Sonic Possible Worlds

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This paper was originally presented at the 2011 Sound Art Theories Symposium (SATS 2011), organized by the Sound Department of The School of the Art Institute of Chicago, November 2011. The symposium presented thirteen papers on a wide range of approaches to current theoretical work in the area of sound as art and art as sound. A selection of the papers can be viewed at <mitpressjournals.org/toc/lmj/-/23>.

ABSTRACT: This essay introduces the idea of Possible World theory as a potential strategy to engage in and debate sound: sonic works and the acoustic environment as well as musical compositions. The suggestion is that possible world theory allows for a consideration of the soundscape and sonic works as environments, as sonic worlds that offer an alternative view—a possible and even an impossible view—challenging and augmenting what we pragmatically refer to as the actual world, which is invariably legitimised and situated within a visual and linguistic understanding. The benefit of Possible World theory for sound art is understood to lie in its ability to analyze what is “proposed” by sound: It allows for an exploration of the “then what . . .” of a sonic “if that . . .” rather than limiting itself to the notion of one actuality. Additionally, Possible World theory’s modal approach, the idea that possible worlds exist in a universe of mutually accessible and thus cross-referential worlds, allows the listener not only to access sonic works as environments, as sonic worlds, but to be able to compare and cross-reference a variety of different sonic works understood as worlds within one sonic universe—establishing a comparative field that can facilitate the analysis of diverse sonic works across genres and times. Listening to this comparative field positions its diverse sonic works as possible sonic worlds in relation to phenomenological life-worlds, taking care of the perceptual reality of what is possible in the ephemerality of the unseen.

Introduction

In this text I will put forward the idea that Possible World theory can be employed for the theorisation and comparative analysis of the soundscape, sound art and music. The suggestion is that the explorative potential of possible worlds, and in particular its focus on reality and contingency, usefully enables the interpretation of the soundscape and sonic works as environments, as sonic worlds that invite a different engagement and propose an alternative perception of the work and the world. The idea that these possible worlds exist in a universe of mutually accessible and thus cross-referential worlds offers the opportunity to critically compare and cross-reference a variety of different sonic works, understood as worlds within one sonic universe: facilitating the critical discussion and theorisation of sonic works across genres and times within one comparative analytical field.

I endeavour to persuade the reader of my reasons for using modal philosophy to critically approach sound work, and then outline my method, which is influenced and borrowed from literary studies and game design theory. Having established my motivation and hopefully convinced the reader of my approach and its potential, I want to position these sonic possible worlds in relation to phenomenological life-worlds. The idea that logic’s possible worlds are
inhabited by phenomenological listeners allows me to explore notions of contingency, reality and truth in sound while at the same time taking care of the primacy of its perception.

One motivation for this enquiry is the lack of a joint critical framework to analyse, study and interpret traditional musical compositions, anything described as tonal and atonal works, and a contemporary sonic output, invariably termed electroacoustic music, soundscape composition, sonic arts, sound art, etc. At present they are approached and investigated through separate and distinct critical languages. As a consequence of this separation, no comparative study of the field can be undertaken and if, for example, I were to suggest a critical study of Annea Lockwood’s A Sound Map of the Danube (2005) in comparison to Shostakovich’s Leningrad Symphony No. 7 (1941), I doubt many people would understand the value of such a comparison or indeed how it should be achieved. There is, however, value in establishing a method that can set up and investigate a comparative framework for sonic works—not in order to create a unified and homogenous understanding of its history and contemporary expression, but to produce a complex and purposeful discontinuity of the sonic continuum that demonstrates the disjointed and complex relationships that exist between works, and narrates the fragile and multilayered connections their juxtapositions recall.

This critical, complex and discontinuous continuity allows one to reflect on the sonic in sound art through its musical heritage, and it also offers a re-consideration, a critical backwards glance, toward a traditional musical output via contemporary sonic manifestations. It aligns music and sound art via listening, via the sound it makes rather than the context it is shown or performed in, or the histories and conventions that customarily determine its theorisation. Instead it performs a stripping back to the piece the sound makes in its contingent but referenced experience, rather than as a solid knowable piece of art or music.

The focus on the relationship between sound art and music is not opposed to a current theorisation, which happens largely in relation to visual arts and its discourses. Rather, it aims to augment the understanding and access the visual context and its theories, since even as the affiliation of sound art with this visual discourse and practice has aided sound arts recognition, making it more visible, it has not necessarily made it audible. More often than not, the close bind of sound art with the visual arts has served to hide its relationship to music and those aspects of its practice that recall that history or that are accessible via a musical rather than a visual sensibility.

