ONLINE CODING

Golden Dragons Online: How Do We Keep Resonating?

by Katherine Waumsley, J. Simon van der Walt, Heather Strohschein, Martin Sewell, and Bill Whitmer

Gamelan Naga Mas [Golden Dragon Gamelan] is a community gamelan ensemble in Glasgow, Scotland. The group has been together since Pak Suhirdjan's "Spirit of Hope" gamelan instruments were introduced to Greater Glasgow in 1990 (Glasgow's year as European City of Culture). We have worked with a number of guest artists over the years, including Joko Susilo, I Nyoman Wenten, and Prasadiyanto, as well as initiating a wide range of community-based activities and contemporary collaborations.

The group had just returned to rehearsals following the winter break, and we were looking forward to performing a piece by Philip Corner at the Tectonics Festival in May 2020, as well as a later summer concert at the West End Festival in Glasgow. The late March lockdown put a stop to everything.

Mid-pandemic, we found ourselves looking for ways to connect. We tried WhatsApp groups, online checkins, a shared playlist, photos of yoga poses with musical instruments, links to groups supporting Indonesian artists in the pandemic, and attempts at sharing or making music online via Zoom. The difficulty was overcoming latency.

During a Zoom meeting, J. Simon van der Walt, a composer and coder, shared a piece that involved live coding with a gamelan in Limerick, Ireland, using the coding language MiniTidal in Estuary, an online collaboration platform. And that's how he came up with the idea of teaching the group how to use the MiniTidal code to play together online. Perhaps latency issues could be a thing of the past!

Simon created two open-source SoundFonts corresponding to the tuning of our instruments. Working with the creators of Estuary and members of Naga Mas, he uploaded samples of our gamelan instruments, and created video tutorials for the group. The coding language was our music notation, which we wrote together in Estuary while on Zoom together. We worked as a group and individually, with Simon popping by to offer guidance, advice, or commiseration.

It was a bit hit-or-miss initially as we navigated through the unfamiliarity of the coding language and idiosyncrasies of Estuary itself. Despite working with digital samples, we still needed to "damp" the sound in order to stop distortion caused by the ringing. Simon then trimmed the samples, which effectively allowed us to automatically damp the instruments.



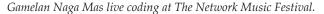
Gamelan Naga Mas playing the Spirit of Hope instruments. Another discovery was a reliance on the gong. In our first forays into Estuary, we didn't really have a strict plan. We would just dive into creating sound. Playing a kind of round-robin game, we would start with a musical line and take turns changing and adapting it. Member Bill Whitmer, who often led this exercise, encouraged us to take only one or two gatra, then hand it off to the next player. But anticipating the gong became increasingly difficult as we deconstructed and reconstructed pieces. It was the one sound we consistently relied on, and how to make it work in our final piece was the subject of much discussion.

Gradually, those of us who began to feel more confident with the coding language worked online together each week. We were joined by Heather Strohschein from the U.S. After a few weeks, we settled on a format: we started with a traditional piece, *Ladrang Wilujeng*, and deconstructed and reconstructed it with code. The music became glitchy, polyrhythmic and filtered. Some members experimented with the feel of different irama. This culminated in a 15 minute performance as part of the Network Music Festival on Friday July 17, 2020.

Even though we all worked together, and were motivated by sharing a common goal, each person in some way had a singular perspective.

J. Simon van der Walt: In late April I had a bonkers idea. The Network Music Festival had put out a call for performances that included a "new to networking" strand. Maybe Naga Mas could put something together?

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Create some sort of networked performance using the SoundFonts I had created? Or even . . . would anyone in the group be interested in learning how to do live coding?

To make a long story short, we ended up going down the live coding route. I got in touch with the authors of the Estuary platform, who agreed to upload the samples I had created from our instruments and make them available as part of the system. I created a set of beginner tutorials for the MiniTidal language, and we had several weeks where we worked together, learning how the language worked and improvising together. Bill Witmer then took a lead in programming some traditional tunes in MiniTidal, leading to our eventual performance where, starting with something that was recognizably *Wilujeng*, we gradually morphed away from the traditional piece into something more like a free improvisation.

I have mixed feelings about how all of this has gone. I am pleased that the group decided to do something together when we couldn't rehearse, with the Thursday evening Zoom sessions taking the place of the regular rehearsal. I'm slightly amazed that six people in the group stuck with the live coding thing, and that we were able to pull off a performance as part of the Network Music Festival. One of the positive outcomes of lockdown is that an old friend of ours who lives in the States, Heather Strohschein, who is pretty much an honorary member of the group, was able to join us for both the check-ins and the online live-coding performance.

Looking to the future, I am anxious. In my role as a leader of the organizing committee for the group, I feel a responsibility to try to keep things going, and I am not sure that we have gone in the right direction. I personally feel a strong sense of guilt that I have not found time to engage with all the fantastic online activity that has been going on in the broader international gamelan community. I worry that the group should have been trying to engage more closely with this work, and that the Network Music Festival was a sidetrack. While a core group of people did stick with this, the group as a whole has dwindled, with quite a few of our members understandably not wanting to spend their Thursday evenings chatting on Zoom and learning to live code instead of playing gamelan music.

