

(ASSASSIN'S CREED VALHALLA MAIN THEME PLAYS)

CHARLES:

You're listening to the game-makers podcast, where we take you behind the scenes to listen to how Ubisoft games are made. I'm Charles-Adam Foster-Simard. Assassin's Creed is one of Ubisoft's most beloved franchises. It's an action-adventure RPG series, and each game is set in a different historical period like the Crusades, Renaissance Italy, and Ancient Greece. The latest game in the series just came out. It's called Assassin's Creed Valhalla, and it's set in the Viking era. You play as Eivor as they lead their fellow Vikings from Norway to ninth-century England. (MAIN THEME PLAYS)

CHARLES:

The original soundtrack for Assassin's Creed Valhalla was written by three extraordinary composers: Jesper Kyd, Sarah Schachner, and Einar Selvik. They composed nearly six hours of music for the game, and all three collaborated on the main theme. We wanted to understand a little bit more about their process. So we have a series of episodes, in which each composer will be discussing one track in particular that they wrote for the game. In this episode, we're diving into the track "Asgard Hall of the Aesir" composed by Sarah Schachner, and featuring the voice of Einar Selvik.

(MUSIC PLAYS)

Sarah Schachner is an American composer, producer, and multi-instrumentalist. Some of her recent video game credits include Call of Duty Modern Warfare, Anthem, and a personal favourite of mine, Assassin's Creed Origins. For the track "Asgard Hall of Aesir", Sarah collaborated with British musician John Kenny, who plays a modern reconstruction of an ancient Celtic instrument, the carnyx. John Kenny is a professional trombonist and music professor. He reached me from his home in Scotland, while Sarah talked to us from Los Angeles to discuss their collaboration on this track.

Tell me John, how you got involved in this project? Or Sarah, you can jump in, obviously, but so is this come from you, Sarah? Did you know about John's work and you wanted to get the carnyx sound and the track and get him involved? How did this come about?

SARAH:

Yeah, so actually to fully explain, I kind of have to go all the way back to when I was a young kid, because I... John is probably like, what the hell? When I was really young, my sister and I were super obsessed with Vikings. And we were begging our parents for a Viking ship. And they were like, what are you talking about? That's not a thing you can have. Like we wanted a full size Viking ship to play on instead of a swing set. And it just so happened, that the Leif Erikson Society was selling a boat that had gotten into an accident being transported, and they couldn't use it anymore, so they were either going to sell it or burn it in the old Viking tradition, out at sea.

And you know, they're asking a very large sum of money that our family couldn't afford. But my dad wheeled and dealt them down, and we ended up getting it. So we had this full sized replica in our yard for years and years. And like, you know, the kids, the whole neighbourhood would come over with swords and shields, and we'd be pillaging and plundering every summer and we'd have sleepovers on it. And it was the like, one of the best things.

CHARLES:

Where was this? Where did you grow up?

SARAH:

Oh, in a small town in Pennsylvania. (laughter) So it was pretty unusual to have. And the guy that sold us the boat, actually, you know, I'm friends with him on Facebook, and he's kept in touch with our family a bit over the years. And he sent me a YouTube link, randomly, to a guy playing the carnyx. He just thought I would like the sound of it. And I was immediately obsessed, and I went on to YouTube spiral of researching it, and I found John. That video wasn't of John, but then I found John because he's really one of the only people in the world who plays this instrument. So I found him, I contacted him, and we connected over email and just, you know, I wanted to see if he was even open to doing a session and so that's how we connected and that's how I found out about him.

CHARLES:

If we're going to go back to the origin story, John, can you say a little bit about how you got into playing and owning a carnyx? How did you get into that instrument?

JOHN:

Well it's extraordinary the way that things find you rather than you finding things. As a trombone player, I'd always been very interested in trying to expand the repertoire for my own instrument. And that meant looking... The trombone is a very old instrument in Western terms. But in order to expand the repertoire, I found myself as a professional performer, looking backwards into early music, and ancient music, and forward into contemporary music at the avant-garde, and also, any culture into which I could enter playing that instrument.

And I suppose I'd been doing that for quite a few years and got some sort of a reputation for being a bit of a strange guy with a trombone walking into other people's environments. And one day, this remarkable man, John Purser, who is quite simply Scotland's greatest living musicologist, historian, playwright, poet, radio broadcaster, and also lives on the island of Skye in the Hebrides, and raises Highland cattle. He's a remarkable man. He turned up on my doorstep and basically said, "You don't know me, but I know you, would you be interested in playing the carnyx?"

