

Vocal Performance Art and Extended Voices

An Introduction to the Field

Though we delight in and are captivated by full, rich voluminous voices, voices that are full of room and boom and body, the default condition of the voice is as something drawn out or elongated. Voice is one of the principal 'extensions' of man, in Marshall McLuhan's phrase (1964), but extension includes tension, attenuation, as well as enlargement of scope.

Steven Connor¹

The Art of Extending the Voice: Knowing the Boundaries

Ever since there were composers writing for the singing voice, it was of great interest to come to know the boundaries of the human voice. Exploring its vocal potential, therefore, has always been of concern. Over the course of centuries, little by little, the vocal possibilities in the West have been pushed forward and expanded. But, it needs to be said, this came about just as much as the current cultural framework allowed to. In addition, the process has always been accompanied by the continuous negotiation between composer and vocal performer. In regards to extending the voice, achievements have been made, but emerged only at a slow pace. This started to change once those technological developments of sound reproduction arose that allowed to store sound and to play it back in another time and space.² Henceforth, not only technological progress as such became accelerated, but also the process of advancing vocal techniques, fundamentally. Since then the exchange among singers as well as audience members, the passing on of vocal techniques, the circulation of sounding examples as well as the borrowing from each other have come to form a virulent and ubiquitous phenomenon. Aural knowledge that previously was limited exclusively to an elite group of people to be passed on gradually became accessible by anyone interested. It's no secret either that the technology-triggered acceleration is an ongoing and unstoppable development. Today already and tomorrow the more, the vocal performer ought to welcome the ever-changing and vast landscape of diverse vocality that, in the meantime, is at our disposal. Isn't it the artist's duty to reflect, by artistic means, upon the society and societal changes and become a vessel for expressing what those from other disciplines aren't able to? So, in this regard, how can we possibly hang on to operatic aesthetics of the nineteenth century, regardless of the many efforts made to update the plots for the present day while adhering to music as written a century and more ago? We should not hide away from our own curiosity. In the contrary and especially as the market expects the professional vocal performer to be highly flexible, we should open up to all kinds of interdisciplinary approaches and interweavements between the arts and between art and technology that are at our

¹ Connor, *The Strains of the Voice* (2004) as downloaded from <http://stevenconnor.com/strains/> [last accessed 18 Dec. 2018] has no page numbers and is the English version of an essay that first appeared in German, in a translation by Holger Wölflé, in *Phonorama: Eine Kulturgeschichte der Stimme als Medium*, ed. Brigitte Felderer (Berlin: Matthes and Seitz, 2004), pp. 158-72.

² Sterne, *The Audible Past* (2003). Also Peters, *Speaking into the Air* (1999); McLuhan, *Understanding Media* (2005); Schafer, *The Soundscape* (1994).

disposal at the present time. In consequence, just as the concept of a *50-pieces repertoire*, which the opera houses from all over the world don't seem to grow tired of presenting, may vanish one day in the future, the idea of specialising as singer only in one register or in one particular *fach*,³ will most likely fade out, too. And, it's not difficult either to forecast that, in the context of Western art music, it will be a very small amount of singers who will be able to make a living under the ever-changing aesthetics and economical circumstances of a multi-cultural society as it continues to emerge.

So, how do we handle the implications of paradigm shifts? What are the concepts to meet the challenges? One way, which seems to be obvious, but at the same time runs the risk of being a platitude, is to allow ourselves to immerse in the multitude of possibilities as we come along. Living in a plural society, though, the artist should be encouraged, not to say exhorted to find constructive ways of encountering other cultures just as well as oneself. Regardless of the question how it's conducted, discovering new practices shouldn't be just an urge of a few, but an imperative to all vocal performers. For extending and exploring the vocal potential not only enriches personal growth, but moreover breaks open the performer's expressiveness in front of the listening other for the purpose of fostering a practice of communication that lies beyond the conventions of language and its linguistic codes. This rather aims to achieve, through diversity and poignancy of vocal sounds as produced, a deepened aural attentiveness and focused awareness endowing both the performer and the listener with an openness of an expansive quality. Going even further this way, I believe that, if we want to alter the course of humanity, we must develop multi-dimensional ways and strategies to listen in order to enter an enhanced level of communication and therefore a better understanding of each other. It may run the risk to sound far-fetched, but maybe another reason why extending the voice and its artistic ways of expression has always been and still forms part of the human nature, is the ingrained urge for a form of communication which ultimately strives for a heightened consciousness that, in the best case scenario, leads to a deeper understanding of the other and thus results in genuine empathy.

The Voice as 'Mode of Extended Reach'⁴

The notion of extension per se has always played a strong role and, with regard to the present and the future, is indeed an essential factor to the overall development of the human species. Mostly related to the question of resources and power, it's an exterior terrain that humans aim to conquer. Humans extend their reach by expanding their territory, on the one hand. On the other, there is also an interior dimension of human nature that reaches out and aims to go beyond, strongly connected to the inherent qualities of expressing oneself through the aural scope of the voice. The interior of each human being comes to the fore in different ways, but most naturally it takes effect by means of the voice. It's through the voice that the inside gets brought to the outside. The voice is the vehicle to convey information by emitting it from the inside to the outside. But of course not only that, it's through the voice, in either linguistic or just in purely sonic terms, that the human tries to reach out to the other. In the

³ *Fach* is the German equivalent for a specific voice type providing a given pitch range and certain vocal strengths that cover a number of roles from the opera repertoire.

⁴ Connor, *The Strains of the Voice* (2004).

paragraph 'Hanging on its Words' of his essay the *Strains of the Voice*, living philosopher, Steven Connor, illuminates the matter as follows:

The voice is the body's syntax; its uprightness, its tone, tension and extension. [...] it is the voice that stretches us out between here and elsewhere. One cannot be fully 'here' unless one is silent; one cannot vocalise without being 'there' as well as here, without being drawn out into the ambivalence of being here and there at once.⁵

Under the paragraph called 'Reach' he further elucidates the voice to be a 'mode of extended reach':

Voice is not just a force of outgoing. It is also often a reaching. Voice is in fact for babies the first grasping, a way of fetching and carrying objects of desire when no other way exists; the baby in the cot brings the world to it by means of voice. The child who has learned how to coordinate eye and hand to grip and carry does not forget that voice can reach further than the fist or fingers. Perhaps thereafter the voice is identified principally as a mode of extended reach, as a way of stretching towards what one cannot physically reach. The voice reaches out and brings back, like the frog's tongue.⁶

In my view it lies in the human nature to exhaust the full potential of the voice regardless of the portrayed meaning, be it linguistic or purely sonic. The expansion-driven trait is an essential one when describing the human nature. And yet, also there, when unleashing the interior, a power issue is lurking as Connor explains in another version of the same essay:

But sound is not all pleasurable permeation or erotic meeting of membranes. Sound, as Aristotle puts it, is the result of a pathos. All sound is an attempt to occupy space, to make oneself heard at the cost of others. Sound has power.⁷

Against the backdrop of these remarkable thoughts it seems compelling for us to become acquainted with contemporary vocal practices as performed at the present day and with the æsthetical implications as raised by the notion of an *extended voice*. By doing so, we might gain a better understanding of the human nature and thus of the current state of cultural and human evolution which prompts numerous pressing questions if considering all the challenges that the age of the Anthropocene brings along, such as ecological crises and its consequences of war and mass migration, etc.

The Question of 'What we are doing' and that on Vocal Liminality

Following the claim of Hanna Arendt as expressed in the still topical study *The Human Condition* from 1958, I suggest to get a closer look at 'what we are doing'.⁸ In the field of extended vocal arts, this means to scrutinise and come to know the process-related nature of the practice as it is performed. The question, therefore, that

⁵ Ibid.

