

Golden Waves for "Sounds of Space"
by Susan Ann Brewster

I can find it difficult talking about music because for me, music is itself the means of expressing the thoughts and feelings I can't talk about, when language is somehow not enough. I think about the composition Golden Waves in terms of concept, structure and the sounds themselves. When trying to formulate my ideas about the music, these areas are overlapping and not in any particular order. Here I try to explain a bit of the process that happened when I set about trying to make the music.

The collection of sounds ('sferics', 'tweaks', 'hiss', 'whistlers', 'dawn chorus') which are the "Earth Songs" have been fascinating, challenging and very inspiring to use as the building blocks of a musical composition, especially because they really began to take on a life of their own. From the first time I listened to them, I could not get them out of my head.

By coincidence in March last year I had been reading about Black Holes in National Geographic and about the one called Sagittarius A * (star) at the centre of our galaxy (which is also said to be emitting electromagnetic waves). I was very intrigued and amused reading about the 'Event Horizon' (the edge of the black hole), which may be visible later this year – and the idea that if you could stand on the 'Event Horizon', for every minute that passed there, 1000 years would have passed on earth. That means that if you could listen to my composition there, 8000 years would have passed here on earth. This really sparked many other thoughts about space, time and music, and shortly afterwards I came across the MAARBLE 'Sounds of Space' composition contest, so naturally I was very interested in participating.

Some ideas about space and music which I have always found compelling are: The Music of the Spheres, the ancient and direct relation of music to the motion of the planets, geometry of harmonics corresponding to the orbits, the 'Golden Section' and all life, and the idea that we live not just in a universe, but a multiverse! So, in the background, a lot of ideas swirling around in my head, but not anything specific for a musical composition.

When I read about the contest, I loved the humour in the description that if we had antennae (or antennas) for ears, then we could actually hear the electromagnetic waves or "Earth Songs". I was wondering if other intelligent life somewhere might have antennae for ears, and if so what they would make of the "Earth Songs". So, in a way, the piece was beginning - thinking about a far away observer (distant perspective) and antennae for ears. I thought these ears might also even have a special telescopic feature, capable of zooming in on even the smallest or most insignificant of sounds and if a collection of sounds might be perceived like a sort of time capsule (because of the difference in the passage of time). If so, then events over many years might occur randomly (not chronological) depending on which individual moments came into focus when zooming in on the electromagnetic and sound waves from earth.

I listened to every sound in the files on the website and I came across a 'whistler' which made a very big impression on me because it immediately emerged as a character and a theme to start off the journey. I thought of it as planet earth spiraling along through the cosmos with no particular purpose or destination and whistling along the way. I think of the whistler as having a double edge, since on one hand it evokes an image of 'without a care in the world', but at the same time this whistler (maybe due to the microtonal quality), gives a slightly uneasy and unsettling even ominous impression. The contrast seems interesting when thinking about a carefree planet oblivious to its own demise or impact, but moving towards uncertain consequences.

I chose more sounds from the 'tweaks', 'sferics', 'whistlers', 'hiss' and 'dawn chorus' to add into the story which started taking shape as a continuum, something with no beginning and no end, like infinity (or to give this impression). It also was presenting itself as a kind of a paradox because we think of music as something with a definite beginning and a definite end. Using octaves and harmonics felt circular and so cycles also began to emerge as thematic. Drones are both ancient and modern and they encompass many cultural traditions of music.

Here they helped to reinforce the cycles that started to resemble days, months, or years passing - or the planets and their moons spinning and in orbit.

Some sounds also sprung to life as new characters like actors who take on more than one role in the same play. Sounds were telling many different stories in an abstract way and I started to see more ideas in the music as it grew, and if I could, I tried to enhance them. I saw paradox, conversations and arguments, prayer and horror, complexity and utter simplicity, a vastness and the insignificant, monotony and unpredictability, and a human predicament of being suspended between these places and pulled to and fro on an elastic thread that might suddenly go out of control or snap. It might, though, put everything into neat order! It was like a myth about evolution, randomness, and mysteries but ultimately the fragility of life and our existence. I found it very exciting because I felt that working on the piece was more of a process of discovery than one of composing, and there were so many surprises, each of which lead to more ideas! The result was becoming a musical composition simple on the surface but with complexity at its depths. Below the surface there can be a mirror like quality where different people see different things reflected depending on their own experiences.

The main 'whistler' was about to conjure new characters and fragments and sweep them along into a cosmic wind. I wanted to add movement and dynamics but without definite rhythm and I aspire to achieve a minimal musical identity, but hoped to express depth and complexity. I experimented with slowing the sound of a single 'tweek' to a tiny fraction of its actual speed. At just the right speed, when played back, the 'tweek' became orchestral and it was also about 8 minutes long, which defined the length of the piece. I added textures to carve out and underline the intonations and dynamics, which were already present in the 'tweek' sound. I chose human voice as the soul for the 'Earth Song' and I sought to choose other sounds that could suggest, and also match in timbre with the 'Sounds of Space', but would not overwhelm or dominate by virtue of their familiarity, or with melody or with a distinct other musical identity. The voices do not inform our emotions but seem to ask questions or comment, and are without answers.

Something that became important for me was idea that everyone could draw out different images and meanings from the music and that it could work in a superficial way or could have more dimensions. I'd like to think that it might be pleasant to listen to and meditative, free of thought – or that it could be full of thought. When others have listened, they have told me interesting stories and images of what they heard or saw, and this is what I liked most of all. There has been a galactic wind picking up fragments, human and nonhuman from millennia dispassionately, and carrying them along for a while before it drops them and the wind fades into another time. There was a whistling visitor arriving in a dusty ghost town where a creaky old sign hangs off its hinges blowing in the wind, no one knows what it says and the visitor carries on to the next town. There is a glass snow globe with these scenes inside that change when the globe is turned over.

Most of all I love the idea of the outreach project "to get people to feel the science and think about art" and I am enthusiastic that this is the objective of the project and the scientists involved. Participating has certainly sparked off a creative path of discovery for me and I am very grateful and honoured to have been included as one of the award winners for my composition 'Golden Waves'. Many thanks again to the whole team for this wonderful experience!