

Guilt, Agency, Listening and 32-bit – a composer's need to capture the sound of Covid

By Rob Godman

As a composer and sound designer, academic and researcher, listener, cyclist, home-schooler and dad, my working patterns and life-style have changed enormously over the past year. Having taken for granted many aspects of our sonic environment, ecoacoustics [Krause 2015] and soundscape ecology, this has gradually evolved into a fascination with my local sound world. And I can only apologise! This is partly based on ignorance; partly based on the belief that I can't listen 'critically' due to my locality, and certainly based on the erroneous belief I can't 'capture' sounds due to my locality. One thing is for sure, my listening has changed.

The word 'capture' is an interesting one for field recordists. Why do we need to capture and what is it that we are capturing? Is there a need to document? Isn't listening and memory enough? The tools we require for such a capture create interesting mixed metaphors. The shotgun microphone, as referred to in Hitchcock's tongue-in-cheek trailer for 'The Birds' (the shotgun was invented for the birds...), where avian life threatens to supersede all humanity and we are left with a strange ambient avian/electronic sound at the end of the film indicating the birds have won and we have to give way. Highly directional, probably parabolic microphones, look like guns and have telescopic sights in 'The Conversation' (Francis Ford Coppola: 1974, and for which Walter Murch received a nomination from the Academy Awards for Best Sound), where captured sound is information, and information fuels our paranoia.

I have always made live recordings. These have primarily been located in the concert hall, often documenting live first performances of new compositions. I enjoy the process of replicating a space and creating a serviceable document of the event that has occurred. Field recording, is different.

Field recording during Covid-19

Recording 'quiet' is surprisingly difficult. It's easy to record the pre-amps of your recorder, but creating a genuine believable 'quiet' takes time and patience, much good fortune, and perhaps some financial outlay. When Covid-19 forced a lockdown in the United Kingdom (March 2020) our sonic environment suddenly changed. Living in Guilden Morden, Hertfordshire - a sleepy village, around 15 miles from Cambridge, and 20 miles equidistant from Stansted and Luton airports, Covid dramatically changed my ambient world overnight. The previously inaudible biophony, the term coined by Bernie Krause to describe the combined sound non-humanoid animals create in their environment, became audible. [Krause 1998]

My need to record this happening was irrational. Bizarrely, I've always enjoyed carrying and using a camera. The camera provides an 'excuse' to watch and look. Field recording isn't quite the same, but perhaps a microphone provides an 'excuse' or reason to listen (whilst also offering an inadvertent spectator the opportunity, to say loudly, 'what are you doing then?'). Having never recorded a dawn

chorus before, and never attempted to get up at 04.00hrs to hear and listen to the start (I thought I knew what it sounded like..., because I've heard countless recordings that other people have made...), I was stunned at my first attempts. I had never heard an immersive silence like this one, punctuated by occasional avian noises that built and built, to a deafening and inherently musical cacophony. What was remarkable, was the difference in man-made ambient sound. That..., I had never heard before, in the village where I live.

I was aware that this was 'my sound'. I was hearing it in the present, much like looking through an optical telescope at a planet and knowing the light waves are travelling directly from the object viewed to your retina, all in real time. I was aware of the unique nature of what I was listening to and capturing. But I wasn't aware of just how unique it was. It became transparent through further listening, particularly during additional lockdowns where public engagement wasn't as thorough.



Memory, agency and truth

Whilst the need to document the impact of Covid on the biosphere is a complex one, the 'uses' and purpose of these recordings is varied. A personal need to capture the moment, the audio-selfie, is common. 'I was there, at that moment, and here's the proof' is a human need.

Whilst I would like to deny the audio-selfie is one of my aims (but probably can't...), the human need to 'collect' and document has always been important, even if subconsciously, and to know that these sounds may be 'useful' in the future. The excuse to listen, perhaps taking into account any potential social embarrassment, is of paramount importance. Listening has the potential to solve most of the world's problems, hence the difficulty humanity appears to have with this skill.

As a composer, I have been reluctant to use my own field recordings (and particularly those of others) in music and sound design. Is this a fear of cultural/environmental appropriation? Who owns the sound of a dawn chorus? As a recordist, are these sounds mine and what does that mean? If agency of a recording relates to our ownership of sources (it is much, much more than this...), moral agency is our ability to make judgments relating to our personal moral code. Is authenticity important in composition or sound design? Do field recordists and sound designers record sound for different purposes? Might a sound designer require separated 'species' in the same way an ornithologist requires? Or, do we record ambience, evoking the reality of the place and time? Does it matter what happens to the recordings afterwards? Is the sound that you are experiencing – 'true'? How can truth be part of hyperreal sound design? What are the political and socio-cultural implications of making sound works with field recordings? Are there extended ethical considerations? Does it matter? Does any of this matter...? Yes it does...

