

# TERRA

(Earth)

**Emanuel Dimas de Melo Pimenta, 2016**

## **Operations Manual**

solo cello, dedicated to Audrey Riley

*I think that we reject the evidence that our world is changing because we are still, as that wonderfully wise biologist E. O. Wilson reminded us, tribal carnivores. We are programmed by our inheritance to see other living things as mainly something to eat, and we care more about our national tribe than anything else. We will even give our lives for it and are quite ready to kill other humans in the cruellest of ways for the good of our tribe.*

*We still find alien the concept that we and the rest of life, from bacteria to whales, are parts of the much larger and diverse entity, the living Earth.”*

*James E. Lovelock, The Revenge of Gaia*

The manual of operations of this musical score is made in a personal way - because we all are our planet, we are Gaia.

My first composition dedicated to you, dear Audrey, was Kepler's Vestiges, of 2007, based on on visual information from NASA's Chandra X-ray Observatory about the youngest supernova remnants in our galaxy.

Then, the main structural reference of the composition was the Universe (<http://www.emanuelpimenta.net/kepler/1.html>).

The second piece I dedicated to you was Collision, of 2012. In memory of John Cage, it was based on collisions of subatomic particles (<http://www.emanuelpimenta.net/Cage100/collision/>).

Macro and micro universe.

Now, the third piece I dedicate to you is about our scale, the human scale, and is titled **Terra** - from the Latin, meaning Earth.

Interestingly, the word *Terra* appears from the Indo-European root *\*ters*, language set extinct about twenty thousand years ago, which indicated the idea of something *dry*, without water. But, very interestingly, the radical Indo-European *\*t* indicated the idea of movement between two points, and passed to the Sanskrit *\*tr* meaning both a "star" and "to cross". It was about movement. But in such "movement" both consonants *t* and *d* pointed to the idea of "light" - like the *light of a star*.

The word *God* appeared from the Indo-European *\*gheu(e)*, meaning "to call, invoke". But the radical Indo-European *\*g* indicated the idea of *erratic movement*, a movement to all sides, everywhere.

Thus, the origins of the word *God* seem to indicate the meaning of "light in movement".

The piece, for solo cello, or other instrument, is divided into three movements.

It is a challenge for both composer and performer. And it is, as always, oriented to the expansion of the performer's creativity.

Each movement can also be performed as independent pieces. When this happens, the title is changed to *Terra I, II or III*.

The duration of each movement is variable, but follows a principle: 1, 2, 4. The first movement values 1, the second 4 and third 2. That is, if the value determined for the first movement is 1 minute, for example. the second movement will last 4 and the third movement 2 minutes. If the first movement has 3 minutes, the second movement shall be 12 minutes and the third will have 6 minutes - and total play will be, then, of 21 minutes.

If the pieces are performed independently, the first and second movements will have free duration. But, in such case, the third movement should last about forty to forty-five minutes.

## FIRST MOVEMENT

The first movement is a direct reference to the human being, to the person (we are dealing with Earth's scale). It is a quote from my composition *Walking*, made in 2000, which was, in a certain sense, inspired on Henry David Thoreau - specially on the concept of his wonderful text *Walking*.

The musician must elaborate seven sets of sounds, seven gestalts (consistent sets of sounds). Each one of these gestalts should preferably be a *simultanoid* (unclassifiable chord) - although it may have a relation with the sounds of the third movement. This will depend on a personal choice of the interpreter, who becomes partner of the composer in the creative process.

These seven sets of sounds should be spatially set in an acoustic imaginary scenario.

There are a secret in this movement, which is shared only between the composer and the musician.

This first movement is Earth in relation to the human being.

This movement has a time value 1.

## SECOND MOVEMENT

The second movement of Terra had its music scores elaborated after underwater images of the surface of our planet sent by RIP Hayman.

RIP and I met in the 1980s, introduced by John Cage.

