GA2011 – XIV Generative Art Conference	
Enrica Colabella	*Paper:* **Generative Art Philosophy – Ars Artium**

Topic: Art Philosophy-Meta-poetry

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References:
[1] Henri Bergson, "*L'evoluzione creatrice*", Laterza, Bari, 1964
[2] Orazio Q. Flacco " *Epistole et ars poetica*" Feltrinelli, MI, 2008
[3]Teodorico di Chartres, "*Il divino e il megacosmo*" Rusconi, Mi, 1980
[4] F. Petrarca, "*La lettera del Ventoso*", Tararà, Omegna,1996
[5] Paul Ricoeur, "*La metafora viva*", Jaca books, Mi,1997
[6] Publius Ovidius Naso,"*Le Metamorfosi*" Einaudi, To, 2005
[7] Erasmo da Rotterdam "*Adagia*", Salerno, I diamanti, 2002
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Abstract: *Sometimes on the mountains in a fragment of a peak appears*
                 An imaginary city, similar to Celestial Jerusalem….
Ars Artium, the Art of Arts, is Logic, the science of sciences. One of the most expressive logic science is Music, connected on similar structures to Eloquence. Gregorio Magno defined Eloquence the art of talking with heart. The GA philosophy walks on Logic, performed on the ability of transforming the reality into its possible *recognizable creative* evolution. It is a Subjective Logic, that refers to attributes, algorithms and operational sequences. This process organizes reasonable sequences able to structure a *poetic order*. This order, following the **"Lucidus ordo and callida iunctura" by** Orazio in **"Ars Poetica",** is *similar* to the natural configuration of a genetic code, *varium et idem.*
There are a double process of *argomentativo* (thematic nucleuses):
1 - **resolutio**: analysis. decomposition, *quantity*.
 2 - **compositio**: synthesis, *quality*.
The first is able to discover *substance*; the second discovers *form*.
GA methodology (performed with C. Soddu also for teaching at Politecnico di Milano from 1988) is defined by a *poetic generative* language for designing *visionary* scenarios:
Aims: Truth and verisimilitude: **Mirabilia**.
Ordo as a genetic code able to generate endless variations.
Tools: * 3 attributes, also in opposite significance, for defining the non linear character to reach
* *Impetus* as catalyze for *morphogenesis*. Fragment: **Petrarca, "La lettera del Ventoso"**
* *The structural point of view – Anamorphosis*
* *Abduction* - "*The living metaphor*" by using words and algorithms in a creative time as a musical time.
* *Paradigm of organization: The time of change in the mirroring space of Art* .
Fragments: **Ovidio, "Le Metamorfosi "**
"ADAGIA", Erasmo da Rotterdam, 11 adagia from Ars
* *Scenarios as results in variations* . *An actual question d'aprè Hugo*
Exempla: 1 – Anamorphosis, micro/ macroscale *ad unicum* :
S. Francesco di Paola fresco 2 - *Splendor*: **S. Ivo alla Sapienza**
Chorus without words: the eternal sound of wisdom

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Keywords:
Logic, Abduction, the living metaphor, creative evolution, ordo, impetus

Generative Art Philosophy – Ars Artium

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Sometimes on the mountains in a fragment of a peak appears
An imaginary city, similar to Celestial Jerusalem.
You can discover it at sunrise, suddenly after the last darkness of the night.
A wonderful splendor resounds in the harmony of the details.
It is just for a moment. If you try to remind to the image in your mind,
You discover that the details are changed following the different time.
Only the vision of the beauty echoes the same character.
The remembering evokes a performing sound:
A natural harmonic order that sings in your heart.

1 .0.1 Ars Artium

The Art of Arts, is Logic, the science of sciences.

One of the most expressive logic science is Music. A music symbol is Saint Cecilia. She is European patron of music and she was a musician. She has inspired many artists; Raffaello, Rubens, Domenichino, Artemisia Gentileschi. The statue of Saint Cecilia made by Stefano Maderno was graven in 1599, when it was made the recognition of her corpse. She xgdfwas found in the position reproduced by the sculptor. Maderno has also wanted to put in prominence the cut of the sword on her neck and the position of their fingers: three open in the right hand and one open finger in the left. According to the tradition, the Saint wanted to point out her faith in the Unity and in the Trinitas of God. In this generative process of discovery, another element important is the left ear, *unveiled* for the listening.
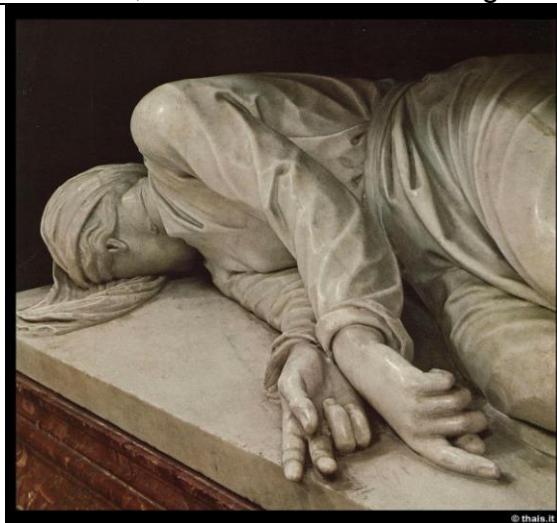
Saint Cecilia statue by Maderno, Chiesa di S.Cecilia in Trastevere, Rome

