

Diverse Sound Practices: An exploration of experimental electronic music in regional Australia

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Examining the role of arts and culture in regional Australia often focuses on economic aspects within the creative industries. However, this perspective tends to disregard the value of unconventional practices and fails to recognise the influence of regional ecological settings and the well-being advantages experienced by amateur and hobbyist musicians who explore ubiquitous methods of music creation. This article presents the results of a survey conducted among practitioners in regional Australia, exploring their utilisation of creative technology ecosystems. This project marks the first independent, evidence-based study of experimental electronic music practices in regional Australia and how local and digital resource ecosystems support those activities. Spanning the years 2021 and 2022, the study involved interviewing 11 participants from many Australian states. In this article, we share the study's findings, outlining the diverse range of experimental electronic music practices taking place across regional Australia and how practitioners navigate the opportunities and challenges presented by their local context.

1. INTRODUCTION

The range of experiences of those doing experimental electronic music practices across regional Australia is quite diverse. Our description of these experiences is based on interviews conducted in 2021 and 2022 with 11 regionally based musicians. While this is a necessarily limited sample, participants ranged across the breadth of the country and included those in areas variously distant from larger urban centres.

Our research focuses on experimental electronic music practices in regional areas, examining the relationship between musical creativity and sonic technology. We explore environmentally situated sound-based practices, ranging from modular synthesiser performances to field recordings for soundscape compositions. By adopting the term *experimental music practices* we mean to place emphasis on non-mainstream, do-it-yourself (DIY) approaches rather than commercially oriented genres, following trends identified in related research (Timoney, Lazzarini and

Keller 2020). A similar focus on sonic ecologies has been adopted in many ubiquitous music studies. For example, Jøran Rudi writes, in his chapter in *Ubiquitous Music Ecologies*, that 'a frequent focus is how new technological situations spring from social circumstances, and in turn result in new social circumstances' (2020: 94). We investigate how artists in regional Australia connect with their communities to sustain their interests and find outlets for their creative work.

The effectiveness of the arts, including music, to enhance personal and communal well-being and productivity is well documented (Hallam 2015). However, existing research on this is focused on urban and peri-urban settings, with far less attention focused on regional locations. Peer support and access to knowledge and resources have been shown to be critical for creative workers (Florida 2014), especially in regional areas (Bartleet et al. 2019; Mackay, Klæbe, Hancox and Gattenhof 2021) and there has been significant investment in resources for regional development by state and federal governments in Australia, some of it directed towards the arts and technology (Bilandzic, Foth and Hearn 2020). Yet it is not clear how regional creative practitioners are connecting with these resources, their communities or each other. Therefore, the research upon which this article is based seeks to understand how regional creative practitioners can connect to and benefit from networks of arts and technology resources.

2. BACKGROUND

We take as our focus an under-researched subset of creative practitioners, namely those involved in making experimental electronic music and who are based in and working out of regional communities around Australia. Drawing on 'ecosystem' (Haines 2016) as a concept, we examine how, through their creative practice, those involved best utilise networks

of resources and contribute to community building and social inclusion.

Regional communities in Australia, and particularly those which are geographically distant from larger urban centres, or indeed from each other, face challenges in developing and highlighting their creative talents and in maximising the social and economic benefits therein (AusCo 2017). At the same time, regional communities are changing, most recently during the COVID-19 pandemic which resulted in increased out-migration from cities (Nygaard and Parkinson 2021). Even before this, however, evidence suggested that creative practitioners were drawn to relocate from urban to regional spaces in search of a better and more economically sustainable quality of life (Stolarick, Denstedt, Donald and Spencer 2011). It is also unclear how material and aesthetic benefits might flow to regional communities from the activities of creative practitioners who have taken up residence in these locations.

2.1. From creative cities to creative regions

Research on the 'creative city' concept (Florida 2002, 2014) has focused on urban areas, but recently, the contributions of creative economies to regional locations have gained attention (Cunningham, McCutcheon, Hearn and Ryan 2020). However, the cultural impacts and potential of regional centres for dispersed creative communities remain underexplored. Our investigations reveal that local council initiatives in regional areas mainly support traditional arts, neglecting opportunities for innovation. Being concerned with the opportunities presented by regional ecosystems, this research explores regional ecosystems and the role of technology infrastructure, such as hacker spaces, in fostering experimental electronic music communities.