⁶ Ibid.

⁷ Steven Connor, *The Strains of the Voice* (2004), p. 56, as quoted in Verstraete, *The Frequency of Imagination* (2009), p. 62.

⁸ Arendt, *The Human Condition*, p. 5.

is to be brought into focus is what are we doing when we're doing what we are doing. In consequence, my aim is to shed light on the subject matter of what we are doing when we're extending the voice and expanding the field of the vocal arts toward a new genre, that is, vocal performance art. Strongly related to this question is how we approach this or how do we aim to achieve it? What and where are the voice's boundaries actually located at? Is it possible to answer it taking into account that every single voice is unique? And, then again, how do we define the vocal material? What is in fact the material that each single voice provides?

When asking about the limitations of the voice, one could say that, generally speaking, they are set by the physiological parameters the body provides in combination with the conditioning factors of the socio-cultural framework within which the performer is brought up and lives in until the present moment in time. Thus the limits are defined by the experiences made by the owner of the voice up until now. To put it the other way around, we can say that the entirety of the voice's capacities or, in other words, the factual scope of the sounding potentialities of the voice is the result of the biography of its owner as measured by its presentation at the current moment in time. Apart from this rather general approach to define the boundaries of a voice, a very specific situation unfolds in the context of art music. For the edges of the vocal range always seemed to be clearly defined, yet have always been more fluent than we thought they were. In every era the boundaries regarding the range of the voice were pushed not significantly, but still little by little. If we put aside, for a moment, the art of sound and music creation by composer-performers and by means of improvisation and experimentation, the vocal material has been and, most of the time, still is subject to negotiation between composer and the singing performer. Actually, ever since the composer needed to know exactly where and when to challenge the singer in order to successfully and convincingly push the boundaries and to eventually expand the singer's capacities in terms of range, timbre and virtuosity. On the other hand, the singer must also know very well the own voice with its alleged limits and, moreover, the determining criteria within whose standards the singer's agency takes effect. The Western system of voice education as evolved out of the classical idiom is based on such an agreed canon, a set of conventions of those vocal sound possibilities that, for the composer, prescribe how far s/he can go and, for the singer, what s/he needs to learn in order to fulfil the expectations. Over the course of a few centuries the voice in the vocal arts became standardised and categorised. Eventually, by confining the voice to the idea of one particular register, its actual potential became constrained and restricted. But, as a result, the one-register voice has been established and became deep-rooted in Western society. To name the main common voices, it's the soprano, mezzo-soprano, alto, tenor, baritone and bass-baritone that nowadays form the norm.⁹ Due to its scarceness, the bass voice and, due to the blurring of the gender attributions, the low sounding female voice of the contralto as well as the elaborated falsetto voice within the countertenor's range

⁹ With regard to the female registers it's worth noting that it was only by the time of Wolfgang Amadeus Mozart (1756–1791) that it slowly became common practice that also female voices were equally entitled to sing on the opera stage. Until then, the dictum that no woman shall be allowed to sing in church, the famous 'mulier taceat in ecclesia' (Ortkemper: *Engel wider Willen*, 1995, p. 21), was also applied, ubiquitously, in the context of secular music performances. Regarding opera performances, it was a common practice, during the Renaissance and Baroque era, to write female parts that were sung, though, either by boy's voices or, later on when more subtlety was required, by castratos.

already form part of an exotic approach to the one-register voice. The one-register voice in either case can be sub-classified, which—shortly described—leads to the typecast of the *fach* mainly dividing the voice into the dichotomic system of lyrical versus dramatic qualities. Also known as *belcanto* voice, the notion of the one-register voice is driven by the impulse to extend its capacities, but in three ways mostly and only, i.e. developing the sound quality and timbre of the singing voice, expanding the pitch range to achieve a higher tessitura, and advancing the pervasiveness of the singing voice to reach over the orchestra.

Going beyond the Norm—Imperative for Contemporary Vocal Arts

Now, what seems important to be noted is that the concept of pre-defining the capacities of the voice tends to neglect that by nature each single voice is unique and bears an idiosyncratic set of possible expressions that go beyond one particular register. Each single voice has different qualities that, in my view, instead of limiting oneself to one register, ought to be revealed and further developed. Certainly, the student of the singing voice is well advised to cultivate the naturally given tone as well as the range. To be clear, there is nothing wrong about this practice at all. But it should not be conducted exclusively and, more importantly, it should not lead to disregard other vocal capacities that go beyond or lie outside the concept of one register. In consequence, it must be asked, generally speaking, why are we still neglecting the potentialities as naturally given to the disposal of the vocal performer?

Observing the current state of voice education in Western music schools, the singing student focuses on one register. We can call it, as I've already done before, the core register. But, encircling it, there are also two other registers, certainly not as strong as the main one, but strong enough to be brought into the focus and to be developed. To give an example, in case of the tenor the student should also work on the qualities of the countertenor and the baritone. It is my view that, to a certain extent, the tenor should be able to use and even switch to the adjacent, registral fields to stretch the voice, enlarge the capacities and enhance the imagination. Eventually this aims at opening up and to allow the access to further characters and personas hitherto concealed. Another example for the claim of incorporating other parts of vocal capacities is to for a moment leave aside the vocal cords as main source of sound production, but instead to focus on other parts of the vocal apparatus, e.g. the vestibular fold, also known as false vocal cords, believed to be one of the main muscular parts responsible to produce growling and low-tone singing sounds, also known but less specifically described as *throat singing* or sometimes subsumed under the term of *harmonic singing*, such as the Mongolian *Kargyraa* or Tibetan chanting.¹⁰ In addition to these practices, we might as well think of and develop a practice that, without involving the vocal cords at all, only uses the components of the mouth as main sound source. In this way, an *oral practice*, laying the foundation for a *creative orality*, comes to the fore making the vocal performer become a speaking virtuoso or, when surpassing the realm of linguistic meaning, an expert in phoneme uttering. Finally, when quickly pointing to some of these alternative examples to explore the potential of vocal performance art, I should not miss to mention also the whistling voice and, of course, all conceivable combinations of practices as named above.

¹⁰ See Michael Edward Edgerton, *The 21st-Century Voice* (2004) and Mark van Tongeren, *Overtone Singing* (2004).

