# EROTICISM AND TIME IN COMPUTER MUSIC: JULIANA HODKINSON AND NIELS RØNSHOLDT'S FISH & FOWL

**Danielle Sofer**
Kunstuniversität Graz (KUG)
Palais Meran
Leonhardstraße 15
A-8010 Graz
Austria
tel. +43/(0)316/389-3294
danielle.sofer@kug.ac.at

## ABSTRACT

Music analysts often default to alternate forms of visualization when dealing with electroacoustic music for which no score exists, thus sound becomes situated within the limitations of a visual system. In this paper I show that visual models do not always convey the varied possible hearings of multiple listeners, particularly in music with an erotic tinge. Coupled with clicking heels and a cracking whip, Fish & Fowl (2011) by Juliana Hodkinson and Niels Rønsholdt is an electroacoustic work rife for suggestive inferences. The sexualized breathing of the female "protagonist" in Fish & Fowl is an allusion to a territory typically, if tacitly, forbidden as an expression of sonic "art," but it is precisely in this transgression to normative hearing that Fish & Fowl is potentially interesting for analysis. Unfolding with temporal and spatial changes in the music are variable structures of listening that mediate our perceptions of, for example, the instrumentation, performance space, and semantic meaning of what we hear. In employing Gilles Deleuze's philosophy of time, this paper offers an alternative to visualized analytical models by elaborating on the experience of erotic sound through multiple and synchronic temporalities.

## 1. INTRODUCTION

Though certain musical qualities have always been heard with erotic connotations, it is only in the last 10-15 years, that scholarly attention has turned toward studies of eroticism and sexuality. In this recent turn, not only were we granted greater freedom to explore topics that were once inconceivable in the context of scientific or historical musicology, for example gender, sexuality, and eroticism, but such explorations have even become common practice. One can hardly imagine a musicological text today that does not contextualize its subject within the surrounding historical, but also social and cultural circumstances. And yet, although eroticism and sexuality studies abound in the literature, the terms "sexuality" and "eroticism" remain somewhat vague, invoked in musical contexts via a presumed universal definition, one which resides within the realm of transgression.

While attempts to conjure eroticism in music, and furthermore, hearings of sexually explicit sounds in music, are not new and continue to require attention, what is new in the twentieth century are attempts to record the body in order to capture the aural qualities of erotic pleasure and to include these sounds through technological means in a musical setting. Technologies of the recorded body innovatively present the audience with a sexual encounter through sounds of the (human) body as experienced in "real time." But our hearing of recorded or synthesized sound depends in part on our suspension of disbelief as listeners, since, after all, we are provided with no visual "evidence" of the body from which these sounds emanate. Whereas allusions in instrumental works might arise through metaphor—though completely real in the sense that we hear such expressions as erogenous—in computer music composers can make overt use of the timbres of sex and the envelope of the erotic by way of a deliberate incorporation of accepted norms of how human sexuality is encountered in sound.

Modern philosophy's earliest investigations of music perception proceeded from the assumption that we hear music by first engaging physically with sound and only then are our sensations imbued with meaning. In counter-distinction from this separation between mind and body, Merleau-Ponty posits, "The union of soul and body is not an amalgamation between two mutually external terms, subject and object, brought about by arbitrary decree. It is enacted at every instant in the movement of existence" [1:102]. Merleau-Ponty's radical suggestion, that music is experienced not as a composite of discrete events but as a mode of existence whereby listener and listened are in synchronic synthesis with one another, changed not only the way philosophers conceived of music, but the unity of mind and body allowed also for a new conception of how meaning is derived from music. When we hear sexualized breathing and moaning we recognize these sounds as such without further mediation or meditation.

