This is a short piece of music entitled "Generative Khaen". I set out with the goal of learning more about the folk music tradition of Southern Laos, where my mother was born. I soon found that there is somewhat limited information on this subject; much of the sonic culture of rural Laos was lost during the unrest surrounding the Vietnam War, during which time most of the cultural infrastructure of the country was devastated. Laos is famously the "most bombed country in the world," with over 250 million bombs (around a quarter of which failed to detonate and still pose a fatal threat to rural Lao populations) dropped by the United States over the span of a few years, targeting in particular the centers of the communist Pathet Lao in the remote North and South. Luckily there are a few high quality field recordings from villages in Southern Laos, most notably due to musician Laurent Jeanneau — his collection Ethnic Minority Music Of Southern Laos is a good place to start. The predominant form of folk music, which has even lent influence to modern Lao pop music, is mor lam, a semi-improvisational form of storytelling or poem recitation, usually accompanied by a percussion instrument (either bronze kettle-gongs or drums) and the khaen, a bamboo mouth organ peculiar to Laos that sounds a bit like a harmonica crossed with an accordion. I was struck in particular by the khaen. It is an important piece of Lao culture whose role in society is not only as a musical instrument, but also as a vital part of family life, worship, and storytelling. Because of this, the way in which the khaen is played is not according to written musical scores, but instead in a flexible and semi-improvisational fashion able to adapt to the mor lam (this word also refers to the singer of mor lam music themself) and their whims. In this sense, the role of a khaen player is something like that of a jazz band comping a soloist, except that the role of the khaen is far more central than mere accompaniment. In particular, due to the lack of stress (in the linguistic sense) in the Lao language, the way in which poetry is recited centers not around the stresses of words providing the meter, but rather by the syllables themselves.

I grew up listening to the lam music that is popular in Laos and Thailand today, but the influences of folk music on modern mor lam lies not in the instrumentation used, but mostly in the recitative/incantory vocalization: the instrumentation and composition of popular lam music today is mostly the same as normal pop music and, importantly, the pieces performed are actual compositions, without improvisation. To me, the traditional instrumentation and improvisational nature is the heart of lam music, and so I set out to distill this essence and recast it in a context more reflective of my personal sonic culture. Even though mor lam is a centuries old style of music, this way of khaen playing was quite reminiscent of some modern electronic music. I was reminded of the "algorithmic" work of, for example, Laurie Spiegel. However, this is not quite a perfect comparison: while there are six modes common in mor lam corresponding to two predominant pentatonic scales, the vocalization itself is characterized by seemingly random rapid shifting within a mode, which is more reminiscent of the modern work of Caterina Barbieri, whose music is influenced by ideas from artificial intelligence and computation. This led me to create a generative patch on my synth: by letting different modules feed each other we are able to create music that is not completely determined by the musician, that evolves organically without repetition, but that nonetheless isn't too chaotic, i.e. it doesn't evolve so far away from the source as to be unrecognizable. This was much more reminiscent of the "predictable unpredictability" I found all throughout the traditional mor lam music. So I set out to recast this art form in a modern context.

My piece begins with a sample of traditional bronze drum playing from the Laurent Jeanneau compilation mentioned above. I found a few instances of traditional mor lam containing polyrhythms of several percussive voices, and so I created a bell tone meant to evoke "crashy" bronze gongs common in mor lam that voices a dissonant 5 against 4

polyrhythm which creates a very similar groove to what I found in traditional mor lam. Then the generative patch begins to evolve: I was very happy to find that the aural effect created is remarkably similar to that of traditional mor lam music, even though the conditions of audition could not be more different. In particular, the slow but certain development of the sound captures the organic and fluid quality of mor lam music; the sound of life can sometimes be difficult to attain in electronic music, but I think this is a good try. Eventually the generative patch becomes somewhat noisy and chaotic, and it has a far greater presence in the sonic field than it did originally. This noise is not without precedent: there is a common breathing technique on the khaen that induces a beautiful type of distortion, like a very intense and punchy tremolo. This distortion can be a bit jarring or surprising at first, but it is actually a key part of khaen performance. The percussion eventually fades out, but, as is the case in traditional mor lam music, the listener hardly notices, because the fluidity of this music allows different voices to take precedence at different times, like a khaen player adapting to the mor lam's vocalization. In this way, creating this piece of music helped me to understand some of the essential features of mor lam that distinguish it beyond the particular conditions in which this music arose. Indeed, it is not the case that mor lam music is constrained to a particular cultural or technological milieu; after all, this music has evolved for several centuries already and this evolution will likely continue.