**Multi-Agential Situations: A View Through John Cage’s Works for Plant Materials**

**Iain Campbell**

[draft only, final version published in, *parallax* 28(4): 442-455, DOI: 10.1080/13534645.2023.2206242]

**Introduction**

Where does agency lie in musical performance? How is it expressed? Recent music scholarship has highlighted an increasingly prominent tendency to conceive of agency as not confined to any one individual or type of individual, instead being distributed across diverse individuals that can be found occupying performance situations.[[1]](#footnote-1) This article is concerned with such multi-agential situations, and with how they are theorised. In particular, it seeks to nuance some of the reception of the philosopher Karen Barad’s ‘agential realism’, and to draw some distinctions regarding the assimilation of Barad’s thought into more general materialist or ontological frameworks.

In a survey of current scholarship on performer-instrument relations, Tom Mudd notes the influence of Barad’s philosophy on approaches that attribute agency to instruments themselves, potentially diminishing or displacing the agency of the (human) performer. Here, agency is understood as something that emerges through the ‘intra-action’ and ‘mutual constitution’ of the ‘entanglement of […] agencies’ that exist in a situation; to think in terms of stable agencies entering and leaving the situation unchanged presents a limit in terms of accounting for what happens in the activity of performance.[[2]](#footnote-2) The musical performance might then be seen, in Barad’s terms, as a kind of ‘apparatus’, a certain material arrangement that serves as a condition of possibility for ‘mattering’, that is, the production of meanings and particular material beings.[[3]](#footnote-3) In contemporary music there are particularly vivid examples of cases where it seems apt to attribute agency to instruments, or tools, such as in work with AI performers.[[4]](#footnote-4) We can equally find similar concerns applied to the ways in which traditional instrumentation might too ‘kick back’[[5]](#footnote-5) and bring into focus the distribution of agencies between performer, instrument, and other processes and things present in performance.[[6]](#footnote-6)

Alongside Barad’s agential realism, a number of other theoretical resources have been drawn on to account for these musical situations, situations that are ill explained in terms of a subject acting on, and expressing themselves through, an object. In particular, the Actor Network Theory (ANT) of Bruno Latour has been widely drawn on in the ‘new organology’ that has attempted to rethink performer-instrument relations beyond the taxonomies of instruments of traditional organology.[[7]](#footnote-7) This situates the ‘new organology’ within a wider tendency to use ANT to rethink the kinds of mediations that operate in musical situations.[[8]](#footnote-8) In Thor Magnusson’s words, ANT can assist in examining the ‘unarticulated contract […] forged between composers, performers, and instrument makers’, and in situating this as ‘part of more integrated networks: institutional, educational, cultural, aesthetic, commercial, and technological’.[[9]](#footnote-9) Alongside agential realism and ANT we could also place the ‘assemblage theory’ informed by Manuel DeLanda’s elaboration on Gilles Deleuze and Félix Guattari,[[10]](#footnote-10) and the ecological theory of affordances, drawn from J.J. Gibson,[[11]](#footnote-11) as common approaches to thinking through the range of active forces participating in complex musical situations. One concern motivating this article is that there are here a set of terms – apparatus, network, assemblage, and ecology among them – that are commonly put to work, often together, to account for complex situations that have distributed across them a number of active participants of diverse kinds, but in ways that may obscure how these notions do not completely overlap.

My aim here is not quite to intervene into theoretical debate on the distinctions between these terms.[[12]](#footnote-12) I rather approach this concern from a more oblique angle. This article uses two ‘percussion’ works from the 1970s by the composer John Cage, *Child of Tree* (1975) and its multi-performer elaboration *Branches* (1976), as a foil for engaging with these practical and theoretical musical concerns, and for suggesting some heretofore underappreciated distinctions within the ongoing work on multi-agential performance. These pieces by Cage are most distinctly characterised by their use of plant materials as instrumentation, with this material serving to make any attempt at performative mastery impossible. Through this characteristic they contribute to Cage’s longstanding exploration of non-intention – the displacement of subjective tastes or desires from the centre of musical performance.[[13]](#footnote-13) In this displacement of a central (human) subjectivity, they also contribute to Cage’s ongoing concern with treating musical performance as an ‘infinite play’ of entities, characterised by unimpededness and interpenetration[[14]](#footnote-14) – a thinking of entities coexisting that might now be formulated in terms of Barad’s ‘entanglement’.

By revisiting these works alongside a critical response to Cage that is presented in Latourian terms, I aim to highlight some areas within the broad concern with diminishing the role of human agents and multiplying the agency of nonhuman actors that are not always in focus. Drawing on Michael Marder’s ‘plant-thinking’ and Eduardo Viveiros de Castro’s anthropological notion of ‘multinaturalism’, my engagement with Cage and the critical response to him will be used to highlight themes including the opaqueness of encounter and the transformation of conceptual schemes, themes that, in Barad’s terms, present a fully onto-epistemological, and not only ontological, formulation of the musical situation as a site of contingent encounter.

