

Generative art MetaLanguage Paper Topic: Al language in Generative Art Author:Enrica Colabella Generative Design Lab, Politecnico di Milano University www.generativedesign.com

PROLOGO

"Love is not love Which alters when it alteration finds"- Shakespeare, 116 sonnet

Dancing on a shining generative braid

By flying on your steps, you follow imaginary rhythms/Where time is an ancient man with a crazy hat.

Over the mirror, he waits for you behind the notes, /Suddenly couching for your fear, unexpected.

Take place, baby, in your imaginary site of mind/Immerge your eyes in the shining braid of your heart:

The crazy hat is flatting on the mirror in silence, /Like a virtual hand of a robot wake.

MetaLanguage: is a new power? / Or is it only an ancient metacircular dance of ancient times?

Leonardo' *fabulae* teach where you can only find a generative answer/To the eternal question about life and death: Dancing on a shining braid, imagining /So you become able of putting under your short steps every fear of your time.



C. Soddu "14 Generative Lamps" 1998

The discovering aim of this investigation is in trying to outline possible organic structures inside the GA experience of the past, since more than 30 years. Organicity works as a connector by delineating a progressive process looking for also inside the past, in the lighting of the previous scientific results. GA innovation works in art tradition, This should be the main condition for defining generative this kind of art.

Firstly, the choice of the title" GA MetaLanguage. This expression identifies two parts that stay together working in autonomous way.

The main reference is In Douglas R. Hofstadter, that identified possible connections ad continuum in his book Godel, *Esher, Bach.* An Eternal Golden Braid, as a metaphorical escape between minds and machines in the spirit of Lewis Carroll, *published in 1979*.

Crossing the river in electric resonance The peace of all things is the achieved order". S. Agostino Two different systems perform the GA MetaLanguage. The first is not linear and it construers by algorithms open processes The second system delineates a crossing interaction with the first one by a linear system that is time. This process is like the crossing of a river that is running toward the sea, connecting its two different sides with all the memory of its own running. In the swimmer crossing time, the running of the double systems generate a **an electric resonance** between the timed crossing and the river flowing with the running swimmer.. This crossing in electric resonance performs a unique result of a perhaps infinite variation of the same generative process.

The best paradigm of the process control is in crossing the river from one side to the other side, by following a past time toward a future with a singular point of view in one direction. This is able to connect the real site into our imaginary vision by performing experience of our idea/ code. This works as a paradigm of control inside our incoming generative experience

The GA artist is alone as a swimmer in the organic sound of nature, preserving in his heart the imaginary vision of his infancy with its sounds, smells and orders. This is the main condition for gaining an art result.



3unfinisheed artworks- 1 Piero della Francesa "Natività-- 2 Leonardo da Vinci, Adorazione dei Magi- 3 Michelangelo La Pietà Bandini *Prolegomeni:* Ditirambo; Giulietta e Romeo, *reverted time;* Piero della Francesca, Leonardo, Michelangelo, *unfinished;* G: Leopardi, *Zibaldone;* Pierce, *abduction ;* Mallarmè, *The white page*; Christian Morgenstern, Man Ray, Isgrò, *The song of a mute fish;* J. Swift, *Advice to the grub street verse writers*; Nietche and Whitman,*ending;* Anton Popovič, *Metatext;* Celine ,*Rigodon;* Janis Joplin, *Summertime…*

enrica.colabella@polimi.it	Key words: MetaLanguage, translation, abduction, visionary, organic Giacomo Leopardi "Zibaldone" www.leopardi.it/zibaldone.ph.
	Douglas H.Hofstadter, "Godel, Esher, Bach, un'Eterna Ghirlanda Brillante, ", Adelphi,Milano 1990

Generative Art MetaLanguage

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GA MetaLanguage is a generative process for gaining a language where the starting point in the preposition meta. This expresses a passage from a time before to a time after as a translation able to cross words toward figurative results. Figurative means that the results are recognizable in our cultural history, where all human artifacts belong.

Organicity in GA MetaLanguage

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Crossing the river in electric resonance

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The best paradigm of the process control is in crossing the river from one side to the other side, by following *a past time toward a future with a singular point of view in one direction. This is able to connect the real site* into our imaginary vision by performing experience of our idea/ code. This works as a paradigm of control inside our incoming generative experience. The GA artist is alone as a swimmer in the organic sound of nature, preserving in his heart the imaginary vision of his infancy with its sounds, smells, and orders. This is the main condition for gaining an art result.