A piece of music resembles in mind a piece of eloquence. Eloquence was defined by S. Gregorio Magno as the art of talking with heart: *""The orator has to dip his pen*

*in the blood of his heart; in this way he could also reach the ear of the people"*t
*Musical expression may be compared with the delivery of an orator. The orator and
the musician have, at bottom the same aim in regard to both the preparation and the
final execution of their productions, namely to make themselves masters of the
hearts of their listeners, to arouse or still their passions, and to transport them now to
this sentiment, now to that. Thus it is advantageous to both, if each has some
knowledge of the duties of the other.'* [1]

S. Gregorio Magno by Antonello da Messina, Palazzo Abattellis, Palermo

1 .0. 2 Generative Art Philosophy - *Logic and ordo*

The GA philosophy walks on Logic, performed on the ability of transforming the
reality into its possible *recognizable creative* evolution.[2] It is a *Subjective* Logic,
that refers to attributes, algorithms and operational sequences. This process
organizes reasonable sequences able to structure a *poetic order*. This order,
following the *"Lucidus ordo and callida iunctura" by* Orazio in *"Ars Poetica"* [3]
is *similar* to the natural configuration of a genetic code.

1 .0. 2a *Paper interpretative key*: *MIRABILIA*
This process follows the interpretative tradition applied by the Middle Ages to the
Metamorphoses that is that naturalistic scientific consequential from *Seneca* [4] and
Plinio [5]and wide to the Mirabilia, that it makes to pass for **natural** the metamorphic
legends.

1 .0. 3 Logic Process
There are a double process of *argomentativo* (thematic nucleuses):
1 - **resolutio**: analysis. decomposition, *quantity*.
 2 - **compositio**: synthesis, *quality*.
The first is able to discover *substance*; the second discovers *form*. [6]
GA philosophy rediscover in a very clear way the big different between these 2 ways
of reasoning. The **resolution** approach is used, still now from more than one
century, for teaching creative design for architectural students. The quantity

approach is able to decompose the singular elements and after to add them, destroying the secular organic ability in building abstract proportions. The **compositio** approach is able to work for creativity by performing abstract logics in similitude with organic process. These logics can be connected by transforming rules as algorithms, more they can follows also not only numbers, but words too.

1 .0. 3a Exemplum of *resolutio:*
Jacobson [7], from combinatorics to significans. Linear logic

In the 1958 spring, in an interdisciplinary conference on "Style in Language" near the university of Indiana, the linguist Roman Jakobson introduced an intervention on the relationship among poetic and linguistic. In every linguistic process we can point out, according to Jakobson, the following constitutive factors: **the sender** *that sends* **a message** *to* **the receiver** *inside* **a context** *(a referent that allows the receiver to understand the message), through* **a code** *(shared from sender and receiver) and through* **a contact** *(a channel physical able of to maintain the communication). Following to these six factors we can establish six functions linguistics different according to if one were privileged of the factors in matter. On the base of this reasoning, Jakobson concludes that, when in a linguistic process the message is privileged in itself, the poetic function of the language can be individualized. According to which linguistic criterion is it empirically recognized the poetic function and which is it the element whose presence is essential in every poetic work? Jakobson invokes to this point two trials that allow the formulation of a message:* **the selection and the combination***. The two words that we associate are select and are combined in the spoken chain and the selection of the terms it happens in base to the similarity and the dissimilarity, to the synonymy and the antinomy; while the combination or rather the construction, of this sequence founds it on the contiguity. For Jakobson "the poetic function projects the principle of the equivalence from the axle of the selection to the axle of the combination" From this interpretation a formal reading of the poetic text careful to the autonomy of the significans was born, where for "significans" we intend the linguistic sign which connects him the "significance", or rather the sense, the content expressed by a word. We can affirm that in a reading of this type assumes greater importance the significans (or rather* **the form***) in comparison to the significance (***the content** *that the form evokes), really in virtue of that combination, that has said being purpose of the poetic language. Such principles explain how come the modern conception of the poetic language* **denies the translation** *possibility of the poetry: to translate, in fact, means to modify the object in its substance, since it comes to be suitable with a new oral weaving, also it rich of valid suggestions semantics, but surely different from the preceding one.*

