Key Change Episode 2: Sounds Like Opera

Julie McIsaac
Welcome to Key Change, the COC's new podcast exploring everything about opera from a fresh perspective.

Robyn Grant-Moran
Hello and welcome. We're your hosts, Robyn Grant-Moran…

Julie McIsaac
…and Julie McIsaac.

Robyn Grant-Moran
For everyone who tuned into our first episode, thank you.

Julie McIsaac
Thank you.

Robyn Grant-Moran
And for those of you just joining us today in our second episode, welcome. I can't believe we're already here. Last week, we talked with some very special guests about their first experiences attending the opera. This week, we're going to go a little bit further and talk about how we actually hear opera.

Julie McIsaac
We're going to do a deep dive about the history of opera – specifically, why opera sounds the way it does. And we're going to learn about the science of creating sound and how we make sure that the performers sound their best on stage. It certainly brought out my inner science geek and I learned so much that I didn't know before, and we're really excited to share that with you today.

Robyn Grant-Moran
Our first guest today is Dr. Hannah Chan Hartley. She gives us insight into the history of opera and its musical forms and why opera sounds the way it does. Hannah's a musicologist who specializes in Wagner and 19th century opera. You also might recognize Hannah as one of the COC's Pre-Performance Chat speakers.

Julie McIsaac
Hi, there. We're here today with Hannah Chan Hartley. We're so excited that you're able to join us. Hi, Hannah.

Hannah Chan-Hartley
Hi. Thank you for having me.

Julie McIsaac
And we're curious: you're a musicologist. And, just to give our listeners a sense of what is that – what does the musicologist do? What is musicology?

Hannah Chan-Hartley
Well, that's quite a question. Um, basically musicology… I mean, it's very simple as… is the study of music and it can encompass a whole range is… a whole range of types of music. Some ways that musicology is often divided is into looking at music from a historical perspective versus music from a contemporary perspective from all kinds of… music of all cultures. And so I'm a musicologist who looks at the historical perspective of music focusing… my particular interest is the 19th century in particular.

Julie McIsaac
I wonder if you can speak to us a little bit about the different textures, musically, that we can expect, for example, you know, when we listen to a commercial and there's this big operatic moment that's in, like, the diamond commercial, versus sometimes when we hear those sparser textures, where there isn't as much orchestra, but there's a lot of dramatic storytelling happening. So like récits and arias in different ways, then… different textures that are used in the storytelling and how you prepare yourself or engage with that differently.

Hannah Chan-Hartley
Okay, um, I think part of that expectation comes from knowing when the opera was… was written. So the basic structure of opera being recitatives and arias – and I will explain that in a second – but that basic structure was the early structure of opera from the… the early Baroque period, so the early 17th century. And essentially what you have are works that have two kinds of music: you've got recitative, which is basically Italian for "recitation"; you've got… basically, the singer is singing as if they're speaking. So it follows the patterns of speech, the free rhythm of speech and the ups and downs of talking. And recitative is… because words are so important in recitative… you have minimal accompaniment. So often the accompaniment is a harpsichord and the cello. And recitatives is often used for parts of the opera where you're advancing the action of the opera: for dialogue and for when words are quite important to the situation of the drama. ****Musical excerpt: "Giulio, che miri" from Hansel's *Giulio Cesare*, Dietrich Fischer-Dieskau**** And the other part is the "aria", and these are the moments where the character is reflecting on what has happened. Usually that character is thinking about… they're expressing their emotions about that situation and it's almost as if time is suspended for that moment, and then they… they pause and think about it. That parallel in a play – if you're thinking about Shakespeare – is the soliloquy, and aria is like a musical soliloquy. ****Musical excerpt: "Piangerò la sorte mia" from Hansel's *Giulio Cesare*, Joan Sutherland**** And so if you're listening to opera from that century, and well into the 19th century, you've got these basic types of… you have the recitative and aria, which are the basic types of music in opera. When you head into the 18th century with classical opera – especially comic opera, "opera buffa" – you've got the inclusion of ensembles with that. And ensembles are really interesting because they actually give more dynamic movement to the story: you've got different characters singing at the same time about the dramatic action that has happened and usually their feelings are in a state of flux, and they're going to come to some conclusion after this ensemble is over. So you might have three to four to six people singing each with their own individual parts, reflecting on their own particular moment in that drama. ****Musical**

excerpt: Act II finale from Mozart's *The Marriage of Figaro*** When you get into the 19th century, you still – especially in Italian opera with… with the early Italian romantic composers like Vincenzo Bellini, Rossini, still maintaining the recitatives, aria and ensembles – and Verdi as well – but you're starting to have more integration of some of these parts; they're not so segmented, and they start to run and bleed into each other a little bit. The orchestra has more of a role; they're not just accompanying anymore, but actually driving some of the emotional action. And then you get into Wagner, who's kind of in a class by himself in a way, but he was very much responsible for creating a much more seamless drama kind of removing this distinction between recitative and aria. Yes, I think if you know who, what kind… what period that opera was composed, and you could sort of expect certain forms and characteristics of that.

