1. BOOM Festival: not just Trance Music
The Boom Festival is a biennial festival which takes place in Idanha-a-Nova (Portugal), at the core of the UNESCO Geopark Naturtejo Meseta Meridional. The first Boom Festival happened in 1997 as an electronic music festival, but the present-day Boom is a multidisciplinary event (Silva, 2008). Bringing together the latest inspirations in psychedelic audio and visuals, Boom Festival features music, paint, sculpture, video art, theatre and various kinds of workshops (Fig. 1). Geopark Naturtejo started to develop a series of projects in order to promote geological heritage in the Boom Festival 2008. Among these projects, Andrea Baucon authored a Video Art installation named Geodelia, linking Geology, Art and psychedelic culture.

2. The concept of Geodelia: the exuberance of the mind meets geology
Geodelia is based on moving pictures and comprises video and audio data, but it does not rely on the conventions that define theatrical cinema. It does not employ the use of actors, it contains no dialogue, it has no discernible plot, and it does not adhere to the most of the other conventions that define motion pictures as entertainment. Geodelia derives its name from the term “psychedelia”, which derives from the Greek words for “soul,” ψυχή (psyche), and “manifest,” δήλος (delos). The term was coined by the
psychiatrist Humphry Osmond (1957) and defines the perception of aspects of one’s mind previously unknown, or by the creative exuberance of the mind. Therefore Geodelia invokes Geology as a mechanism for obtaining aesthetic inspiration. The animated compositions of Geodelia are an expression of geological objects but they may exist with a degree of independence from visual references in the world. Indeed Geodelia features the element of surprise, unexpected juxtapositions and non-sense. There is no didascalic purpose in Geodelia, the focus is only on the beauty of geological shapes.

3. Geodelia: an hypnotic travel trough Geology
Geodelia is also known as “Geodelica Trilogy” because it is constituted by three groups of visuals, furtherly explained trough selected examples.

3.1. Aesthetics of Geology
The first section of Geodelia introduces the visitor to the aesthetics of Geology. The visual “You Can't Eat a Trilobite” (Fig. 2) pertains to this section and represents a grotesque and surreal exploration of palaeontology. People were asked to say the word “trilobite” in front of a video-camera (Fig. 2a, b); their reactions built the central core of this complex, colourful, and harmoniously patterned visual. It is a cross-pollination of texts, paleontological engravings from the 19th century, fossils and the mentioned real-life videos.

**Figure 2:** Snapshots from the visual “You can’t eat a trilobite”: a. Real-life videos (a grasshopper) are blended with paleontological texts from the 19th century. b. People were approached and asked to say “trilobite”. c. “You can’t eat a trilobite”. d. “You Can’t Eat a Trilobite” featured a fossil trilobite into a steel cage.

Another interesting visual from this section is “You Were Snow, You Were Sea, You Were Trilobite”. In this video, the hydrological cycle meets philosophy and metaphysics. Water moves continually through a cycle of evaporation, evapotranspiration, precipitation, and runoff, usually reaching the sea. Before being in a human individual, a water molecule was already river, snow, rain, cloud, lake. And it was already in other organisms too. The author presented this work with the following words: “< A molecule of water from your body: what were its adventures? Yesterday you were a river. Last month you were a cloud. 130,000 years ago
you were a glacier during Ice Age. 500,000,000 years ago you were a trilobite. Much of the Universe's water may be produced as a by-product of star formation, because its components, hydrogen and oxygen, are among the most abundant elements in the universe. You were a star. >> Is this a sort of “material reincarnation”? Does life begin or is it a continuous process? Probably this video does not answer to these questions, but it highlights the intimate relationship between the geological and the biological realms.

