Numbering, where trees move
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Abstract

Listen. It is night moving in the streets, the processional salt slow musical wind in Coronation Street and Cockle Row, it is the grass growing on Llaregyb Hill, dewfall, Star fall, the sleep of birds in Milk Wood
Dylan Thomas, Under the Milk Wood [1]

This paper is an investigation about the ancient tradition connected to the deep relationship between the tree and the human beings. It works as a double structure between the alive world of the unveiling silence of nature and the human mind and heart, able to perform a commune language mirrored in art, poetry, and music, time after time, from oral tradition until our digital time.

A generative process of discovering visionary sounds and designing algorithms can produce endless variations as a deep liquid mirror from the natural sites eared in the deepness of the human feeling.

1- Aim

Main aim of this paper is discovering historical artworks around Nature rules for complex generative art processes. Leonardo was a unique experimental visionary artist. Each his artwork is a representation of a complex science abducted by his nature observation. Inside them, we discover a compendium of science.
that he observed experimenting in a continuum auto learning fixed in his artworks

[3] Leonardo, L’Uomo di Vitruvio: “Tanto apre l’omo ne’ le braccia quanto è la sua altezza” As man can open his arms as his heightnon.

AS NATURAL INFINITE

Leonardo defined philosophy as “images of mental talk” by drawing a deep parallelism between Nature and Reason. Luca Pacioli suggested Leonardo to read the V book by Euclide. This was a basic point that he extended with genial intuition, by using proportions also in time, space, sounds, weights, sites etc. By this scientific investigation he discovered “…varie e strane forme fatte dalla artificiosa Natura…” (...variant strange shapes made by Artificial Nature...), that he fixed in sketches, used later as codes in his works. 

His scripts edited only in 1881 were pressed as a simple first draft on a wax table in only one passage, by using a Roman technique. These were written all in a reverse way. It is possible to read them only in front of a mirror, for emerging a similarity between natural process and interpreted reality.

Tree in poetry numbering

“Our life away from public haunt, finds tongue in trees........”
William Shakespeare, As You Like It

Numbering is the site where trees move for generating tongue, full of all human impressions from the trans-dreamed real Nature world. This paper tries to focus an actual transfiguration in our digital time of the ancient process of discovering a similarity between the natural world and the art process.
**Numbering, where trees move /**
**Numerando, dove si muovono gli alberi**

*Chi si fa piccolo come un bambino sarà il più grande nel regno dei cieli.*
*Who becomes small as a child He will be the greatest in the kingdom of heaven*