**Cage’s Plants and the Modern Constitution**

Cage would speak of composition in terms of ‘discovery’, and described several means for making these ‘discoveries’, such as engagement with different kinds of ensembles or through compositional means. With *Child of Tree* and *Branches* the discovery is described by Cage as a material one, that of the plant materials used.[[15]](#footnote-15) The messy, handwritten score for *Child of Tree* instructs performers to ‘find’ ten instruments, one of which must be a pod from a poinciana tree to be used as a rattle, with a further recommendation that conventionally tuned instruments and instruments made of animal materials or metal are avoided. At least one cactus should also be included. Some elements of this setup will then be amplified, usually on simple sound systems, using contact microphones. Within a chance-determined temporal framework, the instruction is to improvise.[[16]](#footnote-16)

The plant materials offered improvisation as a possibility within Cage’s framework of non-intentionality because they resist intention in a way traditional instruments generally do not, insofar as ‘the instrumentation can’t be based on taste and memory since one doesn’t know the instruments’.[[17]](#footnote-17) This is not mere unfamiliarity, an unfamiliarity that could be amended through time and training, but also concerns the fragility of the plant material: the act of using the material to produce sounds changes it physically. In this light, each individual performance would, ideally, constitute a distinct apparatus – a mobile material arrangement that works to produce sound events that can only be attributed to that particular entanglement of human, plant, and technological agencies, among others.

We might suppose that when Cage writes a text score he cannot help but project his intentions onto the written page. Yet what we could call, adopting a term equally musical and informational, the ‘noisiness’ of the score prevents unhindered translation by the performer. The performer cannot possibly be taking themselves to be accurately reflecting Cage’s intentions. And at the stage of performance, the characteristics of the plant materials produce more ‘noisiness’: what the listener deals with in listening cannot be reduced to, or judged against, whatever sounds the performer may be supposed to intend. Here, remaining in information-theoretical terms, this noisiness becomes associated with a kind of freedom: the freedom of performer and listener to be in a musical situation and to operate on their own terms, whatever those may be, without the composer as a determining reference point.[[18]](#footnote-18) Konrad Wojnowski has recently developed the information-theoretical approach to Cage I suggest here, arguing that what Cage’s processes for diminishing intentionality function by maximising information, and thus minimising the means by which what happens next can be predicted.[[19]](#footnote-19) This reveals, Wojnowski argues, a posthumanist Cage whose work is distinctly apt for the information age.[[20]](#footnote-20)

Yet, against such a multi-agential scenario of human and nonhuman entities intermingling, a quite different image of the human and the nonhuman, the latter of these often named in his terms as ‘nature’, has followed Cage since at least the 1960s. Critics have pointedly argued, in varied ways, that Cage turns away from society and human individuals to nature, and that this constitutes a political failure, a retreat from politics that allows the composer to renege on their responsibility to address the historical and social questions that artistic practice faces. A recent instance, from the musicologist Benjamin Piekut, is particularly theoretically insightful. In the terms of Piekut’s argument, to read Cage’s persistent concern with ‘nature’ and the notion that the function of art is to ‘imitate nature in its manner of operation’ as involving an entanglement of human and nonhuman agencies working through the contingencies of encounter would be to ignore a more fundamental ontological commitment that Cage holds. Piekut argues, by contrast, that Cage is firm in opposing humanity, or society, to nature, and taking as his task a rejoining of this nature.[[21]](#footnote-21) This, for Piekut, indicates Cage’s adherence to what Latour has called the ‘Modern Constitution’, a perspective characteristic of Western modernity that asserts an intrinsic split between the natural world and the social world.[[22]](#footnote-22)

The Modern Constitution, broadly speaking, views nature as a ‘realm of objective truth and facts’, in opposition to the subjective social realm.[[23]](#footnote-23) It is, on Latour’s account, a stance that posits a reality ‘out there’,[[24]](#footnote-24) prior to and still independent of fleeting human subjects and their politics. In terms drawn from anthropology which will be important ahead, ontologically it constitutes a naturalist position, or a ‘mononaturalism’, by which nature is understood in terms of continuity in contrast to a discontinuous realm of culture, with its individual cultures and subjects.[[25]](#footnote-25) For Latour, from the early modern period the work of scientific inquiry, specifically, and Western thinking, generally, became tasks of purifying this objective natural realm of any subjective social residues. This explains, argues Piekut, the goal at which Cage’s chance procedures aimed, namely the erasure from music of taste, memory, intention, history, and ego.[[26]](#footnote-26) Only when these contingencies are eliminated does it become possible to do justice to the objective realm of nature, to ‘imitate nature in her manner of operation’ and to, in Cage’s words, ‘see things directly as they are’,[[27]](#footnote-27) or, in Piekut’s, to ‘[draw] back the curtain to reveal the true nature of reality’.[[28]](#footnote-28)

Piekut argues that Cage’s perspective on nature involves undoing everything that exists on the social side of the partnership: the composer cannot shape nature, only accept it.[[29]](#footnote-29) It is an attempt not merely to decentre human agency, but to erase it entirely. And yet, in line with Latour’s account of ‘the moderns’, this apparent self-abnegation brings with it a new form of subjective certainty. Nature itself becomes a ‘universal authority’ that grounds Cage’s stance,[[30]](#footnote-30) with Cage continually and unquestioningly affirming the certainty that nature operates through chance against the messy contradictions of social life. For Piekut, Cage’s chance, then, is not that of a contingency of encounter and openness to the unforeseen, but chance as probability, aligning Cage with the desire to bring nature more comprehensively into the realm of human knowing. This, as Piekut notes, is what the philosopher of science Ian Hacking details with his thesis of the ‘taming of chance’ through statistical sciences.[[31]](#footnote-31) Chance as probability does not deflate subjective sovereign authority, as Cage would have it, but enhances it.