Robyn Grant-Moran
One thing I hear as you're describing opera through the ages, is that there's a continual growth: it's getting bigger and bigger and bigger. And one thing that's really unique to opera is the lack of mics; that it is all done… all the singing is done under the power of the singer. And I was wondering how… how that might affect how the music is composed or structured.

Hannah Chan-Hartley
I can sort of speak to a bit about… a little bit about the way we would experience this in the hall. So if you look at in the 19th century – even if you compare the sizes of opera houses – European opera houses were quite small, but American opera houses, even in the 19th century, were huge: you're… you're talking about, I think, the Academy of Music in New York, which opened in the mid-19th century, had 4,600 seats, and the original Metropolitan Opera House has over 3,000 seats. So you're thinking the singers really had to change the way that they were projecting or certainly performing these operas in the States may be compared to European operas. And obviously this is the case today. One thing I… that was asked that's also interesting is that the orchestra was not always in a sunken pit, like we would understand for it to be. For a long time, the orchestras would perform in a sunken area, but it was in front of the stage on level… on the same level as the audience would have been. So the orchestra was very much exposed and you would see all that action in addition to the action on stage. And you might have orchestra pits coming up in the late 19th century but not many theaters had them. And, in a way, I would say Wagner, in building the Festspielhaus in Bayreuth, had a huge influence on how we would consider… where we would put the orchestra because the Festspielhaus had a… an enormous – I mean, it fit an orchestra of over 100 musicians – enormous covered pit – which nowadays we mostly have a partially covered pit – but his idea was that we should hear… we should see the opera as a "pro-cinematic experience". But the music should just kind of arise out of nowhere, like a soundtrack essentially; you don't see the action at all. And… and I think, even in the case of the original Metropolitan Opera House, the… they didn't play… when they were first doing Wagner operas, they didn't play in a sunken orchestra pit. But when they did the first Ring Cycle in 1889, that's when they… they actually sank the pit: they had a sunk… they could have an orchestra pit but they didn't, and… but they actually officially sank it for the first performance of the Ring Cycle. So I think there's… there's something to… to Wagner and Bayreuth being a part of changing the experience of how opera is experienced, especially with the orchestra.

Julie McIsaac

I'm so glad you're bringing all of this up, Hannah, because, in addition to, like you said, the context of the historical era and what the conventions were musically around the structures at the time, there's this whole socio-cultural aspect to the way in which we attend the event of opera. And I wonder if you could speak to that in terms of audience behaviors and atmosphere in the opera house and how that has…there's been transitions and it's… that there's an ebb and flow to that over time; it's not a consistent thing. We got to… yeah, go ahead.

Hannah Chan-Hartley
Right, yeah. So I kind of see this as happening in tandem with also the evolution of the forms of opera. So certainly, when you get to the 19th century, this is when you've got public opera houses everywhere, and you've got the repertory of many different composers. Opera, and I'm thinking especially in the North American context was… was entertainment… was a social entertainment: you had all classes of people in the opera house, but for the wealthy elite of these cities that were attending opera, this was like a… this was social life. And they would sit in their boxes, they would pay attention to the opera, but it wasn't a very focused attention necessarily: the lights were on, they would look at each other from afar and, you know, gossip about somebody else, maybe across the way, they might turn their attention to the stage when, you know, a famous singer would be on the stage singing an aria. They'd… I would say audiences were more interactive with the performance in the sense that they would react more. So with "number operas" – which are these operas with distinct ensembles and recitatives and arias – after a moment the ensemble is finished, or the aria was finished, people would applaud, sometimes they would… if they really wanted to hear it again, they would ask for an encore right there and then. It kind of disrupted the flow of the performance but they wanted to hear this so… so they… so they kind of reacted more to what was going on. And then people would… would do all sorts of things, you know, in all over the opera house there. The gallery was actually known as not the most salubrious place, so they actually developed the family circle in the opera houses as a way of having families go to the opera and have it be a sort of appropriate thing… thing to do – to go to the opera. But then, I think, over time as you have Wagner's music enter the sphere, later into the 19th century, there became this focus on what was going on on-stage and, again, I reference Bayreuth, because he… there may have been other times when they were experimenting with… other theatres or experimenting with slightly darkened auditoriums, but certainly at Bayreuth he wanted it… he didn't want it pitch black… really dark, which is what ended up happening; that was a mistake. But he did want the lights dim so that the audience's attention was focused directly on the stage and not… and the way that the auditorium was set up. There were no boxes… you couldn't see each other, so you're very much listening and… and watching things unfold before you, and you were there to take this in, and that it was a contemplative and more reflective experience playing out, rather than this other kind of social activity on top of it, yeah.

Julie McIsaac
Yeah, it's interesting with so many of these behaviors that have become embedded – like I think of a contemporary cinema experience, where I go and they're very clear at the beginning, like, turn off your cell phones and don't kick other people seats, and don't chew your popcorn too loudly – that some of these conventions that we've now absorbed into pop culture have their roots in operatic practice or we can draw connections between them and operatic practice in the 19th century, like you said. And, and a lot of the things that I appreciate about artistic experiences – like that absorption and that space for

contemplation and reflection, and having the lights be low and just letting yourself be taken over by the storytelling – you know, when we consider operatic practice; that there's deep connections, in terms of how that emerged over time.

