
Editorial: The sonic and the electronic in improvisation

Electroacoustic practices have held a special place in the improvisation scene for a number of decades. From the amplified sound masses of AMM and the sonic experiments of Musica Elettronica Viva in the 1960s, to George Lewis's Voyager system in the 1980s, to the Evan Parker ElectroAcoustic Ensemble in the 1990s and onwards, improvisors have deployed electronic tools and a broad range of sonic resources – sometimes in an effort to expand the available palette of sonic materials, sometimes in search of new means of developing or facilitating the process of spontaneous music-making (as, for example, with Lewis's Voyager (Lewis 2000)).

But this is not the same as to say that improvisation has equally been a proudly recognised pillar of electroacoustic music over this same period. It could be argued that electroacoustic improvisation has been sidelined somewhat, in favour of studio composition practices in the first instance, then later as a kind of lesser sibling of mixed music paradigms; a distant cousin to be eyed with some suspicion, as a minor distraction from the sanctioned primacy of compositional practices. Even as advances in real-time digital technologies made onstage electroacoustic performance practices more feasible and more practical, the focus tended to remain firmly fixed on mixed music composition rather than on the expanding possibilities that these technologies offered for improvisation practices. This is perhaps strange, since no musical practice is as closely linked with the 'real-time' as improvisation, with its focus on the 'now', on the immediate and the ephemeral, on the passing moment.

A closer inspection, however, perhaps reveals a slightly different story: of a rich, albeit somewhat obscured, undercurrent of improvisation practices running through electroacoustic music. Scratch beneath the surface and one finds that inside quite a number of electroacoustic composers there is an enthusiastic improviser eager for an opportunity to step into the light; and, there are many who are perhaps more broadly recognised in the electroacoustic community for their compositional output, who are also active onstage as electroacoustic improvisors. Why, then, is improvisation not afforded the same pride of place as more compositionally oriented practices?

One possible answer is that significantly less attention has been paid to improvisation in electroacoustic theory, writing and literature than is paid to the broad range of electroacoustic compositional practices. This might seem odd, since quite a lot of published literature on electroacoustic music comes from the practitioners themselves. If improvisation is an important part of the community's practice, why has the community historically shied away somewhat from improvisation in its publications and research?

One possibility stems from the fundamentally intangible nature of improvisation. To begin with, compositional practices leave a clearer 'trace', a 'neutral level' object that might seem more susceptible to objective examination and analysis. This might be deceptive, however. A recorded improvisation also leaves a trace; it is perhaps spurious to assume some kind of absolute, de facto ontological difference between this and, for example, a studio composition. Both are available for listening; both are open to analysis; and, although this might be deemed controversial by both improvisors and composers, these might not be as easily distinguishable in 'blind' listening as is commonly assumed.

This points us back to the fact that a significant percentage of the theoretical and analytical writing in electroacoustic music studies comes from the practitioners themselves, a situation that risks confounding the aesthetic with the poietic, that is, that risks the unquestioned assumption that the priorities of an object's creation are inextricably determinant of the nature and understanding of that object. The development of a composition often involves a process of explicit and deliberate construction, conscious decision-making and a long string of structural choices; these aspects of the work are therefore very clear to the composer, as a result of which it is arguably natural for a composer to write about these aspects of the work (which in turn makes it natural for students of electroacoustic music who encounter the work through such writing to assume that these aspects of the work are what defines the field).

This contrasts dramatically with improvisation, both as a process and as an object of study. In improvisation, the real-time flow of creative decision-making engages a very different cognitive process; all decisions are made 'on the fly', at a speed far

greater than the logical deliberation of the conscious mind. To expound upon this in writing therefore first requires a potentially painful process of uncovering and discovering one's own processes, before they can be analysed or discussed. In other words, because improvisation is typically a much less conscious, less deliberate, less explicit process than composition, it is a much more difficult and slippery subject for examination and exegesis.

