Four design patterns for playful sonic interaction with place

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INTRODUCTION

Urban play invites novel ways of relating to cities that re-shape our experience of public space (Stevens 2016, Innocent 2024). Through an analysis of an urban play work YomeciBand, we present four design patterns for using sound to invite play, highlighting the works live and improvisatory forms of performance to foster social interaction and public particpation through urban play.

Sonic experiences in urban play are constantly influx and changeable, open to the dynamism and spontaneity of playing in public space. We have been experimenting with live and improvised performance and interaction of sound in a series of urban play events titled 'YomeciBand'. This work is a site-specific installation, developed in Melbourne, Australia, that runs as a two-hour pop-up event in a public space or on a footpath. A chalk track is drawn on the ground with clusters of shapes and lines suggesting varied movements, resembling a hopscotch track or obstacle course. Participants can walk, hop, skip, jump or move around however they prefer to activate sound and compositions. These audio compositions and tunes are activated live by an inconspicuous sound performer playing a portable synthesiser who observes the players movements across the pavement drawings. The interactive sound world that emerges is playful and responsive to a wide range of relations and interactions such as the participant's play, surrounding urban activities and the urban soundscape. Live sound playing is used as a form of improvisational and relational sonic interaction design (Franinović & Serafin 2013), open to the many interconnected elements; people, play, materials, flora, fauna, infrastructure, sounds, actions and so on that inform and constitute the event.

We share four design patterns that are applied in practice through the work, focusing on YomeciBand's live performance to outline the ways sound, play and place co-constitute each other moment-to-moment in this urban play event.

Design Patterns: Playful sonic interaction with place

1.1 Easing in

Sound is used to 'ease' participants into interaction with the work. When a player approaches YomeciBand, we play a subtle percussive backing track to suggest interactivity and rhythm. This is an invitation to play through sound, walkers often

leave their 'public privacy' bubble (Bull, 2015) and engage with the work through this prompt. This track is played to propel people into action and is often played whenever we observe people who appear interested or curious about the work but were perhaps hesitant to immediately participate. This backing track, intended to remain subtle in the background, is made up of playful percussive beats, simple and repetitive as if patiently waiting for something to occur. It's an invitation to ease in to the work, gently nticing them to engage with YomeciBand.

1.2 Playful encounter with the urban environment

An integration of the materiality of YomeciBand and surrounding infrastructure creates opportunities for playful interaction. Players of YomeciBand move around and interact with the chalk drawings to trigger sound, the sound performer observing and responding to their traversal across the ground. We use a range of 'one-shot' impact sounds that suggest different materials. For example, the ground of the play space can sound wobbly, crunchy and 'twinkly' although it is made of concrete or asphalt. These unusual sound effects creates an 'interaction gestalt' (Lim et al 2007) of playfulness - the whole infrastructure becomes playable with the player, environment and their actions interwined in constructing this experience.

1.3 Playing together

Through YomeciBand, we become co-players with players and the city itself. A key approach in terms of sound is the use of 'sound tails' to invite action and play. As the sound performer observes an action, they play sounds in response and play a brief 'tail' for this sound, whether prolonging the current sound, layering it using another sound or adding an effect on top. This is to prompt the player to take further actions, or follow through on a current action, such as regaining balance after a leap or anticipating a jump. We also 'smudge' the line between play and non-play in our live sound performance, playing sound to fringe or seemingly peripheral actions as well as intentional ones, to affirm that any interaction is 'correct' and to encourage further ideas and actions from players.

1.4 Playful sonic relationality

Although sometimes played solo, people often play with other players in YomeciBand. Players have described their experience as "co-creating", "being part of something together" and "contributing to a sound stew", with everyone bringing different 'ingredients'. Players also described listening to what others were already doing, and seeing how they might join in with their play. Composing, harmonising, synchronising and jamming were among the ways players engage with sound through collective actions. These ways of play emerge from coming into a relation with the world together through sound. To encourage and play with this, we add more layers to the interactive sound world to create a sense of it becoming more 'full' and song-like as more participants join in, or whenever new connections are observed. When layering, we play through a progression of chords, adding complementary rhythms to the current percurssive beat, and composing and improvising melodic tunes as the performance unfolds.

CONCLUSION
In conclusion, this paper has presented four design patterns for using sound to invite urban play in place. In highlighting the creative and experimental methodologies of live and improvisatory sound performance in YomeciBand, we advocate for the compelling potential of sound and play to bring people together in public space.

BIOGRAPHIES

Uyen Nguyen is a play designer, researcher and academic at RMIT University. Collaborating with artists, game designers, creative producers, research partners and cultural organisations, her gallery-based, urban play and site-specific works have been shared in national and international venues, events and exhibitions including Experimenta, Tarra Warra Museum of Art, DIGRA, ISEA, Freeplay and ACMI. She is a co-founder of the experimental play collective YomeciPlay and is undertaking a PhD at the Future Play Lab at RMIT University.

Dr Matthew Riley is a Senior Lecturer and researcher in the Master of Animation, Games and Interactivity program at RMIT University. His work and scholarship in playful and experimental design and art practice has been recognised internationally through exhibitions, events and conferences in London, France, Japan, Austria, New Zealand, Portugal, Hong Kong, New York, United Arab Emirates and Finland.

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