As a performing instrumentalist and artistic researcher, I have a great interest in the nature of knowledge inherent in musical performance. In this article, I therefore set out to explore the sources and kinds of knowledge performers produce, and investigate underlying methodological tools, touching on different ways of representing and disseminating research results and posing questions relating to the conditions pertinent to knowledge gain through performance. By doing so, I intend to establish consciousness and awareness of the core practice and potential of performers with regard to knowledge contribution for their own specific instrumental practice, particularly within the field of artistic research, but also within the humanities in general. This undertaking comes from my conviction that art and artistic research are both domains “in which ‘the questions of the human being, consciousness, origin, and the subject emerge, intersect, mingle, and separate off’” (Foucault 1972, 16).

Subsequently, I will provide a brief overview of knowledge production through performing, followed by an outline of research design in artistic research in general and an elaboration on epistemology in performance practice. For this, I will introduce three artistic (research) projects to illustrate manners and conditions of knowledge gain. I will cover data collection strategies and methods of analysis and evaluation, and shed light on the kinds of knowledge that can be gained. In this context I would like to emphasise that I explicitly understand my and others’ “arts practice as performative, meaning that both the artwork and the creative process stir me (and my audience) and modify how we understand and reflect the world. I state that artistic practice can intrinsically have its own status in the search for knowledge.” (Lüneburg 2018c, 147)
Knowledge production through performing

Which kind of knowledge am I referring to when I speak about ‘knowing through performing’, and how does it fit into the tasks and creative potential of a performer?

A performer's work “extends from the moment of conceptualising a concert to the moment of presenting it on stage and comprises many areas between and around those two points”. (Lüneburg 2013, 6) It includes various creative tasks, such as the act of playing itself – and with it the share of authorship in “the work” presented on stage – as well as curatorial and collaborative undertakings. It comprises the relationship to and the charismatic bond with the audience that is built through the actual concert presentation and beyond. (Lüneburg 2013, 11 and 15)

Through their work on stage, by systematically exploring innovative situations of production and novel works, by studying historical works, images and texts as basis for an interpretation, and by bringing those studies together in and through applied practice and artistic research, performers gather various kinds of knowledge. Some of this knowledge is directly related to the development and interpretation of musical works and includes analytical, historical, musical or instrument-specific knowledge. Some of it relates to our practical understanding of and skill in how to ‘play’ the concert space, i.e. sonic, spatial and phenomenological knowledge gained through systematically investigating, analysing and evaluating the framework of performances that different venues under various circumstances offer. The field of bodily knowledge and embodiment is not only useful for mastering instrument and score, but – combined with psychological and social expertise – it provides performers with the means to effectively and charismatically project music and the symbolic message of an artwork to their audiences. Much of this refers to ‘knowing how to do something’.

In this article, though, I intend to go a step further and look beyond the actual musical doing in search of the epistemic potential of performing. I therefore pose the question of whether we can acquire cultural and social knowledge and learn about humankind through a systematic creative and researching artistic process. I am interested in how social or cultural knowledge might manifest in and through performance, and how performing itself becomes a means of representing and sharing research results.
In the following subchapter I will provide a short overview of research design in artistic research, and of challenges that may be encountered.

**Research design in artistic research**

In his book *Ways of Worldmaking*, the philosopher Nelson Goodman writes of “the multiplicity of worlds, the speciousness of ‘the given’, the creative power of the understanding, the variety and formative function of symbols.” He asks, “What are worlds made of? How are they made? What role do symbols play in the making? And how is worldmaking related to knowing?” (Goodman 1978, 1) He claims that “[p]erceiving motion [...] often consists in producing it. Discovering laws involves drafting them. Recognizing patterns is very much a matter of inventing and imposing them. Comprehension and creation go on together.” (Goodman 1978, 22) One finds these ideas at the core of what research for the arts, through the arts and with the means of art is all about.

