

something in between an academic paper, a demo, and a performance.

LS: I think the process is interesting. When I talk to people about how this came about they are surprised really, because it's not so common, especially this bridging of spaces. Most environments are successful if they branch outside of their bubble, but it's difficult because they have self-sustaining systems. When you branch out and go outside, I think it's so profitable.

RF: That is something about our work together: I would go crazy if we didn't have a space to do this kind of work. In some senses, this is some of the most important work to me, but it's not necessarily the kind of work that is expected of me day to day, it's not necessarily the kind of work that lines up with the boxes that one is supposed to tick – but I'm OK with that, as long as we get to do it.

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her software for real-time, interactive machine learning.

Artist Statements II

Back to the bones: bringing a performer's initiative to the design and development of interactive performance systems

by *Mari Kimura*

From the creation of the very first musical instruments and instrumental performances, made by blowing into hollowed bones with holes, the adaptation of found objects has inspired us to create music. Throughout the history of instrument-making, players have driven development, in relation to the needs of societies and environments. Today, however, I find that the models of human-driven invention and development of musical interfaces and instruments that trace their roots to antiquity, have become somewhat reversed in our field, such that the tools themselves often seem to drive computer-music practices.

As a classically-trained violinist from Juilliard, I took quite an unconventional path. For many years, I was the only violinist I knew to perform at the level of a concert violinist as well as compose and do computer programming for my own pieces. I wrote and presented my first interactive composition at the

Computer Music Conference in 1992 in San José, California. Some of those who were there still remember my little Powerbook crashing on-stage about 20 seconds into the piece. I had to stop and reboot my computer in front of the audience (fortunately, a very sympathetic one). In those early days, people openly asked - presumptuously but not entirely implausibly – 'Who is doing Mari's sounds?', assuming I couldn't possibly program a computer on my own.

From this standpoint, I find that technological advances – perhaps driven by economic motives of software/hardware companies – are not necessarily responding to artists' needs in their push for innovation. Thus the curious reversal I mentioned: new interfaces, musical instruments, music apps marketed as 'for musicians and artists' are presented to us before the artistic necessity or desire to make music using them arises, without a clear vision of who these 'musicians and artists' are.

Computer Music, with its ever-developing technology, enables one to modularly add, combine, and create digital elements and devices, providing a plethora of possibilities to creators. Naturally, the creative process is vastly different from composing for a string quartet, for example, where physical limitations are at play. On the other hand, it is very easy to limit interactive computer music to

‘what you can do’ technologically – or ‘what the software can do’ – thus creating artificial limitations along technological lines, rather than artistic or physical contingencies.

In 2013, I inaugurated the Future Music Lab, a modest summer program at the Atlantic Music Festival, with the encouragement of pianist Bruce Brubaker, the head of the Piano Department at the New England Conservatory and a former colleague at Juilliard. I wanted to permit high-level performers to be inspired by new interfaces and new technology. The students of Future Music Lab had the opportunity to use IRCAM’s Modular Musical Object (MO) sensor, which I came to use and compose with through my collaboration with IRCAM’s Real Time Interaction Team, starting in 2007. Since 2015, I have moved on from using MO to working on a custom Arduino-based sensor system, in collaboration with media artist Liubo Borissov at Pratt Institute, which we call *mugic*. *mugic* uses a motion sensor embedded in wearable interfaces or objects - such as a glove, band, stick, etc. – to extract expressive and functional movements of the performer’s body.

The Future Music Lab, now in its 5th year, has welcomed performers playing a variety of instruments or with other practices, such as singing or acting. In the meantime, I continue to develop

my interest in the combination of two motions: 1) functional movements made in order to produce sounds from an instrument; 2) expressive movements (or ancillary movements) that are created typically as an artifact or just before/after the functional movements. The combination of these two types of movements, and other information from the performance such as audio-associated data, become very powerful tools, if they are analyzed and used effectively. I believe it is the user - the performer - who can best choose which data to use, which data may be relevant in the musical or artistic context and flow of interactive performance. This year, I joined the faculty of the Integrated Composition, Improvisation, Technology (ICIT) program at the University of California, Irvine, which seems to be exactly the right place for me to be pushing ahead in my research and the development of interactive performance systems, from my perspective as both composer and performer.