The mainly contextual and conceptual strategies of visual discourse neglect those aspects of sound art which relate to its musical heritage and which unfold its sonic materiality. And so, on encountering sonic works, we still look for visual clues, anything to anchor the heard and find its meaning rather than explore its sound. The re-identification, at least in part, of the sonic with its musical heritage might make us hear the invisible and thus illuminate that which is in the shade of the visual. In doing so I do not aim to set up a sense of permanence and unproblematic development of music’s history, but to show exactly the fractures of its development, which paradoxically are hidden by the break in critical consideration between contemporary sonic works and music, and I might well end up re-identifying the term “music” itself.

In summary, then, my essay aims to put forward an analytical framework that can access and
investigate musical and sonic works and even the soundscape comparatively. The objective is to employ the investigative potential of Possible World theory to establish a plural field, a modal system, in which to reach new and comparative understandings of the construction, perception, and meaning of sonic works, across genres and times, to bridge the discontinuity of the musical discourse in order to better show and interpret its fractures. I am interested in complexifying the scene, ignoring disciplinary boundaries and theoretical distinctions to focus instead on sound and the work and world it generates.

What follows is to be read as an introduction to a continuing investigation rather than its comprehensive delivery. In many ways, this is a proposal and a starting point, and so much is still conjecture: questions rather than answers.

Possible World Theory: A suggestion for its use in relation to sound

I cannot possibly hope to summarise all of Possible World theory, nor would I be able to, but I want to address those parts that are potentially useful in relation to sonic works and the soundscape.

Possible World theory was initially developed as a theoretical framework to access truth-value and counterfactual statements, (“if that, then what . . .”). Its task is to deal with issues of formal semantic in the philosophy of logic, to answer questions of necessity and possibility and to propose a system of modality: a universe of mutually accessible and thus cross-referential worlds, all based on the idea of one core actual world (Saul Kripke). What interests me about the potential of this framework, this universe of possibility, is that it sets up a system, a modal system, of worlds, that are different from each other, but accessible to each other, and that is where the exploratory potential of the system lies. If there are worlds that present something we know in the actual world but differently, they can enable us to think about what we already know differently: to draw up new references, ideas about presentation, representation, reality, truth and most importantly experience.

Kripke’s idea is that at the centre of the modal system sits the actual world, the one we actually live in, and the one we measure the possibility or impossibility of other worlds by. But even such absolute and certain notions of reality and actuality are questioned by other modal theorists. For David K. Lewis, for example, every world is an actual world for somebody (On the Plurality of Worlds, 1986). In other words according to Lewis actuality is not an absolute, but a matter of point of view. This is an internal and invested point of view, since it is the inhabitant for whom his/her world is an actual possibility while it remains merely possible for me. I find Lewis’ possible world thinking very useful in relation to sound, as it allows for a consideration of reality and meaning via the centred subject living in a world—the listener—rather than via an abstract and hierarchical system of truth and meaning autonomous of its inhabitant and his/her perception. It sets up the notion of actuality as a matter of contingent experience, and it also suggests a “semantic inhabiting” rather than a “semantic reading.” Semantic reading always happens at a distance, and therefore does not implicate or reciprocate the reader. The idea of a semantic inhabiting, by contrast, suggests an invested and generative participation and hints at a connection with the phenomenological inhabiting of
a “life-world”: the world experienced by the phenomenological subject, who is through his/her being in the world and the world is through his/her being in it, in a temporal and reciprocal bind that actualises the world through and for him/her.

David K. Lewis suggests that the way the world is, or the way we perceive it to be, is one way for a world to be. Other worlds to him are non-actualised possibilities, however, if there are many worlds then every way that a world could possibly be is the way a world is. According to him it depends on the inhabitant whether that world is actual or possible.

This echoes Gottfried Leibniz’ idea, who is in many ways credited as the first possible world theorist and who articulated in 1710 that the world we live in is “the best of all possible worlds,” suggesting that God had many others in mind, but actualised this one as it was, according to him, the best. Post-enlightenment, and for a post-modern or indeed a post-post modern subject, the idea of God has a different value and power, and we understand it to be what is in our minds—our contingent and individual perception that actualises the best possible world. In this sense Lewis’ 20th Century rendition of Leibniz’ 18th Century Possible World theory retains the principle of possibilia, but is based on a different power: the power and imagination of the individual.

