

feedback you're getting from the audience and adding your own mood based on how you're feeling that day. Sometimes that muttering becomes a little love letter to somebody, sometimes I'm lecturing angrily at somebody... it changes from performance to performance.

AT: For me that's the kind of total immersive concert situation, whether we're using video or not. It's the feedback or energy or intensity.

Pamela Z is a composer, performer, and media artist who works primarily with voice, live electronic processing, sampled sound, and video. She is the recipient of many honors and awards, including a Guggenheim Fellowship and an Ars Electronica honorable mention. She will be a keynote presenter for NIME (New Interfaces of Musical Expression) in 2018. www.pamelaz.com

Atau Tanaka creates sensor-based musical instruments and is known for his work with biosignal interfaces. His work has been supported by the Fondation Daniel Langlois and the European Research Council, and has received awards from Ars Electronica. Formerly Artistic Co-Director of STEIM in Amsterdam, he is currently Professor of Media Computing at Goldsmiths, University of London. www.ataut.net

Artist Statements III

The Body in Sound

by Joanne Armitage

Sound is grounded in the body. It is a corporeal form in its conception, production and reception. Instigated by a kinaesthetic motion, a physical movement of an object in space—a step, a tap, a stroke, a speaker. Sound moves through space as vibration. Sound is actuated and propagated through materials; through objects, air and you. It enters you and is interpreted by you. Whilst complex mechanisms in the ear allow you to hear sound, your body feels it. Your body mediates your experience of sound. We interact with sound, it embeds within us and is sculpted by our physicality as we form it. Sound is physical, it is formed and received as vibration. When the physical sensations of sound go unnoticed they are still embedded within us. Through sound we place and displace ourselves. Music is said to impart a visceral impression upon the body, the emotional impact of this experience is a psychophysical response, but the physical is inherent, integral and absorbed. In her thesis on improvisation and feminism, Smith echoes the above by conceptualising the touch of sound on the body—highlighting its invisibility and its convergent and melding quality.

Sound writes upon the exterior surfaces and interior substances of the body with an invisible ink that leaves its mark as it evaporates and disappears. The invisible presence of sound complicates the visual basis of intelligibility to underscore the corporeal as an improvisational process of sounding, audition, (re)writing, and transformation [1].

Performative practices involve affective interactions between bodies—of human actors, sonic gestures and architectural spaces. There is a (feminist) shift towards an embodied narrative in sound scholarship that relocates the 'understanding' of performative moments from sonic materialities to a lived, subjective experience [2]. Our participation within sound is not bounded by the flesh, it is both interior and exterior. McCullen [3] discusses how Trombonist Abbie Connant was removed from her position as solo trombonist in the Munich Orchestra as she was considered to 'not possess the necessary physical strength to be a leader of the trombone section.' Her body was scrutinised in the context of her sound, despite it being medically confirmed that she had above-average lung capacity. Connant was forced to engage further with her sensuous body and dealt with the stress and trauma of her situation using corporeal practices. Our bodies occupying spaces in hegemonic structures whether it be

be orchestras or technologies is not only a physical, but a political act.

The feminism of my practice is enacted through this exploration of embodiment, and further demonstrated in the politics of my approach—attempting to move away from tools and towards an embedded techno-sound practice that focusses on the sensuous. Such notions have been argued by Cusick to destabilise the mind/body ‘problem’ centralising the performing body in performance and emphasising corporeality. She suggests that an ‘emphasis on corporeal performance can relocate music away from the “mind side” of Western culture, toward a space that includes mind and body’ [4]. Such approaches touch upon themes of intimacy and embodiment. The moment of a performance is a tactile/intimate act [5], but as the ‘physical rendering of creativity’ is absorbed into the digital realm, the relationship between performer and audience has evolved—and some argue has become abstracted. The porous space from physical to digital can be blurred through tactile technologies. With the popularisation of sound installation as practice, there has been an increasing focus on the body and its space and place within the listening experience. This reimagining of the sonic landscape has drawn the listening body more closely into the sonic revealing new opportunities for ‘embodied listening’ [6].