We do not yet have a timeline for getting access to our instruments again, and have not yet begun to think seriously about what protocols we might need to put in place in order to begin rehearsing safely. People have fallen away from what was already quite a small group, often in danger of becoming too small to perform properly. On the more optimistic side, the Scottish Government is consistently providing clear road maps for resuming different kinds of activity, so it seems there may well come a point when we can resume. And the Tectonics festival has been postponed for a year rather than canceled, so we should still have the chance to play that Philip Corner piece.

Heather Strohschein: It was an absolute pleasure to work and play with Naga Mas again. I had missed playing with them, being in the States, and this was an opportunity to connect with them again. I'm sorry it had to happen under such stressful circumstances. For me, the coding was a new way of understanding the structure of gamelan music. I enjoyed the free improvisation, but what I liked best was figuring out how to realize a traditional piece of Javanese gamelan music in this new language. It was amazing, hearing and thinking about this music from a very different perspective, and learning to put it together in new ways that resulted in familiar sounds.

The code itself, or the learning of it, did seem to make some people hesitant to join in. But that can happen with learning certain gamelan parts too. Perhaps in the future we could see if there is a way to emulate the structure of gamelan when live coding. For example, can we accommodate people no matter their desired level of musical competence? Or is this live coding too far removed from that kind of structure?

Martin Sewell: As well as playing gamelan, I sing in a community choir. The choir has also been meeting weekly throughout lockdown, but the most frustrating part is that the technology doesn't allow us to sing or perform together. When Simon proposed to the gamelan group the idea that we learn basic coding, and perform at the Network Music Festival, a small group of us jumped at the chance to actually play music together. Although we were totally new to this, with the aid of Simon's excellent tutorials we quickly grasped the fundamentals and we were away! Having the chance to play at a live coding festival was great and a huge amount of fun to take part in. I'm not sure how we sounded to the rest of coding community, but we did it. We performed live together. From here, we can now develop what we've learned and hopefully refine our playing in what has been a tremendous experience throughout.

In my view gamelan music is meant to be explored and coding gives us a new way of doing this. I feel we have only really just got started. I would like to think that once we finally get back to the instruments, we needn't abandon coding, but instead can look at how we can incorporate it into our live playing. Of course, not everyone would agree. As I've often recounted from the "Gathering of the Gamelans" in York: when a saxophone joined in with the playing, the person standing next to me commented "the sacrilege begins!"

Bill Whitmer: In coding *Ladrang Wilujeng* and other pieces, it was interesting how resistant the balungan was to code simplification. You'd think that a music synonymous with cycles would have sequencer shortcuts. Nope! We had to code it stroke by stroke. And the closer I tried to get to a basic Solo style (very basic, given my woefully li'l knowledge), the more difficult it became. It took longer to find codes to sound out the kethuk and delayed kenong—a separate code was required for each—than it would to teach someone to play. For the online show, we chose not to use all the extra code that would be required to have a true "Solo mode."

Katherine Waumsley: As a group, we all learned not only something completely new via the coding, but also about what value music has for us. For me, making music with other people has the most value, since we can respond to each other creatively in real time, as in free improvisation, or even like negotiating an irama shift in gamelan music.

Each of us is motivated by different things in music. I've never been motivated by perfection, but rather by creativity, beauty, edge, and spontaneity. Even for our coding performance, it was the creativity involved and being able to make music together that became the main motivation.

Whereas the options widely available for music making online seemed to involve joining in with a leader with your mic off (because of latency), or adding a part later, I wanted instead to be able to be part of the spontaneous creation of music. Being a bit technophobic, I wouldn't have considered learning code before, but the basics of this method of working were a lot simpler than I expected, and pretty quickly we were able to play together online as well as practice on our own. Several of us work as community music facilitators, and I remember our talking about how the first group coding sessions seemed akin to the first group improvisations on gamelan in many new groups we've worked with. The process of figuring out what to do with your own instrument, then later how to listen and leave space, and negotiating the chaotic feel of the music at times-do we add structure? Do we strip back? Do we just listen and trust each other to find a way through? It was such an interesting process.

Where do we go from here? In my work as a musician and therapist, I've been taking on further training in how to support frontline workers as a counselor over the phone. One of the elements which might offer comfort to those overwhelmed is to remember their values and motivations to do their work. It might also help us gamelan groups to think about our values and how we express them at this time—how do we connect as a group? How do we work creatively? How do we make, learn, and teach music? How do we celebrate Indonesian culture? How do we include a diverse range of people in this? And lastly, the missing piece-the instruments themselves, which for now sit untouched and inaccessible. I find myself thinking about the resonance of the gong agung, which we may not play for some time, but hold in mind. All the skilled beating and furnace work that goes into creating a gong influences the tuning of the whole gamelan set. We ask ourselves and every gamelan group—how do we keep resonating?