: referring to a sound that one hears without seeing the causes behind it*' (Schaeffer 1966: 91). The term derives from the ancient Greek word *akousmatikoi*; it refers to the name given to the disciples of Pythagoras who listened to the master's lectures through a curtain. For the *akousmatikoi*, the physical body of Pythagoras was hidden, leaving them with only the sound of their master's voice. For Schaeffer, working in the years after World War II, the new technologies of recording, telecommunications and radio were simply continuous with the ancient acousmatic traditions of the Pythagoreans. Schaffer writes, 'In ancient times, the apparatus was a curtain; today, it is the radio and the methods of reproduction, with the whole set of electro-acoustic transformations, that place us, modern listeners to an invisible voice, under similar circumstances' (*ibid.*).

Although the acousmatic experience of sound still allows for the possibility of speculating or inferring causal sources, it bars direct access to visible, tactile and physically quantifiable assessments as a means to this end. *The acousmatic experience reduces sounds to the field of hearing alone*. This reduction is really a matter of emphasis; by shifting attention away from the physical object that causes my auditory perception, back towards the *content* of this perception, the goal is to become aware of precisely what it is in my perception that is given with certainty, or 'adequately' (Husserl 1901: 206–8). This reduction is intended to direct attention back to hearing itself: 'Often surprised, often uncertain, we discover that much of what we thought we

[1]The reducibility of this 'initial act of faith' forms one criterion for distinguishing Husserl's phenomenology from Merleau-Ponty's. For Mearleau-Ponty, especially in his late work, *The Visible and The Invisible*, the entire phenomenological project is built upon the irreducible paradox of 'truth' and 'perceptual faith' (Mearleau-Ponty 1961: 3–14). Often, it is assumed that Schaeffer's phenomenology is akin to Merleau-Ponty (see Chion 1983: 32; Solomos 1999: 57–9); this essay attempts to demonstrate Schaeffer's Husserlianism.

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were hearing, was in reality only seen, and explained, by the context' (Schaeffer 1966: 93).

One of Schaeffer's most original insights was to identify the connections between recording technology, the acousmatic experience of sound, and a theory of listening. For example, when auditioning a recording of a horse's gallop across the Pampas, reproduced in the heart of Paris, visible clues are no longer available to help in the reconstruction of the causal source (*ibid.*: 268). Naturally, a competent listener *recognises* the sound as a horse galloping and treats it as an index, pointing back towards its physical-causal source. Thus, *by definition*, recording and playback through a loudspeaker immediately performs the acousmatic reduction: the recorded sound is stripped of its original causal basis, facilitating a re-direction of attention. Furthermore, recorded sounds can be endlessly repeated without fluctuations in their signal, which is physically impossible outside of mechanical reproduction. Thus, by removing sounds from the flux of causality, recording affords the possibility of studying sounds with a degree of specificity and detail heretofore unimagined. Lastly, recording helps us recognise that the sound object is irreducible to the material/physical piece of tape or the groove of the record (in the same way that it is irreducible to any physical-causal source). By passing through the test of the *epoché*, the sound object, *mutatis mutandis*, can be no physical object.

The upshot is that the acousmatic experience of sound opens up the possibility of identifying modes of listening more *essential* than those that depend primarily on context. Sound is always in danger of being apprehended as something other than itself – of possessing a 'residual signification' (Taylor 2001: 46). Take, for example, the recording of the galloping horse. If we treat it indexically, '… there is no sound object: there is a perception, an auditory experience, through which I aim at *another object*' (Schaeffer 1966: 268). A sound object is only possible when a sound no longer functions for-another as a *medium* (as in the case of indicative and communicative signs), but rather is perceived *immediately* in-itself.

4. LISTENING

4.1. Comprendre and écouter

To better describe the intentional stance correlated with immediate perception of sound, Schaeffer proposes four modes (*functions*) of listening. The effort to remove 'residual signification' is directed at only two of these modes: *écouter* and *comprendre*.

Écouter designates an information-gathering mode where sounds are used as indices for objects and events in the world. For example, if we are crossing the street and suddenly hear the sound of squealing tyres, our information-gathering listening mode could mean the difference between life and death. In this mode, 'sounds are an index to a network of associations and experiences; we are concerned with causality; it is a question of living and acting in the world, ultimately of survival' (Smalley 1992: 516). *Comprendre*, in distinction to *écouter*, designates a meaning-gathering mode of listening where sounds are heard as communicative signs. Typically, this mode is used to describe how one listens to a language; the sounds coming from another speaker are understood as signifiers which bear meaning. Furthermore, *comprendre* extends not only to natural languages, but also the language of music.

