# 13 Artists' Perspectives Experimental and Electronic Music in Australia

AARON WYATT AND CAT HOPE

## Introduction

This chapter is written from the perspective of two people currently involved in experimental and electronic music in Australia, composers Aaron Wyatt and Cat Hope, and provides an overview of some key movements and works from the twentieth century to the present day. Rather than offer a complete or comprehensive summary, we offer a selection of artists and projects that have been influential to our practice. In the world of electronic and experimental music, Australia is distinguished by its significant contributions to the development of music technologies including the first commercially available digital 'sampler' and computer workstation in the Fairlight synthesiser and the first computer to play music. Some of the first experiments with prototype sequencers took place in Australia, and Australian innovations had a key influence on the first portable electronic synthesiser.<sup>2</sup> Australia is home to some of the first digital graphic notation to surface in the twentieth century, and has maintained a reputation for presenting electronic and experimental music 'mavericks' to the music world.3

The definition of 'experimental music' continues to be problematic, and is often associated with the American avant-garde in the early twentieth century. For the purposes of this chapter, the term 'experimental' is used to designate music that pushes up against, and innovates away from, historical and established music practices. Many innovative and commercially successful electronic music artists have grown from experimental scenes, which in Australia are usually supported by grass roots organisations in major cities and regional centres. These organisations can be artist-run, such as the Clifton Hill Community Music Centre in Melbourne; funded, such as Tura New Music in Western Australia; or label based, such as Newcastle's Bloody Fist Records. Despite the potential for innovative and electronic music to be commercially successful (see McDermott, this volume), this chapter principally focuses on music that

exploits technology and experimental approaches to progress innovation in art music contexts.

## Australian Contributions to Electronic Music Technologies

As well as engaging with existing technology in exciting new ways, Australians have been responsible for a number of key developments when it comes to electronic music technology. While it only played an electronic rendition of the Colonel Bogey March, Australia's first digital computer, the CSIRAC (Commonwealth Scientific and Industrial Research Automatic Computer) gave the world its first computer music.<sup>6</sup> Another first came in the form of the Fairlight CMI, developed by Peter Vogel and Kim Ryrie, which was the first commercially available device that rolled a sampler and sequencer into the one package with its futuristic, light-pen interface. While some of its features, like the ability to draw a waveform on the screen, were seen by critics as little more than a gimmick,<sup>7</sup> the power and flexibility of the Fairlight quickly drew the attention of several popular artists of the time. Peter Gabriel was the first in the UK to have one, and he introduced Kate Bush to it.8 The device also stands as a testament to the power of default settings: a sample of the opening chord of the 'Infernal Dance of King Kastchei' from Stravinsky's Firebird, recorded from vinyl by Peter Vogel himself, was included as part of the sample library that came with it. The sound quickly found its way into the popular music of the 1980s, with the orchestra hit becoming an identifiable part of the 1980s sound.

A number of audio software applications have been developed here in Australia, and with the decentralised nature of many open-sourced projects, there may be many more contributions than can be catalogued in a brief survey such as this. Since the start of the COVID-19 pandemic, for instance, a surge in interest in telematic performance software saw several programmers from around the globe join the JackTrip development team. JackTrip is a software that supports bidirectional, high-quality, uncompressed audio streaming with any number of channels, which was established in the early 2000s by Chris Chafe, Juan Pablo Caceres and CCRMA at Stanford University. One of these programmers, an author of this paper, is Melbourne based programmer, musician and conductor Aaron Wyatt, and his work led to the creation of a graphical user interface that greatly simplified use of the software, among other improvements. 10

Looking at software developed entirely in Australia, one of the key applications to have emerged is AudioMulch, a program for sound synthesis and processing with a patcher-like interface; users connect signal processing modules known as 'contraptions' to build the sounds that they want. The program was developed by Ross Bencina and grew out of his own performance practice at a time when personal computers were finally starting to become powerful enough to process audio. While similar in some ways to Max/PD, especially in terms of its interface, AudioMulch instead places a greater focus on being a playable instrument rather than emphasising the programming side of things.

