

6. EXTENDED SCENARIOS

In its current form the app is a collaborative tool for manipulating a specific abstract data set, namely, the 5 harmonics that generate the scale. With changes the app could include the use of physical data.

6.1. Harmonic possibilities

Wilson's CPS method can generate many different dekanies scale each with its own specific harmonic flavour. To do this one might change the harmonics 1 3 7 9 and 11 to another set of values e.g. 1 3 7 13 and 17. Increasing the number of harmonic generators would also produce scales larger than 10 notes per octave.

With further modification the app would allow a user to change harmonics using a slider or touch menu to select new values; with a looped note sequence playing, this would allow a player to make a seamless transition from one harmonic flavour to the next. With further modification to the app, changes made by a user on one phone would also be broadcast to other phones.

Significantly, any change in the harmonic flavour is instantly recognisable irrespective of the musical expectations of the listener.

6.2. Bicycle flotilla

The app would lend itself to an event involving a flotilla of cyclists each using an iPhone as the mobile sound source, i.e. without headphones. The event would be an extension of the first Concert on Bicycles in 1983 when about 130 cyclists using ghetto-blasters tuned to a 1-hour broadcast radio program and cycled round Lake Burley Griffin, Canberra; half the cyclist travelled in a clockwise direction, the other half in a counter-clockwise direction, thereby passing one another at double the normal bicycle speed. The mono broadcast was transformed by the mass movement of multiple sound sources to create spatial artefacts discernible only to participating listeners. [16]

In this scenario participants install the app prior to the event. Instead of a ghetto-blasters, cyclists fasten an iPhone to their bicycle frame thereby making it responsive to accelerometer data. With some modification to the app, the handbell becomes a bicycle bell that responds to corrugations in the surface of the track while GPS data transforms the harmonic properties as cyclists enter new terrain.

7. CONCLUSIONS

The Satellite Gamelan app was first used on Nov 30 2012 as part of the Space Time Concerto Competition. On that occasion the performance involved a hook up of several concert venues spanning several continents and interconnected via a satellite link. The app has since been modified to support 80 players in the same venue. [17]

My ultimate objective is to take advantage of venue acoustics enjoyed by performers of conventional concert music. The Satellite Gamelan app used by a large ensemble can augment a standard contemporary concert program. For an established professional orchestra or large choir the economics are straight forward. *Transposed Dekany* is easy to play and quick to learn. It is currently available as an app that runs on a phone widely used by many musicians. For an existing ensemble of seasoned players the work can be made concert-ready in a single one-hour rehearsal. A performance lasts less than thirteen minutes, requires no special concert amplification and every instrument can be set up by its player without technical support. The missing ingredient so far is a conductor with the vision to convince eighty musicians to put their regular instrument aside (or rest their vocal chords) in order to present a new kind of chamber concerto where 'playing is left to the user' [5] yet executed to the highest standards of ensemble musicianship.

Clearly the problem lies not with the definition of sonification as this has evolved in the ICAD community but rather with limitations we place on what constitutes the 'organising principles of tonal music'. [6] That is a problem I have always had, and will probably continue to have, with music in general.

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