Intersecting Place, Environment, Sound, and Music

by Vanessa Tomlinson

This paper explores both how and why composers in the twenty-first century have such an active engagement with the environment. Why is the *place* of music making so important right now? I propose that composition that intentionally interacts with the environment changes the way we listen, deepens the listeners' connection with the sonic material, and also activates our relationship to place. Furthermore, these compositions leave markers of cultural, social and environmental conditions at particular junctures in time. These considerations will be explored through an examination of six broad approaches to engaging with the environment in the making of sound-based art, some historical precedents with a focus on the Australian context, and then a look at some of my own site-specific projects.

The other morning I was reading an article about John Luther Adams in the LA Times referring to his new piece *Become Desert*; my facebook feed led me to listen to a new work by Liza Lim *How Forests Think*; my inbox received a soundcloud link about a new CD by *GreyWing* featuring a 2017 piece of mine, *Sonic Dreams: Extinction*; I received an email invite to participate in a large scale grant application that looks at Australian sound-makers engaged with place-based music making; and I am just recovering from running an experimental music festival in the bush *Easter@Harrigans Lane: The Piano Mill*. This is 2018, a time when scientists are arguing that we have crossed the climate change threshold, and artists' ability to communicate and articulate has gained renewed urgency. If artists are in fact a "distant early warning system" (as Marshall McLuhan suggested), then there is no doubt that addressing ecological issues through music must be a central concern. This article looks at the ways in which composers and improvisers of today are addressing ecological issues, while tracking how we consider our environment in sound making activities.

The environment, or the *place* in art, has long been a vital part of art-making, with music and sound-based art-making no exception (Tomlinson & Wren, 2017). The acoustic environment of cathedrals clearly inspired a kind of composition, a musical pacing, harmonic relationships, ideas about spatiality that may not have evolved without the concept of the cathedral first (Blesser, 2007). The talking drum that can bounce off river gorges and communicate information over long distances would not have evolved the same way without the acoustical advantage of that topographical peculiarity (Carrington, 1949).

So too in composed music—Gustav Mahler lived in a particular mountainous environment, with close proximity to domesticated animals. John Luther Adams has written extensively about how his living environment of Fairbanks, Alaska, became an inseparable aspect of his compositions of that time. In song too, place makes itself known. Even Christmas songs—Sleigh Bells Sing—can be about place (made crystal clear to those of us living in the southern hemisphere, in snowless areas, celebrating Christmas in the heat of mid-summer). The bell is a navigational device, needed through the fog and snow-enclosed weather of mid-winter, with the bell being transformed from literal sleigh bell, to an instrument we now call "sleigh-bell" that represents this sound. So too sounds like

Listen (Vanessa Tomlinson), Piano Mill 2018. Photo by Tangible Media.

almglocken (again harkening to Mahler) situate sound in alps, but the cowbell associated with jazz comes from the Kentucky cowbell, and the Condamine Bell from Australian droving history has a completely different sound again. In these examples the soundscape of the roaming cow is represented through the local alloys and blacksmithing of the bell, and has entered musical language in vastly different ways; environment is mapped in to the instrument.

Music is often designed for a particular site—a concert hall, an outdoor stadium, a particular speaker array. A site-specific performance can be an outdoor music festival with loud speakers and no intent to interact with the already sounding environment. It can also be a performance that intentionally co-exists and interacts with the environment. We know that numerous composers have been engaged with environmental listening as a primary compositional material including Edgard Varèse and Pierre Schaffer listening to cities, R. Murray Schafer listening to soundscapes, and Pauline Oliveros' practice of Deep Listening. As an extension of these approaches, I have been thinking more broadly about how composers approach environmental music making.

We might think of this area of study as akin to the Environmental Art movement from the 1970's—looking at how land art, environmental art, and place-based art intersect. While sound-based art was also happening in the 1970's (Schaffer, Alan Lamb, Ros Bandt), there has been an explosion in this area in the 21st century, perhaps mirroring re-activated awareness toward climate-change and the anthropogenic impact we are having in our time on this planet.

This paper proposes various approaches to sound making in the environment, inclusive of built environments and naturally formed environments. It is not intended to be an exhaustive list of activities but an invitation to consider this field as a whole, and to unpack some of the impetus behind individual sound-maker's decisions to engage so deeply with place. How can a sound artist bring about new understandings of place? How and where are these understandings expressed in performance? Can artistic work affect change in a site, leaving memories, transformations, fragments? Can site-specific performance lead to new knowledge, new

relationships, new experiences, and new discoveries about place? Can it contribute to our understanding of spatial variation and temporal variation? Contribute to our understanding of geophony, biophony, anthrophony?

