

On Phonosophy

KEN FIELDS

Media Arts and Technology, University of California Santa Barbara Email: kenfields@ucsb.edu

With phonosophy, we are investigating a platform to disembark from the vehicle of the long-travelled logos. The once organic and flowing aspects of Logos (Heraclitus) have all but succumbed to the current scientific, materialistic, mechanistic, quantitative and spatially centric epistemology of the last century – one or all of which perspectives define most of the serious theoretical and critical approaches to organised sound, sound art, music concrète, acousmatic and electroacoustic music in our time. Phonosophy will address that which goes beyond or parallel to the logos, or the logocentric. Adrienne Janus's discussion of Jean-Luc Nancy's Listening and the sonic turn looks for conditions of an epistemology based on 'listening as a mode of attending' to the resonances of sense, 'where sense touches upon and resonates with all registers of sensual perception as well as intellectual perception ... insofar as they resonate'. Suzanne Guerlac points to Bergson's theory of real duration (durée réelle) that is the vital energy of animate experience and consciousness as opposed to the entropic energy (thermodynamic) of physics. Together these two overlapping discussions consist of the method (listening/sensing) and field (resonance/duration) of the phonosophic investigation.

1. INTRODUCTION

Zeus, preeminent among the gods ... is known in Homer as 'metiena,' allwise ... after marrying Metis – 'a mate wiser than all gods and mortal men' – swallows her, thus incorporating her wisdom into himself, 'that she might advise him in matters good and bad'. (Johnstone 2009: 30)

In the ripples and eddies originating from the beating of the two wings of the Presocratic butterfly in approximately 600 BC, wonderful things have happened with *philo* and *sophia* (love and wisdom). In proposing a neologism such as Phonosophy (sonic wisdom), it is not to tease the entire community of logos-ticians. In fact, part of the success of philosophy in the first place was due to the proposing and creative manipulation of new technical terms and linguistic forms afforded by the conceptual void following an age of mythopoetic narrative (Homeric) which had explained the world in terms of powerful gods and revelatory rituals, but that no longer rang true in the early age of the blooming of human reason.

The most significant paradigm shifts cannot be marked by hard dates, as such they require slow evolutionary processes (hundreds of years). The age of philosophy, commencing in the years from Thales to Plato, began

to explore natural explanations governing a universe that was previously ordered by the gods – the mythopoetic age (lasting thousands of years) as accounted for in the Homerian epics. The age of modern science, starting in the years from Copernicus to Einstein, was marked by the attention to experimentation and observation, and another (this time final) proclamation of the death of God (Nietzsche's). Both epochal fractures follow the schema of an invigorating emancipatory spirit after the fall of what comes to be perceived as a conservative and unproductive framework: in the first case, mythology is replaced by philosophy, and in the second, philosophy is replaced by science. The laws of music as embedded in these historic pivots (for that is how, as Thomas Kuhn (1962) explicates, paradigms generally function) follow this same schema, down the long arc of the Pythagorean tradition (natural harmonic ratios), leading to their gradual entropy and final breakup at the beginning of the twentieth century - embracing theories of sonic probability and complexity in the mimicking of modern physics. Nevertheless, twenty-five hundred years after its emergence, the Logos continues to flourish and produce, though the authority of philosophy has given way to a more positivistic aspect of itself – science, while similarly the Pythagorean music of the spheres has given way to the Varesean music of organised sound.

As a consequence of following this most general perspective of the evolutionary tides of Logos and reason over the past 3,000 years (like the *Ursatz* of an abstract deep structural Shenkerian analysis), we arrive at the unfortunate observation of the steady locking-in, or long march towards (artificial) intellectual mechanisation and the slow extinguishing of sense. The ancients may not have had access to such concepts as the subject or consciousness per se beyond aesthesis, but they did not doubt their existence. It is only now, post the Descartean cogito, with the possibility of the mass extinction of species of sense, that we might really come to not exist. If a phonosophical method should emerge in the apprehension of a sense of professional urgency in the electroacoustic music community towards the human situation, it would be to explore a counter-motion

¹Aristotle's conception of the 'common sense' 'had accomplished in medieval psychology a function close to that of "Cartesian thought"'. The Cartesian stance was that sensation should be understood as a 'modus cogitandi' (Heller-Roazen 2007: 165–6).