Physicality and embodiment have been continually explored facets of live digital music creation, with designers working to unpick the performer-instrument relationship in the digital realm. This work has produced a plethora of weird and wonderful new interfaces for musical expression. From the Radio Baton to the reacTable [7, 8]. In my practice, I have explored approaches to using vibrations as a mechanism through which I can extend my improvisational laptop practice by rendering extra-musical physical experiences for the audience. In this next part, I will discuss ideas pertaining to sound as a physical and embodied practice, and the ways that I have explored this through developing conceptual systems relating sonic and physical materials. During the production of this work, central themes of embodiment, mediation and immersion emerged.

Key (2015), is a performance system that extends the connection between the physical gestures of laptop performance and the listener using haptic feedback. As a highly-mediatised laptop-based improvisation practice, the physical human gestures of live coding are often just small motions. Between the performer and their instrument, this interaction is a small surface area of skin on the finger making singular temporal connections with a computer keyboard. To summarise, it is a kinaesthetic movement with a haptic

interaction. The temporal detachment and disconnect within live coding movements, when viewed as a performance gesture, is fertile ground for exploration; not only the notion that the performer reveals their plans prior to their inception, but the disconnect inherent in temporal flow being mediated by the laptop. In Key, I consider the keystrokes of live coding in the context of expressive performance gesture, and present a technological approach to amplifying, or highlighting them in live performance. I developed an array of vibrating motors that allowed me to render my keypresses as physical vibrations to audience members.

I extended this notion in It is only MIDI, a work where MIDI data controlling synthesisers is translated into physical vibrations that play across the listener’s body—it acts as a vibrating piano roll. The motors are placed on a chair on stage and audience members are invited to sit on it and feel the physical renderings in the performance. Improvisation is inherently collaborative and this was heightened using the vibrators. As a performer, I had anticipated that the performative challenge would be to explore creating a disparity, and sense of abstraction between the ‘heard’ and ‘felt’ versions of the MIDI note information by altering timbral parameters on the synthesizer. Through testing and performance, it became apparent that the novelty of the experience was engaging listeners above the conceptual issues the

work set out to address.

Originating as an approach to comprehending the data being sent out of the machine, in performance, the system grew to be a novel way of reflecting pattern. In relation to this, I found that the system facilitated a flexible way of coding SuperCollider patterns into vibration. Moreover, I found that it directly influenced my performance decisions, thus narratives, through connecting the listener’s body to the underlying performance process. Audience members were mediating the performance by visibly responding to the motors, which influenced microstructures of my improvisation, but also by leaving and entering the chair on stage, which caused me to change my flow, affecting the macrostructures. I began to consider performing something that is physically interesting that could be separate from the sound. Using this performance system, I am connecting the listener to the MIDI data output of the computer, as opposed to Key where the keyboard input is rendered as vibration. By bringing abstracted MIDI data into the fore, the vibrations in this work function to create a sense of presence as to the underlying processes controlling a sound by amplifying them.

Rendering the action of coding as something physical to the audience members reconfigures the role code plays in the digital realm as the haptic element brings the physical body to the fore of the experience. I embedded myself into the work through the vibrations and used technology to extend my reach to those that I was playing with and for. My practice encourages bodies to be aware of themselves in relation to the sonic environment and using vibration technologies to reframe the flow of our sensory interactions, to rupture and recode how we experience a phenomenon. My work is neither representational nor mimetic of real world tactile interactions, but instead echoes and synthesizes aspects and dimensions of 'other' to relocate a 'form', transcribing it as touch. It intends to engender a sense of presence in the user, within which, I hope it gives rise to a greater physical embodiment of their experience. Instead of asking, 'What do we feel?' my work considers 'What could we feel?' Within that, I reveal techno-futures and synthetic ways of being within a creative artefact.

BALANCING ACT: Noise Counterbalancing Silence

by Amble Skuse

BALANCING ACT is a ritual, a spell, a mantra, an experience, a collective endeavor, a remembrance act for female

names which have been 'noised' out of musical history, disappearing into the background. Noise, our voices become noise, our names become noise, inaudible, unheard, filtered out.

