
EDITORIAL

With roots that can be traced back at least as far as Cage's composition classes in the late 1950s, many composers and sound artists now systematically design ways for audiences to participate aurally, visually and physically – welcoming them in to play an active role in their own (and their neighbour's) experience of sounding artwork.

The 'open' forms composers explore to share decision-making responsibilities with performers already challenge notions of a work's identity, push notation into new realms and question the primacy of virtuoso performance. Audience participation is even more disruptive to musical traditions given the absence of rehearsal, and the lack of trained skills in reading notation, in listening and in collectively creating form and structure that 'naïve' audiences introduce to the participatory work.

There is an astounding variety of ways in which audiences are drawn in to participating in a musical work. From sensor-enhanced audiences to participatory scoring, from the Deep Listening (and playing) sessions of Pauline Oliveros to artist-led workshops, from installation works to sound toys and circuit-bent devices, from web-mediated engagement to urban sound walks, different kinds of audience-navigated experiences of sound are now ubiquitous features of the sonic arts landscape.

Certainly new computing and communications technologies are important enablers of this redefinition of traditional roles between composers, performers and audiences. For example, most audience members now come equipped with powerful and sensor-rich computers, communications and tracking devices, and synthesisers in their pockets (often referred to as 'phones'). Audiences no longer need to come together geographically or temporally to share a musical experience. However, the space of possibilities opened by these technologies is so vast that our focus shifts back to the musical innovation – to the particular new ways of listening, playing, composing and experiencing music that composers are exploring.

Each different type of audience engagement defines different relationships, establishes different roles for groups of participants, and creates the need for different playing and listening strategies. Audience members may be cooperating with their neighbours to generate a score for performers while at the same time listening to the work they are constructing.

They may encounter public pieces without warning, suddenly becoming the 'performer' by virtue of driving a car or walking by a shop window. Many new works solicit audio content from audience members either before or during the performance of a work. In fact, the range of audience engagement strategies being explored today leaves little hope for a thematic issue such as this to be remotely comprehensive. Nonetheless, the collection gathered herein is an interesting sampling of the space and touches upon a rich set of musical and aesthetic issues.

The issue begins with 'The "Open Work": ecologies of participation' by Guy Harries. Harries uses Umberto Eco's 1962 formulation of the 'open work' as a reference point for analysing various relationships between composers, performers and audiences. Social networking, games, DJing and electroacoustic musical performances are drawn upon to shed light on different 'levels' of interaction from interpretation to participation. The background discussion is dense with theoretical references and specific examples of interactive sound art, and culminates in an extended discussion of the author's own *Shadowgraphs* to round out his conceptualisation of participation ecologies.

Peter Batchelor discusses the relationship between composers and audiences that arises in the context of public art in 'Lowercase Strategies in Public Sound Art: celebrating the transient audience'. Ethical issues arise with public sound art since the audience may encounter such works unintentionally or perhaps not even be aware that they are participating in another person's experience of a work. Batchelor proposes 'lowercase' strategies for inviting rather than imposing engagement, and in the process explores many nuances of what it means to be an audience.

In 'My Content/My Space/My Music', Alexandros Kontogeorgakopoulos and Olivia Kotsifa focus on developing an aesthetic around individualised interactive experiences based largely on audio content provided by participants themselves. In the three works the authors use to illustrate their approach to interaction, the participants and the audience are largely the same, although each work still admits a 'secondary' audience of non-participants. The background literature they cite is rooted as much in new media practices as in musical ones. The result is a somewhat stronger emphasis on, for example,

embodiment and social practices than what is found in the literature on interactivity coming from music communities. This creates an expanded context for thinking about interaction with sonic works informed by other media arts.

Nathan Weitzner and his colleagues from the Georgia Institute of Technology discuss a hardware/software 'framework' for massive musical participation in their contribution, 'massMobile: towards a flexible framework for large-scale participatory collaborations in live performances'. The framework is viewed less as an engineering solution than as a design that supports their vision of compositional and performance possibilities for audience participation on a large scale, supporting individual engagement and coherent large-scale musical structures. The platform is based on smartphones, and permits composers to develop new works by focusing on musical goals rather than on the technical challenges that have required so much attention in the past each time a new piece is composed. *Saxophone Etudes* by Jason Freeman is used to illustrate the ways the system can support audience interaction in the context of a specific composition.

In 'Understanding Interpretation, Informing Composition: audience involvement in aesthetic result', Andrew Hill views the reception of a fixed-media composition by a more classically situated audience as active engagement in meaning creation. Studying audiovisual music, he involves the audience in a research process of composing a work. Building on earlier intention/reception research, responses to music were gathered from audiences, analysed and, in several stages, used to inform the composition of a new work. Hill finds interesting differences between listeners based on their lived and electroacoustic listening experience, and, through a kind of iterated design with feedback from these diverse audience types, explores approaches to matching compositional intention with reception.

The final three contributions to this issue consist of off-theme articles.

The subject of Elizabeth Hoffman's work provides an interesting counterpoint to the topic of this special issue. The theory she explores, stemming from Adorno, considers the relationship between fixed representations (be they sound file or score) and the many possible renderings from those representations. Rather than focusing on how the audience 'completes

the work', she explores how the variable and contingent aspects of the performance renderings do so (such as the spatialisation of an acousmatic piece or the interpretation of a conductor or even a silent reading of a score). Like a score, Hoffman contends, a sound file can be accessed pre-performatively through listening on headphones or visualising it, thereby identifying and highlighting the space of contingencies available in electroacoustic music that are sometimes overlooked by emphasising the 'fixed' nature of the medium.

Brøvig-Hanssen and Danielsen, in 'The Naturalised and the Surreal: changes in the perception of popular music sound', consider the creation and manipulation of artificial spaces in popular music, and show how impossible 'sound stages' have become naturalised (accepted or even expected) by audiences listening to certain genres of music. The authors draw on Gibson's ecological perception and Smalley's notions of source bonding to illustrate how 'the global spatial style in a work as a whole' has been systematically manipulated in the domain of popular music. While the focus is on patterns of surreal sound-stage construction in popular music, the naturalisation process the authors describe is a contact point with the theme of this issue because of the collective expectations that have been cultivated in audiences.

'Schaeffer's Values, Henry's Monsters and Orchestral Noise Reduction' by Jeffrey DeThorne rounds out this issue by developing parallels between Schaeffer's 'neutralisation' of referential sounds into musical objects, and the New German orchestration's 'acousmatic reduction' of the French-style anecdotal instrument-referential colours.

This issue spans a wide gamut of types of audience engagement, from reduced listening to research participation, and from accidental encounters to intentional physical interaction and audio content contribution. Media and sound art appear to be approaching a common interactive artistic space from two distinct directions, bringing with them very different ways of engaging with and conceptualising performers, participants and audiences. The result can only be a continued expansion of musical experience for all who partake.

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