

8 | Composing for Independent Games: The Music of *Kentucky Route Zero*

BEN BABBITT

Composer Ben Babbitt is one third of the game development team Cardboard Computer, along with Jake Elliott and Tamas Kemenczy. Cardboard Computer is best known for the critically lauded adventure game Kentucky Route Zero, which was released in five instalments between 2013 and 2020. Here, Babbitt describes his background, philosophy and experiences writing music as part of a small team of game creators.

Background

I grew up around music – both of my parents are employed as musicians, playing in orchestras and teaching. My father plays violin and viola and my mother plays cello. I was surrounded by a lot of what was primarily classical music growing up and there was always somebody practising or teaching or listening to music. I know my mother was practising a lot of Bach cello music when she was pregnant with me, so I must've been right up against the body of the cello for part of my time in utero. I'm sure that had some kind of prenatal influence on my developing brain. As I understand it, I became fascinated with music and sound very early on and started playing violin and piano when I was four or five. That fascination really took hold, though, and manifested as a desire to write my own music when I was around twelve or thirteen.

When I was growing up, my parents didn't allow my brothers and I to play video games, so we didn't have any consoles. I played at friends' houses but that was the extent of my relationship to the history of games. I never had games in mind as a context for my composition work, and only got involved when I met Jake Elliott (co-creator of *Kentucky Route Zero*) when we were in university together at the School of the Art Institute of Chicago (SAIC). He and Tamas Kemenczy were just starting to work on *Kentucky Route Zero*, and Jake asked me to write some music for it. Seven years later, we managed to complete the project.

I'd been writing my own music and playing in bands actually since I was about eleven or twelve, but I didn't focus on composition or think of my

music that way until I went to study music when I was nineteen. I focused on composition at a conservatory in Chicago before I left and finished my degree at SAIC where I met Jake and Tamas. I'd done a few collaborations with a choreographer I went to school with but *Kentucky Route Zero* was actually the first project I was hired to work on as a composer. It was very much a learning process for me as I got deeper into the work. Because I didn't have much context for music in games beyond the little I'd experienced as a kid, in retrospect I think I approached it kind of blindly and intuitively. Conversations with Jake and Tamas helped a lot with finding an aesthetic direction for the music, but I was not drawing from a deeper set of experiences with other game music.

Composing for Games

I'm still becoming familiar with the process of creating music for other media, as I've only scored a few film projects so far. One major difference that strikes me is that when I'm working on a film, I'm able to create musical/sonic moments that correlate directly and specifically with visual moments on screen down to the frame, and that relationship remains intact – assuming everybody involved approves. There's arguably a wider range of possibility in terms of how music can interact with the image in games. Of course it's still possible to create music that relates to specific moments in a game as well, but it's a different kind of material inherently because it's unfrozen – it's always moving even when the activity in a scene can be slowed or stopped. I don't yet feel like I've explored the more real-time fluid relationship between music and image that's possible in games, but it's interesting to me. In some ways, it relates to an earlier tradition in music history where composers like John Cage and Morton Feldman were really interrogating the notion of authorship and distancing themselves from it via modes of chance and aleatoric processes. Games make that very easy to explore in the work itself, not only in the process of creating the music. One of my favorite composers and thinkers and game makers, David Kanaga (composer for *Proteus*, 2013), has explored what he calls the 'affordances' of games in relation to music and sound much more than I have.¹

¹ See, for example, David Kanaga, 'Ecooperatic Music Game Theory', in *The Oxford Handbook of Algorithmic Music*, ed. Roger T. Dean and Alex McLean (New York: Oxford University Press, 2018), 451–70.

Kanaga is one of the most interesting and inspiring composers and thinkers working primarily in games. Our work is very different aesthetically but I think we share a lot of musical and philosophical interests. Liz Ryerson (*dys4ia*) is another composer working both in and outside of games making great work.² I return time and again to the music of twentieth-century French composer Olivier Messiaen, and his work had a clear influence on my music in *Kentucky Route Zero*. My relationship with music by other composers and artists took on a kind of research-based orientation for each new musical modality incorporated into the game. In other words, my influences varied from one part of the project to another, especially over the course of so many years. I've always wanted to continue working on my own music projects and collaborate with people in a music context, but it's been challenging to balance those interests with the workload of such a sprawling game as *Kentucky Route Zero* and other commercial interests I have. That continues to be a challenge, and I think anybody who works in a creative field can relate to that tension between investing in their 'career' or paid work, and investing in their own creative pursuits.

