The idea of eternal recurrence in my work. La idea del eterno retorno en mi trabajo

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Resume

This text is based in the Nietzchean idea of the Eternal Return around five works of the mexican transdisciplinary artist and composer Manuel Rocha Iturbide. The author explains thoroughly this concept from different optics, linking it also to other ideas related to Budhism, science, chance and XX century literature, focusing mainly in the ciclic phenomenon developed in different works both in the visual arts and in musical composition. The structure of the text is based in establishing a comparative system between these different aesthetic approaches in order to be able to unfold them beyond the arts, dabbling too in philosophy and religion.

Resumen

Este texto está basado en la idea Nietzscheana del Eterno Retorno alrededor de cinco obras del artista y compositor mexicano transdisciplinario Manuel Rocha Iturbide. El autor explica a fondo este concepto desde distintas ópticas, ligándolo al mismo tiempo a otras ideas relacionadas al Budismo, a la ciencia, al azar y a la literatura del siglo XX, enfocándose principalmente en el fenómeno cíclico desarrollado en distintas obras tanto de las artes visuales como de la composición musical. La estructura del texto se basa en establecer un sistema comparativo entre estos distintos enfoques estéticos para poder desdoblarlos más allá de las artes, incursionando también en la filosofía y en la religión.

Key Words: Transdisciplinarity, eternal recurrence, contemporary art, contemporary music,

chance

Palabras Clave: Trandisciplinareidad, eterno retorno, arte contemporáneo, música

contemporánea, azar

"'Everything straight lies,' murmured the dwarf disdainfully. 'All truth is crooked, time itself is a circle.'"

(Friederich Nietzsche, Thus Spoke Zarathustra)

In September 2018 I was invited by the music department of the Paraná University in Curitiba Brazil to participate in a sound art exhibition held as part of the SIMN festival. I decided to present my sound sculpture *El eterno retorno* (2011). This work consists of a toy train circular track contained over the skin of a floor Tom drum,¹ which serves as its base (Figure 1). The toy train turns in endless circles in the track producing a small noise, but as it is amplified by a contact microphone, its sound is then projected by two speakers recalling the louder noise of a real locomotive. When I thought about this work for the first time, I did not realize that the room qualities where the sound sculpture was to be installed, would create a feedback sound that comes and goes as the toy train turns in a cycle, getting stronger and stronger every time. The feedback was an accident, an unwanted phenomenon, but later on it became an essential part of the work.² The returning feedback became an eternal coming back to the same starting point, but it was not always the same point, the same energy, in every cycle the sound was always changing, advancing in time in a spiral, presumably as in Friederich Nietzsche's eternal recurrence philosophic theory.

This phenomenon happens because the amplified frequencies of the drum are chaotic and depend on its random tuning and on the variables of the acoustic space that changes with people in it, an issue that questions ourselves about the different possible cycles in this spiral, concept that originated in India and Egypt and that was later retaken by Pythagoras, Nietzsche and Schopenhauer (Rocha Iturbide, 2013: p. 164).

¹ *El eterno retorno* was presented this time using a Samba drum. Also, I have presented another version of this work by using an orchestra *Grande Casse* drum, using of course a larger circular track and other type of toy train, the sound changes a little resonating more on the lower frequencies, but the feedback is preserved.

² As in Marcel Duchamp's Glass (*The bride stripped bare by her bachelors*, 1915-1923); the glass broke while transporting the work from one place to the other, but Marcel decided to keep it with its new cracked chaotic lines, accepting the accident as something that added something important to his artistic discourse.

For Erman Kaplama, "aesthetically, spirals symbolize the passageways reaching out to a timeless and space less realm". According to him, this effect is equal to the Dionysian effect in Greek Tragedy. "[...] the Dionysian, as the aesthetic representation of logos, performs the extension of *physis* within human ethos" (Kaplama E, 2014: p. 164). This means that there is an artistic connection of the principles of transition and motion that generate raw material for the advancement and renewal of the human ethos. For Kaplama, this spiral symbolizes Nietzsche's ideas of eternal recurrence and the will to power at the same time, a spiral extending-forward and not staying in stasis, circling around itself. So, from Nietzsche theories we can deduct that time is infinite, but as space and matter in the universe are finite, limited, then all the matter in the universe can be combined, arranged and rearranged with a finite number of permutations. As time is eternal, these permutations can repeat once and over again; they surely have already been repeated many times in the eternal past, and will continue to repeat in circles in the eternity of future (Rocha Iturbide Manuel, 2013: p. 164).