And I said, "What is that?"

And he opened a briefcase, forced his way into my house, sat down, and started showing me pictures of this extraordinary skull in bronze, which was lying unseen, in the vaults of the National Museum of Scotland. And I was hooked immediately because it was fascinating. It was extraordinary. And it turned out that this object I was looking at was the best-preserved part of an instrument the ancient world called a carnyx, found anywhere in the world. And it

was found in the peat bog in Scotland. And he was basically asking me if I wanted to be the musical performing consultant to join the team of scientists working on it. And I took about a quarter of a second to say yes, you know, this was fascinating.

So this beautiful thing, which is a reconstructed instrument from between 2000 and 2600 years ago, my job was literally to bring it to life, once all of the research was done on reconstructing it. And then wonderful things happened. Like Sarah getting in touch with me, you know this happens over and over again, it's just wonderful the variety of situations in which this instrument has been used already. And I have to say this project is actually one of the most exciting.

CHARLES:

We are going to get to how it's used in the soundtrack for Valhalla in a minute. But for those listening, can you describe what exactly a carnyx looks like, you have one looming or hidden behind your head at the moment.

JOHN:

So I do. Unfortunately, we're not using the video for this, I set it up so I could lean to the side and show the carnyx, which is now actually if you were watching it, you'd see it's looking into my ear. But this thing actually, for a start, it has a head, which is very unusual for a musical instrument. It's the head of a wild boar in hammered bronze, so that bronze is hammered as thin as a sheet of typing paper. It's incredibly resonant, it's literally a skull in bronze, with a hinged jaw, and a tongue in the throat, a soft palate, like our soft palate, or the soft palate of a pig, or a horse, or a donkey. And, a brain cavity.

So the skull's hollow, like a real mammalian skull. And it resonates like a real mammalian skull, like we do when we sing, actually or speak, or shout. And then it has a set of long tubes which descend downwards, most unusually it's held vertically, not horizontally. So when I and it are together in the correct playing position, we are 12 feet high, which makes it very, very big. That's why it's on a stand behind me, I can't actually lift it into playing position in my house. I've got to be either outside or in a church or a cave or a concert hall or something like that. I think Sarah would agree, it's a very extraordinary thing to look at, and very beautiful.

And this instrument was made by John Creed who's an artist and sculptor and probably one of Britain's leading artists in precious metals. John was the craftsman in that team 28 years ago, it's 28 years ago since we first reconstructed this thing now. And John was the guy working with myself, with the archaeologists, with the acousticians, to actually try to reconstruct the instrument using similar techniques and similar materials to those we know were used 2000 years ago, because it's a bronze alloy that doesn't exist today, with constituent parts that we don't see in anything else, we had to reconstruct the alloy. And he then hand-hammered it for over 400 hours, into the shape that you're looking at behind me. So it's a really extraordinary work of science and craft.

CHARLES:

And for you, Sarah, what was so compelling about the sound of the carnyx, why did you want it to be part of this track and of the soundtrack for the game?

SARAH:

What I initially responded to about it was that it's an untempered instrument. So it's not like a modern day brass instrument where you press down and the notes are all even. And that sounds exactly like a scale. It just goes off of its natural harmonic series. And, John, correct me if I'm wrong, but it has a very strange harmonic series. I think it's like a major third, a flat seven, and then a major seven on the bottom. Is that right?

JOHN:

Yes, that's right. It's partly because it's a truncated cone. That is, it's conical, but it is in steps, the tubes are cylindrical until it gets to the top. So this thing is made to look like an animal. And the top of it is conical. But the lower parts are a cone in a set of ladders, steps going up. And that's partly because it needs to be strong enough to withstand the weight of the head at the top. And that gives it this strange harmonic series that Sarah mentioned. And it also means that its sound is not even, it means that it is full of what we call wolf tones. Really strange, rich, unusual sounds that we try to even out of modern instruments because we want them to be smooth. We want them to be even. But quite clearly the people who made this instrument, they didn't want that. And so that's a feature of it. I'm not going to play "Happy Birthday" with it.

