

# Sonic Anti-Correlationism and its Limits: Thinking Quentin Meillassoux with William Basinski

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## The Sound of the Non-Correlational

How do we theorize the relationship between the human and the nonhuman?<sup>1</sup> How should this relationship be conceptualized within the field of sound studies?<sup>2</sup> What are the political and conceptual stakes of how we posit the human and the nonhuman? This essay will work to answer each of these questions by examining one of the most powerful theorizations of the nonhuman and its challenge to the post-Kantian tradition of philosophy, Quentin Meillassoux's speculative materialism, in relationship to a piece by one of the most celebrated post-classical composers of the last, twenty years, William Basinski. The piece, *On Time out of Time*, incorporates the sound of two black holes merging 1.3 billion years ago.<sup>3</sup> As such, it stages on a sonic level an encounter with what Meillassoux terms an "arche-fossil" or "materials indicating the existence of an ancestral reality or event, one that is anterior to terrestrial life."<sup>4</sup> Such materials are manifestations of what Meillassoux terms the "ancestral," which he defines as "any reality anterior to the emergence of the human

species – or even anterior to every recognized form of life on earth” (*After Finitude*, 10).

Arche-fossils, or traces of the ancestral as such, represent a thoroughgoing challenge to the philosophy of correlationism, which “consists in disqualifying the claim that it is possible to consider the realms of subjectivity and objectivity independently of one another” (*After Finitude*, 5). For correlationism, thinking and being must correlate with each other in order for either to be philosophically posited. According to Meillassoux, correlationism has been central to philosophy since Kant. The bracketing of things-in-themselves was central to producing a reflexive and critical philosophy that abjured direct metaphysical speculation about what exists. Instead, philosophy, according to Kant and most philosophers in his wake (all the way up to Derrida and other “postmoderns”), functioned in what Meillassoux describes as the “correlational circle” in which what can be thought is only what we can access subjectively.<sup>5</sup> It is what is given to us, in Kantian terms.

Ancestral knowledge thus becomes a scandal for the correlationist argument. If our knowledge can only be limited to what is given to us within the correlational circle, then how do we account for and do justice to the existence of things that greatly predate the human and human knowledge? While most accounts of Meillassoux’s position argue that he turns to the truth claims of science and math in order to break out of the correlational circle (and we will return to the question of his use of mathematics and the potential reification it implies below), it is important to keep in mind that he argues that the resistance posed by ancestry to correlationism “doesn’t directly concern the “truth of scientific theories, but rather their meaning” (*Time without Becoming*, 18). As we know, science changes its paradigms as well as its accounts of truth with some regularity. Meillassoux is not arguing that the truth of scientific theories directly scandalizes correlationism. Rather, he is asserting that scientific (and mathematical) statements have no meaning or value if they are reduced to the correlationist claim that they only mean for us. If science is just a language game, then what it speaks of has no material force or significance outside of what is given to human subjectivity. In other words, such a position may humor the truths of science, but it finally renders them just another language game, one without importance or force outside of the “for us.”

Yet, as the climate emergency, not to mention the current pandemic, demonstrates, the material force of scientifically established events does not need human recognition or apprehension to fundamentally alter the ecosystems in which we operate. Indeed, if theories of the Anthropocene have any force to them, climate change has been taking place long before we recognized as much and would have the same impact (if material transformations do not take place) whether we

acknowledge it or not. Within such a framework, correlationism starts to sound like climate denialism or, at its most extreme, creationism. It is the latter charge that Meillassoux implicitly saddles it with, by turning to his example of the arche-fossil and fossil derived knowledge in general.

If the privileging of human knowledge and the bracketing of everything else is the problem of emphasizing one side of what is traditionally posed as the subject/object relationship, the opposite problem is also evident in much recent work – the complete deprivileging of the human and the thoroughgoing elevation of the nonhuman and the material as centrally causal. If the danger of emphasizing subjectivity and subjective access is to deprivilege nonhuman actors and forces, the opposite danger is to efface the power, force, and distinctiveness of human action and human thought in the name of a new materialism that thoroughly deprivileges the human. If the correlationists sound like creationists, then the anti-correlationists can sound like conservative politicians who argue that humans are not the primary drivers of climate change (when we know, from scientific study, that we are its primary cause) and are not enough of a force to change its course.

### **Humanism, Posthumanism, and Their Limits**

So how do we get out of this impasse? Turning to music will help us think it through in a more productive way, perhaps, but before I turn to that, I want to provide a provisional mapping of recent arguments between posthumanism and a revitalized humanism in the present. Whereas thirty or forty years ago, the opposition might have been between an old-style Arnoldian humanism and cutting-edge poststructuralist antihumanism, in the current moment the divide has taken the form of an opposition between posthumanism and a newly resurgent humanism.<sup>6</sup> The old opposition between Arnoldian humanism, which was rearticulated by the U.S. as the dominant ideology of the postwar moment, and a newly emergent poststructuralism took its force from the immediate context of the Cold War. If Sartrean existentialism had been one radical articulation of humanism during the war and the fight against fascism, this very same ideology emerged as both dominant and severed from its radical force in the postwar moment. It mixed with older Arnoldian humanist universalism to celebrate the individual artist and rebel as an expression of Western and specifically American freedoms, as David Harvey notes.<sup>7</sup> The poststructuralist decentering of the humanist subject needs to be understood within this framework. Antihumanism took aim at this newly defanged and blandly dominant humanism, suggesting that it functioned as an ideology that effaced the overdetermination (to use one of antihumanism's key terms) of the subject by the workings of power, economics, the structuration of language, and the unconscious.