Organised Sound 25(3): 274–281 © The Author(s) 2020. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

doi:10.1017/S1355771820000229

in the arts that works towards recovery (or discovery) of a vital, sonic sentience.²

2. THE LOGOS

It is not in the scope of my expertise to convey the significance of one of the greatest cultural transformations in human history, but one can only wonder at the steady and awesome spread of natural philosophy and rationality amidst traditional cultures imbued with gods and myths. Starting around the eastern Mediterranean around the sixth century BCE, in the furthest outposts of a budding Greek civilisation (butting up against still more ancient cultures), there saw the rise of a completely new spirit of thought emerging around the sages Thales, Anaximander and Heraclitus, which continued to spread west to southern Italy through the teachings of men such as Pythagoras, Parmenides, Zeno and others. This moment is now known as the Presocratic school and was characterised by the search for naturalistic explanations and predictability rather than being at the mercy of a household filled with erratic gods chronicled in the ages of mythopoetic memorial epic. The success of philosophy was due in part to the inventions of writing, linguistics and new technical terminology that could exercise itself and compete in the public forum. The cultural change was not total, but saw a coexistence of Mythos and Logos, theogony and cosmology, in fact even as carried forth through the Middle Ages (and to present) in the rise of Christianity. Divinity migrated down to earth at that time, as did the gaze of wisdom shift from heaven to earth.

The tide of philosophy was perhaps the mother of all paradigm shifts that completely upended the theisticbased universe as conceived for thousands of years before in mythopoetic narrative. The Presocratics set the stage for the next two millennia of rational speculation. It seems there was a moment of early open inquiry and innovation into an unconflicted and contiguous coexistence of mind and nature, men newly freed from the constant overgaze of the gods and tradition. The divine became imminent then in the world, and philosophers were the new navigators and heroes. Was this Sophia's finest hour? Moving forward, the Logos was both more and less sacredised as its abstract pure realm emerged as a new rarified Olympus in the permanence of Platonic ideational forms. The music of the spheres was not only an aspect of this knowledge, it was the model. It was rational, empirical and based on fundamental ratios reflecting the voice of nature, the very meaning of the Logos.

²Such self-critical reflective attitudes towards one's own field of practice can be found in Holmes's *Problems of Philosophy*, discussed later, while a much broader contravention can be seen emerging in scholarship found in ecocritical and indigenous studies (see Monani and Adamson 2016).

'Anaximander called it "unbounded nature." Heraclitus called it Logos' (Johnstone 2009: 55). The Logos was the master plan, the ordering or unfolding principle of the cosmos. The Logos was harmonic, proportional, balanced and ultimately unified. To grasp the nature of the Logos was to be wise. In its ordinary usage, however, it held the sense of calculation, measure, account, word, or representation. For the account to be correlated to the cosmos, there had to be a connection between the nature of things and the nature of language. Does the world speak? Heraclitus could listen to the Logos, and became wise. He said that all things flow, and you cannot step into the same river twice. He was also known for the art of ambiguity, recognising that in words (logos) can be derived multiple levels, inflections and meanings - like the river. From Heraclitus we get a correspondence between things/ reality and language/logos, but not in the sense of words representing/mirroring reality, rather that there is no need for the dichotomy – 'speech (logos) is a manifestation of reality (the Logos)' (ibid.: 59). The term Logos is a symbol for that which wisdom apprehends. Wisdom was originally considered the highest and most perfect form of knowledge, but in the age of Homer and Hesiod, only the gods possessed such knowledge; Man was wise only in proportion to his prescience into divine matters (through the muses or trance). The philosophic movement was a democratisation of wisdom where individuals could directly cultivate knowledge through experience in life and art, divorced of ritual and the old priesthood.

The language of the Pythagoreans was number; there was a movement towards ever greater abstraction in cosmological speculation. But 'number is real... and all things are numbers' (ibid.: 62). All nature was quantitative and yet one-ness and two-ness were real qualities. The aspect of Logos that is proportional, harmonic and rational was essential (ousia) in Pythagorean speculation. The tetractys, the first four natural numbers, in their combinations and ratios revealed the music of the spheres, the mechanics of all nature. Temples were built in proportion to these harmonic relationships, making the hidden virtual world manifest. The proto-scientific exploration of vibration provided empirical evidence of an ideal nature and medicine for sonic healing. However, there was a 'split between those who took Pythagorean knowledge literally and ritualistically (the akousmatikoi, who were dealing with the mere fact), and those who interpreted it from a rational viewpoint (the mathematikoi, who were concerned with the reason for the fact)' (Renger and Stavru 2016: 3). In the Pythagorean community, philosophy was a way of life, where

especially the so-called akousmatikoi, advocated a lifestyle different from the current norms, held their own beliefs concerning the post-mortem fate of the soul, and were involved in public affairs. Moreover, several Pythagoreans, who are commonly referred to as the mathematikoi, contributed to various sciences, including mathematics, astronomy and music. These [were the] two different facets of Pythagoreanism, the religious and mystical and the scientific and rational. (Ibid.: 249)