1 .0. 3b Exemplum of *compositio:*
ADAGIA [8], Erasmo da Rotterdam, 11 adagia from *Ars Poetica*
Callida iunctura. Translation as interpretative logical exercise. Not linear logic.
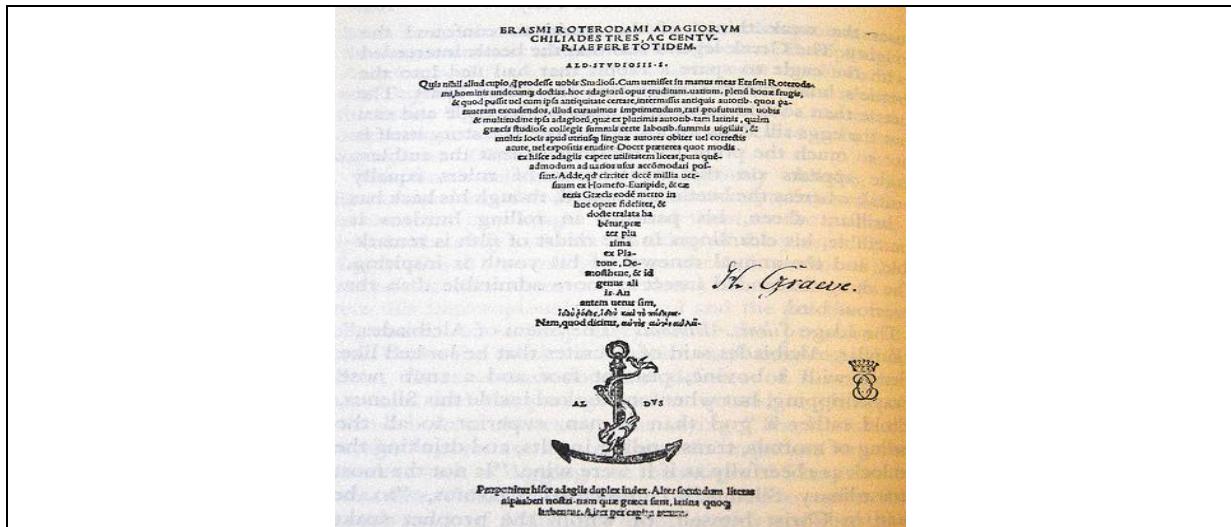
In 1500 the Parisian publisher Jean Philippe published Adagiorums collectanea by Erasmus, a harvest of 818 Latin proverbs and ways of say philologically commented. The collecttion will become larger with the following editions: that of 1505 contains 838 of them, the Venetian edition of Aldo Manuzio, of 1508 - beginning from which Erasmus starts to insert numerous Greek quotations - it contains 3.260 of them and hands the title Adagiorum chiliades that will be also that definitive in the 1536 last edition, published with the types of the publisher of Basilea Johan Froben and container 4.151 proverbs.

*The proverbs don't concern, in fact, popular culture, they don't express the native its presumed wisdom: **they are forms of the knowledge of the Ancient people**, assembled with high rhetorical competence. And in fact the figures typical of the proverb they are rhetorically all describable and in an index (metaphor, adunaton, necessarium, absurdum, contrarium,simile, poliptoto, enantiosi, ossimoro, enigma, comparatio, similitude, epithet).*

*The work of Erasmus is an extraordinary archaeology of the ancient time: every proverb is brought **in the source language** (Greek or Latin: and to the Greek follows the Latin translation), **the various senses and interpretations** are discussed of them, the authors are quoted that have used them. Some cards leaven in the various editions until to assume the aspect of real instructed short essays, that go over the simple illustration of the motto and they faces problems of actuality.*

***Adagia** are a monumental work of erudition in which ancient wisdom and modern humanism are found places on a line of substantial continuity , at the light of a solid but clear and communicative philology and of **a illuminated liberty of thought**, and in a spirit of mediation among the cultures, that curtains to exalt in general **the similar and universal elements** of the intellectual and human experience.*

Erasmus for first indiscriminately matures the idea of a great popularization of the classical culture in practical and functional forms for the benefit of every lettered person, also extraneous to the cenacles of the erudite protagonists of its rebirth.

*Erasmus holds the classical fundamental for the learning of the language, after that the rules of the grammar are assimilated (cf. the De ratione studii,in ASD I/2 114ss.) considering **the Latin not a dead language but an effective communicative tool**. Under this aspect it is possible to understand the base on which the language and the style of Erasmus are formed. His lexicon, his syntax, his prosody postpone to this*

appropriation of the language of the classic opera and of a reading of the ancient authors that it not only transmits his passive competence of the Latin, but also that active, in a continuous process of reusing of the stylemes.

Ordo secundus. *In the 11 Adagia from Oratio we can notice as, from a formal point of view, the Adagia for Erasmus is more often brief figurative expressions, to the infinite, that not periods of sense scita novitas finished as ethic character. Besides, Erasmus had to take on him the responsibility to affirm their proverbial value; i.e.for the motto **"In vino veritas"** by Oratio, Erasmus in Adagia, I, 7, 17, comments that «not always truth is contrasted to the lie, but it is sometimes contrasted to the simulation». This opens the significance to another reasonable vision of truth.*

2 .0. 1 GA methodology (performed with C. Soddu also for teaching at Politecnico di Milano from 1988) is defined by a *poetic generative* language for designing *visionary* scenarios.