Like AudioMulch, the Decibel ScorePlayer developed as a response to the performance practice of its developers and creators in the Decibel New Music Ensemble.<sup>12</sup> Originally prototyped in Max by group members Lindsay Vickery and Stuart James, the tool was turned into an iPad app by one of the other ensemble members, Aaron Wyatt. It allows for the network synchronisation of animated graphic notation scores and is well suited to works that eschew a traditional sense of rhythm or pulse, like those of the ensemble's artistic director, Cat Hope. Her works, which have a particular focus on bass and low-frequency tones, often employ long drones and glissandi that would be hard to notate precisely using traditional notation. While it was originally developed with this sort of writing in mind, other composers have experimented with the software in completely different ways. A project by Decibel, 2 Minutes From Home, which saw the commissioning of twenty-one short compositions, stands as a solid example of the sorts of approaches that are possible. 13 Hope's 2019 noise opera, Speechless, written as a response to the Australian Human Rights Commission's Forgotten Children Report on Children in Immigration Detention also demonstrates the capacity of the software to facilitate a major, long-form work with orchestra, choir and soloists, including stage management, light and audio cues on the score. 14

# Writing about Australian Experimental Music

A range of publications on experimental and electronic music have emerged in recent years. Perhaps the key text is Gail Priest's edited collection *Experimental Music: Audio Explorations in Australia* (2009), which covers practices in almost every state of Australia. Linda Kouvaras' *Loading the Silence: Australian Sound Art in the Post-Digital Age* (2016) provides an important exploration of music beyond more traditional

frameworks, <sup>16</sup> as does Ros Bandt's *Sound Sculpture* (2001). <sup>17</sup> Key publications have emerged in conference proceedings and journals, with the Australasian Computer Music Conference making important contributions through its journal *Chroma*.

Melbourne composer and sound artist Rainer Linz maintained an important magazine series between 1982 and 1992, NMA Publications (New Music Articles). 18 Founded by Richard Vella, it aimed to encourage musicians, composers and sound artists to write about their work as a way of informing the general public and creating wider musical debate. CDs, cassettes and an important early book were also published during this time. 19 Linz currently maintains the archive of Australian experimental violinist and composer Johannes Rosenberg.<sup>20</sup> Another violinist and composer, Jon Rose, co-authored the influential Australia Ad Lib site that began as a radio programme on the national radio service, ABC.<sup>21</sup> The chronicles by composers and performers such as Paul Doornbusch, Warren Burt<sup>22</sup> and Robin Fox<sup>23</sup> have also made important historical contributions in publications beyond Australia; however, these publications have significant gaps in coverage, focusing largely on the work of white men in the academic realm in Sydney and Melbourne (with Fox and Kouvaras providing important exceptions). Clinton Green's music label Shame File Music released two volumes of Australian experimental music on CD titled Artefacts of Australian Experimental Music, covering 1930–73 (volume 1) and 1974–83 (volume 2), which remain key surveys of that period.<sup>24</sup> Other labels featuring new experimental music include Jim Denley's label dedicated to improvised music, SplitRec, and a very prolific Queensland based label, Room 40, which focuses broadly on electronic music and sound art.

Radio has played an important part in the archiving and promotion of experimental music in Australia. Up until recently, the Australian Broadcasting Corporation was an important part of this. ABC Radio National programmes such as *The Listening Room* and *Australia Ad Lib* promoted stories about exploratory music, whilst ABC Classic FM's *New Music Up Late*, which ended in 2014, provided an important platform for recording and broadcasting live music concerts throughout Australia. Now it is largely inner-city community radio that supports experimentation, with each state in Australia host to at least one programme where experimental music is supported and showcased. Two long-standing examples of this are RTR FM's *Difficult Listening* in Western Australia, founded by Bryce Moore, and PBSFM's *The Sound Barrier* in Melbourne, founded by Ian Parsons.

## **Electronic Music**

Since the 1980s, the introduction of microprocessors to computers has seen electronic music technology become increasingly affordable and portable. As a result, electronic music in Australia and across much of the world has shifted from the realm of academia into popular music and underground experimental scenes. However, electronic music has still developed over several trajectories, with academia having a strong hold over the development of acousmatic music – specifically composed for presentation using speakers, as opposed to a live performance – up until the mid 1990s. University music faculties were usually the only places that would house expensive spatial music speaker set-ups, fund software licences and provide equipment for complex acoustic–electronic music combinations.