Working on Games

I don't think it's necessary to study composition for games specifically in order to work in that context. That said, I'm sure there are many aspects of a curriculum focused on composition for games that are useful and could help to cut down on the time it can take to find one's footing in a field when taking the trial-by-fire approach in learning 'on the job'. I think loving music and having some sense of curiosity about it and hunger to continue exploring musical possibilities is more useful than any kind of specific technical knowledge or traditional skill or facility on an instrument. For me, any technical knowledge or instrumental facility I've developed over time has grown out of that initial impulse to explore musical possibilities coming initially from my love for music as a listener, I think.

I became involved with *Kentucky Route Zero* through knowing Jake Elliott a little bit from a class we were in together at school. So I'd say that's a great place to start, whether someone is in school or not, there might already be people in one's community interested in making games and working with a composer. It can be really generative to work with

² See Ryerson's website, <http://ellaguro.blogspot.com/> (accessed 8 May 2020) for more on her work.

friends and grow together and flatten the hierarchy a bit between employer/employee. In terms of finding jobs beyond one's own community, I know there are some really great resources on the Gamasutra website that has a jobs section, and also Twitter and Discord seem to be really active spaces for making new connections. Having work examples, even if one has never been hired to score a project, is very helpful in the process, especially when looking to work with people or studios outside of one's community or social circle.

For me, the most important thing to think about before starting a new project is whether the work sparks any real creative direction for me and if that's something I'm drawn to and connect to; in other words, does it seem exciting or interesting to work on? Of course, we don't always have the luxury of working only on the projects that are exciting to us, but I try to at least think about that before signing on to do something. I think if any money will be exchanged, having even just a simple contract or agreement in place before starting to work with someone is important. Also communicating one's needs to collaborators from the outset can be very helpful in establishing a clearly defined relationship that helps minimize the back and forth that can become tiresome.

I would advise aspiring composers to make the best music that you can make and judge that by how much you enjoy it and love the result, and then find ways to get that music to potential collaborators by any means. Don't be too self-critical at first, it can be difficult work on all fronts.

Kentucky Route Zero

Kentucky Route Zero is a point-and-click adventure, which follows world-weary antiques delivery-driver Conway on his mission to complete what is apparently his 'final delivery'. As Conway seeks to locate the destination, he finds himself entangled in a series of curious events and is variously caught up in the lives of other characters. Adding to the sense of mystery, this 'magical realist adventure' frequently adopts an experimental approach to chronology, cause-and-effect, perspective and space. Kentucky Route Zero comprises five parts, called 'acts', split into 'scenes', each announced with a title card. Besides the acts, there are additional interludes and other satellite texts which serve to enrich the story and world of the game. The game includes ambient electronic underscore and sequences when characters are seen performing – in particular, a country band (credited as the Bedquilt Ramblers) are shown in silhouette performing Appalachian music and in Act

III, players are introduced to an electronic musical duo, Junebug and Johnny. When Junebug and Johnny later perform a song at a gig, the player is able to select the lyrics of the song as it is performed.

The Project and Development

Kentucky Route Zero was a project developed over quite a long period of time, about nine years. I wrote the first pieces of music for it in 2011 and we published the fifth and final episode in January of 2020. The process unfolded organically in the sense that we were not working under prescribed production or release schedules coming from an outside source, like a producer or publisher; for almost the entire duration of the development process, there were only three people involved in the project. We did partner with Annapurna Interactive in the last two years of development, but that was to port the game to consoles; they were not directly involved in the development process, although they were immensely helpful in many ways. They became invaluable cheerleaders and enablers in those final hours.