If music and meaning are experienced simultaneously by the perceiver, then it stands to reason that time-domain representations or spectrogram visualizations of music are somehow remiss of a large portion of our musical experience. As observed by Judy Lochhead [2], music theorists often rely on a musical score to serve as visually "correlative evidence," but when exploring electroacoustic music, which, absent physical performers, does not employ a traditional musical score,

those theorists who rely on conventional methods to bring about consistent, or in any case, proven analytical results tend to incorporate alternative visualizations that need not be condoned by the composer or geared toward performance.

As Denis Smalley explains, there possibly exist for an electroacoustic work "three types of score which might contain perceptually relevant information": (1) a score used by a performer in mixed works of live electronic music, (2) a "technical" score, or a record of how the piece was produced, and (3) a "diffusion score," "often a free, sketchy, graphic representation of the sounding context," which would be useful as an indication of timing for engineers and composers diffusing the work in a concert. "But," Smalley is quick to warn, outside of these three variations, "we must be cautious about putting too much faith in written representations" [3:108]. And I extend this caution also to other forms of visualization in the context of music analysis.

Though visual representations are tempting, they are lacking for several reasons. First, images that display the entirety of a composition, such as a spectrogram, do not adequately convey the experience of music in time.[1] Secondly, as observed by Mary Simoni [5] (for alternative examples, see also [6]), time-domain representations, even those which compile in "real-time"—depicting frequency and amplitude as they unfold—do not adequately convey timbral qualities, and merely communicate, as with any analysis, only that which the analyst intuits as relevant. From this, it is surmisable that a third analytical framework, focusing explicitly on the firsthand experience of music as it unfolds in time, could bypass these secondary visualizations. In this paper, I would like to focus on this third analytical strategy, and to propose a time-based analysis of electroacoustic music absent visualization.

Fish & Fowl (2011) by Juliana Hodkinson and Niels Rønsholdt is an electroacoustic work rife for suggestive inferences. Coupled with clicking heels and cracking whips, the sexualized breathing of the female "protagonist" in Fish & Fowl is an allusion to a territory typically, if tacitly, forbidden in scholarly rapport. Stripping the character of her moaning, whipping, and pleasurable exclamations, a spectrogram realization of Fish & Fowl would barely turn heads, leaving behind only a residue of strong and weak impulses. In the visual realm, absent these timbral qualities, the semantic meaning—though conveyed easily through audible utterances—is all but lost. If music analysis is to be reconceived to include the many semantic inferences listeners experience synchronically in the midst of hearing, we analysts must find a new method of exploration, one that departs from a dependence on visual representations.

Music theorist Brian Hulse's [7] musical engagement with the "virtual," which he frames within a Deleuzian reading of Bergson's philosophy, proposes a musical

hearing that acknowledges ambiguity and engages in the pluralism of many possible aesthetic experiences. As Hulse explains, "In the virtual, we find a technical approach to thinking musical time whereby the rich temporal depths of music, completely obscured by traditional notation (which collapses time to an all-at-once spatial representation), become accessible to a different kind of thought; a thought that is fully in contact with music as a process rather than as a static product" [7:50]. Taking to task Hulse's invitation toward a Deleuzian "thinking music," this paper is organized in three parts. I first outline the three perspectives of the "virtual" through the synthesis as conceived in Deleuze's framing of time through the experience of difference and repetition. Second, I then tie these perspectives to musical experience by way of Hodkinson and Rønsholdt's Fish & Fowl. And lastly, in attempts to convey a theoretical framework for electroacoustic music while also maintaining an open-ended interpretation, I then raise questions about the manner in which listeners can potentially derive meaning from music with erotic overtones without essentializing or reducing the analysis to so-called representative assumptions about the plot, subject, source, essence, nature, or labor of this music and the musicians involved in its creation and production.