2.0.3 Methodological structure: ***Agrapha dogmata***, not written doctrines.
In the Physics (expressly), in the Metaphysics and in the fragments of the lost *On the Human Good*, Aristotle refers to doctrines not written [agrapha dogmata] in which Plato would have sustained different things from those exposed in the dialogues. In practice he would have developed in the oral teaching a systematic theory of the principles of the reality that is absent or only mentioned in the published works. The existence of contents of technical teaching without direct comparison in the dialogues appears conforming to the indications on the relationship between **dialectical practice and writing** - also dialogue - emerged by the pages of the platonic texts. Written texts can never replace the educational activity, that, for Plato - we can think as Socrates's student - ***exclusive appanage of the orality*** remains substantially.

2.0.3 Aims:
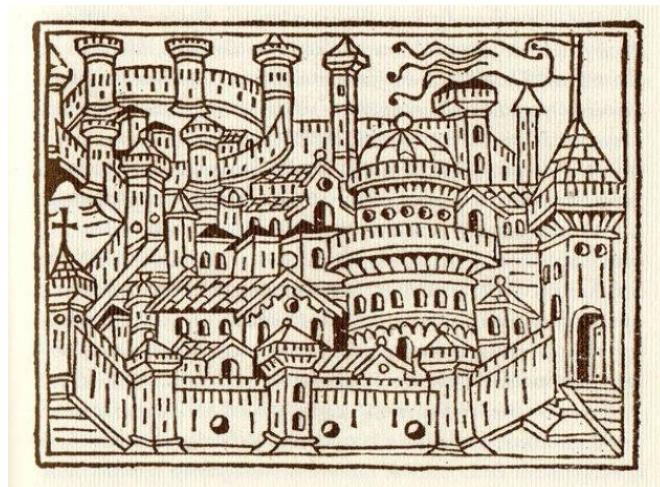
Bonvesin da la Riva, *De magnalibus Mediolani*

a- ***Truth and verisimilitude***

b- ***Ordo*** as a genetic code able to generate endless variations.

a- Truth and verisimilitude

In **Timeo**, one of the last dialogues, to which are tied up some of the greatest platonic myths, Plato structurally connects the myth to the dimension of the *historian natural* becoming, on which more precise discourse of that only *verisimilar* would not be *proposable*.

The intention of Plato didn't probably stop it at the simple ***propedeutica*** to the thought logical-mathematical-philosophical, but, in sight of a cultural action and vast politics, he aimed to compose stories and legends that could be able, for generations, with an own autonomy (the following history has agreed with him), to circular and to mould the minds according to precise demands ***protrettiche*** (of starting to the philosophical life).

The myths, really because recalled-expressly or less-, also for their understanding, inside the horizon of the tradition, had the tendency to borrow its credibility of historical narrations: we would owe therefore to prefer at the end at the word truth the weakest verisimilitude , for marking the discard between the reality without time of the objects of the scientific knowledge, and the most indefinite contours of the subject of the myth.

b- Condition sine qua non of the order is the *verisimilarity*, as connection among different plurality but performed by a permanent logic, a meta-code, able of aggregation; in the equality the order dies or changes.

The poetic language is the main expression of a transparent and clear order.

The poet lists his talent among those essential to a writer, and he explains in what this order consists: to know what parts in the treatment go before, what later; what it is to omit and whether to treat for a longer time and the genuine use of the words.

Lucidus ORDO

Ars Poetica is a letter written by Oratio to a Roman family, that of Pisoni, belonging to the gens Cornelia, perhaps addressed to Lucio Calpurnio Pisone, (consul in 15 before Christ: and around this date it seems to go up again his composition) and to his 2 young children; a letter in hexameter verse.

Orazio condenses with great poetic effectiveness the lesson of Aristotle: without any possibility of comparison with other works. It is the text of literary theory, and together of aesthetical theory, firmly more present and rooted in the European culture, from the Middle Ages to the eight hundred.

In alone 476 verses Orazio exposes a finished and functional Poetic Ars. The strategy poetic *argomentativa* of the Ars is planned *asystematic*: it is not a philosophical essay, in fact, but a letter in verses directed to not experts (the Pisonis), and therefore it assumes the communicative functions proper of a text of *institutio* (the gradualness and the agreeability, through the images). But also always you a tripartite scheme easily recognizes in it.

The first part treats of the *poíesis*. "Poetry": but in Greek the verb poiéin properly means "to build", and therefore the poetry is a "construction", that is its subject, its *inventio* - in rhetorical sense - and its employment. It proposes two fundamental rules: the subject has to be simple and unitary (***simplex et unum***), and it has to be convenient with the resources and the abilities of whom writes. The application of

this law of the *hendiadys* unum simplex is difficult, Orazio refers particularly to the rhetorical technique of the *variatio* ("variation"),

"..if a painter wanted to unite a neck of horse to a head of man, .., if he wanted to make to finish the body of a beautiful woman in a dirt fish... ". all would be painted to be laughed, because they would contradict the constitutive and primary categories of the beauty: the unity and 'proportion', the convenience and the harmony." These images put in scene the interchange between painting and poetry (the "arts sisters") that it is one of the main point of the whole Ars poetic, and it confirms the direct pertinence of it to a general aesthetical theory, at the same time of poetry and art.
About the ordo (order), Orazio is very concise and rapid: he remembers that the value (virtus) and the beauty (venus) of the poetry consist of immediately saying what it has immediately to be said (that is what is necessary). As it regards the choice of the single words, the poet has to proceed with caution *(cautus)* and delicacy *(tenuis),* working on the position of the words, so that with adroitness *("callida [...] iunctura":* "aware connection") can make to return new the extinguished words; if it is really necessary to do it, he can also use neologisms *("indiciis [...] recentibus"*: "with signs (words) recent":, but only if they pertain to unknown things: a license to be employed with great moderation, and trying to form these neologisms for the tread from the Greek language.