If this divide represented the opposition that structured theoretical work in theory's initial appearance on the American scene, a new opposition has emerged in the twenty-first century, shaped by the existential and ecological threat presented by the climate emergency. In this new opposition, the divide is between a newly emergent humanism, which emphasizes the need for a new humancentric universalism and the centrality of coordinated human action to address the challenges of the climate emergency, and a posthumanism, which argues that the privileging of humans as the only actors and entities that matter is an ideology that has underwritten the economic and ecological violence that has enabled climate change to take place. This latter position argues for a non-exceptionalist understanding of humans as part of an ecosystem which depends on all actors, humans, nonhuman animals, insects, plants, and various forms of nonliving materiality, to maintain its balance.<sup>8</sup>

This new opposition has produced an interesting divide, with the former antihumanist camp being relatively equally divided between the two positions. On the one hand, we have most Lacanians and Marxists on the side of the resurgent humanism, having dethroned Foucault's antihumanist historicism as the dominant mode of theoretical and cultural inquiry. Central to this position is the recognition of a strong divide between the symbolic and the real (here in its initial material guise), in which the subject can only access the material world through the very different materiality of language (and what haunts it). If this position sounds a lot like what Meillassoux criticizes as correlationism, with the exception of Lacan's radicalization of the way in which the real (here now understood as that which is excluded from, yet haunts the symbolic) destabilizes the symbolic, that is because this work basically does not challenge Kant's transcendental framework. Moreover, a sharp divide is articulated between human agency and motivations and the other elements of the ecosystem. Andreas Malm, one of the strongest proponents of the Marxist version of this position, argues that "the mind of the agent assumes a specific mode of intentionality – not any kind of mental directedness towards an object...but a particular aiming at an X that has not yet come about."<sup>9</sup> So not only is all agency conscious, and thus uniquely human in this framework, but it must be intentional as well.

This is a very different conception of agency than the one that informs posthumanism. There are many different versions of posthumanism in circulation these days, but almost all of them, from animal studies to new materialism, emphasize an expanded, ecological sense of agency. Agency is not just a product of human intentionality, but involves the different forms of action associated with animals, plants, and various nonliving materialities such as geological formations,

forms of energy, the built environment, viruses, etc. If certain Marxist and psychoanalytic orthodoxies are on the side of the resurgent humanism, then other parts of the antihumanist collective have embraced posthumanism, namely folks working within Deleuzian, Derridian, and poststructuralist feminist frameworks. In contrast to the divide between the symbolic and the real or between representation and the material world, this framework attenuates representation, treating signification as just another facet of the material flux of existence. Similarly, deconstruction, once resolutely language-centered, has taken on an engagement with material systems. Language is not in tension with other forms of materiality, it is just one facet among many of a world filled with nonhuman systems, flows, and becoming. In the Deleuzian framework that is central to much posthumanist work, the symbolic is not in opposition to the real, but is formed in continuity with it. Work being done under the banner of new materialism emphasizes the intertwining of language, embodiment, and the larger ecosystems in which they function. If Kant and Hegel represent the roots of the new humanism, then Spinoza and especially Nietzsche form the background to posthumanism. Nietzsche's emphasis on both biology and animality over against nineteenth-century humanism and idealism finds its resonances in contemporary posthumanism.

This latter position would seem to be more amenable to Meillassoux's, and the speculative realists (with whom he is often grouped, despite his emphasis on speculative materialism) are often lumped in with the new materialists, even though both schools contain a range of positions that are not easy to equate and represent very different approaches to both ontology and the political stakes of philosophy and theory. However, before we lump Meillassoux in with the posthumanists, it is important to remember that he rejects the Nietzschean (and Deleuzian) attempts to escape the correlational circle through framing everything as part of the same flux or flow, a vitalist monism that insists that everything derives from the same substance. Such a position eschews the negativity associated with Kant and Hegel. Meillassoux's position still works through the Kantian framework, even as, as Graham Harman has noted, it undermines it from within by radicalizing its own propositions.<sup>20</sup> Moreover he is neither vitalist nor a monist. As we will explore below, the limits of his position are different.