Experimental electronic music artists in regional areas operate on a largely self-organising basis, running events and creating opportunities for themselves and their peers often without benefiting from local arts and culture funding. Indeed, the lack of support in the regions for forward-looking and experimental creative endeavours serves as a pertinent example of how, despite the diversifying nature of regional Australia in terms of arts and culture, funding bodies continue to favour more traditionally acknowledged arts and culture activities. This is not to overlook some of the excellent work from state and federal funding bodies for regional experimental arts.¹

¹Sources of funding for regional experimental electronic music that arose in this research include state-based funds (www.arts.gov.au/funding-and-support/regional-arts-fund) and Regional Arts Australia (<https://regionalarts.com.au/>). The Australia Council for the Arts provides regional touring support, but this is not specifically targeted at regionally based artists.

2.2. From music scenes to music ecosystems

The findings of our previous research suggest that, increasingly, what have been regarded as music scenes can be recast as music ecosystems, particularly in regional areas where the hard and soft infrastructures that underpin scenes (Stahl 2004) are less developed than in urban settings (see Bennett, Green, Cashman and Lewandowski 2020). A key factor in determining such an urban/rural distinction is that regional areas, particularly in a country such as Australia, are characterised by a far lower population density dispersed across a much greater geographical area. The 'scenes' literature provides useful conceptual scaffolding for our understanding of ecosystems.² Beginning with Straw (1991), it has been acknowledged that scenes encompass creative communities. While typically located in physical spaces and amidst local communities, scenes transcend these by facilitating translocal networks of production, performance and consumption. With the increasing availability of the internet and associated digital technologies from the mid-1990s onwards, creative communities can also embody virtual (online) qualities (Peterson and Bennett 2004) by allowing creative practitioners who are geographically dispersed to work together using digital technology. However, despite these increased opportunities, diversity of participation remains a challenge for the regional areas we explored, reinforcing findings from studies in the UK that 'online access seems to reproduce, if not enlarge, existing inequalities' (Mihelj, Leguina and Downey 2019: 1481).

The concept of ecosystem includes many overlapping elements including: a culture of exploration, champions to provide a driving force, a diverse network of participants, stakeholder engagement, a deliberate process for development, and physical spaces and events that enable and help share the work (Haines 2016). Both scenes and ecosystems research advance the understanding and application of collective creativity by broadening its scope to encompass nuanced forms of connection and interaction and their capacity to connect and integrate a wide range of individuals and resources in the creation, teaching, performance and consumption of creative practices.

2.3. Sociotechnical aspects of experimental electronic music practice

This research focuses on a community of musicians who utilise ubiquitous electronic and digital tools to create their own instruments, compositions, and installations. They can be seen as part of the

²Music scenes can be defined as 'the contexts in which clusters of producers, musicians, and fans collectively share their common musical tastes and collectively distinguish themselves from others' (Peterson and Bennett 2004: 1)

emergence of the Maker Movement, which uses online technologies and digital manufacturing to promote a DIY culture where individuals take charge of inventing the future on their own terms. This movement has been likened to a ‘new industrial revolution’ (Anderson 2012). Experimental electronic musicians form a community that bridges the realms of culture and technology, both of which play significant roles in regional development. For those from this community based in regional areas, the interplay between place and practice is deeply intertwined with the sociocultural systems they are part of (Mackay et al. 2021). This research aims to expand our understanding of these connections in regional contexts by exploring instrument-making, field recording, and new composition and performance techniques.

2.4. Regional creative and cultural industry development

In the context of regional settings, creative ecosystems may not coalesce around bricks and mortar hubs but have more diffuse and complex configurations. It is also the case that many of those involved in regional sonic arts have pursued portfolio careers that include both musical activities and other creative (and perhaps non-creative) means of securing a livelihood, and this is reflected in the participants reported on here (Bartleet et al. 2020). As such, an expansive understanding of how creative practitioners connect via an array of activities, spaces and places is required.