Although all four modes of listening co-exist within acousmatic experience, the effort to grasp the sound object requires a further phenomenological reduction, which Schaeffer calls *l'écoute réduite* (Schaeffer 1966: 270–2). Reduced listening bars the appropriation of sounds as indicative or communicative signs:[2] '… I no longer try, through its intermediary, to inform myself about some other thing (an interlocutor or his thoughts). It is the sound itself that I aim at, that I identify' (*ibid.*: 268). In reduced listening, sound no longer appears as a medium or placeholder for 'some other thing'. By bracketing off the modes *écouter* and *comprendre*, reduced listening is a further *epoché* that discloses two other modes of listening: *ouïr* and *entendre*.

4.2. Entendre and ouïr

Michel Chion (paraphrasing Schaeffer) writes: '*Ouïr*, is to perceive with the ear, to be struck by sounds, it is the lowest, most elementary level of perception; one passively "hears" many things that one neither seeks nor listens to (*écouter*) nor understands (*comprendre*)' (Chion 1983: 25). *Ouïr* is a disinterested and inattentive mode of passive listening that merely receives globally what is given in perception. On the other hand, *entendre* represents a mode of listening that actively selects, appreciates and responds to particular attributes of sounds. '*Entendre*, is, according to its etymology, to manifest an intention to listen, to select from what we hear (*ouïr*) that which particularly interests us, to effect a "qualification" of that which we hear' (*ibid.*). Unlike *écouter* or *comprendre*, *entendre* and *ouïr* do not seek beyond the sound itself to discover an external object; they come into view only when the sonic sign has been reduced to the sphere of pure immanence.

Schaeffer dedicated a tremendous amount of time and energy to the exploration of *entendre*, which forms

[2]Derrida, in his critique of Husserl, argues that 'indicative signification', which has 'its "origin" in the phenomena of [psychological] association', is always connected to 'empirical existents in the world' and 'covers everything that falls subject to the "reductions": factuality, worldly existence, essential non-necessity, nonevidence, etc.' (Derrida 1967: 30). In Schaeffer, an analogous case can be made for the proscription of *écouter* and *comprendre*.

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the basis for his *Programme de la Recherche Musicale* (PROGREMU). John Dack describes PROGREMU as Schaeffer's 'ultimate ambition … to discover the basic foundations of musical structure and meaning and that this could only be achieved once the sounds were freed from their causal origins' (Dack 2002: 4). In order to attain this end, Schaeffer encouraged musicians, 'to learn a *new solfège*[3] by systematic listening to all sorts of sound objects' (Schaeffer 1967a: 29). Chion describes this new solfège as, '… a kind of becoming aware of the new materials of music while distrusting preconceived ideas and relying first and foremost upon what *one hears* [ce que'*on entend*]' (Chion 1983: 91). Through the selection and appreciation of sonic attributes, it is possible to construct a taxonomy of sounds, capable of organising and classifying not only the typical sounds of instrumental music, but 'the entire sound universe' (Dack 2002: 5). Schaeffer's *Tableau récapitulatif de la typologie* (TARTYP) is an attempt to organise just such a taxonomy (Schaeffer 1966: 459).

5. ESSENCE

It may be helpful to compare Husserl's adumbrated table with Schaeffer's sound object. Recall, Husserl's table example highlighted two central features of intentional objects: (i) that they are grasped as *the same* through a multiplicity of acts of consciousness, and (ii) that they are the correlates of a synthetic act of consciousness. The sound object *shares* these features; it is an '… intentional unity, corresponding to acts of synthesis' (Schaeffer 1966: 263). Similarly, these intentional features become perspicuous after undergoing a progressive set of reductions – in Schaeffer's case, first the acousmatic reduction, then reduced listening.

In the *Cartesian Meditations*, Husserl presents a methodical way of getting at the essence of intentional objects, which he names 'imaginative free variation'.

