FROM NEW AUDIENCES TO SURPRISED PERFORMERS:
A TRANSFORMATION ENABLED BY TECHNOLOGY

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Social inequality is undoubtedly central to the lack of involvement of so-called 'new audiences' with the contemporary music scene. Bull and Scharff (2017) highlight how class inequality in the classical music profession in the UK reflects issues of inequality evident in both the production and the consumption practises of the genre. However, they also stress how the imbalance in these two practises is connected and how inequality is perpetrated by the spaces in which classical music is commonly performed, and by the cultural institutions with which these spaces can be identified. This paper incorporates these observations and explores the approaches that I have developed in my own practice, which aim to subvert social inequality in the contemporary music field through the use of music technology. I will consider how my work as an artist is implemented mainly through two strategies. The first approach uses technology as a disruptive force, unsettling audiences' typical thinking about social hierarchy. The second approach involves an investigation into reaching new audiences.

In order to illustrate the application of these approaches, this article will touch upon four of my musical works. *Frauenstimmen*, for piano and live electronics, reveals details of the actual or pretended personal life of the performer to the audience. In *Als ich ein Kind war*, the electronics regulate intervals of time in which the performer variously sings and converses with the audience, encouraging them to share their childhood memories. *White Masks* combines a performance and an audio-visual installation through which the voices of the different audiences that the project meets are recorded and later reproduced to synthesise different environments and, thus, compensate for loss due to migration. *Intermezzo 4*, an installation of metal panels and motors, offers the audience the opportunity to use hybrid electroacoustic instruments to experiment with sound and experience free improvisation and musicking. From the features of the projects described in this paper, some conclusions will consider the effectiveness of direct contact and the use of technology to abate the boundaries between the music world and new audiences.

Strategies and Philosophical Approaches

In this section, a range of potential strategies for highlighting the social implications of performances and accessibility issues will be discussed, while in the following section I will describe in more detail how some of these strategies have been implemented in my work through the use of technology in order to suggest temporary social relationships during a performance.

Imagined Communities and Invisible Forces

Since the stratification of social classes appears to be partially mirrored in the classical music profession (Bull and Scharff, 2011), at a performance level, the division between the audience, performer and composer reinforces the concept of role segregation. While music depends on the social dynamics that are essential for its production (see, for example, Born 2011), by using technology and interdisciplinary approaches, it is possible to make the energy between the performers visible and audible for the audience. Consequently, music should be regarded as 'a field of relations', instead of 'a set of practices' (Ouzunian and Papalexandri-Alexandri, 2014:36). It is the responsibility of the artist to be aware of how the audience can interpret the connections and social forms generated by a performance. Since 'music conjures up imagined communities', momentary and 'virtual collectivities' (Born, 2011:378) can be shaped through the assigning of roles to performers and audience members. Although these social structures would last only for the duration of the performance, they could have a more long-lasting impact on those who experience them.

Deterritorialization of Thoughts Through the Deterritorialization of Sound

If one of the aims of a performance is to disrupt the distinction between roles, an effective strategy is to remove the physical division between the audience and performer in the performance space. Luigi Nono's works opted frequently for 'the revocation of the separation between stage and auditorium' (Motte-Haber, 1999:301), and it is very likely that this decision was made to mirror his political views. Although only momentarily, in these works he offered the audience the opportunity to be part of a group where hierarchical distinctions were weak. Nono truly believed that, by guiding the audience through the creation of different acoustical spaces, it was possible to encourage their minds to abandon the 'well-worn structures of thinking' (Motte-Haber, 1999:302) in favour of pursuing new spaces of imagination. The use of electronics, alongside collaborations with visual artists or architects – such as the one between Luigi Nono and Renzo Piano from which the huge ark of *Prometeo* was created – supports sound artists/composers in their investigation of acoustical spaces. In doing so, a multiplicity of listening perspectives are suggested to the audience, who are sometimes free to choose their seat, or their position within the performance space. This is a first step towards the subversion of hierarchies. When producers attempt to 'deterritorialise and create fractures within power discourses and practices' (do Nascimento, 2001), or 'to break down the walls between performer and audience member as well as the borders that define gender and art disciplines' (Kurdi, 2018:34–35) in an interdisciplinary context, music becomes a rhizome with 'transformational multiplicities' (Deleuze, 2013:11–12). At this point, the deterritorialization can take place and the audience might open up to accepting new and fairer social structures.