At the beginning of my time working on the game, Jake, Tamas and I had a few conversations about the direction of the music and at that time they had some fairly specific ideas of what they wanted to hear. They asked me to record a set of traditional folk songs that they had selected and planned to use in each episode or ‘act’ of the game to provide a kind of meta-commentary on the events of the story. Additionally, they wanted me to create instrumental electronic ‘ambient’ versions of each of those songs that could be blended seamlessly with the acoustic versions. They also gave me a collection of old recordings from the 1930s of the songs by the Kentucky musician Bill Monroe that I could use as the primary reference for my own versions for the game. So at that point, I was really following their prompts and in many ways executing their vision for the music. I think this is not uncommon as a process between a composer and a director or game developer.

So I did my best to complete their request and turned in that first batch of work. It was after that point that Jake and Tamas reconfigured the project and found its five-act structure, and so that first set of pieces I had composed were mostly used in the first act. Over time as I became more involved as a collaborator and co-creator in the project, that initial process changed quite a bit. Although we continued to have conversations about the direction of the music that still included feedback and creative prompts from Jake and Tamas, they graciously allowed me to develop my

own voice as composer and to bring my own ideas to whatever we were working on at the time. Of course, a lot of the music in the game still came from narrative decisions already made that involved a character performing in a particular scene, for example, which were moments that had already been envisioned by the time I started working on them. But there was a balance between predetermined musical needs for any given scene and space for me to suggest new musical possibilities, in addition to having the creative freedom to inflect those predetermined musical moments with my own sensibilities.

Often before beginning to compose for any given scene or new section of the game, I would be able to read through Jake's script or play through works in progress delivered by Tamas that would be very helpful in my process of making music, hopefully feeling right at home in those scenes and moments when finally implemented. Although there were phases of the project where my work would come later in the process compared to where Jake and Tamas were, which would allow me to react to what they'd done, there were other portions of the development when we would all be working in tandem on the same thing. Especially towards the end of the project, the process became less linear and more simultaneous. We each had our siloed roles but were very often in dialogue with each other about what still needed to be done and the progress of our individual processes.

Early on in the development process of *Kentucky Route Zero*, it was decided that we would stop announcing release dates ahead of time because I think we'd given a release date for the second act and missed that deadline, to vocal dismay from some of the players. As a result, we would work on a new act or interlude for however long it took to complete it, and almost always publish it without fanfare or warning as soon as it was finished. This was possible because we were self-publishing the work and were fortunate not to have to rely on traditional means of presenting new work with PR announcements and necessary lead times to secure coverage. It was never a priority, I don't think, to maximize the attention we might be able to garner for the project. It was more interesting to us – if I may speak on the others' behalf – to focus on the work itself and making it everything it could be. This certainly ended up shaping the timeline of development greatly, and as such it was a learning process with regard to pacing and planning our work in order for the project to remain feasible to complete.

Some time between publishing the fourth act and working on the interlude *Un Puebla De Nada*, we started working with Annapurna Interactive on the process of porting the game to PS4, Xbox One and Nintendo Switch, as well as localizing or translating all of the text in the

game. This proved to be quite an intensive and time-consuming process, and also had an effect on the development of the game itself, despite our relationship with Annapurna being focused on the console port. This all relates back to the question of the scope of a project, and how that can impact the time it takes to complete it. I think, from my experience working on *Kentucky Route Zero*, it can be quite difficult to understand the scope of a project before diving into the development process and spending some time with it. That may have been more true for all of us who worked on *KRZ* because it was our first major project like this, but I think games are just inherently difficult to plan out accurately with regard to something like duration, for example, as opposed to knowing one is aiming to make a 90–120 minute feature film. I'm sure more experienced developers have a better sense of that relationship between scope and the timeline, but it's something I'm still striving to get a better grasp of.

