

***YomeciLand*: Found Sound as Play**

Matthew Riley

RMIT University
124 La Trobe St, Melbourne VIC 3000
matthew.riley@rmit.edu.au

Uyen Ngoc Phuong Nguyen

RMIT University
124 La Trobe St, Melbourne VIC 3000
uyen.nguyen@rmit.edu.au

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Huizinga (1949) noted that the word ‘play’ means both ‘to play a game’ and ‘to play a musical instrument’ across different languages. This interplay of meaning is explored in *YomeciLand* (Nguyen 2019 - ongoing), an experimental location-based mobile game where mobile devices become an instrument for capturing, abstracting and playing with our sonic surroundings. Blending three principal areas of practice: a soundwalk, a pervasive game and an artificial world, players traverse their immediate physical locale and record found environmental sounds in situ on their mobile device that “feed” a real time 3D virtual world inhabited by artificial organisms. *YomeciLand*’s conceptual and technical design is introduced, presenting preliminary research for how found sound can be used in a location-based mobile game. The prototype demonstrates this in practice to guide the next iteration of the project and, more broadly, to inform future practice in pervasive game design as the research is developed.

Sound is intrinsic to understanding the physical, social and spatial characteristics of our urban and natural environments. From the discordant clamour of city noise, the spoken words of conversation to the subtle biophonies of natural habitats, our sonic surroundings construct multiple perceptions and interpretations of the world around us. How sound reveals, creates or re-configures specific spaces and environments has been a central inquiry for artists and designers exploring the creative potential of sound in public spaces. As mobile devices have increasingly become ubiquitous over the last two decades, new inquiries into the spatial, social, sensory and technological relations of mobile auditory experiences have emerged across mixed realities, augmented reality platforms, sound mapping projects and GPS-driven audio works. These approaches have endeavoured to create alternative engagements and understandings of specific sites by revealing, amplifying or shifting their social, emotional or physical context. However only limited attention has been given to the interactions and relations between sound and place in pervasive games.

Using real-world locations in predominately urban spaces - streets, laneways, sidewalks and so on, players of pervasive games traverse physical environments guided by the systems, mechanics and experience of the game. While pervasive games do not require digital mediation to connect physical spaces and game worlds together others use GPS, mobile devices, augmented reality systems, Bluetooth, NFC etc to merge

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“physical and technological play” (Flanagan 2009) that enable alternative possibilities in this experience. Given the embodied and situated context of these games - digital or otherwise - *YomeciLand* explores how urban sonic surroundings can shape players walking and listening practices via play. Positing a broader understanding to the predominant emphasis on the virtual content of many mixed and augmented reality experiences, scholars Schraffenberger and Van Der Heide (2016) argue that research into interactivity should not only focus on interaction between a participant and a system, but also study the possibilities for interaction with the inherent multimodal properties of our physical surroundings, such as sound.

Unless distinct or disturbing to the ear, sounds can often go unnoticed in familiar auditory environments (Uimonen, 2011). Typically experienced as a vast ambiance rather than individual sound events (Dubois, Guastavino and Raimbault, 2006), urban sounds diffuse into an auditory atmosphere with the flows and activities of the city. However, what occurs when we engage with these urban sounds in an attentive or purposeful way?

Players of *YomeciLand* walk city locales using their mobile phones to listen and record environmental sounds that “feed” a virtual world. These found sounds discovered while walking the streets and laneways of the city are used as input and abstracted into the game as various creatures with distinct characteristics and behaviours. Using only very simple functions and relationships of ecosystems as inspiration, *YomeciLand*’s artificial world is nonetheless dynamic and constantly responsive to both the interaction of players and the rules and behaviours of its digital ‘ecology’.

There is a diverse practice exploring games, play and sound that inform this project. In *Electroplankton* (2005) players generate music and visual compositions, the game acting as a type of sampler responsive to sound via the microphone of the NintendoDS. While *Elektroplankto* is designed for a handheld system, other games and playful experiences explore sound composition in outdoor public spaces. *A Folded Path* (2013), *KlingKlangKlong* (2014) and *Phantom Synchron* (2015) invite participants to create and improvise with music as they wander through urban environments. Although using different approaches, these works relate people to the city through play, movement and interaction (Straeubig and Quack 2016). *YomeciLand*’s mobile experience also plays with sound in outdoor public space, however it emphasises engagement with environmental sounds rather than composed sound, its ‘creatures’ constructed by the player and their engagement with the sounds of the city.

In the first prototype of *YomeciLand* creatures were categorised as ‘predators’ or ‘prey’. This relationship established the simple gameplay with creatures brought to life by discrete and high-fidelity sounds preyed on by those created by lower fidelity sound inputs. This categorizing system was based on the way in which Schafer (1977) describes low and high-fidelity sounds, for example how quieter sounds are often unheard in the presence of louder, machine noises. As a result, the virtual space transformed according to the interaction with the sonic layers of the city, players promptly understanding the system and seeking out particular sounds in their environment.

The most recent iteration of *YomeciLand* moves away from this hierarchal sound categorisation towards a more relational and ‘flat’ ontology. Using symbiotic relationships to guide the interactions of the game, players collect and relate seemingly disparate and diverse environmental sounds together to construct hybrid creatures that co-exist with each other in different ways. With each recorded sound changing the relationships, forms and population of *YomeciLand*, players are encouraged to listen attentively to the world around them. Recent studies of games have emphasised their

experiential, sensory and situated qualities – both the game and player constituting the experience in a blend of actual and virtual worlds, rather than understood as separate or autonomous forces (Keogh 2018). *YomeciLand* brings together environmental sounds, a game, the material world and players together in unique and particular ways open and responsive to the emergent relations within this assemblage.

The first prototype of *YomeciLand* play tested in Melbourne, Australia demonstrated an initial model for the use of found environmental sound as an opportunity for play. The current design phase of the prototype has extended the project by employing artificial intelligence and machine learning to recognise environmental sounds that open up new opportunities for the project. Playtesting this capacity with a more extensive study of the experience of players is the next stage of this inquiry. Ultimately *YomeciLand* sets out to encourage a heightened engagement with our sonic surroundings and, in doing so, shape players relationship to their location in playful ways.

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