### **Humanism and Posthumanism in Sound Studies**

The central opposition that I just charted between a resurgent humanism and a powerful new posthumanism also influences recent work in sound studies. As Christoph Cox notes, sound studies "arose in the late 1990s concurrent with widespread acceptance of sound art as a viable field of practice and exhibition in the

arts.”<sup>11</sup> As such, it represented an institutionalization of a number of shifts, both material and epistemological, that have taken place in the production of music and sound art and in its reception and study. Part of this is the shift is from music as an organizing principle to an expanded conception of sound. Such a shift is not only epistemological but historical, and the turn to sound studies has historiographical implications. If the classical music avant-garde of the first half of the twentieth century, with its emphasis on the serialism and twelve-tone practices of the Second Viennese school, was deemed by traditionalist critics to be anti-music, it was still a form of music (still notated, still using the equal-tempered chromatic scale) in its opposition to traditional classical form. Indeed, one could situate it much like how we situated antihumanism in relationship to traditional humanism above. Twelve-tone music negated but still was shaped in response to the conventional harmonies and melodies of nineteenth-century classical music the same way that anti-humanism negated but also still focused on the transhistorical and universal human subject at the center of the humanist tradition.

What takes place in both canonical art music and music more generally after 1945 is much closer to the philosophical position of posthumanism. If the twelve-tone school was a revolution in music, it was still a revolution *in music*. What postwar work encompassed was the decentering of music as just one organized practice within the larger framework of sound. This transformation is evident in everything from Pierre Schaeffer's and Pierre Henry's use of recorded sound to produce *musique concrète*, to John Cage's experiments with silence and environmental sounds that have been carried forward by all kinds of contemporary field recordings, to the emphasis on drone and extra-musical effects in the early and/or staunch minimalism of folks like (for all their disagreements) La Monte Young, Tony Conrad, Éliane Radigue, and Pauline Oliveros. It is also evident in the emergence of electronic music in the work of everyone from Daphne Oram, Laurie Spiegel, Delia Derbyshire, and Karlheinz Stockhausen, to myriad contemporary electronic producers, and the epistemological challenge to the classical canon represented by the valuation of global music and sound practices, popular music and sound practices, counter-traditions of art music such as jazz, improv, and Indian and Chinese classical music. This shift was thus both material, in terms of the sounds produced, and epistemological, in terms of the sounds recognized. This latter epistemological shift, driven by the alter-canonical force of postcolonial theory, decolonial theory, cultural studies, and ethnomusicology, of course, also shapes the way in which we understand and apprehend the materiality of both sound and music, and indicates the way in which minimalism and the Western classical canon are organized around an often-disavowed borrowing from folk and world music traditions. The shift does

not merely stay on the level of epistemology but constructs a new ontological understanding of music.

This new ontological understanding of music and its relationship to the powerful historiographical and cartographic revisionist work done by decolonial theory and ethnomusicology is central to the collection, *Remapping Sound Studies*, edited by Gavin Steingo and Jim Sykes.<sup>12</sup> Along with Cox's *Sonic Flux*, the collection advances a powerful understanding of sound as ontological. Such an understanding is fundamentally realist, in a philosophical sense. For both books, sound is not only cultural, but real. Like Meillassoux's account of ancestrality, sound exists as real, independent of human audiation. Drawing on Nietzsche and Deleuze, Cox argues that music "makes audible the general flux of forces and movements that constitute natural becoming: duration, pressure, tension, and relaxation, attraction and repulsion, consistency and dissolution, and so on—pure tendencies, intensities, and events presented independently of the world of bodies and objects that constitutes the domain of representation and figuration" (30).

I want to affirm this articulation of a sonic realism, where sound has an existence independent of human audiation. Where, both Cox's and Steingo and Sykes' arguments get more complicated is how they conceptualize the domains of culture, representation, and figuration. In the Introduction to *Remapping Sound Studies*, Steingo and Sykes argue for an understanding of culture as ontological, including having an ontological relationship to sound.<sup>13</sup> While I am comfortable with the argument that sound itself is ontological and value the crucial intervention that their text makes into Western-centric conceptions of sound studies, the idea of culture as fundamentally ontological confuses the largely human produced with the real. Certainly, the cultural can intersect with and cut into the ontological, and vice versa, but this is a very different claim than the notion of culture as such as ontological. The latter position reifies culture into a static domain, coming much too close to polygenetic arguments of the nineteenth century (which formulated different races as having a fundamentally different relationship to being). It also effaces the syncretic and often promiscuous dimensions of culture, which regularly mixes, travels, recombines with other cultural materials. To take just one example from popular music, any engagement with the crisscrossing movement of techno and house music across the globe, from their roots in dub, hip hop, techno pop, minimalism, and disco, to all the different microgenres and specific global scenes, would suggest that the idea of culture as organized around fundamental ontological difference effaces how labile it is. I understand the desire to situate different cultural milieux as representing fundamentally different conceptions of ontology. Within the appropriative logic of racial capitalism and settler colonialism, the idea of making

culture ontological as a way of fixing its resistance to appropriation might be appealing. It certainly marks the violence done to radically different world views that the logics of colonialism can produce and asserts something seemingly more solid than the endlessly resignifiable materials of culture. Attending to the interpenetration of cultures and the real of sound is crucial, but fully collapsing the distinctions between culture and nature, epistemology and ontology, the materiality of representation or signification, and other forms of materiality clarifies neither the workings of culture or what exceeds culture and exists in tension with it.