## 2. TIME AS THE SYNTHESIS OF DIFFERENCE AND REPETITION

"The primacy of identity, however conceived," writes Gilles Deleuze, "defines the world of representation" [8: xix]. For Deleuze, "identity" is always linked to a foundation, a ground, or in other words, a hierarchical construction of the "concept." This stilted, atemporal concept comes to be a representation of the thing, an infinite and unmovable truth. The flaw of representation then arises from the myth that our perception of time—and indeed of life itself—is constituted as a sequence of discrete events. As determined by Deleuze, the atemporal invocation of the "concept" is a central fallacy in Hegel's philosophy. Hegel's abstraction of concepts gives a false sense of objectivity; the concept arises independently, is unchanging, and remains frozen in time—long after even Hegel has passed. In Deleuze's words, "Hegel substitutes the abstract relation of the particular to the concept of the general for the true relation of the singular and the universal in the Idea. He thus remains in the reflected element of 'representation'" [8:10].

Recognizing Deleuze's reformulation of the "concept" as a temporally bound object, in her generous reading, philosopher and feminist theorist Elizabeth Grosz [9] explains that concepts, for Deleuze, "emerge long before the human emerges… Concepts have a date; they have a history." Breaking with the Enlightenment tradition "that wants to link concepts to the development of reason," Grosz incites Deleuze's notion of "Chaos" as "the real outside representation." In the chaos of the "real," prior to the rational imposition of logic, a concept is constantly moving and

---

[1] This critique of phenomenological invocations in music theory has recently been revisited by Maryam A. Moshaver [4].

continuously revised, always political, and always situational. Thus concepts persist without an absolute identity. In attempting to reconcile this stilted perception of time, Deleuze therefore evokes Henri Bergson's notion of the "virtual."

As summarized in Difference & Repetition [8], Deleuze provides the example of two events A and B. Citing Hume, Deleuze recalls that given a series of events ABABAB, "When A appears, we expect B" [8:70]. Within the realm of the Virtual, each instantiation of "AB" is distinguishable from the last. Herein emerges the relation between the whole and the particular, or between the event and its duration (durée). In recognizing A as an event, we distinguish it from other events through difference—"something new in the mind," but departing from Hume, in the Virtual, A's relation to the whole is asserted likewise through its own "repetition," which we experience synchronically, or in synthesis, as its own difference.

Deleuze conceives of time, after Bergson, through a lens of the present, asserting, "The present alone exists." Durée as a suspension over time is not experienced as a linear trajectory laid before us, nor are we forced to wallow in the retention of past events. Rather, the past and future are suspended virtually in the present. Echoing Marcel Proust, both Bergson and, after him, Deleuze summarize Proust's sense of suspense—this "resonance"—as, "Real without being actual, ideal without being abstract" Deleuze qualifies this statement, continuing, "Indeed, the virtual must be defined as strictly a part of the real object – as though the object had one part of itself in the virtual…." [8:209]. The Virtual arises in the presently experienced contraction of difference and repetition through three syntheses.

1) Where **repetition** is the sensation of a relationship between parts, **"first synthesis"** is a contraction of the particular with the general to form this relation. "The sensed quality is indistinguishable from the contraction of elementary excitations, but the object perceived implies a contraction of cases such that one quality may be read in the other, and a structure in which the form of the object allies itself with the quality at least as an intentional part." [8:76]. Each repetition asserts a new event, whereby the difference between these moments becomes less distinguishable increasingly as it becomes idealized to the real. Thus two repetitions can stand in difference from difference itself and, through repetition, two or more presents can become real.

2) "Second synthesis" is the **Differentiation**, a virtual imagining of the past, which incidentally takes place in the present. "The past does not follow the present that is no longer, it coexists with the present it was. The present is the actual image, and its contemporaneous past is the virtual image, the image in a mirror" [10:79].

3) "Third synthesis" occurs as **Differenciation**, whereby the virtual is restored to the present, and constantly "recreated" in a continuous becoming. As summarized by Brian Hulse, "Whereas the second synthesis is given by the present which precedes and largely determines it, the third synthesis is given by the condition whereby the virtual objects and images of the second synthesis are mobilized productively. It restores the virtual to the present as a freedom of creation and becoming" [7:39].