.In 1992 Celestino Soddu and I published "The Habitat Morphogenetic Design, artificial codes of the environment" where we delineated all our GA process also in our teaching experiences. My peculiar effort was to choose for every chapter of this book a *prototext* from the words of famous poets, philosophers, artists, as a poetic synthesis of each chapter significance. This for enlarging the contest of each part of the generative theory inside a poetry and prose reference of a past time. For the reason that does not exist generation in the art without references to a past, as in organic life. The generative line is an evolutionary passage from a past toward a future. Following this methodology, I started in experimenting in teaching In 1994 as an *homage* to Leopardi in an Architecture Design course at Politecnico di Milano. The didactic main aim was to generate spaces starting from an abduction process from the Leopardi texts in poetry and in prose too. The abductive action chooses 3 adjectives also in significant contrast as aims of the incoming generative process. Nothing can be generated if we don't fix in advance the characters of our aim. This was the first bridge between the world of poetry and Al processes

Prolegomena:, Dithyramb; Nietzche The Poems by Dyonosous; Celine, Rigodon.

Giulietta e Romeo, a reverted time;

Piero della Francesca, Leonardo, Michelangelo, unfinished artworks

Brunelleschi The Maternal dome, Borromini, The wisdom dome, Gaudì, The Heaven stairs Poetry in prose - G. Leopardi, Zibaldone Pierce, abduction; Anton Popov, Prototext/Metatext Mallarmè, The white page; Christian Morgenstern, The song of a mute fish J. Swift, Advice to the grub street verse writer

Nietche - Whitman: Classicism/ Deconstructivism: ending in a avoid silence toward hybrid Janis Joplin, Jack Kerouac, On the road; Syd Barrett, Flowing the back river

Homage to "The white gloves", Singing by hands

In this investigation about MetaLanguage I performed 7 braids at 3 voices finishing with an homage to a visual sound. My process had the main aim in generating resonances between similar voices from an interpreted past toward sounds of future.

1 First braid at 3 voices Dithyramb, Nietzsche, The Dionysus Dithyrambs, Celine, Rigodon

1. 1 Dithyramb



The term $\delta_i \theta \omega \rho \alpha \mu \beta_0 \varsigma$ is of unknown origin, appears for the first time in Archilochus, which indicates it like that "song to Dionysus" that is performed under the inspiration of the wine. Initially, a group of people intoned it headed by a corifeo, or exarchon, chorus magister. It was a choral poetic composition, where poetry, music, and dance work together and all three indispensable in equal measure. The collective dance, dramatic and rapid, performed a circle by dancers crowned

with braids; the exarchon represented the same Dionysus, while the corals accompanied him with lamentations and songs of joy. The dithyramb has an important conceptual importance as a "form-generator" that generates, what will be the tragedy and the comedy. 1. 2 Nietzsche- The Dionysus Dithyrambs



",,,, Only the one who changes stays in touch with me..." After song

Nietzsche published in 1889, the Dionysus Dithyrambs as an expression of his rich and multifaceted personality: This is his last work soon before his so terrible madness. His poems are rooted in classical poetry (from Pindaro to Goethe and contribute to laying the foundations of the next from Dadaism to Hermetism. Because Nietzsche, in verse as in philosophical speculation, is always ancient and contemporary: his word of the twentieth-century philosopher has the best full force of the oracle. This work is one of the most problematic of Nietzsche: what place does it occupy within its immense production? What relationship can be established between speculation and the poetic word? What value should be attributed to these verses, written by the German philosopher in his full maturity but a step from the abyss of madness? To these questions, we can discover an answer inside Nietzsche poems, as in all human poetry. In this investigation, an answer is in his great ability to perform an organic line between natural events and mental processes. This knowledge strongly gains together his passion for harmony and beauty in the human tradition with a visionary description of the incoming future. As an oracle...

1-3 Celine; Rigodon



"People dance Rigodon on a two times motif, on a site, without going either ahead or back, neither from the side."