The idea of eternal recurrence was already unconsciously in my creative impetus. In 1996 I had already imagined a toy circular train track over the border of a circular speaker, and even before (in the 80's) I had read *The strange life of Ivan Osokin* by P. D. Ouspensky, where the main character of the novel has an opportunity to correct his mistakes when given a chance to relive his past, but instead, he ends up taking always the same decisions, something that I could never understood. How is it possible that someone would fall always into the same paths of his own life when being able to do everything again? I had also read *La biblioteca de babel* by Jose Luis Borges, a story about a library that has existed eternally and that combines randomly an unimaginable number of permutations starting from 25 signs (the letters, a space, a comma and a period), resulting in the existence of all the possible books that have been and that are to be written.

I will discuss now the characteristics of some of my previous and later works that relate to the ideas discussed beforehand. In 2004 I created the electroacoustic composition *Purusha Prakrti* after reading about the relationship of spirit and matter in the *Samkhya* Indian philosophy school of Yoga, in a book written by Mircea Eliade (*Patañjali et le Yoga*). In Buddhism, Samsara is the beginning-less cycle of birth, mundane existence and re-dying. It relates to *avidya*³ (ignorance), and seems to be a circular eternal return of the spirit into new

³ All these concepts relating to cycles, synchronicities and spiritual eastern philosophies have always been part of my work. It is curious that they were also present in the early works of John Cage, a composer and philosopher that I have always admired. In 1989 I created a radio tape piece called *Avidya* where all the radio stations of the Bay Area in California are added in a gradual way. *Avidya* is our way of dividing things into separate things, and

bodies. But in some Hinduism philosophy's as in the Samkhya school, the universe is seen as part of two eternal realities: *purusha* and *prakrti*. It is a dualist philosophy characterized by a way to see life in the universe as an evolution of different dualities (light-darkness, masculine-feminine, etc.). The spirit as an autonomous principle is transcendent and accepted by all the Indian philosophies, except for Buddhism and Materialism.



Figure 1 – El eterno retorno. Le Laboratoire Galery, Mexico City, 2014.

The *purusha* (spirit-self) is inexpressible, it is that which sees, isolated, indifferent, simple and inactive spectator, pure and eternal, and it is tied to the *prakrti* (matter and psycho mental life), and this tie between the self and life can only be encountered out of time. The *prakrti* is so real and eternal as the *purusha*, but the difference from the spirit is that it is totally dynamic and creative.

The self is imprisoned in the body as long as the *purusha* is confounded with it, but the spirit can be liberated (*moksha*) at the moment when it realizes that it is different from psychic

to experiment ourselves as separate entities. This is the state of perturbation of our mind. According to Ashaavangosha, "when the mind is disturbed, the multiplicity of things is produced, but when the mind is quieted, the multiplicity of things disappears" (Hakeda, Yoshito S, 1967: p. 64) In my piece, the multiplicity and simultaneity of radio stations disturbs us, but it can also become unity to our perception if our state of mind is quieted through contemplation.

matter. According to Eliade, millennial practices as Yoga in Indian culture have developed different techniques to be able to achieve this liberation (Eliade M, 2004: p. 35).

It is interesting how both Nitzchean eternal recurrence and Samkhya philosophy appear both to have a way out from the endless circling, with the aid of human power and will. But how does this relate to my work? In *Purusha Prakriti* (2004) I tried to problematize the Indian paradox of people trying to avoid Samsara by ordering the incineration of their bodies after dying, and being thrown into the sacred Ganga river.⁴ This is a popular belief, but deep inside, people know they will not be able to escape the wheel of rebirth so easily. Hopefully, a spiritual practice as Yoga could be the solution.