Regional Australia has long been understood as a place that embraces rich opportunities for creative and cultural industry development. Gibson and Robinson (2004) have made important contributions in this respect through sustained work on regional festivals. They have also warned of the dangers of out-migration from regional areas as those with aspirations towards creative practice and careers in the creative industries relocating to urban areas in pursuit of better opportunities. While this early work served to highlight the importance of regional cultural economies, it is also fair to say that such work has also tended to treat regions as socioeconomically and culturally distinct spaces. In the 20 years since Gibson’s early work was published, regional creative industries have continued to become more prominent and the regions themselves, rather than repelling creative workers, are arguably becoming a source of attraction to many.

2.5. Sociotechnical collaborations

The practitioners we interviewed for this research are makers and musicians. Their interactions with technologies are rich with meaning and significance. In the

words of musicologist Jonathan De Souza, musical instrument technology ‘is not immutable. Its stabilization requires active maintenance’ and ‘instrument and idiom may be transformed as well as preserved’ (Jonathan De Souza, 2017: 81). The appropriateness of studying resource ecosystems through electronic musicians is underscored by Magnusson’s (2009) theory of digital instruments as epistemic tools. This explores a phenomenology of musical instruments, suggesting that in musical contexts, designed artefacts (tools/instruments) are extensions of human cognition and expression. In digital instruments, he argues, ‘the distinction often blurs between instrument and composition on the one hand, and performance and composition on the other’ (2009: 168). We see such a blurring of these distinctions in the interdisciplinary character of the sonic arts practices represented in our participant studies.

3. METHODOLOGY

The research design informing this article is centred on a series of 11 interviews with regionally based artists situated across five of Australia’s seven states. Interviews are an important tool for qualitative sociological enquiry, especially for a project of this nature that is exploring the lay of the land of an emerging area of research. Interviews allow for in-depth exploration of the lived experiences of research subjects in a relatively efficient manner compared to longer-scale ethnographic studies that require more immersion in the day-to-day activities of participants (Tracy 2020). In an exploratory study of this nature, where gathering data from people in several geographically diverse locations was a key component, online interviews allowed for the best combination of diverse participants and detailed data collection. Interviews of this nature allow for the development of an understanding of where further research is required and the best approaches to take to do this. The degree of regionality of participants ranged from being between 1 and 6 hours drive from the nearest capital city. The interviewees were predominantly male (9 of 11) and ages varied from approximately 30 to 65. This gender bias seems to reflect trends in electronic arts reported elsewhere (see, e.g., Weber-Lucks 2003; Rodgers 2010). Analysis of the rich data generated by these interviews was contextualised and informed by an extensive literature review of research from Australia and overseas relating to regional and experimental electronic music practices.

The critical goals of the interviews were to:

- understand the range of electronic music practices across regional Australia;
- investigate how resource ecosystems are configured to support regional creative practices.

Our research participants were located in the towns of Nambour (QLD), Denmark and Falcon Bay (WA), Bega and Newcastle (NSW), Bendigo (VIC) and Mount Barker (SA). These locations were chosen as case studies for the research as we had previously identified them as significant hubs for experimental electronic music in regional Australia. Associated reasons for choosing these sites were that they: 1) are regional locations at different distances outside capital cities in different Australian states; 2) include active electronic musicians with whom the team have already established contact; and 3) have public infrastructure for local arts and/or makers targeted at supporting regional development. There are a few centres that support experimental music-making in regional Australia and these typically support short-term residencies and concerts in those locations for all artists regional or otherwise. Activities in these situations were considered but not included in preference for a focus on musicians who lived in regional locations.³

Interviews were conducted online and on average lasted an hour. Before commencing the interview, participants were asked to read a project information sheet that provided details of the research project and to provide signed consent to participate in the research. A semi-structured approach was adopted for the interviews. Although a series of key points, including nomenclature, motivation and choice of instrumentation and recording equipment, and use of local facilities and infrastructure, were covered in all interviews, scope for asking additional and probing questions was built into all interviews.

3.1 Participant profiles

Although each of our research participants was involved in the practice of making experimental electronic music, each had different characteristics. A summary of each participant is provided here.

Participant A (male, Bendigo, VIC) described himself as an electroacoustic composer engaged in live electronic music performance. He has also been a radio presenter and runs a record label. He facilitates a local experimental music series and is active in the local film society. His primary instrumentation includes a digital audio workstation (DAW) with various plug-ins and modular synthesisers.