Musical Spaces and the Radically Wishful

by Paula Matthusen

In recent years, my artistic statements have focused on considerations of musical spaces, whether they are real, imagined, and/or remembered. This has been the most convenient way for me to weave

together the threads of different projects I have been interested in: from acoustic writing, to electroacoustic sound installations, to various theater, dance, and collaborative projects. This grew out of a natural consequence of a very early attraction to the possibilities electronics afforded, first introduced to me by Paul Rudy at the Aspen Music Festival in 1996. This continued at the University of Wisconsin – Madison, when my classmates, including Christian Zamora, Jeff Snyder, Ryan Ross Smith, Morgan Luker, Teresa Campbell, and Sarah Florino formed the performance art group 52 Splinters. To the group’s benefit, Jeff brought with him an AKAI S3000 Sampler as well as the chops to play it and accommodate our numerous live-electronic whims. Live-electronics quickly became a collaborative endeavor, and a site of learning and experimentation. Through the pieces we wrote, spaces came alive through feedback, a range of unusual samples, and the use of conventional and unconventional instruments.

Though the group no longer exists, these experiences continue to illustrate to me how communities can form around such curiosities. My interest in space has remained unabated, though now many of my projects involve a more sustained engagement with the social aspects of collaborating and recording. Sociality has always been embedded in the history of electronic musics and ensembles, though projects change with the increasing

portability and miniaturization of electronics. Without the necessity to work in specific studios or around large, cumbersome machines, one may roam alone with any gear necessary in tow. Regardless, I am drawn to situations that necessitate movement with others.

Much of my recent work has centered around field recording, often large systems that never yield themselves to any singular type of interaction. Most frequently, this has involved interactions with sites of historical infrastructure in large cities. This began first with recording in the Atlantic Avenue Tunnel in Brooklyn, and then expanded to include aqueducts in New York and Rome. This has recently extended to cave systems in Kentucky, in particular historical tourist routes in Mammoth Cave [1]. The large breadth of these projects has necessitated traveling long winding routes, often with collaborators and friends, or people with expertise on these spaces from outside of music.

A large part of what makes these projects so enjoyable is that they serve as unusual meeting grounds. Much of the development of a particular project never makes its way to the final ‘product,’ though this affords many opportunities for the exchange of ideas, curiosities, and above all, care. For this reason, I have been drawn to projects that embrace the inefficient and the slow as a means of

inviting people to participate. This is not the only manner in which I work, though one which I find enormously pleasurable and often surprising, and it informs the more ‘conventional’ projects I return to. I am indebted to those who have very literally opened doors for me (as well as gates, freight elevators, manholes, among other structures), and to the numerous musicians and collaborators who have traveled with me through them. The slowness of the path invites company and collaboration. Two people whom I have traversed large distances with – Néstor Prieto and Terri Hron – are forever embedded in numerous recordings we have made together, and some of my favorite recordings from these projects are the noises or ‘outtakes’ of our fumbling for equipment in the dark or excitement at hearing something unexpected.

While reflecting on noise elements at the 2017 conference for New Interfaces for Musical Expression (NIME) at the University of Aalborg in Denmark, Greg Taylor, Stephan Moore, Scott Smallwood and I shared stories about some of our favorite moments in experimental recordings. A moment in Pauline Oliveros’s seminal work *Bye Bye Butterfly* (1965) has long been one of my favorites. Just prior to the introduction of the recording from Puccini’s *Madame Butterfly* into Oliveros’s stunning and elaborate system of delays and oscillators, one hears the needle drop on the record

and then ricochet through the electronics. Greg, Stephan, and Scott recalled the moment immediately when I described it. For me, it is a wonderful surprise, uniting the exploratory electronics with human movement, introducing noise to the system while revealing how part of it works. This moment is also one of listening to someone else listen, cutting across temporal axes separating performance and recording.