Because this field is so broad, the case studies mentioned below are all centred in the Australian context, already a unique site for interacting with environment. The land here has been walked upon, listened to and sung about for well over 60,000 years. The connecting feature of these projects is listening, and so I will begin the paper trying to articulate an understanding of environments through approaches to listening—part 1, before trying to categorise the use of the environment in sound-based art to conclude part 2. Part 3 will look at aspects of my own practice—also all Australian-based projects—that apply some of the terminology and methodological frameworks, to share more case-studies that examine a broad approach to making sound in place.

PART 1

Musicalising the Typology of Listening

In 2008 Rebelo, Green and Holleweger proposed a Typology of Listening (Rebelo et al., 2008) that considers mobility of listeners experience in the built environment. While their approach comes from landscape architecture, the applications of their lexicon to sound-based practices can provide additional language to listening beyond the concert hall. Reflected in these listening activities is the way in which humans navigate through their listening environments, making decisions to physically go towards or away from sounds. This consideration is around the proximity of and the intensity of sound. It begins to expose commonplace changes in our sounding environment; the ubiquitous ambient drone of and in buildings (air-conditioning alongside many other electronic drones), music in restaurants so loud that conversations are not possible; traffic noise being masked by other noises. Central to this typology of listening are three categories; the Theatre of Listening, the Museum of Listening and the City of Listening, which help us understand compositional approaches to listening in place.

Theatre of Listening

The Theatre of Listening is familiar to most of us as the concert hall, a space with set seating, providing a particular physical relationship to receive sound, and a clearly marked stage area indicating what is to be listened to. Implicit in this relationship is that even though there are many other sounds in the space—electrical hums from video projectors, air-conditioning, stereos—these are not part of the listening field. So too, accidental sonic additions such as coughing, whispering are also undesirable additions to the sonic field. This is the very model that John Cage challenged in 1952 with his piece 4'33".

In the Theatre of Listening there is a clear entry into this listening environment and a clear understanding of how to situate oneself in the listening experience, usually in a prescribed seat with a particular code of conduct that governs the experience. One can stay or go, but leaves generally after the listening is "complete". The individual is not in control of the duration of the listening experience, and does not have personalised volume control, or perspectival control; one receives information.

Museum of Listening

The Museum of Listening can be thought of as entering a space where things are already happening—an art gallery, a shop, a museum. There is a clear entry or threshold to cross to enter this environment, and once inside, the individual has agency about where to place their listening self—standing, sitting, walking, hiding. Their body can become the volume controller as they walk towards speakers/performers/sounds or away from them, and their body can also make aesthetic choices as they choose to leave a space or re-orient themselves within the space. There is a labyrinth of routes to which sound can be experienced which is always in flux and in motion. The threshold of entry and exit is important in this listening environment, and the self-determination of the listener also vital.

In musical terms this kind of listening experience has not been overtly exploited, although it is becoming increasingly common with large-scale performance pieces like *The Sound of 84 Pianos* (Griswold & Tomlinson, 2017)

City of Listening

Within the City of Listening we lose the clear entry or exit point, and therefore there is no clear idea of when the listening experience begins and ends. This does not mean that there cannot be intentional foregrounded sound added into the environment, but that it will be added in to an environment already rich with sound. The individual is navigating their own way through space with no listening rules or physical limitations. Each individual can choose how and when to activate their listening experience. In the City of Listening we can think about soundwalks, and the idea of a guided listening tour through a particular place. Or it can be a self-made listening experience, tuning in and out of various pre-existing activities—the blacksmith, the streetsweeper, the airplane etc. The City of Listening is not limited to the city as such, but to any space where there is no clear entrance. Performances in nature are happening in the field of the City of Listening; there is an active soundworld which becomes a central part of the listening experience.

Adding to this lexicon is another tripartite –intentional sounds, interruptive sounds, and masking sounds– again building blocks for understanding our listening environments, and our listening priorities. These categories are always in flux and interact in different ways. It is in fact the listener that most often makes the decision about what is important to be heard. Think about a person giving an important address in a crowded space with glassware, eating, some talking and a sound system that does not project to the back of the room. You can strain to listen to the speaker through the fog of noise, or your listening attention can be diverted. You can listen to the intentional sounds, the interruptive sounds or in fact the masking sounds. This kind of re-orientation is common when dealing with sound in the environment, and can become a point of focus.