In the Parmenidian phase of the Presocratic age, the one-ness of the logos, the sound-ness of number where there was no dichotomy between thing and thought, reality/being (einai) - starts to lean more favourably towards the inevitable period of permanent Platonic forms that populate the intelligible realm. The method for this kind of philosophical inquiry is focused on the self-referential processes of language and number alone – the logic of logos. The observation of sense was ephemeral/transitory. In the period of fifth and fourth century BCE, 'the practice of following the logical implications of the terms used to characterise a thing emerged as a principle feature of Greek philosophy' (Johnstone 2009: 69). If it can logically exist, it can be explored in the virtual realm of idea and language.

There was dissent in Parmenides's time. Empedocles saw in this 'radical epistemological' change a narrowing of possibilities: 'Observe with all your powers, how each thing is clear, neither holding sight in greater trust compared with hearing ... nor withhold trust from any of the other limbs, by whatever way there is a channel to understanding, but grasp each thing in the way in which it is clear' (ibid.: 69). The goal of this article is to fit the sonic into this song; do our sonic constructions strive to apprehend Logos or does Logos have a twin sister in Phonos?

3. HYPER-LOGOS

In a similar dynamic of intellectual upheaval, a second though accelerated wave of flourishing in the realm of ideas and methods took root (reading, writing, harmony, human dignity, politics), new disciplinary branches sprouted, and with the sun of the new enlightenment bearing down, the old world ceded into the background. This time, however, free of (again) theological constraints and in the service of new regimes of societal organisation (political/economic), the exponentially inflationary dynamic of Logos crossed a qualitative threshold – from an organic tempered/rhythmic Logos to a pitched/ machinic one – behaving then like an infinite generative system and acting upon the world like an invasive species. Organised Sound readers might analogise this as similar to the Stockhausian (1959) discernment of the equivalence of duration and pitch. What is lost in the higher order equivalence? The more creative/process ontological approaches such as found in the works of Bergson and Whitehead who thought more in terms of a dynamic being were subsumed, creating a fork in the road at the turn of the twentieth century between positivistic science and philosophy. The loss was metaphysics.

In the wave of philosophy-cum-science, at the turn of twentieth century, analytical philosophy led by Bertrand Russell, seeing the functionalist writing on the wall, rendered any kind of speculative metaphysic suspect, favouring a turn to a rigorous analysis of language and symbolic logic – not wanting to be seen as soft by their now big brother, the physical sciences. 'Symbolic logic and language analysis broke ancient barriers. In doing so they became absorbingly exciting for their own sake, and the resulting philosophic discourse inaccessible to every man' (Holmes 1962: 295). Musicians of the twentieth century felt the same sense of liberation (of sounds) in breaching the ancient Pythagorean tradition of harmony and ratio, while a century of the continuous influx of new techniques (recording and synthesis), theories (cybernetics and complexity) and technologies (telephony and computers) also became 'absorbingly exciting for their own sake'.

The tension between philosophy and science in the last century was aptly described in Canales's (2005) account of the Bergson-Einstein debates regarding not only an account of time and simultaneity, but also the ultimate status or authority of modern science and philosophy – rationality and intuition. Bergson the philosopher-scientist embraced with openness both science and metaphysics, while the same could not be said of the so-called scientist-philosopher: 'Einstein disagreed. He fought against giving philosophy (and by inference Bergson) any role in matters of time. His objections were based on his views about the role of philosophy in society' (Canales 2005: 1170). For the followers of Bergson: 'This small group resigned themselves to being categorised by Einstein's defenders as retrograde, irrational, and ignorant' (ibid.: 1169). Among Bergson's critiques of such rationalist fundamentalism:

the human intellect feels at home among inanimate objects, more especially among solids, where our action finds its fulcrum and our industry its tools; that our concepts have been formed on the model of solids; that our logic is, pre-eminently, the logic of solids; that, consequently, our intellect triumphs in geometry, wherein is revealed the kinship of logical thought with unorganized matter. (Bergson 1920: ix)