Hannah Chan-Hartley
I should just add to that: I think the fact that the Wagnerian music drama is much more seamless, there isn't really that opportunity to react; it doesn't feel appropriate. And so, in a way, the creation of that kind of opera is also going to affect the way the audience behaves.

Julie McIsaac
I'm curious, and this is actually – Robyn, like, chime in as well, if you have thoughts on this – but I find that opera isn't something I can play in the background and just have on while I'm doing other things. Whereas there's other styles of music that I'll put on while I'm cooking dinner, while I'm just, you know, going around the house doing things, and I'm wondering how that compares to your own experiences, and, like, how you find, like, the quality of listening when you're at home, like, as opposed to being in the opera house for example.

Hannah Chan-Hartley
Right. I'm like you: I can't have opera playing in the background. I have not… I've never really found it appealing to listen to opera just through audio. I mean, I know lots of people love listening to recordings and they'll listen to, you know, the Met broadcasts for example. But I've never really been into that because I actually do like the live experience of being in that moment, but also experiencing opera as a multimedia form; that's the way I feel it should be experienced. And I do… you know, I've noticed even, especially in this time when we can only see things virtually, I also find watching video performances to be not as… like, I can't focus the same way as I can when I'm in the hall; it's harder to be at home and I feel there's more distraction somehow. And then there's also the lack of the communal experience of being next to somebody else. I mean, obviously it's a communal experience because there's lots of other people watching around the world, but it's just not the same as being together with people experiencing that particular performance.

Julie McIsaac
Yeah, sharing physical space versus sharing time can be very different things. Yeah. What's it like for you, Robyn? Like what are your listening habits?

Robyn Grant-Moran
Well, I do listen to opera around the house but I take it out of context, I'll say, "Oh, I feel like listening to this aria right now." I can't listen to a whole opera; I feel kind of empty because, like you said, in the house, you're with other people but you're also feeling the orchestra and you're feeling the vibrations from the singers. So it's kind of a physical sensation that washes over me that I really miss when I listen to opera at home.

Julie McIsaac
Hannah, are there any particular styles or composers of opera that you feel are more suited to that listening experience, like, without being in the opera house?

Hannah Chan-Hartley
Well, I think those operas, where the focus is on the voice and often a lot of these arias are excerpted on recordings – you… so you can find… you can find them as excerpts, you don't necessarily need the entire recording of the opera to enjoy them. And they are also found a lot in orchestral – I mean, right now we can't really go to orchestra concerts either...but if you go to orchestral concerts you might have… you might hear these portions as well where, again, the emphasis is more on the singer than the orchestra, so to speak. Also operas where there's a clear distinction between these various types of forms lend themselves to be excerpted. So I think that's that's one way people can get into listening to opera. That's how I did, too, anyway!

Julie McIsaac
Right, yeah. You can find, like, "the hits of bel canto".

Hannah Chan-Hartley
Exactly, exactly.

Julie McIsaac
You know that Donizetti, Bellini and have some listening as you're making your pasta for dinner. And quickly, I'm curious because of the continuum of attendance at opera that we've talked about: do you have any predictions in terms of moving into the future and site-specific opera and contemporary opera practice, and how audience behaviors might be shifting or might evolve over the next 20-50 years?

Hannah Chan-Hartley
I know there are lots of projects where there… where people are taking opera out of the opera house concert… or the formal concert hall, go to less formal settings of, you know, in the cities, maybe out in the countryside – those kinds of things. I think that will still continue. I haven't yet really experienced, personally, haven't experienced opera in those settings, so I wonder how effective those are in getting people into opera. I know sometimes the view is that taking opera out of the concert hall will make it less stuffy. And so I think there is this desire to go back to a slightly more interactive… maybe interactive environment than that was… that was around in the earlier 19th century. And, you know, orchestra concerts were like that as well in then 19th century where… where people were were eating and drinking at the same time as listening to these concerts. And there was also a developing seriousness to the… to the reception, or the the listening of this music. There is this desire to go back a little bit to that, but I think a lot of us who might have experienced opera for a longer time within the confines of the theatre, will find that we can't easily change our behaviors. I still… if I was to go to one of these performance, I think I still would want to be absorbed and enjoy something where I don't have the distraction of people talking. That's just something that I prefer… an experience I prefer.

Robyn Grant-Moran
I just want to thank you for your time. It was incredibly, incredibly interesting. And I'm going to be thinking about opera differently now. So. thank you.

Hannah Chan-Hartley

Thank you so much. Thank you for having me. This was really fun.

Julie McIsaac
Oh, it's been a pleasure. And yeah, like all your insights into how we listen, and why we listen, and why we've been trained to listen to certain way or different ways we can think about listening. It's been great to have you with us. Thank you.