The genesis of poetry in prose, as a precious lace

"Words are wonderful until they leave the dream"

Rigodon is the name of an ancient dance, perhaps of Provençal origin whose uncertain etymology can be traced, according to Jean-Jacques Rousseau, to the inventor Rigaud. The most common form is in any case rigaudon; Céline decided to adopt it as a metaphor for his escape into Germany "in full vivisection". The dancers move one step forward, one step backward, but at the end of the movement they do not move from the same point

This is a masterpiece of the invention in literature as a metalanguage between prose and poetry. Where the impulse of a monocentric writing reveals an orality transposed inside the scripture. In every part of this sounds book we find locutions to passages, interjections that break up and disarticulate the phrase, proliferating words in freedom and periods dismembered in fragmented

sounds-noises. There is an interpretation of this fluid sounds in words as a *protofuturism* generation that defines Céline is a *"metafuturist* who knows it if unconscious as in certain types of futuristic sound: *"bruio !, vlang !, piutt !, bang !, brrrrrr !, tac! tac! tock! ... "* About this hypothesis of a *protofuturist* representation: in Celine, the noises are not those of the exaltation of war and the fight emphasis of Futurists. *"Noises are not intoned"* here. On the contrary, the word breaking and shattering itself emits sounds of fear and of pain. What concerns Celine is to leave his last will where his testimony of the journey with his wife and his cat through the places of war destruction can emit shattered sounds of meanings *but also redundant of a deep unique love for the art of writing.* So he reached the highest form of poetry through the word's fragmentation as of a child's voice remind in learning.

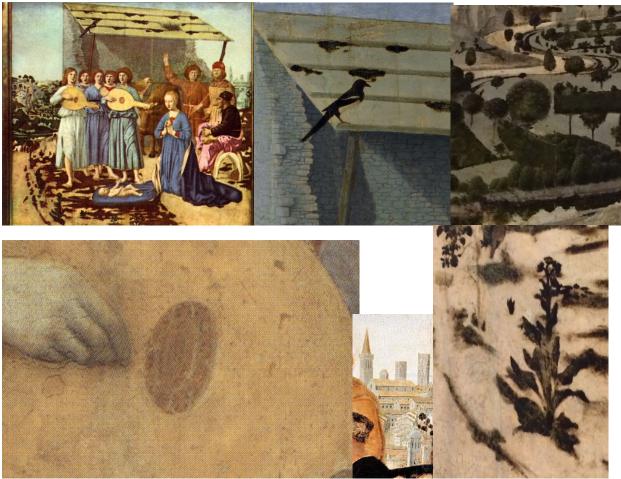
2- Second braid: Romeo e Giulietta, a popular voice in a reverted time

The original tale is one of the most truthful and touching among the few that have stirred the heart of the world for ages, or that in Shakespeare's trans-figuration of it his fancy and his youthful fire had a much larger share than philosophy or his imagination. Reality over classes' fantasy. The popular voice expressions on the walls of Juliet home in Verona are a collective graffiti of an emphatic phenomenon *in a reverted time*. These expressions are full of the romantic dreams of writers in deep resonance *with the terrible pain of the protagonist tragedy protagonists These drawings perform a unicum in a collective metalanguage*.



3. Third braid of 3 unfinished artworks- Piero della Francesca; Natività - *Leonardo da Vinci*, *Adorazione dei Magi*, 1471 – *Michelangelo*; *La Pietà Bandini*, 1547-1555,

3 – 1 Piero della Francesca, "Nativita" London National Gallery



" non vi sia dentro se non quello che è appena necessario, semplice lecto, semplice studio, semplici figure, ogni cosa renda odore di povertade"

"there is nothing inside but what is scarcely necessary, simple bed, simple study, simple figures, everything makes the smell of poverty"

This is the last artworks before his death. Piero places Jesus in a blue cover, alone on the ground inside wild plants, adored by St. Mary. This is a humanistic acting. A humble sparrow represents a silent sound, on the roof of the hut This painting is unfinished in many fragments. In the eyes of the two people ahead on the right, on the eyes of Angels that are closed. On this Arcadia habitat the effort of the donkey that crosses the sky is completely an exception inside the paintings of that time. This shout could identify the quote of the apocalypse where the animal tried desperately to ask God for mercy, Here the Arcadia song seems almost a suffering, expressed also by the lack of strings on the guitars. Piero was becoming blind. These unfinished fragments express all his pain in leaving the painting world, to which he dedicated all his life with devotion. A song full of almost silent fragments. The last song of an old blind great artist. The father of Generative Art

3 -2 Leonardo da Vinci, Adorazione dei Magi, 1471, Galleria degli Uffizi

Vasari said about; "There is no fixed point" Each people has a singular point of view and a unique direction. These run in singular way toward the head of St. Mary. This unfinished painting made in Milan in Leonardo fist years of experience in art is strongly innovative for the total new way of representation singularity in an organic vision. An unfinisched artwork of a youg man that was runnig out of Milano with Luca Pacioli with the all Piero knowledge



3.3 Michelangelo; La Pietà Bandini, 1547-1555, Firenze Museo dell'Opera del Duomo

Michelangelo worked to this very important sculpture in the last years of his life, after the death of his loved friend Vittoria Colonna. After a long working time he changed idea about the group organization of their singular parts and he should like to change the Jesus legs. But the structure crashed and he broke a part of the marble, leading to hit the marble group with great anger, leaving signs of ruin, still visible today.

