

SINGING THE SYDNEY HARBOUR BRIDGE

January 2018.

Proposal to *sing up* **The Sydney Harbour Bridge**

Introduction:

My name is Jon Rose. I'm an Australian composer, violinist, inventor, writer, and multi-media artist; in 2012 I won The Australia Council's senior award for a lifetime's contribution to Australian music – The Don Banks Prize. I have contributed to the debate on the decline of live music with a book "Music of Place: reclaiming a practice" (Currency House).

My life's work covers a wide range of activities mainly centred around, on, and with the violin, but one important area of music that I have contributed to significantly over the years, is the *sonification* of objects and artefacts that are uniquely Australian. In other words I make innovative musical experiences from outback fences, bicycles, sport, car wrecks, kite flying, etc. These events involve interactive electronics with which I have been busy since it first became possible in the 1980s and they also involve the community beyond the world of specialised music performance.

Here are some quick examples of what I'm talking about:

<https://www.youtube.com/watch?v=syYjEzRcjcc>

<https://www.youtube.com/watch?v=Y6mBtMT9mco>

<https://www.youtube.com/watch?v=o9nXXnwR4i8>

<https://www.youtube.com/watch?v=8-BAqDGtQPY>

<https://www.youtube.com/watch?v=-0hDsEANvKM>

The Proposal:

A project for the sounds of **The Sydney Harbour Bridge** accompanied by Choir and gum leaf virtuoso.

What would be heard:

The interactive system would play a vast array of sounds from the actual bridge in real time (some pre-recorded due to logistics). Conducted by the traffic, The Song Company (choir) mimics and sings up the bridge. Some sounds clearly accentuate the rhythmic sound of the passing traffic, other vibrations would be heard in discrete pitches (ie. melody). Please listen to the MP3 examples – you hear the very vocal and rhythmic bridge sounds integrated with the choir.

Within this mix, historical moments from the opening of the Bridge in 1932 will be re-constructed – notably the sound of the Wallaga Lake Aboriginal Gum Leaf band,

heard as sonic inserts (echoes from the past) within the context of the performance. (Other events from the opening of the Bridge may also be included - the military brass band, and the hoofs of Francis de Groot's horse).

I am a friend and colleague of Roseina Boston, a Gumbayungirr elder, and gumleaf virtuoso – we worked together in 2005 on a project of mine (Pannikin) at the Melbourne Festival. I did call Roseina about this last week and she is up for it, but she is 82! So nothing is very certain at that age.

This is Roseina performing with band:

<http://jonroseweb.com/pannikin/gumleaf%20playing.mpg4>

In the event that Roseina is unavailable, Herb Patten is another great gumleaf player with whom we could reconstruct the Wallaga Lake Aboriginal Gum Leaf Band.

How it would work:

The music would be performed through a mixer and loud speakers at the bottom of the south-eastern bridge pylon looking out onto the parkland (grassy knoll) adjacent to Hickson Road. (Please see photo below) The Bridge, traffic, and train sounds would be filtered through a noise gate that removes a lot of the white noise while revealing the pitches and rhythms of the structures. There is a small plinth on which all performers could be set up (presently it is used for two upward pointing flood lights). The performance would be directly audible to an audience sitting on the grass nearby and by pedestrians and drivers below the bridge too with their car windows open (not audible with windows shut, so a choice of whether to engage with the music or not is considered). The Bridge is already well lit, but we would require some extra lighting to highlight the performers and generate more atmosphere. Depending on budget, the light show could be synchronised to the rhythms and sounds of the performance. The photo shows that access to the plinth is via a padlocked gate in the fence. Mains power is perhaps possible in the wall at the plinth or may be brought around from the RMS entrance.

The performers would be the 6 voices and conductor of The Song Company (Australia's leading vocal ensemble). <http://song.com.au>, Roseina Boston (if possible), and myself.

More technical issues:

A number of options for recording, sounding, and using the bridge's sounds and vibrations can be considered.

1. One sensor strip (similar to those used to measure traffic flow but only 5 ml thick) is placed on the most eastern single traffic lane (next to the bridge pedestrian walkway by the main south east pylon). As cars pass over the sensor strips, they trigger a musical sequence; the sonic results are determined by the speed and frequency of the traffic. There is a small and suitable gap in the bridge road surface into which a strip can be set and sealed with rubber solution or robust gaffers tape. (see photo for

placement next to metal plate).



In the event that this is completely out of the question, a microphone or video camera can be set up on the walkway which could be used to measure the traffic flow (see below for more details on this).

2. One contact microphone is attached to the traffic side of the large metal plate on the pedestrian walkway (by the main south east pylon). A contact microphone is very small – 150x100x30 ml) Cables from both sensor strip and contact microphone are taken down through the south eastern pylon's stair well and outside on ground level to a mixer and speakers where the performances take place. (see photo of plate for

contact mic position)



3. One air radio microphone is set up underneath the traffic lane (on the approach to the bridge proper). Access is easy from the bridge public walkway via a padlocked gate in the fence. Live sounds are broadcast directly to a mixer on the ground level. (see photo)





Although other solutions of measuring the rhythms of the Bridge are possible, a Sensor strip laid across the far eastern lane of the bridge is preferable to a video camera or air microphone (as an initial measuring device and data collector i.e.. number and frequency of cars/trucks passing) as it provides a minimal but significant physical contact to the cars – and physical contact through the Bridge surface transmits a strong practical and symbolic relationship – each car, bus, truck, or train becomes a simple but functional musical instrument or conductor. In the advent that it is too complicated to lay the sensor strip (a ten minute job for which the lane would have to be closed), a simple air microphone or video camera could be used to "count" the number and frequency of the traffic – not so effective but an alternative. It may even be possible to get audio recordings or a live feed from the UTS "CROC" maintenance robot that operates inside the narrow tunnels of the bridge.

When:

A weekend of performances is envisaged in the summer of 2018; an evening performance of 40-50 minutes for each of the 3 days of a weekend. Weekdays might be a problem because of the sheer amount of traffic audible. The atmosphere in the evening at weekends would be optimum.

Security:

There is already adequate security on the bridge; the performance would only require the guard by the tower to keep an eye on the minimal gear (contact microphone with G clamp on the walkway metal plate, regular microphone attached to bridge strut with gaffers tape, two cables running to door of stairwell). The radio microphone under the bridge approach would be secured once the gate is locked. The project would need

one security guard at ground level to keep an eye on the sound gear. The Festival of Sydney could supply any other additional security probably.

Timeline:

Once interest from the Festival of Sydney is given, then permissions have to be granted by RMS and the City of Sydney for the proposal to go ahead. Additional funding can be sought from the Australia Council or Arts NSW. The development of software and hardware would require 8 weeks development. I have already written some score extracts for the choir (audio examples are available) but the bulk of the composing is yet to be done and would require 12 weeks. I have already been in contact with RMS about this project.

MANN Peter N <Peter.MANN@rms.nsw.gov.au> Strategic Infrastructure Manager.

Budget:

Fee for Roseina Boston and/or Herb Patten (for live performance and pre-record).
Fees for the Song Company.
A performance fee for Jon Rose (composition fee is part of PGH residency)
Fee for software engineer.
Fees for a technical sound and visual team.
Hire costs of PA and lights and some serious cabling down the bridge pylon.
Promotion through the Sydney Festival.
Extra funds would be sought from The Australia Council or Arts NSW.

Working titles: **The Bridge, Playing The Bridge, Singing Up The Bridge.**



The Wallaga Lake Gumleaf band 1922 – the band that marched at the opening of The Sydney Harbour Bridge.



opening of The Sydney Harbour Bridge 1932