Though Deleuze makes a distinction between "passing presents" and the "pure past," his philosophy aspires to overcome this incongruity of "reminiscence," and to thereby preserve the past as always unfolding in the present. For Deleuze, eroticism holds the key to this preservation. "Every reminiscence, whether of a town or a woman, is erotic. Why is the exploration of the pure past erotic? Why is it that Eros holds both the secret of questions and answers, and the secret of an insistence in all our existence?" [2] Why indeed.

Deleuze never clearly articulates an answer to these questions, but he repeatedly summons the Eros-Mnemosyne relation within the context of "second synthesis," thus invoking eroticism through a Petrarchan intonation, whereby desire is stirred through longing, through distance [8:109].

## 3. THE DUALITY OF THE PAST AND PRESENT, OR PROBLEMS OF REPRESENTATION

One problem of "thinking music" in the virtual is the very contradiction of an immediately present ontology that rests on a distinction between the virtual (as in virtual reality or the cyberworld) and the "real," formed world.[3] When applied to music, Bergson's conception of the virtual, as durée, whereby synthesis at every stage is contracted unto itself, implies a stacking or hierarchy of musical elements as they are continuously perceived in time. Deleuze and Guattari attempt to resolve this indefinite stacking in their monumental Thousand Plateaus [11], envisioning Bergson's durée, "as a type of multiplicity," where "duration is in no way indivisible, but is that which cannot be divided without changing in nature at each division," not unlike the analytical tensions encountered in a complicated time-frequency distribution [11:483]. To this end, Deleuze and Guattari argue against the multiple, as the

---

[2] Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press), 84.

[3] Though Slavoj Žižek has similarly critiqued Deleuze's notion of the Virtual, I came upon this link to virtual reality independently and hence diverge also from Žižek's panicked consequences. See Slavoj Žižek, *Organs without Bodies: Deleuze and Consequences* (New York: Routledge, 2004).

distinction between discrete events, in favor of multiplicity, as a qualitative distinction of "intensive difference" [11:164]. Thus pitch levels, durational division, and timbral distinctions can be imagined in graduated differentiation, as referential, relative, co-dependent events in unfolding in time.

Music is not heard as an agglomeration of atomistic elements. At each partition a new element is created. With each division a newly generated difference is created. And together these elements are combined and intuited by the manner in which we as listeners orient ourselves. A single sound may be discussed in terms of pitch, duration, meter, timbre, and intensity, all of which are retained, yet each is articulated anew with each iteration.

Let us now explore this philosophy within the details of a specific musical work.

# 5. Fish & Fowl

## 4.1 Background

Juliana Hodkinson (b. 1971) is an English born composer who first gained prominence in the mid-2000s while pursuing her PhD in musicology at the University of Copenhagen in Denmark. As Artistic Director of the Copenhagen-based contemporary music collective Ensemble2000, Hodkinson formed ties with musicians all over Europe. In its later inception, Ensemble2000 became Scenatet Ensemble for Art & Music under the guidance of Danish composer Niels Rønsholdt (b. 1978) and art curator Anna Berit Asp Christensen (b. 1971). In 2010, Scenatet's musicians had the idea of releasing an album of Hodkinson's back-catalogue works, and she, having been previously involved with the ensemble and familiar with Rønsholdt's music, requested that he join her to combine creative forces. What resulted from this collaboration over three days in Berlin was Fish & Fowl, a digital synthesis of recordings of eight compositions from the composers' respective catalogues.

Although individually many of these eight works, three from Rønsholdt ("Torso" from Triumph; HammerFall; Die Wanderin) and five works from Hodkinson (*Harriet's Song; sagte er, dachte ich; In* Slow Movement; what happens when; Why Linger You Trembling In Your Shell?), were performed on acoustic instruments without amplification, the digital mixing of these recordings in ProTools resulted in a new, wholly electronic musical work. The listed instrumentation, which can be found in Table 1, defines the pitch and timbral space that each work occupies, but when combined electronically, the original instrumentation of each piece becomes less informative. Having been electronically modified, these instruments no longer conform to their anticipated real-world behaviors, and, without a corresponding visual image, listeners are free to interpret the music within a reality of their choosing.