In my own work and in my listening, I am interested in finding vulnerabilities of systems: from the equipment and tools we use to interact with sound and spaces, to the large networks and infrastructures hidden lying under the surface of daily life. Opening up this vulnerability creates spaces for difference and interaction, ones that may often fall outside conventional economic and social models. For these reasons, I have been increasingly drawn to keeping noise elements within my recording projects, as noise is often indexical to specific times and places as well and the bodies inhabiting them. I am interested in pieces and performative systems that enact strategies of care, and embrace elements that at first may seem unusual as part of this care. In this sense, we can be ‘radically wishful’, and imagine situations that do not yet exist, and in so doing can also imagine different means of interacting with one another. [2]

An Individual Note on Intersectional Projects

by Silvia Rosani

This statement describes how technology enabled me to develop an intersectional project, *White Masks*. The project encouraged my development of a composition/performance practice with live electronics. Through this my interest in voices led me to develop interdisciplinary collaborations with other female artists. I will address how gender issues have emerged quite naturally within these collaborations, and have found space beside identity, class and colonialism through an intersectional perspective. The project highlights a parallel between ‘the socialities of musical practice and broader forms of social power’ so that the music performance enacts an alternative and ‘utopian social space’ [3].

I discovered the need to connect the sound recorded in specific places, with the history of the inhabitants of those sites, in the work of other women composers and sound artists. One example is Annea Lockwood, who searched for the history of the lands through which flew the rivers whose waters’ sounds she was recording [4]. Like Annea’s work, *White Masks* (2016) [5] connects the sound to the socio-political context in which it originates. People interact with the project via an interactive installation which facilitates voice recordings. This is

followed by a performance for cello, live electronics and resonating masks, which is shaped as a sequence of pieces for different forces. The recorded voices are transported to the next performance site, embedded in the texture of the electronic sound. *White Masks* also engages with other technological means, in order to deepen the intersectional aesthetics. Sound analysis software is used to analyse the voices, so that they can be integrated with other sounds, creating a surface like a bas relief. Via the analysis, in fact, I am able to collect information about the frequency content of a sound and, subsequently, to impress the spectral envelope of that sound on another, so that the features of the first sound surfaces gradually from those of the second one. The textual elements are resynthesised in different parts of the performance space through the use of big metal panels, which are turned into speakers using contact sound exciters. The panels are often referred to by the artists as the masks. They become humanised through this sonic reconstruction and, after each performance/installation, are gradually closer to becoming a virtual community. The collection of voices resynthesised by the panels grows the more the project is performed, becoming richer and more likely to mirror the variety of audiences that the project meets.

I first encountered click languages through the British Library Sound

Archive, which includes a 1966 recording of the voices of African women, while they converse about the life of women in postcolonial Africa, and a song by Kuela Kiema, who accompanies himself with an mbira. White Masks was conceived in collaboration with cellist Esther Saladin through a shared interest in click languages, and is an all-women project which later included visual artist Inês Rebelo [6].

The click sounds in Kiema's song are, resynthesised in White Masks by the cello and live electronics. The relationships among the African women, in the 1966 recording, are the basis of the structure of the piece. The title of the project is a reference to Frantz Fanon's work *Black Skin, White Masks* [7], but rather than addressing race matters, it points to colonialism as one of the causes of migration and displacement. A performance of White Masks, aims to provide an alternative imagined community, in which the usual hierarchies and social identities are subverted. Women perform with technology that they control themselves, stimulating in other women in the audience "heterogeneous 'becomings'" (as defined by Briadotti and Born in [8] and [9]).

I use Essl's words to illustrate another use of technology in my project: "The field of new music technology also brings together academic research,

academic artistic performance, engineering and music communities. It hence provides an environment where many binary opposites meet". [10]

In White Masks, the boundaries between composer, performer and audience are blurred through the transformation of objects into speakers. The speakers are distributed around the performance space, so that audience members can actively choose different listening perspectives. By being given the opportunity to record their voices as part of the installation, the audience briefly swaps roles with the cellist. During the performance, the cellist also sometimes finds herself listening to the live electronics from a seat in the middle of the audience, while the composer performs. Role swapping had already been successfully experimented with at La Borde, a clinic led by Gilles Deleuze and Felix Guattari [11]. This stimulates a process of 'becoming' through which the unconscious turns into a 'force of flows and intensities' [12]. Similarly, White Masks promotes the exchange of roles between performer, composer and audience. This operates within a broader feminist approach that rejects dichotomies and, particularly, the masculine/feminine dichotomy.