> Starting from this table-perception as an example, we vary the perceptual object, table, with a completely free optionalness, yet in such a manner that we keep perception fixed as perception of something, no matter what. Perhaps we begin by fictionally changing the shape or colour of the object quite arbitrarily … In other words: Abstaining from acceptance of its being, we change the fact of this perception into a pure possibility, one among other quite "optional" pure possibilities – but possibilities that are possible perceptions. We so to speak, shift the actual perception into the realm of non-actualities, the realm of the as-if. (Husserl 1929: 70)

[3]The Schaefferian term *solfège* is sometimes translated as 'music theory'. However, its connotations are wider than the Anglo-American concept of music theory. *Solfège* includes not only the traditional disciples of harmony, counterpoint, form and analysis, but also a typology of sounds and pedagogy for its usage and extension. To invoke the widest possible connotations of the term, I have decided not to translate it.

A few points are worth noting: first, imaginative variation reveals *invariant* properties of the intentional object. By imagining the table in a variety of changing contexts (changing its shape, colour, structure, etc.) the essence of the phenomenon comes to be grasped and understood. Variation is a technique for revealing *essence*.

Second, by undergoing the reductive test of the *epoché*, by bracketing out all theses dependent upon the external world, imaginatively varied intentional objects are freed from all bonds to the external world. Thus, *the distinction between fiction and reality becomes moot*. In the lectures on the *Idea of Phenomenology*, Husserl explains that when considering essences, 'perception and imagination are to be treated exactly alike', because any 'suppositions about existence are irrelevant' (Husserl 1907: 53–4).

Third, since existential questions are irrelevant, it is no longer possible to argue that intentional objects are merely subjective fictions. For Husserl and Schaeffer, the contents of our mental acts possess a special type of objectivity. Schaeffer writes: 'No longer is it a question of knowing how a subjective hearing interprets or deforms "reality", to study reactions to stimuli; hearing itself becomes the origin of the phenomenon to study' (Schaeffer 1966: 92). Hearing, whether imagined or real, presents us with indubitable evidence or data. Based on such indubitable evidence, intentional objects are both *ideal and objective*, or in Husserl's terminology, 'ideal objectivities'.

In a section of the *Solfège de l'objet sonore* entitled 'The objective reality of the object', Schaeffer relies upon variation to clarify the objective character of the sound object (Schaeffer 1967b: 59–61). By taking a sound, and using electronic means to alter its qualities, Schaeffer pedagogically demonstrates the objectivity of the sound object across its various instantiations. No two instantiations are exactly the same: from an acoustician's point of view, the signal would contain measurable differences in each case; from the phenomenological point of view, each adumbration (or set of adumbrations) differs in aspect from the last. But the point of these 'purely pedagogical manipulations' is clear; Schaeffer writes, 'We must therefore stress emphatically that [a sound] object is something real [i.e. objective], in other words that something in it endures through these changes and enables different listeners (or the same listener several times) to bring out as many aspects of it as there have been ways of focusing the ear, at the various levels of "attention" or "intention" of listening (*d'entendre*)' (*ibid.*: 59).

As Schaeffer is well aware, the objectivity of the sound object could have been demonstrated otherwise than with mechanical means; one could have simply imagined such variations to oneself. Once Schaeffer commits to reduced listening, there can be no essential

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difference between imagined hearing and actual hearing. The 'mode of givenness' may change but the 'central core' remains the same (Husserl 1928: §89–90); in other words, this core, this irreducible remainder that underlies aspectual difference, is simply *this* sound object (the one unifying *this set* of imagined or real adumbrations) grasped as a specific essence.

Many of the techniques developed for producing *concrète* works depend upon variation. The composer subjects pre-recorded sounds to filtration, editing, looping, reverberation, or changes in speed or direction. The results of such processes must be tested again within the sphere of listening, to determine whether these variations present us with 'the same' sound object, or new sound objects entirely. Each variation is an investigation into the objectivity of the sound object. Although Schaeffer clearly incubated his ideas about the sound object from within the *concrète* context, one must not treat his *solfège* as simply a method for learning *musique concrète*. The entire point of his phenomenological project is to identify an object capable of grounding both acoustics and our musical practices (be they concrete or abstract). Schaeffer's 'hybrid discipline' is really an argument for the promotion of a new musical ontology.