However, Piekut himself presents another interpretation of Cage, one he poses against Cage’s own self-conception. Drawing again from Latour and ANT, Piekut argues that, far from the strict distinction between nature and society that Cage affirms in his words, his musical works often enact a shifting entanglement between human and nonhuman actors. Rather than only accepting things in their objective reality, ‘his compositional practice contradicted this purported modernist ontology of nature at every turn by actively *forming* the world he purported merely to discover’, not only presenting natural things as they are, but transforming them.[[32]](#footnote-32) For Piekut, Cage produces not an ‘imitation of nature in her manner of operation’, but something more fundamentally indeterminate and uncertain, a joining of the human and nonhuman in a tangle of diverse individuals.

Piekut’s rehabilitation of Cage presents, then, a Cage-against-Cage who undermines the distinctions that underlie prominent criticisms of Cage’s work. But what I will raise ahead complicates this. Piekut mentions in passing that in naming his environmentally-orientated pieces – *Child of Tree* and *Branches* but also *Inlets* (1977) and *Pools* (1978) from around the same time – as ‘improvisations’ or ‘music of contingency’, Cage ‘unconsciously’ suggests, through works that Piekut otherwise finds unremarkable, an account of humanity and nature that undermines the Modern Constitution.[[33]](#footnote-33) But here I want to suggest a different set of distinctions than that between an ANT-informed reading of Cage and a ‘modern’, ‘mononaturalist’ Cage, overreliant on traditional categories, to whom the Actor Network theorist, assemblage theorist, and agential realist would all be opposed in their own ways. On the contrary, I wish to complicate that latter category by pushing against some aspects of Latour’s thought. I do this by first remaining with Cage and with the question of mediation.

**Measure and Agency: Reconceiving ‘Society’**

We might specify Cage’s formulations of an opposition between nature and society by saying that what he means by society is not simply the realm of human activity, but, more specifically, the realm of law and measure. This is what Cage refers to as a ‘police force’.[[34]](#footnote-34) It is the principles of proportion and organisation that posit of society a harmonious order. For Cage, we have no reason to assume a necessary proportionality of the world, and do not need to subject ourselves to the laws that such a proportionality would suppose. More dramatically than what may only be the anti-government stance this entails, however, Cage equally finds such a ‘policing’ at work at the level of subjectivity – hence his desire to let go of taste, memory, history, ego. In this light, what is at issue in the opposition between nature and society can be seen as not, *pace* Piekut, that nature offers certainty against the contingencies of society, but rather that society and even subjectivity are all too certain and find themselves commanded by arbitrary and unwarranted ordering principles.

What is doubtlessly true is that Cage’s image of a free humanity, the ‘excellence’ he proclaims of the ‘very life we’re living’,[[35]](#footnote-35) a life conceived without law or measure, is left vague, and tends to the mystical. Measure seems, for Cage, to be of entirely negative value. And yet, with reference to the Zen Buddhist scholar Daisetz Suzuki, Cage would say that ‘we really never stop establishing a means of measurement outside the life of things’, and that ‘next we strive to resituate each thing within the framework of that measure. We attempt to posit relationships between things by using this framework’.[[36]](#footnote-36) For Cage, measure is something that constantly imposes itself, that can only be understood as an illegitimate imposition on the contingencies of nature and of ‘things’. What he seeks in music is not measure, not law, but the absence of these: ‘Not proportion. The clutter of the unkempt forest’.[[37]](#footnote-37) And yet measure, it seems, always returns – this task always, in a sense, fails, as the contingent encounter becomes something that measure can give an account of.

As Branden W. Joseph highlights, Cage rarely seems to conceive of his ideals of freedom as anything but the dissolution of such a sovereign power understood as the external imposition of measure and law.[[38]](#footnote-38) It is here that we can see why Piekut can locate in Cage’s thought a firm distinction between nature and society, a society, as measure, which we must always strive to escape into nature. Yet rather than taking this to straightforwardly align Cage with the Modern Constitution, the question of measure can point us in a different direction. When Barad thinks about measure, the measure that is a necessity for the production of scientific knowledge, it is not understood as an external imposition. Nor is it an observer-independent property of an object.[[39]](#footnote-39) Rather, measurements can themselves be understood as part of the apparatus, as themselves ‘performative’ ‘agential practices’.[[40]](#footnote-40) Measurement is itself an intra-action. Cage does not seem able to conceive of measure as something that could be immanent to a situation in this way.