Varése embraced a Bergsonian commitment to the view of complementarity between that of physics and philosophy:

When I was twenty I came across a definition of music that seemed suddenly to throw light on my groping toward the music I sensed could exist: 'the corporealization of the intelligence that is in sounds' [quote from Józef Maria Hoene-Wroński, the Polish physicist, chemist, musicologist and philosopher of the first half of the nineteenth century]. It was new and exciting and to me, the

first perfectly intelligible conception of music. It was probably what first started me thinking of music as spatial – as moving bodies of sound in space. (Varése quoted in Perlis and Van Cleve 2005: 103).

Most striking in the above, as pointed out in Anderson, is that the idea of 'the corporealisation of the intelligence that is in sounds' is not the same idea as that of the 'corporealisation of intelligence in sounds'. Not the embodiment of human intelligence in sounds, but Varése's meaning was that sound possessed 'an inherent intelligence, and perhaps a will, independent of human transformation or perception' – as in 'bodies of intelligent sounds moving freely in space' (Anderson 1991: 33). As Wenchung Chou – Varése's student, copyist and friend – relates, 'Sound as living matter' and 'musical space as open rather than bounded' are the central ideas of Varése's philosophy' (Chou 1966: 1). Varése sees in sound an ontological relative of Bergson's élan vital.

4. THE ALT-REALISM OF DURATION

Bergson makes a radical distinction between the world of the inert and living: matter and extension being of the domain of the inanimate; experience/aesthesis being of the domain of the animate and living energies (élan vital) – leaving aside the issue of dualism or entanglement for a future discussion. Let us also mark here the distinct fluxes of Bergson's energetic vital flux and C. Cox's (2018) sonic flux, the latter trend (of sonic materialism) seemingly satisfied in containing the flux within the materialistic. The laws of matter and space are symmetrical, reversible; the laws of time are not. Time, as a scientific conception, is not the same thing as 'real duration' for Bergson:

If, for living beings, duration in time acts as a cause, then time is a form of energy! This is the radical novelty of Bergson's thought. Time is a form of energy that does not obey the principle of conservation. (Guerlac 2006: 78)

Bergson's time is not a measurable or quantifiable time, but a qualitative time; it is not the universal/global time we put on a timeline, but a local/experiential continuous one. So while sound waves are undeniably of the material kind, they can also be conceived signaletically, as emanating outward from a narrow point in the flux continua, insinuating a more subtle realm of resonance while straining towards the threshold of apperception. In other words, beyond the sonic flux that sound waves inhabit in time lies the vital/experiential flux of wave nature in resonance with intuitive sense. The phonosopher gathers energy each day towards the dwelling in this moment of pure sonorous speculation; and so it will always remain – a continuous matter for phonosophical speculation.

In Creative Evolution, Bergson (1920) seeks to define a methodology for his philosophy, a project that he assigns to the collective past and progressive future effort of many thinkers. Such a method, however, has to be true to the aim of a creative evolving philosophy. hence terms such as 'identity', 'systematic' and 'methodic' themselves have to be thought of in a processual not in a structural manner. This effort might be characterised not as rigorous per se, but rather as virtuous.³ We need to go back to Aristotle's De Anima for the source of the discussion of how the 'when is not accidental', how an undivided time (duration) is a key element in the present/now of aesthesis (Heller-Roazen 2007: 51). The Aristotelian sense of sense (common sense) emerges again in the twentieth century in Bergson's intuition and in Nancy's Listening.

The intuitive faculty is a non-rational/irrational (irrational in a positive sense), imageless and liminal experience. Bergson develops his intuitive method, which acts in accord with the intellect, or rational faculty - not alone. 'Intuition will only be transmitted by reason/intellect. In order to spread, to be transmitted, intuition and ideas will have to overlap' (Bergson in Jancsary 2019: 76). Whitehead, who was known for his work in both science and philosophy, comes to the same insight when he notes that: 'One aspect of the adventure of ideas is this story of the interplay of speculation and scholarship ... New directions of thought arise from flashes of intuition bringing new material within the scope of scholarly learning' (Whitehead 1939: 138). For the musician or phonosopher with a developed sense for the sonic and resonant especially, intuition works in accordance with a sensual/processual awareness as particularly apropos of his medium. Intuition allows a glimpse into the 'irrational potential of human beings, their creativity and their spontaneity' (Jancsary 2019.: 68). Intuition is peripheral perception, an integrative sense of the whole sensorium – including intellectual discernment.