When trees move, sounds deeply static brighten./Quando gli alberi si muovono, i suoni profondamente statici si illuminano.
The movement of trees from their more hidden roots/Il movimento degli alberi dalle loro radici più nascoste
Until their highest leaf toward the sky lightness/Fino alla loro foglia più alta verso la luminosità del cielo
Becomes like the first step of an unstable child/ Diventa come il primo passo di un bambino instabile
Left for the first time alone from tender helping hands, / Lasciato per la prima volta solo dall’aiuto di tenere mani
For discovering the wonderful human ability in crossing space/time;/ Per scoprire la meravigliosa abilità umana nell’attraversare lo spazio/tempo;
As a similarity between human legs and woody trunks of strong cortex/ Come una somiglianza tra gambe umane e tronchi legnosi di forte corteccia
A skin oblique for roundness in its slow moving generates color permutations,/ Una pelle obliqua per rotondità nel suo movimento lento genera permutazioni di colore,
For following the rays of the sun together with the lunar splendor./ Per seguire i raggi del sole sino allo splendore lunare.
Alternate continuous faces in the flow of life/ Volti continui alternativi nel flusso della vita,
Small steps in the silence of the transmuting night perform./ Formano piccoli passi nel silenzio della notte trasmutante,
Sunlight expands fast in the eternal new day of life./ La luce del sole si espande veloce nell’eterno nuovo giorno della vita.
…”Where are you going said reader to rider…”
I stay firm listening, waiting for the new light of the day./ Sono ferma in ascolto, aspettando la nuova luce del giorno.
Fixed with the tarantula in my heart, I wait for seeing the tree moving/ Fissa con la tarantola nel cuore, aspetto di veder il muoversi del l’albero
Like in a fable, where truth mixes with the mystery of life, / Come in una favola, dove la verità si mescola al mistero della vita,
Silent and multiform, generating infinite variations following a music at time/ Silenziosa e multiforme generando variazioni infinite che seguono una musica a tempo
A transforming site from where we come and where we will stop passing the baton. / Da un luogo in trasformazione da dove veniamo e verso dove ci fermeremo passando il testimone.
Memorie di un passato sospeso, che solo la natura ci racconta con canto indelebile anche se spezzato dalla umana vanità /
Memories of a suspended past, which only nature tells us with indelible song even if broken by human vanity.
For a silent, just about impalpable caress / Per una carezza silenziosa, quasi impalpabile
The tree moves slowly on the river bank / L’albero si muove lentamente sulla sponda del fiume
Following the rhythm of the flow of water like an ancient song/ Seguendo il ritmo dello scorrere dell’acqua come un canto antico
Always the same where only varies the flexibility of the deciduous caducus, like a branch off a tree/ Sempre uguale dove varia solo la flessibilità del caduco, fragile come un ramo spezzato da un albero
As irreversible uniqueness of life. / Come unicità irreversibile della vita.
A fragile air moves the leaves in the dark/ Un’aria fragile smuove le foglie nel buio
Following the song, that dictates the
natural rhythm/ Seguendo il canto che detta il ritmo naturale
Until in the smallest parts of the live. / Sin nelle più piccole parti del vivo.
The sound movement connects the parts of the living/ Il movimento sonoro connette le parti dei vivi
With the past as a single timeless flow. / Col passato come un unico flusso senza tempo.
The light returns on the darkness of the night. / Torna la luce sul buio della notte.
A new and unique unrepeatable day/ Un nuovo giorno unico ed irripetibile
In the continuous ancient flow of life. / Nel flusso antico continuo della vita.

**Numbering, a longanimous structure for a complex GA process**

*Longanimous* is an attribute for the time that changes, while remaining the same in its structure.
Structure configures itself adapting its identical past toward a future in possible evolution
The true progress happens through its internal development.
Change, on the other hand, occurs when one doctrine transforms itself into another.
It is therefore necessary that, as the times progress, the understanding, the science and the wisdom of the individual as well as of everyone grow and progress as much as possible.
The wisdom of souls follows the same law that regulates the life of bodies. These in fact, although growing and developing over the years, remain the same as before.
Certainly, a great deal of difference between the flower of young age and the harvest of oldness runs, but these belong to the same teenagers as once those that become old. The age and the condition are therefore changed, but it is always the same individual. Nature is unique and identical; the person is unique and identical.
The infant’s limbs are small, larger than those of the young are, but they are the same. The limbs of the adult man no longer have the proportions of those of the child.
However, those that exist at a more mature age already existed, as everyone knows, in the *embryo*, so that as regards parts of the body. Nothing new adults can gain that has not already been present in children, even if in an embryonic state.
There is no doubt about it. This is the true and authentic law of organic progress.
This is the wonderful order placed by nature for all growth
The not linear complexity of this order works by *numbering* structures.
Montaigne described this process in one of his artwork: “Thoughts”:
“My ego of to-day and my ego of tomorrow are certainly two”

**Tree numbering as a language**
A written language that speaks of trees: the *Ogamic* Alphabet by Druids [5]
One of the most important expressions of a civilization's culture is the type of writing it uses to shape its *oral* language.
The Old Irish was written in a completely peculiar alphabet that is traced back to the Druids, and was probably invented by them only in the late period, when their cult was declining. The Druids, in fact, did not trust the written word, and passed on their knowledge only orally.
For the Druid civilization the connection with nature was lived in a much more visceral and complete way than it is for us today. Among all the essences of the plant world were the trees to be held in greater consideration, so much so that we saw how also the Celtic calendar was based on some trees considered of particular relevance.
The writing invented by the Druids works on the so-called *Ogamic* Alphabet and is
inspired by trees. In fact, it was read not from left to right, like ours, nor from right to left, but from the bottom upwards, because this is the direction in which the trees grow. It was also written on pieces of wood, and this is the reason why we have so few testimonies. The few remains that remained are those carved on stone.