One is also easily led to the assumption that, because the process of composition tends to explicitly and consciously foreground questions of form and structure and their construction, these are therefore significantly more present, more sophisticated, than in improvised musics, in which form and structure are imagined and constructed in real time, often in an organic and unconscious, or only partially conscious, manner. However, this is perhaps a remnant of a modernist bias that is increasingly open to question and is slowly being set aside. The quality, depth, or sophistication of musical structure is not automatically linked to its germination process; there is no one-to-one relationship between the length of time that it takes to develop and refine a piece of music, and the quality of that music. Although composers may sometimes wish to deny this, composers are if anything more aware of this fact than anyone. It is often the most intuitive aspects of a composition that are the most satisfying, the most successful. This is no less true of structure than it is of any other aspect of music: regardless of whether or not structure has been carefully pre-determined, structure will nevertheless emerge, no matter how extemporaneous its manner of production. It is a mistake to assume that extemporaneous structure is necessarily or automatically inferior in its reception to structure that has been painstakingly thought through and carefully crafted beforehand.

There is also, I suspect, a possibly unrecognised fear of 'jinxing' the somewhat mysterious and magical aspects of the process of improvisation. Because the 'in the moment' experience of improvising is unconscious and intuitive, there is an unspoken worry that, by pulling this process into the open and exposing it to the harsh light of analysis, one might lose access to the unthinking 'flow state' that is commonly reported as ideal for improvisation, and that, once examined and picked apart consciously, one might no longer have access to the unconscious and somewhat mystical qualities that buoy and propel a performer in the finer moments of improvisation. One sometimes encounters similar misgivings around the idea of teaching improvisation: that because it is in many ways an instinctive, intuitive and unconscious process, it is not something that can be taught. While these concerns cannot be definitively disproven, one might counter that it is perhaps worth the risk.

There is much to be learned from examining and uncovering the musical processes of improvisation – not just about improvisation itself but also about music more generally, about the creative process and about even broader territories of cognition, decision-making, experience and much more. Thus, while one may perhaps be running the risk of handicapping one's process by isolating and examining it, I would argue that this is a risk worth taking.

In recent years, the comparative silence in the academic study of improvisation has begun to dissipate, a process to which this issue of *Organised Sound* hopes to contribute by offering a platform for improvisors and musicologists to examine improvisation from a perspective that explicitly foregrounds electroacoustic practices. The contributions here offer an exciting range of perspectives, from the philosophical, to the technological, to the artistic, and beyond. There are a number of thematic threads that weave in and out of the articles in this issue. Articles by Alistair MacDonald, Seth Thorn, and Sam Gillies and Maria Sappho Donohue explore the 'performer plus' paradigm in improvisation, in which software tools are used to supplement, enhance, accompany or duet with live instrumentalists. Articles by Seth Thorn and Adam Pultz Melbye describe the electric, electronic and digital extension of acoustic instruments for electroacoustic improvisation. Articles by Paul Stapleton and Tom Davis and by Otso Lähdeoja and Alejandro Montes de Oca are linked through ideas around networked communication in group improvisation. There are ideas and theorists that pop up across a number of articles, including George Lewis's dichotomy of the 'Afrological' and the 'Eurological' in improvisation (Lewis 1996); the idea of the instrument or the system as 'co-performer'; MacDonald's reference to the instrument and its electronic 'other', which also surfaces to some extent in Seth Thorn's article; ideas around 'agents' and 'environments'; and a number of references to ecological psychology and semiotics. There are also, of course, multiple connections and common threads regarding the opportunities, challenges and idiosyncrasies of improvising with electroacoustic tools, including synthesis, coding, extended instruments and more.

The issue begins with Otso Lähdeoja and Alejandro Montes de Oca's article 'Co-Sounding: Fostering intersubjectivity in electronic music improvisation', an exposition on a practice-based examination of intersubjective communication in electroacoustic improvisation. How do improvisers communicate non-verbally through the music, and do electroacoustic resources offer unique possibilities for the facilitation of this communication? The article draws on a well-conceived and rigorously executed portfolio exploring a range of duo improvisation scenarios to examine these questions of

‘intersubjectivity’ and mediation between performers in group improvisation.