RIP sent me six images of various places on Earth:

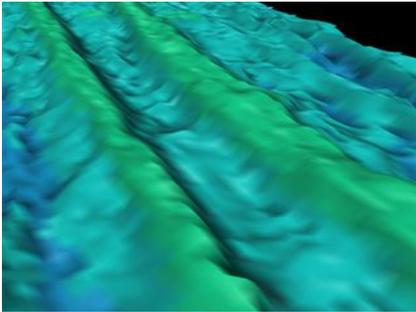
1. Average seabed, 200 meters
2. Astoria Canyon, off Oregon coast
3. The "Bear". Sea mountain in the Atlantic near Massachusetts

Cape Cod

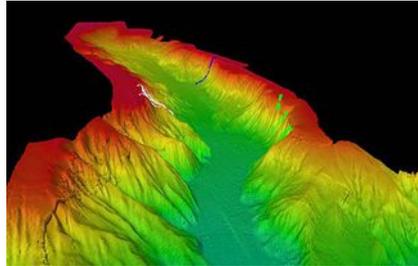
4. Undersea volcano in the Marianas, Western Pacific
5. Maug volcano in the Mariana
6. Western Massif west of Gibraltar, sunken site of Atlantis?

They are, respectively:

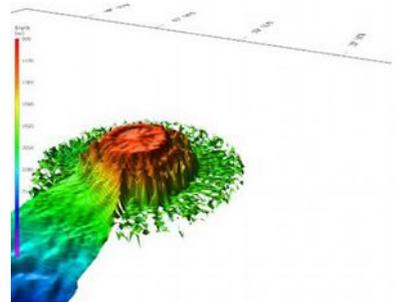
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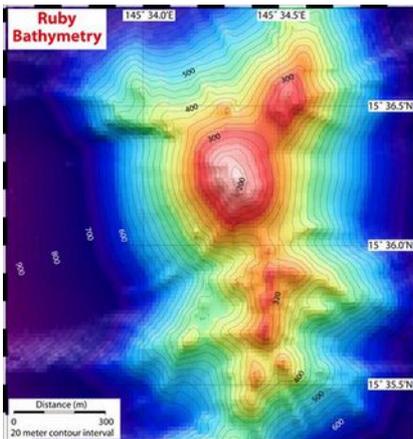
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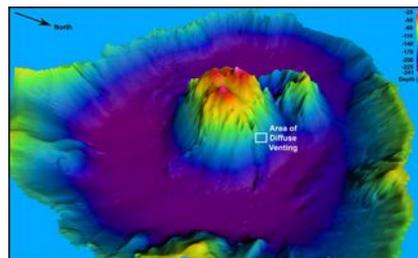
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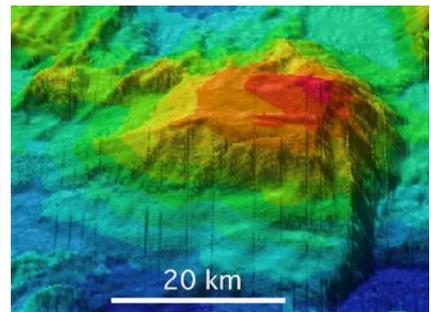
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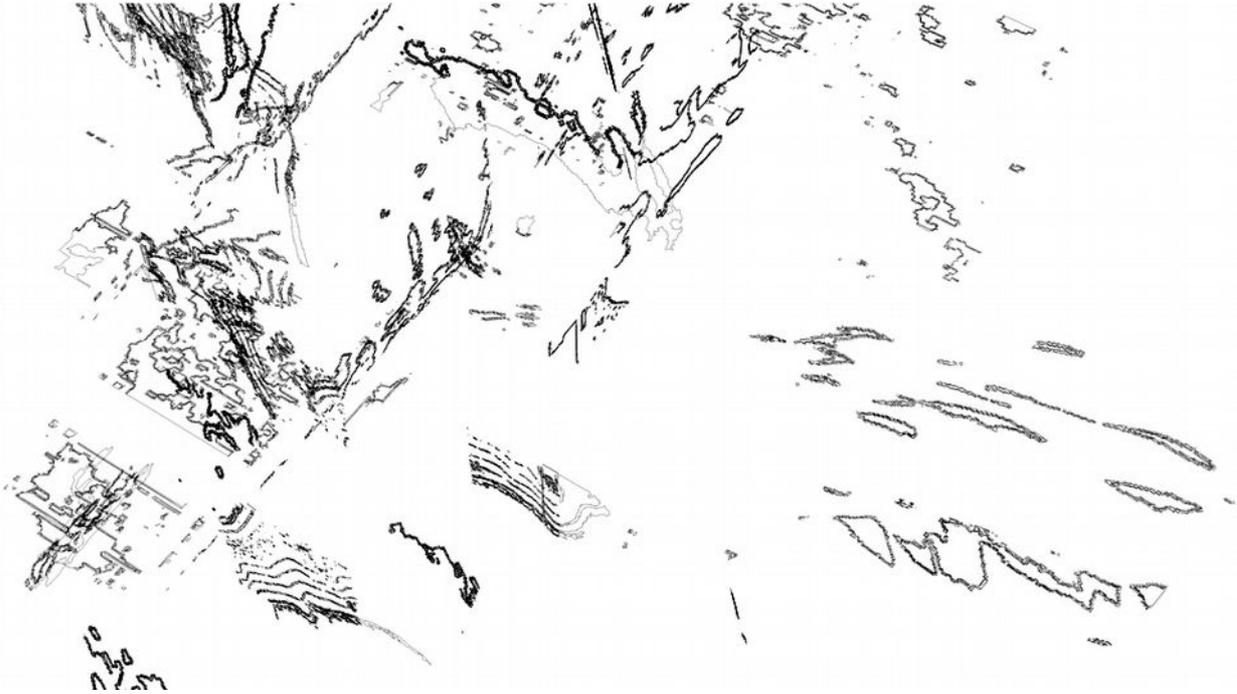