BALANCING ACT is a live processing piece performed by Amble Skuse and laptop. It takes the names of over 1500 female composers names and layers them into white noise. It brings those names to the concert hall, presents them through the computer's interface, and asks us to honour those names which have been ignored, removed, or forgotten. I then attempt to speak as many of those names as possible over the computer's generated sound. An EEG headset (electroencephalogram) measures my stress levels and uses this data to control the balance of the track and the microphone.

Conceptual Framework

The piece explores a balance between what I can do and what the computer can do. It explores ideas of human vs computer, and the cyborg (human + computer). I pit my ability to read all the names in the given time against the rising intensity of the computer, which tries to drown my voice out with noise.

For me this references the exhaustion of trying to keep up with a schedule which is not designed for human activity. As a composer with M.E. (Myalgic

Encephalomyelitis, also know as Chronic Fatigue Syndrome) I am interested in the limitations of the human, of durational performance, of endurance.

The piece was developed as a response to the under representation of women composers both in musical educational institutions and the concert hall as described by Mohr-Pietsch [9]. Research for the Baltimore Symphony Orchestra surveyed the top 22 orchestras in the US and found that only 1.8% of their performances were of pieces by women. Mohr-Pietsch states that although around 40% of living composers are female, only 17% of names on music publishers' lists are female. In response to these unspoken names and unheard works, BALANCING ACT seeks to raise the issue of the gender-washing of composition history.

I use the voice to reference the ritual power of speech, and link to the powerful archetypes of the wise woman, the healer and the witch. The speaking of these names restructures reality and creates an intervention to bend the universe to their will.

In the piece, the computer speaks the names. As the computer speaks it, it must be true. This aspect refers to the phenomenon of women who are not believed until their position is confirmed by a man (or in this case, by a computer). As Rebecca Solnit has noted:

Being unable to tell your story is a living death, and sometimes a literal one. If no one listens when you say your ex-husband is trying to kill you, if no one hears you when you say help, if you don't dare say help, if you have been trained not to bother people by saying help... [Women] are subject to irrelevant criticism whose subtext is that women should not be here or heard. [10]

This unlistening, this unspeaking, reflects throughout our culture, and impacts on women: from such violent acts as domestic violence all the way through men taking credit for women's work and ideas, to refusing to listen to a woman when she says that there are plenty of female composers to draw inspiration from.

The Piece

I began creating the piece by creating a list of names of all the female composers I could find from online sources. These names were sorted alphabetically by first name (referencing Lucy Stone and the problem of patrilineal surnames). I then used my computer's speech application to read out the names and routed the audio into my DAW.

I layered these voices to disturb the experience of listening. I doubled up the layering process, to reference 'memory' in terms of digital storage and capacity; 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, etc. As each layer is created the names become

more indistinct, it becomes more difficult to pick out the meaning of each layer, and the words being spoken. Our cognitive processing is pushed to listen to all these names until we are no longer able to pick out the words. As I listened, I noticed I began to shift my listening perspective from the communicative to the auditory.

Sine waves serve as an alert, a summoning of energy and a direction of focus. Their purity and intensity driving the listener towards and away from the sound. The discomfort in the pitch and volume challenges the listener to maintain their focus in this intense battle between sound and celebration of women. I chose to use sine waves to reference the pioneering women who were at the forefront of developing audio technologies, women who worked directly with pure generated sine waves, such as Charlotte “Bebe” Barron, Daphne Oram, Ruth White, Maddalena Fagandini and Eliane Radigue.

During the performance, the list of names is shown on a screen. As the names pass I try to read as many names as possible into the microphone. The effort of speaking over the computer not only references my experience of having M.E., but also the effort of women to counteract the gender-washing of the music industry.

The dynamic of the computer’s part varies throughout the piece. This modulates the possibility of the human

voice being heard over the backing track. The balancing of the two tracks is controlled by a max patch and the readings from an EEG headset I am wearing. Although the headset controls the faders, the data received from it is dependent on my emotional state.

The headset has 7 sensors: 5 EEG sensors and 2 accelerometers. The EEG sensors detect electrical activity in the brain across all 5 bands of brainwave activity, Delta Waves (deep sleep), Theta Waves (drowsiness, light sleep, visualization), Alpha Waves (wakeful relaxation), Beta Waves (active thinking and problem solving) and Gamma Waves (acute mental activity and consolidation of information).