As I said before, the idea of the importance of cycles in life and art was already influential in my creative work years before, and it was not dealing necessarily with the human existential situation. In 1990 I composed a piece for two pianos while doing my master's degree in Mills College. The structure of *Moviles* was set beforehand. It was about different notes of different lengths that start up together and are out of phase one with each other, until they come up all together at the end of a common cycle. I used the prime numbers 1, 3, 5 and 7, each number representing one of the four voices of the piece (each voice is made out of two note chords doing intervals of major sevenths and minor sixths). It is easy to know that if they start together, they will all meet at a certain point which is the common denominator of all (this is $1 \times 3 \times 5 \times 7 = 105$). So, since every number one is the basic beat of the other numbers, at the beat 106 all these numbers will come together again. We can encounter here a first stage of my work with the idea of the eternal recurrence. In figure 2 we can see the initial structure of *Moviles* showing the first 38 beats of the piece (Rocha Iturbide Manuel, 1991: p. 8).



Figure 2 – Initial structure of *Moviles*

⁴ *Purusha Prakrti* is a programmatic electroacoustic composition about an imaginary trip that begins in the high mountains where the Ganga River is born (a place where Yogis perform their spiritual practice), continuing along the river through natural places with animal life, and then through towns with human activity, and finally ending at *Benares* (Varanasi), a place where people go to die in order to seek escaping the eternal rebirth of the samsara wheel.

In *Moviles* I was interested in points of coincidences between the different number cycles that were taking place, and between the two note chords of the two pianos that came together in time. There are three types of coincidences between the two pianos. One is when both have one voice⁵ to play at the same beat, the second one when one piano has two voices to play and the other just one, and the last one is when both pianos play their two voices.⁶ So, I used three different accents to mark the different points of coincidences between the two pianos: **mf** when there are two voices at the same time; **f** when there are three voices at the same time; and **ff** when there are four voices at the same time. When there are no coincidences the performer always plays **p**. On the other hand, I used eleven note series in each voice, which are out of phase with each other generating always different harmonies.

With only four prime numbers, the recurrence varies very little, at one beat = 60. *Moviles* lasts only 3:30 minutes, but imagine the same piece using 7 prime numbers instead: 1 x 3 x 5 x 7 x 11 x 13 x 17. Here we would have 255,255 seconds until the seven voices coincide after the first simultaneous chords of the piece, that is: 4,254 minutes and 15 seconds (70 hours and 55 seconds), becoming a piano piece that lasts almost three full days, and where the permutations have many more different chord combinations. If the piece was to be played again and again eternally, all the notes in every new cycle would be exactly the same, but since it is a much larger piece in duration, perceptually we would have the feeling of coming closer to an infinite time because our memory would not be able to remember all the combinations of the sequence. This will be better explained in the description of a second sound work that I made in 1993 considering the cycle idea but in a very different way.

Ligne d'abandon was created in collaboration with Gabriel Orozco. It is a conceptual sound work that was showed in his exhibition at the Chantal Crousel gallery in Paris France. "It was based on the noise generated by the screeching wheels of a car. This noise and its relationship to a possible accident intrigued us, as well as the uncertainty as to what could happen afterwards, because the screeching noise generates a range of feelings related to the void, suspended time, or total collapse." (Rocha Iturbide Manuel, 2013: p. 65). The result of this piece on the perceptual side was a very well-structured composition lasting 29:51 minutes,

⁵ It's important to clarify again that each note of a voice is composed of a simultaneous two note interval chord (either a minor sixth or a major seventh).

⁶ In this piece there are seven different types of cycles, 1,3 repeating every 3 beats, 1, 5 repeating every 6 beats, 1,7 repeating every 8 beats, 3,5 repeating every 16 beats, 3,7 repeating every 22 beats, 5,7 repeating every 29 beats, and 3,5,7 repeating every 106 beats. The piece is constructed out of two macro cycles, and the synchronicity of the four voices only happens at the beginning of the piece, at the end of the first cycle, and at the end of the second cycle.

consisting of a complex process of two series of durations: one made out of screeching wheel stretched sounds and the other, one of silences. They start together, but as each series has a different number of durations, and logically a different total duration, the process will last 29:51 until the silence and the sound numbered 1 start synchronized once again.

In figure 3 it is possible to see that initially there are five screeching sounds that decrease gradually in duration (represented by lines), and also that the fifth screeching sound varies at the end of every cycle alternating between 5.1, 5.2 and 5.3, all of them very short. The silence durations are eight (represented by dotted lines), and they also decrease gradually in length, and are a little bit longer than the sounds. This produces a silence after each screeching wheel sound in the beginning because the algorithm rule is that every new sound cannot start until the next silence duration begins.