The masking sound discussed here is a particular ubiquitous sound in place which blocks out entire frequency bands. This could be air-conditioning (whether inside or outside), the ocean, traffic, a distant waterfall. The ear is extremely good at removing these sounds from the field of listening, and focussing in on the intentional sound. However, it might be possible to highlight the masking sounds, and bring attention to them, as in Circular Ruins (Marks, 2015) when the drone of the Wheel of Brisbane gets used as a harmonic layer in a site-specific composition. This reorientation of a continuous everyday droning sound became the central thematic material of this work, transforming an object into an instrument, and an inaudible sound into an active part of the sound environment—relocating the sound as informational and relational.

Interruptive sounds are usually the sounds of distraction, sounds that are out of context, too loud, or too inappropriate. The coughing in the concert, the motorbike revving through city blocks, the galahs fighting over food supplies. These sounds might disturb a level of comfort, tranquillity or peacefulness. In the Australian context, we are perfectly aware that nature is not tranquil, and is full of the unintentional demanding our attention, demonstrating that unintentional is of course a subjective perspective. The listener chooses when to listen and what to listen to.

Intentional sound is the foregrounded sound; the performer on stage, or the orator speaking. The speaker mentioned earlier,

is the intentional sound, but interruptive sounds were distracting from the listening experience, causing something of a cognitive dissonance. The ocean can traverse from being a masking sound, to the intentional sound to be enjoyed and focussed upon, to being an obstruction to hearing the thing you are trying to focus on. Proximity, orientation, perspective and attentiveness are all basic and variable building blocks for interacting with sound, and are all active agents in the upcoming discussion around modes of interaction with the environment from the perspective of the sound-making artist.

PART 2

Modes of sonically interacting with the environment

I would like to propose that we can align environmental listening-based compositional and improvisational activities into six broad categories of exploration; 6 modes of interaction with environment, embodied approaches, contexts, methodologies etc.

These interactions could be interdisciplinary, and in fact it would be interesting to apply these approaches to studies in poetry, dance, performance art etc. The fact that the categories focus on sound is only to shine a light on historical approaches to sound making with environment in order to build an understanding that can be used across artistic disciplines and also across environmental disciplines—especially with respect to environmental studies.

Broadly speaking, the six categories of engaging with the environment to make a musical work are:

- Recording the environment for use in compositions;
- Listening to the environment to prepare for composition;
- Site-specific environmental performances;
- Constructing an environment in which listening will occur;
- Harnessing the environment to make sound;
- Using environmental data to make compositions.

These categories are all considering the environment from different vantage points, dissecting or intuiting sonic behavior. The boundaries between the categories are not fixed and of course there is fluidity and overlap between this propositions. The more important question is how these divisions, categories and theories make sense of the art being made. I will first look more deeply into the categories of sound-based engagement with the environment to expand upon the potential inside each perspective.

Secondly, I will look at the emergence of my own practice of building large-scale work, using the framework of listening and categories of environmental engagement to analyse what the artist can bring to environmental studies, and how our observations and interactions can re-calibrate relationships to place. I will do this through examining my practice of Sounding, and the practice of Found Object performance to propose a large-scale compositional form of Assemblage.

Recording the environment

Recording place was one of the earliest uses of recording technology, through the areas of ethnomusicology, experimental music and composition. It allows us to have a sonic imprint of a time and place—often used for artistic means. When recording place for artistic means, the recordings can house knowledge not collected by any other researcher—weather patterns, flight paths, traffic conditions, noise pollution levels, migration patterns, conversation topics etc. A review of Annea Lockwood's, *A Sound Map of the Housatonic River* (2010) states:

> "The recording unfolds in settings and chapters, the aquatic equivalent of a Bond film. This album doesn't just sound like a river; it sounds like a river going somewhere, which of course it is. Along the way the protagonist—the Housatonic—experiences roaring adventures and peaceful interludes, rising tensions and hidden turns. Guest stars appear without warning: a train, a frog, a group of tourists. But nothing stops this river from its single-minded quest to reach the sea." (Richard Allen, **acloserlisten.com**, Feb. 2013)