Vocal Uniqueness—A Premise for Contemporary Vocal Performance Art

Returning to the classical approach to vocal arts in Western culture, the concept of the one-register voice, to put it very bluntly, squeezes the actual potential of the voice in a tiny little box providing only a small palette for the composer to draw on. In this way of practice, the composer is compelled to use only those preconceived parameters that are bound to the traditional paths and thus run the risk to lead to rather less exciting results. It may be surprising but even highly acclaimed avant-garde composers often use the voice in rather conventional ways than one would expect. But, there is a specific reason for this. One example of such is German composer Helmut Lachenmann who wrote just one, but a massive music theatre work *Das Mädchen mit den Schwefelhölzern* (1996).¹¹ If one takes into account that Lachenmann is known for claiming very unusual extended techniques resulting in breath-taking soundscapes, the traditional use of the voice in this work, though, is astounding. According to many instrumentalists, extended practices often work against the way the instrument is built, but the last fifty years of continuous experimentation have proved they are not impossible. The case of the interpreter's voice, on the other hand, is more complicated than the one of the musician. An instrumentalist can be convinced to realise unfamiliar techniques on the instrument whereas it is more challenging to request from the vocal performer to execute those techniques that one hasn't done before and may potentially harm the voice and thus the body. Another reason why in terms of interpretation the voice is different from the instrument, is that once found or newly invented practices may work for one interpreter, they might not be applicable by the next one. Let's say a composer collaborates with one specific vocal performer, probably specialised in the field, to premiere a new piece. Once this has been successfully performed, the next interpreter having access only to the score, but not to the composer in person, most probably will have a hard time to achieve the same successful results as the interpreter of the premiere did. Since the voice is not outside, but inside the body of the interpreter, it is more difficult and complex to impart unfamiliar ideas and novel concepts to other vocal interpreters than this is the case if instrumentalists are asked for. The layer of objectification, given through the instrument, ceases to apply in the case when the voice is the instrument. There are high standards in instrument building to amend sound quality according to the given measurements. In terms of the voice's physiology we have to note that, despite the greatest efforts of vocal pedagogics, each single one is unique and different to other. The vocal apparatus (in German: *Stimmapparat*) is always already constituted by a complex mechanism consisting of lungs, throat, mouth and brain. It's the particular interplay of all these components that ultimately lead to an unprecedented and unique sound of a voice. Drawing on the novella *A King Listens* by Italo Calvino, Adriana Cavarero, living philosopher of feminist theory, elaborates on the unique nature of the voice saying that 'the voice...is always different from all other voices, even if the words are the same, as often happens in the case of a song.'¹² What I'm aiming at, by referring to Cavarero's detailed study *For More Than One Voice* (2005) with its unalterable and explicit insights, is that we should esteem and not neglect the uniqueness of each single voice, which by nature provides an almost unlimited set of

¹¹ See <https://www.breitkopf.com/work/3858>.

¹² Cavarero, *For More Than One Voice* (2005), p. 3.

possibilities to express oneself to the listening other.¹³ The question I'm concerned with the most is to ask how do we unlock our potential, a question that get raised every time anew when executing the practice and performing in public. But to be able to do so, above all, one needs to know the limitations that the physiological voice imposes. By relentlessly traversing on the boundary edges we are experiencing the full potential and, by doing so, defining the sound possibilities of the voice which, in turn, is a prerequisite knowledge to gradually and continuously push the boundaries in order to eventually extend the voice.

Embracing Uncertainty as Core Practice for the Composer-Performer

With the work *Monster I Love*, I propose to give pathways for answering the question what and where is the performance art voice today and, as a consequence, how might it be extended. I'm aiming to achieve this by exploring vocal performance art from the perspective of the *composer-performer*. At the present time, in sight of the big picture, this approach still is and tends to be a rather uncommon practice although the community applying them is expanding. There are a number of contemporary vocal performance artists I will get to a little bit later. But, let's have a look back at history first, since it hasn't always been the case that composer and interpreter were strictly separated from another. Referring to the intriguing, historical practice of the *basso continuo* during the Baroque era, also known as *figured bass*, the improvisation skills as required from the musician laid the ground for the composer-performer to thrive on. Following a rudimentary score consisting of a melody accompanied by a composed bass line with a few numerals and accidentals, the musician fills in missing tones to complete the chords. In a way, by executing an improvised accompaniment, the musician becomes a composer on the spot. Even later on, during the classical era, the music as created by composers such as Wolfgang Amadeus Mozart was strongly influenced by this practice when both professions, musicianship and the act of composing, weren't considered contradictory, but complementary to each other. During the nineteenth century when specialisation became a virtue, basically as a result of raising productivity in Western society, a split took place causing that, apart from very few exceptions, the musician or singer was forced to focus and, therefore, was no longer able to pursue a career as composer as well. At the present time, very gradually this practice becomes more frequent again.

The perspective of the composer-performer provides that kind of constellation when the artist combines both in one person, the composer and the executing performer. This gives the artist the opportunity to go deeper into the subject matter than one would be able to do when collaborating with other performers, which often enough runs the risk of leading to mediocre results. This is not surprising and often the case if the composer censors oneself in pre-emptive obedience or gets censored by the performers after the composition has been completed. The specific case of the personal union consisting of composer and performer gives more freedom in such a way that the composer has immediate and unquestioned access to the expertise of the performer even during the process of the performance itself. Within the research project, for the composer, this opens up a great amount of possibilities to pursue without striding through the tedious and often frustrating procedure of trying to sort

¹³ Cavarero also unrolls the relational dimension of the voice. 'Destined for the ear of another, the voice implies a listener—or better, a reciprocity of pleasure.', p. 7.

out irreconcilable issues asking the performer for the incomprehensible and allegedly impossible. These kinds of issues, by the way well-known among the community, are forming the reason why some composers, namely those of electroacoustic music, favour the machine over human interpreters hoping to find a one-to-one equivalence between idea, composition and sounding outcome. Comparable to the conditions under which the visual artist works, the outcome then is also the final artistic result, which is not the case when the traditional composer needs the interpreter to bring the written account of the composition into being.

Through the lenses of the composer-performer by applying advanced improvising skills as well as technological inventions like gesture-controlled live electronics, I believe that I'm able to explore vocal performance art at today's standards to its full potential. By doing so and examining the extended voice as main focus, it comes into being a project that researches vocal materiality just as much as liminality of the voice. The latter manifests only when the performer allows to sound out the boundaries. Vocal liminality can only become a subject matter if the performer treads unfamiliar paths and allows entering or, in other words, encourages a state of being *in between*.¹⁴ At the same time, if this happens, randomness and unpredictability get introduced. And this even more so, if the question of what the vocal performance art is today, gets expanded towards the question what it possibly could be. To draw on a formulation by Helga Nowotny, former President of the European Research Council, the performer-researcher may be well-advised to *embrace uncertainty*. Applying the voice in such a way that, during a performance, the vocal artist who doesn't know exactly of what happens next, but has and develops a hunch, an intuitive power to grow a good anticipating sense, 'open[s] new spaces and facilitate[s] alternative options to emerge. Ambiguities permit boundary crossings where closure between knowledge domains or areas of strictly defined expertise reigned before.'¹⁵ In the closing of her book *The Cunning of Uncertainty* describing the premises and consequences of embracing uncertainty, Nowotny defines a research ethos that gives at hand a recipe for the performer-researcher to invite surprise and the unexpected in order to enter that kind of liminal zone that allows to push boundaries and, as a consequence, to advance and grow.

The cunning of uncertainty is a subversive force, ready to serve us if we are ready to go along with it. It may break up the routines adopted over time and reorder priorities by opening a fresh view of the future. It can be a humbling experience but also a wholesome one if it produces clarity where dense mental fog was before. It encourages us not to skirt ambiguity and ambivalence, but to realize that they enrich the scope of meaning and, ultimately, of experience. At times, it reminds us that there are not only truths and lies, but a zone in the middle which can shift, or be shifted, either way.¹⁶

¹⁴ Referring to Victor Turner, *The Ritual Process* (1969) reproduced in Richard Schechner, *Performance Studies—An Introduction* (London: Routledge, 2002), p. 58, Pamela Karantonis underscores: 'The "limen" or threshold is an architectural metaphor to illuminate the state of being „in between," in terms of a ritual process. It has proven to be a productive metaphor in experimental arts practices [...]', fn. 38, p. 164 in 'Cathy Berberian and the Performative Art of Voice' in *Cathy Berberian* (2014).

¹⁵ Nowotny, 'Preface' in *Cunning of Uncertainty* (2016), p. xi.

¹⁶ *Ibid.*, p. 172.

