

# Towards a Nonhuman Affordance through Performative Contemporary Music

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In his 2017 article, *Mapping Contemporary Music: Four Positions*, composer Matthew Shlomowitz identifies the two 'dominant themes that [he] see[s] in new music of the past decade' (Shlomowitz: 2017: 4). Identified as (1) 'Materialism' and (2) 'Expanded Sonic Practice' (Shlomowitz: 2017: 5). Shlomowitz goes on to define these themes in greater detail. Regarding materialism, he says

'This way of thinking is not new. It reflects the aesthetics of significant twentieth century composers, such as Cage, Schaeffer, Oliveros, Lucier, Branca and Radigue. Whilst this is a disparate list from other perspectives, broadly speaking each offered musical experiences where the attention was directed towards the sounding shape, and the act of listening, rather than music as expression, representation, signification, or cultural engagement. [...]' (Schlomowitz 2017: 5)

Whilst regarding 'Expanded Sonic Practice', he says

The boundaries of the musical work have also expanded in much twentieth century composition. Many recent pieces include aspects such as physical action, lighting, image and theatrical approaches to expand the possibilities of concert hall work beyond the purely sonic [...]

What obviously conjoins these two dominant themes is the finding of new creative affordances in music-making. With regard to Shlomowitz's definition of 'expanded sonic practice,' for example, it would be a trivial observation for this paper to note that composers within this domain to are finding affordances now in materials that are 'not purely sonic.'

That said, this paper expounds the position that, especially in regard to the first of Shlomowitz's two dominant contemporary themes (materialism), more detailed consideration of the affordances in operation can not only yield non-trivial results but can contribute to widening understanding of affordance itself.

Examples of recent work described under the banner of materialism often feature a preoccupation with exploration of the sonic properties of non-conventional instruments, henceforth referred to as 'objects'.

The self-declared 'object performances' of Japanese sound artist Rie Nakajima serves as a clear introductory example. Over the course of a typical performance, Nakajima gradually applies small vibrating motors to a large collection of household objects pooled on the floor in front of her. Over time, this results in an accumulation of textures and timbres resulting from the objects she has chosen to bring to life in this way.

Rie Nakajima (Performance for Resonance 104.4fm at Science Gallery Pop-up 10/9/14)  
[https://www.youtube.com/watch?v=Gzn\\_v\\_USnwY](https://www.youtube.com/watch?v=Gzn_v_USnwY)

In the concert hall, parallel work involves incorporating sounding objects with the sounds of more standardised Western Classical instruments. Berlin-based Swedish sound artist Hanna Hartman's work often exemplifies this position, as demonstrated by her 2009 work *Borderlines* for violin, objects, and electronics.

Hanna Hartman - *Borderlines* (2009) for violin, objects, and electronics.  
[https://www.youtube.com/watch?v=Y\\_pIqNnfM3w](https://www.youtube.com/watch?v=Y_pIqNnfM3w)

The palette of sonic output from even conventional instrumentations is usually expanded within this music. In such work, the instruments themselves are creatively explored with the same *quasi ex nihilo* methodology as the objects, resulting in an approach that can broadly be read as an elaboration or extension of Helmut Lachenmann's concept of *musique concrete instrumentale*. American composer Michelle Lou's 2015 work *Crocodiles 1b*, composed for conventional instruments, serves as another introductory example of this kind.

Michelle Lou - *Crocodiles 1b* (2015) for violin, viola, cello, electric guitar, and electric bass guitar  
<https://vimeo.com/140040363>

It would again be a trivial observation to note these artists as finding new creative affordances in objects not traditionally considered as musical. The move to a non-trivial domain begins by observing that which conjoins these subtypes of materialist work is the slackening of the link between performer action and sonic output.

The notation of the opening violin/viola writing from Lou's *Crocodiles 1b* is an interesting case study to examine for further expansion.

The score provides a textual instruction for the performers to bow prepared strings with over-pressure, allowing the instrument to stutter naturally with indeterminate regularity (described by Lou in the score as ‘Strange Morse Code’). Although general preferences for the input action (slow/fast) are specified, the moment-to-moment event structure is left simply as the product of the input action.

Such dislocations are often discussed in relation to the tablature work of the ‘American Choreographic School’ (Lorenzo 2016), which includes composers such as Aaron Cassidy and Timothy McCormack. Cassidy has himself noted the distinction between ‘determinate action and indeterminate output in his own writings (Cassidy 2008). That said, in the two notated materialist musics presented here (Hartman/Lou), the notational approaches are far removed from the hyper-controlled new complexity associated with the two Americans.