6. ONTOLOGY AND TELEOLOGY

Although physics (or any other form of 'realism') takes the acoustic signal as given, for Schaeffer, it is the sound object that underlies the possibility of natural scientific investigations. Nowhere is Schaeffer more explicitly clear on this point than when he writes: 'One forgets that *it is the sound object, given in perception, which designates the signal to be studied*, and that, therefore, it should never be a question of reconstructing it on the basis of the signal' (Schaeffer 1966: 269). This is an orthodox phenomenological strategy: by grounding the acoustician's signal upon the sound object, Schaeffer is providing an ontological foundation to the merely ontical conclusions of acoustical science.[4] Compare this strategy with Heidegger's description of phenomenological reduction from *The Basic Problems of Phenomenology*: '*For us* phenomenological reduction means leading phenomenological vision back from the apprehension of a being, whatever may be the character of that apprehension, to the understanding of the Being of this being' (Heidegger 1927: 21). This ontological understanding ('the Being of beings'), which consistently works against our habitual tendencies to fall back upon banal modes of ontical apprehension, comes with its own rewards. Not only is the hidden foundation of the acoustician's signal revealed as an ontological sound object, ontology also underlies and determines our own subjectivity:

> … I must *free myself from the conditioning* created by my previous habits, by passing through the test of the *epoché*. It is never a question of a return to nature. Nothing is more *natural* than obeying the dictates of habit. [Rather,] It is a question of an *anti-natural* effort *to perceive what previously determined my consciousness without my knowing it*. (Schaeffer 1966: 270)

The process of phenomenological reduction lends to the sound object a strange trajectory: methodologically, one discloses the sound object only at the end of the investigation, after a series of reductions; but ontologically, the sound object is absolutely first, *a priori*. The priority of the sound object is clearly present when Schaeffer writes, 'I must re-visit the auditory experience, to re-grasp my impressions, to re-discover through them information about the sound object …' (*ibid.*). Due to the danger of continually losing the sound object to banal habit, one must constantly become re-acquainted with it. But one can only be *re*-acquainted with something to which one was already familiar. Perhaps the strangeness of this trajectory becomes less mysterious, less portentous, when we realise that this trajectory is simply teleological.

7. A CRITIQUE OF THE SOUND OBJECT

7.1. Ontology at the expense of the ontic

To paraphrase Schaeffer, only through incessant re-visiting, re-grasping and re-discovering is the sound object revealed as the 'originary experience' of phenomenological investigation (Schaeffer 1966: 270). In the phenomenological literature, an 'originary experience' designates something quite specific; namely, it marks the discovery of some intentional region or field of inquiry (such as geometry, logic, technology, etc.), and thus is the founding act which discloses a horizon within which all future investigations of that region are contained. Through re-activation, an originary experience is available to all inquirers at all times. It is an inquiry into the propagation of essences, into the sense and structure that make some region of experience possible, not into the factual circumstances or engagements of particular historical individuals or modes of apprehension. To explicate this concept, it is fruitful to

[4]The ontic/ontological distinction is often used in phenomenology and existential philosophy, and is highly developed in Heidegger's work (see Heidegger 1926). Although both words derive from the Greek word ντος ('being'), they clearly refer to distinct realms. 'Ontic' describes particular, existing entities or beings, and the specific facts that are associated with them, as opposed to the nature or essence that such entities may possess. 'Ontological' describes the study or theory of entities or beings, focusing upon their nature or essence. Thus, Heidegger argues that the ontic is subordinate to the ontological, in the sense that ontology studies and defines the essential, *a priori* necessary conditions to which ontical entities must conform (*ibid.*: 32–5). Heidegger often reserves the term 'being' (with a lower case 'b') to refer to the ontical aspects of some entity, while using the term 'Being' (with a capital 'B') or the phrase 'the Being of beings' to refer to its ontological aspects.

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compare Schaeffer's sound object with Husserl's description of geometrical essence from the *Origin of Geometry* (1932):

> The question of the origin of geometry shall not be considered here as the philological-historical question, i.e. the search for the first geometers who actually uttered pure geometrical propositions, proofs, theories … or the like. Rather, our interest shall be the inquiry back into the most original sense in which geometry once arose, was present as the tradition of millennia, is still present for us, and is still being worked on in a lively forward development. (Husserl 1932: 354)

This 'regressive inquiry' or *Rückfrage* (*ibid.*) avoids anything that could be called historical. The question of origins replaces the question of beginnings. Although Schaeffer approaches the sound object initially by means of the current state of mechanical reproduction, the acousmatic is hardly a new phenomenon (see Section 7.2). Hearkening back to the time of Pythagoras, and echoing Husserl's own fixation on the origins of geometry, the acousmatic experience is less a historical phenomenon than the re-discovery of an originary experience first disclosed in ancient Greece and re-activated by the technology of sound reproduction. The radio transmits teleology.