Cox's argument encounters similar problems, even if his position, in its universalism, contrasts with that of Steingo and Sykes. He provides a powerful account of sound as an immemorial sonic flux, one that long predates humans: "And yet surely reality, nature, and sound far precede our arrival and cultural production, we latecomers in the history of the universe; and surely human history and culture are a part of that natural history rather than miraculous exceptions to it" (17). Cox's argument is at its most powerful when articulating the first of these positions. Certainly, sound does precede and exist independently of human audiation. This understanding of sound as ancestral, as part of the "immemorial" fabric of the world, indeed the universe, demonstrates, all over again, the solipsism and anthropocentrism at the heart of correlationism. Rather than seeing sounds as merely the background materials of music, he posits them (and music itself) as part of what R. Murray Shaffer terms "the soundscape" or the "acoustic environment" in any given temporal or spatial context.<sup>14</sup> Cox's position gets less persuasive with his second claim, in which he folds humanity and culture thoroughly into nature. Certainly, humanity is part of nature, but to efface culture and the forms of symbolic and subjective mediation central to it produces an account of materialism—including the materiality of sound—that attenuates the different dimensions of culture as they intersect with these more than human sounds. Such an account is not only monist but flattens the complex interactions and intertwining of the cultural as well as the natural, and the complex mediations between the two. If the linguistic turn associated with antihumanism still privileged the human and the cultural to the exclusion of the extra-human forces and materials of all sorts, this version of the material turn merely threatens to reproduce the problem by inverting it. Rather than a complex account of the ways in which human audition intersects with and fashions the universe of sounds, we get an account of the human and the sound field as part of a singular flux of nature. Yet, even the most seemingly unstructured or aleatory of compositions, take Pierre Schaeffer's "Cinq Etudes de Bruits," for example, still involves the shaping of sound by human hands and human conception. The different sounds assembled by Schaeffer, such as the sounds of trains, not only



become samplings of the larger ecological soundscape, but they also signify. They speak a sonic language that partially depends on both human production (even when the production is sound manipulation) and reception. Cox's argument for a nonhuman sonic flux is powerful and necessary. It fundamentally foregrounds the central insight of *musique concrète* that there is a whole world of sounds beyond the human domain of music. Music is merely a privileging of the human shaping of this world of sound. Yet, this insight needs to be posited in relationship to the specific cultural work of human production in relationship to this larger sonic environment, at least while we are talking about human sound manipulation and creation.

The limits of Cox's construction of sound, in which human making, signification, and reception all are folded into a Deleuzian or Nietzschean account of becoming, is demonstrated by the work of one of his central intellectual interlocutors, Seth Kim-Cohen. If Cox provides a powerful account of sonic realism, Kim-Cohen applies many of the insights of the cultural turn and anti-humanism (as well as the surreptitious privileging of the human that is part of antihumanism) to sound studies. Indeed, both thinkers cite each other regularly and clearly are in productive, if critical, dialogue. Central to Kim-Cohen's approach to sound art is following what he describes as "a path blazed by the second-generation of reception of minimalism, connecting the sonic arts to broader textual, conceptual, social, and political concerns."<sup>15</sup> If Cox emphasizes the philosophical realism or naturalism of his concept of sonic flux, Kim-Cohen emphasizes the textuality of all forms of sonic production. He also emphasizes the larger conceptual and political mediations of culture. While Cox says that his approach doesn't abjure culture, it clearly privileges a posthumanist conception of sonic realism. And while Kim-Cohen applies to music all the complexities of textual analysis as it functions in the humanities, the extra-human properties of sound are muted in his account. The differences between the two positions can perhaps best be captured by the two terms that each privilege. Cox discusses sonic flux while Kim-Cohen prefers to talk about sound art. Each have a point.

### **Anti-Correlationism in William Basinski**

The different positions of Cox and Kim-Cohen represent not only an antinomy in sound studies, but one in theory and philosophy more generally in the early twenty-first century. How do we both recognize the nonhuman forces at work in the world, forces that exceed and intersect with the human temporally and spatially, while also recognizing the powerful political and social work undertaken by the human shaping of materialities, sonic or otherwise?