The Ogamic alphabet owes its name to the god Ogma, a deity that we can roughly associate with Mars and that was part of the Celtic pantheon. According to another curious legend, it was invented by the Shiite king Fenius Farsa after the destruction of the Tower of Babel, and elected as an expression of the best existing language.

In short, we can consider the ogamic language a sort of "Esperanto". The letters of the ogamic alphabet are twenty and are called "feda", a term that means "tree". They are divided into four "aicme" (families) each of five letters. The letters are very simple:

- they are formed by a vertical line and five differently oriented signs: upwards, downwards, perpendicularly, to the right or left of the central axis.

It is thought that these signs also expressed a sort of "silent alphabet" that could be expressed by moving and touching the fingers of the hand.

Here are the twenty faiths, divided into aicme:

**First aicme**: B beith (birch); L luis (sorb); F fearn (alder); S saille (willow); N nuin (ash)

**Second aicme**: H úath (hawthorn); D duir (oak); T tinne (holly); C coll (hazel); Q ceirt (wild apple)

**Third aicme**: M muin (vine); G gort (ivy); NG gétal (rush); Z straif (blackthorn); R ruis (elderberry)

**Quarta aicme**: A ailm (silver fir); O onn (gorse); U úr (ERICA); E edad (white poplar); I idad (rate)

Each letter was pregnant with symbolic and esoteric meanings that transcended mere transcription: each letter, each ogham had the power that derived from the tree from which it took its name.

### 2. Numbering as a unifying principle [6]

In the archaic universe, all things were signs and signatures of each other for them interpretation with subtlety and overall the number dominated. Two great interpreters and inventors of the ancient world were Kepler with his tireless calculations and his passionate devotion to the dream of discovering the "Harmony of the spheres", as a follower of the ancient order. His dream led him to prefigure the polyphony that was to lead to Bach. The second] was Isaac Newton, the initiator of the strictly scientific vision.
The mountain[7]

Nature as discovering of the *time fragment* in the number variations

Paul Cézanne, views of the Montagne Sainte-Victoire painted between 1882 and 1906

"If equal affection cannot be, let the more loving one be me."
W. H. Auden, "The More Loving One"[8]

Virgilio:

The tree cries, sighs, and moans with a human voice ... it is believed to be the wind: but often they are also their internal circulation ... the disturbances of their sap, the dreams of their plant soul.

The ancient world has never doubted that the tree had a soul-confused, perhaps obscure, but a soul, as well as any other animated being. Humanity believed it for ten thousand years, before the school age that petrified nature. Today science teaches us exactly the opposite, getting very close to ancient beliefs. Every being, it tells us, even the most primitive, embodies the travail, the effort, a certain feeling of having to assure and increase one’s existence, as well as the possibility of choice (the word is Darwin's) and of the use sometimes very skilful of the tools that lead to this result. Each has the particular art to exist, grow and unceasingly recreate itself.

THE SHADOW

"At the still point, there the dance is."
T. S. Eliot, "Four Quartets"

Dialog between Sapientia and Armonia

Armonia thunders from the high of the valley:

“Code is violated, duplicated, hybrid tripllicated, without any borders.
I am broken everywhere. Please say to me, Sapientia, where I can find my original structure and cover with a veil of beauty the new generation incoming”.

“It's true, I was yet conscious about. I am very sorry, but no one artificial will compensate for the broken song.

The new ancient hybridism tries to translate the language of another species into ours, simplifying itself in something perceived as a real new generation, from the first-born to actual one, with the freeze the vehemence of expressionless.

It is too late for removing the corners full of pride.

You laugh, inside the displaced blankets of love,

You reveal yourself, winner, without any punctuation.