In Adam Pultz Melbye’s article ‘Resistance, Mastery, Agency: Improvising with the feedback-actuated augmented bass’, practice is firmly and rigorously rooted in theory for a presentation of an intriguing example of the ‘extended instrument’ paradigm. It draws simultaneously on acoustic, electric and digital resources; acoustic feedback and digital signal processing (DSP) work in tandem to grant the performer access to a significantly expanded instrumental world, repositioned as a ‘performance ecosystem’.

Erik Nyström’s ‘Strange Post-human Attractors: Algorithmic improvisation as acousmatic *poiēsis*’ offers a post-humanist approach to electroacoustic composition and software-based improvisation. The author couples two of his own code-based performance works with a philosophical examination of the ‘post-human’, with roots in N. Katherine Hayles’s concept of ‘cognitive assemblages’ and Karen Barad’s idea of ‘intra-action’; theory informs practice, and practice reflects on theory. The article also wraps together topics such as AI, machine learning, feedback systems, and spatialisation in the author’s practical application, and reflects on the gaps between acousmatic music and improvisation in a manner that proves illuminating as we face a post-acousmatic horizon.

Alistair MacDonald’s article “‘Making Life Lively’: Co-estrangement in live electroacoustic improvisation’ places clear emphasis on the performer’s perspective to provide a welcome window into the experience of improvising, specifically in duo contexts involving the paradigm of instrumentalist/vocalist plus ‘live electronic manipulation of sound’. MacDonald offers a presentation of the historical context for this area of improvisation practice, then draws on his long experience within this practice to propose ‘estrangement’ as a term to describe the instrumental or vocal performer’s experience of their transformed ‘other’, and ‘co-estrangement’ to describe the relationship between the two performers in this scenario.

Paul Stapleton and Tom Davis’s article ‘Ambiguous Devices: Improvisation, agency, touch and feed-through in distributed music performance’ examines networked communication in improvisation through the lens of their ‘distributed musical instrument’. The article brings together a number of aesthetic and creative interests and priorities, including performance ecosystems, human–machine improvisation and distributed agency. One of the many points of interest here lies in the broad range of artists that are drawn upon to contextualise their work, from Ikue Mori and Michael Waisvisz to Sun Ra and Einstürzende Neubauten.

Seth Thorn’s contribution, ‘Flows of Inhomogeneous Matter: Improvising an actuated augmented violin’, pairs well with Melbye’s article on the augmented bass. Thorn presents his extended violin design, which incorporates voice coils, actuators, a sensor glove and MaxMSP, in a carefully conceived and designed digital musical instrument. Thorn’s design process, firmly rooted in materialist philosophy, is contextualised, extending the history of the violin through to its expansion using DSP, with a view of the instrument as a ‘system’. Intriguingly, the author argues that improvisation is incorporated in the instrument’s design and development as much as in its performance, and in a very similar manner.

Christos Michalakos’s article ‘Designing Musical Games for Electroacoustic Improvisation’ brings a unique angle on the theme of this issue. The author proposes video game structure as a way to ‘organise’ improvisation, and as a means of enhancing audience outreach and experience. Topics including game structures, musical expression and the use of controllers are explored with reference to two of the author’s ‘electroacoustic game-pieces’ – game-based audiovisual performances that are controlled via augmented drum-kit. Questions of authorship are considered from a unique perspective that brings together the musical identities of composer and performer with the video game roles of game designer and player, as well as the potential for improvisation to disrupt these roles.

Christophe Lengelé offers us ‘*Live 4 Life: A spatial performance tool to play the ephemeral and improvise with space and playback speeds*’, presenting the author’s own SuperCollider-based spatial performance and improvisation instrument that, interestingly, is centred on the manipulation of playback speed to control spatial, spectral and rhythmic qualities, articulation and texture. This is used as the launchpad for a discussion of broader questions such as the relationship between composition and improvisation, human–computer interaction, and the role of controllers, as well as a consideration of more specific techniques for improvisation using live processing and synthesis, with a particular focus throughout on spatial qualities.

