



ALTERATION

A NARRATIVE VR EXPERIENCE

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ARTISTIC FILE

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SYNOPSIS

*A*lexandro volunteers for an experiment carried out to study dreams. He doesn't even imagine that he's going to be subjected to the intrusion of Elsa, a form of Artificial Intelligence, who's going to digitize and dematerialize his subconscious in order to feed off it.

CONCEPT

“ ... I have only my dreams ;
I have spread my dreams under your feet ;
Tread softly because you tread on my dreams. ”

YEATS

A group of scientists is working on the elaboration of a «distinctive» form of artificial intelligence. By means of their research, they want to merge the qualities of the human brain with a computer's capabilities. Research on artificial intelligence, based on the metaphor of the brain-computer, has shown its limits.

Effectively, when you try to model human thought as the result of a purely rational calculation, emotions are seen only as a malfunction of this system. The scientists therefore concentrate their research on the quest for an artificial intelligence endowed with urges, feelings, intuition, that is built both on rational thought and emotional processes. For that, they decide to carry out an experiment: the introduction of an artificial intelligence (Elsa) into the dreams of human research subjects of which Alexandro is one.

Elsa is going to be able to digitize, absorb and analyze the different strata of dreams. The declared goal is for Elsa to appropriate and assimilate in what way emotions contribute to behavior and thought. And, in order to access the mechanisms that lay behind emotions, Elsa needs to go deep inside the human mind and dreams are the ideal doorway to the human subconscious. However, this experience is very risky.

The research subjects could end up with severe brain damage. The team of scientists prefers to keep a lid on the real reason for the experiment and pass it off as a simple study on dreams. As for Elsa, the researchers are totally in the dark. If things go wrong for her, they will destroy her and create a replacement. For them, the ends justify the means. That's why the whole experiment is under close surveillance. The scientists closely observe Alexandro and Elsa's every move. In spite of this surveillance, the experiment goes terribly wrong and Elsa will accidentally become one with Alexandro.

INTERACTIVE APPARATUS

We are inside Alexandro's mind and we discover this story through his eyes until Elsa absorbs him. From then on, we change our view point; we are in Elsa's mind.

Filmed in 360° (VR) and in S3D, this film will be viewable through all virtual reality headsets (Samsung gear, Oculus-Rift and Morpheus) and any smart phone or navigator equipped with a 360° plug-in. Each viewer will have a different experience in that he will be able to view each scene when he wants and whenever he wants. The viewer chooses what he wants to see as the film unfolds before his eyes.

In its installation version, we are planning to couple OpenBCI with a virtual reality helmet / headset to propose a fictional demonstration version of the experience during audiovisual sector exhibitions. At the start of the experience, the spectator will be seated in an armchair; scientists will place electrodes on his head as if he were really undergoing the experiment carried out on Alexandro. On top of that, by varying the visual effects of the film according to the viewer's cerebral activity, there will be no need to modify the originally proposed scenario.

- **FORMAT** Short film - 360° immersive (VR) and S3D, 18 minutes
- **GENRE** Anticipation / Science-Fiction
- **Viewing** Internet / Smartphone / Tablet / Virtual reality headset (Oculus rift, Cardboard, Morpheus, Samsung Gear...)

SYNTHESIS

We wish to propose a virtual reality S3D fiction film, written and conceived from the start for these new forms of viewing.

Altération gives you the chance to see what it would be like undergoing the intrusion into our dreams of an Artificial Intelligence programmed to digitize them.

On the one hand we are with Alexandro whose dreams are digitized and absorbed; on the other we watch Elsa's evolution. An artificial brain made up of codes which little by little becomes human. Two thirds of the way through the film, there's a change of view point as we go from being in Alexandro's mind to being in Elsa's mind.

Altération is also planned for projection in an installation set up. The idea is to recreate the first scene of the film with the same characters. As well as the VR headset, the viewer will also wear a BCI to measure his brain waves. According to their variations, several parameters will fluctuate: calibration, the number of artifacts...

Alexandro volunteers for an experiment in a study of dreams. He doesn't imagine that he's going to undergo an intrusion by Elsa, an Artificial Intelligence which will digitize and dematerialize his subconscious to feed off it.

From very early on, I always felt urged to show what you can see and feel in a modified state of consciousness: dream, trance, coma... Be that in respect of visuals or sound.

Somewhere between experimental and technological détournement, I use accidents or artifacts as a source of sensation, and that lets me, in my opinion, bring out what exists beyond our conscious state.