The connection of the words corresponds, in poetry, to the *metrics*. Metric competence is a prerequisite to the poet, but it is not enough alone: it has to accompany him to **the use of the color** and **the style**. They are these the elements of an ars that it is able and must be learnt , always for reasons for convenience and decorum, that the fundamental categories that regulate the elocutio stay in how much "**verborum colores**" ("colors of the words").
The conclusive precept exhorts the poet to the patient reflection (mora), to a long job of cutting ("labor limae"), to numerous cancellations and corrections ("multa litura"), for removing from his verses all of this that is superfluous, up to submit it to the test of the fingernail (that of the sculptors to verify the smoothness of their own work). In short, the perfection of the poetry is the result of a long, patient, tenacious job: above all *to remove and to correct.*
Orazio still proposes a strong image and polemic as it regards the formation of the competence to the poetry: from the moment that Democrito has believed that the most important attribute of the poet is the *ingenium* and not the art (in how much mastery of a technique, laboriously acquired, et cetera), and therefore he excludes from **the Elicona** (the mythical place of the poets) all the health of mind (that is those people who are not possessed by *the poetic "furor".*

To designate the classical style of the odes by Orazio, La Penna [9] has told of " clear architectures", allowing to intend that the poetic construction of the Carminas makes to think to a construction on the Renaissance type, as **the dome of S. Ivo**, that is contemporarily characterized by an extraordinary harmony connected to an exceptional dynamism. The miraculous equilibrium of such so well done and perfect constructions is really the result produced by the syntactic procedure of the lucidus ordo.

3 -0-1Tools:

Si les règles sont fondées sur la nature, elles doivent être souples comme la nature est complexe. Aussi les diversités qu'on remarque dans le style de Cicéron sont-elles infinies; pour s'y orienter, il faut quelques principes généraux; pour en saisir les nuances, il faut se souvenir que ces principes ne sont pas absolus. (Laurand, 331)[10]

a- 3 attributes, also in opposite significance, for defining the non linear character to reach, i. e. **silent, thunder, shining,** used by me for this paper.

b- *Impetus* as catalyze for *morphogenesis*.

3 -0-2 *Fragment:* Petraca *" Ascesa al Monte ventoso"* [11]

The history of the "forms" as "history of the word" doesn't exhaust, then also when the history of the poets was finished…The poet is a man that is joined to the other men in the field of the culture, and he mportant for his "content" (here is the serious word), over that for his voice, the lilt of voice..Poetry is the man…The researcher of a new language this time it coincides with the impetuous search of the man. in substance, the man's reconstruction deceived by the war."
S. Quasimodo in "*Discorso sulla poesia" [12]*

On *26 April of 1336 F. Petrarca, together with his brother and other two companions, climbed Monte Ventoso (mountain of Provence of 1.909 meters), he also has the unrestrained passion for the reading of the classical Greek and Latin, at search untiringly in ancient libraries and ancient middle ages convents. Joint on the top of the mountain, he opens at random the confessions of S.Agostino and he starts reading these words: "And the men go to contemplate the peaks of the mountains, the vast billows of the sea, the ample currents of the rivers, the immensity of the ocean, the course of the stars and they don't think about themselves." He felt a big emotion that later so he described in his Secretum: "Nothing is worthy of admiration except the soul. ".*

The ascent of the mountain as symbol of ascending (according to the truthful suggestion of the paronomasia) this is the key on which rotates the figurative pattern of the epistle. Petrarca expresses the relation with **the scientific curiositas** and strongly introduces **the dimension of time** into the grand general scheme.

*"Cepit **impetus** tandem aliquando facere quod quotidie faciebam…" " the desire took me to complete in a good time what every day I imagined to do.."*

"Labor omnia vicit improbus" "Obstinate work wins everything." This is the main significance of the epistle. The mountain Ventoso changes endless the street of lecture, in a continuous double meaning visible/invisible, arriving to rest only as earth's fragments in front of the highness of the human mind. The **impetus** is in rediscovering the power of the deep childhood feeling of knowledge.

* c- The structural point of view – Anamorphosis

The term *anamorphosis* is relatively recent. It was invented by the most inventive scholar of Baroque illusionism and imaginary worlds, Athanasius Kirchner, in his book **Ars magna lucis et umbrae** (1645), to describe the transformation of an image *(anamorphosis sive transformatio figurae).*

Exemplum: 1 – Anamorphosis, micro/ macroscale *ad unicum* :

S. Francesco di Paola fresco

The 'S. Francis from Paola ' is a long fresco around six meters, painted at Trinità dei Monti in Rome by Emmanuel Maignan in 1642.