SARAH:

It is definitely the best part of it, because it sounds wild, it sounds scary, but also beautiful at the same time. And I feel like I'm always trying to combine contrasting and conflicting emotions together. And this instrument really captures that. And I especially wanted to use it for the Asgard Dreamworld parts of this game, because this is the mythological realm, you know, it's not based in reality, and the fact that this instrument is way, way older than even the era that we're in in this game, I thought it would be cool to kind of have echoes from the past coming through in the Asgard realm, since the mythology is so old.

It's such a haunting, interesting, and unique sound. And I was obsessed with it from the first time I heard it. So many textures and the way we recorded it, which was really cool... I like to do very open-ended sessions that are kind of for capturing textures and gestures. So I'm not writing specific notes for John to play because the notes are already limited of what you can play on the instrument. But, kind of thinking of it like capturing colours that I can then paint with later.

JOHN:

It's very interesting, because Sarah and I talked about this a lot, and I love what she's done with it. And the textures are absolutely great. And it's very interesting, this open, this first track because the carnyx is through quite a lot of the music. But this first track in particular, given the fact that it's relating to Asgard and this dream world, we all know from reading Marvel Comics, if we're not scholars of Norse mythology – I am incidentally – but most people interface with this world through popular culture, and we're all aware of the rainbow bridge. Now there's a beautiful real connection here, because what Sarah's talking about that harmonic series, the harmonic series is a rainbow of sound, it's literally sound divided into wavelengths, the same way that we see colour in visible light.

We hear that in audio, we hear that in the audial spectrum, we use the same word spectrum. And what Sarah is doing is sweeping across this magic bridge of harmonic colour. So it's a very poetic thing, she's literally working with something that is a spectral instrument in a set of images that are spectral, and the Norse were really, really aware of this. That's why they had a rainbow bridge, it's the bridge that appears so strongly, especially in Northern Light, when you have low slanting light. They imagined being able to cross across this into another world and then it will just disappear.

CHARLES:

Well, it's that liminal space between the real and the fantasy, or the land of the gods, right?

SARAH:

Yeah, and this part of the game is the one place I could really go and give it extra drama and fantasy, whereas, you know, there's always that sci-fi aspect of Assassin's Creed, but I feel like I could push that even further for Asgard, and like John was just saying, I was literally looking at the rainbow bridge as I was writing this piece. So I mean, I have synth modules that scan through the harmonic spectrum, and it's so cool to have an instrument that literally does that naturally. And I think both John and I, we really connected because we both are a bit obsessed with merging ancient history, ancient instruments and sounds, and the way people did things and built instruments and combining it with modern technology and processes. Because in this track, this is an example of a track where you do hear the natural tone of the carnyx.

(CARNYX PLAYS)

So the gestures that John was playing, it was playing a major chord, which is more of a happy sound and I pitched every single major third down to a minor third, and that gives it more of that melancholy. Sad tone to it, but you still get the natural tone of the carnyx.

(PITCHED CARNYX PLAYS)

And then there are other tracks where I completely destroyed his performances and even put some of them through a vocoder, which is, it's a technology that re synthesises another sound. And you know, most people think of it like Daft Punk robot voices and stuff. But I put John's carnyx through the vocoder and then I was able to play it on my midi keyboard like a synth.

(VOCODER CARNYX NOTES PLAY)

So I was able to play things that he wouldn't have been able to play on it, but it still has the essence and the texture of the carnyx.

CHARLES:

Can you talk a little bit about the actual recording session, or sessions, that you did for the

soundtrack? So, Sarah, you mentioned that you hadn't like written out notes or anything like that, so what kind of direction might I guess, first of all, did you provide for John or, or briefs? And then how did you actually go about recording that?

SARAH:

Yeah, I basically just wanted to capture what the instrument does. And you know, John knows that better than anyone. There were certain techniques, we tried, like, we did some layering techniques of building to a crescendos and exploring all the different articulations you can do with the instrument, but I wanted to keep it really loose because I just wanted to have this palette of sounds and textures that I could then reinterpret, reinvent and do anything I want with.

And yeah, we had scheduled to do this right as the pandemic was starting. So there was a moment there where we were like, Oh, God, I don't think we're going to be able to do this because you know, he's in Scotland, I'm in LA and it was craziness going on. We didn't know if he was going to be able to be in that building with someone, but we managed to do at the very last minute with one engineer on his end. He was alone in the room. They were social distanced, and I was on Zoom for eight hours. I think John, did we do eight hours? It may have been more than eight hours.