As has been demonstrated in Federici's work [13], gender and social inequalities are so strongly entwined that they cannot be addressed separately. This is

why White Masks strives to reach new audiences using a feminist approach that encompasses activities which tackle social inequality. For example, performances of White Masks always take place in public spaces, which are accessible without a ticket. As a female artist performing in public spaces, for audiences who do not typically go to theatres, galleries or concert halls, I choose to use this platform, to communicate to young women, that they should feel encouraged to realise their aspirations. This can be done simply through the act of the performance itself, or more effectively with related workshops dedicated to female youths [14]. Bell Hooks highlights the connection between happiness and empowerment [15], and the workshops connected to White Masks aim to empower young women through their involvement with the project. When they visit the university campus to record their voices through the installation, prior to the performance, they are not mere visitors, but part of a project whose realisation occurs on campus. The first contact with these communities of women is usually realised via one of their teachers, if they are in school, or local libraries. This may contribute to them perceiving Higher Education as reachable rather than elitist, and also to think that it is possible, and even not that difficult for them to become part of an academic environment.

I conceive of a female artist simply as a woman who is able to work in a field

she chooses, and uses her work to reach out to other women. This may be achieved by displacing performances from traditional segregated and elitist performance locations to public spaces. The relevance of this gesture lies both in the non-exceptionality of the role model, and the way the location of performance is used to broaden reception. I chose to quote Daphne Oram in the title of this statement to reflect the desire to communicate to young women - through this work - that women do not necessarily need to be 'exceptional' to achieve a satisfactory career. Although she has served as a role model for later generations of women in electronic music, it has always struck me that Oram reflected on her practice with great modesty [17].

By promoting their art in less elitist environments or by creating accessible venues, female-identifying artists can reach other women and support them in their effort to imagine a successful projection of themselves. White Masks also opposes economic classism by offering audience members a free choice of seat: whether to sit or not, and how close to the sound source to place themselves. This is a contravention of standard theatres, where the best seats are only affordable for the wealthy, while others have limited choices. By offering an open choice of listening experiences, it is acknowledged that different kinds of listening attitudes exist.

Within an intersectional vision, allowing the audience the freedom to move around the performance space, rejects binary oppositional roles such as performer and audience. The opportunity to change the listening perspective or to access an art event with no admission fee, are all decisions that contribute towards fighting gender inequality.

References

- [1] There are many organizations without whom this work would not be possible— briefly, the Brooklyn Historic Rail Association, the Friends of the Old Croton Aqueduct, NYC Department of Parks and Recreation, the American Academy in Rome, and Mammoth Cave National Park.
- [2] In thinking about the ‘radically wishful’, I am broadly invoking Will Cheng’s *Just Vibrations* (2016) as it considers and evokes elements of care.
- [3] Born, Georgina. “Music and the materialization of identities.” *Journal of Material Culture* 16 no. 4 (2011): 376–388.
- [4] Rodgers, Tara. *Pink Noises: Women on Electronic Music and Sound* (Durham and London: Duke University Press, 2010).
- [5] Silvia Rosani, “White Masks”, (blog), July, 2017, <http://silviarosani.webs.com/projects>.
- [6] Rosani, Silvia. “Non-human Political Voices.” *Schlossghost* 1. Solitude. 29 September, 2016,
<https://schloss-post.com/nonhuman-political-voices>.
- [7] Fanon, Frantz. *Black Skin, White Masks* (London: Pluto, 1986).
- [8] Braidotti, Rosi. “Teratologies,” in Deleuze and Feminist Theory, eds. Ian Buchanan and Claire Colebrook (Edinburgh: Edinburgh University Press, 2000), 170.
- [9] Born, “Music and the materialization of identities.,’ 380-81.
- [10] Essl, Georg. “On Gender in New Music Interface Technology.” *Organised Sound* 8, no. 1 (2003): 21.
- [11] Dosse, François. *Gilles Deleuze and Felix Guattari: intersecting lives* (New York: Columbia University Press, 2011).
- [12] Braidotti, “Teratologies,” 161.
- [13] Federici, Silvia. *Caliban and the witch: women, the body and primitive accumulation* (London: Pluto, 2004).
- [14] Born, Georgina and Devine, Kyle. “Gender, Creativity and Education in Digital Musics and Sound Art,” *Contemporary Music Review* 35, no. 1 (2016): 1-20.
- [15] Hooks, Bell. *Teaching to transgress: education as the practice of freedom* (New York: Routledge, 1994).
- [16] McCartney Andra. “Gender, Genre and Electroacoustic Soundmaking Practices,” *Intersections* 26 no. 2 (2006): 30-48.
- [17] Oram, Daphne. *An Individual Note of Sound, Music and Electronics* (Oxford: Daphne Oram Trust, 2016).