The headset connects to the laptop via bluetooth. I then use Terminal to route the data to UDP. Once in MAX/MSP, I route the data into the fader controls. I use the most dynamic of the 7 EEG sensors, and feed it into the patch. The patch reduces the low level background ‘noise’ and then splits the data into two groups. Data which results from being stimulated or stressed (which presents as a higher numerical output of between 600 and 800) and data which comes through when my mind is calmer (which presents as slightly lower figures, between 400 and 600). I split these two states into two groups: above 600 and below 600. This ‘smoothed’ data then gives a reasonable picture of whether my mind is calm, or

stressed. These two states control the faders of the two different tracks. The balance of the tracks means that the calmer I become, the easier it is to speak over the computer.

This performance choice references the ‘tone policing’ of women. According to Bailey Poland, the act of criticizing the tone of the delivery of a complainant diffuses the message. [11] This silences legitimate complaint by demanding that it is delivered within a certain set of emotional parameters. This part of the performance references the attempts to ignore critiques around the lack of female composers in concert programming, citations and teaching by undermining the complainant’s ‘emotional’ and ‘unreasonable’ state.

During each performance, I ask all the female composers and music makers in the audience to email me their name, and everyone in the room to email the name of a female composer or music maker who has inspired them. Using a simple code, the laptop then automatically parses the emails into a .txt file and adds those names to the piece in real time. In this way the piece grows with every performance and becomes a living archive which says “She WAS here”.

The input from audiences offers an alternative way of collaborating that does not rely on hierarchical ‘gatekeeping’ patriarchal structures. This collaborative structure is more akin to anarchism based on non-hierarchical free associations.

(This process comes with the caveat that those contributing the names are within a certain circle of audience who will come into contact with my work. There is also a facebook and twitter call for names, which widens the pool a little, but it is still problematic in terms of reaching different demographics. In this way it requires further consideration to be free of my influence.) As the audience contribute the names, I do not impose my idea about the value of a composer’s work, what genre we consider to be ‘real composition’ or the race, religion, sexuality, disability, first language, or gender identification of the composers. This is important in order to counteract a modernist or hierarchical approach to who becomes remembered. Who are the gatekeepers and who are they keeping out? Who defines what criteria we use to decide value in our artform? Or to put it more clearly, ‘Who decides what makes art good?’ [12]

The reading of the work falls somewhere between electronic music and performance art. Whilst the first of these art forms has a long held problematic relationship to women, performance art has spent decades exploring identity politics, contextual performances, gender, feminism, intersectionality and anarchism.

The performance of the piece is a dynamic response both to the silencing of women’s contributions, and the silencing of women’s complaints about the silencing

of their contributions.

Why Sonic Cyberfeminisms?

by Annie Goh

The very nature of specialism or a specialist field, such as computer music, is based on the logics of inclusion and exclusion. I propose thinking through Sonic Cyberfeminisms as a way of examining these processes more closely. My own practice, writings, and curatorial activities have been engaged in doing so in various ways. Thinking about feminist practices in computer music, is misguided, if we don't reconsider the meaning of computer music itself.

In 2014, I organized a panel at CTM Festival in Berlin with the title Sound, Gender, Technology – “Where To” With Cyberfeminism?. It was an attempt to discuss the role of gender in electronic music beyond the debates around the (lack of) representation of women which had become prevalent at the time. The guests of the panel were: Sadie Plant (writer, author of *Zeros and Ones*); Susanne Kirchmayr (DJ and producer a.k.a Electric Indigo, founder of female:pressure); Fender Schrade (media artist, light and sound engineer); and Marie Thompson (academic and sound-maker). In an article for the CTM Festival magazine, entitled *Sonic Cyberfeminism and its Discontents*, I tried to situate gender inequalities palpable on the

surface of electronic music scenes in the historical debates of cyberfeminism since the mid-1990s [13]. At the time, it seemed pertinent to highlight how getting overly pre-occupied with a feminist agenda concerned only with fixing gendered disparities, we neglect to address the very categories which we think with and through, such as “male,” “female,” and “gender” itself.