Works by Niels Rønsholdt[4]

| Composition | Instrumentation |
|---|---|
| "Torso," scene from Triumph, a micro opera (2006) | female voice, clarinet, double bass, percussion, electronics, in collaboration with Signe Klejs [9 minutes] |
| HammerFall (2006) | piano, saxophone, percussion (including horse whip, hand thrown fire crackers, wine glasses for breaking, small balls made of paper, small stones/pebbles), w. optional lighting [8'30 minutes] |
| Die Wanderin (2007) | violin, piano, percussion, audio playback (footsteps and ambient chords), w. optional video [10 minutes] |

Works by Juliana Hodkinson[5]

| Composition | Instrumentation |
|---|---|
| In Slow Movement (1994) | flute, clarinet, violin, cello, piano, guitar, percussion [14 minutes] |
| sagte er, dachte ich (1999) | flute, clarinet, viola, cello, piano, guitar, percussion [10 minutes] |
| what happens when (1999) | soprano, bass recorder, guitar [6 minutes] |
| Why Linger You Trembling In Your Shell? (1999) | violin and percussion with egg-shells, down feathers, and table-tennis balls [10 minutes] |
| *Harriet's Song* (2001) | (singing female) viola and percussion (hanging objects such as chimes, keys, a transparent freezer-bag filled with milk, a small music box, metal chains) [10 minute] |

**Table 1**. The works incorporated in Fish & Fowl listed with instrumentation and approximate duration, and organized chronologically.

## 4.2 The Synthesis of Deleuze and Fish & Fowl

As a collage of collected artifacts, listeners may attempt already from the opening of Fish & Fowl to trace the music to sound sources with actual "real-world" identities. Yet, when attempting to assign an external representation to specific sounds we find that, though these sounds are "real," in the sense that

---

[4] Scores and sound files available at www.nielsroensholdt.dk/ and through publisher Edition•S.
[5] Scores available through publisher, Edition Wilhelm Hansen.

listeners hear the agglomeration of these sounds as music (and quite pleasing music at that), outside of the work, these electronic sounds have no "actual" equivalent. In Fish & Fowl, sounds like the long sustained tone of the clarinet that opens the piece [0:00-0:08] and its echoed imitation in the electronically synthesized sounds that follow extend each repetition, connecting these moments through seamless duration.

In the digital medium, composers are free to exactly repeat a phrase elsewhere simply by copying and pasting. And without needing to notate each element of the music, composers are even further liberated. Through this simple action, the clarinet's initial cry is heard repeatedly and continuously throughout Fish & Fowl. "First synthesis" occurs upon recognizing the clarinet's motive and its subsequent repetitions twice in the first phrase [0:00-1:12]. But this repetition is met with simultaneous different, as the musical role of the motive that opens the piece changes with each iteration. When we arrive at a refrain of the opening material at 16:17, as if reflected through a fun-house mirror the familiar-ness of this music becomes defamiliarized by its very repetition.

We recognize the sound of a woman's breath through "second synthesis," through the reminiscence both from past experience outside the work, but also from within the work in prior simulations of respiration in the clarinet, viola, and saxophone. When digitally recorded, a single gasp or howl can be manipulated and repeated endlessly. By isolating the female voice (as one might deduce from the vocal quality, pitch and timbre), the recorder claims control over the female's asserted sexual dominion by manipulating the volume, force, and number of repetitions in her vocal exclamations. As if the natural bodily response of the female were insufficient, the empowered digital sculptor can tweak the disembodied voice to the correct proportion for optimal listener response, all the while stripping the performer of her expressive freedom. In our personal correspondence Rønsholdt coyly intoned, "Obviously, the emotional atmosphere becomes dark and sexualized when using breath i[n] this way, especially when presented together with whip sounds...That's the underlying drama of F&F [sic], the woman and the things that are happening to her (real or not)." Throughout Fish & Fowl, the vocal breath interacts with and reacts to the instrumental "breathing" as both a repetition of, and by way of differenciation from, itself.

