>> Welcome to the podcast series of Raising the Bar: Sydney. Raising the bar in 2019, saw 21 University of Sydney academics take their research out of the lecture theatre and into bars across Sydney, all on one night. In this podcast, you'll hear Anna Reid's talk, Feel the Noise: How Music Connects Us Through Place and History. Enjoy the talk.

[Applause]

>> Thank you everybody. Just down near where the Conservatorium sits, is where this large castle building you might have come to it at the end of the Kell Expressway, and it was at that spot that the Europeans first landed, and the reason that they landed there was because there was this large, open parkland, and that was the spot where the Gaddigal and the Eora people used to meet for corroboree. Corroboree means meeting. And so that was the spot where they would share their knowledge through singing and through dancing and their knowledge was about the way that they would live and the community that they had, and they were the people. And exactly where our beautiful building is, is where young men were initiated into the knowledge of the Gaddi. Gaddi means grass tree. But the knowledge that was passed onto the boys in their initiation ground was the Dog and Kangaroo Dance. So they knew about the livestock that was around, and how to manage those people. So I really like it, that Sydney Conservatorium is now on that site, because we also teach knowledge through music and singing and dancing. So I'd like to pay my respects to the elders of the past. Those who are emerging, and of course, to other people of First Nations and indigenous background, and of course, to the rest of it, to the mongrels like me, I welcome you very warmly as well [laughter]. The mongrels [applause]. So I'm a very lucky person because last year my son got married, and that gave me the opportunity to spend time with my daughter who lives in Perth. And after the wedding we were in Tasmania, and we decided to go for a walk down a little country lane. Now, when you have a musical family, of course, you don't converse with words. We just happily walked down this nice little country road scatting with each other. So I was singing and she was singing and we were just-our words starting being, you know, [singing] I really love my life, well I don't really, sucks, you know, we were singing a little bit like this. And in the field beside us, there were a bunch of cows, and they were doing cow stuff, they were munching the grass, and they were looking at each other, they were, yeah, they were cows. But we suddenly noticed, as we were walking down this street, what we had was this like, you know, troop forming behind us. And we had these ruminating cows, just sort of moving carefully behind us, and we stopped, and we were still scatting, and these cows came and lined up along the fence line. So we had as close as possible about 20 cows, all the way along the fence line. And then there were the ones that were looking in between the other cows' feet, and then there were the ones that were on top of their friends, looking over the top, and we thought, this is really the most peculiar thing we've ever seen. So it can't just be us, it must be the music. And so we're like well let's test it, let's just stop singing. And the cows lost interest, and they started walking away. I thought okay let's try something else. So we walked along the road, just 50 metres or so, and we started singing, just like this little stampede of cows came and followed us, and again, started to watch, and we felt really, really mean after about 15 minutes, when we decided actually we'd lost our voice and it was time to go home and have a drink of G&T. I think that was our drink of choice. And what had happened apart from my stepmother telling me that cows are curious and they just like things that are different, we realised that was what it was. They liked things that were different. They had noticed a variation in their circumstance, and so they were thinking, what is it about this weird thing that is happening in our little world? Well it was scatting was happening. And so that is actually a curious thing for us as people, because when we notice difference, we also learn something that is new and amazing. So when I was thinking about my very first musical memory, it goes like this. I was two years old, in a childcare centre, and it goes something like this. [Singing] Have you ever seen a laddie go this way and that way? Did you ever see a laddie go this way and that?

And then the second verse was even more intriguing, [singing] did you ever see a lassie go this way and that way? Did you ever see a lassie go this way and that?