In late 2015, in part spurred on by these discussions, I conceived of a multi-channel sound performance which I gave the title: *GendyTrouble: Cyber*feminist Computer Music*. I performed the piece for the first time at a mini-festival called *Sexing Sound: Gender, Sound, Music in Chicago*. I recall taking my place at the beginning of the concert at the University of Chicago's Logan Hall. As per my request, a 7.1 channel sound system had been installed. The concert hall was dark and the main light source was the glare from my laptop, which bounced off my face, as I stared studiously at the screen waiting for absolute quiet before beginning my performance. I had worn my hair slicked back in an androgynous fashion and I was wearing all black. As I waited, I channelled the seriousness of all the “computer music” concerts I had been witness to over my adult years. I wore no expression on my face, nor did I put any overt bodily expression into my physical actions. This performance was an ode to the archetypal computer music performer

[14]. The conceptual framework of the piece was a playful deconstruction of the prefix ‘gen’ shared by generative music and gender. In the blurb text for the performance I had written:

‘The project *GenDyTrouble* has its beginning point in the common etymological ground between generative art/music and gender (Latin: *genus, generis, generare*, Greek: *genos, gonos*). It performs a symbolic collision between Iannis Xenakis’ “*Génération Dynamique Stochastique*” approach to waveform synthesis (shortened to “*GenDy*”) and Judith Butler’s foundational work of queer theory “*Gender Trouble*” and seeks to understand generative processes as a source of emancipatory potential. The impetus of computer music’s fascination with generative processes and algorithmic composition is re-interpreted using sonic transformations as a metaphor for the construction of gender.’

As I began playing the four short pieces I had prepared, *Gen(d)erate Anew*, *Microfeminine Sonic Warfare*, *The Battle of the Cybersexes*, and *Meditation on Reproductive Labour*, I (self-)consciously took part in a tradition of highly-conceptual, stylized computer sound design, and multi-channel spatialisation. [15] Many of the pieces were based on sound experiments I had made around the *Gendy/Gendyn* wave-form synthesis. [16] I knew my nerd stakes were somewhat

secured, having referenced Iannis Xenakis’ in the programme text. Despite all the posturing of the serious-computer-music-performer, my experiments with *Gendy/Gendyn* and theorisation of to what extent the “gen-” prefix of generative sound/music could be collided with the concept of gender performativity famously put forward by Judith Butler, were done in earnest. Even playfully, I thought it a worthwhile endeavour to break through the rigidities of “pure, natural, harmonic” sound (as Xenakis had aimed to do with *Gendyn*) and relish in the artificiality of brash, unnatural, synthetic waveforms. The epistemic form of sonic naturalism was being replaced by that of sonic artificiality, and it felt exhilarating!

However, my later discussions along lines of sonic cyberfeminisms, have led me to other considerations. Namely, poking fun at computer music and its seriousness is one thing, and juxtaposing it with Judith Butler’s notoriously difficult to read *Gender Trouble* was a kind of punk provocation, a collision of two erudite figures from computer music and feminist theory respectively. At the concert I was praised for the weird sounds I had produced, and the fairly complex multi-channel spatialisation I had orchestrated. I got some laughs from the audience for the piece “*Battle of the Cybersexes*” which featured real tweets from feminist activists and men’s rights activists being

read out in computer voices in a real-time algorithmic race to victory. Yet there was something strangely dissatisfying about staying within the established boundaries of computer music; ultimately, there was no real blasphemy in splicing Butler with Xenakis. In a recent private conversation with Robin Buckley, who released *Brostep in the Style of Florian Hecker* in 2017, an eight channel composition using dubstep preset bundles to emulate Hecker's work (referencing Florian Hecker's 2009 work *Acid in the Style of David Tudor*), we shared how this type of provocation – whilst fun – ends up falling somewhat flat. In an essay assessing a potential radical, political reading of Markus Schmickler's 2010 album *Palace of Marvels [Queered Pitch]*, Buckley questions to what extent aesthetically and in terms of temporality Schmickler's project can be reconciled with larger radical queer narratives to conclude that, 'despite hints of specific kinds of politics (an alternative canon or queer time), it never really distances itself enough from an apolitical message, reproducing white, masculine and capitalist models'. [17]