This sonic mapping of place has taken place in many composers work from Fransisco Lopez, *La Selva* (1997) immersion into the rainforest in Costa Rica, to Lawrence English, *The Peregrine* (2013)—recording of wind made in the Antarctic made during blizzards. Leah Barclay's work in *River Listening* has used the recording technology to take us beyond what we can hear. Using hydrophones to listen underwater has brought us in to the incredible sonic world of whales and dolphins in the marine environment, but her recordings and compositions based around the less understood freshwater aquatic environments transform perceptions of the previously unhearable. Listening beyond what we can see (a great Oliveros provocation) is ever present in this work. The visually murky waters of Australian rivers are revealed to be full of sonic activity, with dawn and dusk choruses, neatly organised frequency bands of communicating species, and a helpful link to the scientific world in being able to listen to these recordings to understand health of the systems. It is akin to hearing birdsong and insects for the first time, and provides both artistic and scientific engagement.

Listening to the environment

There has long been a poetic vision of the artist in nature, using place as inspiration for composition. Throughout Western Classical music history composers such as Mahler, Debussy, Messiaen and Sculthorpe to name just a few, have written about place impacting their composition style. It involves the idea of deep listening, embodied experience, listening through time, and becoming attentive to sonic changes through seasons, temperatures, topographies, and geologies. It is about using listening in place as the site of learning; changing time scales, playing with foreground and background, listening in to the known and the unknown.

Soundwalks, all individually composed happenings in place, are completely engaged with listening to the environment. But so too are composers who use a morning walk as preparation and inspiration *for* work—being affected by place. Listening-in closely to the environment, as in the detailed work of Hollis Taylor listening to different families of butcher birds across the Australian continent, also fits in to this category. Her work, listening, transcribing and then composing with the material contains direct markers of cultural and environmental conditions at particular junctures in time.

Performing in and with the environment

Playing music in any environment reveals detailed information about place, space and time, whether it represents the Theatre of Listening, Museum of Listening or the City of Listening. When we go beyond the built environment into the outdoors this effect is heightened, drawing attention to particularities unique to the site inclusive of resonance, ambience, and climate. Regardless of the musical output, the result is always a dynamic experimental process. The environment is an active participant in sound-making, being listened to and itself listening.

When performing in and with the environment, it is the composer or the improviser asking the question of place. In the case of Alvin Lucier's *I am Sitting in a Room*, this is an active research question—what happens when I do this task repeatedly, in this space. In the case of Jim Denley in *Through Fire, Crevice and the Hidden Valley* (2007) he is performing with the environment, listening as much as playing, tuning in to his place through improvisation.

Erik Griswold's *Sounding Wivenhoe* takes 20 musicians out on to the cracked banks of Lake Wivenhoe at the height of the 2007 South-East Queensland drought. As the major water source for the city of Brisbane, the impetus for the work was to better understand the multi-sensorial nature of water loss. And playing in the actual dam, well below the tree line, with musicians up to hundreds of meters away from each other and the audience navigating the dry space between, this place and the recording became a sonic marker of waterlessness (Griswold 2007).

Other key works that have exploited the site-specific nature of performance include *Inuksuit* (John Luther Adams 2009) for classically-trained percussionists in place, and *Helicopter String Quartet* (Stockhausen 1992/3). These examples highlight the trend

Sounding Wivenhoe by Erik Griswold. Photo by Sharka Bosakova.

to expand our notion of where art happens, (Small 1998) opening up possibilities for repurposing places, reinterpreting relationships, and rethinking the place of culture in our daily lives.

This category of sonic and compositional exploration is also inclusive of interspecies improvisation, adding sound in to the environment, performing with the environment.

Constructing an environment

Constructing an environment in which listening can occur incorporates anything from a purpose built concert hall, to a bespoke, unique situation designed for sound making and listening. It could be at once a sound installation, a physical object to be entered into, or a physical object to be listened in to. The amazing Phillips Pavilion from the world expo 1958 designed by Le Corbusier and Xenakis, and sonically explored by Varese is one such example.

So too is Kumi Kato's *Suikinkitsu*, in the Roma Street Parklands (2009). This Sound Garden is designed with a water harp, *sui-kin-kutsu*, as a central feature. *Sui-kin-kutsu*, written as 水sui (water) 琴kin (harp) 窟kutsu (cave), is an inverted terracotta pot (40 to 60cm in depth) buried underground with a small hole at the top (3cm in diameter) through which water drips. It is devised so that water pools about 10cm at the bottom, leaving the rest empty. Slow dripping water splashes in the water pool and rings, creating a harp-like sound, hence the name *suikinkutsu*. This instrument sits in the middle of a park near a busy railway station in central Brisbane. Its sonic access is via a hollow bamboo pole, providing private access in to a sounding world.