That's the case of the short film *Accouchement Sonique* which follows, subjectively, the mental wanderings of a man in a coma (détournement of the coding algorithms of digitization).

Or again in *Parallaxe*, (a short film I'm working on), which deals with the experience of a blind person who has chosen to see again by means of an implant (détournement of the Kinect).

Altération aims to show what it would be like for a person to be immersed in his dreams.

The whole film takes place inside Alexandro's mind and, apart from the opening scene and the final scene, everything takes place in his dream with a subjective view where he's a spectator watching himself.

As soon as I started writing, virtual reality (VR) seemed an evidence for me. It is an integral part of the film. VR is the ideal tool for «transporting» the spectator within a dream.

Effectively, VR teamed with S3D is the very best means of showing what a dream is like. VR, for the quasi-total immersion of the viewer and S3D, with the dizzy feelings that it procures, allow for a wider scope than 2D for the illustration of dreams and their strangeness.

The first time I tried VR, its power of immersion was a sort of revelation: VR literally allows us to be transported into another dimension. To me it felt like a whole new way of telling a story. It has enormous potential. It's more immersive and more individual.

GLOBAL INTENTIONS

*O*n the other hand, VR is a technical set up that isn't suitable for all storylines.

I was very quickly frustrated with VR demos. I found it frustrating not to be able to interact with the surrounding environment, being obliged to follow a movement or stay rooted to the spot, for no particular reason. That's not the case with video games of course. In them you can move around as you like but that's a whole different ball park.

That's why, in *Altération*, I chose the state of dreaming, in which, as a rule, we are simple observers whilst still being involved. Dreams have their own image logic, elliptical visuals, made of blocks, broken up, disconnected. For me, dreams are like a film in VR with characters, settings and sounds in which the scriptwriter and director are our subconscious mind. Unless you have lucid dreams, you're still just a spectator in your own dreams.

What also got me motivated in VR, are the different challenges to be met: filming in depth subjective views, motion scenes, exploiting the possibilities of programming (for example, synchronizing the character's subjective vision with his reflection in a mirror). The arrival of VR has profoundly changed cinema, the way films are made, their syntax, the way they are projected... everything is new and possible and I really like taking my chance at this sort of thing!

With VR S3D, I also have the opportunity to try and create a whole new cinema experience, part way between experimental and fiction. In this film, there's a strong link between the artistic and the technical. *Altération* is a sensorial, visual and sound experience.



GRAPHIC INTENTIONS

REPRESENTING DREAMS

How do you represent a dream? In a dream, not everything is visible, in the same way that only the important elements (characters, active elements...) can really be identified, the rest is in the background. In *Altération* the dream is therefore represented by more or less visible zones, more or less fuzzy or dark.

Compositing tools (with the Nuke program with the Occula plug-in), like rotoscoping, will be used to delineate the different zones.

ELSA'S INTRUSION INTO THE DREAM CREATES ALTERATIONS AND VISUAL ACCIDENTS.

Everything around Elsa is digitized, dematerialized, analyzed, dissected in order to extract the different layers of dreams and then interpreted and stocked... This digitization of what is real is shown in a way that we purposefully see the technical processes.

Making these processes visible is tantamount to showing the basics of digital imagery and showing it for what it really is. Alexandro/the viewer thus perceive the actual nature of what is being seen. It's no longer a representation but the flux in which the visual matter is coded into a computerized structure, the two becoming one.

On top of that, with VR and S3D, the distance between subject and image, so far dictated by perspective and classical framework, is blown away. By changing these references, I try to include the subject in the digitization.

THESE PROCESSES ARE REPRESENTED BY SEVERAL TECHNIQUES

DIGITIZATION

Elsa's digitization of dreams is illustrated by digital accidents. Like the Regula Bochsler project, it's a détournement of Apple maps, a software that was originally developed for seeker missiles.

The algorithmically generated landscapes, thanks to their «mistakes», fuzzy outlines, distortions and reflections, illustrate an attempt at digitization which is more or less in conformity with the original. These «mistakes» also represent the fragile aspect of the process.

DEEP DREAM

Analysis and appropriation of dreams by AI, Elsa:

This appropriation is based on the algorithm developed by Google for, [Deep Dream](#)

Deep Dream is part of a research project on teaching machines to learn.

The network of artificial neurons used by the Google research team was trained to recognize objects in images. To do that, it was «fed» millions of images so that it would learn to classify the objects.

Once the network has practiced, it can analyze images and recognize objects. The network contains several dozen layers of artificial neurons and as the researchers explain: «The first may look for edges and angles. The intermediary layers interpret these basic strokes, looking for shapes such as a door or a leaf. The final layers pull the whole together in complex interpretations (...), such as buildings or trees.»