When I hear that and think of it, I can smell the grass that was cut that day. I remember being totally entranced by movement, and the feeling that it was the first time and we were all doing it, like we had this dance, it was pretty sophisticated dance, it meant, you know, right foot to left foot, you know, that was what we're doing. Eventually we were arm swinging, that was pretty exciting as well. And it was really, really lovely, because when I got home, I said to my mother we learnt this song, and she said what was the song about? And I said it was about dogs [laughter]. Because I only knew Lassie as a dog [laughter]. I didn't know a lassie was a word for a girl, and my mother thought that was hilarious. And then told me that lassie meant a girl, and a laddie meant a boy. I thought, well that's weird! I've never heard that before. And then she said, well, a long way away, there's another country and they are just the words that people use for boys and girls in that other country. And I was totally godsmacked. And I said, what's the country [laughter]? You know, so there were lots of things about that first musical experience that I had, that opened my eyes to some things that were just totally different. Things that I had never quite understood before. My mother was quite extraordinary. By the time that she died, she was honestly the most conservative person I could ever imagine to meet. But in the 60s, she had long hair, and was a bit of a hippie. And so we sang songs. My brother didn't sing songs. I think it was all directed at me. We sang songs, my mother and I. and they were the protest songs of the 60s. So, [singing] little boxes on the hillside, little boxes made of ticky-tacky, little boxes, little boxes, and they all look just the same. There's a red one, and a blue one, and a yellow one-or, a green one and yellow one, and they're all made out of ticky-tacky and they all look just the same. Why do houses look like boxes? My mother explained to me that, you know, lots of houses were just little square things. I lived in Pemble [assumed spelling], there were trees. It was rather a nice environment, and they were, I thought it was so exciting, the thought that there were houses made of all of these different colours. And the next thing I said well what is ticky-tacky? And oh well, they're just, they don't make them very well and they might fall down. And I said well why do they put them on a hillside, if they might fall down? Well, because that's where the city is expanding too, and that hill used to be where a park used to be, and I was having my first environmental lesson from my mother, and the use of music, to teach me an environmental lesson. And I was also having my first building code experience [laughter], and of course what we experience today is just the same. We've got lots of houses going up all over the place, but those houses are being built in some, you know, substandard kind of ways. And so nothing has changed very much. We have these problems were all ideas and concepts—one is what we know about ourselves can be expanded by variation and seeing things differently because of things that you experience. In my case, those experiences both through song. We can talk about the way that we live, because of the very songs and music that we have, which can be about environment. It can be about love. It can be about all sorts of things. For our indigenous friends, it was absolutely about the knowledge that they needed to live. In our Western society, it's a little bit more oblique how that knowledge is transported through music, but it's still there. And there are many different ways of music throughout the world, with different contexts in societies that happen. But those experiences that I have just recounted to you are very personal to me. They are part of my experience of growing up, and they're part of the society that I grew up in, and they're kind of the songs that I will remember forever, the smell of them, the sound of them, the way that they happened, the books that they were in, the smell of the grass, the people that I did it with. But every one of you will have a different set of things that become your musical makeup. And the way that you can experience the world through those musical experiences. So, musicians have grappled with these concepts for a long, long time. Many of you will have heard about a man called Pythagoras. For those of you who are mathematicians in the room, you will know that because of, you know, triangles and geometry and, you know, equations that are a little bit tricky for a musician, but anyway, they're there. And one of the things that he had noticed was that the length the string will make a particular sound. Now, I'm pretty happy with that. I'm a string player, I relate to that immediately. What I think Pythagoras missed was that the thickness of the string also makes a difference to the sound, but you know, that concept came many centuries later, that thickness and length had a difference. But what he postulated was something that was quite profound. He said that here we are in the centre of the cosmos, and that all the way around us are these planets. Planets are wanderers, these stars that move around us in the earth, the sun moves around us, and the moon moves around us, and the planets and the stars all move around us. And because just a small thing like a pebble into a stream, or the wind through trees, can make such a profound noise, surely these massive bodies that are flying through space must also be making a noise as they travel. And so he called that the harmony of the spheres. And why that is interesting is because he said, you can't hear it. You can't hear it because we're in it all the time. So we can't really notice it. So even silence, what we've become used to as silence, actually is permeated by this really incredible, deep, universal noise. Curiously, in this modern era, they do make a noise. They're out there in the cosmos. As these large bodies move, they make a noise, and these days, we hear them as compression waves, and you can take their compression waves from the cosmos, and put them through a computer, and you can hear the sound of the cosmos. So he was right there, many thousands of years ago. But because he was mathematically minded, he wrote down the equations of proportion that would go with the size of these bodies, and the sounds that they would make, and curiously, they would also relate to the sounds of strings, and how a proportion of string could make a particular sound, and that became a Greek theoretical musical knowledge that then passed down into he European tradition. So then we have people who try to make sense of what were the sounds of Greece, because of the mathematical stuff that was written? Now, I find that really, really interesting, because it puts music right back into the centre of where things have gone awry, I think, in the 21st Century in terms of education, because in the early European universities, it was music, rhetoric, mathematics, astronomy, but music was there as the copair, with the pair with astronomy. And astronomy was meant to be the science of the eyes, because you could see the planets moving around, and music was meant to be the science of the ears, because you could hear those proportional things that you could see with your eyes. So they ran together. So if you're a learnt person, not a peasant, or a slave, or any of those things. If you're a learnt person, you would learn about mathematics, and music, and science as an inseparable partnership. So, for any of you who are educators, STEAM, not STEM, is my mantra for that. Yeah. So from these very, very early days, we have people who start really thinking about what music means. One of the greats in Europe was a religious man, he was called... Pope Gregory the First, and we think maybe Pope Gregory the Second? Now, his claim to fame was that several hundred years after people had started to use this concept called a chant, or a plain chant, he codified them all together. Basically he picked all the best pop songs, put them all together, and said these are the songs that we will sing to God. Now, you've got to understand that in this society, the only learning that you would ever do would be inside the church, when you were compulsorily had to go, the rest of the time, you'd spend your time working. So what you have is this massive populous of people who are spending some time in church, standing up behind a screen, because only the really wealthy people would be in front of the screen. Behind the screen would be all of the rest of us, having perhaps washed, maybe not. And we'd be listening to what was going on in Latin. I don't speak Latin, but the music is kind of nice. And everybody would learn these pop songs because that was what was coming out. And of course, God prescribed these pop songs, and so people would sing these tunes in their homes, in their baths, in their fields, and eventually, people began to start singing around those tunes. So the tunes became known as the Tenor, going really, really slow underneath, and the Jazz, happened on the top. So musicians would have their way no matter what is prescribed, and they'll find their way around of doing it.