However, the advantages offered by technology goes beyond sound spatialisation: it extends to the domain of sound analysis and synthesis. Some of the experiences described in the following sections will highlight how technology can be used both to suggest to the audience that the non-hierarchical social structure that exists during a performance can be transferred to real life, and also to highlight how the two situations are easily connected and can even be mistaken for each other. When sound analysis and synthesis are applied to human and non-human voices, it is possible to create performances that are based upon real life situations, or at least show strong similarities to them. If the human voices belong to a specific social context, the sound material derived from these voices is somehow projected onto a social plane – a plateau – as is the whole performance, thus determining another kind of deterritorialization (Rosani, 2016).

Working with Non-Musicians

Technology can be extremely useful when employed within the second strategy to abate the distance between new audiences and contemporary music. The experience of sound production in a notation-free context can be very fulfilling for those who are not familiar with the musical language and notation traditions. UPISketch software, developed by Rodolphe Bourotte in collaboration with the Centre Iannis Xenakis, the European University of Cyprus and the Creative Europe Program of the European Union, is an example of how it is possible to produce sound with no prior knowledge of musical notation (Bourotte, 2018). Workshops for young people, in collaboration with schools, can provide opportunities for this type of discovery (Landy, 2011). They can certainly contribute to narrowing the distance between the audience and classical music, in addition to empowering younger individuals from minority backgrounds (see, for example, the work of Born, 2011 and Landy, 2011), thus contributing to encouraging careers in environments where they are typically underrepresented, such as classical music.

Fringe Venues and Accessibility

In using technology, contemporary classical music sometimes overlaps with the field of fringe music and, as highlighted in Graham's (2016) book, is able to reach new audiences because it is performed in venues beyond the established spaces of cultural institutions. Additionally, artists and institutions can attempt to address new audiences directly by organising performances with free entrance in public spaces. For example, in 2013 the London Contemporary Music Festival (LCMF) organised free concerts and installations in a multi-storey car park in Peckham. The events were crowded, and it was easy to deduct from the participants' behaviour during the performances that the organisers had attracted an audience made up of classical music adepts/lovers and of individuals who had no previous experience of attendance at these types of events. If free entrance is not an option that an institution can afford to consider, allowing people to pay what they can is a choice that some organisers have implemented to foster accessibility. The LA-based Kaleidoscope ensemble has been successfully employing a 'pay what you can' policy for three years to 'help develop future audiences and engage with [their] whole community' (Kaleidoscope, 2018).

Hybrid Instruments Against Stylistic Uniformity

Finally, the use of hybrid electroacoustic instruments may offer audiences the opportunity to experiment with sound through a stylistically non-biased system. On multiple occasions, Kazuhiro et al. and Tanaka et al. (Gaye et al., 2010; Kazuhito et al., 2013) supported non-musicians while they were developing their own instruments to perform improvisations with them on their own or in groups. The use of both diverse and accessible technologies and software enabled the participants to develop the sonic universes that they preferred, without being forced towards a specific style. These results are confirmed by the research of McPherson and Lepri (2020), who, after lengthy experience working with musicians and non-musicians in the contest of augmented instruments, pointed out how the users' musical productions made with specific tools are affected by the suggestions of the tools themselves.

'*Frauenstimmen*' and '*Als ich ein Kind war*' (2017): A glimpse of the performer's personal life

In 2017, I had the opportunity to work on two compositions that explored the actual or fictitious details of the lives of the performers. A few years earlier, I had been inspired by the work of composer Johannes Seidl and video-maker Daniel Kötter. Their piece, for Neue Vocalsolisten at Biennale Venice, involved person-size displays which screened recorded details of the singers' private lives while they stood to the side, wearing concert clothes and singing. As the recipient of the IMRO/Music Current Commission, I collaborated with pianist Xenia Pestova for the creation of '*Frauenstimmen*', a composition for piano and live electronics. I asked Xenia to record her voice while talking about the important women in her life. The recording ran throughout the entire performance and was filtered live by the piano material. When we performed the piece at the Smock Alley Theatre in Dublin, my contribution was to regulate the filters so that the spoken material would move from indistinct material, which simply contributed to a change in the timbre of the instruments, to intelligible text that the audience could understand. The arrangement of the speakers underneath the instrument and the addition of the dry signal from the instrument to the output of the filtered voice, provided the ability to reach the high level of synthesis between the instrument and the electronics. In a sense, the composition can be regarded as a lieder in which the pianist performs both the piano and the vocal parts.