Our quest for memory and agency may be based on subjective beauty. Is Covid-19 causing this beauty? David Rothenberg describes the sharawaji effect; where rigid lines, predictable pattern and symmetry are avoided to give the scene or soundscape the perception of a natural or organic feel, commonly found in ambient soundscapes, with the purpose of creating 'natural' impressions of the sonic landscape. In short, the most beautiful sound? [Rothenberg 2019]

Whilst beauty is often enhanced by our memory, and recordings (for better or for worse) capture a moment in time, it's worth asking the question 'have the birds noticed Covid?' Whilst we have anecdotal evidence that some wildlife behaviour has changed during this period, we need to see if habitat returns to pre-Covid times. We can test this through recordings.

Calls for Covid Recordings

Most of these sites and calls (for material) were created during the first period of lockdown (March 2020, depending on where you were in the world and depending on governments' view of the urgency of the situation..). Ironically, many were, and still are, seeking pre and post Covid sounds. Sadly (or...?), post-lockdown hasn't occurred...

Cities and Memories, the Pandemic Silence Project, the Covid-19 soundmap and Citizen Science and Arts, to name but a few, are providing a document of the environmental impact on our sound world. These are not 'field recording' websites per se; they are depositories for anyone to place audio recordings they consider impactful and personal, often using consumer equipment such as phones and home PC's for basic editing.

We now have worldwide documents, readily accessible by all, relating to environmental sound with particular emphasis on the impact of human endeavours on wildlife, the biosphere and climate.

Andreas von Bubnoff, Rhine-Waal University in Germany, and instigator of the Pandemic Silence Project states:

'We live in an unprecedented moment of human history: an almost complete global shutdown of public life and travel as a result of the response to the Covid-19 pandemic. You've likely seen the images of the resulting emptying of public spaces and cities. But there is much less attention to what these changes sound like. Why is this important? It's because we live in the so-called Anthropocene, the first geological epoch in the history of this planet that's dominated by the effects of the activity of just one species: Humans.'

<https://www.pandemicsilence.org/sounds>

Professor Pete Stollery, University of Aberdeen, has created a sound map on Google Earth which aims to capture sonic environments showing how they have changed over the past year.

Pete states:

'Three days after the first lockdown began in the UK, I put out a call via social media to ask for help capturing sounds which had changed as a result of governments' actions [...]. It struck me that the extraordinary times in which we found ourselves would be worth documenting as far as the changing soundscape was concerned. In recent years, I have become fascinated by how sound maps allow us to preserve non-permanent sounds, or ones that are about to disappear altogether'

<https://theconversation.com/this-is-what-lockdown-sounds-like-153590>

32-bit hearing equals 32-bit listening?

Well no, but for composers and sound designers, the importance of the source sound quality when manipulating audio is cumulative. The removal of man-made industrial noise has created isolation within sources. Anthropophony, another term coined by Bernie Krause, refers to all sound produced by humans, whether organised (as in language, music, theatre, film and radio), or random noise such as that formed by electromechanical or internal combustion means. [Krause 2001]

Are we exploiting the misery of others – let's bring on the extended lockdown, so the planes don't fly, the cars don't drive, let's maintain the silence – ignore the reasons why? Covid coincided with the mainstream release of portable 32-bit float recorders! Is Covid a genuine reason for 32-bit float?! With signal to noise ratios so important in wildlife recording, we now have equipment that can exploit the dynamic range of our locality. What has this really got to do with Covid-19? Nothing. However, there are profound implications for recording where a massive dynamic range may be present. And this includes the quiet end!

'The dynamic range that can be represented by a 32-bit (floating point) file is 1528 dB. Since the greatest difference in sound pressure on Earth can be about 210 dB, from anechoic chamber to massive shockwave, 1528 dB is far beyond what will ever be required to represent acoustical sound amplitude

in a computer file. So compared to a 24-bit WAV file, the 32-bit float WAV file has 770 dB more headroom.'

<https://www.sounddevices.com/32-bit-float-files-explained/>



Whatever the reasons for recording our biosphere – the global ecosystem, potential usefulness of recordings from an environmental perspective can have scientific purpose. By documenting environmental sound at this point of time allows us to create A/B comparisons between now and a potential future. For example, this might show the impact to all life of a new runway with increased flights at Luton/Stansted etc. Don't forget the metadata of your recordings. A WAV file contains more than audio data. Again, we can test this with analysis of recordings.

'Tiny Stories - Quiet (please)'

In the spring of 2020, I was commissioned to create seven 'Tiny Stories' in collaboration with Kate Romano by the Lichfield festival. Live performance across the performing arts has been decimated by Covid-19. But it has offered opportunities for those working in the digital domain; rightly or wrongly, with festivals resorting to online delivery. Kate is a writer and regular presenter on BBC Radio 3, a clarinettist, producer and the CEO of Stapleford Granary and Goldfield Productions. The seven *Tiny Stories* for Lichfield Festival build on the long-running Radio 3 series *Time Traveller* and *Our Classical Century* which Kate has been contributing to for 3 years, writing and narrating over 150 short stories.