An analogy can be drawn between the geometer and the electronic musician:

> The geometer who draws his figures on the blackboard produces in so doing strokes that are actually there on a board that is actually there. But his experience of what he thus produces, qua experience, affords just as little ground to his seeing and thinking of geometrical essences as does the physical act of production itself. Whether or not he thereby hallucinates, and whether instead of actually drawing lines he draws lines and figures in a world of phantasy, does not really matter. (Husserl 1928: 55)

The same could be said of the sound object. Whether a sound is locked in a groove, looped on a tape, or hallucinated in phantasy, the contingent and constantly varied experience of sound cannot provide a foundation for its qualitative, indicative or communicative aspects. The geometrical drawing, with all of its crooked lines, is like the acoustician's signal – empirical, inessential, and contingent. As a vehicle to arrive at the sound object, *the empirical phenomenon 'does not really matter'*.

However, in the drive to locate a secure grounding for aural experience, *experience itself falls away*: '… [The] *pure sciences of essential being* … are free throughout from any positings of actual fact; or, what comes to the same thing, *in them no experience qua experience*, i.e., *qua* consciousness that apprehends or sets up reality or concrete being, *can take over the function of supplying a logical ground*. Where experience functions in them, it is not as experience' (Husserl 1928: 55). Experience remains curiously ungrounded in phenomenology's eyes and must be supplemented after the fact with an ideal objectivity. Through a sleight-of-hand, phenomenology covertly places its ontology prior to experience, and then subsequently 'discloses' the ontological horizon *as if* it were always already present – as if *its* ontology made experience possible in the first place.

In the Husserl passage just cited, this is made explicitly clear; the 'pure sciences of essential being', if they want to remain free of the vulgar contingency of history, causality, or culture, *must* remain free of the 'positings of actual fact'. Such vulgar positings (i.e. history, biography, culture, facticity, contingency, chance, etc.) might sully the immaculate purity of philosophy as a rigorous science. In Husserl's privileged domain of geometry the ethical imperative to avoid contingency at all costs is clearly demonstrated where the 'originary experience' of geometry cunningly displaces any kind of material-historical investigation into its beginnings. The phenomenological necessity to end-run contingency, to remove the historical from history, is a self-imposed blind spot. It is an act of hard-headed idealism.

7.2. Objections

Similar traces of idealism lead to two main objections against Schaeffer's sound object:

(1) By relying on the sound object to lend an ontological grounding to musical experience, Schaeffer perpetuates an ahistorical view about the nature of musical material. Theodor Adorno argued in the late 1920s, 'the cognitive character of art is defined through its historical actuality' (Adorno and Krenek 1974: 12; quoted in Paddison 1993: 83).[5] In other words, it cannot be defined outside of the context of its own historical becoming; rather, the compositional act is engaged, from the very beginning, in a dialectic with history, *in the form of* sonic material. 'It is the material which provides the stage for progress in art, not individual works. And this material is not like the twelve semitones with their physically patterned overtone relationships, interchangeable and identical for all time. On the contrary, history is sedimented in the figurations in which the composer encounters the material; the composer never encounters the material separate from such figurations' (*ibid.*: 174–5, quoted in Paddison 1993: 88). The equivocal term 'figuration' is intended to capture this dialectic of material and history: sounds and notes do not simply constitute an eidetic realm, but rather are simply a sedimentation of historical and social forces.

[5]In addition to Adorno, the historical concept of musical material is discussed in Duchez (1991) and Solomos (1998).

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But such figurations are precisely the rejects of reduced listening. The indicative and communicative sign are cast aside as inessential to Schaeffer's new 'hybrid discipline'. In order to have an existence in the domain of the musical work, indicative and communicative signs must be reconstructed on the basis of the sound object. This style of reconstruction is hardly value-neutral. Schaeffer's proscription of the anecdotal in *musique concrète* is a matter of common knowledge. In fact, it reveals a bias that is manifest in the phenomenological method itself, despite its claims to be merely a descriptive science. As Adorno once wrote: 'The form of phenomenological description borrowed from the sciences, which is supposed to add nothing to thought, changes it in itself' (Adorno 1956: 49). This change is made in the name of securing an *a priori* ontological foundation, but the supposed benefits of such a foundation are attained at the expense of historically sedimented 'residual signification'. Schaeffer, unwilling to see his own composing and theorising as historically conditioned, deludes himself into describing a musical material which necessarily stands outside history. What Adorno writes about Husserl also holds of any foundational musical ontology: '… Ostensible original concepts … are totally and necessarily mediated in themselves – to use the accepted scientific term – "laden with presuppositions"' (*ibid.*: 6).