5. THE SONIC TURN

The sonic turn is an alerting to the fundamental visual, textual (Kim-Cohen 2009) and conceptual biases that are deeply embedded in Western thought. Sarah Hickmott states the problem of theorising in the realm of the sonic: 'despite the "unspeakable wealth" that music has afforded philosophical thought, the very attempt to theorise the audible is centred around a conflict; the inherent visual bias of theory (theoria,

³I am not referring to the common meaning of 'virtuous' here, but rather the most profound aspect of Bergson's philosophy of the virtual. Here, rigorous applies to matter, differentiation, objectivity, the actual, the spatial; virtuous (virtuality) applies to continuity, heterogeneity, subjectivity and the temporal. Thus, I am not downplaying a methodology of the virtuous.

from thea, "a view", and horao, "I look, see") leaves the (im)possibility of theorising music, or sound, in perpetual debate' (Hickmott 2015: 481). Adrienne Janus provides an account of the anti-ocular turn in her article on Nancy, 'the question does not involve listening to the "call of Being," [ontological] but listening to the resonance of sense' (Janus 2011: 183). She extends the discussion further to thinkers such as Jacques Attali, Didier Anzieu and Peter Sloterdijk, 'who attempt to engage with another mode of thinking or being through attendance to the "sense" of listening' (ibid.: 184). Kane also covers several twists and turns in contemporary sound studies, discussing linguistic, vibrational and material turns as summarily, ontological turns that he critiques as still being essentially representational or 'ontographical' in character - more focused on the map rather than the territory – in that their primary project is to show the 'ontological commitments and beliefs of particular subjects or communities' (Kane 2015: 2). Granted, the myriad of turns and terms of the last century creates a vortex of differencing that make it quite difficult to navigate anywhere in particular, creating a dizzying spectacle.

The sonic turn opens the door to phonosophy. As we drive down that road we notice that the signage (terminology) shifts from an emphasis on the epistemological to the acoustemological accounts found in such philosophers as Jean-Luc Nancy: 'The sonorous . . . outweighs form' (Nancy 2007: 2). The root of phono lies in a constellation related to voice (articulated sound), while that of *oto* relates to reflexive listening. The eye, unlike the ear, has no voice. Thence, the acoustemological propagates through the linguistic matrix (phonarchy, otocracy, otonomic, etc.). The Aristotelian concept of psophos (inarticulate sound, noise) is interesting in that psophos is wisdom prefaced by a 'p' (signifying the unmanifest). Such terminology is explored in a discussion of Johann Gottfried Herder's (1744-1803) contributions to language development by authors such as Jurgen Trabant (2004). Nancy excavates the verb, to listen (écouter): 'hearing, the ear, auris [Latin], a word that gives the first part of the verb auscultare . . . to listen attentively' (Nancy 2007: 5). The Proto-Indo European (PIE) root for aus is ancestor to aurora, east, dawn the Hebrew word for light (aur/אור) not being far off. The PIE au forms the roots for 'audible' and the Greek word to feel, aisthanesthailaesthetics (American Heritage Dictionary nd). The ancient linguistic roots of light and sound reveal a keen intuitive sense of a resonant/vibratory world. To Know (PIE: Gno), as evidenced in the most primitive tongue, is tied to sense and perception.

The sonic turn opens the Pandora's box of sense. This is developed most intensely in Nancy's work *Listening*. There are several familiar accounts of

modes of listening in the field.⁴ In Nancy, however, the attitude of listening goes well beyond the sonic – all the senses come into play, while touching and modulating each other. This is projected outward into the playground of the senses, in the heterogeneity of today's art forms (especially in the digital realm), where the visual, sonic and conceptual collide more often than not. We might call this kind of listening a pan-sensual auscultation or, in Nancy's formulation, an intelligible sense (Nancy 1996: 27). Aristotle called this 'common sense' and later attempts were made to organise this into 'the source of all of the external senses, as a fountain gives rise to various streams' (Heller-Roazen in Keeley 2012: 109). Between this ancient sense that we are sensing and the modern thought that we are thinking, is implied an 'unstated verb' (Heller-Roazen 2007: 298) as the experience of a higher resonant faculty. One could call this sentigence (sentience+intelligence).

