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‘Taman Tugu: Interference/Resistance’: Addressing Urban Rewilding with a Musical Augmented Reality Experience

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Abstract

‘Taman Tugu: Interference/Resistance’ is an immersive, interactive musical work that has been mapped onto the pathways of the Taman Tugu jungle park in Kuala Lumpur, Malaysia. Taman Tugu is an unusual place – a large rewilded space teeming with wildlife in the centre of a modern metropolis. ‘Taman Tugu: Interference/Resistance’ uses Audio Augmented Reality and placed sound to raise questions about the importance of urban green spaces in general and rewilded urban spaces in particular. This paper explains how the work asks these questions of its audience through the mapping of electronic sound over the unique geography of Taman Tugu.

Keywords

Placed sound, locative media, site specific art, rewilding, augmented reality, immersive music.

Taman Tugu

Taman Tugu is a jungle park in the centre of Kuala Lumpur, Malaysia. Opening in 2018, the 50 acre park lies on the site of a former city neighbourhood, some signs of which can still be seen in the concrete ruins that poke through the foliage. The park contains more than 4000 trees, including over 1000 categorised as ‘endangered’ or ‘critically endangered’ by the International Union for Conservation of Nature. More than 230 indigenous Malaysian rainforest tree species have been planted, many of these species being selected due to the wide range of fauna they will attract; the overall aim being to encourage biodiversity. [1]

Taman Tugu is an unusual place; a reclaimed green space teeming with wildlife in the middle of a modern metropolis. It provides an excellent example of how we can do much more than simply preserving existing urban green spaces, demonstrating that we can be proactive in the creation of rewilded areas in our urban centres. It therefore also

provides a suitable location for an artistic work that examines the importance of such spaces.

Taman Tugu: Interference/Resistance

Performed through a GPS-enabled Smartphone and headphones, ‘Taman Tugu: Interference/Resistance’ (henceforth referred to as ‘TTIR’) is an Augmented Reality (AR) musical work created in response to this unique location. The bulk of the music created for the project uses field recordings gathered in the park as its raw material. AR is often perceived to be in the visual domain; users can view digital content overlaid onto the real world by looking through a phone screen or Smartglasses. However, AR experiences can be created for the other senses as well; *Audio AR* (AAR) takes place when a real-world soundscape is overlaid with digital sound. [2]

GPS technology allows for the mapping of a composition over a landscape so that the music (or non-musical sound) is experienced within the context of a very specific geography. It is possible to achieve a fine alignment of sound with space that enables the structuring of a musical work around specific landmarks. Behrendt has termed this type of work *placed sound*: “Here, artists or designers curate the distribution of sounds in (outdoor) spaces, often – but not exclusively – by using GPS. The audience typically experiences these sounds via headphones and sometimes via mobile phone speakers or other mobile speakers. The audience does not contribute their own sounds or determine the location of sounds[...] but each member of the audience creates their own version or remix of a ‘placed sound’ piece, depending on their trajectory”. [3]

A placed sound work is tied to a specific location by definition, and this offers the artist an opportunity to tap into deeper layers of meaning associated with that location. Indeed, in their Brief Bibliography and Taxonomy of GPS-

Enabled Locative Media, Bleecker and Knowlton show the greatest interest in “experiences that take into account the geographic locale of interest, typically by elevating that geographic locale beyond its instrumentalised status as a ‘latitude longitude coordinated point on earth’ to the level of existential, inhabited, experienced and lived place”. [4] In creating a work that is closely linked to its performance location, numerous opportunities are opened up to the artist. It is possible to create an interplay between the real-world soundscape of the location and the recorded sounds played back through headphones or speakers. Furthermore, the recorded sounds can be related to the historical and/or cultural context of the location. It is also possible to very closely align real physical objects with virtual *sound objects*, creating *audio-visual congruence*; a concept that will be explored in more depth further on.

Pieces that are inseparable from their performance locations therefore allow for a deep layering of meaning, as well as for intriguing opportunities for creating audio-visual congruence. In ‘TTIR’, the audience hear a musical piece that has been mapped on to the environment while also experiencing the sounds of the surrounding ambiance in real time; a soundscape that has formed the basis for the musical composition itself.

In his writing on Kudsk Steensen’s AR work ‘The Deep Listener’, Obrist proposes that “digital world building can in fact entangle us with the natural world rather than separate us, training our attention on the details of how our actions create irreversible change to those environments and the biodiversity it plays host to – a necessity in light of our current environmental emergency.” [5]

‘TTIR’ layers a digital sound layer on to Taman Tugu in order to celebrate the park and its soundscape while exploring themes that resonate strongly within the Natures and Worlds track of the ISEA2022 conference. The work warns of the fragility of urban green spaces while also acting as a call to arms; the transformation of urban areas into places where nature is allowed to flourish is a small but immensely worthwhile step in the fight against climate change. This paper explores the methodology behind the creation of the work, explaining how the piece was conceived and structured to deliver its message.