Some of these questions can perhaps best be approached by focusing on recent work in sound art, particularly the work of William Basinski. Basinski is an artist distinctively positioned between the different conceptions of sound found in Cox and Kim-Cohen. Basinski is of course most famous for his four-part composition known as *The Disintegration Loops*, which were initially formed by chance when the composer was playing old, disintegrating tapes of his earlier compositions on the day of 9/11.<sup>16</sup> He listened to his disintegrating music while watching the twin towers disintegrate from his Brooklyn rooftop. The piece thus combines found (if humanly produced) sounds and an automatic process (the disintegration of the tape itself) with forms of signification that become freighted with the meaning of (what has turned out to be) a world-historical event. This association, while initially accidental, becomes central to the work's meaning. Basinski emphasizes that the piece enacts a kind of mourning for the losses (most profoundly of human life) that occurred on that day. The piece does not emphasize its material processes over its textual meanings; both intersect and produce resonances that each alone couldn't perform. The material disintegration of the tape parallels the collapse of the iconic towers and the destruction of human life on that day.

It is important to note, however, the metaphoric substitutions that uses one material process, the disintegration of old audio recordings, as the vehicle to signify two other ones, the destruction and collapse of massive buildings and the large-scale destruction of human life. Not only are the material processes discrepant—disintegration is not the same thing as collapse or sudden death—but the work done by the conceptual elements of *The Disintegration Loops*, however accidental in their initial association, are fundamentally signifiatory. Thus, we have an interface between material processes that are largely human produced and initiated, but also extend beyond human control, and the (retrospective) human signification of the same. What emerges from Basinski's piece is the powerful opposition between the contingent, material, and nonhuman on one side, and the textual, phenomenological, and human on the other. While the materialities that Basinski's piece is preoccupied with are shaped by human agency – the buildings, the planes, and the tape all are produced by the mix of human agency and the affordances of nonhuman materialities – the piece turns on an opposition between the phenomenological hearing or viewing subject and processes of material destruction that are partially or fully in excess of human control. One can only mourn in relationship to *The Disintegration Loops* (and it is perhaps non-accidental that Basinski's latest release as of this writing is entitled *Lamentations*) and think about the equation of micro- and macro-processes of material collapse or destruction.<sup>17</sup> What is missing here is any

account of the mediations that shape the intersections of human and nonhuman agencies and that inform the meaning of the collapse of the twin towers.

Indeed, for all of its meditative and melancholic power, Basinski's composition still treats the events of 9/11 as thoroughly exceptional. While the piece builds a parallel between the accidental disintegration of sound recordings on metallic tape and the intentional destruction of the World Trade Center, what is missing is the entire geopolitical and political-economic context that informed the terrorist act and shaped the much more destructive wars that emerged as the American response to the event, wars that lead (by conservative estimates) to hundreds of thousands of deaths, two states in various stages of continuous collapse, ecosystemic destruction, and the economic decimation and dispossession of an entire region. Like most U.S. accounts of 9/11, for all its invocation of the process of destruction, Basinski's piece reifies the violence of that day, removing it from the larger forms of historical, economic, and political mediation that shaped the event. Such an oversight is not merely ideological (indeed, Basinski's politics are clearly left-wing and critical of the U.S. state), but an effect of the very artistic process of his music and its conceptual or philosophical underpinnings.

The same reification is evident in Basinski's *On Time out of Time*, which, as we discussed at the beginning of this essay, is much closer to Quentin Meillassoux's philosophical project to theorize the ancestral and shatter the correlational circle. *On Time out of Time* incorporates sound generated by the gravitational waves produced by two black-holes colliding 1.3 billion years ago. The sound was recorded by the "MIT-and Caltech-operated Laser Interferometer Gravitational-Wave Observatory (LIGO)."<sup>18</sup> Given the way in which space and time are complexly braded if not fully interchangeable in our post-Einsteinian understanding of the universe, we are literally able to hear in present time sonic vibrations that were produced billions of years before human existence. Thus, Basinski's piece is organized around a sonic manifestation of what Meillassoux terms ancestrality. We are listening to acousmatic sounds that existed and emerged billions of years before human audiation was possible. The correlationist circle is fundamentally shattered here. Of course, one could argue that such a position depends on accepting the Einsteinian conception of the universe and in recognizing our only partial understanding of black holes. Moreover, the position of human audiation is fundamentally privileged here. These alien materials are being delivered up for our phenomenological apperception. Yet, to make such arguments is to fundamentally misunderstand Meillassoux's position. As I noted before, Meillassoux is not arguing that scientific knowledge of what exists before human existence is absolute or fully settled. Indeed, scientific paradigms change with some regularity. He is instead asserting that scientific statements about

the nonhuman past, in order to make sense as scientific statements, need to be taken seriously as truth claims about the existence and persistence of the nonhuman in excess of any human act of perception of thinking. For Meillassoux, this same point is demonstrable, in a perhaps more fundamental way, via mathematics. It is in his use of mathematics, particularly set theory, that his debt to his mentor, Alain Badiou is most evident. Drawing on set theory, Meillassoux posits what he terms (or what is translated as) “factuality,” which is the “absence of reason for any reality” (*Time without Becoming*, 21). He goes on to posit it also as “the impossibility of providing an ultimate ground for the existence of any being” (*Time without Becoming*, 21). He uses set theory to demonstrate the absolute contingency (what he terms “hyper-Chaos”) of any specific arrangement of the universe as such, including the arrangement that contingency is organized around chaos or change (*After Finitude*, 64). Hyper-chaos means that chaos itself is contingent. There is no less reason that the real should be determined by orderly laws as it is that it should be thoroughly chaotic. Yet, the lack of necessity to anything means that laws themselves that appear to function as sources of necessity may not persist that way. The impossibility of any mathematical set to contain all possible variations (including the name of that set) demonstrates that necessity itself is thoroughly contingent and open to sudden change.