When the 5th sound finishes, the 6th silence duration is shorter than the returning sound number 1, and so are the silence durations number 7th and 8th (they get even shorter). So, the sounds numbers 1, 2 and 3 of the new cycle start overlapping with each other. Otherwise, when the silence duration number 8 finishes, instead of beginning again with the silence duration number 1, we go now instead back in reverse. Silence 7 follows silence 8, and then silences 6, 5, 4, 3, 2, 1 continue in that order, and then, again, we go in a mirror manner 2, 3, 4, 5 etc.

LIGNE D'ABANDON



OEUVRE SONORE RÉALISÉE PAR MANUEL ROCHA ET GABRIEL OROZCO, 1993. DURÉE : 30 MINUTES

Figure 3 – Ligne d'abandon. CD Cover.

As you can see in the diagram of figure 3, after the first five sounds of the first cycle, in the second cycle sounds 1, 2, 3, 4, 5.2 and then again 1, 2 and 3 (of the third cycle), overlap in a fade in-fade out manner. Then the sound number 4 of the third cycle is paired again to silence 2, and sound 5.3 to silence 1, and we have as a result very long silences after those short sounds. Then in a new cycle (the fourth one) we will have a new kind of overlapping, and in the fifth cycle, another one, and so on and so forth. It is as if the screeching sounds are constantly stretching and contracting with each other, as if they were breathing. The perceptual consequence of this structure is the following:

In the sway of sounds drifting out of phase and the silent duration's, there are long moments in which nothing is heard, and others in which all sounds are combined together. "Accident" and "Chance" generate their own orbit. On the other hand, the static qualities of the sound give the piece stability and a sense of continuum, even if at certain moments there is a strange simultaneity of events. During the actual playing of the piece in a specific space the long periods of silence are relevant, since people can come in and out of the space without knowing at what point the piece is playing (Rocha Iturbide Manuel, 2014: p. 69).

Actually, there is no chance or accidents in the piece, it is just a process of mathematical permutations, but due to the qualities of the sounds and the different lengths of silences, listening to the piece becomes very abstract and it is very hard to recall the form, or to know what will become after one of the screeching sounds is heard. It is a different kind of eternal recurrence, where there is uncertainty even though the causal wheel of destiny is running in exactly the same way again and again, because *ligne d'abandon* is meant to be played in a constant loop. Nevertheless, we will always know which is the beginning of the piece, because only at that point can we listen to the first five screeching sounds gradually decreasing and then followed by silence.

At the end of the text written originally by me and Gabriel for the CD, we propose an infinite continuum that could relate to a cyclic eternal recurrence:

Finally, we should add one final note. Under normal circumstances a car moves in one direction; when the car loses this impetus, it skids. After this skid the car can either return to its earlier orbit or come to a halt (by way of collision). But what happens when this skidding becomes a continuum? A new orbit is generated. The new ellipse after the abandonment; a new possible orbit of infinite screeching (Rocha Manuel & Orozco Gabriel, 1996: p. 2.

Ligne d'abandon brings dynamic stasis, a kind of limbo that originates at the very moment we listen to a screeching wheel, and this limbo is expanded in time through cyclic repetitions of sounds and silences that represent life and death, since we never know what will become after one of these sounds is heard. It is like the Schrödinger's cat paradox experiment in quantum physics, the cat is at the same time alive and death,⁷ and it is also something similar to the *purusha prakrti* dialectic. But then again, is it possible to escape these paradoxes? Or is this just a fatal and eternal coming back that we can't avoid? Concerning the eternal recurrence, Schopenhauer is pessimistic and nihilistic, while Nietzsche "aggrandizes the importance of the free choices and actions of individuals [...] intending to link the eternal recurrence to a conception of the individual as the heroic, self-sufficient redeemer of history" (Nehamas Alexander, 1985: p. 156).