In plain language «we ask the network 'whatever you see, we want more!'. If a cloud looks a little like a bird, the network will make it look even more like a bird.»

We'll use this algorithm as a starting point, reprogram it and inject data bases that we will have created: images of Alexandro's life, his loved ones, memories... so that the different layers of neurons look to locate links with other memories in the forms in the digitized image.

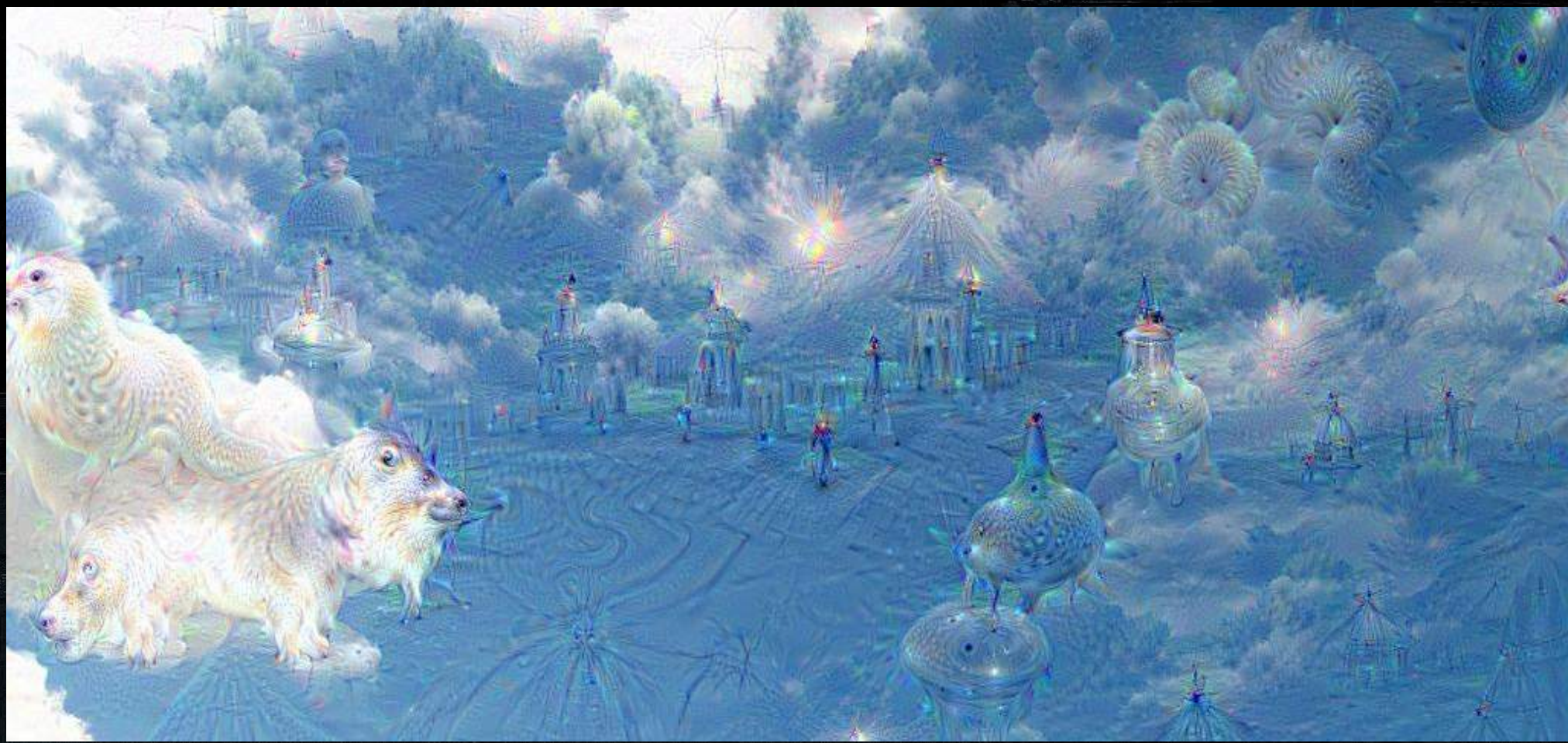
Links on Deep Dream > [Slate](#) - [Vidéo Example](#) - [Le Monde](#)