Towards a History of an Expanded Field of Vocal Arts: Some Considerations on a Collective Work in Progress

Dealing with extended vocal techniques brings a set of new questions to the fore. One of those that we are expected to answer is: how can we apply and advance extended vocal techniques today taking into consideration the presumed and alleged datedness. In the preface of his insightful and instructive book *The 21st-Century Voice* living American composer Michael Edward Edgerton even claims that extended vocal techniques 'often resembled a series of nonscalable novelties' and 'as a result, the era of extended vocal techniques came to a screeching end sometime during the late 1970s or so.'¹⁷ However, in the meantime, as I assert, the application of extended vocal techniques has become an integral part of contemporary vocal expression. Current New Music programmes feature enough examples to refute the statement, such as Jennifer Walshe, Jaap Blonk, David Moss, Laurie Anderson, Shelley Hirsch, Salome Kammer, just to name a few. Otherwise, though, I indeed actually follow Edgerton's remarks, especially when he points to the fact that 'an historical presentation of extra-normal voice is exceedingly complicated and lengthy. For it would not only include western experimental processes, beginning mainly in the mid-1950s [...], but also nonwestern music and nonlinguistic verbal utterance.'¹⁸ A little further on in his book, Edgerton gives a brief account of the history of vocal explorations as realised during the second half of the twentieth century in the form of those works composed for the voice:

'Beginning in the late 1950s, composers such as Dieter Schnebel, Luciano Berio, John Eaton, Giacinto Scelsi, Gyorgy Ligeti, Kenneth Gaburo, Pauline Oliveros, Sylvano Bussotti, Robert Erickson and Mauricio Kagel began to explore the production and organization of nonstandard vocal music. Perhaps because much of this new art represented attacks on the forms and concepts of modernism, through the emphasis of antinarrative, isolation, incoherency and the physical body as theatrical marker, most of this work did not attempt to utilize extensions of technique systematically. This is completely understandable, for unlike instruments, the human voice cannot very easily be taken apart and put back together.'¹⁹

By referring to Edgerton, my aim is to point to the fact that today the field of contemporary vocal performance art is vast and confusing, but at the same time it already provides a substantial history of more than fifty years to draw on. If we also include sound poetry, as initially developed by the protagonists of the Dada movement, then the historical review is even richer and counts more than one hundred years. The reason though why the expanded field of vocal arts is difficult to grasp is

¹⁷ Edgerton, 'Preface' from *The 21st-Century Voice* (2004), p. xv.

¹⁸ Ibid.

¹⁹ Ibid. For the sake of completeness, with regard to the composers of the generation as mentioned above by Edgerton, it should be added that they did not act out of the blue, but certainly had precursors with corresponding concepts. Mainly, there are two instances of great influence that are to be mentioned all of which are tracing back to early twentieth century. Firstly, during World War I the DADA movement with its nonsensical poems emerged out of protest against the horror of war. Secondly, Arnold Schönberg and the Second Viennese School were of great influence, too. They filled the gap between the tradition, on the one hand, and advanced, new concepts, on the other. Regardless of the field in which voice experiments were emerging, they all paved the way for the following generations as long as they had novel and pioneering qualities.

that it is characterised by a pluralism of individualistic styles and branches out into different directions. Phenomenon of our time, this holds true if we look beyond the profession of vocal performers to others from the field of contemporary music theatre encompassing concert performance, opera as well as music theatre (in German: *Musiktheater*) with its highly interdisciplinary approach and rejection of operatic elements, such as the application of *belcanto* singing.²⁰ In fact, today, just as many composers, directors and scholars are working in the field of music theatre, as many concepts do exist. The individualisation of Western society has its particular effect also on the performing arts in such a way that, as opposed to the nineteenth century and previous times, there is no longer any unifying or aligning æsthetical platform which would set the parameters that all protagonists could refer to and work on. Therefore, to elaborate a list of styles and approaches would become very long. Here are just a few examples in alphabetical order that I consider valuable for the reader to become familiar with: Heiner Goebbel's *Æsthetics of Absence* (2015), Mauricio Kagel's *Instrumental Theatre*,²¹ Dieter Schnebel's *New Vocal Practices*,²² Till's *Post-Operative Productions*²³ and Trevor Wishart's *On Sonic Art*. Each one of them proposes a highly individualised æsthetic concept leading to novel kind of genre definitions all of which are subsumed under the notion of music theatre. There are two books highlighting a 'theatre after drama' acknowledging 'new technologies as well as the historical shift from a text-based culture to a new media age of image and sound.'²⁴ In the excellent study *Postdramatic Theatre* (2006), Hans-Thies Lehmann provides great insights into the vast landscape of contemporary theatre drawing on theoretical concepts as well as on a countless number of practical examples. The book *Composed Theatre* (2012) by Matthias Rebstock and David Roesner, on the other hand, rather focuses on the sonically and musically driven theatre productions today. In this regard, nevertheless, by discussing the most recent developments in music theatre in terms of æsthetics, practices and processes, it can be considered as further development of Lehmann's elaborations.

So, taking into consideration the backdrop of all the tendencies as aforementioned and asking ourselves how to attempt to extend the voice at the present time, we are also confronted with the question concerning the genre and how to handle that. Just today, to the greatest extent, the postmodern motto of *anything goes* still determines the outcomes of vocal performance art. In a way, this prevents the field from taking shape to become a norm within the overarching, wide field of the vocal arts. To be clear, in no account I would oppose diversity. Actually the contrary is the case. But at the same time we must note that, instead of amplifying and enhancing the acknowledgement of the human voice's sound potential as a specific form of artistic expression, the

²⁰ Note that there is no convention yet about the term 'music theatre' (*Musiktheater*), which is confusing. It brings along that it serves either as specific form of music or sound-based theatre rejecting operatic elements and means *or*, in contrast, as umbrella term for any kind of theatre that is based on music and sound as main dramaturgical source for producing a theatre work. The term then includes the genres of the *operettas*, musical comedies and operas.

²¹ Kagel, 'Neuer Raum – Neue Musik. Gedanken zum Instrumentalen Theater' (1966), in *Mit Nachdruck* (2010).

²² Schnebel, 'Sprech-und Gesangschule (Neue Vokalpraktiken)' (1969/72), in *Mit Nachdruck* (2010).

²³ Till, 'I don't mind if something's operatic, just as long it's not opera.' A Critical Practice for New Opera and Music Theatre' (2004), in *Contemporary Theatre Review*. See also <http://www.post-operative.org/> [last accessed 21 Dec. 2018].

²⁴ Taken from the book jacket of Lehmann, *Postdramatic Theatre* (2006).

application of extended vocal techniques seems to be covered—still often enough—by negative connotations.²⁵ This is worth mentioning since this defines the ground on which my research project can be laid out and thus affects the sub-questions that tend to branch out as well, just as the field itself does.

[...] the historical differentiation between art and science [...] only goes back to the rationalism of the eighteenth century and its ideal of objectivity. Only then did science begin to assert itself in opposition to artistic practice, which was degraded as 'subjective'. During the Middle Ages, ars was considered the height of scientia, so that the two were intersecting — not competing — forms of knowledge.
Dieter Mersch²⁶

Accentuating the Subjective Attempt at the Artistic Research Project Monster I Love

In any case, what shall become clear is that my research project aims to show pathways to answer the question of how we can pursue, today, a practice of extending the voice and what possibilities do we have at our disposal. It shall be undisputable also that it is not my intention to research the extended voice by systematically outlining extended vocal techniques from an objective or even historical perspective since this approach has been attempted and convincingly performed by others, like Edgerton's *The 21st-Century Voice* (2004), Nicholas Isherwood's elaborations on *The Techniques of Singing* (2013) or Miriama Young's revealing book *Singing the Body Electric* (2015) investigating the intersections between the human voice and sound technology. Instead, my aim is to shed light on extending the voice and expanding the vocal performance art as a genre from a very personal approach following a highly subjective path for applying extended vocal techniques, on the one hand, and technological means, on the other. Even though it is not a goal of this research project to refer to the artistic works of others, I nevertheless feel the need to point to the most important composer-performers that, due to the eminence and influence of their work for succeeding artists, lay the ground for the field of vocal performance art.

