# **GENERATIVE IDENTITY CODES**

### Enrica Colabella

University of Politecnico di Milano Department of Architecture and Planning Generative Design Lab enrica.colabella@polimi.it

#### **Abstract**

This paper tries to investigate around the concept of code, as identity of a theme, and of variations, as results of generative processes. The hypothesis is that infinite rises as a borderline between a visionary world and an interpreted timeline reality, as a strongly connected dualism. As in Nature the first runs from a dynamic centre, in endless variations until the border, the second moves unsteadily toward a static centre, delineating open systems of transforming rules, using diachronic matrixes. This is a creative route in the site of the Myth of Sisvphus.

Key words: Identity, code, attributes, abduction, infinite, visionary.

Identity rises from a soundless site, because birds have no tears.

### 1. Aim

To investigate in a creative process, by getting into focus how to define an ideal code for building endless variations. The haim is how to define an idea as artificial dna in a generative system based on a set of codes of transformation.

### 1.1. Introduction

The site of the Myth of Sisyphus. If we image that Sisyphus rises his eyes and looks to his reality at a distance as in another contest with a new imaginary borderline, by feeling not only what happened, but also what is exactly the frame of his life in a new consciousness of human beings, we can see a freedom root. The endless repetitions become variations of the theme toward infinite. These are like frames of a new complex reality, in which memory can loose its domain and hope can rise.

# 1.2. An hypothesis

By learning to discover reality. It is a *visionary* procedure that defines the dual structure between a discovered reality and a new *idea* of transformation as a *coherent* open system.

## 2. Idea as a code

Idea is represented with creative algorithms that define multiple paths from an existing world towards possible worlds. Idea is like a natural DNA, a transformation code that identifies a lot of different relationships starting from the designer's idiom. These algorithms can be used in a creative complex process for every project and it is possible to upgrade them as an increasing experience. So we define a set of not linear procedures (words, matrixes, schemes, paradigms) able to perform open generative systems. This creative methodology brings to formalize an *artificial Dna*, which is based on the observation of the environment that surrounds us and on our cultural references. This is a possible expression of a lot of impressions of our life.

## 2.1. Words, generative tools for idea

### Words as attributes

We can use creatively our mother tongue defining some words as attributes, minimum three or more, as a possible significance of our iter. This is a very important tool that connects words with pictures in a logical procedure, as in ancient time, *ut pictura poiesis*. But this is also peculiar to the classic music. We have a lot of different attributes as indications for playing Mozart, Bach Rossini etc. The author can gain an open number of variations with these multiple topic suggestions.

STRUCTURE: 1 FIST ATTRIBUTE, generic also random

2 SECON ATTRIBUTE, dual, hendiadys

3 THIRD ATTRIBUTE, versus

= performing open CATEGORIES

Time, Real and Imaginary

An Allegory

by Coleridge

On the wide level of a mountain's head

Two lovely children run an endless race,

A sister and a brother!

This far outstripp'd the other;

Yet ever runs she with <u>reverted</u> face,

And looks and listens for the boy behind:

For he, alas! Is blind!

O'er rough and smooth with even step he passed,

And knows not whether he be first at last.

### 2.2. Abduction

As happens in every creative act, such observation activates a fixing up of our impressions, as a performing of our subjective interpretation. This procedure was defined by Pierce as an abduction process, able to define an "how to reason". The interpretation is an experience. The aim of the formal logic is to delineate a table of categories, able to be a faneron, a manifestation of experience. We can read and record what fascinated us as a code of transformation. Hume described this mental process as an idea that reminds an impression about an absent object. In this way what is observed and appreciated becomes a strong deep indication for identifying a process of transformation that will operate on the existing environment to transform it into a possible scenario. So we call abduction this type of performing rules because the interpretation of the events is managed with the aim to represent a rule as an algorithm.

The construction of an artificial Dna is also a basic process that can grow toward complexity using algorithms as a useful answer to the contemporary needs of Quality and Beauty.

Is Poetry in relation between musical variations a stochastic process? This is a false problem. Also variation is stochastic, when it is defined. But musical theme is more soft and variations run copious. But why don't Poetry need variation? The condition of eternity is iteration. Poetry represents this procedure. This is an unique way to gain eternity. She is a site of loneliness. Text is iteration. The sounding expression is a collective listening as the addition of hearing singularity. The listening impressions are not possible to add. Each people perceives and takes a peculiar aspect, also if all together perceive the same significance. And emotions can be strongly similar.

## 3. 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 and 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.

## 4. Code in endless variations

If we define a code, as open strata of diachronic matrixes, we can generate new endless variations.

If we see the generative work by Celestino Soddu about "Medieval Towns Morphogenesis", we can discover codes and matrices that work to produce endless variations of the same identity.

Also in "Old Chicago", we can discover new generated Scenarios in perfect harmony with ancient environment, such as to seem with the same cultural time code.

#### 5. An observation

"The first function of poetry, as of all the arts, is to make us more aware of ourselves and world around us " W. H. Auden, The voice of the poet

Poetry is not only a sound, defined in a random way, in which every sense is dead.

Poetry is a strong guide for performing a complex system, always it remains" to the absurd pretension to fix what time leaves behind".

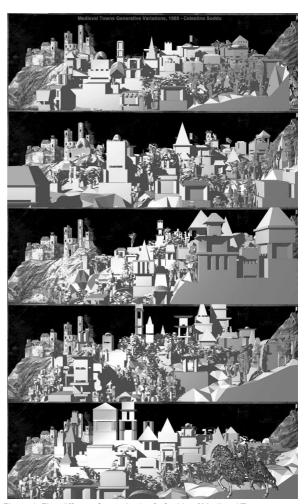


Figure 1. Five different Scenarios by C. Soddu of Medieval Towns generated from an interpretation of frescos by Giotto and Simone Martini









Figure 2. Three different Scenarios by C. Soddu of generated Sky Scrapers in Chicago pictures of the beginning of the last century

### References

- Colabella, E: 1999, Imaging Humanity, Proceedings, USA, Bordighera Press, The imprinting of a man, word as medium for icona (pag.129) The experiences of the students of Enrica Colabella, a. a. 1997/98 Corso di Rilevamento e Rappresentazione, Faculty of Architecture, Politecnico di Milano. Codes as expression of an hypothesis that comes from the Poetic Test of Giacomo Leopardi. The goal is the building of possible "real" scenerios of Architecture, that represent the formulated idea.
- Pierce Charles Sanders "Categorie", a cura di R. Fabbrichesi Leo, Ed. Laterza, 1992.
- Hume David A Treatise of Human Nature, edited by David Fate Norton and Mary J. Norton, Oxford/New York: Oxford University Press, 2000.
- 4. Fodor Jerry A., Hume Variations, Oxford/New York: Oxford University Press, 2002.
- Colabella, E, Soddu, C,"II progetto ambientale di morfogenesi", (the environmental design of morphogenesis), Progetto Leonardo Publisher 1992.
- Colabella E:, "Verba, scripta et alea, generatim", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 1998.
- Colabella E:, "The night shadow", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 1999.
- 8. Colabella E:, "Mater Matuta", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 2000
- Colabella E:, "Performing evocations", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 2001.
- Colabella E:, "Figura, aura uniqueness", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 2002.
- Colabella E:, "Code, a password to infinite", Proceedings of Generative Art Conference, Milan, Alea Design Publischer, December 2003.
- 12.Colabella E:, "Identity, a double vision in a generative process", Proceedings of De Identitade Conference, Rome, Alea Design Publischer, July 2004.