It's interesting to have had both the experience of self-publishing and working with an outside publisher like Annapurna Interactive during the development process of *Kentucky Route Zero*. I think there are many benefits to both approaches, and both certainly come with their challenges. It does seem that in the time since we began developing *Kentucky Route Zero* in 2011, a number of interesting self-publishing open platforms have cropped up, like itch.io and Twine, and I'm sure there are others I don't know about. It is absolutely a privilege to work with a publisher like Annapurna to bring a project to a wider audience and make it available on more platforms than would be possible alone, but I think Jake, Tamas and I will always feel a kinship with the self-directed autodidactic relationship with our work that we cultivated over the years when we were making and publishing our work independently. It was very interesting to see everything that goes into planning a wider release, and actually participating more directly in the 'marketplace' and making an effort to engage an audience during the phase of wrapping up content on *Kentucky Route Zero*, and preparing to release the project on consoles simultaneous with the publication of the final act on PC.

The Music of Kentucky Route Zero

The music in *Kentucky Route Zero* grew directly out of those early conversations I had with Jake and Tamas back in 2011. At that time, they came to me with very specific musical needs for what the project was then and

I did my best to fulfil them. As I mentioned earlier, the traditional folk songs in each act and the ambient electronic score as foundational elements of the music in the game had been conceptualized by the time I was brought on to the project. They did, however, give me a lot of creative freedom when it came to my interpretation and execution of their prompts. Initially, I was not involved in selecting and placing the compositions that I made into the game itself. By the time I was more involved in a collaborative sense, working more closely with Jake and Tamas beginning with Act II, the sound world and the musical palette and their function within the story had already been established. As the project continued to develop and we encountered further beats of the story, and new characters and locations, there were more opportunities to introduce new types of music to the game.

In some ways, music in *Kentucky Route Zero* is used quite narratively in the sense that it's directly tied to and part of the storytelling; characters are often playing the music heard in the game. The traditional regional folk music performed by the Bedquilt Ramblers helps to anchor the story in a real location and hopefully transmits some sense of its cultural history. *KRZ* is a story about America, and as such it seemed necessary to draw on regional American vernacular music in some form given that it's such a part of the fabric of that culture.

To that end, I think that the music in the game might help to create a sense of occupying a specific 'world' or place, something that the text and imagery very much do as well. The music also helps to inflect different characters with qualities that might not come through in the same way otherwise. Junebug and Johnny display something about themselves when they are performing their music that is arguably inef-fable and too subjective to concretize in any other way.

Another aspect of the role I think music serves in *KRZ* is related to the pace of the game itself. *KRZ* takes place almost entirely at night, and almost all of the story is delivered through a text window that appears on screen without voice actors reciting the lines. This nocturnal quality, in combination with the fact that the game involves a lot of reading, sort of dictates a certain slowness; tight and fast-paced action would not be compatible with these formal aspects of the project. The use of minimalist ambient electronic music, for example, might also help the player to slow down in a meditative sense, and become immersed in the pace of the story and encourage a certain kind of engagement with the story, to kind of drift into it, as it were. I hope that my music in *KRZ* helps to create the emotional textures specific to this story and its characters.

The performances by the Bedquilt Ramblers were already built into the role music would play throughout the project by the time I became involved. However, those were not necessarily intended to be central or even overtly performative events in the story. The role of the folk band calls back to that of the chorus in a Greek tragedy, which provided commentary about the events of the story from the sidelines. More central musical performances started to creep up in Act II, with a somewhat hidden performance of a piece of organ music in the Bureau of Reclaimed Spaces, but didn't really coalesce into being the focus of a scene until Junebug's performance in Act III. I think that sequence in particular might've been compelling to people because it was the first time in the course of the game where all of the different storytelling modalities were employed simultaneously; the text and the imagery and the music all became fused together, with the lyrics becoming dialogue choices and the visual focus of the scene also being the performance of the music.