Trevor Wishart—Radical Vocal Sound Experiments and Composed Electroacoustic Music

One of those is living vocal performer and composer Trevor Wishart who in the

²⁵ For many decades it has been an ongoing debate whether or not extended vocal techniques are reflecting expressions of peculiar, odd people outside any norm. As an example compare singer-composer Joan La Barbara recalling an interview made by Dutch radio with Cathy Berberian, a 'pioneer of contemporary vocality', during the Holland Festival in 1977: 'What she [Berberian] said was that people used to think of what she [Berberian] did as extended vocal techniques, but she never thought of it that way because she thought that the people who did extended vocal techniques were freaks. And it would be a foolish composer, I'll quote here—"a good composer"—who would write for one of these people, because this exploration had hit an impasse, a kind of stop, and that any piece that would be written for one of these people couldn't ever be performed by anybody else'. Joan La Barbara as quoted in Kristin Norderval, 'What we owe to Cathy: Reflections from Meredith Monk, Joan La Barbara, Rinde Eckert, Susan Botti, Theo Bleckmann and Pamela Z', in *Cathy Berberian* (2014), pp. 197-98.

²⁶ Mersch, *Epistemologies of Aesthetics* (2015), pp. 30-31.

seminal book *On Sonic Art* (1996) shares knowledge and insights solely on the basis of his own artistic works. It's not an overstatement to assert that in regards to improvisation his approach to explore the sounding potential of the voice is relentless presenting a highly idiosyncratic and radical vocality.²⁷ As composer-performer, Wishart also represents a paramount example for a vocal artist who, not always but most often, creates compositions based on experiments previously run by himself. Wishart himself clearly distinguishes his free improvisations from the electroacoustic compositions he creates.²⁸ By means of computer-technology, he aims to explore sounds 'beyond the pitch/duration paradigm' questioning the traditional notation system which tends to lead to predictable results that he calls 'lattice sonics'.²⁹ Wishart's compositions and sound art works focus mainly on the material that the human voice provides to be further modified and transformed through the use of computer technology whose software he develops on his own. He uses both the material derived from his own and from other voices. In many ways Wishart's approach is a role model for my project. What's most comparable is the practice of working with and sounding out the material of the voice as well as searching for ways of transforming the given sounds by technological means. The main difference though, if one wants to detect any, is that my focus is on the application of live electronics allowing me to define the material and work on its modifications right on the spot, during the actual live performance act. To my knowledge, if Wishart applies computer-based technology for his compositions, his works centre, for the predominant part, around the concept of creating fixed pieces. Not that I don't like or don't create fixed pieces myself, but what I'm aiming at, in particular, during my vocal performance presentations is to make the stretch that sound can travel in both ways comprehensible for an audience, that is, audibly and visually. For, audibly, the stretch can be enormous and sometimes irritating to the listener, especially when concrete, live created vocal or oral material meets its disembodied, estranged, almost abstract sonic double created on the basis of computer technology and disseminated through loudspeakers. It's a great benefit then if we are able to execute sound transformations by applying gestural controllers, which has the potential to make the immediate sonic alterations visually plausible to the audience. In consequence, the gestural vocabulary becomes inherent in my sound art practice. In this way of approach, movement and gestures not only control the sound, but also—by doing so—mediate the computer-based sound productions and modifications. I guess this is what makes my approach most distinguishable from Wishart's.

The Legacy of Cathy Berberian—Pioneer of Contemporary Vocality

If one attempts to briefly sketch out a history of the expanded field of vocal arts including the application of extended vocal techniques, it is imperative to refer to vocal performance artist, singer and composer Cathy Berberian (1925–1983). But also in regards to my proposal to give the practice of extending the voice an adequate name, that is, the *multivocal voice* or, in a broader sense, the notion of *multivocal arts*, it is self-evident to shed light on her legacy. For even today, especially in regards to

²⁷ As an example of his approach to free vocal improvisation see <https://www.youtube.com/watch?v=QmlsMKsJaHA> [last accessed 22 Dec. 2018].

²⁸ For more information on his compositions see <http://www.trevorwishart.co.uk/index.html> [last accessed 22 Dec. 2018].

²⁹ Wishart, *On Sonic Art* (1996), p. 8.

her sublime abilities to bridge the gaps between multiple, diverse singing techniques, Berberian is a role model for the approach to multivocality. According to content and subtitle of the revealing book *Cathy Berberian* (2014), she is considered as *pioneer of contemporary vocality*.³⁰ Her influence on succeeding artists, such as Joan La Barbara, Meredith Monk, Rinde Eckert, Theo Bleckmann or Pamela Z, just to name a few, is powerful.³¹ While collaborating with Luciano Berio, John Cage, Igor Strawinsky and many other composers from that time period, Berberian also wrote pieces herself, like the comic strip-like composition *Stripsody* which, according to living scholar Pieter Verstraete, displays a variety of *vocal personas*. Referring to Edward T. Cone's *The Composer's Voice*,³² Verstraete elucidates the term *vocal persona* as follows:

According to him [Cone], both [vocal and musical persona] constitute narrative voices in music. Cone defines a vocal persona as a projection of a vocal performer, an embodiment of a character or a narrator. The term *musical persona* thereby denotes a vehicle of the composer's message.³³

Cathy Berberian was one of the first singer-composers who combines both spheres, the vocal and the composer's, into one compelling vocal art performance. It was on this basis that she researched and introduced the practice of presenting a multitude of vocal personas and thus vocal techniques, including all kinds of extended ones. Verstraete describes her exceptional talent this way:

It has been noted before that Cathy Berberian had a remarkable range of vocal timbres, modulations and (extended) techniques, which made many an aficionado believe that she had the ability to sing in many different voices. *Stripsody* reads as specimen book for her vocal artistry. Vocal writing, that is the notion of "writing aloud" according to Barthes, is key to this plurality of voice. Through the own vocal writing in this composition, Berberian "decomposes" her own voice in all its technical and sonorous splendour, demonstrating the many voices she masters, even those bordering upon what is *unheard* or excluded from classical vocality. She presents us with a cartography of a singer questioning the limits of her vocal signature. By pushing these boundaries with many acoustic samples of her vocal capacity, *Stripsody* presents us with a polylogue of voices, a compendium or portfolio of what Berberian's voice can do.³⁴

What is striking about Berberian's methods until today, is that she was able to most organically go back and forth between a concert-like and thus sound-based attitude versus a representational, operatic approach to the vocal arts. This, in fact, laid that ground for a novel kind of vocal performance art practice, on which so many singer-composers then walked on: Laurie Anderson, Joan La Barbara, Diamanda Galás,

³⁰ Karantonis, *Cathy Berberian* (2014),

³¹ See the interviews as conducted by Kristin Norderval, *What we owe to Cathy: Reflections from Meredith Monk, Joan La Barbara, Rinde Eckert, Susan Botti, Theo Bleckmann and Pamela Z*, in Karantonis, *Cathy Berberian* (2014), pp.185-204.

³² Edward T. Cone, *The Composer's Voice* (Berkley: California Press, 1974).

³³ See Verstraete, 'Cathy Berberian's *Stripsody*—An Excess of Vocal Personas in Score and Performance', in Karantonis, *Cathy Berberian* (2014), pp. 67-86, p.76.