In light of the previous, we must assume that the Pythagorean sects of the acousmatikoi and the mathematikoi refer not merely to circumstances of veiled presentations, but also to a much deeper approach to, difference between and synthesis of the two methods of gathering wisdom: sensing and thinking. At the moment and place of the generation of philosophy, the formation of the character of Sophos was transformed in its encounter with Logos – in both a psychological and a historical sense – but in a manner whereby vital sense (aesthanesthai) still contained thought (noein). This juxtaposition changes with and defines modernity. Yet, it seems that the field of electroacoustic music is alone in still holding so essential this ideal of the acousmatikoi – and should bear it forward.

6. PHONOSOPHY

As resonant as the art of Russolian noise was in the twentieth century, we can later see how the clash and crossover that occurred as a result of the noise of art (Harvey 2013) was more broadly consequential. The methods and assumptions of the arts became wonderfully confused: textual approaches to art, visual approaches to sound, sonic approaches in philosophy. Deleuze and Guattari embraced this multiplicity and heterogeneity. Artistic production in the Deleuzian sense is framed in terms of presentation rather than representation: 'The work of art is a being of sensation and nothing else: it exists in itself' (Deleuze and Guattari 1994: 164).

⁴Schaeffer's *ouïr*, *comprendre*, *entendre* and *écouter* in Kane (2012); Chion's (2012), Barthes's (1985), Truax's ([1984] 2001) and Oliveros's deep listening (2005); Schroeder's (2013) network listening; and Tuuri's (Tuuri and Eerola 2012) revised taxonomy for modes of listening.

Phonosophy does not presume to define a new area of thought, just a new way to turn the head (peripheral perception) in identifying this thread in previous and in future discourse/works. Jonathan Harvey points to the long line of 'Pythagoras and his followers to Plato, Boethius, the Corpus Hermeticum, the Camerati, Vincenzo Galilei, Ficino, Fludd, Kircher, Kepler, Newton, and Freemasonry. The writings of Hindemith, Schoenberg, and Stockhausen are not far removed from it either' (Harvey 1999: xiv). Harvey also extends his aspirations 'to a future in which the deepest level of personality known to human beings, the radiant, still points beyond words, and is encouraged by music to become manifest' (ibid.: xvi). And he also recognises that 'the subtle dialectic of discourse and spirit, where one leads into and is unified with the other, is the gift of intelligent and sensitive listening' (ibid.: 36). The phonosophic is not a severing with Pythagorean acoustics and mathematics. Material and entropic energy are not transcended in phonosophy, but enhanced by a complementary speculation into negentropic duration and memory in following Bergson.

It is the purview of phonosophy then to investigate Bergsonian duration in a sonorous way, that does not depend on the language of Logos – but may resonate with it – as language can dampen the frequencies of observation in the sense to linguistic conversion. It will explore through the Nancian domain of meta-linguistic perception (listening) and Bergsonian sympathetic resonance (intuition). Sympathy implies entering into the interior of the thing/other, in our case, not stopping at the gate of the phenomenological object (sonore):

If there exists a means of possessing a reality absolutely, instead of knowing relatively ... of grasping it over and above all expression, translation or symbolical representation, metaphysics is that very means. Metaphysics is therefore the science which claims to dispense with symbols. (Bergson 1946: 136)

The experience of real duration and intuitive/sympathetic sense are the pillars of phonosophy.

Nancy's *Listening* is addressed to all the senses and arts, but is particularly accessible in the realm of sound: 'listening—the opening stretched towards the register of the sonorous, then to its musical amplification and composition—can and must appear to us not as a metaphor for access to self, but as the reality of this access' (Nancy 2007: 12). It is the resonant self that, in a sense, we are listening for; an *opening* self. Opening to a Bergsonian time:

That is why it is first of all presence in the sense of a present that is not a being ... but rather a coming and a passing, an extending and a penetrating ... Its present is thus not the instant of philosophico-scientific time either, the point of no dimension, the strict negativity

in which that mathematical time has always consisted. But sonorous time takes place immediately according to a completely different dimension, which is not that of simple succession. (Ibid.: 13)