The second work, '*Als ich ein Kind war*', was a commission from the Stuttgarter Kollektiv für Aktuelle Musik (S-K-A-M. e.V.); it was performed by the singer Natasha Lòpez at Kunstarum in Stuttgart. The vocal material was developed entirely around the frequency analysis of the words in the title [1], while the electronic material was developed from resynthesising fragments of this same text with different parameters. In terms of formal structure, the piece alternates sections in which the vocalist sings with segments during which she sits among the members of the audience, recalling some of her fictional childhood memories, and then encourages the audience to contribute with their own memories. The electronics are organised in such a way that a constantly and slowly varying *bordone* is played during the parts that are sung, whilst the spoken sections are framed within sonic environments that evolve from being sparse to become denser, thus initially giving space to words, and then later signalling the approach of a new vocal section to be sung.

This structural setting worked very effectively. It created enough intimacy for the audience to feel comfortable with sharing their memories, and it articulated the flow of the performance such that it would be perceived as a unique session. The amount of contributions from the audience provided me with a direct means for assessing the success of the interaction between the audience and the performer. Since I was afraid that asking people to talk about their private sphere may provoke a negative reaction from the audience, I was extremely pleased to see that they not only contributed, but, after the premiere, one of the audience members who chose to share a memory even thanked me and Natasha for the performance. Undoubtedly, some of the choices contributed towards creating the requisite intimacy that the audience members needed to take part in such an experimental performance. Performing in a small space such as Kunstraum was one of them. A video projected on metal sheets alternated images of the singer while she was performing and in her leisure time. Because I was interested in having a vibrating body present in the space and 'in stripping down to the minimal', I attached transducers to the sheets to avoid using speakers (Kurdi, 2018:34).

'*Frauenstimmen*', piano: Xenia Pestova, Festival Music current 2018

'White Mask' (2016–19): Deterritorialization and humanised metal sheets

'White Mask', a piece for cello and live electronics, is part of White Masks, a cycle for cello, live electronics and resonating objects that I developed along with Frankfurt-based Esther Saladin and visual artist Inês Rebelo. The piece was born from the analysis and re-synthesising of a recording found in the British Library Sound Archive [2]. The recording includes a conversation among four women who are talking about the lives of women in post-colonial Africa. The title of my composition is an allusion to Frantz Fanon's book, *Black Skin, White Masks* (1986), and it aims to highlight the unstated roles and positions of the women involved in the conversation. During the performance of 'White Mask', the cello sound is projected live onto three metal panels, whose vibration adds a rattling to the sound of the instrument.

In doing so, the sound of the cello evokes the sound of a mbira/kalimba, which is characterised by the rattling of the caps attached to the body of the instrument. The cellist managed the amount of sound projection and the processing through a MIDI pedal. Both the rattle and the improvisation-based use of the electronics come from the desire to transform the cello into a non-Western music tradition instrument; a reaction to when the non-Western music tradition is forced into the context of the Western music tradition. The performance of the cycle requires the audience to be sitting around the positions where Esther plays; the metal panels are also among the seats, which are arranged with no apparent preferential direction.