There were several university departments across Australia that were exploring the development of electronic music. John Exton maintained the electronic music studio at the University of Western Australia in the early 1970s, joined by the British composer Roger Smalley, who was brought out to establish a composition department there and oversaw a range of visiting artists working in that studio.<sup>26</sup> This approach of bringing in experts from overseas epitomised early electronic music in Australian academia. Other examples include US composers Warren Burt and Keith Humble, brought out to teach at the music department at La Trobe University in Melbourne's western suburbs, as well as Tristram Cary, from the UK's Electronic Music Studio (EMS) at the Elder Conservatorium in Adelaide. The legacy of Percy Grainger was an important part of early electronic music and experimentalism in Australia, and his work with Bernard Cross and the University of Melbourne led to the purchase of a Synthi 100 synthesiser in 1972. Recently restored by Leslie Craythorn, it is now one of only three Synthi 100 synthesisers restored to original condition and operating in the world.<sup>27</sup>

Electronic music thrived in Australia during the second half of the twentieth century, with many composers exploring its potential. Don Banks travelled to the UK to find out more about synthesisers, resulting in the development of the Don Banks Music Box, later renamed the VCS1, a synthesiser that could fit into a suitcase and be brought back to Australia. It was a precursor to the first commercial synthesiser from EMS, the VCS3.<sup>28</sup>

The Melbourne Electronic Sound Studio (MESS) is a recent development, a membership-driven collection of historic and recent electronic music instruments founded in 2016 that can be booked for music creation.

Unique in the way the historic instruments can be accessed by members of the public, the studio is housed in the Meat Market in North Melbourne, and the centre is a hub for aspiring musicians to learn about electronic music and composition, via educational programmes and concert series. One of the directors of MESS, Robin Fox, a graduate from the foundational La Trobe music programme, is a key figure in Australian electronic music, more recently working with music and laser combinations internationally. MESS is a prime example of how electronic music and art music in Australia are increasingly crossing over, becoming more inclusive and reaching broader audiences and venues.

Today, artists fusing electronic and art music practices are not just white men at city universities. Wiradjuri artist Naretha Williams works with the software Ableton to create works that bring beats and gothic aesthetics, in works such as *Blak Mass* (2020), which uses Melbourne Town Hall's grand organ to pose questions about the colonialism that brought it to be.<sup>29</sup> Additionally, the electronic pop duo Electric Fields, whose members are both Indigenous and part of the LGBTQIA+ community, has recently risen to further prominence after their 2022 NAIDOC (National Aboriginal and Islander Day Observance Committee) week collaboration with the Melbourne Symphony Orchestra.<sup>30</sup> In a similar stylistic vein, Canberra-based electric guitarist, vocalist and electronics artist Shoeb Ahmad infuses songwriting with experimental electronic elements, sound art and scoring practices in combination with running a music label, hellosQuare.

# Improvisation and Adaptation

In addition to leaning into new or modified technologies, improvisation is central to the practice of much experimental music in Australia. Melbourne's Clifton Hill Community Music Centre, founded by Warren Burt and Tasmanian Ron Nagorcka, remained throughout the 1970s and 1980s a key centre for the formulation and support of new and experimental music outside of the institutions of academia and for artists including Tasmanian improvisatory guitarist Greg Kingston, who performs with various gadgets and home-made instruments, and 'sonic explorer' Ernie Althoff, whose early works were for low-budget found objects, cassette recorders and toys. Alice Springs-based artist Jon Rose built his work around a reimagining of the violin, exploring the sonic possibilities that it offers – in both its original form and through modification and augmentation of the instrument – and propelling forward the practice of free

improvisation for which he is known. His work in outback Australia culminated in his *Great Fences of Australia* project, where he and Hollis Taylor bowed amplified fences in some of the furthest reaches of the country.<sup>32</sup>

Similarly inspired by the outback, wind instrumentalist Jim Denley, an original member of the group Machine for Making Sense, frequently performs experimental music in natural environments and has long supported the Sydney improvisation scene.<sup>33</sup> Sarah Hopkins brought Australian experimental music to the mainstream by showcasing her 'harmonic whirlies', invented in 1981, on the television show *Australia's Got Talent* in 2012.<sup>34</sup> The instrument's flexible tubes spiral through the air at different speeds, playing around six tones from the harmonic overtone series; it featured on Icelandic musician Björk's 2017 album *Utopia*.