Sense is an intimation, a flash of intuition at the periphery of perception, like the blinking of a faint star that cannot be seen by staring (reduced listening). The exploration of sense is a possible agenda for electronic/ technically saturated music, overcome with measurement, verification and utility, but with a tendency to both a honed sense and a vocabulary in the realm of resonance or as attuned to the phonoshere. The development of wisdom in phonos can only evolve within an intimate, circulating practice of listening and resounding. Phononomics/otonomics are operational activities, dedicated to the listening and voicing processes that work together in composition, in the sounding of sound, or making sonic documents in sessions that transform the psophic (unarticulate/ noise) into the phonic (voiced). In phonosophy, we straddle material vibratory sound and temporal intuitive sense towards a deeper practice of knowing/ sensing. The ecstatic is located at this very pivot of an oscillatory movement, the zero-point between the alternating nodes of sound and sentigence.

There may be, as Rahn affirms,

No logos in mousike ... The experience of music affords a person the chance to think without language, without snipping the experience into discrete 'segments' wrapped up into 'signifiers', and free of the consequent machinery of negation, polar oppositions such as subject/object, and the whole permutational heap of linguistic gravel whose constant grinding can be music to nobody's ears. (Rahn 1993: 66)

Phonosophy does not dissolve form/meaning all together, but can enlarge upon and provide amplitude, density and vibration. Phonosophy and articulative philosophy must remain necessary partners in this study.

7. CONCLUSION

It would be convenient to have a term to refer to the active agency in aesthesis that pulls and fuses sense together, such as 'sentigence' – in the way that Logos exercises intelligence. It is this creative act that perceives Bergsonian duration in a positive circulation of irrational sense. It is the heterogeneous sensorium attuned to the sensible (but to our purpose, a prioritising of the sonorous) that is the field in which this creative capacity plays out. The ear and its associated memory (mind's ear) conceives in the realm of auditory imagination and then hands off to techne in order to constitute new resonant entities. There is a constant cycling of rebirth, evolution, negentropy and resonance. The result must end in a creative

freedom as a test of viability along with the ability to also resonate/communicate in a transpersonal setting – or as Whitehead called it, 'persuasive beauty' (Whitehead 1939: 65).

In the realm of phonosophy, the tendencies of sonic speculation seem to be hitting the ceiling of materialism and thus requires a more profound framework that can go beyond the objective and spatially conceived organisation of sounds - a framework which echoes the milieu of early twentieth-century positivism. Wisdom must utilise another Empedoclean limb of understanding (see previously) to speculate through sense in a stream of pure phonos – not an anti-Logos, but a complementary field. Phonosophy is proposing the possibility for oto/phononomic speculation in meta-sonics amid research into new resonant terminology that can anchor communication of the phonosophical practice. Even in the development of open/emergentistic temporal physics (Marchesini 2018), there should be a careful approach to adaptation of terms that would tend towards introducing systematic concepts into a nonsystematic phonosophic practice.

From our vantage point orbiting above the Logos, we view a finite system that can only reproduce forms within the realm of the conceptual/rational – which is not the role of the sonic/durational. The sonic is not limited by permutational rules of the dialectic, past and future that emerge and fade by the logic of symbol and number. This is the history of philosophy cum science. In the mythopoetic age, wisdom's gaze reflected upon a world populated by gods; in the age of philosophy, wisdom's thought mused upon the equally complex world of pure concepts. The Logos will continue to live long and prosper, but in the next phase of philosophy the *flux vitale* shall be heard and felt in the mode of the resonant. The sonic is not representational, it is *resonantational*.

REFERENCES

- Anderson, J. D. 1991. Varèse and the Lyricism of the New Physics. *Musical Quarterly* **75**(1): 31–49.
- The American Heritage Dictionary. nd. https://ahdictionary.com/word/indoeurop.html.
- Barthes, R. 1985. Listening. In R. Howard (ed.) *The Responsibility of Forms*. Oakland, CA: University of California Press, 245–60.
- Bergson, H. 1920. Creative Evolution, trans. A. Mitchell. London: MacMillan and Co.
- Bergson, H. 1946. *The Creative Mind*, trans. M. L. Andison. Mineola, NY: Dover.
- Canales, J. 2005. Einstein, Bergson, and the Experiment that Failed: Intellectual Cooperation at the League of Nations. *Modern Language Notes* 120(5): 1168–91.
- Chion, M. 2012. The Three Listening Modes. In J. Sterne (ed.), *The Sound Studies Reader*. New York: Routledge, 48–53.