Junebug and Johnny's performance in the third act was something that had been decided, I think, a long time before we actually got to that scene in the development process. Jake and Tamas had a number of references in mind for that character and the kind of music they might perform, the starting touchstone being '60s and '70s country singers like Loretta Lynn and Dolly Parton, both in terms of their musical and lyrical tropes and of their performance styles and stage personas. After some initial conversations about the direction for the music that also touched on presenting the song as an 'interactive' moment with selectable verses presented as karaoke-like text, I started working on it. It took a number of iterations before I arrived at a musical result I was happy with. Jake had written the lyrics so it was very much a collaborative effort. Given the fact that Junebug and Johnny were androids and not humans, Junebug's singing voice was a less straightforward albeit important component of the performance that needed to be figured out. After ruling out the option of using a vocoder,³ or another overtly synthetic process for this, I experimented with treating my own voice through pitch and formant shifting and discovered a sort of uncanny instrument that fell somewhere between something palpably

³ A vocoder is an electronic device or effect which allows the 'timbre and articulation of one sound source (usually a voice) to control another', often resulting in a 'talking' or 'singing' instruments effects. Hugh Davies, 'Vocoder', *Grove Music Online* (2001), www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000047646. Accessed 8 May 2020.

organic and human and something more heavily manipulated and artificial.

Reflecting on the Project

I have been continually surprised by the longevity of interest in this project, and the fact that it's found such a supportive audience. I don't think any of us could have foreseen most of the things that have happened with this project, least of all the kind of reception it's received. When Jake first asked me if I was interested in writing some music for it, I was very young and had never worked on anything like it. I had no context for what went into developing a game and how much time that could take. I'm not sure that Jake and Tamas did either. The risks in accepting the invitation did not occur to me at the time. I think if any of us had known that it would take so many years to complete, and come with some very challenging periods of work, we might've felt differently about taking something so ambitious in scope in the first place. I think the extent of its risks became more evident as we all got deeper into the process. That's certainly true for me. It proved at times to be very difficult to sustain the development and keep it viable for all of us to continue devoting the bulk of our time to it over the course of the project because of the unpredictable nature of its income. Because the development was funded through sales of the game, naturally that could be quite volatile and inconsistent and with it came stretches when very little money was coming in.

The process of making the work a viable means of earning a living continues to be a challenge, even if it is temporarily deferred from time to time. And aside from the practical challenges, working with and communicating with my collaborators will probably always come with its challenges as well as its evident benefits. Also, as I mentioned earlier, balancing my own creative interests with my obligations in the projects I take on is something that seems to only become more challenging, despite that tension existing to some degree the entire time I've been working as a composer.

The Broader Contexts and Meanings of Game Music

I think it's very important to consider the politics and ethics of representation when conceptualizing and choosing the music in a video game. All art is political, right? And as such all video games are political in terms of

relating to or even reflecting a set of cultural values and interests through choices of representation, depiction and engagement with the conventions of the medium and its history. Although the decision to use traditional folk music from the region where *KRZ* is set was not mine initially, I think Jake and Tamas were conscious of the importance of respectful representation when they envisioned its place in the game. I recorded most of those songs in 2011 so I was much younger then and I think, generally less aware of some of these issues than I could've been. I actually took their initial prompts to record that set of songs based on the Bill Monroe records at face value; I did my best to recreate those historical recordings accurately, even mimicking recording techniques used at the time. Over the course of the project, I was compelled to move away from a kind of historical re-enactment approach to representing that music, and so the songs mutated into less straightforwardly traditional versions. That said, there are likely examples to be found of earlier interpretations of these songs that were just as unusual or divergent from the Bill Monroe interpretations.

With regard to the ways in which the music in *KRZ* engages with identity, the most overt example of that is the Junebug performance in Act III. Junebug and Johnny transform in an instant from rugged itinerant musicians into glossed up otherworldly performers, and despite having expressed their views with a dry and sarcastic sense of humour with no trace of sentimentality prior to the performance, Junebug becomes the vehicle for a heartfelt and heartbroken transmission of feeling and sentiment presented in the form of pop and country lyrical and musical tropes. The tension between the persona of the artist and the content of their work is made manifest. Junebug and Johnny relay parts of their origin story as involving having to remake themselves as they see fit, showing that their identities are an ever-shifting and alterable material. Their relationship with music is very much centred in their conscious embrace of the notion that identity itself is mutable, fluid and dynamic. Although I didn't make the conscious connection at the time, that ethos described by those characters informed my process in making that music, most specifically in the choice to use my own voice and transform it into something unrecognizable for Junebug's vocal performance.