## Sound Art

Australian sound artists have a strong history of exploring the sounds of the natural world, of our urban environment and of the intersections where these meet. Sound art in Australia was largely pioneered by Ros Bandt, who since 1977 has created some forty sound installations worldwide and was the first woman to win the prestigious Don Banks Composers Award in 1990.35 She founded website and database the Australian Sound Design Project, currently archived in the Australian National Library's Trove collection. Ross Bolleter has explored the sound-worlds of ruined pianos as they progress through various states of decay and degredation. His work has seen him set up a ruined-piano sanctuary on an olive farm in Wambyn, near York, Western Australia, where he can explore the sounds that they offer as they slowly return to the land. 36 Much as Jon Rose extended the concept of bowed strings over long distances using fences, sound artist and instrument maker Alan Lamb extends the aeolian harp over kilometres using contact microphones on telegraph wires. <sup>37</sup> These are vibrated by the wind and other interactions from the natural world, such as contact with birds and insects.

Increasingly, Australian sound art is interdisciplinary and engages with social and environmental issues. Queensland-based artist Leah Barclay has built soundscapes on recordings of terrestrial and aquatic ecosystems. Her 2020 work *Listening in the Wild* in collaboration with Lyndon Davis and Tricia King intersperses ecological recordings with Kabi Kabi stories and accompanies these with photographs from the team's journey across the Sunshine Coast. Sonia Leber and David Chesworth similarly create

installation and film works that explore and respond to both natural and built environments, their recent work *Where Lakes Once Had Water* (2020) exploring the ancient dry lakes of the Northern Territory.<sup>38</sup> Soprano and sound artist Eve Klein's 2015 multimedia work *Counting* uses crowd-sourced video and collaboratively curated datasets to highlight the affective quality of numbers in online social justice campaigns.

## **Contemporary Composition**

Despite the prevalence of collaboration, chance and improvisation in experimental music, many Australian experimental artists have engaged heavily with notated composition, although often extending upon it to fulfil their musical aims and blurring the lines between performance, composition and improvisation. Composer David Ahern returned to Australia in 1970 after study overseas with Stockhausen and Cardew, forming the AZ Music ensemble at the Sydney Conservatorium. It aimed to provide a nonelitist and non-hierarchical approach to music-making, with the group often performing verbal or graphical scores, and improvising.<sup>39</sup> Martin Wesley-Smith had a broad range of compositional interests, from computer music and audio-visual works to music for children's performance. His works variously extended players' musical capabilities, introduced graphic notation to young performers and conveyed his activist concern over the 1977 Indonesian occupation of East Timor. 40 Elsie Hamilton was writing microtonal works in the early part of the nineteenth century, an era when this was uncommon in Australian music. 41 The work of composer and electronic musician Anthony Pateras often takes an experimental and innovative approach to texture, although he tends to work primarily with traditional Western notation, with the occasional use of graphic instructions for musical parameters such as timbre. 42

#### Ensembles

Many Australian experimental ensembles sustained activity for substantial periods of time and reached international recognition. Ensembles that featured electronic music thrived in the 1990s. New South Wales-based ensemble Machine for Making Sense performed in Austria in 1989 and toured Australia in 1991. Group members Rik Rue, Amanda Stewart, Jim Denley, Chris Mann and Stevie Wishart were key experimental-music

figures of the time. Percussionist Vanessa Tomlinson and prepared-piano performer and composer Erik Griswold comprise Queensland duo Clocked Out. Their recent focus on site-specific and environmental works has seen the development of the Piano Mill, an installation close to the Queensland/New South Wales border featuring sixteen pianos in a purpose-built building in the forest. 43

Melbourne chamber group ELISION ensemble, led by Daryl Buckley, commenced in 1986 and were key to putting new Australian composers' works on the world stage via their touring and overseas residential engagements. Speak Percussion, an ever-changing line-up of percussionists led by director and performer Eugene Ughetti, debuted in 2000 and continues today with concerts, commissions and tours that question the very notion of percussion and its potential through performance and cross-disciplinary collaborations. 44 Melbourne's Chamber Made Opera was formed in 1988 by theatre director and librettist Douglas Horton and continues as 'Chamber Made'; operating more as an organisation supporting the development of new work involving artistic director Tara Saulwick, it explores the intersection between music, theatre and technology. 45 The authors of this chapter are involved in Decibel New Music Ensemble, a six-member group founded in Western Australia in 2009 with a focus on combining electronic and acoustic instruments. This in turn led to a focus on alternate notations and the eventual development of the Decibel ScorePlayer in 2012.