Frontally seen, the image is a whole of lines, with horizontal course, that doesn't apparently represent anything (fig.1; 2)…… if it were not for of the small details(fig3), boats ,little towns, etc., inserted really to force the reading and to induce who looks at to discover inside a landscape…

 but the miracle happens if we move there along the corridor, estranging us from the fresco for about ten meters…more we get far more the lines, seen of foreshortening, are recomposed in an image, this time legible, of the knelt St. Francis from Paola (fig.4), and the small countries with their boats disappear to the sight, overpowered by the great figure.
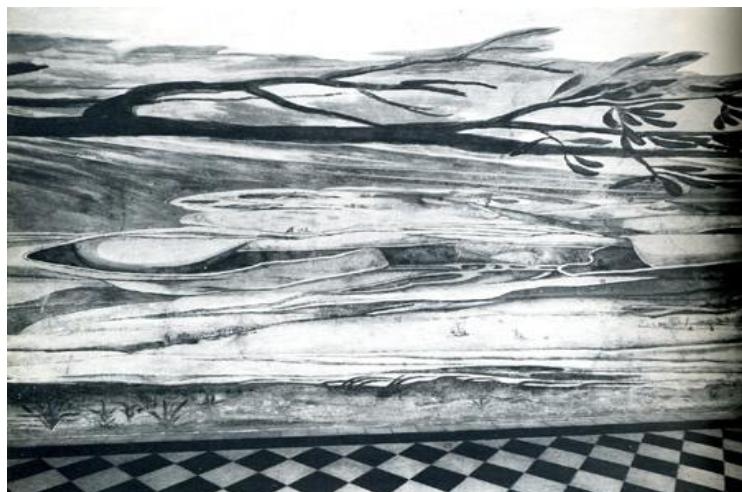
" *Like perspectives which, rightly gaz'd upon,*
Show nothing but confusion, —ey'd awry,
Distinguish form!"
Shakespeare, Richard II

d-* *Abduction* - "*The living metaphor*" by using words and algorithms in a creative time as a musical time.

4 -0- 1 Abduction is the ability to discover connections

"Poetry
it is the world, the humanity,
the own life
bloomed by the word,
the clear wonder
of a delirious ferment,
when I find
in this silence of mine
a word
dug in my life / as an abyss."
G. Ungaretti "*Commiato***" (2 ottobre 1916)

4 -0- 2 **Metaphor**

"*Noons of dryness see you fed*
by the involuntary powers"
W. H. Auden, Another Time[13]

The metaphor is one of the fundamental devices through which a determined linguistic code it is able to generate itself again.
Goffredo of Vinosalvo (Poetria nova, Faral, v.1705) will say that
there are three ways of form himself, *the art of which the rules are followed*,
the use to which it folds up and **the imitation of the models**.
Giovanni of Salisbury (Metalogicon I, 24) tells us as Bernard of Chartres
conducted his lessons: he pointed out what simple and conforming was
to the rule, he showed the grammatical figures and the rhetorical colors, the fineness
of reasoning and, **to educate to the splendor orationis**, showed
the wonder of *the translatio* (or metaphor) ubi sermo ex causa probabili ad alienam traducitur significationem.

** **Paradigm of organization:** The time of change in the mirroring space of Art*

5 -0-1 De Benedetti, *the homo fictus*

Debenedetti has identified then in Joyce, Proust, Pirandello, Kafka the four riders of this subversion of state. Contemporarily the connections of works and theories of the existentialists are heightened with themes by Freud: themes that are still brought back loss to the " loss of father " equivalent of models ", since father is note the depositary of the models. But the abandoned child has drawn really from his viatico

of pain the last courage of the revenge, almost of a desperate retaliation: in geometric terms: ..it is that he, arrived on the edges from where it opens that other space, that space not more euclidean, has looked without accusing the vertigo, and he has not asked references anymore to the forms, figures and solids of the good useless geometry that measured the Earth.

The call to the double equation of Barthes, according to which:

If I call prose a discourse reduced to the minimum of the signs, the most economic vehicle of the thought, and if I indicate with a, b, c certain particular attributes of the language, useless but decorative, as the meter, the rhyme or the ritual (that however I would prefer to call the ceremonial) of the images, the whole surface of the words will establish itself under this double equation:

Poetry=Prose+a+b+c
Prose = Poetry - a - b – c

"*I remember rather* – said   Giacomo Debenedetti - *that Gobetti (and later also Thovez) contested me the abstractness to want to reduce everything to schemes, operations of math order, to want to do of some criticism an algorithm, to resolve the discourses through a series of transformations, of formulas up to the quod erat demonstrandum* ".[14]

** **Scenarios as results in variations***

Fragments: *Ovidio, Metamorfosi [15]*

Here myths are histories of written bodies and subscribed in the text of the nature. Bodies, that appear on the surface, are looked for, they mix one in the others, and they finally transform themselves: who in flower, who in bird; who in mineral, who in a new divinity.