Other site-specific environments include Graeme Leak's *Musical Fence in Winton*, Blue Bottle Design's *Quartethaus* (2011) originally constructed for the Melbourne Festival, and The Piano Mill (Wolfe & Griswold, 2016).

Harnessing the environment to make sound

Using the environment itself as the sound-making force has many natural derivations with wind tunnels, blow holes, not to mention the clapping tree in Western Queensland. Numerous artists have taken advantage of natural forces to produce mostly installation works. Alan Lamb's *Wire Music* records Aeolian sound generated by long telegraph wires, sometimes with live performing playing along live, and other times with performers added in during the mixing process. Ros Bandt's *Aeolian Harps* used in the installation work *Mungo*, on the dried lake bed of Lake Mungo, where desert sands sound the harp into action as it intertwines with dreams and stories that are tens of thousands of years old. This cycle of listening draws on the sharings of Mutti Mutti elder Alice Kelly. Also drawing on wind power are some of the work of Cameron Robbins exhibited at the Museum of Old and New Art in Hobart, Tasmania. The *Wind Section—Instrumental* is a wind powered drawing instrument, that when amplified becomes a kind of musical instrument as well. Using the power of the easterlies that race up the Derwent river, the intensity transformed the drawing speed and design.

Using Environmental Data to Make Composition

Sonifying data is a useful and interesting way of grasping the otherwise unknowable. Translating information from one form to a sounding state giving us the option to hear compositions based on the stock market crash, transformations in ice, GDP or data sets from NASA. The field of ecoacoustics uses this methodology as a primary tool for listening in to large data sets—being able to track absence and presence of species or to hear trends in the sounding world. Translating bat calls into human range gives us access to what was previously unhearable—similar to the work of Barclay and Linke in their River Listening project.

In the Australian context, Jesse Budel used data sonification to hear changing weather patterns in a ghost town over a one hundred year period. The audibility of weather patterns provided a subtext for other compositional methods in the piece, allowing different readings and layerings of information.

These 6 categories have been separated out to help articulate different approaches, but in reality many projects use two or more approaches in the same work. Even many of the projects used above as exemplars actually intersect with multiple categories of compositional approaches to using the environment, taking place in an environment, or being inspired by the environment. Part 3 will chart some of my own projects that work within the musicalisation of the typology of listening, consider changing relationships to the drone, intentional sound and unintentional sound, and interact with the 6 categories of composing with the environment.

PART 3

Much of my recent creative work consists of large scale site-specific performance events housing a wide variety of sonic material convened together through attitudinal approaches like proximity, intimacy, density, intersections, shape, and emergence to name a few. These works tend to employ materials at hand including people, sounds, spaces and places. Drawing on a huge body of historical work—much of it mentioned already in this article—these creative works assemble sounding events to co-exist with various sites. Examples of this recent work include:

The Sound of 84 Pianos (Griswold & Tomlinson, 2017) which employs mobility ideas from the Museum of Listening; making music in a site, and blurring foreground/background/drone. It is based on my concept and artistic direction, and a commissioned composition by Griswold. The work itself presents 84 pianos simultaneously working through a 30 minute score in a non-aligned fashion, with

Vibrations in a Landscape from Easter at the Piano Mill 2017. Photo by Tangible Media.

the audience wandering the corridors listening to the combinations of pianos, pianists, acoustics and proximities of the sound. **[WATCH VIDEO: http://www.100waystolisten.com/84-pianos.html]**

Vibrations in an Architecture (Griswold, Tomlinson, 2016) was made for the Queensland Conservatorium foyer, performed by 20 percussionists playing instruments, moving fabric, and activating ropes. This 20 minute work moves between the modes of listening presented in the Museum of Listening and Theatre of Listening, again making site-specific music that exposing architectural particularities in a surround sound presentation, with clearly foregrounded material to be listened to, but without the ability to shut out intruding sounds. **[WATCH VIDEO: https://vimeo.com/175329522]**