Participant B (male, Bega, NSW) identified as a self-taught synthesiser programmer, composer, producer and music video creator. His activities also include building modular synthesisers from kits and running the Bega synth club and festival.

Participant C (male, Bega, NSW) described himself as a visual artist who augments this practice by doing audio installations. His main creative tools are keyboard or modular synthesisers and computers.

Participant D (male, Denmark, WA) composes music and soundscapes and performs his compositions live when the opportunity arises. He builds modular synthesisers based on workshops at the Atrifactory in Perth (the nearest major city). For composition, he uses a mixture of analogue and digital equipment. He is active in the South Coast Regional Electronic Music Artists group.

Participant E (male, Denmark, WA) described himself as a creative technologist who transitioned from guitar playing (and folk music) to composing electronic music on iPads and then moving on to Arduino and synthesisers. He has been a long-time member of the board of his local Community Arts Centre.

Participant F (male, Sunshine Coast, QLD) described himself as a classically trained percussionist, drummer, composer and music technician. His main creative tool is the drum kit, whose sound he manipulates using loops and MIDI via Ableton Live (DAW). His main source of interaction with other creatives is online.

Participant G (female, Newcastle, NSW) identifies as an instrument designer-builder, improvising performer and sound designer. Although a trained musician, she now practices in a more DIY fashion. At the time of the interview, she had just relocated to NSW from New York and observed that her community networking had been limited due to COVID.

Participant H (male, Mount Barker, SA) described himself as a sound artist, composer and acoustic ecologist. Most of his work has been field recording and acoustic ecology in a self-directed and self-governed fashion. His main creative resources are sounds of nature collected during field recordings which he treats using Max software. He often connects with other creatives via online platforms.

Participant I (male, Denmark, WA) described himself as a composer and performing artist. His main instrumentation is a collection of vintage analogue synthesisers. He engages with the local synthesiser community with other participants from Denmark, WA.

Participant J (female, Falcon Bay, WA) described herself as an experimental noise artist and a STEAM educator. She performs live regularly and assembles her own hardware instrument systems. Her main creative tools are her laptop, microphones, contact microphones, loopers and other pedals, and a USB mixer. She has a large international network, including Facebook friends and groups.

³Regional centres that support visiting sound artists include the Bogong Centre for Sound Culture and Ukaria.

Participant K (male, Belair, SA) is a trained musician, specialising in composition and holds a PhD that examined the intersection of electroacoustic music and field recording. His main interest now is in acoustic ecology. His creative tools include portable recorders, microphones, surround-sound systems, Max and Ableton Live. He is a member of various online communities and has served in executive roles for the World Forum for Acoustic Ecology.

4. THE DIVERSE SOUND PRACTICES OF REGIONAL AUSTRALIA

Our interviews focused on people interested in experimental music-making with technology, and the range of sound-related creative practices was quite diverse. Practices included noise performance, electroacoustic composition, live improvisation with DIY instruments, ambient field recordings, sequencing modular synthesisers, theatre sound design, sound installations, and audio production with DAWs. There seemed not to be anything particularly unifying about these practices apart from their non-commercial focus but, rather, it showed that the range of regional musical practices is as diverse as found in urban settings.

Like many involved in sonic arts, the participants often straddled traditional categories of performer, composer and instrument-maker. For example, Participant G when asked to describe their practice stated:

I'm primarily an instrument designer-builder, and improvising performer. I'm also a sound designer and I still work in theatre and do a little bit of audiovisual work. I am a programmer, I mostly write my own software. I do a little bit of work in acoustic ecology recording, mostly of aquatic ecosystems and creating installations, fixed media pieces, and integrate those recordings into my live improvised performances.

The majority of participants embraced interdisciplinary activities extending their practices into the visual arts, theatre, science, or information technology. At times, this interdisciplinarity draws on their background prior to or adjacent with their musical interests; for others, it was a way of connecting with opportunities beyond the purely sonic, which were often quite limited.