Yet something important here is that this sense of measure does not preclude measure in the negative valence that Cage stresses: that is, measure as something precluding the contingency of encounter and the appearance of the unforeseen. If an apparatus is designed to produce a certain kind of measure, which would be the effect of a certain set of relations between agencies, then this entails a constraint on other ways the situation could have been measured, or other mediations that could have been put into place. Significant here is that Barad is not opting for a straightforward materialism or ontology, but is rather working in dialogue with, and elaborating on, the accounts of discursive formations and power analyses of thinkers such as Michel Foucault or Judith Butler – apparatus, in Barad’s sense, owes to Foucault as well as to the scientific laboratory.[[41]](#footnote-41) In this sense, ‘measure’ might well include the ways that the forms of subjectivity in a given formation will render certain expressions impossible. Excluding these forms of subjectivity from analysis brings the risk of failing to give a full account of how the apparatus operates.

**Multinaturalism and Plant-Thinking**

From this position, I propose two questions regarding Piekut’s alignment of Cage with the Modern Constitution. The first is, why is what Cage presents as an attempt to undo the structuring social and subjective forms that his musical practice has to work within not itself, by Piekut’s standards, a challenge to the Modern Constitution? The second is, why should it not be the case that ‘society’ as an illegitimate assertion of power is something that needs to be continually fought, and that our escapes from it will be partial and temporary? To put this another way, why is what Piekut identifies as a problem with Cage’s thinking, that we ‘constantly need to be pulled out of our habits and histories’, not a legitimate stance to take?[[42]](#footnote-42)

Here I return to Latour. There is, first of all, a curious character to Latour’s ‘moderns’. In the words of the anthropologists David Berliner, Laurent Legrain, and Mattijs van de Port, the moderns ‘seem to suffer from a strange epistemic disease’.[[43]](#footnote-43) Among the peoples of world history, they may be unique in their profound failure to comprehend the reality of their own epistemic status. They appear, in asserting a duality of nature and society, to have been plainly wrong about the means by which they engage with their world. Here, Latour’s position raises an ontological difficulty. We can say that the Modern Constitution presents a flawed conception of how humans relate to their world. But then what kinds of things, beyond merely errors, are we speaking of when we refer to the beliefs, tastes, and ideologies that operate at the level of ‘modern’ subjectivity? I think we can make some sense of these questions by turning to what is, in fact, a resource for Latour, namely the anthropological notion of ‘multinaturalism’. As previously noted, the Modern Constitution works on a ‘mononaturalism’ against which, for Latour, we would do well to pose a ‘multinaturalism’, that is, a conception not of a single authoritative nature as a separate ontological domain, but of many little natures being created, many processes of collective worldmaking embarked upon, by the tangled interactions of diverse human and nonhuman beings. How does this compare to the multinaturalism of anthropology? I want to suggest a substantial, if subtle, distinction that will present the question of multi-agential performance in a somewhat different light. I will do this through engagement with the work of Eduardo Viveiros de Castro.

Viveiros de Castro is in agreement with Latour that modernity came into being with an ontological simplification by which ‘objects or things were pacified, retreating to an exterior, silent and uniform world of “nature”’,[[44]](#footnote-44) and that, facing this exterior nature, appeared a string of ornate conceptions of the knowing subject. And this ‘modern’ epistemology is indeed something Viveiros de Castro seeks to challenge with his accounts of Amerindian perspectivism, or multinaturalism. But the process of Viveiros de Castro’s practice is not simply to adopt a multinaturalist position. As Martin Holbraad and Morten Axel Pedersen point out, for Viveiros de Castro the task is not exactly one of reversing or overcoming the divide between nature and culture, but this divide is rather to be ‘“distorted” to certain theoretical ends’.[[45]](#footnote-45) Viveiros de Castro’s project is indeed one of developing non-dualist alternatives to the dualisms that mark out the framework of anthropology, nature and culture or nature and society among them, but it performs this from the perspective of the anthropologist. The conceptual scheme of the anthropologist, replete with its many dualisms, is brought into relation with that of the ‘native’, as a means to experiment upon these dualisms from within, performing an immanent transformation of the anthropologist’s conceptual scheme in the process.[[46]](#footnote-46)

This certainly has much in common with Latour, but it also raises questions of Latour’s approach. First concerns the ‘moderns’. Latour seeks an ‘anthropology of the moderns’,[[47]](#footnote-47) but it may not be entirely clear what vantage point he is performing this anthropological inquiry from. If ‘the moderns’ were only early modern European scientists, this would not seem to present such an issue. If, however, it is a lingering category that still encompasses the ‘we’ of Western academics, the means by which he can debunk it are harder to discern. At times it can seem that Latour, and the version of Latour taken up by Piekut, believes that having diagnosed ‘the moderns’ as epistemological and ontological failures, we should simply adopt another onto-epistemic stance – that, for example, of multinaturalism. Yet the apparent claim that Indigenous thought was correct,[[48]](#footnote-48) while European thought was wrong, not only risks the exoticisation common to the history of anthropology that Viveiros de Castro’s approach intricately contends with, but risks understating the power of the Modern Constitution. As Viveiros de Castro makes clear, multinaturalism, mononaturalism, and so on are not fungible positions from which we can pick and choose, but deeply embedded ways of living in the world. If ‘we’ remain moderns, then the task of escaping that epistemic position will not be an easy one.