Following on from this I propose that in 21st Century possibilia, the acoustic environment, music and sound work can be experienced as sonic actual and sonic possible worlds, whose semantic substance we access and inhabit in our contingent listening, and which, from this central position we analyse and theorise in phenomenological reciprocity. This possible life-world place allows us to explore notions of contingency, reality and truth in sound, generating alternative ways for the world and the work to be, and to be understood to be, based on the primacy of its perception. It is a place that at once obeys logic’s premise of the possible while taking care of the reciprocity and experiential consequence of the experience of that possible.

The position of these listened-to works as worlds within a modal system—a universe of sonic worlds—allows us to reference their sonic material across works as worlds in the system, giving us the opportunity to propose new sonic relationships across genres and times, leading to the emergence of a different sonic history and generating a different sonic presence.

**Background and Context**

There are other disciplines—notably literary studies and more recently computer games design theory—that have, in their own way, employed possible worlds to theorise their fields.

Literary studies, which was the first to realise the potential of possible worlds for the theorisation of its subject, offers the most obvious parallel to my own project, as its examination focuses quite directly on the possibility of fictional worlds created in stories: composing story worlds [1]. Possible World theory allows literary theorists to consider relationships of characters, plot development, truth and reference of texts, also considered Textual Actual Worlds and Textual Possible Worlds by theorist Marie-Laure Ryan [2].

Meanwhile, games studies uses Possible World theory to access and explore the immersive
environment created by game design. According to Jan van Looy, games theory uses the exploratory potential of possible worlds to theorise the contingent and generative environments created in game design (v. Looy, 2005).

Both literary studies and games theorists are working with the notion of a “fictional/virtual recentering”: the move of the reader or player into the possible world of the artefact. This recentering is important to achieve the suspension of disbelief, to realise the game/the story, to become immersed in the virtual environment/the fictional environment, to understand it as real within itself, at least for the duration of playing the game/reading the book, in order to be motivated to play or stay reading and to ultimately come to an understanding of the text/the game through this centred and durational engagement.

Recentering is based on the idea that we travel from the actual world into a possible world via the text/the game’s design. Once there, everything in the textual/game world, plus everything we, as its inhabitant, project onto it, renders that text/game world real as a possible world. Or, if we stick with Lewis, it renders the text/game world another actual world for the duration of our engagement—our inhabiting. Both the originary world we came from, and the one we build from our new centered position within the text/game world, can subsequently be understood and read as cultural constructs. Consequently new and comparative analysis and deconstructions of these “world constructs” can be undertaken.

I propose to borrow and develop Possible World theory as it is put forward by the philosophy of logic as well as consider its adaptations by literary study and game design theory to build a new theoretical approach for sound.

I will take from logic the idea of actuality and possibility staged as a system of worlds, a universe of mutually accessible states and circumstances, and use it to explore the soundscape vis-à-vis the landscape, as well as to create a comparative framework for sound art and music.

I will take from literary study the notion of the text as a textual world, a world of make believe that is a construct and whose construction can be understood as a semantic substance that is relevant for the interpretation of that world and our inhabiting of it. I will transpose these ideas onto the idea of sound as a sonic world, the sonic composition as “make believe” with consequences for its own semantic substance and how we inhabit it, and thus how we understand it in relation to sonic references pertaining to that world as actually real.

There are problems with identifying the sonic work as fiction, which have to be further explored and clarified. It is important that the notion of fictionality, of make believe, does not trivialise nor render without consequence the exploration of the sonic as possible world. Rather, it is exactly the notion of a fiction, of a composition, as an alternative point of view, that allows us to nontrivially reconsider the status quo of what we pragmatically refer to as actually real.

I will take from game design theory the idea of the work as an environment, as a place. And I will take from both literary studies and game design theory the idea of recentering, and
suggest the listener as having undergone a “sonic recentering”: inhabiting the work as world and actualising it in that process.

The fact that the move into the environment of games is similar to the one done by the recentering reader in the fictional text suggests that recentering is not a matter of language but of the sensorial material, and thus can be achieved just as well by sound. Further, this notion of recentering, of moving to inhabit, also confirms the earlier conflation of semantic possible worlds and phenomenological life-worlds, suggesting the potential of a “possible life-world theory.”