As a theory of the universe, this concept has a lot of merit. Given recent work in theoretical physics, it makes sense that what we experience as a law-bound universe may be just one possible instantiation of a given universe, one that itself is open to change. Yet, as an account of the relationship between the human and the nonhuman, one that can be the basis of a complex understanding of causality, agency, and mediation which gives each their proper due, the model falls flat. We have escaped the correlationist circle only to fall back into radical underdetermination. It is unclear whether this represents either a political or epistemological advance on the potential solipsism and anti-realism of correlationism.

William Basinski's *On Time out of Time* reproduces this opposition between a human perceiver, whose position is feels overly structured and privatized on the one hand, and the radically indeterminate sonics of the two black holes colliding on the other. The piece itself hovers somewhere between a conventional ambient recording and the most far-flung of field recordings. It begins with an otherworldly hum, one that one can imagine being a nonhuman transmission from the temporal and spatial edges of the known universe. This hum or drone is then doubled, uncanny harmonics picking up and doubling this initial one. Heavy bass sounds, which indeed sound like they could be sourced from interstellar collisions join the mix,

becoming a sort of regular percussion. Sound flares, what sound like floating synthesizer tones, emerge, bringing the composition into more readily familiar ambient territory. As the recording develops, the sounds start to coagulate and merge into a pleasing sonic flux. This flux continues to develop, becoming a complex ball of sound, with what sounds like different synth trails echoing and quasi-harmonizing with each other. The percussion drops away, and we are left floating in a warm bath of tones. The tones play off each other and a kind of otherworldly minuet emerges. This sonic dance finally fades, being replaced about halfway through the record by a different set of tonal juxtapositions. The meditative quality of the music never really changes, however. I have listened to the recording both on vinyl and via streaming, and this tonal shift corresponds to the moment when you flip the vinyl album. For all of its otherworldliness, then, there is a very human, technological, and commercial logic at work in determining the shape of the composition. The composition eventually fades into what sounds like some sort of interstellar wind (one perhaps thinks of the sounds that begin and end Klaus Schulze's aptly titled *Timewind*, although in Schulze case the wind is entirely fictional).<sup>19</sup>

While the recording has been sourced, in part, from radically inhuman materials, what emerges is not that different from many recordings that are part of the landscape of contemporary electronic, post-classical, and post-ambient music. We could hear this recording as the soundtrack of a documentary about black holes and the limits of the known universe. We could also experience it as a pleasing background for ordering a latte or writing a philosophical essay on music. Herein lies the rub. For all the radical alterity of at least some of the source material, the music itself is not that different than many of the electronic music that soundtrack our lives in the twenty-first century. The piece feels like it could be found on any of the albums that followed in the wake of Tangerine Dream's *Electronic Meditation*, and actually it would sound too sedate on that sonic watershed and many of the other electronic albums that emerged in the late 1960s and early 1970s from both academic composers such as Morton Subotnick or Éliane Radigue or work being done under the broad umbrella of pop and soundtrack music by folks like Suzanne Ciani, Delia Derbyshire, Kluster/Cluster, and Schulze.

Of course, dissonance and difficulty are not necessarily measures of important music. This very notion is thoroughly modernist. Much post-1945 music eschews the notion that dissonance is the measure of experimentation. Part of what is so refreshing about early minimalism is the way in which it broke with modernist valuations of dissonance as radical (of course it did so by appropriating and reworking various non-Western musics, in part). So, it is not the lack of dissonance

that marks the limits of Basinski's composition (which, by the way, I thoroughly enjoy as a piece of post-ambient music), but what I want to term the lack of any figuration or representation of mediation.

This is a problem that Basinski's piece shares with Meillassoux's philosophy. There is no mediation between human phenomenological perception and the vast chaotic real that are phenomena such as black holes. We find in Basinski the same split between an overdetermined and seemingly discrete subjective position of the human and the underdetermined chaos (even if it is often an orderly chaos – or hyperchaos) of the nonhuman universe on the other. What is not mapped is the relationship of the human subjective position to a range of nonhuman entities that are still bound by laws within the context of a larger hyperchaos. I don't disagree with Meillassoux's larger conception of the universe. I am just not sure that it gets us anywhere politically that is any different than where the correlationist position leaves us. Yet, this does not have to be the case.