3.2 The psychedelic colours of Geology
The second section of Geodelia deals with the psychedelic colours of Geology. An important part of this section is represented by a new concept to Video Art: petrographic thin sectioning (Fig. 3). This technique – largely known by geologists – consists of cutting a thin sliver of rock with a diamond saw or a laser. The sliver is mounted on a glass slide and then smoothed using progressively finer abrasive grit until the sample is only 0.03 mm thick. The thin section is ready to be examined under the light of polarizing microscope. Thin sections are prepared by geologists in order to investigate the minerals constituting the rocks; as different minerals have different optical properties, most rock forming minerals can be identified by their colour. For instance, quartz is white under plane polarized light, and smoky under crossed polarizers. Clinopyroxene is tan to green under plane polarized light, and it is a vibrant blue, pink, or green when viewed under crossed polarizers. Until now, this technique has been domain of geologists, but this installation brings thin sections to a new dimension: aesthetics. This is the first appearance of “petrographic thin sectioning” in Video Art – ever.

Another intriguing visual of this second section is “Hypnotic Dreams of Miss Trilobite” (Fig. 4). It creates kaleidoscopic visions inspired by one of the first sophisticated visual systems: the eyes of trilobites. Some
of the “Psychedelic Dreams of Miss Trilobite” are created with fractal geometries, geometric shapes that can be split into parts, each of which is (at least approximately) a reduced-size copy of the whole (Fig. 4b, c). Fractals are too irregular to be easily described in traditional Euclidean geometric language. Many approximate fractals can be found in nature (clouds, snowflakes, trees, ferns, broccoli...), with special regard to geological landscapes (crystals, mountain ranges, river networks, coastlines...).

“Hypnotic dreams of miss trilobite” shows the important role of digital media in production of the Geodelia. In fact Geodelia features many fractal patterns designed by computer graphics, while real-life videos are integrating digital technologies. Digital Art has allowed for an even greater and more profuse expression of psychedelic vision, blending it harmonically with geological features.

![Figure 4: Hypnotic Dreams of Miss Trilobite. a. Kaleidoscopic trilobites. b. An oniric trilobite floating. c. Miss Trilobite staring at fractal patterns. d. Fractal patterns.]

3.3 Geological landscapes and humankind
The third section of Geodelia is dedicated to the relationship between humankind and geological landscapes. This relationship is often contrasting and dramatic, as expressed by “Destiny*Yesterday”. In this visual, the screen is divided in two parts. The left side shows the beauty of geological landscapes, gradually disappearing under the growing pressure of human pollution (right side). The limited availability of resources is took into account also by “Prometheus’ Kitchen” by using the metaphor of a kitchen.

![Figure 5: Destiny*Yesterday. a. Biological landscape. b. Geological landscape, inspired by a geosite of Geopark Naturtejo (Penha Garcia) c. Geothermal phenomena (Azores), symbolically invaded by the effects of pollution. d. Pollution progressively invades the natural and geological landscape. Humankind is constantly consuming resources causing instability, disorder, harm and discomfort to the physical and biological systems of our planet.]

4. Discussion
One of the key-concepts of *Geodelica* is the lack of perceptive narratives. Geological features evolve on the screen, and shapes and colours seethe and morph hypnotically with hallucinogenic flowing colors. As geologic patterns materialize on the screen, the colors undulate, in a harmonic array of mind-blowing morphologies.

A question might arise: Why choosing dazzling geological patterns and not a traditional educational video? Is it useful to embrace a non-didascalic approach to Earth Sciences? The essential factor in both cases is the public. Boomers – the participants to the psychedelic event – demonstrated an encouraging attitude towards *Geodelia* and supported the expressive power of Video Art (Fig. 6). For this reason, *Geodelia* is educational even without a didascalic intention. *Geodelia* acknowledges the emotional power of Geology and demonstrates the charm and the beauty of geological shapes by a variety of mesmerising geological patterns.

![Figure 6: Geodelica: psychedelia meets Geology. a. The participants of the demonstrated interest and awe for Geodelica. Courtesy of Jorge Fialho. b. The author of Geodelica designed a vinyl sculpture to physically introduce his Video Art. The sculpture is inspired by an asaphid trilobite and its associated trace fossil, Cruziana.](image)

**REFERENCES**


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