- Chou, W.-C. 1966. Open Rather Than Bounded. *Perspectives of New Music* 5(1): 1–6.
- Cox, C. 2018. Sonic Flux: Sound, Art, and Metaphysics. Chicago: University of Chicago Press.
- Deleuze, G. and Guattari, F. 1994. What is phiLosophy? New York: Columbia University Press.
- Guerlac, S. 2006. *Thinking in Time: An Introduction to Henri Bergson*. New York: Cornell University Press.
- Harvey, J. 2013. Introduction. Proceedings of The Noises of Art: Audiovisual Practice in History Theory and Culture Conference. The School of Art, Aberystwyth University, 4–6 September.
- Harvey, J. 1999. *In Quest of Spirit: Thoughts on Music.* Berkeley, CA: University of California Press.
- Heller-Roazen, D. 2007. *The Inner Touch: Archaeology of a Sensation*. New York: Zone Books.
- Hickmott, S. 2015. (En) corps sonore: Jean-Luc Nancy's 'Sonotropism'. *French Studies* **69**(4): 479–93.
- Holmes, R. W. 1962. The Problem of Philosophy in the Twentieth Century. *The Antioch Review* **22**(3): 287–96.
- Jancsary, J. 2019. The Future as an Undefined and Open Time: A Bergsonian Approach. *Axiomathes* **29**(1): 61–80.
- Janus, A. 2011. Listening: Jean-Luc Nancy and the 'Anti-Ocular' Turn in Continental Philosophy and Critical Theory. *Comparative Literature* **63**(2): 182–202.
- Johnstone, C. L. 2009. *Listening to the Logos: Speech and the Coming of Wisdom in Ancient Greece*. Columbia, SC: University of South Carolina Press.
- Kane, B. 2012. Jean-Luc Nancy and the Listening Subject. Contemporary Music Review 31(5–6): 439–447.
- Kane, B. 2015. Sound Studies without Auditory Culture: A Critique of the Ontological Turn. *Sound Studies* 1(1): 2–21
- Keeley, B. L. 2012. From the Common Sense to Selfconsciousness. *The Senses and Society* 7(1): 107–10.
- Kim-Cohen, S. 2009. *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art*. London: Bloomsbury.
- Kuhn, T. 1962. The Structure of Scientific Revolutions. Chicago: University of Chicago Press.
- Marchesini, P. 2018. The End of Time or Time Reborn? Henri Bergson and the Metaphysics of Time in Contemporary Cosmology. *Philosophy and Cosmology* **21**: 140–52.
- Monani, S. and Adamson, J. (eds.) 2016. Ecocriticism and Indigenous Studies: Conversations from Earth to Cosmos. Abingdon: Routledge.
- Nancy, J.-L. 2007. *Listening*, English-language edn, 1st edn. New York: Fordham University Press.
- Nancy, J.-L. 1996. *The Muses*, trans. P. Kamuf. Stanford, CA: Stanford University Press.
- Oliveros, P. 2005. *Deep Listening: A Composer's Sound Practice*. New York: Deep Listening.
- Perlis, V. and Van Cleve, L. 2005. Edgard Varèse. Composers Voices from Ives to Ellington: An Oral History of American Music. New Haven, CT: Yale University Press.
- Rahn, J. 1993. Differences. *Perspectives of New Music* **31**(2): 58–71.
- Renger, A.-B. and Stavru, A. (eds.) 2016. *Pythagorean Knowledge from the Ancient to the Modern World: Askesis, Religion, Science*. Weisbaden: Harrassowitz Verlag.

- Schroeder, F. 2013. Network[ed] Listening Towards a De-centering of Beings. *Contemporary Music Review* **32**(2–3): 215–29.
- Stockhausen, K. 1959. How Time Passes By. *Die Reihe* 3: 10–41.
- Trabant, J. 2004. Vico's New Science of Ancient Signs: A Study of Sematology, trans. S. Ward. London: Routledge.
- Truax, B. [1984] 2001. Acoustic Communication, 2nd edn. Westport: Greenwood.
- Tuuri, K. and Eerola, T. 2012. Formulating a Revised Taxonomy for Modes of Listening. *Journal of New Music Research* **41**(2): 137–52.
- Whitehead, A. N. 1939. *Adventures of Ideas*. Cambridge: Cambridge University Press.