# Scoring Electronic and Experimental Music

Australian artists have contributed to the evolution of music notation for experimental and electronic music. This began with Percy Grainger's work with theremins, where he scored *Free Music No. 1* (1935) for four theremins – originally performed by a string quartet – and *Free Music No. 2* (1937) for six theremins. <sup>46</sup> These scores consisted of continuous lines on graph paper, where pitch and dynamics were each drawn over time. Other artists exploring graphic notations tended to focus on guides for improvisations; these works include those by Robert Rooney and Ron Nagorcka, the sound poems of Chris Mann and Amanda Stewart, and Jeff Pressing's important edited collection of scores, *Compositions for Improvisors – An Australian Perspective* <sup>47</sup> providing other important examples. But more recently, Australian composers working with notations native to digital media, such as animated notations, have garnered attention with

international performances and publications.<sup>48</sup> These include works by composers such as Lindsay Vickery, David Kim Boyle, Amanda Cole, Kate Milligan, Cat Hope and others.

## Conclusion

While there is so much more that could be covered here, we hope that this representative sample provides an insight into the current and historical practice of experimental and electronic music in Australia. The country has a thriving and vibrant new-music scene where performers, composers, improvisers, sound artists and instrument makers push the boundaries of what is possible, blurring the distinctions that exist between these sonic endeavours. Far from being hampered by our distance from the 'old world', Australian artists and innovators have continued to find imaginative solutions to both creative and technical problems in the field. In an era when Australian music was perceived to be lagging behind that of Europe, composers such as Elsie Hamilton and Percy Grainger were experimenting with microtonal music and exploring ways in which this could be precisely notated. Australian inventiveness gave us the first music played on a computer and the first commercial sampler/sequencer, paving the way for the contributions to music software that followed. We have improvisers and instrument builders, pioneers in sound sculpture who have explored our natural and built environment. These diverse music practices are supported by a loose network of publishers and long-running ensembles who have championed new works and supported the discourse around them.

#### **Notes**

- P. Harkins, 'Following the Instruments, Designers, and Users: The Case of the Fairlight CMI', *Journal on the Art of Record Production*, 10(2) (2015), 150;
   P. Doornbusch, 'Computer Sound Synthesis in 1951: The Music of CSIRAC', Computer Music Journal, 28(1) (2004), 1.
- P. Doornbusch, 'Early Computer Music Experiments in Australia and England', Organised Sound, 22(2) (2017), 297–30; J. Gardner, 'The Don Banks Music Box to The Putney: The Genesis and Development of the VCS3 Synthesiser', Organised Sound, 22(2) (2017), 217–27.

- 3. N. L. Canham, 'Making Mavericks: Preparing Musicians for Independent Artistic Culture', *Arts and Humanities in Higher Education*, 15(3–4) (2016), 407–13; J. Whiteoak, 'Keith Humble, the Music-Maker with a Message', *Context*, 10 (Summer 1995), 5–9.
- 4. K. Coessens (ed.), *Experimental Encounters in Music and Beyond* (Leuven: Leuven University Press, 2017).
- 5. R. Fox, 'Experimental Music in Melbourne: A Definition and Historical Overview', Context: Journal of Music Research, 24 (2002), 15–32; D. Fabian and J. Napier (eds.), Diversity in Australia's Music: Themes Past, Present, and for the Future (Cambridge: Cambridge Scholars Publishing, 2018), p. 226; P. McIntyre and G. Sheather, 'The Newcastle Music Industry: An Ethnographic Study of a Regional Creative System in Action', International Journal of Music Business Research, 2(2) (2003), 36–60.
- 6. Doornbusch, 'Early Computer Music'.
- 7. Harkins, 'Following the Instruments'.
- 8. M. Blackburn and P. Harkins, 'Finding the Female Users: A Feminist Historiography of the Fairlight CMI' (paper presented at Rethinking the History of Technology-Based Music, University of Huddersfield, 9–11 June 2022), https://bit.ly/485RpSi, accessed 18 January 2023.
- 9. J-P. Cáceres and C. Chafe, 'JackTrip: Under the Hood of an Engine for Network Audio', *Journal of New Music Research*, 39(3) (2010), 183–7.
- 10. 'Contributors JackTrip', JackTrip Foundation, https://jacktrip.github.io/jacktrip/About/Contributors/, accessed 29 January 2023.
- 11. 'What is AudioMulch?', AudioMulch, www.audiomulch.com/info/what-is-audiomulch, accessed 23 January 2023.
- 12. A. Wyatt, C. Hope, L. Vickery and S. James, 'Animated Music Notation on the iPad' in *Proceedings of the International Computer Music Conference, Perth*, 2013, pp. 201–7.
- 13. '2 Minutes from Home', Decible New Music Ensemble, https://decibelnewmusic.com/2-minutes-from-home/, accessed 18 January 2023.
- 14. C. Hope, A. Wyatt, and D. Thorpe, 'Scoring an Animated Notation Opera: The Decibel Score Player and the Role of the Digital Copyist in "Speechless" in Proceedings of the International Conference on Technologies for Music Notation and Representation—TENOR, Concordia University/McGill University/UQAM, Montreal, Canada, 24–26 May 2018, pp. 193–200, www.tenor-conference.org/proceedings/2018/25\_Hope\_tenor18.pdf.
- 15. G. Priest (ed.), *Experimental Music: Audio Explorations in Australia* (Sydney: UNSW Press, 2009).
- 16. L. I. Kouvaras, *Loading the Silence: Australian Sound Art in the Post-Digital Age* (Abingdon and New York: Routledge, 2016).
- 17. R. Bandt, Sound Sculpture: Intersections in Sound and Sculpture in Australian Artworks (Sydney: Craftsman House, 2001).