Artistic research origins in arts practice. The research object is developed as an integral part of a creative arts-based process (usually by the researcher) and the entire process of creation, the actual artwork, and the act of dissemination are often included as objects of investigation. The philosopher Henk Borgdorff describes this as “experimentation in practice, reflection on practice and interpretation of practice.” (Borgdorff 2012, 23) In an informal email exchange between colleagues, educational researcher Silke Kruse-Weber and I developed the following definition:

“Artistic research operates with forms of knowledge that one cannot investigate using scientific research methods alone. To this category belongs knowledge based on and gained through artistic practice, as well as the knowledge that manifests itself through the results of artistic practice for which experience with the artwork is essential. Artistic research strives for alternative possibilities to communicate these forms of knowledge. [...] The essential difference between artistic and scientific research is that in artistic research, the goals and methods for acquiring knowledge are infused with the posing of questions that stem from the structured and reflective direct involvement of the artist in the process of creating the work and the artwork itself” (Kruse-Weber & Lüneburg 2016) [translation from German by Clio Montrey]
According to the demands and epistemic interests of their specific investigation, artistic researchers may take on different epistemological approaches. They embrace post-positivist, constructivist, transformative or pragmatic worldviews (to name but a few), and avail themselves of methods and tools not only from their immediate arts practice but also from disciplines of social science, philosophy and other humanities. Thus, in many artistic research projects, boundaries between disciplines are blurred; however, the process of artistic creation and the artwork itself form the core of the research: “[D]ata may be collected by doing art (such as performing, exhibiting, artistic software coding, sculpturing, etc., followed by critical reflection), by personal embodiment […], scientific experimentation, by connecting seemingly distant analogies or by exploring discontinuities to create new contexts within and through the artwork.” (Lüneburg 2018c, 159)

Investigation from the inside

The artistic researcher’s investigation from the inside and their concurrent involvement in the creative production, the resulting artwork, and the study of both, are essential and present both advantages and challenges. Artistic researchers have access to thoughts and ideas regarding the creative process and decision making, bodily experiences while playing, and interpersonal relations and communications with their creative partners. This renders first-hand data and insights that are often “inaccessible to others because they are held ‘under closure’, i.e., in sociological terms, behind boundaries or within constructed identities that protect them from prying eyes.” (Lüneburg 2018c, 160)

However, therein lies a challenge, namely to establish a position of critical self-reflection that protects against bias caused by intimate personal and professional involvement. As a consequence of the fact that researching artists are usually professional members of the field in which they work, “their investigation may be influenced by professional (financial, artistic and aesthetic) pressure from their peer group” (Lüneburg 2018c, 164). Artists need to hold their own in the fast-paced professional playground that is affected by political, cultural-political or simply fashionable influences, which may lead to conflicts of artistic or professional interests. Furthermore, working and researching within one’s own professional field can lead to ethical concerns;
for instance, it can be almost impossible to anonymise research data from the arts domain and from colleagues.

A carefully arranged methodological set-up, well-conceived structure of the fieldwork, strategies for systematic data collection and methods of analysis and evaluation maximise clarity and transparency of the critical self-reflective position, “counterbalance subjectivity and reduce the defensiveness that might result from research ‘at home’” (Lüneburg 2018c, 167). Furthermore, these structures can guard against possible epistemic blind spots in perception, lessen the susceptibility to error in introspection, and counteract the possibility that some aspects of the investigation might lie outside the focus of the researcher’s current attention. Both financial independence through research funding and the consideration of possible ethical objections early on help to alleviate possible dependencies on the arts market and ethical pitfalls that might arise in the course of the project. Last but not least, working in an interdisciplinary team provides the means for differentiated discourse, critical reflection and methodological rigour, as it offers additional reference points, accountability and the benefit of a second- and third-person research perspective. In a positive sense, however, I believe what organisational behaviour scholar Judi Marshall and action researcher Geoff Mead say about first-person research can be applied to artistic research: “Without wishing to render oneself or others unnecessarily vulnerable, it may be that this ‘edginess’ is a possible marker of quality in first-person action research, an indication of a willingness to work at one’s ‘learning edge.’” (Marshall & Mead 2005, 237)