It is true enough that Cage does not have anything like the detailed account of reflexive conceptual transformation that Viveiros de Castro develops. It is equally true that it is not always clear how a diffusely-conceived notion of ‘nature’ can help Cage perform such conceptual transformation. But at the same time, we can see that in approaching ‘nature’ Cage finds a means to begin to think non-dualistically, even though his starting point as a composer presents a world that has often played out in terms of a ‘drama between opposites’ – music and noise, sound and silence, determinacy and indeterminacy.[[49]](#footnote-49) Measure is always present, or, for Cage, always imposes itself. But the process of composition in conjunction with chance procedures can, and does, allow measure to appear somewhat differently, to enter the dualisms by which the composer works into a new set of mediations that bring about the conditions through which another kind of expression can take place.

Here I want to make clear some of the stakes of choosing the works by Cage that I did. I could be accused of arbitrariness – *Child of Tree* and *Branches* might be seen as relatively minor works by Cage, and part of a fleeting moment of his career. But what I hope to suggest is that focusing on these works not only offers a compelling re-reading of Cage, but also suggests a more general framing of the contemporary theoretical and artistic concerns we set out from. While Cage’s legacy in ecological thought and artistic practice may be negligible, that he opted to develop his still formative thinking in chance and indeterminacy in the terms of ecology permits a perspective to be taken on a theoretical and artistic moment today in which there is a renewed resonance between themes including ecology, probability, nature, and contingency.[[50]](#footnote-50) We have already seen how for Cage plants presented something that ‘kicked back’ against any attempt at control from a performer, and thus how they demanded of performers a re-evaluation of their role in the musical space. To turn to another contemporary theoretical resource, this can be elaborated through the ‘plant-thinking’ of Michael Marder. Marder highlights the human encounter with plants as a meeting point of heterogeneous temporalities, a theme that was of particular concern to Cage in his final decades. In Marder’s words, ‘[s]o long as more than one temporality is at play, we are in a situation of encounter – with the other’.[[51]](#footnote-51) To put this the other way around, the encounter between human and plant – which might be, to risk a generalisation, only a striking instance of encounters per se – involves the intersection of ‘two or more worlds (and temporalities)’.[[52]](#footnote-52)

This entails, on Marder’s account, a recognition of how a (human) subject cannot suppose itself able to render its object fully comprehensible and to give a total account of it. For Marder, this presents the ethical challenge ‘to let things be within the framework of what, from our standpoint, entails profound obscurity […] the idea is to allow plants to flourish on the edge or at the limit of phenomenality, of visibility, and, in some sense, of “the world”’.[[53]](#footnote-53) In this work, part of why plant life presents contingency is in terms of a contingency for us. It is a matter of dealing with the fact that we are not and cannot be privy to the world of the plant, and that to suppose that we can be leads to epistemological and ethical issues, indeed of the kind that Latour highlights of ‘the moderns’. The task, put in perhaps its most basic philosophical formulation, is ‘to save singularities from the clasp of generalizing abstraction’.[[54]](#footnote-54)

As with Viveiros de Castro’s account of the anthropologist’s encounter with multinaturalist thinking, Marder presents the encounter with plants in terms of a transformation, albeit a necessarily incomplete transformation, of one’s conceptual regimes. As he writes:

The chances of aggravating the abuse of plants by theorizing their existence can be minimized, if the theorists themselves expose their cogitation to the logic of vegetal life and learn from it, to the point where their thinking is ready to melt into this logic, with which admittedly it will never be identical […] ‘Plant-thinking’ is in the first place the promise and the name of an encounter, and therefore it may be read as an invitation to abandon the familiar terrain of human and humanist thought and to meet vegetal life, if not in the place where it is, then at least halfway.[[55]](#footnote-55)

I want to suggest that, despite the limits of his thinking on measure, this is how Cage wanted to view the plants of *Child of Tree* and *Branches* – as a point of mediation that permitted the transformation, if not the complete departure from, the terms of his compositional subjectivity and the ‘society’ he inhabited. But still, there is not an uncomplicated fit with plant-thinking here, nor with any robustly-defined multinaturalism. These frameworks both elucidate aspects of *Child of Tree* and *Branches* and the multi-agential scenarios they present – the means by which staged encounters with diverse others can challenge our categories and standards of measure, the possibilities of coexistence without subsuming what we encounter as an object – and invite pushback in other areas.

