## ARTISTIC LABORATORY PRACTICES IN ARTISTIC RESEARCH IN MUSIC

What then might an artistic research laboratory be? Indeed, the possible relations that artists may have to laboratory practices have been manifested in diverse ways throughout the 20th Century. In the field of music research, early examples are directly related to the development of audio technologies, initially mainly in radio studios, as in the ground-breaking research of the French composer Pierre Schaeffer, hosted by Radio France. In 1955, Lejaren Hiller operated the ILLIAC computer at University of Illinois at Urbana—Champaign to create the first computer-aided compositions, marking yet another step in the close association between artistic experimentation in music and the laboratory (Impett & Parra Cancino, 2019). Another milestone in the creation of new institutional frameworks was the inauguration of IRCAM (Institut de Recherche et Coordination Acoustique/Musique), at Centre Pompidou in Paris in 1977. Created on an initiative of the French composer Pierre Boulez, IRCAM enabled a further exploration of the potential intersection between computational technologies and artistic practice.

However, while such cultural history of institutions and technology provides a foundational perspective, our interest lies more in what can be observed in what Rheinberger (2019) calls the micro-epistemology of experimental systems. He argues that here, be it in the arts or in the sciences, "what is at stake are the practices of making, an understanding of a production process with an uncertain outcome, at whose end things will stand that did not command and determine its beginning" (p. 236). He further observes how such practices, the outcome of which are unknown, shifts the focus to "the configurations of materials, instruments, arrangements, and cognitive-practical lists—both in the sense of agendas and in that of tricks—that go into the process, and that determine together and inseparably its epistemic and aesthetic design, respectively, in ever new forms" (p. 236). Thus, while the technologies in a particular laboratory setting play an essential role, an artistic research laboratory can be set up in any relevant situation. What is in focus is the entire practice being challenged, explored, questioned, tested or developed.

Similar observations are made by Veerle Spronck (2019) in her ethnographic study of the ERC-funded artistic research project "Experimentation versus Interpretation: Exploring New Paths in Music Performance in the Twenty-First Century" (ME21), hosted by the Orpheus Institute in Ghent. She notes how the 'practical musical experiments' play an essential role, and necessarily take place in many different settings, using a wide range of tools, both for the artistic production as well as means for registration of process and outcomes:

In their everyday practices, the team constructed actual events, performances and concerts that led to new (theoretical) understandings. So, rather than examining the outcomes of the project, I bring into view the socio-material process through which ME21 took a variety of shapes. The ME21 laboratory was thus not only situated at the Orpheus Institute as an academic institution, but also in concert halls, behind pianos, at guitars, in design programs on laptops, in art galleries, and so on. Moreover, the conceptual space of ME21 builds on a variety of disciplines. Theoretical concepts from fields such as philosophy, history of science, and STS were mobilised to rethink the nature of musical performance. (Spronck, 2019, p. 195)

Hence, not only is the ME21 laboratory characterised by employing a multiplicity of tools in various settings, but these practices are further contextualised through a conceptual framework

and methods drawn from a number of different research disciplines. This is expressive of the notion that the production of knowledge in artistic research is not limited to the formation of knowledge through the arts, but the artistic researcher can also enable "a translation from the artistic, through an understanding of art also as process, towards a translation into a verbalizable articulation of knowledge" (Östersjö, 2017, p. 90).

Furthermore, Sarat Maharaj, in his introduction to the interdisciplinary Knowledge Lab, held at the Haus der Kulturen der Welt in 2005, puts the focus on how practices can only be explored in the lab "in the thick of the performative experience". He argues that

The Lab is about plunging in, getting under the skin of things to see how they tick from the inside. The atmosphere is of intimacy, immediacy and involvement—not clinical aloofness. We are not standing by watching the presentations as 'spectacle.' It's a 'thinking and doing' mode. (Maharaj, 2005, as cited in Östersjö, 2019, p. 92)

Building on the experience of participating in this event, Östersjö sought to develop formats for artistic research laboratories that could sometimes serve as a testing ground for experimentation, and sometimes as a stage for events in the art world, allowing artistic researchers different positionalities between academic and artistic contexts. While first organised in the form of the Connect festival, from 2010, when the Inter Arts Center opened, hosted by Lund University, the Interference series of labs developed into an integrated component in the curriculum of the PhD program in the Malmö Academy of Music (Östersjö, 2020a; Stefánsdóttir, 2023).<sup>1</sup>

As suggested in the brief historical overview above, the rapid technological development across the 20th Century has greatly affected the development of laboratories for music research. The invention of audio recording technology has profoundly changed our listening, but also how we conceive of music making (Östersjö, 2020b; Stefánsdóttir & Östersjö, 2022). Similarly, audio and video technologies have shifted not only the methods in music research across the board, but also how music and sound is conceived as an object of research. The impact of these technologies in the artistic research laboratory cannot be underestimated. As argued by Ben Spatz (2020), "the advent of audiovisual research stands to radically transform the university and perhaps knowledge itself. At issue here is not only the forms that research can be understood to take, but also who can be recognized as conducting research and what can be counted as knowledge" (pp. 35-36). In the labs we report on in the central section, we hope to provide examples of such audiovisual knowledge production, as well as of other multimodal and cross-disciplinary knowledge forms that constitute a part of the potential of the artistic research laboratory.

<sup>&</sup>lt;sup>1</sup> For the purposes of this paper, it is relevant to note that, starting in 2013, Östersjö began bringing these practices also into the format of the degree project in the bachelor and masters programmes in the Malmö Academy of Music, and between 2018 and 2022, the courses preparing students for the degree project were taught by Stefánsdóttir. As of 2025, Tullberg is involved in the teaching of these courses. These experiences form a fundamental reference in the argumentation of this exposition.