What I really loved about our time with Hannah is the way she described the opera houses to us – the different atmospheres – and the mention of the "family circle". Because before the establishment of that these opera houses—she used the word "salubrious", that they weren't the most salubrious place and I actually had to look that up. So in the sense of like, healthy or pleasant… because now we think about going to the opera house and it being, you know, a place where you do behave very properly, and where you could take your children for this very pleasant, deeply enriching cultural experience, whereas at a certain time it wouldn't have been a bit of a place for a family field trip at all.

Robyn Grant-Moran
No. People were gambling.

Julie McIsaac
Yeah!

Robyn Grant-Moran
What!

Julie McIsaac
Yeah. And also the fact that she made those connections between Wagner and Wagner's revolution of the opera-going experience – and we do know that Wagner is a controversial figure, and that is something we will return to,

Robyn Grant-Moran
Right. But for right now we're going to talk about how he impacted how we hear opera today. With our next guest, Bob Essert. Now, Bob is the founder of Sound Space Vision, he's one of the world premier acoustical engineers, and he just happens to be the acoustician behind the Four Seasons Centre. So let's hear what Bob has to say.

Julie McIsaac
Hello, Bob. Thank you so much for joining us today. Could you let our listeners know where you're calling in from?

Bob Essert
I'm calling from Chester in the north of England today.

Julie McIsaac

Wonderful. We're very fortunate to have this international flavour in today's conversation. And to start us off, we're hoping you could let us know: what is an acoustical engineer?

Bob Essert
Well, an acoustical engineer, or sometimes we just say, "acoustical consultant" – because actually, there's a lot more than engineering. There's physiology, there's psychology, there's arts, there's other branches of science and there's architecture, and there's engineering. And so our role covers these aspects of perception, of cognition, "how we hear", and also, it really is translating and connecting the human perception and human creation of music into terms an architect and engineering team on a building can help develop into a product that can serve the users, the players, the performers, the audiences, and the technicians who are part of the show—producing the show. So it really starts with how we hear and how we listen, but the knowledge base of experience and calculations and modeling goes into all aspects of sound, and that includes the noise, as well as the music.

Julie McIsaac
Yeah, I remember, you mentioned psychology early on, and in terms of the audience experience: so say I'm someone headed to the opera house to experience an opera, what aspects of my experience, including my psychology, have you kept in mind in crafting the experience that I'm going to enter into

Bob Essert
The audience… audiences in music venues care about – whether they know it or not – care about strength of the sound, the impact they can give, and the fortissimo. The clarity, the right sort of balance between clarity and resonance, or reverberation in a room. In opera, the clarity of the text is very important: we have the instrumental sound, we have the text coming through – so how that's perceived is important. And whether people know it or not, they may feel like they're not getting the words across, especially if it's in their first language or a language they can generally try to understand. If it's a language that just floats over the top anyway and they're listening to the vowels and the emotion and the music, maybe they don't care quite so much about the clarity. Musicians need to communicate with each other on a concert stage or in the pit. So they have a lot to care about there. And also how they feel supported: the singers feel supported more or less by the room, what comes back to them. They may be able to see the audience depending on the lighting but they can also hear a sense of support from the audience and… but from the room geometry from the surfaces pushing back to them. So they play the room as… as a big instrument really. And musicians in the pit care a bit less about the room, but they do care about sensing the balance between themselves. And the conductor's in the important position of trying to balance everything and to understand what it sounds like in the audience.

Julie McIsaac
Right. I love what you just said about the singer playing the room. I myself am not a singer – that's not my entry point into opera – but it's a beautiful metaphor to wrap our heads around. And we're curious about your work with Sound Space Vision: given that you've worked all over the world, creating theaters and concert and lecture halls, performance art spaces, could you share with us some of the considerations that you take into account when designing spaces of all kinds – so not just in the opera house but how that differs when it's a lecture hall, or when it's another type of venue?