### **Sonic and Theoretical Mediations**

While Basinski's composition seems to present a frictionless relationship between the human and the radically anti-human, there are other recordings using found sounds that frame the work of mediation between the levels more effectively. Lustmord's *Dark Matter* also uses sounds sourced from recordings from outer space, in this case sounds recorded from various NASA space missions.<sup>20</sup> Lustmord (Brian Williams) is known for his dark ambient works that often take occult subject matter as their focus. In *Dark Matter* he presents the sounds of space. In contrast to Basinski, there is nothing contemplative or conventionally musical about this music. Instead, it is disorienting and forceful – a kind of sonic brutalism, in which the gravitational forces of space form a disorienting and always transforming architecture in relationship to the listener's positionality. You are not contemplating the awesome forces of space from a distance. Instead, you are right up in them, having to negotiate their nonhuman force from the point of view of human apprehension. Similar, if more terrestrial, forms of sonic mapping are present in Tod Dockstader's *Arial* series, which presents a series of musical miniatures that made from shortwave radio transmissions, and Nicholas Jaar's *Telas*, a recent recording that combines live performance, field recordings, and real time electronic manipulation.<sup>21</sup> Dockstader was an American radio engineer and amateur composer whose work only came to prominence in the early twenty-first century. Jaar is a celebrated Chilean-American DJ and music producer. While their musical practices are as different as their biographies, in both cases, what is mapped is the relationship between human experience and nonhuman (including partially

nonhumanly produced) infrastructure. In Dockstader's *Arial* series, we experience the sounds of the atmosphere as it conducts radio waves, an intimate and complex interface between the human and the nonhuman. Jaar's recent piece combines human produced sounds with field recordings and manipulates all of them to produce a subterranean landscape of sounds. Human sounds are renatured even as nonhuman ones become cultured. We move through a landscape of alien flora and fauna partially of our own making. This infrastructure feels both strange and sustainable. It invokes a sense of infrastructural balance in which the human intersects in productive ways with the nonhuman, opening up paths to a different arrangement of what is.

So, having figured out what an effective speculative realism or materialism sounds like, how do we theorize what it consists of on the level of theory? Can we follow the examples presented by Lustmord, Dockstader, and Jaar? One thing that each suggests is that we need to work the seam between the human and the nonhuman without collapsing one fully into the other. In order to articulate a conception of philosophical or theoretical realism that can become politically powerful, we need to theorize the interrelationship of the human and the nonhuman in terms of laws, mutual effects, and interactions. In a word we need to reestablish all of the mediations – ecological, political-economic, spatio-temporal – which disappear in Meillassoux's account of speculative materialism and also vanish in Basinski's piece. There is no philosophical friction in Meillassoux's theorization of the real (it can all finally be reduced to math) or in Basinski's soundscape.

In terms of Meillassoux's speculative materialism, while a full account of such is beyond the parameters of the current essay, what we need is to supplement its highly speculative and meta-universal realism with the kinds of work done on the nonhuman mediation of human (and other animal) perception, thoughts, actions, by ecosystemic, political-economic, and posthumanist theory. What we need here is not just a posthuman theory of agency (in which we understand the agency as not necessarily tethered to intent) of nonhuman entities and forces, but one of determination and complex causality. It is here where the practices of Marxist theory – especially in relationship to theorizing the economic world system and what Jason Moore describes as the world ecology – are crucial.<sup>22</sup> So are the practices of ecotheory, with its attention to the intertwining and mutual determination of the human and nonhuman. It is here, also, where key new materialist concepts, such as Karen Barad's intra-activity and Stacy Alaimo's concept of transcorporeality are particularly helpful. In both cases the subjective, perceptual, and human are shaped in mutually determining ways by various instantiations of materiality, including, the scientific "object" of perception, the body (as it both functions within and exceeds

human perception), and ecosystemic forces such as toxins or pheromones.<sup>23</sup> We also should recognize, as Meillassoux does, that all realisms or materialisms are necessarily speculative. We can attempt to provide accounts of the real – and need to for political reasons – but this does not mean that we have unmediated access to it. It often means that, however scientifically calibrated, our accounts of the real are always only an attempt at a full account. As with Meillassoux, Kant is not rejected here so much as he is relativized (in the name of anti-relativism). Meillassoux articulates a kind of reverse Kantianism (rather than the making equivalent of language, materiality, and life as found in many post-Nietzsche thinkers, including Deleuze), in which we do need to posit the real, especially including the real that exceeds human access, even as we also need to recognize that this real exists in negative tension as well as positive entanglement with human subjectivity and perception. As Meillassoux argues, drawing on both Locke and Descartes, we should posit entities with primary qualities (that inhere in themselves) as well as secondary qualities (those which humans or other entities perceive in an object) (*After Finitude*, 1-2). Such a model separates the capsaicin that produces the hotness of a hot pepper from the sensation of heat. It does not make the capsaicin an effect of human perception, even as human receptors are crucial for experiencing the heat of the pepper. It recognizes the materiality of the capsaicin and that such materiality may be perceived differently, say by the parrot, which has no taste receptors for capsaicin, and which happily chomps away at the pepper. What such a position represents is neither a simple return to a robust humanism nor a flat rejection of the specifically human (or in this case specifically mammalian) for the posthuman. We need to still recognize the human if only to avoid the danger of rewriting human access as absolute. We also need to recognize the powerful forms of agency, material transformation, and ecosystemic instabilities that are produced (in concert with nonhuman forces) by human actions. However, we cannot stop at the human. We also need to recognize the way in which human actions and possibilities are mediated (and sometimes spatially and temporally transcended) by the nonhuman, including the ecosystemic. In sum, we need both. What we need perhaps most of all is to mine the seam between the two, while recognizing that we can master neither. This is what I most appreciate about Meillassoux's argument. It is less his conclusions, which feel too underdetermined, than his emphasis on both speculation and materialism, perception, and the real. What strange symphonies we may begin to hear when listening at the seam.