White Masks aims to explore loss and transition. As an event, it involves a performance for cello and live electronics and an installation through which the audience records their contributions on the project themes. Both are framed within the same visual installation. The voices, which are recorded, are processed and played back through transducers attached to metal sheets, so that they contribute towards building a community of objects resonating with the memories and thoughts of the audiences that the project had met previously in other venues, cities and countries. Reflecting upon individualistic societies which are accustomed to uprooting, the project aims to compensate for the loss of traditions, social relations and places, and attempts to accompany the audience through their own transitions. Given the concept described above, since the beginning of the project a key question has arisen: how to reach displaced people? By this, I mean people who have migrated, or whose families had migrated, or anyone else who, for whatever reason, has the feeling of being addressed as *the other*. Esther, Inês and I responded to this key question by deciding to perform in public spaces, and we agreed that the events should all be free. However, although these decisions enhanced the accessibility of the performances, only one performance – the Deptford Lounge (London, 2017) – seemed to offer the perfect circumstances to reach new audiences. In fact, in Deptford, Esther, Inês and I had direct contact with people who were not accustomed to attending art events. In addition to being a public library, the Deptford Lounge also hosts the Tidemill Academy, so we also had the opportunity to perform for the children who had just finished their school day, and who had interacted with our installation during the days preceding the performance. There are multiple issues inherent in this approach. One is the amount of work required of the people involved in the performance. Although having direct contact with one's audience is rewarding and highly stimulating, it is not always feasible for the artists due to the time required to dedicate to the planning, installation and performances. They must be either particularly devoted to the project or have been awarded substantial funding for it. The other issue relates to the performance conditions. People who are not accustomed to attending contemporary classical music events might not be aware of a series of rules that are generally implied. Some of the families who attended our performance at the Deptford Lounge came in late, or left early. This occasionally caused noise and created some disruptions to the cellist, who was performing extremely complex solo pieces. The project could have undoubtedly been developed differently. For instance, the installation could have been set up at the Deptford Lounge while the performance could have taken place nearby at the Albany, a theatre with a more traditional stage-audience setting. Nevertheless, the three artists wanted to perform also for the people who generously recorded their voices and who would not have come to the theatre otherwise, similarly to how Trevor Wishart chose to perform 'Encounters' in places such as rest homes, so that his piece could be listened to by the people whose voices he recorded were included in it.

Riffs

In 2013, I attended several of the London Contemporary Music Festival (LCMF) concerts at the multi-storey car park in Peckham (London). Although music such as 'Guero', by Helmut Lachenmann, was at times drowned out by the noise of the overground, or of people coming and going, the concerts were all free, incredibly crowded, and extremely successful. Therefore, it is apparent that, with some care in terms of organisation, the people who regularly attend contemporary classical concerts and those who are total strangers to such performances can all enjoy the same events.

White Masks (installation) at Goldsmiths, University of London (London, 2016). Photo credit: Ashley Simpson.

White Masks (installation) at the Deptford Lounge (London, 2017).

White Mask, cello: Esther Saladin, Atelierfrankfurt - Frankfurt am Main 2019.

Hybrid Electroacoustic Instruments (2019): The audience as performer

As described earlier, one of the purposes of my work is to disrupt the boundaries between the audience and the performers to conjure up an imagined society without any hierarchical structures. While in residence in Seia at the Festival Dias de la Musica Electroacustica, I developed 'Intermezzo 4', a new part of the *White Masks* project. I set up a feedback loop between speaker drivers and contact microphones attached to three metal panels. By approaching the panel with the speaker driver, the panel starts vibrating and the sounds that are produced have a different frequency content according to the distance from the microphone. Once stimulated by the audio feedback, the sounds produced by the vibration of the panels can be extremely simple or complex in terms of both frequency content and grain. These sonic features enable non-musicians to improvise without having to consider parameters such as pitch and rhythm, hence avoiding the alienating feeling that they might not be familiar enough with Western music notation, playing techniques or music theory to explore sound.

The panels were turned into hybrid electroacoustic instruments during my *In Vitro Residency* (Matera, 2019); I used four of them to develop an installation with DC motors, which moved the speaker drivers along the surface of the panels. A few months later, I worked with Kinga Tóth, the sound poet, to create a performance with the panels for the launch of *Maislieder*, one of her most recent collections of poems. We performed at Stockwerk (Graz, 2019). She quickly grasped the essence of producing and varying the sounds with the movement of the speaker drivers against the panels and the twisting of the metal with the electromagnet. On this occasion, the use of a metal scrub sponge to stimulate the vibration and her texts added a feminist layer to the interpretation of the performance.

Riffs

In November 2019, the same technological means were used to create an interactive installation for the Huddersfield Contemporary Music Festival. During its *hcmf // shorts*, I performed with five panels at Queens Market and later invited the audience members to interact with the installation. The people's participation was impressive. Many of the audience members played with it and started short improvisations, which were a reaction to other people's sounds. This is a successful example of role swapping, of disrupting the roles of the performers, the audience and the composers. Although some of the people who played at DME and the Queens Market in Huddersfield were not musicians, they improvised successfully with the hybrid instruments that I had designed, and they did so without the need to be instructed in advance on any playing techniques.