Bob Essert
Yes. Well, we start by envisioning – there's probably an oral word or parallel name – the quality of the sound… qualities of the sound that are appropriate for different activities or different arts even – opera, drama, concert music, chamber music… but lectures, rock and roll, jazz. Things that people listen to each other: meetings, meeting rooms, where you're communicating one to one or one to many. So there's the communication aspect of information transfer. And then there's the aesthetic aspect of qualities of the sound – like color and light or shadow – that sort of thing. So I mean, Richard Bradshaw had quite strong ideas about wanting a rich orchestral sound for the Four Seasons. And that was really kind of heading for a symphonic sound for the orchestra while the singers could kind of float over the top of that. Not all opera houses sound this way and not all opera repertoire or not all concert repertoire is served best by… by a big, voluptuous sound. Starting from the qualities of the sound – clarity, reverberance, strength, impact immersion, "do you feel immersed in the sound?" – then we work then and think about the scale and size. I like to say that, for different projects and different rooms, there are sort of four or five main aspects of acoustic… of architecture that we help the architects and engineers with. The biggest one… the biggest influence is the scale and size of the room: a big room, a big auditorium will sound weaker for human… for natural acoustics – a generated… a sound generated by performers without microphones and amplifiers. We can only put out so much sound. Now opera singers put out the biggest sound per person of anything – except maybe trombones. And then the next level is the shape and the geometry: so when you start with "How big is the room? How many people: is it 2,000 people, or is it 200 people, or is it 20 people?" The shape and the geometry is very important. And so we work with that to help guide the sound to the listeners, so it comes in strongly, so enough sound is reflected by the walls and ceiling and the balconies, in certain directions, so the listeners in all of those places get enough and get enough immersion in the sound and get enough strength and clarity of the sound. Then there's the audience location. So the audience doesn't just get stuck on a piece of paper in a model… actually locating and thinking about where the audience is in relation to the performers, and where the audience is in relation to each wall, and the ceiling, and lower ceilings is all very important. And, of course, then everybody understands – well, kind of probably understands – the materials and textures are really important in acoustics: how reflective, how absorbing of sound; how much they scatter the sound. So we work at the finer scale with the architects on giving guidelines, and then collaborating on roughness, smoothness, hardness, that sort of thing. All of those start as guidelines and then the design process is a collaboration.

Robyn Grant-Moran
You'll probably hear me ducking out quite regularly. I'm not going to be as present in this episode because I'm in downtown Toronto and there are so many construction noises happening outside my house right now – which makes me think of the Four Seasons Centre, where it is right above a subway and it is in the heart of downtown Toronto. Can you talk about the considerations that you had to make when creating a very opera-specific hall in such a densely populated urban area?

Bob Essert
Sure. It was quite a challenge but it was a known challenge: the streetcars going on Queen Street, the subway on University tend to shake the ground. You don't always feel that when you're outside or in maybe an office building, but our goal for an opera theatre is really silence during the performance. So what we've done is isolated the auditorium and the stage on rubber pads. The foundations of this

building are split so that the… the footings are deep into the ground – and the carpark down there – but then there's this layer of rubber pads and the auditorium sits on top of that, and those rubber pads are tuned, designed to be… have a natural frequency that allows the auditorium to be silent, given the vibration frequencies – very low frequencies, bass frequencies – that the transit system generates. Now, one of the things that is remarkable, really, the Richard Bradshaw Amphitheatre out front is this wonderful space for music of all kinds. And when we were early in design, nobody really was understanding that that was gonna be such a wonderful performance space or programmed so regularly for performance.

Julie McIsaac
It is a beloved space. Absolutely.

Bob Essert
But… but everybody enjoys sitting there. It's not as silent from the street noise as the auditorium is, but it's plenty silent enough, for that overall experience, to be wonderful: you see the cars zipping back and forth, but you don't really hear them for most of what's going on in the foyer. In many of the Italian and other European opera houses there's more velour and velvet around, and we don't do this in this house. In the Four Seasons it's big enough: at 2,000 seats, it's much, much bigger than most European houses. So we want to preserve all the vocal power and all the orchestral power we can without soaking it up in lots of curtains around the theater. So the surfaces are solid but there's these little subtle additions on the surfaces to keep it from being harsh.

Robyn Grant-Moran
That makes a lot of sense having been in some opera houses in Europe and also at the Teatro Colón in Buenos Aires. And they all have such distinct, unique sounds, and nothing is as wonderful as the Four Seasons Centre has been my experience in terms of acoustics. But I was wondering if there's more beyond just sort of the velvets and whatnot that do change the quality of the sounds from house to house.

Bob Essert
I have a theory that most Italian opera houses have a lower reverberation and higher clarity as they developed over time and people copied other houses. I mean, there's thousands of them in Italy, more like drama theaters – and indeed, they are used as the town drama theatre as well: a 400-seat opera house in any Italian city is "the theatre", and it's opera some days and it's drama other days. But my supposition is in the 19th century, especially in the 18th and 19th century, most of the opera that people were listening to in Italy was first language for them. So the text and the clarity of the text – all the words – need to come through, as in the drama theatre and the history of opera connecting into the perception of text in the space. In North America – I think people are more inclined to favor the orchestral sound and the vowel projection, than the consonants and the clarity of the text, if they aren't going to really be getting the language anyway. Now that surtitles have been developed and become de rigueur everywhere, people are relying – Americans and… and others who… for whom it's the second or third language, are using that to support the intelligibility. So I think the Italian sound – a drier, clearer sound – has some historical reasons for it, compared to, let's say the… the Four Seasons or the late 20th century sound in bigger halls as well.

Julie McIsaac
Well, I'm curious, Bob, in terms of the things that we now take for granted – as part of our physical and spatial experience at the opera house in terms of the seating, how we're organized in terms of seats and where we're facing and the level of the stage, whether it's a raised stage or whether it's not – I'm curious about how many of those aspects are experienced are deliberate and why.

Bob Essert
Okay. They aren't all acoustical: until the mid-20th century, stages were raked, sloped, and the orchestra floor, in most old houses, was flat or almost flat. So there's a relationship… a sightline relationship between audience – in the lower level of the house – and the stage and seeing the performers. And if you're going to have a flat orchestra level or stalls level floor, or nearly flat, you need a stage that rises up at the back so people can see the performers upstage.