³⁴ *Ibid.*, p. 74.

Meredith Monk, David Moss, Shelley Hirsch, Salome Kammer, etc. In this context it is worth mentioning that, in her PhD thesis *Körperstimmen* (2008) [Body Voices]³⁵ by providing a meticulous historical analysis, scholar and music teacher Theda Weber-Lucks argues that contemporary vocal performance art ought to be considered as new music genre. Already in 1966, publishing the two-page manifesto ‘The New Vocality in Contemporary Music’,³⁶ Berberian provided underpinnings for the new approach to the vocal arts. Over fifty years later her reasoning doesn’t seem to have lost its topicality. The essay opens with following words:

What is the New Vocality that appears so threatening to the old guard? It is the voice which has an endless range of vocal styles at its disposal, embracing the history of music as well as aspects of sound itself; marginal perhaps compared to music, but fundamental to human beings. Unlike the instrument, which can be locked up and put away after use, the voice is something more than an instrument, precisely because it is inseparable from its interpreter.³⁷

Berberian claims a novel singer-type, which may appear to be the surprising part of the argument, but is actually formulated on the basis of what the human voice has always possessed:

I believe that a modern singer should be both sensitive and open, albeit in an empirical way, to these diverse aspects of vocality, isolating them from the context of linguistic conditioning and developing them instead as “ways of being” for the voice—towards a musical integration of possibilities and musical attitudes not yet “officially” catalogued as emerging from musical experience and that are crucial for the further development of a “New Vocality.” (That newness, we discover, only exists to a certain extent, though, when we trace its genealogical tree.) The elements constituting the New Vocality have existed since time immemorial: it is merely their justification and musical necessity that is new. I do not want to be misunderstood: the New Vocality is emphatically not based on the inventory of more or less unedited vocal effects which the composer may devise and the singer regurgitates, but rather on the singer’s ability to use the voice in all aspects of the vocal process; a process which can be integrated as flexibly as the lines and expression on a face.³⁸

The influence of Berberian’s voice-vision is unprecedented, especially with regard to the North-American context. In Europe she is mainly renowned as interpreter of music by Cage and Berio. Her recognition as composer-performer has been strengthened through the book *Cathy Berberian* (2014). In the ‘Foreword: Cathy Berberian—Modernism’ Bette Midler’ Susan McClary puts it in a nutshell:

³⁵ Weber-Lucks, *Körperstimmen* (2008).

³⁶ The essay was originally published in Italian and can be found together with its English translation by Francesca Placanica in chapter one and two of part one ‘A Radical Tradition: Re-Writing (For) the Voice’, in Karantonis, *Cathy Berberian* (2014), pp. 47-66.

³⁷ Ibid., p. 47.

³⁸ Ibid., p. 47.

Music history owes a great deal to Berberian. Most obviously, her example inspired an explosion of performance artists and singers who specialize in extended vocal techniques. She made full use of rude sounds never before regarded as having a place within music, now fundamental to the work of Meredith Monk, Diamanda Galas, Laurie Anderson, and countless others. Her mercurial fluctuations between the sublime and the ridiculous deeply influenced my own prose style as I struggled to break away from the stiff academic conventions prescribed for me by teachers and editors. | Most important, Berberian pointed the way toward what came to be called postmodernism—a playful rejection of the dour seriousness of serialism. I hear her influence in the jumble of symphonic excerpts and Swingle Singers riffs layered over Mahler in Berio's *Sinfonia*; her sensibility resonates in nearly everything by John Zorn and other hellzapoppon' eclecticists. If we had followed her lead sooner, we would have had lots more fun in the concert hall in the second half of the twentieth century.³⁹

Lines of Influences, Points of Encounters

It was in the early 1990s that the *hellzapoppon'* eclecticism of musicians like John Zorn (1953-) from New York had a great influence on my development, too. I was extremely fascinated and inspired by the diversity of his music. His approach to music making favouring any kind of music genre to play with and to juxtapose one with the other, is characterised to be very playful, which was quite appealing. The New York downtown music scene around the charismatic musician and alto-saxophone player John Zorn gathered a number of improvising musicians each of whom developed an idiosyncratic style of music creation and musical improvisation. Just to name a few, this includes turntablist Christian Marclay, sampling virtuoso Bob Ostertag, singer of Rock music as well as of experimental music Mike Patton, Jazz guitar player Bill Frisell or British-born multi-instrumentalist Fred Frith. Their influence on the European improvising as well as the composed New Music community was enormous, at least during the time period encompassing the 1990s.

One musician from the New York downtown community around John Zorn was drummer and vocalist David Moss (1949-) who, owing to the DAAD⁴⁰ grant, came to Berlin in the early and mid 1990s giving a workshop at the Podewil that I attended. David's approach to vocal performance art is strongly connected to Berberian's notion of presenting a plethora of vocal personas. David's practice is characterised by vocal techniques and styles changing very abruptly and at an astonishingly high speed displaying a rich baritone voice next to the fragile and comic-like falsetto. He uses whisper sounds as well growling sounds. Being involved in numerous projects David also used to be the vocalist in DetoNation-Orchestra conducted by American trumpet player Paul Brody. Sometimes when David was prevented, I replaced him at several concerts in Berlin, one at the Maxim-Gorki Theater Berlin, another one at the Volksbühne Berlin or at the Jazz festival in Potsdam most of which were taking place in the year of 2003. Through the encounters with David and pursuing the work of other collaborators around Zorn, like Rock singer Mike Patton, who is adorable for

³⁹ Ibid., p. xxv-xxvi.

⁴⁰ DAAD is the abbreviation for Deutsch-Akademischer Austauschdienst [German academic exchange service].

his stylistic assurance, I felt encouraged to also immerse myself in experimental vocality and allowed vocal diversity to happen.

But of course, the career path was a bit more complex than that. Maybe it's worth a note that at the same time discovering the New York downtown scene, I was studying and focussing on the music of Bartók and Schubert. During my singing lessons studying the tenor voice at the University of Potsdam in Germany (1994-2000) with Michael Büttner and Gerold Herrmann, I became intrigued by the variety and richness in shaping the voice's tone of the tenor. One of such was German Fritz Wunderlich. During my studies at the Crane School of Music together with Floyd Callaghan in Potsdam of the Upper State New York (1996-1997), I had the chance to go through a great number of long-playing records of music from Baroque and Classical operas, oratorios and concert recitals. This way, by studying the voices from the past, such as Enrico Caruso, Beniamino Gigli, Jussi Björling, etc., I discovered a great variety of the exceptional beauty of the male *belcanto* voice. Following these examples I was trying to find my 'own' voice by expanding the range and enriching the naturally given sound of the voice. At the same time during the 1990s, in the context of improvised, Punkrock and Jazz-related music, I was also involved in a few ensembles from Munich and Berlin, such as Vol-Vox (Landshut/Munich), No Doctor (Berlin), Tony Buck's Astro-Peril (Berlin) that gave me the opportunity to explore the voice in completely different ways. What I mean to say, by dropping these biographical notes, is that I experimented with the voice's capacities to its extremes, trying to define the bounds of the voice by including the most diverse practices that I could come across with: inward vocalisations, hard-core screamings, lower-lip whistlings, etc. For me, the 1990s were an extremely intensive time of learning on many different levels.