So what would it mean to really transgress the comfort zones of computer music? Remaining in the abstract and the hi-tech certainly didn't proffer much by way of conceptual defiance in my own performance. If I want to take seriously the idea of troubling gender, as Butler exhorts us to, this needs to be

intersectional from its very core – that is to say, troubling gender means troubling race, class, sexuality, ability norms, transphobia, and more too. In Sadie Plant's famed treatise *Zeros and Ones*, a key 'cyberfeminist' text, it is the figure of Ada Lovelace – the first computer programmer before the invention of computers as we know them today – who leads us through the narration. [18] As impressed and inspired as I was by these descriptions of Lovelace and her work when I first read this book in late adolescence, no doubt contributing to my desire and attempts at learning computer programming myself, re-reading Plant's text today, I notice another important figure which haunts the book – the telephonist, the weaver, the circuit-board assembler: the female labourer. This much less glamorous figure, less brilliant, less uniquely talented, but more essential to the continuing hi-tech global microelectronics economy surely deserves greater attention. At the same time during which Lovelace became a figurehead for initiatives supporting women and non-binary programmers and technologists, consumers complaints to Google were recorded about the pink-latex-covered fingers of womens' hands which can occasionally be unintentionally glimpsed as part of Google Books' huge scanning and archiving project [19]. These 'vanished ladies,' [20] poorly paid women of colour in Silicon Valley, whose

provides the world's largest technology company with one of its most well-known resources, and whose sisters (literally or metaphorically) provide the labour assembling circuit-boards, figure crucially in the supply-chain of the computers and microchip devices we "computer musicians" use in our everyday life.

In 2016 and 2017, I co-organized a series of events with my friend and colleague Marie Thompson, around the theme of *Sonic Cyberfeminisms*; these included a month-long online reading group called *Decolonizing Sonic Cyberfeminisms*, a panel-event called *Doing Sonic Cyberfeminisms: Strategies of sonic resistance*, and a two-day conference entitled simply *Sonic Cyberfeminisms*. One of the topics which emerged from these discussions was: it bears reminding that technology is not just computation. The very notion of "computer music," even in the distance it takes from "electronic music" in its privileging of computational processes, elides the often uncomfortable roots of our conceptions of technology. The focus on the micro-level of digital audio signal processing in the history of computer music has led to the growth of an implicit hi-tech edifice of the field, which when left uninterrogated, appears as pure and apolitical as the micro-chip itself – that is to say, not only deeply embedded in systems of capitalist, white supremacist, ableist, heteropatriarchy, [21] but party to constituting them. Studies

of the workers of Silicon Valley such as Karen J. Hossfeld's, reveal in-depth how precarious, low-paid labour is predominantly provided by working-class black and brown women whose subordinacy is maintained by explicit gendered and racialised logics of their white male managers [22]. Yet, this knowledge, as with the oft-recited statistics of the environmental, economical, sociopolitical wreckage caused by the mining and processing of rare-earth metals, does not need to revert into a privilege-fragility in which "bad, rich Westerners" should feel guilty of using and profiteering off multiple channels of exploitation running from the Global South deep into the economies of the Global North. Such self-castigation is empty without any concerted action or effort to understand and address such exploitative mechanisms which make-up the reality of the global technological economy. The binary thinking which retorts defensively with charges of ludditism and the exasperated outrage are precisely the sentiment which counteracts all the serious efforts – strikes, protests, campaigns against exploitative labour conditions across all sectors – to enact meaningful change, however small or large.

Sonic Cyberfeminisms, then, is a way of understanding better the logics of inclusion and exclusion which are at play. These logics appear similar across hi-tech

fields; the white, male heroes of Silicon Valley mirror those of computer music. As Michelle Wright describes in the SubRosa cyberfeminist publication *Domain Errors!*, as uncomfortable as it is to admit, Western notions of “technology” are very often, and near completely, imbued with inherent progressivist ideas premised on white superiority. Evident in the writings about America’s “digital divide” in the era of hi-technological expansion between white middle-class and working-class black people in the late 1990s, Wright traces how, ‘technology is deployed as the latest chapter of evidence for Western superiority’[23]. As sanitised as our hi-technological devices might arrive into our hands, in considering how feminist and cyberfeminist approaches to computer music might manifest themselves, sonic cyberfeminisms will need not only to agitate within the confines of computer music, but also beyond its direct reach.