- 18. R. Linz, 'NMA Publications', Rainer Linz, www.rainerlinz.net/NMA/index .html, accessed 18 January 2023.
- 19. J. Jenkins, 22 Contemporary Australian Composers (Melbourne: NMA Publications, 1988).
- 20. R. Linz, 'The Rosenberg Archive', Rainer Linz, www.rainerlinz.net/rosenberg-archive/index.html, accessed 18 January 2023.
- 21. J. Rose, 'Australian Ad Lib', jon rose web, www.jonroseweb.com/archive/f\_projects\_australia\_ad\_lib.html, accessed 18 January 2023.
- W. Burt, 'Some Musical and Sociological Aspects of Australian Experimental Music', Resonate Magazine (31 July 2007), https://bit.ly/42tzpA9, accessed 17 July 2023.
- 23. R. Fox. 'Experimental Music in Melbourne: A Definition and Historical Overview', *Context: Journal of Music Research*, 24 (2002), 15–32.
- 24. Various, *Artefacts of Australian Experimental Music* 1930–1973 (Shame File Music, 2007); Various, *Artefacts of Australian Experimental Music*, vol. 2: 1974–1983 (Shame File Music, 2010).
- 25. C. Hope, *Digital Arts: An Introduction to New Media* (New York: Bloomsbury, 2014).
- 26. S. Benfall, 'John Exton: His Compositional Legacy Revisited', *Sound Scripts*, 5(1) (2016), 8.
- L. Craythorn, Engineers Australia Engineering Heritage Victoria Nomination for the Synthi 100 to Be Listed on the Engineering Heritage Australia Heritage Recognition Program (Audio Engineers Society, 2016), https://bit.ly/42vYyuj, accessed 17 July 2023.
- 28. P. Harkins, 'Following the Instruments, Designers, and Users: The Case of the Fairlight CMI', *Journal on the Art of Record Production*, 10(2) (2015).
- 29. A. Bliszczyk, 'Blak Mass Reclaims an Organ of Colonial Domination', *The Age* (13 August 2020), https://bit.ly/3SMBfJ8.
- 30. R. Solarsh, 'Concert Review: Electric Fields + MSO', *ArtsHub* (12 July 2022), www.artshub.com.au/news/reviews/concert-review-electric-fields-mso-2563465/, accessed 23 January 2023.
- Fox, 'Experimental Music'; J. Denley, 'Networks, Playfulness and Collectivity: Improv in Australia, 1972–2007' in G. Priest (ed.), Experimental Music: Audio Explorations in Australia (Sydney: UNSW Press, 2009), pp. 145–7; Larry Wendt, 'Sentient Percussion: Ernie Althoff's Music Machines', Continuum, 8(1) (1994), pp. 444–55.
- 32. J. Rose, 'Inside the Musician. Jon Rose: A Life of Experimentation', *Loud Mouth, Music Trust E-Zine* (4 May 2020), https://bit.ly/3SOkhub, accessed 23 January 2023.
- 33. F. Dyson, 'Institutionalized Sound' in M. Cobussen, V. Meelberg and B. Truax (eds.), *The Routledge Companion to Sounding Art* (New York: Routledge, 2016), pp. 125–34.