The return of the opening material [16:17 – 17:43], as a return is differenciated from our hearing in the beginning of the piece, and this differenciatation—our awareness in the present that this is an event reminiscent from our past, i.e. "third synthesis"—is further augmented by its obvious dissonance with what came directly before it, an interrupted climax, actually, one of several sublimated climaxes that over the course of the piece build with consecutive intensity.

In the refrain, the duration of the clarinet's opening cry has been augmented but succeeded, as before, by the subdued pulsation of instruments in the background. In the refrain, the breath does not enter as "early" as it did in the beginning. Delayed by 8 seconds from its proximity to the clarinet in the opening, only at 17:02, are hesitant, amplified breaths gasped, now with the accompaniment of a faint drone. Since the sounds of the clarinet and human breath are not so alike that we cannot distinguish between them, we recognize this relation as repetition toward an ideal, as an imminent multiplicity of "intensive differences." This becoming is never actualized; it is a limit, a becoming ideality that is never become. Thus the erotic phonopoesis is ever-productive, mobilized and resounding always as both familiar and at once becoming defamiliarized.

Perhaps it's not necessary that we identify exactly how each repetition differs from the last only that they are related. Recall now that Deleuze claimed the erotic for the realm of "second synthesis," as a resonance of the past as it is invoked in our present memory. The shifting of the breath track throughout Fish & Fowl is not merely a compositional effect, but this differentiation has affective implications. The play of intensive timbral and temporal differences affects and retains effects particularly from its erotic resonances. Deleuze invokes Pierre Janet, writing, "As Janet in some ways suspected, it is not amnesia but rather a hypernesia which explains the role of erotic repetition and its combination with difference. The 'never seen' which characterizes an always displaced and disguised object is immersed in the 'already-seen' of the pure past in general, from which that object is extracted. We do not know when or where we have seen it, in accordance with the objective nature of the problematic; and ultimately, it is only the strange which is familiar and only difference which is repeated" [8:109].

## 6.  CONCLUSIONS

Our experience of Fish & Fowl does not begin and end with mere hearing. The semantic resonance of this work is much richer than any given thirty-six minute and forty-two second duration of time "X." To be sure, one cannot ignore the explicit sexual energy of the repeated vocal climaxes in Fish & Fowl, which coalesce into a synthetic erotic experience when combined with clicking stiletto high-heels, the pounding of a beating heart, and compounded with the physical actions, such as the cracking whip or shattering glass, that are imagined implicitly as caused by "real-world" actors. Every breath, sigh, and moan in Fish & Fowl reinforces the absence of a physical body such that each acousmatic utterance invites listeners to conjure a reality of their own imagining. The orgasmic arrival of the protagonist need not actually occur in the world of the performer for the listener to believe that such an event is imminent.

The manipulated breath and other aspects related to physical presence combine to fashion a protagonist of sorts. This protagonist lives in the world of Rønsholdt's music, as he says "I see the protagonist in Hammerfall as the same one in Die Wanderin," two of the pieces incorporated into Fish & Fowl. But the protagonist, however real in the minds of listeners, is not an actual,

stilted identity. As Rønsholdt continues, "The protagonist is representative of all of us. It is a character, but it's not a specific character. It's representative of all of us in specific situations."[6] In lieu of visual evidence, the howling female protagonist is coaxed into submission precisely because her story—her reality (what is happening to her and what she is experiencing at any given time)—does not matter. However, the presumption that such a subject is created solely as spectacle, much too simply overlooks the multiple possible realities that listeners and composers alike might ascribe to Fish & Fowl.