Whilst the ‘determinate action/indeterminate output’ model is still extremely apparent in work presented here, Hartman and Lou’s scores more viscerally resemble more open or indeterminate approaches to composition, as often attributed to emerging from the work of Cage. A detailed account of all presentations of such open approaches can obviously not be provided in detail here for reasons of time but such work will be no doubt familiar to this audience and include the box-notations of Lutoslawski, the modular structures emergent from Stockhausen’s *Klavierstücke XI* (1955, for solo piano) to the prose scores of Christian Wolff. The important point is that in open work, details and decisions of a given performative instance are delegated to agencies other than the composer’s.

In the Lou example, it is interesting to note the location of the agency invited to participate in *Crocodile 1b*’s instancing. As with more archetypal examples, the agency of the performer plays a role. Yet in this particular context (indicative of many others from work of this nature) the performer is placed in a situation where they are not in full control of their instrument, where the materiality of the instrument itself appears to be acting as an agency within (at least) the moment-to-moment of the instancing.

I have sought to amplify such an understanding in my own creative work. In *The Apparatus Project* (2017-), I find and, through the building of custom instrumental setups, foreground material situations where such agential relationships are especially blurred. In *Apparatus-I* (2017), for example, a large quantity of nails are placed on a series of concentric metal sheets. As the nails build up on the sheets, their increasing mass causes nails to either trickle down the setup or cascade down in large collections, now creating both larger and smaller-scale sonic events ‘at their will.’

Matthew Sergeant – *Apparatus-I* (2017)  
[https://www.youtube.com/watch?v=L5zIN6q-9\\_s&t=103s](https://www.youtube.com/watch?v=L5zIN6q-9_s&t=103s)

In this latter example, I have observed the extent to which the instrumental setups themselves begin to serve as their own notation. For example, if *Apparatus-I* and a large quantity of nails are offered to human performers without further instruction, some form of sound-making activity that foregrounds an entanglement of human and nonhuman agencies always seems to emerge.

The recent Twenty-first Century ‘material turn’ (Barrett & Bolt 2013) in critical theory has elaborately expanded and developed notions of agency in this regard. If this ‘new materialism’ holds any internal consistency, it is that

‘[M]atter is no longer imagined [...] as a massive, opaque plenitude but is recognized instead as indeterminate, constantly forming and reforming in unexpected ways. One could conclude accordingly that matter “becomes” rather than matter “is”’ (Coole & Frost 2010: 10)

A key facet within such thought is explicated in the work of Australian philosopher, Jane Bennett, in her notion of ‘vibrant matter’, by which she means

‘[T]he capacity of things – edibles, commodities, storms, metals – not only to impede or block the will and designs of humans but also to act as quasi agents or forces with trajectories, propensities, or tendencies of their own.’ (Bennet 2010: p.viii)

Central to Bennett’s philosophy is that matter is quasi agential, it ‘has efficacy, can do things, has sufficient coherence to make a difference, produce effects, [and] alter the course of events’ (Bennett 2010: viii).

This paper therefore posits that a central thread within recent materialist work is not simply the finding of new creative affordances within non-conventional instruments *per se*, but is instead a finding of affordances in the agency of matter itself.

The foregrounding of the agential behaviours of matter therefore bifurcates recent materialist work from the use of objects in musical performance in a more general sense. The use of objects in the open score work of composer James Saunders, for example, stands in contrast to the work discussed thus far. *everybody do this* (2014), for example, uses sound-emitting objects as a means to sonify or signify emergent *human* behaviours rather than foregrounding objects’ *nonhuman* material agency directly.

But the act of finding an affordance in agentially-understood matter has itself the potential to reconsider notions of affordance itself.

The classical definition of affordance is offered by J. J. Gibson.

'The affordances of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill. [...] I mean by [affordance] something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment.' (Gibson 1979: 119)

The brief expansion of the term offered ten years later by Donald Norman is additionally useful as an elaboration.

'The term affordance refers to the relationship between a physical object and a person (or for that matter, any interacting agent, whether animal or human, or even machines and robots). An affordance is a relationship between the properties of an object and the capabilities of the agent that determine just how the object could possibly be used. A chair affords ("is for") support and, therefore, affords sitting. [...]' (Norman 1988: 1)

Moving further forward, let us take Bennett's position of matter-as-agent and fold it into Gibson-via-Norman's understanding of affordance. Such an action permits a broadening of the classical definition of affordance into a new nonhuman domain. Such a notion of nonhuman affordance (to which the title of this paper refers) is not conned as a special *class* of affordance, but as a widening of understanding of affordance to include both the sentient and non-sentient realms.