- 34. S. Hopkins, 'Australia's Got Talent Audition', YouTube video, 30 April 2012, www.youtube.com/watch?v=pCLPG2aY\_po.
- 35. 'Biography', Ros Bandt, www.rosbandt.com/bio, accessed 18 January 2023.
- 36. C. Papas, 'Ebony and Ivory: A Field of Ruined Symphonies', ABC Local, 13 November 2013, www.abc.net.au/local/photos/2013/11/13/3890191.htm, accessed 19 January 2023.
- 37. Jenkins, 22 Contemporary Australian Composers.
- 38. S. Leber and D. Chesworth, *Where Lakes Once Had Water* (Leber and Chesworth, 2020), film, https://leberandchesworth.com/filmworks/where-lakes-once-had-water/.
- 39. G. Barnard, 'AZ It Was', NMA, 7 (1989), 17.
- 40. M. Wesley-Smith, 'Composing Music for Children's Performance' in Report of Proceedings of the Second National Conference: New Perspectives in Music Education, Nedlands WA, January 1971, pp. 22–8, https://search.informit.org/doi/10.3316/informit.612142725768675; R. Dunlop, 'Music as a Medium Advocating for Change: The Audio-Visual Pieces of Martin Wesley-Smith, a Musical Protagonist for the East Timorese' in S. Farram, D. M. da Silva, L. F. Soares, N. Canas Mendes, C. Fernandes, M. Barreto Soares, U. Pinto, H. Loney, R. L Williams, C. Ninas Nabais and M. Leach (eds.), Timor-Leste 1999: 20 Years On, vol. 2 (Timor-Leste Studies Association, 2020), p. 37.
- K. Bowan, 'Living between Worlds Ancient and Modern: The Musical Collaboration of Kathleen Schlesinger and Elsie Hamilton', *Journal of the Royal Musical Association*, 137(2) (2012), 197–242, https://doi.org/10.1080/02690403.2012.717467.
- 42. B. Eltham, 'A "Game of Nomenclature"?: Performance-Based Sonic Practice in Australia', *Art Monthly Australia*, 225 (2009), 44–6, https://search.informit.org/doi/10.3316/informit.118618476643722.
- 43. E. Griswold, 'The Piano Mill: Nostalgic Music and Architecture in the Australian Bush', *Leonardo Music Journal*, 27 (2017), 53–4.
- 44. L. Devenish, *Global Percussion Innovations: The Australian Perspective* (Abingdon and New York: Routledge, 2018).
- 45. J. Marshall, 'Operatic Tradition and Ambivalence in Chamber Made Opera's Recital', *Australasian Drama Studies*, 45 (2004), 72–96.
- 46. C. Hope, 'Reading "Free Music": Adapting Percy Grainger's "Free Music" Scores for Live Performance' in J. Paget, V. Rogers and N. Bannan (eds.), *Proceedings of the 2015 WA Chapter of MSA Symposium on Music Performance and Analysis. WAAPA and Edith Cowan University* (2017), pp. 140–52.
- 47. J. Pressing, *Compositions for Improvisors: An Australian Perspective* (Melbourne: LaTrobe University Press, 1995).
- 48. C. Hope, 'Electronic Scores for Music: The Possibilities of Animated Notation', *Computer Music Journal*, 41(3) (2017), 21–35.

# **Further Reading**

- Bandt, R., Sound Sculpture: Intersections in Sound and Sculpture in Australian Artworks (Sydney: Craftsman House, 2001).
- Fox, R., 'Experimental Music in Melbourne: A Definition and Historical Overview', *Context: Journal Music Research*, 24 (2002), 15–32.
- Hope, C., 'Electronic Scores for Music: The Possibilities of Animated Notation', *Computer Music Journal*, 41(3) (2017), 21–35.
- Kouvaras, L. I., Loading the Silence: Australian Sound Art in the Post-Digital Age (Abingdon and New York: Routledge, 2016).
- Linz, R., 'NMA Publications', Rainer Linz, www.rainerlinz.net/NMA/index.html, accessed 18 January 2023.
- Priest, G. (ed.), Experimental Music: Audio Explorations in Australia (Sydney: UNSW Press, 2009).