Anguished and fearing his imminent death Michelangelo instills in this work a strong dramatic accent in the characters that surround Christ, as a mirror of his death. Jesus is shown standing lifeless on the Virgin, supported also by Nicodemus on the top and on the left by Mary Magdalen The group of characters forms a pyramid, and the body of Jesus, carved in an *oblique* position,

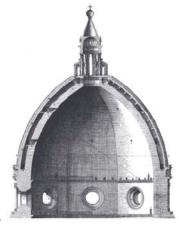
All the protagonists are connected to each other, and it seems that throughout the scene there is *a balanced rhythm*, which starts from the left and goes to the right. Among the various details, it is necessary to consider the left hand of Jesus placed towards the outside, which indicates *the physical abandonment* to death.

According to some critics, Nicodemus represents a self-portrait of Michelangelo Buonarroti.

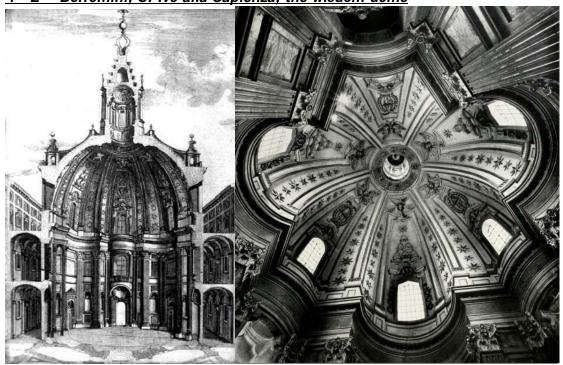


4 - Forth braid on the main characters of 3 <u>Organic Domes:</u> Brunelleschi; The Maternal dome -Borromini, the wisdom dome<u>, Gaudì</u>, The Heaven stairs walking <u>4 – 1 Brunelleschi. Il Manto della Misericordia . The Maternal dome</u>



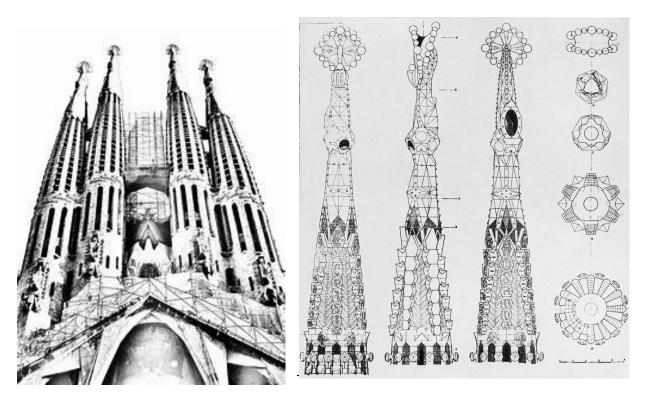


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4 - 2 Borromini, S. Ivo alla Sapienza, the wisdom dome

<u>4 – 3 Gaudì La Sagrada Familia The stairs for Heaven</u>



5. Fifth braid on the silence expressions: Mallarmè, The white page; Christian Morgenstern, The song of a mute fish; J. Swift, Advice to the grub street verse writers.

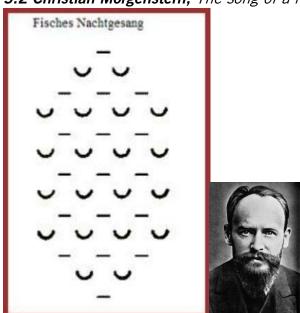
5-1 Mallarmè; The white page



Mallarmè in a portrait by Edouard Manet

As a central figure in Parisian literary circles for much of his life, Stéphane Mallarmé was influenced first of all by Baudelaire and in turn, influenced other poets. During his lifetime, poetry was evolving from the regular forms and clearly expressed emotions of Romantic verse to the fluid and often more obscure forms that would produce modern free. However, another image intrudes that had not appeared in Baudelaire's work, *the empty whiteness* of the page. This image entirely represents his fear of being unable to write, to soil the white page. This fear might lead him to flee, even if his departure at the end of the poem is associated with the disaster of a shipwreck verse and the prose poem. He was a vision of the evolution of poetry toward its death declaration in the Adorno words after the horror of Second World War.