Julie McIsaac
Right.

Bob Essert
So, we have that changed evolution. Another is a very important one acoustically, is the orchestra pit and how big it is, which came along with the development of music, and the composers, for symphony as well as opera, evolving from smaller orchestras to larger orchestras, through the classical Romantic and 20th century. And how big do you make an open orchestra pitch. Most Italian pits are fairly open with very little overhang: few musicians under the stage, everybody's out in the open. And for a smaller orchestra, that… that's okay. Once you get to be a very large orchestra, it's quite a challenge to sing over the power of 100-piece, 105-piece orchestra. Wagner, of course, buried the orchestra: this radical move, he didn't want to see the orchestra. Some people think it was just an acoustical move, it was actually, we think more of a visual move for him to do that. But he wanted each individual to be immersed in their own world connection to the performers, and not really be part of the audience world and the orchestra world. But it had an important acoustical effect, too: the singers can be heard over the 105 pieces, deep under the pit. The challenge we have today, with opera companies that want to do Mozart, and Steve Reich, and Wagner, and the rest – Rossini – is to have a flexible orchestra pit. So the Four Seasons has multiple orchestra lifts, elevators, that can make the orchestra higher or lower, or raise – actually have a smaller orchestra pit or a larger orchestra pit. And that is not uncommon: in some houses, there's eight or nine orchestra lifts; we just have the two plus another manual, occasional variation in the Four Seasons. But there is an overhang as well. There's two and a half metres of depth underneath where, typically, the louder instruments are arranged. Not always: it's up to the maestro as to how to set up the players in the pit.

Julie McIsaac
Right.

Bob Essert
We didn't opt for a very, very deep overhang because that takes away too much of the sound and actually gives more difficulty for the players to work together in ensemble and hear each other.

Julie McIsaac
Bob, with your own experience as a musician and with your interests in music, when you think about the audience who's going to come to the Four Seasons Centre and hear an opera and experience an opera: what do you hope they take away from their experience in this space that you had such a role in creating for them?

Bob Essert
I think I will answer that in two parts. One is I'd like them to be pulled into the world of the performance, immersed mentally through the music, through the engagement with the performers, with the house being a vehicle for that – for encouraging the best performance as well. I'd like the audience to feel like the performers were inspired to give their very best because of how they connected with the audience. The house is delivering a wonderful sound to the audience, but it's also delivering a wonderful sound to the performers so they can give their very best emotional output to the audience. So that's how the whole thing works together. Living in England and working with opera companies here on smaller houses, country house opera houses is a tradition here that's grown with Glyndebourne – just about everybody in the opera world knows, or has been to Glyndebourne and my wife, Anne, worked on that one as a theatre consultant. But in the last decade, we developed a pavilion for Garsington Opera and, a couple of years ago, opened a new small 400-seat theater for Nevill Holt Opera company. And that's about 400 seats and Garsington is 600. And the intensity: living here, I really got to appreciate the intensity of opera in a smaller room. As wonderful as Four Seasons is for Grand Opera, and even for Mozart, but it's a… it's a big, grand Mozart sound, or Rossini sound. Hearing those pieces in… what we're doing here in England isn't the same as an opera house in Italy: they're smaller, they're different. But it's more the acting becomes forth, the text comes forth, the chamber ensemble nature of the performance comes forth. Less money on scenery, you know, less money on other things during the production, but it's intense in a different way, and I've come to really appreciate that.

Julie McIsaac
Thanks for mentioning that, Bob, because as… as a stage director, I've worked with the singers in rehearsal. So I have that experience with them in studios and in rehearsal halls, and I'm cognizant to the fact that it's a very different experience of hearing them in that instance than it is when we move into the hall. And it's also a great reminder that, in addition to the beautiful gift you've given us in the Four Seasons Centre, that there are all these different ways to experience opera within this country and on this continent and abroad, as well. So to encourage people to go out and seek out those experiences and all those different acoustic environments, and see how that shapes your experience of the art form and the way you hear opera. So, thank you so much, Bob.

Bob Essert
You're welcome. Thank you.

Julie McIsaac
Bob has really enhanced my appreciation of the Four Seasons Centre and how lucky we are to have it. What I hadn't thought a lot about was how you have to keep the outside out: previously, I thought a lot about the sound being created in the space and the how and the why, but it hadn't really occurred to

me, until chatting with Bob, that it's like, "there's helicopters out there, there's ambulances out there, there's the subway", and all of that needs to be kept out, so that we might have the… you know, this experience inside with the music.

Robyn Grant-Moran
I had totally forgotten about that and I forget about that every time I go into the Four Seasons Centre, because it feels like its own little microcosm. And how that's accomplished by it actually being this padded space that is separate from the outside world was really fascinating. I really liked his point about how attending different opera houses, you might hear the same opera very differently just depending on where the orchestra is situated, how big the opera house is, how old it is. And the science behind that is mind-boggling.