In another of my cyclic sound works: *I play the drums with frequency* (2007)⁸ (Figure 4), the five drums of a drum set (floor tom, two small toms, snare drum and bass drum) make new and long sounds produced by sinusoidal sounds emitted by five small speakers that make their skins vibrate in new fashions through sympathetic resonances. Every time the installation is presented, the drums are tuned in new random ways. Then, seven different timbers are to be found on each one of the drums and stored in a preset. It is important that at least two or three of the seven timbres of each drum have beating patterns (two to eight beatings per second). Next, an algorithmic process is set using Max/MSP. Every drum executes one of its seven sounds randomly chosen (with the urn object, so they never repeat until they have all been used) with a random duration chosen from a set of five different fixed durations (for the smallest drum they are 5, 8, 13, 21 or 34 seconds), then a silence duration is chosen also from a set of five durations (for the smallest drum they are 8, 13, 21, 34 or 55 seconds). Again, a sound is chosen and then a silence. This process happens four times in each of the drums. The fifth time, all the timbers of the drum in question are played fastly and in a discontinuous way (with short random durations). Then again, four times in a row the drums produce sounds and silences, and then again, its seven timbers are played fastly, resembling a Schoenberg klangfarbenmelodie.⁹

⁷ This is a state known as a quantum superposition, as a result of being linked to a random subatomic event that may or may not occur.

⁸ Retrieved from http://artesonoro.net/artesonoro/Iplaythedrums/Iplaythedrums.html.

⁹ This is a musical technique invented by Arnold Schonberg that involves splitting a melody between different instruments, thereby adding color (timbre) and texture to the melodic line.

In this work, the five drums play their first sound at the same time only at the beginning. This never happens again; the drums will always be playing out of phase with each other. An enormous number of combinations of the 35 different sounds and silences can be listened to at any moment. But amazingly, thanks to the ingredients quantities (the different sets of durations), a randomly synchronic silence happens occasionally on all the drums. Also, the occasionally beating sounds and the even less occasionally *klangfarben* melodies that happen every 4 sounds and silences in every drum cycle, offer both an interesting contrasting element. The result is an infinite music, it is always the same open work, very recognizable even when performed in different drum sets with different tunings and timbers, but it is always the same structure with a huge number of permutations.



Figure 4 - I play the drums with frequency. Disponible, a kind of a Mexican Show School of the Museum of Fine Arts (Boston).

Having 30 minutes of the same sounds, silences and durations happening exactly in the same way in an almost infinite future would be mathematically possible! But in this work this eternal recurrence is less palpable. The interesting thing here is that in every one of the drums there is always a micro eternal recurrence, the 4 sounds and silences followed by a *klangfarbenmelodie*. So, there are cycles within cycles and always different durations, and it is this that makes this sound installation to become something nearer to that free will of Nietzsche.

The random operations designed by the artist makes an always new but limited and finite set of combinations.

Kyle Evan Mask maintains that Nietzsche in reality intends to draw a connection between eternal recurrence and cosmology. He remains agnostic concerning Nietzsche's belief in the actual recurrence of history, and believes that "eternal recurrence, at the very least, serves as a metaphor for the way reality actually is. [...] Affirming eternal recurrence constitutes the highest attainable affirmation of life, because eternal recurrence symbolizes the cosmos" (Mask Kyle Evan, 2008: p. 5).

I am finishing this work by analysing a work that was created in recent years. It is a sculpture that doesn't sound, but that metaphorically relates to these ideas.

In Transmutación¹⁰ (Figure 5) I looked for an old useless piano in order to make a sculpture out of its keys and other parts of its mechanism. Normally the piano keys, as well as almost all keyboard instruments (harpsichord, organ, etc.) are always disposed linearly in a rectangle that has limits, the first key strikes the lowest sound while the last one the highest one. But a piano could still use more frequencies within the audible human range, or why not, even imaginary frequencies that we can't hear? why do we need to have a sequential finite beginning and end? I decided to place all the piano keys in a circle of approximately two meters in diameter (87 keys). Within the first circle, there are two other internal ones, the first one conformed with some of the hammers (40 hammers) and the second one with some of the small mechanisms that articulate them (20 counter hammers). The result was a new inanimate being that can no longer sound, but that closes the finite low high space into an infinite space where these two poles become somehow connected.¹¹ So from a very old piano almost dead, an entropic being, I transmuted it in order to create a metaphor of a new life in a perpetual and eternal recurrence that nonetheless is quite static, like a fossil, but this immanence at least can remind us of the importance of the cyclic element in our life's within the cosmos, where they might recur eternally over and over again.

¹⁰ Transmutation, in English. Retrieved from http://artesonoro.net/artesonoro/transmutacion/transmutacion.html

¹¹ It is like the uroboros, the snake that bites its own tail.



Figure 5 – Transmutación. Le Laboratoire Gallery, Mexico City 2016.

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