JOHN:

It was 11.

SARAH:

11! I'm so sorry. You were like, you were dying, by the end. It was a bit intense.

JOHN:

It was extraordinary.

SARAH:

We had to get it done in one go.

JOHN:

It was a little victory. Because obviously the pandemic is global, and it was affecting us all. At that stage we didn't know how bad or how long, how deep it was going to get. Now looking back with hindsight. If we had not done that session that day, we could not have done it for another four and a half months, we would have missed the whole boat. And we were already just on the cusp of legality in both countries, both in the USA and in Britain. But we managed to pull inside, I had a fantastic recording engineer on her side. I have a fantastic recording engineer on my side, we were distanced, all four of us were in contact using Zoom. And then we were using ultrafast technology to beam sound down.

Sarah had sent me a lot of track ideas that I was able to respond to. And I basically filled the studio not just with one carnyx, but I had two of the carnyx that are behind me, the Dexford carnyx. I had a second reproduction, and a third reconstruction. And they are slightly different from each other. That gave Sarah the chance to choose between tone qualities,

and they are quite actually substantively different. I also had an instrument called the Tintignac carnyx which I was involved in reconstructing, that was discovered in southern France. It was almost complete. It looks quite different. It's the same family but if you like it's about as different as a guitar and a lute let's say, you know, you can pick it up and pluck it if you're a guitar player or a lute player, but you don't necessarily know how to play it.

So they're both quite distinct beasts. I had a horn which is slightly older again, that was discovered in a peat bog in Ireland. I have conch shells. I had a 12-foot alphorn as well. So I think I had about 12 instruments in the studio. And so basically, Sarah would talk me through an idea, an emotional idea she wanted to achieve, and then maybe play some elements of a track. And I would respond to that, then we'd talk about it. We were kind of really doing our own workshop, if we'd been able to get together for a weekend or week or something, we would have done exactly what we were doing. As two musicians, we would have sat around having fun, talking about it. "Oh, my God wow, does that work? No, that doesn't work, no that's terrible. That works" But we had this incredibly compressed time, just one very long day. And that was the only way we could do it. I think I got to bed at one o'clock in the morning. It was already by that time illegal to be moving about, but I managed to drive through the Southern Scottish Uplands, in total pitch darkness, arrive at my house, unload all the instruments and go inside. And then for the next six months, we were not allowed to go out and to move about like that.

CHARLES:

Right when lockdown started.

SARAH:

Yeah it was literally the day before it was official. And I'm so thankful for that. And so thankful for technology working and my Wi-Fi not crapping out, because it's been very sketchy lately. I mean, it just, it added, the texture of the carnyx and all those other instruments he played adds so much colour and you know, just inspires me to hear what someone else is doing. And then playing, like he said, playing off of each other and, and coming up with ideas and talking about techniques. And that's the most fun for me.

JOHN:

It was a lot of fun, a lot of fun.

(EXCERPT OF FINISHED MUSIC PLAYS)

CHARLES:

Talking specifically about Asgard, and how you managed to use the sound of the carnyx in that track. I'm just wondering how you kind of used it there because there's a lot of layering and it's almost like the voice that you're using are in the background. And it's the carnyx that you're putting in the foreground sometimes, which is maybe a little bit unusual or not what you would expect. So yeah, I'm just wondering what the process was there, and how you layered in the instruments and the voices in that track.

SARAH:

Yeah, the carnyx was definitely the focus of that track. And that's what I started with. I knew,

because this was a big track for Asgard, and it ended up becoming a theme for Asgard more than just exploration music. And I knew I wanted the carynx to be featured. So I started out, I just grabbed a bunch of John's raw performances, I spread them out in my session, and I went through and kind of chopped them up and re-pieced them together in to create a larger gesture that I liked. And then I put in that guitar underneath to provide the harmonic – well, after I pitched all of his major thirds to minor thirds then I put... hopefully John doesn't mind – then I put the guitar underneath, which is the only time a guitar appears in the score because that's not an instrument that occurs in the Viking era. But you know, we're in Asgard, we're in dream world, this is fantasy.

(GUITAR PLAYS)

CHARLES:

And what did the guitar provide you like, why did you reach for the guitar for that track specifically?