Dissemination and sharing of knowledge

Performers in artistic research disseminate research results through both verbal accounts and – specific to artistic research – through artworks. They share their results not only with practitioners of their domain, that is other performers, composers as well as music and art promoters, but also with their audiences and scholars of various domains. Choreographer and artistic researcher Efva Lilja states in her article What is Good in Art? The Artistic Research Dilemma:

“[t]here must be openness for what can be a relevant presentation of artistic research based on the idea of the project, its purpose, process and end
product. This means that it is not primarily the work as a product that is the object, but that the delivery of the project can be documentation, reflection and conclusions from the research in the form that the artist chooses. (Lilja 2012, 72)

Artistic researchers possibly pursue a twofold quest with the artworks that emerge from artistic research projects: firstly, to develop an artwork that can stand on its own, and secondly, to present insights and research results through language and with the means of art.

In the following subchapter I illustrate knowledge gain in performance and artistic research through examples from practice. I introduce three different arts/artistic research projects through which I intend to show the variety of knowledge that can be won through performance, ranging from cultural to social, creative and philosophical questions. For each project I analyse the kind of knowledge gained, the methodological tools used, and the forms of sharing and dissemination of knowledge. In doing so, I study the condition and limits of knowledge gain.

**Knowledge gain in performance and artistic research - examples from practice**

How is the creation of art related to knowing? In which way does performing reveal knowledge?

**Project 1: Louis Aguirre Toque a Eshu y Ochosi for singing violinist.**

The topic: *Toque* is based on the Afro-Cuban religion Santería and involves performer and audience in a religious rite executed by the violinist on stage. The performance recreates the bodily experience and intensity of a religious rite. The violinist invokes the Santería god Eshu (expressed in the vocal part), who swirls around her (expressed in the violin part).

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1 See excerpt of a live performance by the author at *Ultraschallfestival*, Berlin, 2016: https://bit.ly/2V1zHtb
“The performer functions as the priestess who conjures up the gods and plays and sings herself into an ecstasy. [...] Toque is a demanding and physical piece with an unusual expressiveness that reaches from guttural, grunted sounds to half screamed, almost sexual sounding passages to classically sung vocal parts with heavy vibrato. [...] Aguirre declares Toque with its crossing of boundaries as an evocation of the deities through singing and playing; the bodily exertion experienced as a trance-like state, the fast and extreme vibrato as a religious possession – all signs that are typical for a Santería ceremony. [...] He claims that the magic of the ritual will happen through the performance and through the performer. The player doesn’t just act out the role of a priest or priestess of Santería, he or she embodies it.” (Lüneburg 2018c, 139)

Knowledge gained: the experience of Toque, in and through the concert situation, serves the performer and audience as a source of information through demonstration of sensorial and emotional aspects of Santería. It involves them in the phenomenological experience of the power of the rite as an entry into a knowledge of Santería that reaches beyond the faculty of the mind. Verbal information is replaced by a (quasi-)bodily and emotional experience that is shared with the performer.

Methodology: embodying a Santería rite through my artistic practice, a method of data collection not only common to artistic research but also to phenomenology, afforded me the ability to observe the practice of Santería quasi from within. Practising and performing Toque and the collaboration with the composer and Santería priest Louis Aguirre served as a further data collection tool typical of artistic research in performance. Additionally, I
conducted an open-ended interview with the composer and Santería priest Louis Aguirre on the practice of Santería that allowed me to penetrate deeper into the idea of the rite and of his music, a method that might be shared between a sociological and artistic research approach.

Dissemination and sharing of knowledge: in the case of Toque knowledge is revealed and transmitted through the aesthetic and performative experience. How does this work? In his paper *Embodying Music: Principles of the Mimetic Hypothesis*, the musicologist Arnie Cox argues that we adopt the perspective of an acting person via mimetic participation, almost as though we are performing a virtual simulation of their actions.

