

fuse*

Herbario Novo. Dagli erbari antichi ad Artificial Botany.

"The map is not the territory."

A. Korzybski, 1933

Housed in the spaces of the Marignana Arte project room, *Herbario Novo* is an exhibition displaying the latest creations resulting from the extensive research undertaken by fuse*, entitled *Artificial Botany*. The project, which started in 2019, explores the universe of ancient botanical illustrations, highlighting their latent expressive potential through the use of *machine learning* algorithms. The research was developed drawing on digitized archives in the public domain, containing works by some of the greatest artists of the genre, including Anne Pratt, Mariann North, Ernst Haeckel and Maria Sibylla Merian. Before the invention of photography, botanical illustrations and herbaria, drawings and catalogues were in fact pivotal tools to implement the understanding of nature, the conservation of information and the construction of knowledge.

In *Artificial Botany*, different image datasets have become learning material for GAN (Generative Adversarial Network): thanks to the competitive training of these neural networks, the system is able to mathematize and recognize the essential properties ("point, line, surface"; sound, graphic and chromatic signs) of the shapes in each image, deconstructing and remixing them in an almost infinite number of combinations to create new, surreal, dreamlike solutions. In the latent, multidimensional space of neural networks, the points of view of each single information/sign multiply, opening up to myriads of possible declinations and abstract representations: after reading and recognizing the constitutive signs of each area and illustration, the machine re-elaborates the information creating a new language, imagining, and drawing a forest populated by shapeshifting creatures, and opening the composition to a great fantastic adventure.

The works from *Artificial Botany* thus recall, not only from an aesthetic point of view, the Divisionism and Post-Impressionist fragments (in the video) and the experimentation on the pure and essential forms of the first Avant-gardes, the Primitivist naivety and the COBRA abstract expressionism (in the prints): in general, all those stylistic ventures which are admittedly anti-naturalistic, visceral, hallucinatory, psychedelic, and that are typical of a fluid creative cultural environment, open to the hybridization of knowledge, boundaries and definitions, even in recent years.

From Ovid to Kafka, the Metamorphosis (transformation, morphing) is one of the most evocative and recurrent literary topos; the changing, synthetic representations that populate *Herbario Novo's* digital garden seem to recreate the living, metamorphic, evolutionary dimension of existence more effectively. However, they also seem to be able to create a plausible simulation, a deception: the computer vision and the remediation process which are at the core of the project foster, in fact, a comparison between study systems, image acquisition, tradition of knowledge, representation of reality, an open dialogue that combines past and present, memory, archiving and imagination. This situation underlines the fluidity of the existence: everything is constantly changing. The metamorphosis triggered by *Artificial Botany* thereby seem to portend unique wonders, new “monsters”, in the original sense of the term, prompting the audience to cope with the unknown, poising between dream, vision, perception and intuition.

Maria Sibylla Merian, who is included among the artists to be exhibited at the 59th Venice Biennale of Art, is famous for her publication “*Der Raupen wunderbare Verwandlung und sonderbare Blumen Nahrung*” (The Wonderful Metamorphosis and Peculiar Flower Food of Caterpillars), an innovative text illustrating the development stages of 176 species of butterflies and of plants whose flowers they feed on. A wonderful book on wonders, peculiarities that come from a grey area, a fantastic world which is actually the purer form of creativity and experimentation, before the next evolution and the rise of a new species.

“There is nothing nature loves more than to alter what exists and make new things like it. All that exists is the seed of what will emerge from it.”^[1]

^[1] Marcus Aurelius Antoninus, “Meditations”, translation by Gregory Hays, Modern Library, 2002.