There are moments where *Child of Tree* may seem to fail on Marder’s terms, or at least to reach a practical limit. It is notable that it does not, as such, perform what is known as a ‘sonification’ of the plants, where inaudible characteristics and processes would be translated into sound.[[56]](#footnote-56) As Marder says of sonification and other methods of translating plant activities into forms perceptible to humans, it presents both an ethical problem – in the direct instrumentalisation of the plants – and an epistemological problem. These techniques:

are predicated on a belief in the possibility of a global and universal translation. Everything can become meaningful only on our terms and on our ground thanks to certain technological manipulations […] We can pat ourselves on our backs for deriving such ‘information’ from them, but as soon as it has become nothing but information, the plant has already disappeared.[[57]](#footnote-57)

Despite Cage’s emphasis on the coexistence of heterogeneous entities, *Child of Tree*’s setup does nevertheless put the plants into an electrical circuit, and they are rendered sonically legible only through, first, performer interaction and, second, amplification. The alien temporalities and sensings of plants are here pulled towards the categories of the listener – although this does not mean that the contrary movement is not also taking place. Furthermore, while the cacti will tend to be alive – and more than capable of pushing back against any careless performer – other plant materials may be dead.

Would *Child of Tree* and *Branches* be different pieces if all of the plant materials were alive? Would they be possible without amplification? In this context, we can see that by discerning in Cage an ‘epistemology of information’,[[58]](#footnote-58) Wojnowski may highlight an important tension – a tension between a Cage who favours heterogeneity and untranslatability, and a Cage for whom everything is equally apt to treatment as information. This latter stance could put Cage’s ‘posthuman’ decentering of agency in worrying proximity to a datafication by which any meaningful form of agency dissipates. These questions and problems are, I feel, prompts to continue to think both with and beyond these pieces. If multi-agential performance spaces are conceived without the accounts of power, conceptual change, and the opaqueness of encounter we can draw from thinkers such as Barad, Viveiros de Castro, and Marder, they too may become just more data.

**Bibliography:**

Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press, 2007.

Barad, Karen. *What Is the Measure of Nothingness? Infinity, Virtuality, Justice*. Kassel: dOCUMENTA, 2012.

Bates, Eliot. “The Social Life of Musical Instruments.” *Ethnomusicology* 56, no. 3 (2012): 363-395.

Bates, Eliot. “Actor-Network Theory and Organology.” *Journal of the American Musical Instrument Society* 44 (2018): 41–51.

Berliner, David, Laurent Legrain, and Mattijs van de Port. “Bruno Latour and the anthropology of the moderns.” *Social Anthropology* 21, no. 4 (2013): 435–447.

Born, Georgina. “On Musical Mediation: Ontology, Technology and Creativity.” *Twentieth-Century Music* 2, no. 1 (2005): 7–36.

Born, Georgina and Andrew Barry. “Music, mediation theories and actor-network theory.” *Contemporary Music Review* 37, nos. 5-6 (2018): 443–487.

Buchanan, Ian. “Assemblage Theory and Its Discontents.” *Deleuze Studies* 9, no. 3 (2015): 382–392.

Buchanan, Ian. “Assemblage Theory, or, the Future of an Illusion.” *Deleuze Studies* 11, no. 3 (2017): 457–474.

Cage, John. *A Year from Monday: New Lecture and Writings*. Middletown, CT: Wesleyan University Press, 1969.

Cage, John. *For the Birds: In Conversation with Daniel Charles*. London: Marion Boyars, 1981.

Cage, John. *John Cage: Writer*, edited by Richard Kostelanetz. New York: Cooper Square Press, 1993.

Cage, John. *Silence: Lectures and Writings*. London: Marion Boyars, 2009.

Clarke, Eric F. and Mark Doffman. “Introduction and overview.” In *Distributed Creativity: Collaboration and Improvisation in Contemporary Music*, edited by Eric F. Clarke and Mark Doffman, 1-18. Oxford: Oxford University Press, 2017.

Clarke, Eric, with Alan E. Williams and Dee Reynolds. “Musical events and perceptual ecologies.” *The Senses and Society* 13, no. 3 (2018): 264–281.

Danowski, Deborah and Eduardo Viveiros de Castro. *The Ends of the World*. Translated by Rodrigo Nunes. Cambridge: Polity Press, 2017.

Descola, Philippe. *Beyond Nature and Culture*. Translated by Janet Lloyd. Chicago: The University of Chicago Press, 2013.

Gibson, Prudence. “Interview with Michael Marder.” In *Covert Plants: Vegetal Consciousness and Agency in an Anthropocentric World*, edited by Prudence Gibson and Baylee Brits, 25-34. Santa Barbara, CA: Brainstorm Books, 2018.

Hacking, Ian. *The Taming of Chance*. Cambridge: Cambridge University Press, 1990.

Holbraad, Martin and Morten Axel Pedersen. *The Ontological Turn: An Anthropological Exposition*. Cambridge: Cambridge University Press, 2017.

Hörl, Erich. *General Ecology: The New Ecological Paradigm*. London: Bloomsbury, 2017.

Hui, Yuk. *Recursivity and Contingency*. London: Rowman and Littlefield International, 2019.

Joseph, Branden W. *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage*. New York: Zone Books, 2008.

Kostelanetz, Richard. *Conversing with Cage*, second edition. New York: Routledge, 2003.

Latour, Bruno. *We Have Never Been Modern*. Translated by Catherine Porter. Cambridge: Harvard University Press, 2003.