## Notes



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- <sup>1</sup> I want to thank Cindy Zeiher who invited me to submit to this special issue. I also want to thank Eyvind Kang, the celebrated musician, music theorist, and prized online interlocutor. He read an earlier draft of this piece and improved it greatly. Any coherence present in my account of music, I owe to him. I should also note that, as part of his response, Eyvind produced a different map of twentieth-century music that focused in part on the tensions between total serialism (which include Cage and Stockhausen in this model) and spectralism, including the latter's use of arche-fossils in works like Gérard Grisey's *Le Noir d'Étoile*.
- <sup>2</sup> On the field of Sound Studies, see David Novak and Matt Sakakeeny, "Introduction" in *Keywords in Sound*, ed. David Novak and Matt Sakakeeny (Durham: Duke University Press, 2015).
- <sup>3</sup> William Basinski, *On Time out of Time* (New York: Temporary Residence, 2019).
- <sup>4</sup> Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (London: Continuum, 2008) 10.
- <sup>5</sup> Quentin Meillassoux, *Time without Becoming*, ed. Anna Longo (Mimesis International, 2014) 17.
- <sup>6</sup> On the emergence of poststructuralist antihumanism see Vincent Descombes, *Modern French Philosophy* (Cambridge: Cambridge University Press 1980) and Warren Montag, *Althusser and his Contemporaries: Philosophy's Perpetual War* (Durham: Duke University Press, 2013) 103-118.
- <sup>7</sup> David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (London: Blackwell, 1989) 10-69.
- <sup>8</sup> The literature in this debate is voluminous, but for two forceful statements see Jodi Dean, "The Anamorphic Politics of Climate Change." *E-Flux* 69 (January 2016). <https://www.e-flux.com/journal/69/60586/the-anamorphic-politics-of-climate-change/> and Carey Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), xii-xxxi. For my own dialectical take on thinking humanism, antihumanism, and posthumanism in contradiction with each other see Christopher Breu, "The Humanities as Contradiction: Against the New Enclosures," *Humanities* 7.3 (2018), <https://www.mdpi.com/2076-0787/7/3/70>
- <sup>9</sup> Andreas Malm, *The Progress of this Storm: Nature and Society in a Warming World* (London: Verso, 2018) 85-6.
- <sup>10</sup> Graham Harman, *Quentin Meillassoux: Philosophy in the Making*, Second Edition (Edinburgh: Edinburgh University Press, 2015).
- <sup>11</sup> Christoph Cox, *Sonic Flux: Sound, Art, and Metaphysics* (Chicago: University of Chicago Press, 2018), 6-7.
- <sup>12</sup> Gavin Steingo and Jim Sykes (eds.), *Remapping Sound Studies* (Durham: Duke University Press, 2019).
- <sup>13</sup> Gavin Steingo and Jim Sykes, "Introduction: Remapping Sound Studies in the Global South" in *Remapping Sound Studies*, ed. Gavin Steingo and Jim Sykes (Durham: Duke University Press, 2019) 1-36.
- <sup>14</sup> R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester VT: Destiny Books, 1977) 3, 7.
- <sup>15</sup> Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (New York: Bloomsbury, 2009) xix.
- <sup>16</sup> William Basinski, *The Disintegration Loops i-iv* (New York: Temporary Residence, 2003).
- <sup>17</sup> William Basinski, *Lamentations* (New York: Temporary Residence, 2020).
- <sup>18</sup> Andy Beta, Review of William Basinski, *On Time out of Time*, March 13, 2019. Pitchfork. <https://pitchfork.com/reviews/albums/william-basinski-on-time-out-of-time/>.

<sup>19</sup> Klaus Schulze, *Timewind* (Dortmund: Revisited Records: 2006).

<sup>20</sup> Lustmord, *Dark Matter* (Vashon, WA: Hydra Head Records, 2017).

<sup>21</sup> Tod Dockstader *Ariel #1-3* (Brussels: SubRosa, 2005); Nicholas Jaar, *Telas* (Los Angeles: Other People, 2020).

<sup>22</sup> Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), 3.

<sup>23</sup> Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007), 178; Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington IN: Indiana University Press, 2010), 3.