It is hoped that the work will encourage new visitors to come to Taman Tugu, while offering regular visitors an opportunity to explore the park in a new way. The work premiered on September 4, 2019 as part of the international Soundwalk Sunday festival. The first public presentation of the piece occurred at a fully-booked event at the park on

December 1, 2019, and was covered on Malaysian national TV news channel Berita RTM.

Methodology

Field Recordings as Raw Materials for AR Music

‘TTIR’ is created largely from field recordings, both processed and unprocessed. In places these field recordings are augmented by synthesised tones that have been designed to sympathise with the timbre of the Taman Tugu soundscape. The recordings were gathered at various locations within the park over a period of several weeks in 2019.

The park has a rich soundscape; bird and monkey calls, the sounds of animals moving through the undergrowth, wind rustling the foliage, water dripping and running in small streams. In certain places the sounds of the city encroach too; motorbikes, trucks, construction work. However, the ever-present sound that underpins it all is a veritable roar of insect noise. It is the sound of insects therefore, that forms the base layer of the composition; recordings of this noise were manipulated in the studio to create drones that retain the shifting timbres of the jungle soundscape. The intention is that these drones appear to be embedded in the soundscape of the location, rising out of it and creating moments of interplay with the sounds of the real world. The drones are augmented by melodic parts played on instruments that were constructed using samples of bird and monkey calls, or other distinctive jungle sounds.

Delivering a Message Through Mapping

The recordings were mapped onto Taman Tugu as 22 overlapping audio zones using an app named Echoes. [6] Participants can download the Echoes app for free from the Apple App Store or Google Play Store and use it to stream ‘TTIR’. The audio zones are triggered by a participant’s phone GPS when the zone is entered, while the behaviour of the audio itself is dependent on various settings determined by the artist. The audio can start abruptly, or can fade in gradually as the participant approaches the centre of the zone. The audio can be looped until the participant leaves the zone, or can play once from start to finish before ending. ‘TTIR’ makes use of all of these audio behaviours.

In the weeks the artist spent exploring Taman Tugu gathering field recordings, it was noted that a striking feature of the park was the way in which the city of Kuala Lumpur felt entirely absent in certain places, while being extremely conspicuous in others. In the depths of the park, the foliage masks the city both visually and aurally, immersing the visitor in nature. In other places, a path can rise onto a ridge where the skyline of the city can clearly be seen, and the sounds of the city can plainly be heard.

the music that they are hearing in order to encourage engagement with the themes the work seeks to address. The final mapping of audio to Taman Tugu in the Echoes app can be seen in Figure 2, above.

Participants in ‘TTIR’ do not have to walk a set route through the park. The audio zones are arranged in such a way that the park trails can be navigated in any way the walker wishes. The message of the work is unaffected by the trajectory of travel and relies only on the participant’s willingness to explore the park. The work was designed in this way in order to encourage an approach to place that was known as *Topos* to the Ancient Greeks. In his paper on the subject, Parmar defines *Topos* as being “less concerned with directed travel than peripatetic wanderings and the experiential nature of the journey.” [11] By dispensing with a map or prescribed route, it is hoped that ‘TTIR’ foregrounds the experiential nature of a walk through the jungle and its accompanying sights and sounds, while leaving room for the themes of the work to emerge gradually as the walk progresses.

In summary, ‘TTIR’ provides a physical alignment of real and virtual objects (when the city is visible, the soundscape reflects this) that is also a contextual alignment that drives the message of the work (this green space provides a fragile refuge from the city and this requires consideration).

Conclusion

Musical composition that is strongly rooted in a specific location can help us to a greater understanding of landscape and our relationship to it. [12] ‘TTIR’ is an AAR musical experience that acts as site-specific discourse; using Taman Tugu as a refraction point for a series of broader intersecting themes, it acts as a stark reminder of the climate crisis but also invites participants to reflect on the benefits of rewilding urban spaces.

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Author Biography

Yoni Collier is currently working towards a practice-based PhD; an examination of how location-based recording, musical performance and production can be used as tools for examining artistic practice, landscape and history. Alongside a written thesis, Yoni is composing and producing immersive, interactive musical pieces that are laid over specific landscapes and ‘performed’ through location-aware Smartphone apps. Yoni holds a BA in Popular and World Musics from Leeds University and an MSc in Sound Design from Leeds Beckett University. Alongside his research, he continues to work as a freelance producer, composer and performer. His experience in composition for visual media includes work for dramatic film, corporate clients and video games. His music has featured on TV shows on ABC Family, ITV and Sky Sports, and he has scored films that have been exhibited at numerous international film festivals including the BFI London Film Festival and The ECU European Independent Film Festival.