Latour, Bruno. “From Multiculturalism to Multinaturalism: What Rules of Method for the New Socio-Scientific Experiments?” *Nature and Culture* 6, no. 1 (2011): 1–17.

Latour, Bruno. *An Inquiry into Modes of Existence: An Anthropology of the Moderns*. Translated by Catherine Porter. Cambridge, MA: Harvard University Press, 2013.

Latour, Bruno. *Politics of Nature: How to Bring the Sciences into Democracy*. Translated by Catherine Porter. Cambridge, MA: Harvard University Press, 2014.

Lewis, George E. “Too Many Notes: Computers, Complexity and Culture in *Voyager*.” *Leonardo* 10 (2000): 33–39.

Lim, Liza. “Intervention: Knots and other forms of entanglement.” In In *Distributed Creativity: Collaboration and Improvisation in Contemporary Music*, edited by Eric F. Clarke and Mark Doffman, 207-213. Oxford: Oxford University Press, 2017.

Magnusson, Thor. “Musical Organics: A Heterarchical Approach to Digital Organology.” *Journal of New Music Research* 46, no. 3 (2017): 286–303.

Marder, Michael. *Plant-Thinking: A Philosophy of Vegetal Life*. New York: Columbia University Press, 2013.

Malaspina, Cécile. *An Epistemology of Noise*. London: Bloomsbury, 2018.

McLaughlin, Scott. “The Material Clarinet.” In *Rethinking the Musical Instrument*, edited by Mine Doğantan-Dack, 70-96. Newcastle-Upon-Tyne: Cambridge Scholars Publishing, 2022.

Mudd, Tom. “Material-Oriented Musical Interactions.” In *New Directions in Music and Human-Computer Interaction*, edited by Simon Holland, Tom Mudd, Katie Wilkie-McKenna, Andrew McPherson, and Marcelo M. Wanderley, 123-134. Cham: Springer, 2019.

Piekut, Benjamin. “Sound’s Modest Witness: Notes on Cage and Modernism.” *Contemporary Music Review* 31, no. 1 (2012): 3–18.

Piekut, Benjamin. “Chance and Certainty: John Cage’s Politics of Nature.” *Cultural Critique* 84 (2013): 134–163.

Prior, Nick. “On Vocal Assemblages.” *Contemporary Music Review* 37, nos. 5-6 (2018): 488–506.

Shultis, Christopher. “The Process of Discovery: Interpreting *Child of Tree*.” *Contemporary Music Review* 33, nos. 5-6 (2014): 570–579.

Tresch, John and Emily I. Dolan, “Toward a New Organology: Instruments of Music and Science.” *Osiris* 28, no. 1 (2013): 278–298.

Todd, Zoe. “An Indigenous Feminist's Take On The Ontological Turn: ‘Ontology’ Is Just Another Word For Colonialism,” *Journal of Historical Sociology* 29, no. 1: 4–22.

Valiquet, Patrick. “Affordance Theory: A Rejoinder to ‘Musical events and perceptual ecologies’ by Eric Clarke et al.” *The Senses and Society* 14, no. 3 (2019): 346–350.

Viveiros de Castro, Eduardo. *Cosmological Perspectivism in Amazonia and Elsewhere: Four lectures given in the Department of Social Anthropology, Cambridge University, February–March 1998*. Manchester: HAU Masterclass Series, 2012.

Viveiros de Castro, Eduardo. “The Relative Native.” *HAU* 3, no. 3 (2013): 473–502, 483–84.

Wojnowski, Konrad. “Capturing the World with Performance: John Cage’s Probabilistic Aesthetics for the Digital Age.” *TDR/The Drama Review* 63, no. 4 (2019): 33–56.