The move into possibilia and plurality allows us to analyse and deconstruct sonic things, and relationships, sonic thinging, away from theoretical conventions and singular references in a complex network of referentiality. Possible world theory obtains access to the “sonic work” as a “sonic world,” with a listener centered in its semantic substance as in a sonic environment, freed from the indexical lexicon of conventional discourse, ready for re-interpretation and re-referencing in the comparative field that is the universe of sonic production. The notion of fiction, of writing and composition as creating a world of make believe, does not trivialise this undertaking but grants it critical autonomy: the autonomy of indeterminacy, of freedom without opposite.

Examples

**Sirens in Chicago**

sound the roar of a wounded animal, moaning intermittently but with persistence, in great pain, despite which it is ramping up in increasing fury. Coming closer and closer yelping and howling disjointed salvos merging into a continuous scream that stretches and contorts the city’s architecture. The concrete canyons are elastic in its whine, which elongates and intensifies its place like a rubber band twisting around my ears.

Law enforcement sounds crime cutting through the silent night.

—from soundwords.tumblr.com December 06, 2011, 10:25pm

The sonic sphere, which holds possibly the most direct application of Possible World theory to sound, circumventing the spectre of fiction, is the soundscape. Possible World theory lends itself to provoke an imagination of the acoustic environment as a sonic world, as a sonic possible world, as another actual world, not opposed to but other than the visual actual world, augmenting and expanding what we access via a visual sensibility. Listening we can hear what is not apparent, what is not visible and evident, but is merely proposed and hinted at; what remains hidden but is nevertheless possible to “see” if only we listen out for it.

The soundscape offers a different frame of reference revealing a different sense of materiality, subjectivity and significance. Due to accessibility relations between the sonic and
the visual world, worlds that of course are never truly separate but which nevertheless have a different impact on how we construct and validate our sense of actuality, listening to our everyday environment reaches hidden dimensions of the landscape, restaging habitual notions of truth, reality and necessity.

The suggestion is not a denial of the visual, but a proposal to access and inhabit, via listening, a re-visualisation of the visible and the invisible landscape—its significance and consequence. This is an invitation to experience the world as plural possibilities, as contingent environments, with visible and invisible elements generating my surroundings, in which I live as in a life-world, reciprocal and intersubjectively, and which, however imaginary, are a possible world for me and thus are an actual possible world with consequences for my notions of reality, materiality and subjectivity. In this way, our inhabited sonic sensibility gives us new insights and new knowledge about the possible and the actual, the sonic and the visual, and how they interact in the actuality of my experience.

To see whether this notion of sound as producing a sonic possible world holds beyond the acoustic environment, I want to discuss a sonic work produced in collaboration with artist and writer David Mollin. This work is entitled “Barry Echo” (2008) and is influenced by Thomas Bernhard’s 1978 text “Der Stimmenimitator” (the Voice Imitator). It is available to listen to at <www.gruenrekorder.de/?page_id=1885>. The work’s relationship to Bernhard’s text establishes a direct relationship to literature, and it constructs its sonic world among other things through the material of language. However language is only one aspect of its sonico-semantic substance, there are many other sounds building together a sonic narrative, a fictional space and sensorial environment, from within which, as re-centered listeners, we come to understand and construct the work as world.

My listening world is the world of the two speakers in conversation, the space of the German voiceover, the space of the English language meeting the Welsh language, in an invisible space of their actual locations, constructed in the soundtrack, heard and imagined by me as a possible location meeting the actual location of my listening. There, I inhabit the complex sonico-semantic substance of the work, and from there I project and reference my understanding of it in relation to its various layers of actuality and possibility. I draw up comparisons to an actual world: my shopping, my going to cafes, my reading the newspaper, my understanding of the Welsh language, the German, the English and how they interact. And I reflect on the necessity of that actuality through the possibility of the possible. I construct as well as deconstruct the heard as world, which at the same time I inhabit through my re-centered listening. My listening reflects on me as much as on the world of the work, at the same time the possibility of actuality invites new comparisons to the sonic and musical worlds of other works, and those sounds and voices used in other works understood as other worlds that surround and reference this one.

The sum of the imaginable heard and invented creates the sonic possible world of this work. And being such a world, it comes then to relate to other works in a network of sound works and music as well as acoustic environments that we draw on to produce and deconstruct it, to glean its meaning and formulate a response as to its content and worth.