(2) Schaeffer maintains an essentialist position on the nature of technology. Rather than re-think the acousmatic reduction in its specific relationship to modern technology, Schaeffer conceives of it the re-activation of a telos, as an originary experience that is presupposed and retained by our practices, yet always available to be re-experienced in its fullness: '… the acousmatic situation, in a general fashion, symbolically precludes any relation with what is visible, touchable, measurable. Moreover, between the experience of Pythagoras and our experiences of radio and recordings, the differences separating direct listening (through a curtain) and indirect listening (through a speaker) *in the end become negligible*' (Schaeffer 1966: 93). Instead of capitalising on this difference, and distinguishing the manner in which new forms of technology produce *historically unique affordances*, Schaeffer conjures technology into an archetype, disclosing an eidetic world that is always already present – thus, essentially ahistorical.

Carlos Palombini (1997) has convincingly argued for the explicit connection between Heidegger's and Schaeffer's views on technology. In particular, both Heidegger and Schaeffer conceive of the technological domain as distinct from its cultural and social manifestations. 'Technology is not equivalent to the essence of technology' (Heidegger 1955: 4). This is no anodyne claim; the sentence assumes a split between the factual and the essential. Instead of negotiating with technology in its ontical manifestations, it must be reconceived as an ontological perspective, a new form of understanding. 'Technology is therefore no mere means. Technology is a way of revealing' (Heidegger 1955: 12).

Schaeffer would agree. The empirical consequences of specific forms of technology (such as variable-speed tape recorders or analogue filters) may have afforded the conditions for developing *musique concrète*, but Schaeffer views technology as something far greater than the sum of such empirical consequences. Transcending the mere extension of the senses, technology simply discloses a 'way of revealing'. Schaeffer writes:

> The age of mechanism, denounced wrongly by Pharisees of spiritualism, is the age of the most inordinate human sensibility. It is not solely a question of machines for making, but of machines for feeling which give to modern man tireless touch, ears and eyes, machines that he can expect to give to him to see, to hear, to touch what his eyes could never have shown him, his ears could never have made him hear, to touch what his hands could never have let him touch. As this enormous puzzle, which knowledge of the exterior world is, composes itself, strengthens itself, verifies itself and finally 'sets' into shape, man recognises himself in it: he finds in it the reflection of his own chemistry, his own mechanisms. (Schaeffer 1970: 92)

But what is ultimately revealed? The celebration of new possibilities for feeling and sensation is superseded by man's recognition of himself, where 'man' is characterised wholly abstractly. This is no account of historically specific persons involved in creative and critical engagements with the technological means at hand; rather, Schaeffer presents a picture of ahistorical, existential man discovering himself within a teleological horizon. What modern technology reveals for Schaeffer, aside from uncritically optimistic potential, is little more than an abstract glimpse into an ancient 'originary experience'.

8. CODA

'Myth deprives the object of which it speaks of all history' (Barthes 1957: 151). Despite the desire to create a 'hybrid discipline' capable of grounding both acoustics and musical practice, the phenomenological aspects of Schaeffer's work transform this project into a mythical thinking, where history is wholly absent. If new music demands new forms of listening, and demands a critical discourse capable of defending its merits in the face of overwhelming misunderstanding, stupefaction or, even worse, utter indifference, this critical discourse must resist the reliance upon ahistorical ontologies as a form of reassurance. When the distance between our technological apparatus and the veil of Pythagoras becomes negligible, sadly, we

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are in the presence of ideology. As Marx wrote, '… we must pay attention to this history, since ideology boils down to either an erroneous conception of this history, *or a complete abstraction from it*' (quoted in *ibid.*). If we continue to find the term 'sound object' efficacious, let us not be ignorant of the historical distance which distinguishes Schaeffer's usage from our own.

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