Sonic cyberfeminisms, perhaps despite implicit connotations of a nostalgic 90s hi-technology sheen which the prefix “cyber” imbues it with, is an attempt to engage critically with sound, gender, and technology in a multiplicity of ways. Whilst some of us might be made aware of some of the logics of inclusion and exclusion in practicing computer music, we should never rest only along lines of gender, as if these were not always complexly embedded along lines of race, class, ability, sexuality, and other forms of

social division. Perhaps, the prefix ‘cyber’ - in the Greek sense of steersperson originally evoked by Norbert Wiener[24] - can be understood in terms of the flows of control and communication, to invest a fluidity into the intersectionality at the core of sonic cyberfeminisms [25]. Perhaps sound itself as a powerful affective force can too be harnessed for these purposes. Given the pleasurable adventures of computer music and the transformative potential offered by feminist approaches; sonic cyberfeminisms can be an opportunity to radically re-think and re-make existing configurations of sound, gender, and technology.

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[15] This composition and many others would not have been realized without the kind and patient help of my teachers and classmates at the Universität der Künste Berlin in particular Alberto de Campo, Hannes Hoelzl, & Constantin Engelmann.

[16] I composed my piece in *SuperCollider*, originally released in 1996 by James McCartney. Xenakis refers to GenDyn as the short form of ‘Génération Dynamique Stochastique,’ a technique for generating sound using dynamic stochastic processes to determine the points of a waveform. The three implementations of the technique in *SuperCollider* by Nicholas Collins are named Gendy1, Gendy2 and Gendy3. [See *SuperCollider* help files for more detail]. It is also worth noting that “gen~” is also an object in *Max/MSP* not related to Xenakis’ GenDyn technique.

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Review

Is Marcus Schmickler's *Palace of Marvels (Queered Pitch)* a Radical Political Album?

by *Robin Buckley*

Palace of Marvels [Queered Pitch] (2010) [1] (which will be referenced in this essay as PM[QP]) by Marcus Schmickler is in many ways a political album [2]. German artist Marcus Schmickler released the album in 2010 on the Austrian label Editions Mego. Boomkat, a niche online retailer of physical and digital music, described the record as 'Marcus Schmickler's quest to explore the outer reaches of extreme computer music' [3]. Similarly, from an academic context, Haworth describes Schmickler's recent work in the current trend of 'extreme computer music', alongside artists such as Hecker and Roc Jiménez de Cisneros [(one half of EVOL)] [4]. A performance of the album at Unsound Festival in 2015 was described as:

Markus Schmickler...took a mischievous, brute-force approach to EDM's shock-and-awe tactics, rerouting rave's adrenalized energy through a maddening succession of Shepard tones accompanied by sweeping strobes. It went on like that for 45 elastic minutes

more—all tension, no release, as exhilarating as it was exhausting.' [5]

This essay will investigate the different ways in which the album can be described as political, radical or extreme. It will look at how the aesthetics of academic and non-academic music are embedded in the album and how these canons are challenged. It will also reflect upon its conceptual themes of politics and nature, and how they are used to further political ideas. The music will also be examined through its use of 'queer time' through its compositional structure, in the context of a larger queer ideology. It will also consider its shortcomings and how these might have been overcome, and consider alternative methods to creating political musics within this genre. Is Schmickler's PM[QP] a radical, political work?

As outlined in his lecture *Marcus Schmickler Ueber Elektronische Musik / Marcus Schmickler On Electronic Music* [6], Schmickler takes a stance for his new electronic music as one which seeks to engage with both low and high music culture. In doing so, he poses a new canon made up of:

'...Ligeti, Kagel, Lachenmann, Beuys, Cage, Dieter Roth, as well as Black Metal, Aphex Twin, Venetian Snares and The Beach Boys or David Bowie, as well as electroacoustic music artists Pierre Henry or Parmegiani, noise artists