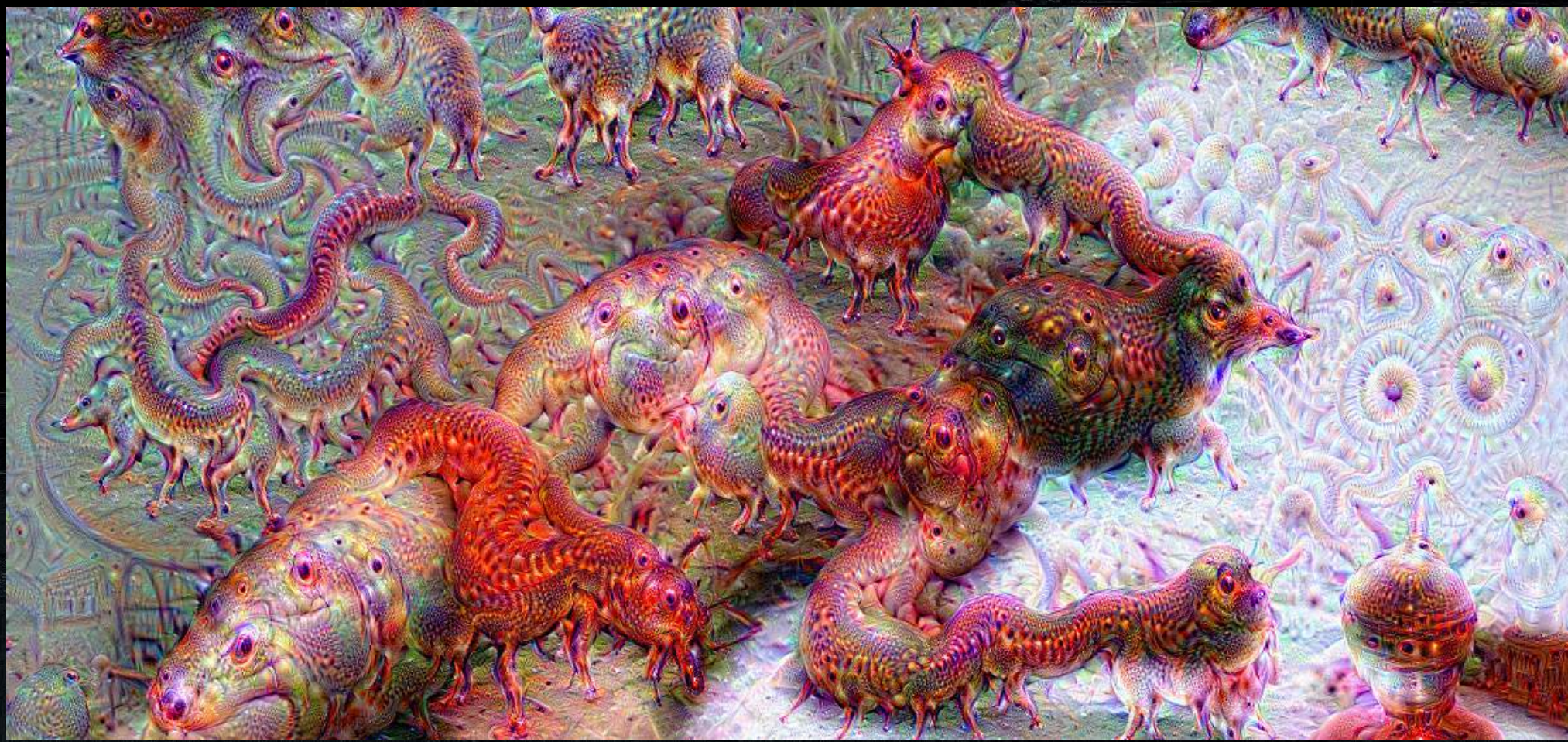
VISUAL REFERENCES - DIGITIZATION



VISUAL REFERENCES - DEEP DREAM









MOOD









PREVIOUS WORK: ACCOUCHEMENT SONIQUE



SHORT-MOVIE: *ACCOUCHEMENT SONIQUE*
PASSWORD : sonicbirth



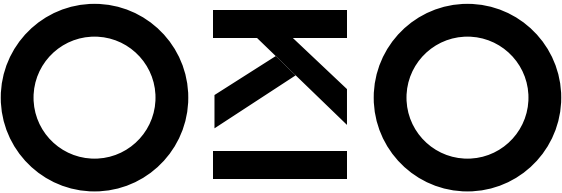
TEASER / CARTE POSTALE FOR ARTE



LE MAKING OF: *ACCOUCHEMENT SONIQUE*



SHORT-MOVIE: *ELECTRONIC PERFORMERS*



STUDIO