“When we take an aesthetic interest in something, whether people-watching or attending a sporting event or a film or a concert, our responses can be understood as if we are implicitly asking, *What’s it like to do that?*, along with the corollary question, *What’s it like to be that?* Part of how we answer these questions is via MMI [Mimetic Motor Imagery], along with occasional overt mimetic motor action, as when we move to music in one way or another. In effect, it is as if we are responding to an invitation to somehow imitate and thus take part. Accordingly, we can speak of the performing arts as offering a mimetic invitation, and we can speak of our various responses as mimetic engagement or mimetic participation, whether in the form of overt movement or in the privacy of covert imagery (MMI).” (Cox 2011, paragraph 8)

By witnessing the performance of Toque, the audience gains a sensory and corporeal idea of what Santería means. Through the sonic and visual experience of the concert situation, they engage and participate mimetically, almost as though they were performing a virtual simulation of the action on stage. So when Thorsten Flüh wrote of the performance at Ultraschall Festival, that “in the performance of *Toque a Eshu y Ochosi* (2013) Barbara Lüneburg completely spent herself as a bodily acting medium of a music that was concerned with Louis Aguirre’s Afro-Cuban priest cults. The performance turned into a ritual, trance-like action” (Flüh 2016), we can assume that the art and the art event had become a means of transmitting experience and knowledge. The intense sensory qualities of the performance experience were shared with the concert audience via mimetic participation and provided a tool for experiencing meaning.
The topic: the team of the artistic research project GAPPP – with the composer and artistic researcher Marko Ciciliani, I myself in the role of performer and artistic researcher, and musicologist Andreas Pirchner – aims “to develop a thorough understanding of the potential of game based elements in audiovisual works.” (Ciciliani, 2016) A work of GAPPP is defined as “a multimedia artwork that uses game elements and possibly alludes to game aesthetics; however, it clearly belongs to the world of contemporary (art) music. It involves at least one decision-making player who performs for a concert audience within a computer system designed for interactivity. The system offers a musical and visual environment, a set of (game-related) rules and often specifically designed interfaces while giving the performer creative agency to musically, visually and performatively shape the artwork and the concert experience.” (Lüneburg 2018b, 244) The GAPPP team investigates compositional, performative and audience-related questions, and studies how the “creative and observing agents, principles, goals, connotations, aesthetics and peer groups” of each field affect the works created, have an impact on the audience in their expectations and perception, and touch the work of the performer. (Lüneburg 2018b, 244)

Methodology: principal investigator Marco Ciciliani designed the methodology of GAPPP as a triangular approach that allows the study of compositions of game-based audiovisual works from three perspectives, namely “the inner view of the creator of the audiovisual artwork, the inner perspective of the performer, and from an observing music-sociological view on our audiences.” (Lüneburg 2018b, 245)

Twice a year, guest artists, researchers and performers are invited to compose and perform artworks that deal with questions of GAPPP and to discuss the process of creation and performance in the course of specially designed work laboratories. The research team gathers data through artistic practice, participant observation and interviews. We ask a carefully selected test audience to complete audience questionnaires during so-called ‘lab concerts’. Additionally, we conduct open-ended interviews with collaborating composers, performers and audience focus groups to learn about how the works are perceived in concert and what performers and composers think
about the process and context. (Lüneburg 2018b, 245) The investigation from the performers’ inside position, with its data collection through artistic practice during the creational period and concert, rendered information that would not have been accessible through participant observation from a distance.