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>> But the tunes themselves, gave us some ideas that have come down to now. So, for instance, you know, getting the Tenor for the argument, means that you know what's hitting through, and that comes back from that mediaeval period. Another fellow, called Guido Deretso [phonetic spelling] started to codify what music looked like on a staff. So originally, everybody knew the songs, because they'd heard them, and it was an oral tradition for them. And so to remind people of what the oral tradition was, they put little lines above it, we say it's going up here, it's going down here, and they were called nooms [phonetic spelling. And Guido brought it to another height, where he added some lines and said, well this one is actually a pitch that is defined, and this is kind of couple of notes up for the next line of pitch, so he had a very much more accurate idea of what was going on, and they used the precious colours of red and black to be able to show you where these early notes were going. But more importantly, he had taken the now musical modes, and showed this illiterate populous how to sing the modes by pointing at pretty much segments of his fingers. And each of them described a tetrachord, which is four notes that go together. Two tetrachords, if anybody start naming harmony, two tetrachords, and an intervening tone will make a scale of some description. So here we have these modes, and they had to count them on their hands this way, going up and down, and down your palm, and up the other side. And this was learning for Gemma to the [inaudible] the start, to the finish. And of course, if we think of a rote learning exercise, we actually take that from this, again, renaissance mediaeval period, which is the whole gamut. That was the biggest rote learning exercise that you could have, was to take the whole gamut. So what we have now is a whole hunk of people that are learning pretty much about their society, their place in society, music in their society, how they should comport themselves in their society, how they should worship, what they should do, the songs that they know together. They have a shared knowledge of each other through a musical circuit. So I've given you a European history, but if we think about the fabulous songs and sounds of any nation on the earth, we share that similarity that what we have are sounds and experiences that connect us to the people who are around us, intimately. We share a song, we know the person. We share a tune, we know the person. We know the society in which it is. And particular sounds have particular resonances for people in various lands. And usually to do with the landscape around them. So, has anybody been to Bali, Indonesia? How many people know the sound of a Gamelan? Yeah? A fair smattering of people. So they're rich in metals. And so the things that they toyed around with was metal work. So when you hit a piece of metal, you're going to get a sound, and it's a pretty edgy sound. If you have two pieces of metal, what you get is both of those vibrations and some of them rushing into each other, making a kind of a clash, and what was really, really favoured, was to have two metal bars that were very, very close, but slightly different from each other, and they would play them together, and the idea was not to have them perfectly vibrating together, like we won't like in the west, but to have them slightly out of phase, so what you get is this like kind of really neat, edgy sound. That was a flavour in Indonesia. When we're thinking about India, they had a particular sound of a drone, and a drum beat that would move people again to various feelings and thoughts because of those particular modes, even today, when they start a piece of music they will tell you what scale pattern is going to be used before they start it. And by telling the players what scale they're using, and the audience what scale they're using, everybody now knows what mood they're going to be in. So now if I'm thinking about it, this curious thing is happening to me. I've got goose bumps on my arms. I have goose bumps because I'm talking about things that I know and love, and that move me in different ways, and how many of you have listened to music and got goose bumps on your arms? Yeah, pretty much everybody in the room. It-feels kind of random sometimes, doesn't it? How this happens, you just think about something and your goose bumps come up. I know there are particular things that I can listen to which will automatically give me goose bumps. I have a range of about eight things, and I used to wonder what it was about these eight things that would always give me goose bumps. And I had a piece of country music that always used to make my dog howl. And the dog heard every sort of music under the sun, but this one recording would make it howl. Why was that? He obviously had some relationship to that sound that did something for him. But for me, those 8 pieces, look, I've still go goosebumps. I'm really sorry, it's [laughter], it's happening. So [laughs] I used to think about what was it about these sounds that have this effect on me? And I figured it out. It's actually a falling minor second makes me get goosebumps [laughter]. So everybody will be slightly different. But it connects me to the musicians who played that music, and by connecting me to the musicians who play the music, it also connects me to the time and era in which that music has been played, and it connects me to the other listeners of that music, not only the players, but the other people who have experienced it in the past. So by listening, I can experience the whole world from top to bottom, side to side. Going back in, you know, any era, and also projecting forward. I'll be thinking the music that I create myself will have an impact on the people who follow by, let alone the people that might happen to be in the room tonight. So, music is meaningful to us as people. Music is something that we do together. Music is something that helps us bring out the humanity in our lives, and helps us to understand how strange and how wonderful our neighbours happen to be. So it's over to you guys. I'd like you to copy this please.