Julie McIsaac
I have this fantasy bucket list of wanting to be able to see operas in the opera house for which they were created for their premiere – and Bob really shared with us how that very much did impact not only the era, but the physical properties of the building and how the singer's voice in particular like the chemistry between that. I guess it's not chemistry, per se. It's more physics, I guess is what I'm learning here. But we would say in a more casual way, like, the interaction between the singer's voice and the physical structure. So yeah, that's my fantasy bucket list. It'll never happen, I don't think, but wouldn't that be great. And also this sort of chicken and egg relationship between the science and the physical properties of things that were available at the time, and then the art that was therefore created – how they've been intertwined over centuries – like, what is available and what we can create in those circumstances,

Robyn Grant-Moran
Right, and how it's evolved socially, too. Like, the socio-political element: people gambling in opera houses then doubling as bordellos at times. Where we think of it as such a high class and rarefied event where you dress up in your fancy clothes and you go and… I mean, that happened back in the day, too, but you wouldn't go to the opera just to see the opera.

Julie McIsaac
Right!

Robyn Grant-Moran
That's a relatively new invention.

Julie McIsaac
Yeah, well, and this idea that, you know, the piece is having this overture, where there's potentially no stage action happening on stage, but it gets everyone's attention. So let's say you're there and you're chatting and you're gambling and you're drinking your wine and all that, the overture being a means – this musical construction but having this purpose in the sense of get getting everyone's attention, you've got, like, four to five minutes to find your seat and settle into place and prepare yourself for the beginning of the performance. That was connected to the socio-cultural happenings.

Robyn Grant-Moran
Where now we hear the bell that ushers us all in…

Julie McIsaac
Yeah!

Robyn Grant-Moran
… to the auditorium, before the overture.

Julie McIsaac
Yeah!

Robyn Grant-Moran
We're that used to be the bell.

Julie McIsaac
Right? The overture was the bell. Yeah.

Robyn Grant-Moran
Yeah. Very, very cool.

Julie McIsaac
Mhmm. Um, there's something… I'm curious, Robyn, what your take was on when Hannah shared with us – we talked about contemporary opera happening in these… not in opera houses, but happening in other places where perhaps it's immersive, or perhaps you are drinking and eating as you're attending that experience. What do you feel about that, in terms of being a potential way forward or as a way of finding and developing new audiences? Where do you find yourself on that?

Robyn Grant-Moran
I think it's amazing.

Julie McIsaac
Yeah.

Robyn Grant-Moran
I mean, in a lot of ways, it's more true to a lot of the… to the older styles, to pre-Mozart, basically: that it is taking it back into a more historic context, even though we view it as a contemporary take.

Julie McIsaac
Mhmm.

Robyn Grant-Moran
I find that very fascinating. What about you?

Julie McIsaac
Yeah, I think I find myself… I'm thinking about popcorn, to tell you the truth, Robyn, is what I'm thinking about right now, because I'm going, "Okay, if I go to a movie, and I get popcorn, the popcorn is part of my experience." I don't think I've ever eaten popcorn and watched an opera – like, I've never connected those two things. Even though, like, through our conversation with Hannah in particular, we talked a lot about modern cinematic experience and how it… how it has its roots in 19th century opera practice. So now I want to sort of listen to an aria and eat popcorn and see what the result is.

Robyn Grant-Moran
I'd love to be able to have a glass of wine or drink a beer...

Julie McIsaac
Right. I do want to give a shout out to our colleagues out there in the opera world in Toronto and beyond who are experimenting with these different ways of doing things, where you can be drinking a beer and listening to an aria and are combining all these things in innovative ways and experimenting. So thank you to all the experimenters and innovators out there. Robyn, particularly in terms of hearing – like, with our focus on sound in this episode – do you have a memory of a particular experience of hearing, an experience of sound, that has really stuck with you?

Robyn Grant-Moran
Oh, God. Anytime I hear Strauss.

Julie McIsaac
Mmm.

Robyn Grant-Moran
Um. Elektra… the COC production of Elektra… ****Musical excerpt: "Allein! Weh, ganz allein," from Strauss' *Elektra* with Christine Goerke, Johannes Debus with the COC Orchestra****

Julie McIsaac
Yeah.

Robyn Grant-Moran
… and just that opening, and it's so intense and the brass is so loud. And it just… it just physically overtakes your body.

Julie McIsaac
Mhmm.

Robyn Grant-Moran
And I love that.

Julie McIsaac
Yeah.

Robyn Grant-Moran
Like, it just… it's the perfect setup for the drama that's about to ensue.

Julie McIsaac
Yeah.

Robyn Grant-Moran
How about yourself?

Julie McIsaac
Well, I find myself thinking about those moments where it's the first orchestra note read or the first "sitzprobe", and you been rehearsing with piano in the rehearsal room, and then it's that first day where the orchestra joins… joins the mix, joins the party and what you've heard – and then maybe I hadn't really considered the instrumentation of that particular passage – but by virtue of, "oh that thing I've been hearing on piano is actually a flute? Oh, it's actually the strings? Oh, it's all the strings? It's brass?" And the difference between that and those little moments of discovery and jubilation, as what was hitherto a piano, becomes a full orchestra.