Knowledge gain in performance practice: In GAPPP we focused on topics that we expected to render compositional, performative, and social knowledge. We investigated:

- the concept of the ‘space of possibility’ which is “the space of all possible actions and meanings that can emerge in the course of the gamified artwork”, connecting meaning, design systems and interactivity (Lüneburg 2018b, 246)
- software design and control devices for musical or visual interaction with the game system and its influence on players’ performative involvement and their range of expression
- agencies in computer games applied to audiovisual artworks and their meaningfulness to the performer
game strategies as a feature to shape the artwork strategically in form and content during a live performance, and what they mean for the creative actions of the player
• the correlation of game system and artwork, and the influence of either on the live performance of the player and the presentation to and perception by the audience

Dissemination and sharing of knowledge through the arts: when conceptualising the research areas of GAPPP, Ciciliani targeted not only the development of the arts and playing experience and involvement of performers, he also aimed his questions at which reactions game features in audiovisual artworks would elicit from the audience:

“Game-interaction – and the doubling of the player in the game in a virtual space – offer a large potential to create a liveness quality of a novel kind. This does not only concern the performer who is interacting with a responsive audiovisual system but can also engage an audience as ‘backseat-players’.” (Ciciliani, 2016)

Accordingly, we presented GAPPP’s arts-research results at lab concerts, exhibitions, conferences and festivals. We exhibited game-related audiovisual installations, performed solo works and chamber music in lecture recitals and in participatory and traditional concert settings. Hereby, we aimed to bring together research results from composition, audience research and performance studies in an effort to further a convergence “between the composer, performer and spectator’s ‘goal and expectations’ and ‘commonality of cultural experience,’ (Gurevich 2017, 329) in order to enhance the artistic experience for all”. (Lüneburg 2018a)

Project 3: Barbara Lüneburg Osculation – A contact between curves and surfaces (2018) for speaking violinist and three moveable loudspeakers (inspired by Anestis Logothetis’ graphical score Osculationen, 1964).3

The topic: Osculation – A Contact between Curves and Surfaces is an artistic pilot artwork for a future artistic research project that examines social practices of contemporary music and the distribution of creativity, authorship

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3 Video documentation: https://bit.ly/2k5OlNk
and power between performer and composer. Osculation was premiered on the occasion of a concert for which four violinists were asked to interpret a graphical score each by Anestis Logothetis (in my case Oskulationen) and an improvisation template by the composer Katharina Klement as part of their individual solo recital. The four recitals followed one another and afforded the public a comparison, not only of the individual personalities of the violinists, but also of their creative adapting, or rather composing, of the conceptual and improvisational works. Although the violinists contributed substantially to the content of the works – one could even argue they composed it almost in its entirety –, the festival promoter denied the violinists credit as co-authors of the works when requested to name them as such. This led me to delve into the question of ‘authorship’ and the role of the performer in ‘the work’, the performer’s creative potential, and their ascribed role in the social practice of the contemporary music business for the composition of my Logothetis-inspired composition Osculation.

Method: I collected texts, thoughts and voice contributions by composers, performers, philosophers and media researchers (including Vinko Globokar, Jennifer Torrence, Abbie Conant, Karlheinz Stockhausen, William Osborne, Jean Baudrillard and Marshall McLuhan) that reflect the creative potential of instrumentalists and investigate power relationships in general as well as between composers and performers. Those texts were woven into musical improvisations and hint at collaborative or conceptual works that I or other prominent performers had realised in close cooperation with composers.

Dissemination and sharing of knowledge through the arts: Osculation became an artistic statement on the method of production in collaborations and the artistic share of the performer in ‘the work’. Through the artwork, I intended to lay open what I call the buried layers of musical and social practices and cultural (mis-)conceptions that preclude a transparent view of the reality of the creative work that is shared between composer and performer. Corresponding closely to Lilja, I considered it as “the product that describes the process represented by the work”, and shared it in “[t]he public space where all art is displayed generates the open discourse.” (Lilja 2012, 72)

Knowledge gained: as a pilot project for a future artistic research project, Osculation is as yet incomplete in terms of its methodological approach; however, I consider it a first artistic grasp of and contribution to the discourse on what I consider an ongoing social practice regarding the acknowledgment
of performers and their creative authorship in the classical contemporary music field in Western countries.