1. Mudd, “Material-Oriented Musical Interactions.” See also Clarke and Doffman, “Introduction and overview.” [↑](#footnote-ref-1)
2. Mudd, “Material-Oriented Musical Interactions,” 124; Barad, *Meeting the Universe Halfway*, 33. [↑](#footnote-ref-2)
3. Ibid., 148. [↑](#footnote-ref-3)
4. See, for a formative example, Lewis, “Too Many Notes.” [↑](#footnote-ref-4)
5. Barad, *Meeting the Universe Halfway*, 215. [↑](#footnote-ref-5)
6. See, for example, McLaughlin, “The Material Clarinet”; Lim, “Intervention: Knots and other forms of entanglement.” [↑](#footnote-ref-6)
7. See Tresch and Dolan, “Toward a New Organology”; Bates, “The Social Life of Musical Instruments”; Bates, “Actor-Network Theory and Organology.” [↑](#footnote-ref-7)
8. See Born and Barry, “Music, mediation theories and actor-network theory.” [↑](#footnote-ref-8)
9. Magnusson, “Musical Organics,” 287. [↑](#footnote-ref-9)
10. See Born, “On Musical Mediation,” 8n1; Prior, “On Vocal Assemblages.” [↑](#footnote-ref-10)
11. See Clarke with Williams and Reynolds, “Musical events and perceptual ecologies”; see also Valiquet, “Affordance Theory.” [↑](#footnote-ref-11)
12. An example of this would be Ian Buchanan’s challenge to ‘assemblage theory’ on Deleuze-Guattarian terms – see Buchanan, “Assemblage Theory and Its Discontents” and Buchanan, “Assemblage Theory, or, the Future of an Illusion.” [↑](#footnote-ref-12)
13. Cage, *John Cage: Writer*, 241. [↑](#footnote-ref-13)
14. See, for example, Cage, *Silence*, 46, 149. [↑](#footnote-ref-14)
15. Kostelanetz, *Conversing with Cage*, 103. [↑](#footnote-ref-15)
16. Christopher Shultis provides an informative account of the challenges and opportunities that performing *Child of Tree* presents in “The Process of Discovery.” [↑](#footnote-ref-16)
17. Kostelanetz, *Conversing with Cage*, 92. [↑](#footnote-ref-17)
18. See Malaspina, *An Epistemology of Noise*. [↑](#footnote-ref-18)
19. Wojnowski, “Capturing the World with Performance,” 47. [↑](#footnote-ref-19)
20. In the precise sense of being an age still in the wake of developments in cybernetics and information theory in the 1940s and 1950s. [↑](#footnote-ref-20)
21. Piekut, “Chance and Certainty,” 159n6. [↑](#footnote-ref-21)
22. Ibid., 136; Piekut, “Sound’s Modest Witness,” 11; Latour, *We Have Never Been Modern*, 13. [↑](#footnote-ref-22)
23. Piekut, “Sound’s Modest Witness,” 11. [↑](#footnote-ref-23)
24. Latour, *We Have Never Been Modern*, 6. [↑](#footnote-ref-24)
25. Descola, *Beyond Nature and Culture*; see also Latour, *Politics of Nature*,and Latour, “From Multiculturalism to Multinaturalism. [↑](#footnote-ref-25)
26. Piekut, “Sound’s Modest Witness,” 13. [↑](#footnote-ref-26)
27. Cage, *Silence*, 15. [↑](#footnote-ref-27)
28. Piekut, “Sound’s Modest Witness” 12. [↑](#footnote-ref-28)
29. Ibid., 11. [↑](#footnote-ref-29)
30. Piekut, “Chance and Certainty,” 146. [↑](#footnote-ref-30)
31. Ibid.; Hacking, *The Taming of Chance*. [↑](#footnote-ref-31)
32. Piekut, “Chance and Certainty,” 135, 151. [↑](#footnote-ref-32)
33. Ibid., 158. [↑](#footnote-ref-33)
34. Cage, *A Year from* Monday, 124. [↑](#footnote-ref-34)
35. Cage, *Silence*, 12. [↑](#footnote-ref-35)
36. Cage, *For the Birds*, 91. [↑](#footnote-ref-36)
37. Cage, *A Year from Monday*, 126. [↑](#footnote-ref-37)
38. Joseph, *Beyond the Dream Syndicate*, 135. [↑](#footnote-ref-38)
39. Barad, *Meeting the Universe Halfway*, 120. [↑](#footnote-ref-39)
40. Barad, *What Is the Measure of Nothingness?*, 6. [↑](#footnote-ref-40)
41. Barad, *Meeting the Universe Halfway*, 57-58. [↑](#footnote-ref-41)
42. Piekut, “Chance and Certainty,” 144. [↑](#footnote-ref-42)
43. Berliner, Legrain, and van de Port, “Bruno Latour and the anthropology of the moderns,” 443. [↑](#footnote-ref-43)
44. Viveiros de Castro, *Cosmological Perspectivism in Amazonia and Elsewhere*, 152. [↑](#footnote-ref-44)
45. Holbraad and Pedersen, *The Ontological Turn*, 168. [↑](#footnote-ref-45)
46. Viveiros de Castro, “The Relative Native,” 483-84. [↑](#footnote-ref-46)
47. See, more recently, Latour, *An Inquiry into Modes of Existence*. [↑](#footnote-ref-47)
48. Although Latour has also been criticised for his relation to Indigenous thinking – see Todd, “An Indigenous Feminist's Take On The Ontological Turn” and Danowski and Viveiros de Castro. [↑](#footnote-ref-48)
49. Cage, *For the Birds*, 181. [↑](#footnote-ref-49)
50. See, for example, Hörl, *General Ecology* and Hui, *Recursivity and Contingency*. [↑](#footnote-ref-50)
51. Gibson, “Interview with Michael Marder,” 29. [↑](#footnote-ref-51)
52. Marder, *Plant-Thinking*, 8. [↑](#footnote-ref-52)
53. Ibid., 9. [↑](#footnote-ref-53)
54. Ibid., 5. [↑](#footnote-ref-54)
55. Ibid., 10. [↑](#footnote-ref-55)
56. Cage does, however, express an interest in these processes (Kostelanetz, *Conversing with Cage*, 93), and utilises them in other pieces, such as his large-scale *Variations VII*. [↑](#footnote-ref-56)
57. Gibson, “Interview with Michael Marder,” 27-28. [↑](#footnote-ref-57)
58. Wojnowski, “Capturing the World with Performance,” 34. [↑](#footnote-ref-58)