[Clapping]

>> Yeah, I said let's try and get that together, okay? Listen.

[Clapping]

>> Now, we've got a couple of people clapping out of phase, let's just try and be a little bit accurate here, here we go.

[Clapping]

>> Yeah, that got you playing in triplets yeah [laughter], I'm pretty happy with that too. Okay, so one of the things that draws us together is rhythm. We walk with rhythm. There was this absolutely fantastic moment watching the Millennium bridge in London, we're now opening it, and it was-had an engineering friend at the time who had been partially responsible for the building of this, and she was being interviewed on the BBC. And behind her was the big screen with people walking across the Millennium Bridge, and she is talking about the bridge and its manufacturer, and the reporter said "Well, it's really very interesting, can you tell me, you know, why it is that bridge sways when they walk?" and she looked behind her and went, "Quick! Tell everybody to get off it!" [laughter]. Because the people walking in time across the bridge synchronised with each other which meant everybody was going to the left, and everybody was going to the right and has started to make the bridge sway, which is not what normally happens. Normally everybody is out of sync, and it's perfectly safe. But when it was swaying, with everybody's weight going backwards and forwards, they had to close it [inaudible] specifics of that design fault, but so rhythm is something that we do innately, and we do it together innately. So I now would like you think, not only of your hands, which are a fabulously percussive instrument, but of the tables, and the glasses that you have in front of you, and so I would like to go back to our very first rhythm, which is [clapping], and now I would like you to take the same rhythm with something to do on your table, on your glass, on your table, something else like that. So I will clap it, and you will do your thing.