Vibrations in a Landscape (Griswold, Tomlinson 2017) while similar in name, and employing similar compositional material, places the work in a different mode of listening—the City of Listening. It is specifically re-composed for an outdoor site in the bush, that allows for interaction with the already-sounding site as part of the listening experience. It blurs the boundaries between intentional and unintentional sound and moves the drone of wind and motorbikes revving from background sounds to intentional sounds. This work was specifically composed for the house site at the top of a huge valley at the Piano Mill site. It was re-composed again for the oval in the town of Tyalgum for the Tyalgum Music Festival 2017. **[WATCH VIDEO: https://www.youtube.com/watch?v=Q-CG2iLtfQc]**

Lastly *Clocked Out and Simone DeHaan* (DeHaan, Griswold, Tomlinson, 2017) clearly employed the Museum of Listening. Set again in the Conservatorium Foyer the audience were free to wander around at will, and the performers too appeared in different parts and different levels of the space. This work was site-specific, but provided very clear listening material in the form of 8 smaller compositional and improvisational pieces. It featured the forces of trombone soloist and trombone choir, harp soloist (Anne LeBaron), prepared piano, percussion soloist and percussion ensemble, plus music boxes being played in to peoples ears (Tomlinson, 2017) and a choir of bowed cymbals (Tomlinson 2017). **[WATCH VIDEO: https://www.youtube.com/watch?v=g3cbvv8Q2so]**

My role in these works is fundamentally as a collaborative composer, but in the act of making it becomes as much the role of a choreographic director, making work on bodies, designing physical as well as sonic shapes, collecting and assembling from what I have at hand. It is intrinsically an adaptive and flexible compositional process which takes advantage of my skill base as an improviser, interpreter, composer, artistic director and curator. It also takes into account familiarity with place, usually built over a long period of time until I can incorporate the sounding environment into my temporal design process.

Soundings is a term I coined to define this activation of a place or space by a musician that is both investigative—information seeking—and performative. The first Sounding was by Erik Griswold, examining drought through a sounding on the dry, cracked banks of Lake Wivenhoe—the main water source for Brisbane. In this instance sounding had the dual meaning of making sound, and depth of water, with all sonic material being derived from the hydrologists data about the dam. The second sounding, *Sounding the Condamine*, was again site specific—on the banks of the Dogwood Creek near the town of Condamine—examining the colonial droving history of western Queensland through the Condamine Bell. This bell, a cowbell, was used in the pre-fence droving days to help drovers navigate and locate their stock while moving them through the harsh weather patterns of flood and drought. *Sounding the Condamine* brought together 400 farmers, community members, listeners, and artists to create an event exploring one particular theme from a multitude of perspectives. **[WATCH VIDEO: https://www.youtube.com/watch?v=O_mssYWuCYY]** More recent Soundings have been more singular in nature. Bloom Collective, investigating the process of gullying at a property in the Darling Downs while Artists-in-Residence at the EcoScience Precinct, Brisbane used sounding as a methodology for learning about place. **[WATCH VIDEO: https://www.youtube.com/watch?v=8sWNgJja5u0]** Clocked Out Duo, while on an artist retreat as part of 2019 *Because of her we can* Naidoc Week celebrations out at the 22 mile near Mitchell also used Sounding as a way to get to know place **[WATCH VIDEO: https://www.youtube.com/watch?v=UvcpAzr71-I].** Based around The Piano Mill property in the granite belt of Southern Queensland, these soundings are exploring the acoustics of place—resonance, absorption, inter-species dialogue, weather patterns, and topographical

Sounding the Condamine on the Banks of the Dogwood Creek, 2008.
Photo by Sharka Bosakova.

patterns—through semi-composed performances.

In all these Soundings there is a desire to understand and learn about place. It is an assemblage of local knowledge, indigenous knowledge, scientific knowledge, experiential knowledge, all drawn together into a moment shared between creator, performers, listeners, to essentially change awareness and attentiveness to place.

Two ongoing site-specific projects that exemplify issues discussed thus far in this article are The Piano Mill and The Listening Museum, both exploring different aspects of site, environment, approaches to listening and acceptance of the soundscape. One is in a bush setting, in a purpose-made building, the other in an industrial factory—still in use. What they both have in common is the desire to give mobility in the listening experience, to work with instruments, people and place and to expand creative ideas through experimentation. Ideally these projects will lead to new ways of interacting with sound, and potentially new relationships to place. The mobility of the listener seems to have a deep effect on the experience of listening—choosing what to listen to, where to listen from, and experiencing sound as something to be explored rather than simply received.