The participants' practices often included a robust DIY character. This included the creation of bespoke tools which involved the usage of microelectronics for sound-making and an absence of commercial electronic instruments (Timoney et al. 2020). A DIY character was at times expressed in the technological sense of making and building instruments, and at other times in social processes. The response of Participant I, for example, when asked if the phrase

DIY resonated with them, was; 'Yeah on pretty much every level, from basic soldering my equipment that's broken back together to attempting to self-release material.' The DIY construction of sonic tools varied from connecting synthesisers and guitar effects pedals, to assembling a field recording equipment kit, to building Eurorack modules from kits, and designing bespoke hardware and software sound and MIDI devices from microcontrollers. Many participants had a broad toolkit rather than a clear focus on a single device. As articulated by Participant G who described their setup this way:

So, it's Arduino inside the physical instrument talking to Max on the computer, so really there's no 'instrument' without one or the other; it's a system.

The DIY spirit was also evident through being involved in the organisation of face-to-face and online interest groups, skills workshops, local concerts and festivals, community radio, and other social entrepreneurial activities. The level of commitment to local arts activities by many participants was quite extensive and long running. Several participants mentioned that people in regional areas seemed to have a stronger tendency to be involved in community activities, and that they also contributed more than they had done when living in urban centres.

Music had been a lifelong passion for most of the participants, but others only came to music later in life; either in retirement or, interestingly for one participant, when they moved to a regional area. Despite most having a long interest in music, the range of formal musical training was very diverse. In this group, sonic educational experiences ranged from no formal training at all to a PhD in composition. Despite this diversity in music training the participants were well educated overall, most having a university degree and having worked in various professional fields. This educational profile is not so different from the broader Australian population. However, the diversity in backgrounds does indicate that experimental electronic music practices can be approached from a range of perspectives and at various stages in a person's life. In this regard, experimental electronic music practices can be considered different from most instrumental performance practices which tend towards requiring a background earlier in life – although this has not stopped the proliferation of weekend warrior rock bands as a vibrant community activity (O'Shea 2012). Overall, this study might be seen to suggest that people with a wide range of backgrounds can successfully embrace activities such as field recording and generative electronic music, and that skills in these areas can be developed with little prior musical experience or pursued by advanced practitioners alike.

4.1. Being creative in a regional context

Whilst there has been a lot of research attention on regional youth ‘out-migration’ where younger people leave regional areas for career and life opportunities in urban centres (Boyd 2023), most participants in this study moved to regional areas later in life as a deliberate change from urban lifestyles.

For several participants, the motivation to live in a regional area was the experiences it would provide their children as they grew up. For Participant E, this meant that after living in the city they ‘moved to the country to let the kids grow up like I did’. Another example of this is Participant B who explained that:

I moved to Australia in 2003 from Berlin so I’ve always lived in big cities and we lived in Sydney ... we liked it there, but you know as soon as our eldest son was going to school we couldn’t quite afford the school that we wanted him to go to ... and Bega came up and it was a bit daunting to be in a small place ... [but we] just moved there for the lifestyle.

Another common motivator was a desire to be closer to nature and to have a quieter or slower pace of life after having established a career, sometimes but often not in the arts, and having developed some transferable skills. This seemed to be the case for Participant J, who had lived and worked in various capital cities internationally and developed substantial networks over the years by touring extensively as an artist; this touring activity appears to have facilitated notability. Overall, they were very well connected and able to get radio play all over the world. They also have ‘thousands’ of Facebook friends and frequent a ‘huge’ number of Facebook groups, claiming that this provides opportunities to develop and present work online. Participant J’s mix of face-to-face and online engagements appears to have facilitated an ability to move to a regional location while remaining very active and servicing remote collaborations with international individuals. When asked about the benefits of this approach they responded:

where I was living before was very noisy in terms of noise pollution, so even if I went to the local lake or something there’s always traffic sound ... [whereas] here, I mean it’s such a quiet little spot, I ... just drive 10 minutes down the road and there’ll be no traffic at all ... I’ve been doing a lot of field recording of birds and ... waves, which has really affected my work, and also: I’m a lot calmer.

The participants had been based in regional areas for between one and 40 years, with the median duration being about a decade. All seemed quite content with that decision and showed little desire to leave. The advantages that they hoped to find often influenced their creative directions, and not always in ways they anticipated or intended. Regional contexts also

provided their challenges, not only for obvious reasons such as the more limited population and infrastructure, but also because in the recent Australian context the impacts from natural disasters of fire and flood have affected several participants, their communities and local environments.