By the time when I came to Berlin in 1993, I also met the fabulous performers of the vocal ensemble *Maulwerker*, whose name is derived from a composition by German composer Dieter Schnebel (1930-2018) whom they collaborated with numerous times. Their performance style was and is remarkable and excelling due to the strict, almost rigid discipline they developed to perform pieces by living composers. Serving their very concepts, the practice is based on focusing on the voice by aiming to eliminate every single aspect of distraction, like body or gestural movements, unless the composer explicitly asks for. The reason why I mention this is because this practice is quite on the opposite side of my own practice. I'm allowing or, to be more precise, inviting the whole body to be part of my vocal art presentations. However, this does no harm to the fact that the performances of the *Maulwerker* are outstandingly powerful due to their reductionist approach and stance. It was twice that I was given the opportunity to collaborate with the *Maulwerker*. In 2008, I was taking over the countertenor part in the composition *drüber, für 8 aktive Schreier, Violoncello/Synthesizer und Tonband* [beyond, for 8 active yellers, violoncello/synthesizer and tape] composed by German living composer Gerhard Stäbler (1949-).⁴¹ In 2010, exclusively for Ariane Jessulat (1968-), Professor for Music Theory in Berlin, I wrote the piece *Tante Marianne* featuring a female voice and four-channel playback.⁴² Referring to a painting by world-renowned living visual artist Gerhard Richter (1932-), the composition displays a variety of extended vocal techniques, such as inward singing and screaming both on definite pitches as well as

⁴¹ See <http://www.maulwerker.de/programs/p-maul.html> [last accessed 27 Nov. 2018].

⁴² See <http://www.maulwerker.de/video/v-tante-marianne.html> [last accessed 27 Nov. 2018].

whistling techniques. The painting depicts Gerhard Richter himself in the arms of his aunt when he was a baby and she a teenager. The composition aims to illuminate the entanglements that members of a German family got into during and after the time of Nazi dictatorship. As a result of the perfidious euthanasia programme Richter's aunt, Marianne, was murdered by Nazi physicians due to an alleged schizophrasia while the father-in-law from his first marriage, Prof. Eufinger, was heavily involved in the killings related to the euthanasia programme in Nazi Germany. What makes the story most delicate, is the fact that, over years apparently, one of the most famous contemporary visual artists, whose works are sold at the present time as most expensive on the global marketplace, was financially supported by his father-in-law during the period when Gerhard Richter yet unknown wasn't able to make a living on his own account.⁴³

Over the course of the past 25 years, I was given the opportunity to perform with outstanding vocal performance artists whom at this juncture I don't want to miss mentioning since, due to the simple fact of mutual encounter, they had a strong influence on my practices. One of whom is the grandiose double bass player and versatile vocalist Mathias Bauer. He is one of those rare type of musicians who is able to practise both very convincingly, that is, improvisation and interpretation.⁴⁴

Two years after I graduated at the University of Potsdam in Germany in 2000, I met British voice artist Phil Minton (1940-) with whom I performed during a house concert event in Berlin organised by composer Dietrich Eichmann.⁴⁵ Phil is an exceptional artist and endowed with incredible improvising skills. His talents are based on a relentless search for and the brave endeavour to explore the sounding potentialities of his own voice during the act of performing. In fact, I even claim that his practice is unprecedented in regards to the improvising and experimenting abilities he is endowed with. Playing to his potential, each vocal performance art piece he's creating demonstrates, by means of unvarnished scrutiny, an enormous range of human expression. Our encounter in 2002 is still very much reverberating in my ears and memory.

Another highly admired sound artist and vocal performer is Dutch artist Jaap Blonk (1953-) who is an experienced interpreter of DADA poems as well as improviser and composer of his own works. He ran a multitude of language experiments and explores the voice mostly based on the speaking voice sounding out the potential from whispers, to multiphonics and screaming sounds. I had the chance to work with Jaap several times. In 2009, at the venue for improvised music, film, literature and performance in Berlin called *Ausland*, we both performed in the same concert as soloists and in a duet situation.⁴⁶ Some other occasions we encountered each other were the interpretations of the composition *ich bin europa - modul 1* by Susanne

⁴³ Jürgen Schreiber, *Ein Maler aus Deutschland – Gerhard Richter. Das Drama einer Familie* (2005).

⁴⁴ See <https://www.bauerbass.de/> [last accessed 21 Dec. 2018].

⁴⁵ See http://www.oaksmus.de/SitesOaksmus/Galerie_Minton.htm [last accessed 27 Nov. 2018].

⁴⁶ See <https://ausland-berlin.de/das-grosse-lalu-jaap-blonk-alex-nowitz> [last accessed 27 Nov. 2018].

Stelzenbach (1947-) and Ralf Hoyer (1950-) performed in Leibzig and Potsdam by saxophone player Ulrich Krieger, Jaap and myself.⁴⁷

With regard to the community for improvised music in Berlin, I don't want to miss to mention extraordinary vocalist Ute Wassermann and Christian Kesten both of whom have developed an idiosyncratic style to perform with the voice. Ute uses a variety of whistles imitating bird calls to integrate these in her vocal performances.⁴⁸ On the other hand, Christian, who is a member of the *Maulwerker*, has found and established a reductionist style by focussing on tiny little movements of parts of the mouth and/or throat.⁴⁹

A Pierre
More choirs constantly changing as formants of voices—timbres—
interdynamic spaces and some possibility of transformation by live electronics.
Luigi Nono⁵⁰

Extended Voices and Custom Live Electronics

In 2014 at the *Ackerstadtpalast* Berlin I performed with Japanese composer-performer Tomomi Adachi who expands the range of his vocal expressions by using a custom-built, infrared sensor shirt equipped with different sensor technology including LEDs. This allows him during the live situation of the performance act to control, with an exciting set of gestural vocabulary, the modification and transformation of his voice. Tomomi is an exceptional artist who built the instrument himself as well as he did the programming in Max/MSP.

This leads to the field of extending the voice through the use of custom live electronics. The history on an expanded field of vocal arts pursuing the integration of live electronics is still to be written. But an excellent entry point is provided by Julieanne Klein with her article 'Voice and Live Electronics: An Historical Perspective' (2008),⁵¹ published within the issue *Live Electronics, Improvisation and Interactivity in Electroacoustics* on the Canadian online journal *eContact!*. It also includes an essay of mine with the title 'Voice and Live-Electronics using Remotes as Gestural Controllers', which is a reflection on the development and use of the first instrument that I was able to develop together with sound artist Daniel Schorno at STEIM in Amsterdam.⁵² It is called the *stimmflieger* consisting of two Wii-controllers and computer.⁵³ The development and the experiences made on the *stimmflieger* during vocal performances had a great impact on developing the *strophonion* as

⁴⁷ See

https://www.ralfhoyer.de/en/werke_en_detail.asp?site=werke&usite=musiktheater&UKEY=8&KEY=104 [last accessed 27 Nov. 2018].

⁴⁸ For more details on her work see <https://ausland-berlin.de/ute-wassermann> [last accessed 19 Dec. 2018].

⁴⁹ As an example see http://www.christiankesten.de/compositions_e_zunge.htm [last accessed 19 Dec. 2018].

⁵⁰ Nono, *Seguente*, (2014), liner notes to *A Pierre. Dell'azzurro silenzio, inquietum a più cori*, for contrabass flute in G and contrabass clarinet in B flat and live electronics (1985), p. 39.

⁵¹ See https://econtact.ca/10_4/klein_livevoice.html [last accessed 19 Dec. 2018].

⁵² See <http://steim.org/> [last accessed 22 Dec. 2018].