'I need little to survive', installation for the In Vitro Residency (Matera, 2019)

'Intermezzo 4', performance/installation with audience participation at the *hcmf // shorts* (Huddersfield, 2019). Photo credit: Brian Slater.

Photo credits: Brian Slater.

'I need little to survive', installation, In Vitro Residency, Matera 2019

Conclusions

From the experiences described above it emerges that, although social inequality is present within both the production and the consumption level of contemporary classical music, it is still possible for those producing it to have an impact on the audience's hierarchical vision of society and to have direct contact with new audiences. Nevertheless, to do so, artists need the support of cultural institutions to reach new audiences and to organise workshops and performances that are designed for young people who are still in school. The inclusion of technology to enhance the creation of acoustical spaces and the promotion of interdisciplinary projects – which can act on different levels on the audience's subconscious – requires long-term funding and open-minded institutions and performers. Technology can be crucial when it comes to opening a dialogue between sound and people who are unfamiliar with musical notation. Cultural institutions that manage performance spaces therefore need to be ready to welcome and assist artists who combine sound with visual elements, avoiding issues with security or tight setup schedules. The flexibility of venues that regularly put on non-mainstream music events is notable. This is one likely reason why experimental performances seem to occur in such places. Free events in public spaces, or spaces that are already populated by new audiences, are key to accessing these new audiences. While performing in such places certainly have downsides, such as noise, the events can still be enjoyable for classical music experts and newcomers alike. Although a significant amount of work still needs to be done to challenge the pervasive hierarchical structures and practices of genres such as classical, by conjuring up more equal societies through performance, music can instigate conversations relating to class structures and associations with particular genres, and disrupt the institutional tolerances of hierarchies. Significantly, the combined efforts of both music and sociology researchers are required to address the above-mentioned themes. Highly interdisciplinary research must therefore be developed to deconstruct the dynamics of the music industry and practice for the benefit of new audiences in the future. However, such approaches would be bolstered by further research on the sonic and physical features of hybrid instruments and their use within classical music settings. The most up-to-date advances in technology and software communication should be regarded by artists and programmers alike as opportunities to weave new threads between frayed social fabrics.

Endnotes
1. When I was a child, my translation.
2. More information about the technical procedures that were applied can be found in my PhD thesis (Rosani, 2016).

Silvia Rosani studied composition at the conservatoire in Italy and at Mozarteum Universität in Austria. Recently, she completed a PhD at Goldsmiths, University of London, where she currently works as Associate Lecturer. Silvia holds a 5-year degree in electronic engineering and works with software for audio analysis and synthesis, neural networks for machine learning, microcontrollers and the IoT. Her research focuses on the disruption of the boundaries between audience and interpreters through the use of visual elements and technology to create temporary less hierarchical communities within the performance space.

Her music is performed internationally by ensembles such as Neue Vocalsolisten, ÖENM, Platypus Ensemble and Vocal Arts Stuttgart, conducted by Angelika Luz, and by soloists such as pianists Anna D'Errico and Xenia Pestova. Her work has been performed at festivals such as Venice and Salzburg Biennale, MATA Festival (NY, USA), ECLAT (Stuttgart, Germany), Wege durch das Land Festival (Segelflugplatz Oerlinghausen), Grains of Sounds (GOS, San Francisco), the New York City Electroacoustic Music Festival, Dias De la Musica Electroacustica (DME, Lisbon) und Huddersfield Contemporary Music Festival.

She was Fellow in residence at the Akademie Schloss Solitude (Stuttgart, Germany), Le Vivier (Montreal, Canada), In Vitro Residency (Matera, Italy) and at the Centre for Human-Computer Interaction in Salzburg (Austria). Silvia was in residence at ZKM (Karlsruhe, Germany) through a n EASTN-DC residency and in 2021 will be in residence at the Center for New Media Culture RIXC in Riga (Latvia) through EMAP/EMARE and at the Experimentalstudio of the SWR (Freiburg, Germany). She is currently collaborating with hornist Deepa Goonetilleke – Ensemble Linea – to develop a new work for horn and live electronics thanks to a Virtual Partner Residency granted by the Goethe-Institute.

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