4.2. Local resources for experimental music practices

Previous research into arts and culture in regional Australia (Bartleet, Sunderland, O’Sullivan and Woodland 2019) found that regional artists relied heavily on support from arts organisations in the form of space and resources. This was only partially true for those in our study. They did receive support for festivals or concerts, but usually used personal facilities for making their work, and in some cases reported a disconnect with local arts and innovation centres.

Participants reported that local councils appreciated the value of arts and culture to their communities, but that often the conceptualisation of arts activities was quite traditional and rarely extended to experimental electronic music or other electronic arts practices. Larger councils often publish art and culture strategies or development plans. The beneficial objectives stated in these documents usually include increased resilience, well-being, economic and cultural vitality, and social cohesion (e.g., City of Launceston 2020). As well as including creative arts, these cultural policies often cover gastronomic, sporting, gardening, architectural and other activities. Perhaps, then, it is unsurprising that musical, let alone experimental/electronic practices, get limited attention.

In our interviews, we asked the participants about how they leverage collaborative and infrastructure opportunities in their localities. The strongest common theme was a desire for interest group meet-ups. Participant B mentioned that ‘it must be a regional thing I think because we are much more engaged. Everyone here is basically in some kind of club.’ Almost all participants were involved in an interest group connected to their practice in the local area, and many also travelled to participate in workshops and festivals in nearby urban centres. Some of these groups were thriving and putting on events, such as the Bega Synth Surfers Festival in 2019. However, many groups only had small attendances and at times struggled to achieve wider engagement with the community. Participant B commented that ‘we’ve tried to engender more interest [in experimental electronic music] but it’s been difficult down here with Denmark’s tiny population, there’s been very little take-up, so it is a bit isolated’.

Participants reported that community halls and local arts facilities could be rented for events such as synth meet-ups and concerts. Some organisations also

provide access to loudspeaker systems for events. Arts venues and TAFE or university spaces were also used for workshops or exhibitions. Some communities had technology Maker Spaces that had recently opened, but they seemed to not be as connected to the arts as other community venues were. Participant A suggested that local councils have also started to place more value on the arts as a way to raise revenue; however, they noted with some scepticism, ‘they’re really not that interested in the arts, they just want tourism’. On a more positive note, Participant B observed that conditions in the regions can make informal performance opportunities more likely:

If I was in a city where everything is just overwhelmingly filled with choices, I feel like I don’t have to do much, I just participate if I feel like it. But here, if I want something I have to do it because no one else is doing it for me, and it’s much easier because, you know, things are cheaper and people don’t expect the same type of quality of a venue; for instance, I can do it in an old shed, you know, and no one really cares.

Much of the arts funding for regional Australia is provided by state governments. To their credit, over recent years the recognition of regional development and the needs of the arts as part of this has been rising within Australian state and territory governments. Our participant sample is limited, yet even then some of them commented on how various regional arts funding had been beneficial. For example, the Western Australian regional touring performance programme, Outcome Unknown, was well regarded by Participant I and the positive role of regional libraries in New South Wales to act as community hubs were highlighted by Participant C. Australian federal government funding is also available via the Regional Arts Fund (2022). However, this federal funding is modest; for example, in 2022 there was AUD \$3.6m available Australia-wide, which is less than the Arts budget of the Brisbane City Council that same year.

4.3. Supporting decentralised experimental music practices

In recent decades, the internet has become a dominant source of information and communication. In the past few years owing to the COVID-19 pandemic, reliance on online resources has been amplified, notwithstanding ongoing issues with inequitable internet coverage across Australia (Randell-Moon and Hynes 2022). Participants were asked what online communities they regularly engage with and what use they make of internet resources. It seems that releasing audio materials on platforms such as Bandcamp, SoundCloud and DistroKid is very common. Also, common is the use of internet resources for accessing

information to advance technical and musical knowledge, typically through YouTube videos and electronics tutorial sites such as Instructables. Informational sites, such as Create Digital Music, Matrixsynth and Synthopia, and Facebook groups, such as Aussie Wigglers, were popular for keeping up with equipment trends.