Easter at The Piano Mill 2016, 2017, 2018 (Tomlinson, Wolfe, Wolfe, Griswold)

The Piano Mill is a site-specific construction high up in the granite-belt on the NSW/QLD border in Australia. It was designed by architect Bruce Wolfe as an instrument that houses 16 pianos, manually operated by 16 pianists, and listened to from outside the building. Composer Erik Griswold was closely involved in the development of the building and composed the first work for the Mill—an hour-long composition *All's Grist That Came to the Mill*. Tomlinson was the musical director of the premiere performance, and musicoloigist Jocelyn Wolfe collected the pianos and re-constructed each pianos individual history. This is a building constructed in the environment. But in the book *The Piano Mill* (2018) Griswold talks about his compositional process, based on years of listening in place—learning to hear weather patterns, the pacing of birdsong, the time of day. These elements, listening to the environment, are deeply embedded in this composition, in this building, in this place. In learning the performance practice of how to play "in the Mill" pianists themselves had to specifically learn how to interact with the avian life, "as the musicians themselves were high up in the canopy as if in a bird hide" (Tomlinson 2017). They had to first learn to listen in place, to be able to play in place, and more importantly play with place. Lastly, Griswold discusses in his article about compositional process (Griswold 2018) using recording of place as a vital compositional tool. [**WATCH VIDEO: https://www.youtube.com/watch?v=HeUiq8grGsk**]

The Listening Museum 2013, 2016, 2018 Tomlinson

The process of making the Listening Museum is well documented in the article *The Museum of Listening* (Tomlinson 2016). Set up as an experimental site to intentionally disrupt notions of durational compositions by setting them amongst installations and disturbing them with spontaneous happenings, The Listening Museum interrogates the Museum of Listening – **https://www.clockedout.org/the-listening-museum.** In this case the environment, of the threshold entered into, was the working factory of UAP, complete with lathes, a foundry, mold-making machines, cutting machines, grinders, blow torches among many others. Functionality was mixed in with non-function, the intentional with the unintentional, pre-determined with spontaneous. What results is a listening experience where each individual audience member, over the course of 2 hours, navigates their own personal journey through the sounding material. In a space of over 200 square meters, there were sound events with only one audience member, and there were others where the entire audience was aware of collective, loud provocations.

The Listening Museum is itself a meta-composition, made up of many component parts, constructed in a modular time-based map. The 2018 version featured *Powertools and Drummers*, a conducted work for 4 factory workers and 3 drummers, 10 sound installations, a piano playing robot, a metal pour and 8 performances. No individual experienced all the works, but all had unique stories to tell about their experience of the event. It is this choose-your-own-adventure that is inspired by ideas of the Museum of Listening. [**WATCH VIDEO: https://www.youtube.com/watch?v=rKigeVdm6GU**]

This article has proposed a musicalisation of the terminology

The Listening Museum, UAP Factory, Brisbane, 2013. Photo by Sean Young.

The Theatre of Listening, The Museum of Listening and The City of Listening and tracked the application of these terms in various sound projects. In addition, the awareness of intentional sounds, unintentional sounds and drones allows us to transform sonic components from one category to another, by prioritising different sounds. Categorising the ways in which the environment is used in composition starts to illuminate just how broad this field is, and how interconnected sound and place have in fact always been. The apparent increase in this activity in the twenty-first century is most likely due to the increased urgency in our awareness of climate change. But it also demonstrates that the singularly interaction and relationship of audience seated hearing a performance on a stage, in a purpose built concert hall, is only one of many potentials for sharing sound. This transformation marks huge change that can assist in democratising access to sound events, change the value system of the arts, and make accessible through different presentation methods so many more sonic ideas. If sound can activate compassion and awaken our sense of custodianship of land, then music is well placed to be a central creative voice in our future.

Bibliography

Adams, J. L. (2009). *The place where you go to listen: In search of an ecology of music*. Middletown, CT: Wesleyan University Press.

Adams, M.D., Bruce, N.S., Davies, W.J., Cain, R., Jennings, P., Carlyle, A., Cusack, P., Hume, K., & Plack, C. (2008). *Soundwalking as a methodology for understanding soundscapes*. Reading, UK: 2008 Institute of Acoustics Spring Conference.

Bandt, R. (ed) retrieved 2018 **http://www.sounddesign.unimelb.edu.au/site/about.html**

Blesser, B. (2007). Aural Architecture, Spaces Speak are you Listening?