In the digital medium, the technician and/or composer has the power to mold and shape a performer into an anomaly that possesses neither validity, nor has a need for validity, in the actual, representable world. The composers of Fish & Fowl leave many variables to facilitate the inevitable conjectures of their audience. Surely, from the acousmatic context, it is unclear where, why, and how Fish & Fowl takes place, and Hodkinson and Rønsholdt bank on the ambiguity of the situation. By restricting Fish & Fowl to the aural medium, the composers imbue the protagonist with authority, shirking responsibility for the responsive and presumptive audience. In the sonic world, whether the protagonist is the one responsible for the whipping, lashing, and shattering, or the victim of such actions, is in the ears of the beholder. And whether the listener identifies with the pleasure-experiencing protagonist or her surrogate partner is not important. The composers sculpt the situation, and listeners supply the evidence for their own hearing. In Hodkison's own words, from our personal correspondence, "I manifest a work and then it is up to each listener to meet this manifestation from their own position."

Fish & Fowl is but one example of how erotic connotations can be and are being developed in the post-digital age. Though eroticism—at least since Bataille, but recognized surely even by Plato—has been garnered as transgression, such musical eroticism has grown as a trend in computer music.[7] Composers continue to sample and manipulate recordings without heed for social discretions, and such expressive freedoms are welcome among composers and audiences alike. But should we as specialists, scholars, and documenters of computer music continue to ignore this trend by brushing aside erotic music as perverse transgression, or worse yet, as merely another form of autonomous art?

## 7.  REFERENCES

[1]  M. Merleau-Ponty, Phenomenology of Perception. Translated by Colin Smith. New York: Routledge, 2005.

[2]  J. Lochhead, "How Does it Work?" Music Theory Spectrum, vol.  28/2, pp. 233-254, 2006.

[3]  Denis Smalley, "Spectromorphology: Explaining Sound-Shapes," Organised Sound, vol. 2/2, pp. 107-126, 1997.

[4]  M. A. Moshaver, "Telos and Temporality: Phenomenology and the Experience of Time in Lewin's Study of Perception," Journal of the American Musicological Society, vol. 65/1, pp. 179-214, 2012.

[5]  Mary Simoni, ed., Analytical Methods of Electroacoustic Music. New York: Routledge, 2006.

[6]  James W. Beauchamp, Analysis, Synthesis, and Perception of Musical Sounds: The Sound of Music. New York: Springer Science+Business Media, LLC, 2007.

[7]  B. Hulse, "Thinking Musical Difference: Music Theory as Minor Science," in Sounding the Virtual: Gilles Deleuze and the Theory and Philosophy of Music. Edited by Brian Hulse and Nick Nesbitt. Surrey, England: Ashgate, 2010, pp. 23-50.

[8]  G. Deleuze, Difference and Repetition. Translated by Paul Patton. New York: Columbia University Press, 1994.

[9]  Elizabeth Grosz, lecture, "The Future of Feminist Theory: Dreams for New Knowledges," [http://theorytypes.wordpress.com/2012/08/23/eliz abeth-grosz-the-future-of-feminist-theory-dreams-for-new-knowledges/] Accessed 4 January, 2014.

[10] Gilles Deleuze, Cinema 2: The Time Image. Translated by Hugh Tomlinson and Robert Galeta. London: The Athlone Press, 1989.

[11] Deleuze and Guattari, A Thousand Plateaus: Capitalism and Schizophrenia. Translated by Brian Massumi. Minneapolis: University of Minnesota Press, 1987.

---

[6] Interview of Niels Rønsholdt with Zach Herchen.
[7] See the recent popularity of erotic concerts such as the one organized in 2009 by the Portuguese music festival, Miso Viva, based in Lisbon. Other examples include the sextronic genre and any number of examples from popular music (Donna Summer, TLC, Salt-n-Pepa, Beyonce, Katy Perry).