⁵³ See https://econtact.ca/10_4/nowitz_voicelive.html [last accessed 19 Dec. 2018].

elaborated in the work at hand. From the beginning the field of live electronics is strongly connected with DIY aesthetics. The concept of do-it-yourself is one guarantee to come to unique artistic outcomes. The motivation to follow this path is evident. The alternative is to go the next music store and buy devices that the industry provides, such as effect pedals to trigger reverb, delay and distortion, and such. When using them, it is more likely that the results may sound like those of other artists who apply them. On the other hand, designing and programming your own instrument brings along quite tedious and painful procedures during the developing process as well as before and even during performances. Nonetheless, this is what the artist embraces when aiming to reach out for unparalleled results.

In the following, I compiled a small numbered list of those artists that I know of and that I think need to be mentioned when it comes down to define this field. It needs to be emphasized that, with regard to the use of custom-built, sensor-based live technology in vocal performance art, the protagonists are countable. The community is small, but burgeoning.

Standing in the tradition of Berberian's approach toward an expanded field of vocal arts, American vocalist Pamela Z showcases exciting and innovative practices. Trained as classical singer, she goes way beyond that idiom by using custom-built controllers to 'manipulate sound and image' and by pursuing a highly interdisciplinary approach between the arts. Her website provides more detailed insights:

Pamela Z is a composer/performer and media artist who works primarily with voice, live electronic processing, sampled sound, and video. A pioneer of live digital looping techniques, she processes her voice in real time to create dense, complex sonic layers. Her solo works combine experimental extended vocal techniques, operatic bel canto, found objects, text, and sampled concrete sounds. She uses MAX MSP and Isadora software on a MacBook Pro along with custom MIDI controllers that allow her to manipulate sound and image with physical gestures. Her performances range in scale from small concerts in galleries to large-scale multi-media works in theaters and concert halls. In addition to her performance work, she has a growing body of inter-media gallery works including multi-channel sound and video installations.⁵⁴

Singer from Norway, Tone Åse (1965-) works with voice, improvisation and live electronics.⁵⁵ She investigated the interplay of the three fields and presented an excellent research project published on the Research Catalogue called *The voice and the machine, and the voice in the machine - now you see me, now you don't*.⁵⁶ At the moment she is Associate Professor at the music department of the NTNU, the Norwegian University of Science and Technology.⁵⁷

Swedish tenor and composer, Carl Unandar-Scharin (1964-), who studied at the University College of Opera in Stockholm, created a variety of interactive instruments

⁵⁴ See <http://www.pamelaz.com/pzbios.html> [last accessed 27 Nov. 2018].

⁵⁵ See www.tonease.no/ [last accessed 27 Nov. 2018].

⁵⁶ See <https://www.researchcatalogue.net/view/108003/108004> [last accessed 27 Nov. 2018].

⁵⁷ See <https://www.ntnu.edu/employees/tone.ase> [last accessed 19 Dec. 2018]

to be used by opera singers in a number of artistic projects. He aims to ‘re-empower’ the opera singer by means of ‘interactive, artist-operated instruments.’⁵⁸ By the time I started my PhD project in Stockholm, Carl presented his with the title *Extending Opera: Artist-led Explorations in Operatic Practice through Interactivity and Electronics*.⁵⁹

In the context of improvised and New Music, multi-instrumentalist and vocal performer Sten Sandell (1958-) creates fascinating soundscapes regardless of what he uses, be it piano, organ, cembalo, his voice or sound processing devices. With regard to the voice, he explores the edges of his voice’s range and uses unconventional styles ranging from Asian chanting techniques, such as *Kargyaa*, to various falsetto singing techniques.⁶⁰

Last but not least, but quite important in the European context is innovative, virtuosic and versatile vocal performer and composer is Franziska Baumann (1965-) from Switzerland. She performs in the context of both improvised and composed music, and uses custom, sensor-based and gesture-controlled live electronics. One of which is the *sensorglove*⁶¹ that she developed during a residency at STEIM in Amsterdam. For her, the interface is the ‘point of intersection for an extended corporality.’⁶² Applying the *sensorglove* in the piece *Electric Renaissance*, she also wears a ‘sound dress’ equipped with a number of built-in loudspeakers, which acts as ‘hybrid veil’, ‘an interface between the concrete world and imagination, between present and a purged baroque world.’⁶³ Next to Pamela Z, Franziska Baumann is one of the very few great vocal performance artists who don’t shy away from new technological possibilities and immerse themselves into the interweavements of voice, body and live technology. In several articles and essays, scholar Pieter Verstraete juxtaposes Franziska’s approach with mine, which has become an important work to gain a better understanding of the different strategies to approach interactive performance practices in the young and fragile field of extended vocal performance art with its numbered protagonists. To me, even though the devices that we both developed are quite distinct, in essence, the practices come close to each other. Verstraete illuminates this aspect as follows:

This brings us to the most fundamental issue of interactive music performance: meaning and gesture. When we look at the performances of Baumann and Nowitz, despite their inherent differences in their use of interfaces and compositional ideas, one question begs asking: do you primarily

⁵⁸ See <http://www.electronic-opera.com/node/783> [last accessed 19 Dec. 2018].

⁵⁹ Unandar-Scharin, *Extending Opera* (2014).

⁶⁰ For more information on Sten see <http://stensandell.com>, especially the PhD project *På Insidan av Tystnaden: En Undersökning* (2013), <http://stensandell.com/object.php?id=67&l=s> [last accessed 19 Dec. 2018].

⁶¹ Baumann’s sensor glove is similar in concept and design to the *Lady’s Glove* by Laetitia Sonami. For a comparison between the two interactive instruments, see Ekaterina Kel, ‘An der Schnittstelle zwischen Körper und Klang: Franziska Baumanns und Laetitia Sonamis performative Arbeiten mit dem Datenhandschuh’, *Seiltanz: Beiträge zur Musik der Gegenwart*, 4/2014, pp. 10-17.

⁶² The quote by Franziska Baumann is translated by myself referring to an interview conducted by Stefan Drees, ‘“Schnittpunkt zur erweiterten Körperlichkeit”: Die Vokalperformerin Franziska Baumann im Gespräch mit Stefan Drees’, *Seiltanz*, 12/2016, pp. 43-50.

⁶³ See <http://www.franziskabaumann.ch/en/solos/electric> [last accessed 19 Dec. 2018].

look at what the gestures *mean* or what they *do* to you? Is there a separation between meaning and doing? Theories of performativity would suggest – contrary to Wittgenstein’s separation between music and language – that musical gestures are similar to the gestures of language in the way they make us do things. They make us respond in our ways and attitudes of looking and listening. In this sense, gestures are the quintessence of our positions and responses that inhere in our pursuit for meaningful relations. And this is what gestures in performances such as Baumann’s and Nowitz’s can make us aware of: a questioning of the nature of body and sonic gestures as meaningful to our experiences.⁶⁴

⁶⁴ See Pieter Verstraete, (Keynote) *Interactive Music: Social Considerations of Gesture and Vocality*, <https://amsterdam.academia.edu/PieterVerstraete>. A German version of these considerations also exists, in: Verstraete, ‘Die Demaskierung der körperlosen Stimme’, in *Disembodied Voice*, pp.90-91. The reason why I don’t elaborate on this more in detail is because Verstraete refers to performances with the *stimmflieger*, a gesture-controlled live electronic instrument consisting of two Wii-remotes and computer. The focus of the work at hand, though, is the *strophonion*. In fact, unless explicitly asked for, I don’t perform with the *stimmflieger* anymore. However, the *stimmflieger* became some sort of a role model for the development of the *strophonion*. Together with Daniel Schorno, from 2007 through 2009 at STEIM in Amsterdam, I developed its software configuration based on LiSa and junXion. For more information see https://econtact.ca/10_4/nowitz_voicelive.html [last accessed 19 Dec. 2018].

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