These little collages of music-and-spoken-word are all less than 5 minutes long and form a wunderkammer of curiosities... ghost trains, snowglobes, clocks, electricity pylons, ships in bottles and an extraordinary Lichfield feminist icon. They conclude with a reflection on the strange and silent times in which we find ourselves. All the material was created and recorded in our separate homes and the

soundscapes are derived from the sound of Kate's voice, field recordings made during the lockdown and original composition. Many of the field recordings used in *'Tiny Stories'* only became possible because of the lockdown, making for an uneasy relationship between the destructive pandemic and the resulting quiet that allowed the previously inaudible, to become audible.

'Quiet (please)' ...from a lockdown dawn chorus in Guilden Morden, to the noisy quiet of Rome's Pantheon..., examines why quiet needs time... We want less time, relating to the Covid-19 lockdown period(s), but more of it for everything else.

Kate's story examines our relationship between sound and silence and our need to capture and control sound. She asks the pertinent question relating to music performance – 'Who is listening, how are they responding? We don't really know'.

<https://soundcloud.com/lichfieldfestival>

'Uchronia No.1'

A four-minute experimental film by Kamila Kuc.

Kamila is a multimedia artist and writer. Of particular interest to her practice are stories that subvert dominant narratives of history, especially those relating to post-Soviet identities. In recent projects, she has employed diverse archival sources in conjunction with AI tools to examine notions of agency, belonging and identity while attempting to trace complex lineages of meaning and representation. *'Uchronia No.1'* is the third film we have worked on together.

Kamila states:

'Past time, suspended time. Macro vision serves as a tool to experience what has long been known. Perceptual tension between the in and out of focus, between enquiry and observation, abstraction and representation persuade the body to look and experience more intently. At once disturbing and nostalgic, the soundtrack lures the viewer into a claustrophobic and apocalyptic space as we have to find new ways of being with the world. Filmed and recorded during the Covid-19 lockdown in Waterlow Park, London and Guilden Morden, Hertfordshire.'

The word uchronia means 'a genre of fiction in which the writer speculates how history might have been altered if one or more historical events had transpired differently', or, 'painting an idealised or semi-fictional view of the past', or more succinctly, 'a fictional period of time'.

The films sound is largely composed of relatively unremarkable (and 'normal') field recordings and sync-recordings from the camera made during the Covid-19 period. They have been spatialized in such a way to create a hyper-close intimate sound (like the audio microscope, previously mentioned...), where conventional foreground/background perspectives are avoided. Birdsong has been convolved with other avian noises, creating a hyperreal soundscape attempting to form a speculative, semi-fictional

sonic view of the world we currently live in. The films current screenings are all online - a uchronic performative method?

<https://www.kamilakuc.com/film-video>

<https://vimeo.com/user25033805>

What else? Where now?

The pandemic has brought me closer to an area of creative work I had previously been largely unaware. This is partly to do with my 'training' as a composer. It does demonstrate that we are all capable, and must continue..., to learn (no matter what stage of career, or age).

Regardless of their discipline, I will commonly say to students' at the University of Hertfordshire 'In your three years with us, I would like to teach you how to listen'. But even after we have got over the apparent simplicity in our understanding of differences between hearing and listening, and the technical skills and requirements that are necessary with the intervention of recording, we discover that listening is a life long developmental skill. As mentioned, we want less time (re Covid-19), but we need more time to listen. Sadly, post-lockdown hasn't occurred... So let's use it...



There are worst ways to spend a night than lying on Aldeburgh beach, watching three planets ascend over the horizon, listening and recording the seascape, waiting for avian life to signal the start of another day. For whatever reason you record our wildlife – carry on listening.

References

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- Rothenberg, D. (2019). *Nightingales in Berlin: Searching for the Perfect Sounds*. University of Chicago Press

Weblinks

Cities and Memories

<https://audioboom.com/posts/7554992-guilden-morden-dawn-chorus-during-the-covid-19-lockdown>

Citizen Science and Arts

https://dawn-chorus.org/sound/birdsong_1604_05-19-2020/?lang=en

Covid-19 soundmap – Prof Pete Stollery

www.tinyurl.com/covid19soundmap

Rob Godman Soundcloud

<https://soundcloud.com/godderly>

Rob Godman Personal Webpages

<https://www.robgodman.com>

Pandemic Silence Project

<https://www.pandemicsilence.org/sounds>

Quiet (please)

<https://soundcloud.com/lichfieldfestival>

Uchronia No. 1 (trailer)

<https://vimeo.com/user25033805>