A few participants were also uploading content, usually by releasing video materials on YouTube. While most video materials were artistic outputs in the form of edited music videos or live-streamed performances, Participant F was one of a few making instructional-style content. As a stimulus for learning specific technologies and developing creative workflows, they choose to ‘publish this [process] stuff alongside more artistic/compositional works’. In discussing their reasons for this, they commented that:

in terms of the online things, it’s faceless, in the sense that you are interacting with people, but you don’t get the same sort of feeling [that you would get in person] and that’s ... pushed me more into ... making the videos and making music and releasing it and not being too worried about the reception of it.

Being at the beginning of their music career, Participant F viewed the publishing of process-based work to digital social networks as a motivating tool to help increase output and enrich creative practice. This use of online media sharing as part of the creative process is reinforced by their response to the influence of being in a regional area:

It’s really changed my practice in ways that I didn’t really imagine; one being just thinking about the idea of a scene or the idea of a musical ecosystem and what drives people to create and what motivates people to put on shows and to share music ... I always thought about regional areas in terms of visiting and maybe doing a residency ... and then coming back to the big smoke and writing a piece about it ... whereas now that’s completely flipped.

Participant F also alludes to engagement with online communities as replicating the feeling of involvement and belonging that they had previously experienced when closely connected with an urban ecosystem that revolved around experimental and electronic music. For them, it was also an opportunity to draw attention to sonic activities in their region, with an overarching goal appearing to be the opening of a local performance venue that would also offer regional residencies ‘similar to the UKARIA Cultural Centre in South Australia’.⁴

⁴Ukaria is a beautiful performance space and tourist destination which hosts classical music concerts and events. It has a programme for visiting artists and typically features artists from across the country and the world rather than specifically supporting local artists (see www.ukaria.com/).

However, it seems that for most participants, online activity is aimed at increasing face-to-face opportunities for collaboration and community building. Online engagement can open up new opportunities for meet-ups, performances and workshops. Several of the participants were active in starting or maintaining local Facebook groups, including Electronic Music Producers Denmark, and South Coast Region Electronic Music Artists.

A handful of participants were making more interactive use of online communities: Participant A manages an online record label; participants B and D manage online forums for local communities that revolve around experimental and electronic music; Participant H has developed an online sound map of the Fleurieu Peninsula, and they also highlighted regular participation in the 'lines' forum:

From a forum point of view in terms of online communities ... the Lines forum [<https://llllllll.co/>] ... is a flagship ... and one of its longest-running projects that's hosted on the platform [and also on [Sundcloud.com](https://www.sundcloud.com/)] is the disquiet junto [<https://llllllll.co/c/disquiet-junto/11>] run by the artisan writer ... Marc Weidenbaum.

Disquiet Junto is a group that has been running since 2012; its creator, Marc Weidenbaum, writes:

The purpose of the group is to use constraints to stoke creativity. Each Thursday evening, I post a clearly defined compositional assignment, and members of the Junto are to complete the assignment by 11:59pm the following Monday. (Weidenbaum, 2012)

The repository of music associated with the aforementioned is massive, and there is a huge amount of interactive commentary and discussion. Although all the participants are actively discovering and listening to a range of music online, it seems that engaging with or publishing materials to a public forum is quite rare. Within our sample, only Participant H is actively contributing musical materials with any regularity.

To further investigate what online communities participants regularly engage with, a follow-up question regarding their sharing of technical content, tools or resources was posed. This was based on an initial hypothesis by the authors that participants in regional areas might be making use of online platforms to share resources. However, it seems that in the main, online use is restricted to information gathering and occasional appropriation and reuse of code. For example, Participant K has made some use of GitHub and other web-based repositories 'for sub patches for Max when people have built other objects ... or JavaScript code'. They also detailed a recent project that 'involved a lot of API Calls' and suggested that scanning through other people's code is helpful to learn, solve various problems and avoid

creating code from scratch. Participant K is not a contributor to these platforms as they do not believe they have 'the programming skill sets to make any worthwhile contributions'. A similar pattern of usage appears to have been followed by Participant G: 'I'm quite a big user of sites to find out stuff about how to do such and such, you know what's the best code for this algorithm, etc'. However, they also highlighted that one of the pitfalls with online resources is that the functionality of examples may be compromised overall or be simply too specific to be transferable, and they mentioned that 'there's one site that I don't use and that's Instructables, because their quality control is abysmal'. It appears that none of our participants are actively contributing code, patch notes or similar materials, the only exception to this is Participant F, who is making instructional videos.