Buziak, R., Tomlinson, V., Griswold, E., Baker-Finch, J., Kelleher, V. *The Wrong Kind of Beauty—On the Rocks*. (2018). **https://www.youtube.com/watch?v=8sWNgJja5u0**

Cage, J. (1960). 4'33": *Tacet, any instrument or combination of instruments*. Frankfurt, Germany: C.F. Peters Corp.

Carrington, J. F. (1949), *The Talking Drums of Africa*. London, UK: Carey Kingsgate Press.

Clarke, E. (2005). Ways of Listening: An ecological approach to the perception of musical meaning. New York, USA: Oxford University Press.

DeHaan, S., Griswold, E., Tomlinson, V. (2017). *Clocked Out with Simone DeHaan*. Queensland Conservatorium Foyer, Brisbane, Australia **https://www.youtube.com/watch?v=g3cbvv8Q2so**

Denley, J. (2007). *Through Fire, Crevice and the Hidden Valley.*

Griswold, E. (2017). *84 Pianos,* Unpublished Manuscript.

Griswold, E., Tomlinson, V. (2017). *Vibrations in a Landscape*, Harrigan's Lane, Australia. **https://www.youtube.com/watch?v=3Ed8VKVq5ww**

Griswold, E., Tomlinson, V. (2016). *Vibrations in an Architecture*, Queensland Conservatorium Foyer, Brisbane, Australia. **https://www.youtube.com/watch?v=UgTkyff6aVU&t=2s**

Griswold, E. (2007). *Sounding Wivenhoe,* Lake Wivenhoe, Australia. **https://www.youtube.com/watch?v=6wx34dtEDCY&t=11s**

Griswold, E. (2016) *All's Grist that Came to the Mill*. Unpublished manuscript.

Griswold, E., Tomlinson, V. (2018). *Amby Creek—Because of her we Can (Clocked Out)*. **https://www.youtube.com/watch?v=UvcpAzr71-I**

LaBelle, B. (2007). Background Noise: Perspectives on Sound Art. London: Continuum Press.

Kato, K. (2009). Sound Garden: addressing social and ecological sustainability. In D. Kahn (Ed.), *Art Monthly Australia*, November #225, Acton, ACT: Art Monthly Australia Ltd.

Magen, A. (2009). Sound Walking: A walk on Maria Island, Ten Days On TheIsland Festival March 27-April 5 '09. *Soundscape, The Journal of Acoustic Ecology*, 9(1), 5-6.

Marks, B. (2015). Circular Ruins. A Composed Environment. Noise and Silence [Blog]. Retrieved from **https://noiseandsilencemagazine.wordpress.com/2016/10/17/the-circular-ruins/**

Oliveros, P. (2005). Deep Listening: A Composer's Sound Practice. Lincoln, NE: iUniverse.

Rebelo, P., Green, M., & Hollerweger, F. (2008). A Typology for Listening in Place. Paper presented at Mobile Music Workshop, Vienna, Austria.

Schafer, R. M. (1977). *The Soundscape: Our Sonic Environment and the Tuning of the World*. Rochester, VT: Destiny Books.

Small, C. (1998). *Musicking: The meanings of performing and listening.* Middletown, CT: Wesleyan University Press.

Taylor, H. (2017). Is Birdsong Music? Outback Encounters with an Austraian Songbird. Bloomington, Indiana: Indiana University Press.

Tomlinson, V., Wren, T. (2016). Introduction, Here and Now. *Here and Now: Artistic Research in Music, an Australian Perspective.* Intelligent Arts; New York, USA.

Tomlinson, V. (2016). The Listening Museum. *Here and Now: Artistic Research in Music, an Australian Perspective.* Intelligent Arts; New York, USA.

Tomlinson, V. (2017). *Sonic Dreams*. Self-Published.

Tomlinson V., & Baker-Finch, J. (2009). Sounding the Condamine, sharing a process. Artspeak, Queensland Regional Arts and Cultural Conference.

Tomlinson, V. Griswold, E. (2018). The Listening Museum 3, UAP, Northgate, Australia **https://www.youtube.com/watch?v=rKigeVdm6GU&list=UUPlffqFtHG32rPDxrDOK92Q**

Tomlinson, V. (2017). *A Bath of Vibrations*. Self-Published.

Tomlinson, V. (2017). *Intimacy*. Self-Published.

Westerkamp, H. (1974). Soundwalking. *Sound Heritage*, 3(4), 18–27.

Wolfe, J., Tomlinson, V., Griswold, E. & Wolfe, B. (2018). The Piano Mill. Melbourne, Australia: Uro Publications.