

Math + Poetry = Bivocal Art

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Abstract

This paper tries to investigate around the adjective popular as a cosmic constant of which number and mathematics are a universal formula. A hypothesis of double in poetry in prose.

Petronio, Leopardi, Flaubert as the first investigation sites. Variations, combinatorics, permutations.

Keywords: Generative Art, Poetry, Complex not linear systems, Cognitive sciences, Synopsis

There is an hour, at night, of cosmic silence.

F.I. Tiutchev

1. Aim: Math + Poetry = Bivocal Art

Discovering double non-linear segments in the continuum of significance.

- 1. Hypothesis:** through the investigation of a particular field as poetry in prose is performed the concept of *universal singular* poet as a mirror of the popular voice.

2. Lecture key: Bivocal. Poetry is a complex system defined by the vision of poet in which structure is metrics and text is a variation of structure able to perform the popular voice in his language connected to the specific time. The metric structure is a mathematical procedure using length, capacity, weight, value etc. Basic site of poetry is Mathematics if the writer is using also prose. Like everyday life, poetry is surrounded by patterns and rhythm. Numbering is a musical structure. Rhythm is able to raise the writing art in a regular layout using a clear punctuation. These are empty signs of rhythms and abstract elements of written. The musical structure is the metric articulation of text.

Gian Battista Vico calls poetry the first operation of human mind. "Every writing is a system". "Every writing needs an irregular line, this is in a certain way the organic condition of written appearing" The linguistic thesis is that "the written code is secondary in relation of oral code that is a language configuration".

Michail Bachtin discovered bivocal ability in making transparent from the text what is not written. This is a form of popular evocation. So we can define the relationship between written code and oral code as a transforming process of a bivocal art. "Style is a man. Or better style is two men." The familiar evocative sound is the material voice of writer. He transcribes oral codes. This is a performing process that uses algorithms as transforming rules. These are in the text frames like bridges. These are hidden structures that give with words a deep expression of a collective wandering.

The implied is inside every language, word never is a transparent tool, but there are always inside all extraverbal elements, all evaluated touches. "The *active* understanding, accumulating what is understood with the new horizon of people that are understanding, establishes a series of complex connections, assonances and dissonances with what is understood and this improves it on new moments".



Figure 1: Michail Bachtin

*The care that you take is poetry
for the hearts of simple men.*

Poetry is also a remembering art. We memorize in our childhood the poems of the most important poets of our language. For this reason we learn in a deep fast way the sound of our culture. But poetry is not only a local language. There are inside also elements of an universal language. The constructive vision of Bachtin is the constant and silent listening of the russian complex voices inside the unlimited others of a cultural contests that inglobes also Goethe, Rabelais, Socrate, Dante. The result of this original dialogic relation is the new liberating elaboration able to break what is static, dogmatic, tragically finished and to project it into a plurivoice and unlimited universe, of which rules as in microbiology and physics are interaction and performing. "The thinging can grow only with the help of other voices, that enriches, recurs and put it again in discussion". The reasonable unit of word is focused in the action of "pushing always more on, in a boundless way, toward infinite".

Bachtin defined a dialogic line from ancient Greek romance until Dostoevki.

2.1. A definition of poetry in prose. A polymorphic vection. (In Mathematics, symbol of quantity having magnitude and direction) Possible montaggio: we can imagine in the topic of poetry in prose two dissociated vections togheter. One of the writer and the second one of the reader. A double body. One is reverted to the other in a not euclidean geometry. Poetry is curved towards prose. The result is a matched song in two voices of different tonality. As a poliphonic shape by Hermannus Contractus. Poetry nests as syntax inside explanatory prose. Poetic sentences disclose as a meditated pause.

So we have:

A concise fluid syntax

Allusion/Refering/Performing to another system

A deep delimited text in prose

A double text

The two systems, structures + text, become discontinous adding in not linear way a poetry unit.

3. Sites of investigation

*To destabilize performed systems is poetry read out a cheap voice;
To define a site of interpretation is poetry built in the humility of discente.*

3.1. Petronio. Satyricon is the only classic narrative text with a strong complexity in his plot and more in his shape. Bachtin defined it a multitalking and intertextual opera. Prose is often broken off by poetical inserts using a double voice. This continues the Latin tradition of Saturas, a literary genre that gets mixed up different styles, using parts in prose and parts in poetry and also fabulae. In Satyricon sometimes talks the voice of characters, othertimes talks directly the narrator, that in his alive story leaves the relationships with the external events making ironic commentaries. This is a representation of *universal singular*. One important result is laughter, topic of human beings.