One of the more philosophically focused articles in this issue is Kristin Kuldkepp’s ‘Free Improvisation as Experience: A pragmatic insight into improvisational gesture’. Kuldkepp brings the perspectives of two pragmatist philosophers, John Dewey and Giovanni Maddalena, to bear on the concept and practice of free improvisation. Key ideas here are Dewey’s ‘an experience’ and ‘the expressive object’, and Giovanni Maddalena’s ‘complete gesture’, which are applied to the musical concepts of experience, expressive object, and gesture.

Jonathan Higgins's contribution, 'More Than an Instrument: Improvising with failing playback media', examines the question of the 'non-human improviser' through the use of playback media as an instrument in improvisation. As these devices and media are pushed to their limits and beyond, they struggle and begin to fail, producing sonic outputs whose unpredictability makes them desirable improvisation partners: controllable only to a limited degree, predictable only to a limited degree, and thereby potentially offering an ideal balance between performability and the production of surprising and inspiring new materials. Higgins draws a powerful connection between the usefulness of 'failure' in these devices and the much broader importance of 'failure' in improvisation more generally – an important and fascinating topic that has yet to receive as much attention as it is due.

Jimmy Eadie offers us 'Improvisational Listening: *Audiowalk – St Enda's Park*', another of the unique perspectives in this issue, which argues for the improvisational aspects of an *in situ* geolocative installation. The author describes the work as 'a responsive, interactive and improvisational site-specific audiowalk'; the article considers a number of aspects of the work and its implications, including the idea of soundwalking as an improvisational act and a discussion of 'improvisational listening', as well as questions of place, memory and history, and how these impact upon our experience of soundscape.

Sam Gillies and Maria Sappho Donohue's article 'Donohue+: Developing performer-specific electronic improvisatory accompaniment for instrumental improvisation' offers a close examination of a 'performer plus' case study, which transforms a Disklavier into a capable improvisation partner. The focus is on the techniques for analysis and decision-making, with a particular focus on the analysis of both language and style and the incorporation of both in the system's musical responses. The project is contextualised through comparison with previous systems and an examination of its potential in a number of free improvisation contexts.

The final two articles in this issue are off-theme contributions. Nicolas Marty's article, 'François-Bernard Mâche's "Sacred" Music', presents some of Mâche's works – principally 2016's *Alcyone* – with a focus on what the word 'sacred' means in this musical context, both for the composer and for the listener. The article throws welcome light onto several aspects of Mâche's work, including his use of space, spatial presentation, techniques such as 'surmodelage', and the music's relationship with the world.

Richard Cross's article 'Towards a Practice of Palimpsestic Listening' proposes the concept of the palimpsest as a model of listening to works that engage multiple layers of technology, aesthetics and sound. This, together with an examination of the analog vs the digital and the physical vs the sonic, is examined in action through a presentation of the author's sound installation *Dlta Ro} – A Dialectical Trash Heap*.

A final word: as this issue recruited a significant number of publishable articles, for the third time in the journal's history it has been decided to dedicate a large portion of a follow-up issue to the subject, specifically issue 27/2. As a number of the articles that will appear in this issue will be ready for publication long before the issue is printed, we shall be utilising Cambridge University Press's FirstView system whereby the articles will appear online with their associated media examples where relevant once the copy-editing phase has been completed. Perhaps this indicates that the subject of improvisation in electro-acoustic music was not, in the end, as marginal as suggested at the beginning of this editorial.

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Not only has James Andean taken on the guest editorship of this issue on improvisation very successfully, I would also like to welcome him as the journal's new Associate Editor commencing with this issue 26/1. I have decided to work in close association with James as the journal enters its second quarter century. His enthusiasm and openness will be of great importance to *Organised Sound* as it moves forward. There will be more news to come regarding new advances related to the journal in future issues.

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