I grew up by the sea and took regular walks along the coarse shale beach near the family home. The ever-evolving patterns of longshore drift were a visceral and noticeable phenomenon across my frequent visits. Longshore drift occurs when angled waves hit a shoreline and push materials up the beach's incline along that same angle. When the water then recedes, it does so along the path of gravity – no longer at an angle, but parallel to the incline – dragging some (but not all) material back down the incline with it. As a result, matter moves continually along the coastline. In reality, this process is not regular. Geological protrusions of the land or human-made breakwaters cause the drifting matter to bunch and pile. Elaborate spits and sand bars are formed or, in the case of severe spring storms, deformed or destroyed. In the post-humanism of the new materialist lens, in the waves, the shale of the beach finds an affordance to make spits.

But such an introduction only belies half the story.

If matter is considered as itself quasi agential, then the bifurcation of agent/object within classical definitions of affordance break down. (It is obviously nonsensical to assume that some class of *agential* matter forms affordances with some other class of *non-agential* matter.) What instead remains is a model where affordances are formed between multiple parallel agencies, whether one component is sentient or not.

Nevertheless, it is difficult to conceive of certain scenarios permitted by such an expanded model. A reversal of Norman's original human/nonhuman example – i.e. a scenario where the nonhuman domain finds an affordance in the human – is particularly hard to intuit.

That said, I argue that such troubles may be considered as manifestations of the implicit directionality of the classical affordance model that the expanded understanding proposed here now permits to be critiqued. Classical affordance assumes a mono-directional movement of offering from agential to non-agential constituents. Under the scrutiny of vibrant materialism, where both constituents can be considered agential whether sentient or not, the necessity for such hierarchical directionality again breaks down. What remains instead is an entwinement.

Such entwinements of agencies have not escaped scrutiny from the new materialist gaze. Ideas from philosopher Karen Barad's conceptual infrastructure address the scope of the space revealed. Like Bennett, Barad engages with a broadly agential materialism but expands upon the emergence of agential forces themselves. Barad's concept of 'intra-action' is of particular use here.

'The neologism "intra-action" signifies the mutual constitution of entangled agencies. That is, in contrast to the usual "interaction," which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action.' (Barad 2007: 33)

Barad attempts to make this notion more tangible via consideration of the phenomenon of diffraction. To paraphrase her own words, diffraction is the phenomena of interference patterns enacted by a wave when it confronts an obstruction to its path. Parallel wave formations in the seas, for example, diffract into widening concentric circles as they pass through a small hole in a breakwater.

Barad's contemplation of this example is interesting. She notes that whilst the phenomena of diffraction itself renders visible the entangled agencies of wave and breakwater, simultaneously the agencies of wave and breakwater render visible the phenomena of diffraction. Intra-action is thus a perpetual process of becoming where individuated material agencies emerge as the result of the entwinement of those same agencies. 'Distinct agencies do not precede, but rather emerge through, their intra-action' (ibid).

Whilst seemingly paradoxical – more experiential definitions of causality are essentially reversed here – such an understanding is not unfamiliar to the world of quantum mechanics, from which Barad openly draws inspiration. The entwined materiality of the electron as both wave and particle until perceived as phenomenon (cf. Neils Bohr's famous Double-Slit Experiment) is generally accepted, despite its affront to conventional causality.

Against this backdrop, the vectorial structure of classical definitions of affordance is replaced in this broader nonhuman model with an intra-acting entwinement of mutual affordance. Without such directionality, such blunt reversals as proposed above (nonhuman matter finding affordance in human agency) no longer even parse.

The site of this mutual affordance cannot itself escape further examination. In Baradian terms, the human-violin assemblage acts as

an *apparatus*, which the philosopher describes in the following way.

[A]pparatuses are the material conditions of possibility and impossibility of mattering; they enact what matters and what is excluded from mattering. Apparatuses enact agential cuts that produce determinate boundaries and properties of “entities” within phenomena, where “phenomena” are the ontological inseparability of agentially intra-acting components’. (Barad 2007: 148. Emphasis retained)

The human-violin apparatus, therefore, enacts ‘agential cuts’ that form the composite agencies that matter (the human, the body, the violin) and exclude the agencies that do not within the phenomena of the output sound. That is obviously not to say that that Lou’s example (and others like it) uniquely create this situation, moreover that its operations allow such ideas to be particularly foregrounded.

Affordances, therefore, might better be understood in a general sense not as vectorial lines of appropriation between distinct agential and non-agential domains but as apparatial sites (apparatial as ‘of a Baradian apparatus’) through which mutually-affording agencies are themselves cut into being.

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