The “temporalspatiality” the work produces is more than a literary fiction, a story. It builds one
environment out of many places that I inhabit in their complexity and simultaneity. My analysis stays in between the linguistic meaning and the spatial and temporal meaning created by the sound—a place produced from my experience and projections. As world, the work does not allow for a simple semantic reading but demands a semantic inhabiting from which I build it all together and tear it all apart again: joining and disjoining actual and possible sonic elements to generate one actual work for me.

Concurrent with the construction and deconstruction of the environment produced by the sonico-semantic substance of the work, there is also my reciprocity: my being in the sonic environment and it being through my being part of it. This aspect allows me to reflect on myself as a sonic subject: I create my sense of the work, and my sense of self, through the experience of inhabiting this work as world.

This makes it apparent that the work does not only lend itself to an analysis within possible world semantics, to get to a meaning constructed and projected from its inhabited sonico-semantic substance. It also invites the suggestion of the world of the work as a phenomenological life-world. It is a world for me where I live in an intersubjective relationship with protagonists and things, which I understand and invent in my auditory imagination of them, always now and often in doubt.

This is a phenomenologico-semantic inhabiting of the work as world. The references of this sonic life-world are not untrue, nor are they sublimated to those of the actual world, but produce a new actual world for me. My reciprocity in this possible life-world makes this conflation between the semantic and the phenomenological interesting, as it acknowledges that a re-centering listening does affect me as much as the work: listening generates place, the sonic environment, continually from my hearing of myself within the dynamic relationship of all that sounds.

I inhabit this life-world concurrently with the possible world, making it a possible life-world, a world experienced in the phenomenological encounter of its semantic substance. The two meet at once in my experience and reading as one motion: projecting and being in the world.

Having deliberately chosen a work that includes linguistic sounds as a first example, future listening will involve also more “musical” works in an attempt to access their fiction, their invented timespace place as the space I inhabit in my listening time. This inhabiting of the musical work as environment will allow me to start my analysis from the centre of its substance in relation to my phenomenological experience and my semantic inhabiting: suspending my belief in visual references, harmonies, pitch and timbre, I want to hear sound in its own sonic world and be reciprocated by it.

**Conclusion**

I will continue to pursue this line of enquiry, to develop it with sonic works that draw on narratives, on the environment, as well as works whose experience is purely sonic such as Morton Feldman’s *Piano and String Quartet* (1985), which produces through instrumentation a work that can be heard as an environment, a sonic world, embedded in a modal system of sonic worlds, and can be analysed and interpreted in this comparative field. I will continue to
investigate whether Possible World theory can grant us a new access to the soundscape and sonic works across genres and time, and whether it can illuminate new avenues for theorisation, comparison and scrutiny.

Possible World theory’s basis in logic grounds the sonic experience and leads it back to formal ideas and meanings but it does so through a contingent and visceral exploration on whose journey logic meets phenomenology.

References


Notes

1. One of the first applications of Possible World studies on literature is Umberto Eco’s 1986 text Small Worlds, which literally discusses fictional worlds as small worlds.

2. Ryan translates logic’s possible and actual worlds into the textual worlds of literature in order to build a system of reference between the world of the reader, the world constructed by the text and the world the text is referring to (Ryan, 1991). Ruth Ronen meanwhile suggests that “possible worlds introduce a new conceptual lexicon” (Ronen, 1993, p38). It is such a new conceptual lexicon of sound that I aim to propose with the use of possible world semantics and that I believe will bring together in one language the disparate and complex practices of music and sound art.

Author Bio

Salomé Voegelin is a Swiss artist and writer based in London. She is the author of Listening to Noise and Silence: Towards a Philosophy of Sound Art, Continuum, NY, 2010. Other recent writing includes “Ethics of Listening” in the Journal of Sonic Studies, Vol. 2, 2012, a chapter on durational radio for the forthcoming book Magic Spaces—25 years of Kunstradio, Austria, and an essay on the “Possibility of Sound,” in Wolf notes, issue 4, October 2012. Her work, “Moving Stones” is part of the award winning compilation “Autumn Leaves” by Gruenrekorder. Most recently, her work has been included in “Being Honeyed—An exhibition of Sound(in)Art” at Soma Contemporary in Ireland and in SOUNDWORKS at the ICA (Institute for Contemporary Arts) in London. She is currently working on a second book Sonic Possible Worlds: Hearing the Continuum of Sound, to be published by Continuum/ Bloomsbury in 2014.
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