5.2 Christian Morgenstern, The song of a mute fish



In Italy, for Christian Morgensternl as a poet, the barrier was constituted by the extreme difficulty of translating his poems. Among the poets who published their poems collections at the beginning of the last century, Morgenstern remained one of the most popular, often sent to memory, used in the fanny and desecrating conversations, sometimes able to make even children laugh. Therefore, no sublime difficulties: but the humble and yet tremendous difficulties *of those who make a toy in language, and break it up, disarticulate it, overturn it, mask it and unmask it to the infinite.* What can be very enjoyable in the original, but that becomes a despairing puzzle when *those verbal prowess you want to transport them in another language.* The translator's paradise is the poetry in which Morgenstern offers *pure nonsense sounds* (but of beautiful or gory sound) that on the opposite page can be reproduced without changing a letter, like the composition titled *The great Lalulà*; or the one that stops at the mere graphic visibility, like the sequence of *dashes and semi-circles* that constitutes the nocturnal song of the fish. well known as *"The song of a mute fish "*This work became a great reference point for artists, from Man Ray, Isgrò and for many visual poets."

5.3 J. Swift, Advice to the grub street verse writers

The art of writings, poems, letters and tales for job on the street is very ancient. The translation in written words from a talking voice is a great act of lovely friendship, but also it may gain only a money aim.



;And when he sets to write, No letter with an envelope Could give him more delight....Sell them to Curll for fifty pound, And swear they are your own.

6- Sixth braid on ending by 2 voices more one voiceover: Whitman; Nietche: Shelleys



"We are unfashioned creatures, but half made up, if one wiser, better, dearer than ourselves such a friend ought to be — do not lend his aid to perfectionate our weak and faulty natures." (Frankenstein, 1818)

Life and death appeared to me ideal bounds, which I should first break through, and poor a torrent of light into our dark world

Nothing is so pain full to human mind as a great and sudden change

7- Seventh braid of 3 voices in singular electric resonance: Janis Joplin; Syd Barrett; Jack Kerouac, On the road :



7. 1 Janis Joplin Summertime

anis Joplin wonderful voice sing following a *reverted time* where words run toward chaotic sounds for searching for their ancestral significance.as a neolalism in a deconstructive way. All in a deep use of drugs.

7.2 Syd Barrett

A music researcher of new sound using LSD

"I think it's good if a song has more than one meaning. Maybe that kind of song can reach far more people.

"I am treading the backward path. Mostly, I just waste my time."

7- 3 Jack Kerouac

"[...]the only people for me are the mad ones, the ones who are mad to live, mad to talk, mad to be saved, desirous of everything at the same time, the ones who never yawn or say a commonplace thing, but burn, burn, burn like fabulous yellow roman candles exploding like spiders across the stars and in the middle you see the blue centerlight pop and everybody goes "Awww!"

8 Ending in whiteness: the chorus of white hands: music without voice

Enthusiasm generates invisible bridges

Whites gloves stand up following the rhythm of the orchestra playing an especial melody. Music against diversity. Music against disability of mute children. White gloves that rise to the rhythm of an orchestra and play a special melody, that of expression. It starts from Venezuela and the story of Josè Antonio Abreu and his "System", the experience of the White Hands choir. An experimental course that has been active in Italy since 2010, specifically in the Testaccio Popular Music School in RomeThe experience of "Le Mani bianche" rises from.

"The White Hands" is a vital project that creates a lot of interest from scholars, therapists, journalists, many people want to know this therapy that is an artistic activity of the highest level as Abreu claims in saying 'we do not give poor people a poor art'



The experiment is inspired by a project born in Venezuela 30 years ago thanks to Abreu, first in the form of an orchestra that brought together children who grew up in social problems. Shortly thereafter Educacion Especial was born to include disabled and deaf children. Thanks to the

experience of Johnny Gomez and Naybeth Garcia, founders of the first version of the Manos Blancas choir, he grew up as a project designed to translate the song transcriptions into sign language

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