"I believe there is a singular narrator throughout, who is Ovidio himself", Solodow 1988.
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Exemplum 2*:Splendor:* **S. Ivo alla Sapienza**. *Chorus without words: the eternal sound of wisdom*

> *"Do not forsake wisdom, and she will protect you; love her, and she will watch over you. Wisdom is supreme; therefore get wisdom. Though it cost all you have, get understanding."*
> *Proverbs 4:6-7,*

The impetus of Borromini for building S. Ivo was implemented by a strong competition with Bernini. To better understand that time we have to know that Bernini made a great restoring of Pantheon putting on the façade on the boards of dome 2 campaniles, that in very fast time people of Rome surname *Ears of donkey* (see 1). Pantheon is very closed to S. Ivo and in that time the square behind the church was open to the visual (see 2**)**

My interpretative key of the morphogenetic process for S Ivo is that Borromini had in his mind to perform the perfection by the geometrical forms, circle and triangle connecting them to a visionary scenario responding completely to *splendor*.
The sentence by Plinio the senior*:" Aliud est lumen, aliud est splendor"* is the clear representation of Pantheon for lumen, in fact the dome through its central hole represents inside on the interior dome with an elliptic form the changing of the sun light during the different hours of the day. For S. Ivo how to gain splendor?
The main question was for Borromini In his competition with Bernini: how to adorn for **persuading** in front of a wandering?
In the classical rhetoric the "adorned style" of discourse is defined in relationship to the principal purpose of the oratio that is that to persuade. Cicero in the De Oratore [16] speaking of the "way of adorning" the discourse, says that it has «how effect to make at the most pleasant the oratio at maximum degree, able to make breach in the feelings of the audience...» Constant are in the author the recall to an appropriate use of the ornamentation: «... because the oratio is disseminated of flowers of the words and of the thoughts, we don't have to scatter in way of it uniform in the whole discourse; we will have to distribute them as friezes and lights in a decoration instead.... it is necessary to choose a style that **not only dear, but dear without satiating**» (op. cit. III, 96)

Few further in the De Oratore there is the call to **the utility** that accompanies the beauty making almost it necessary: «... the columns sustain temples and porticos but their majesty (**dignitas**) is equal to their utility... the same thing is **verified** in every part of the discourse: a certain grace and agreeability are consequence of the utility and almost of the necessity »(op. cit., III, 180-181)

 So he defined the dome as a helical lantern at micro scale, as a fragment onside the dome. This for reverting the tradition of Babel tower as the site of the confused different fragments of language into the site of mirabilia, as a silent splendor of wisdom. Borromini had a very deep relationship with Kirchner. He knew very well his drawings and his scripts about helical forms and Babel tower. Following his introverted character Borromini spent many time alone in studying ancient books, more than one thousand that he left at his death. This was really a big number for that times.
So he knew in deep all precedents about Babel tower.
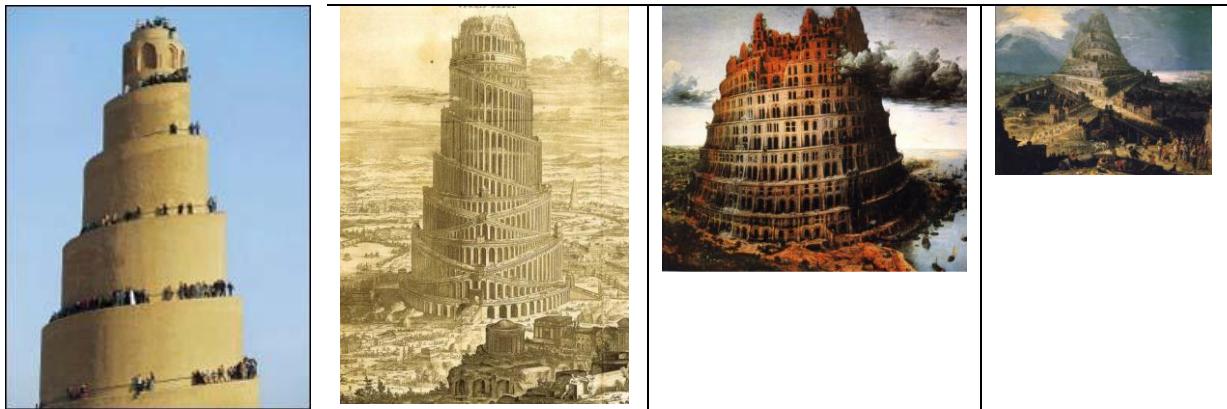
1Spiral Minaret in Samarra, Iraq - 2- A. Kirchner **–** 3 P. Bruegel senior1563 **-** 4Unknown Flemish artist 1587
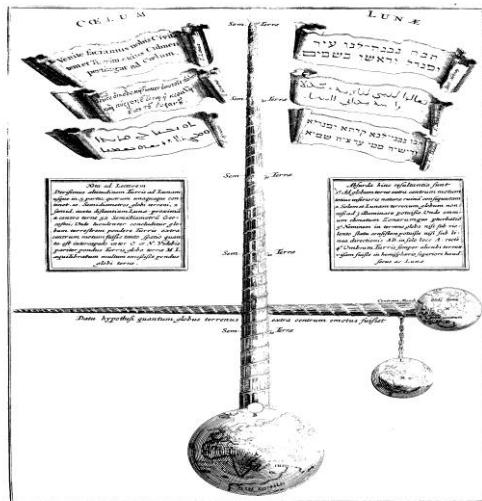
Turris Babel: with typical eclecticism, Kircher illustrates the impossibility of the Tower of Babel having reached the moon, 1679.