[Clapping, Glassware Clinking]

>> Okay we're pretty groovy at this, and we're all doing very, very nicely, so now we're going to try and work together as, yeah, in parts, I think that's going to be good. And [laughter], the second part is going to be people who like to speak instead of plink, and you guys, who like to speak and not plink, are going to say this phrase, I think we will all practice it first. Singing sad songs for the sea and bees. Okay? I'll give that to you again, singing sad songs for the sea and bees. Got it? Okay. Singing sad songs for the sea and bees. And now we're going to say it real slow, singing sad songs for the sea and bees. Yeah, that sounds more like a song. Now we're going to say it real soft, [whispering] singing sad songs for the sea and bees, and now everybody can do it really, really soft, but at your own pace.

[Whispering]

>> Okay, you've got it. Now, one of the nice things about music is dynamics, and pitch and rhythm. We're not going to deal so much with pitch, but we are going to deal with dynamic and rhythm, so this half of the room that, you know, you can decide which half you're on, but this side, which has predominantly got glasses and tables, you guys are the rhythm section. You guys are the Cs and Bs team okay? And so we're just going to start off with the rhythm section.

You're going to do a couple of things. You've got your regular one [clapping], yes? And some of you are going to go—

[Clapping Faster]

>> You can choose which one you want to do. So just practice the rhythm section, one, two, three, four—

[Clapping, Tapping and Clinking]

>> It's really embarrassing when you're loud, and you make a mistake, you know, you keep going.

[Clapping, Tapping and Clinking]

>> Okay, I actually find you a little bit unconvincing [laughter], you know, you've got the best and easiest part, but what I'd like you to do now is try and be a little bit more rhythmic, it's like 1, 2, 3, 4...

[Clapping, Tapping and Clinking]

>> Yeah!

[Clapping, Tapping, and Clinking]

>> Lovely, that sounds beautifully industrial now, so don't forget what you've done. Okay, this team, sad songs for the seas and bees, really slowly [whispering] sad songs, for the bees and cees, now really loudly, sad songs for the seas and bees, sad songs for the seas and bees, sad songs for the seas and bees, sad songs for the seas and bees...

[Whispering and Repeating, then Repeating Louder]

>> Okay, let's put our choir together, are we all ready? One, we're going to start off real loud, bees and seas, okay? One, two, three, four!

[Clapping, Tapping, Clinking and Singing]

>> Oh, no, no, no, no, the rhythm team is a little slow. And you've got to like, follow the rhythm, one, two, three, four!

[Clapping, Tapping, Clinking and Singing]

>> Lovely! Okay, now, do you feel like you all know each other now [laughter]? Yeah, you should, you should be able to go home and remember this as an experience. Hopefully the people who were the percussion team will remember the ecological message that I'm trying to get across to night, that music means something for us, and it means something for our environment, and we have to think about that, as a concept I'm sitting here with my climate change colleagues, who are my students, who rushed out, for the climate change strike, which I utterly supported, but they were really marvellous, on the night of the strike, the night before, they sent out a Facebook message that said one of them said here are all of these protest songs. Bring a really discordant instrument with you [laughter]. And so they chuffed off, and they did that. That was really

fun. But this is, for me, one of the important issues of our time, is what we do with climate, and how we manage that, and thinking about how we can use our music to affect change, be it climate or be it anything else, I think it's probably one of the most important things that we can do. And so I'll just finish this by saying there was this most incredible singing revolution, both in the 1970s and in the 80s in Astonia, where there were people who were politically oppressed for so long it's ridiculous, 300 years, and they kept thinking they were going to get some freedom at some stage, but in order to finally to become an independent nation from Russia, they sung. The entire nation sung. There are 1.3 million people, and half of them sang at a choir. And they just would spontaneously go into the parklands, and start singing, and they sung their way to freedom. So music has a power that is quite extraordinary, and as musicians, we don't need to just create nice music, we create music that can change the world. So thanks everybody.

[Cheering, Applause]

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