Satyricon (poetry + prose + fabula) is **a parody of human life**.

Fragment = Fabula

3.2. Leopardi. "Operette morali" are a set of 24 writings, the majority written in dialogue but also in consecutive prose, in which Leopardi, through fantastic fictions or real life situations, expressed his disconsolate vision of the world. They find a poetical unit not in classic reminiscences or in the philosophical patterns, but in the musical linguistic material, because they are as the same Leopardi wrote to his father, "poetry in prose".

"L'intenzione mia fu di fare poesia in prosa..e però seguire ora una metodologia, ora un'altra, ad arbitrio; come si fa in versi"

"my intention was to realize poetry in prose ..and however to follow now a method, now another one, according to my will; the same that is acted in verses"

The real configuration of the poet becomes a metaphorical vision of the maximum systems connected with the meaning of human life, universal pain, mystery.

This poetic conversation is like a testament of the poet. He worked on it also after the publishing of the opera.

Contest = Myth.

Operette morali are **a parody of Myth**, able to generate clearness. Opera/manual is plurimus and infinite. Singular vision is reflected in myth as universal code.

3.2. Flaubert. Flaubert created a pure esthetical opera in prose." The combinations of metrics exhaust, not those of prose"

"We work to ending the sentence, but the sentence never ends". The Flaubert's triade: condition, will, sacrifice". His ideal of writing: strict objectivity and severe impersonal acting. " Style is an autonomous entity"

His main rule: " Feeling as discerning, acting at the best of one's feeling without certainties, but with the overcoming fear. ...Encyclopaedia arises from insecurity and unfitness for reading problems." "Life is a aethereal problem, and history too. We put in endless way more numbers to the addiction" In euclidean geometry two // lines meet at infinite. Flaubert delineated a simmetry line between his thinging and his works. "Only my will follows a right line but the whole rest of my mind disappears in infinite arabeschi". "Each voice finds his echo. A book generates a whole family of humanity. A good prose must be precise and resonant like verse". "It is needed that sentences are rough in a book as leaves in a forest, all dissimilar in their similarity" Sartre defined Flaubert universal singular in "the Family Idiot". In his last work, Bouvard et Pécuchet, he used an elliptic art without remainders. The opera is a *farse*-moment. He presents the two characters using a deep synthetic image: their names are written in the reverse of their hats. Things not feelings. The question of coping. This is the modernity crisis that starts. All what is written is "in being lacking in sense" Bouvard et Pécuchet is **a parody of science**.

4.L'opera infinita

The structure of a sentence is a product of an infinite process. Nothing decides how and when stopping the performig of a sentence. This is possible to cythalize endlessly, always it is possible to put something more. And this until the end of life.

Sartre worked for 10 years for his last book on Flaubert leaving us it unfinished, the same Flaubert. leaved incomplete Bouvard et Pécuchet after 8 years consulting more than 800 scientific books.

Michelangelo worked for more than 10 years to La Pietà Rondanini and leaved her incomplete.

We know throught his letters that he took a great care of this opera putting her in his home and the same made Leonardo with Gioconda, that accompanied him for many years in his bed room.

This relationship between artist and opera is delineated by "*Io nel pensier mi fingo*" from L'infinito by Leopardi. I spent more ten 3 years to try to translate it in English. At last: I figure myself in thinging. But I have to work more.

5. Variations, combinatorics, permutations

It is impossibile to be a mathematician without being a poet in soul.
Sophia Kovalevskaya

Variations

Variations are a result of performing a vision that uses metrics as structure. From coblas esparsas, to Dante, Petrarca, Tasso, Leopardi, Pound, Auden, Ungaretti.

Endless *variations* represent a performed style delineated with an universal singular thinging.

Singular code + mother tongue = Style

Universal code + Style = Variations

The process from singular to universal needs a popular passage in performing style

Combinatorics

"Man is deprived of his recognizability...he is got into a forced solitude" (Bachtin)

From *Cent mille milliards de poèmes* by Raymond Queneau, to Oulipo, Perec, *Less* by Beckett is an incredible example of poetry using combinatorics. Human vision is lessening in the replying of just assumed forms.

Permutations

The use of a double language, alphabetic and numeric as an open system.

A great example is "Lo Zibaldone" by Leopardi. Poetic annotations using index-linked categories as tools of a generative system.

A possible result. As for Fellini's movies is impossible to use the word end as a conclusion of a process.

The only end that belongs naturally to us is: "And they lived happy and glad for ever"

Like Filemone and Bauci, Math and Poetry have the same ability of putting bridges from human mind and reality.

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