Robyn Grant-Moran
Oh, I love that.

Julie McIsaac
Yeah.

Robyn Grant-Moran
The whole piano reduction to actual orchestration is so, so amazing to experience.

Julie McIsaac
Mhmm.

Robyn Grant-Moran
And not a thing that, if you're just a casual opera attendee, that you're privy to.

Julie McIsaac
Mhmm.

Robyn Grant-Moran
But, in rehearsal, everything is reduced to piano…

Julie McIsaac
Yeah.

Robyn Grant-Moran

...for a large portion of the rehearsals.

Julie McIsaac
Yeah.

Robyn Grant-Moran
The orchestra doesn't come in until a few rehearsals in.

Julie McIsaac
Yeah, totally. And it changes the color of a moment, for example, in terms of he atmosphere of it, I mean, with those textures changing,

Robyn Grant-Moran
How does that impact your stage direction and your choices?

Julie McIsaac
That's a great question, Robyn, because I know: I played oboe in high school – like, that was my band instrument – so I have this affinity for an oboe, particularly when it's featured in a moment. So if it has a solo line or if it has a very particular presence, I like to give it some attention. But it's nice, too – and this is… this is connected to Wagner too in terms of, like, a leitmotif: so connections that are made between particular characters, particular relationships, or special objects in the plot in the drama, and how he connects particular melodies with those. So I think it's sometimes… sometimes really fun in terms of a staging or even just working through things with a singing actor, to, you know, to hang ideas on things – relationship-wise or intention-wise – and to connect those with particular instruments. For example, like what if the violins are memory? And there's a lot of word painting and painting that goes on with the orchestra that composers are doing regardless. Like, they've done a lot of that groundwork – they've established it. So it's really uncovering what they've already embedded in the score. But I love that: I love associating things to particular sonorities, particular combinations of instruments or solo instruments. I love the opportunity they give us to create even more meaning than what's already there.

Robyn Grant-Moran
Yeah, I love in all of Wagner's work, how he does that, and then Puccini took it to another level with his version of the leitmotif. And that when it's directed well – when everything comes together – you're trained to… every time you hear that certain sound, you just know that, "This is Mimì", "This is Rodolfo".

Julie McIsaac
Yeah.

Robyn Grant-Moran
"This is Butterfly". Like, and, you know, their emotional experience just cued by the music.

Julie McIsaac
Yeah, and what you're saying about being – whether we're conscious of it or not – we've been trained to respond a certain way to certain sounds, certain motifs. And Bob mentioned that too, I think in terms

of… because, without knowing it, we're all seeking a certain sound – like he spoke about clarity and strength, I think was… So and the fact that we can respond to something and to know whether we like it, or to know whether we're giving it a sort of thumbs up or not, without even necessarily having the vocabulary and the understanding of acoustics, for example, to frame what we're responding to. But there's something in us that knows or that responds to it.

Robyn Grant-Moran
Absolutely.

Julie McIsaac
I really appreciated how Bob brought our attention back to the fact that opera's such a collaborative art form, too. And we typically can see that in terms of the art-making, because the orchestra is there and maestro's there, the singers, we see the design elements. But also we were reminded that there's a whole team of people who built the opera house, who have the science backgrounds, engineering backgrounds, who helped create the experience that you have in the opera house. And also, in terms of collaboration and evolution through the ages, is that Hannah really brought our attention to the fact that these musical structures that exist in the opera canon, they vary era to era – from the 1600s, 1700s, 1800s – that that offers us a whole other window into understanding and appreciating what we're hearing in terms of the musical structures that contain and inform the the storytelling.

Robyn Grant-Moran
Understanding that history is helpful. And understanding the popular stories, and the stories that tend to go with certain… what was popular at certain times, how it matches the music, and the music matches the politics and it all gets intermarried. And coming up, in our next episode, we actually talk about storytelling in opera. We'll be talking to Teiya Kasahara and Ravi Jain.

Julie McIsaac
Yeah, and Ravi's a stage director who works in various disciplines and combines elements of classical works and contemporary considerations in really novel and interesting ways. And we're so excited to talk to both Ravi and Teiya about what exists historically in terms of stories that were told and conventional structures that inform those stories. And then contemporary practice, which shows us either a very straightforward interpretation of those stories, or a more… a more creative and inventive way of accessing those stories here and now,

Robyn Grant-Moran
Teiya does some really interesting work similarly to Ravi with taking historic work and contemporizing it. So I'm really looking forward to what they have to say on how they approach storytelling.

Julie McIsaac
Yeah. And so thank you for going on this journey with us today about how we hear opera and what opera sounds like and, if you're able, please join us next time with Teiya and Ravi and with Robyn and myself. Looking forward to it.

Robyn Grant-Moran

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Julie McIsaac
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Robyn Grant-Moran
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Julie McIsaac
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