The morning air sweeps you out, without ever sensation of pity.

It is coming to the lightness, covering your pretty face.

The tear's traces disappear, in the last losing smell of night.

You are still alive in the reverberation of the sound

Of a white American tree, in the folds of time.

Nunc et in aleatoria tabula.
**Tuo /Yours**
in memory of the lucent trees in my tender South-land

All'improvviso in un giorno di sole con la terra asciutta /Suddenly on a sunny day with dry land
Uomini stranieri perforarono la terra strappando le tue radici antiche / Foreign men pierced the earth by ripping your ancient roots
E ti hanno portato via senza alcuno indugio. / And they took you away without any delay.
Hanno strappato i nostri intrecci antichi dove scambiavamo i nostri umori solidali / They ripped out our ancient weaves where we exchanged our sympathetic moods
Da un tempo quasi infinito, secoli di incontri e solidarietà. / From an almost infinite time, centuries of meetings and solidarity.
The scent of my leaves that I expanded to your sap.
La tua ombra fraterna gestiva il mio giorno e la mia sera / Your fraternal shadow managed my day and my evening
Mentre cercavo di rimandarti come una dolce carezza / While trying to send you back like a sweet caress
Il profumo delle tue foglie che espendevi fino dalla tua linfa. / The scent of my leaves that you expanded since from your sap.
Per secoli il rito si ripeteva quotidianamente. / For centuries the ritual was repeated every day.
Of intense, warm light, full of the smell of the sea that was close to life.
Sino a quella mattina quando un mercante ti comprò/ Until that morning when a merchant bought you
Quasi fosse una cosa da trasportare per il suo dilettro/ As if it was something to carry out for his pleasure
In una terra straniera, fredda lontana senza il mio umore coninante/ In a foreign land, cold far away without my neighboring mood
Né lo spessore della nostra terra, la sua acqua, il suo vento e la sua ombra / Neither the depht of our land, its water, its wind and its shadow
Di luce intensa, calda, piena di odore di mare che vicino ritmava la vita./ Of intense, warm light, full of the smell of the sea that was close gave rythm to life.
Il tuo travaglio di espianto, di viaggio, di trapianto ti ha segnato per sempre,/ Your labor of explanting, traveling, transplanting has marked you forever,
Sarai sempre solo senza di me e senza la nostra luce e il rumore del mare / You will always be alone without me and without our light and the sound of the sea
E i nostri intrecci spezzati inariditi restano sepolti da terra sterile./ And our dried-up broken weaves remain buried by barren earth.
Nulla può rinascere dove l'uomo in barbarie spezza./ Nothing can be reborn where the barbarous man breaks up.
Ma il ricordi dei tuoi suoni al mattino e verso sera / But the memories of your sounds in the morning and towards evening
La tua gioia quasi infantile all'arrivo della primavera/ Your almost childlike joy at the arrival of spring
Il canto degli uccelli tra i tuoi rami accoglienti/The birds singing in your welcoming branches
Sono impressi indelebili tra le pieghe dei miei sogni/ They are indelibly imprinted in the folds of my dreams
Un'impronta indeleibile di amicizia spezzata/ An indelible printing of broken friendship
Dal devastante uomo senza coscienza: solo per danaro/ From the devastating
man without conscience: only for money
Sic placet amor è ora solo un mio canto
silenzioso degli alberi/. Sic placet amor is
now only my silent song of trees.

The girl on the tree

Julia Lorraine Hill is known as Julia
Butterfly Hill. She is an American girl best
known for having lived in a 180 foot (55 m)
tall, roughly 1500 years old California
redwood tree for 738 days between
December 10, 1997 and December 18,
1999.
Hill lived in the tree, affectionately known
as Luna, to prevent Pacific Lumber
Company loggers from cutting it down.

References

[3] Vitruvian Man, around 1490, metal tip
and ink on paper, 34.4 x 24.5 cm, Venice,
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[4] c. 1510, Royal Library, Windsor Castle,
red chalk on grey-brown paper, 17 x 28
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