SARAH:

Well, initially, I was thinking, oh, it should be a lyre, or something plucked, that's more in line with the era but it just sounded thinner. And the guitar has a lot more body and emotion to it. And you know, I was playing it myself, and so you can get more expression out of it than something that's plucked and very kind of just a little more sterile, I guess. So the guitar went in next, and I created the chord progression in the harmony which really drives the track. And then I just started layering on other stuff.

And I actually had the track almost finished before I even got vocals in there because then, it was kind of aligning with when we had done the main theme, all of us together. And I loved Einar's voice and the passion that he brings to his performances and so I asked him if he... actually, I'm backtracking now. I did ask him to collaborate on other stuff. But this was, I had grabbed stems because he had sent me... I was producing and arranging the main theme, and he had sent me an old version of the main theme, where he had taken a very old, meaningful Norse poem and done a lyrical version, and it didn't work in our version of the main theme, but I ended up making another track out of it. But I took some of those stems of his lyrics and brought them into Asgard. And I started moving them around and layering them up and overlapping them in ways that they weren't originally and you know, there's a lot of reverb and effects.

So it's cool how that ended up being a later element, but it's one of my favourite elements of the track, the carynx and Einar, the best elements, and how they all came together. And when I sent it to Einar he had said that it kind of sounded like his vocals were like coming through from a different realm. And that was exactly what I was hoping to convey of just these voices from the past.

(VOICES PLAY)



CHARLES:

Yeah, they're kind of muffled like they're coming out of the fog or something.

SARAH:

Exactly, and some of the footage I was looking at, you're roaming in these foggy caves and exploring and then, you know, there's parts of it that have the Rainbow Bridge, so I just felt like it was a fitting vibe for that part of the game.

JOHN:

Yeah, evocative is the word. It is evocative.

SARAH:

I think when I had written that song coincided with when Ennio Morricone died. And he's one of my biggest influences and heroes. So I think, I was thinking a lot about his music at that time. And I think I was maybe trying to infuse a little bit of his aura into it as well. With like, the guitar and the 'du du de'.

JOHN:

Yeah, I wouldn't have detected Enio Morricone in it, but I'm delighted to know that you were inspired by him. Me too. What an incredible writer he was.

CHARLES:

I mean, now, I didn't detect it either. But now that you say, yeah, with the guitar, and some of that kind of like, he had this kind of thing of the repetitions like building up through repetition.

SARAH:

Repetitions of like arpeggios. And then, I mean, like The Good, The Bad and the Ugly with like, the horn, the wild sounding horns and kind of cattle calls of... So I think it's like an indirect reference.

CHARLES:

Man with the harmonica becomes man with the carnyx.

(LAUGHTER) And how do you feel John, for this track and for the other songs, kind of listening to the carnyx? Because obviously, Sarah has played a lot around with the sounds as well. And she said, like, adapting, putting it into a minor tone, but also doing different effects on it. How does that work for you? Or how do you react when you hear the carnyx kind of transformed in that way?

JOHN:

Oh hugely exciting. I mean, I love it, because, you know, the carnyx is a sound transformer anyway. I do an enormous amount of bending and transforming. I add my voice into it, as Sarah knows, I'm often singing and playing or speaking and playing at the same time, and using it as a kind of a sound transformation tube anyway. And I also work a lot with electronics myself and using sound transformation. So, you know, I'm very open to that sort of treatment. But the point is that it's always a joy to suddenly open up a track and hear somebody else's concept. It's a gift. It's wonderful. I just love it. No, it's, yeah, I've got take a six

hour drive in a couple of days, it's going to be on my headphones in that car, I will be looking for a Rainbow Bridge.

CHARLES:

You will be driving down the Rainbow Bridge with the Valhalla music as your soundtrack.

JOHN:

And if anybody messes with me, there's going to be a very large hammer coming out of the window.

SARAH:

Thor's hammer!

(FINISHED SONG PLAYS)

CHARLES:

Asgard Hall of Aesir is part of the Assassin's Creed Valhalla original game soundtrack, published by Ubisoft Music in collaboration with Lakeshore records. Go check it out, the entire soundtrack is beautiful. I'm Charles-Adam Foster-Simard. This episode was edited by Manu Bachet. Special thanks to Simon Landry and Anne Langourieux, and to Assassin's Creed Valhalla's audio director, Aldo Sampaio. If you like what you just heard, remember to subscribe to game makers and review us wherever you get your podcasts. Thanks for listening.