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These images were scanned and transported to a Virtual Reality environment.

They were combined as to generate a complex environment.



*Image of a fragment of the virtual music score of Terra, inside the virtual environment in three dimensions*

Such environment has six faces - like, in a certain sense, our planet also has six directions - laterals, of depth and of height.

In each performance, only one face is performed. It is determined in advance by the musician, with the aid of a dice.

Thus, in each performance the second movement of the concert may be different.

This movement has a time value of 4.

You will see that the image of each face has no lines determining time or frequency - because the duration will depend on what you determined for the first movement.

Consider that "up" the frequencies are higher, in the base there are the lower frequencies; and that time runs from left to right. But this aspect can be differently determined by the musician - however, even doing it, you must always rigorously obey to the original design.

This piece also is your impression, like a partial fingerprint.

In this way, the musician must not only carefully study the possible events, tracing the lines of time - orienting how many minutes will last this movement - but also draw the indications of frequencies, dynamics and other annotations.

The drawings are a starting point for the music.

The unit is preserved through the complex of lines in Virtual Reality.

## **THIRD MOVEMENT**

The third movement apparently is conventional - written on pentagram.

But all sounds were established after the frequencies from the centre of Earth captured by EarthScope's San Andreas Fault Observatory at Depth (SAFOD) in 2004.

The "sounds" of the centre of Earth determine the musical notes.

The score made on pentagram is a reference to the human history on music (we are always dealing with planet Earth). But you will notice some inconsistencies, technically impossible chords etc. They are intentional.

The musician's role is to "clean up" this score, to make it possible. When she does it, the musician puts it inside her own dimension. Every musician has his or her own dimension and will see different inconsistencies and impossibilities.

That is, the selection of what will be performed detaches what you are in this moment while music.

Thus, once again, it is about the human being Earth.

This third movement is very slow and very poetic. The moments in silence, pause, are open - that is, they must be determined by the sensitivity of the interpreter. The moments of silence must be large enough to cause disturbance in the audience, but not so long as to lose the connection with the musical discourse.