Overall, while there was significant use of online materials and social media groups amongst the participants, there was little consistency in the degree of participation or the modes of engagement. However, online resources were valuable to most participants as a way of gaining information and increasing technical competency. Most valued interest groups and forums as a way of connecting with other sonic arts practitioners locally, nationally or internationally. While to varying degrees the participants posted creative outputs online, only a small number of participants were active contributors of online resources.

5. FUTURE WORK

Building upon this small study the authors hope to undertake a larger project that will involve practical fieldwork to stimulate further insights into how community facilities and online communications can be coordinated to benefit regionally based experimental electronic music practices.

Although it seems clear that knowledge-sharing via a combination of face-to-face activities and online digital resources should have major benefits for those based in dispersed regional settings, to date there has been little empirical investigation of such benefits for cultural practitioners. A future objective is to provide a clearer picture of how to best establish an ecosystem of activities and resources to support creative practices in regional or remote settings.

One of the areas that we have not had the capacity to consider in this research is equality of access to the types of music-making being considered. While ubiquitous technologies may provide an opportunity for broader music-making, there are a variety of ways in which access to experimental electronic music is restricted; for example, in relation to gender, race, class, age and disability. The reality of such biases is

reflected in the demographics of those available for inclusion in this study. Such structural inequities cannot be comprehensively examined in a project of this size, so access equity would be a key lens through which future work is examined.

The role of experimental electronic music in youth engagement in regional areas also seems appropriate for further study. The practice of electronic music-making is particularly motivating for youth who are often identified as lacking support or opportunity in regional areas (Bennett and Guerra 2018). However, our survey of regionally based practitioners indicates an older demographic and perhaps this reflects a long-established flight of youth away from regional areas (Argent and Walmsley 2008). More regional experimental electronic music activity could provide productive and constructive activities for people of all ages and lead to the development of transferable technical skills and aesthetic sensibilities. Future work could help identify strategies to maximise the impact of sonic arts in regional centres to unlock these benefits.

6. CONCLUSION

This article has explored the range of experimental electronic music practitioners across regional locations in Australia and explored how these artists utilise available resources – including human, material and digital – to support their creative practices in ways that serve not only themselves but also the wider communities in which they are located. Such knowledge is of critical significance given the way that the regions are undergoing a demographic change in the wake of the COVID-19 pandemic and its unprecedented and adverse effects on urban communities (McManus 2022). Our interviews have revealed that experimental electronic music practitioners are often overlooked in formalised arts and technology regional development activities, such as the establishment of arts centres or maker spaces. This is unfortunate as these practices provide a useful bridge between arts and technology and are often well networked digitally to the global community. Our interviewees have these interdisciplinary skills that could be better shared with others in their community.

We found a diverse range of experimental electronic music practices across regional Australia. It was also clear, but perhaps unsurprising, that these activities are widely dispersed and that their growth suffers somewhat from the isolation of practitioners, notwithstanding the rapid development of online resources and communications. Our investigations revealed pockets of activity in some surprising places around Australia; for example, in the Bega Valley in the east and in Denmark in the southwest. Whilst these concentrations might begin as accidental co-location

of residents with similar interests, regions only develop by the continued effort of dedicated individuals supported by modest government resources. It seems that the successes in one area are not well known in other areas, so there is an unmet opportunity for greater sharing of strategies and activities.

Experimental electronic music practitioners are increasingly utilising digital fabrication technologies and better connections between musicians and maker or hacker spaces in regional areas could be improved, because at present it appears those connections are very inconsistent. Further research would be useful to identify how skills in digital manufacturing and electronic technologies can be better motivated by music-related activities in regional Australia to help develop the regional capacity to meet current and emerging global and domestic demands in the creative uses of advanced technologies.

Our study examined a range of experimental electronic music practices in regional Australia, ranging from modular synthesiser performance to DIY instrument-making, to field-recording compositions. The focus has been on non-mainstream, DIY practices rather than commercial genres such as electronic dance music (EDM). We have reported on selected examples of these activities in regional Australia and the experiences of these musicians. What has become clear is the diverse ways in which regional experimental electronic musicians connect with their community and beyond to sustain their interests and skills and find outlets for their creative work.

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