There is a detail that from many years attracted my attention making a photo: the all equal sculptures of angels on the coronamento of the dome. Borromini started in working at Rome as scarpellino, a big tradition of his birth site Bissone. He worked with Maderno, connected to his mother for relationship. His ability was excellent since his first experience. So he sculptured these angels as equal as a representation of a very focused intent. A hypothesis could be that if we image the anamorphic ellipse generating from moving outside the church on the external square as a passage between a eternal moment able to repeat itself endless. The dimension of real space time is **translate in eternal** by the simple representation of **the same sculpture in elliptic sequence**. If you want numbering, you can start in a point and go to left or to right, coming back into the same point but in a different time, endless.   But this remind to me the middle age of *rosone* in the façade of the church, evocative of moon lighting for the Chorus songs inside the church. So the hypothesis might be that he projected the rosone from the façade into the base of dome, seeing it as a section of sphere that moving from 3 dimension to 4 generates the helical lantern: This is the representation of the chorus that without words sing the eternal beauty of wisdom, as in the chorus of *Daphnis et Chloè by Ravel.*

S. Ivo, a fragment of Angels

Wisdom brightens a man's face and changes its hard appearance
Ecclesiastes 8:1

6.0- 1 Into the fire

Before his attempt to kill being thrown himself on his sword, that gained after one day of atrocious sufferings, Borromini threw in the fire all of his notes and drawings. We have only his official drawings for the realized constructions, that he had delivered to the Congregations, that had commissioned his work.
This follows to the tradition of the Free masons, for preserving the single trial of discovery of each own ability in art.
This was as Goethe made however only for *Elected affinities.*
About Borromini we know only the results, incredible wonderful results. But as for every real work of art in the results is possible to discover infinite possible interpretations.

6 -0- 2 An actual question

Victor Hugo responded in a positive way with faith and optimism to the rhetorical question that he was inquired in Notre dames de Paris *if the book, after the revolution Gutemberg, would have killed the building,*
And now in the genetic revolution will the architecture survive?
To answer is not simple; but may be it will survive if we preserve our ability in *visionarity*, that rises also from our attention *to young people slang*.

References

[1] Johann Joachim Quantz *Versuch einer Anweisung die Flöte traversiere zu spielen* (Berlin, 1752) - Ch. XI: Of good execution in general in singing and playing – § 1
[2] Henri Bergson, "*L'evoluzione creatrice*", Laterza, Bari, 1964
[3] Orazio Q. Flacco, *" Epistole ed ars poetica" ,* Feltrinelli, MI, 2008
[4] Lucius Anneus Seneca, "*Ricerche sulla Natura",* Mondadori, Mi, 2002
[5] Gaio Plinio secondo detto il Vecchio, "*Naturalis Historia",* Giardini, Pi, 1984
[6]Teodorico di Chartres," *Il divino ed il macrocosmo",* Rusconi, Mi, 1980
[7]R. Jakobson, *Closing Statements: Linguistics and Poetics*, in Style in Language, a cura di Th.A. Sebeok, New York-London 1960, pp. 350-377. Si fa riferimento all'edizione italiana in Jakobson (1966): 181-218.
[8] Erasmo da Rotterdam *"Adagia",* Salerno, I diamanti, 2002
[9]Antonio La Penna, *Saggi e studi su Orazio*, Sansoni, Firenze 1993

[10]Lois Laurand, *Études Sur le Style des Discours de Cicéron : Avec une Esquisse de L'histoire du Cursus,* Saffron Walden, ESS, UK, first ed. 1923.

[11] F. Petrarca, *"La lettera del Ventoso",* Tararà, Omegna,1996

[12] S. Quasimodo, Appendice a *"Il falso e vero verde",* Mondatori, Mi, 1956

[13] Wystan Hugh Auden, *""Another Time: Poems",* Xerox Univ. Microfilms, 1974

[14]O. Cecchi, " *Debenedetti: la poesia e la scienza"*, «Rinascita», XXXI, 48, 6 dicembre 1974, p. 30; poi, con il titolo La musica e l'algoritmo, in IDEM, Incontri con Debenedetti, cit., pp. 70-72

[15] Publius Ovidius Naso,*"Le Metamorfosi"* Einaudi, To, 2005

[16] Cicero,*" De oratore"* Dante Alighieri ed. 1989

[17] Paul Ricoeur, "*La metafora viva*", Jaca books, Mi,1997