Outlook for the future: the artistic research project that is developing from Osculation will be concerned with the ontology of the performer in contemporary art music. Artistically, I intend to create three concert programmes and a ‘Lexicon of Performership’ concerned with aspects of the nature of performance, authorship and power relations. The concerts will elucidate the question of ‘authorship and power enacted through performing’, ‘authorship and power through co-creation’ in collaborative and interdisciplinary settings, and ‘authorship and power through performers’ creation’ in which the performer shapes the complete production cycle, from the conceptualisation of a work through to compositional and performance aspects. In collaboration with a sociologist I will develop a theoretical basis on the ontology of ‘the performer’ and the creative power performers yield. Through my and other performers’ work on stage and beyond, by exploring innovative situations of production and novel works, we will study their creative agency and authority and the distribution of symbolic, material, organisational, and structural power in the field of contemporary art music. Subsequently, I intend to develop an empirically grounded theoretical model of the ontology of ‘the performer’ and encourage its further development. By exploring artistic research, what it can mean for performers, their practice, artistic outcome and field, and by bringing it directly to the instrumentalist, I strive for artistic empowerment of performers.

To round off my view on epistemology in practice, I will now look at the conditions of knowledge in artistic research and performance.

**Conditions of knowledge**

Generally, artistic research depends largely on the artists’ thorough competence in the specific artistic field investigated and their wish and capacity to continuously deepen their knowledge through their own practice beyond the conventional boundaries of our field. As Lilja argues, “[t]he quality of artistic research (and the artistic representations that will emerge as a result) is completely dependent on which artists choose to engage in research” (Lilja 2012, 71). Research needs to be based on extensive artistic experience, and interdisciplinary work might lend artistic research further tools “to address
‘subjectivity’ and prior knowledge as a complex mix of resource and blinder.” (Alvesson 2009, 160 and 166) For each new project, research design and methodology must be individually conceptualised and may diverge profoundly from one project to another.

What, then, are the conditions and limits of knowledge in the projects described? With Toque (project 1), knowledge gain and sharing depend on the involvement, power and conviction of the individual performer who affects the overall perception of the audience in the particular performance situation. With GAPPP (project 2), knowledge gain and sharing depends on the expertness of performers and their willingness to deal with offered artistic agencies that induce improvisational, compositional and conceptional tasks. On stage, performers have to take on a ‘split’ creative mind while hovering between game and art, between playfulness of the gamified work and the seriousness of a classical concert presentation, and between involvement in the game and the projection of form and content of the artwork to the audience. It is a complex intellectual and artistic task that is added to the ‘ordinary’ challenges of performing any musical work in a live context. With the future artistic research project that follows Osculation, I expect the conditions and limits of knowledge gain to lie in the artistic personality and conviction of the individual performer that reflect the power of performance, and in the limits or wealth of creational and compositional skill and performative experience. Moreover, the project will require a finely-tuned documentation and observation system and a comparative methodological framework to render viable research results, since the challenges of knowledge gain here are grounded in the rigorousness of self-observation and reflection of the performer on stage and in the creation phase.

Conclusion

As artists, we build a multiplicity of worlds (represented through our artworks) in which we describe and interpret phenomena of the world around us. Through artistic research (in performance and other disciplines), artists widen their skillset and knowledge of how to do things. On a deeper level they hone their critical understanding of their artistic discipline, of the arts in general, and of their being in the world. Artistic researchers systematically use the potential of the ‘creative power of understanding’ when researching
in and through the arts, when linking seemingly distant analogies and using symbols to construe meaning. They “shape the knowledge embodied in the artwork, in the practice of art and in the reflection of it. Researchers are not only witness to their own field and of their own art through their artistic work, they also touch on questions of humanity.” (Lüneburg 2018c, 165) Through their art, through their worldmaking, they share this understanding in the form of aesthetic, performative and symbolic knowledge with their audiences.

**Literature**


**Documentation of artworks**


GAPPP, documentation of various artworks: http://gappp.net/english/artandpapers.html