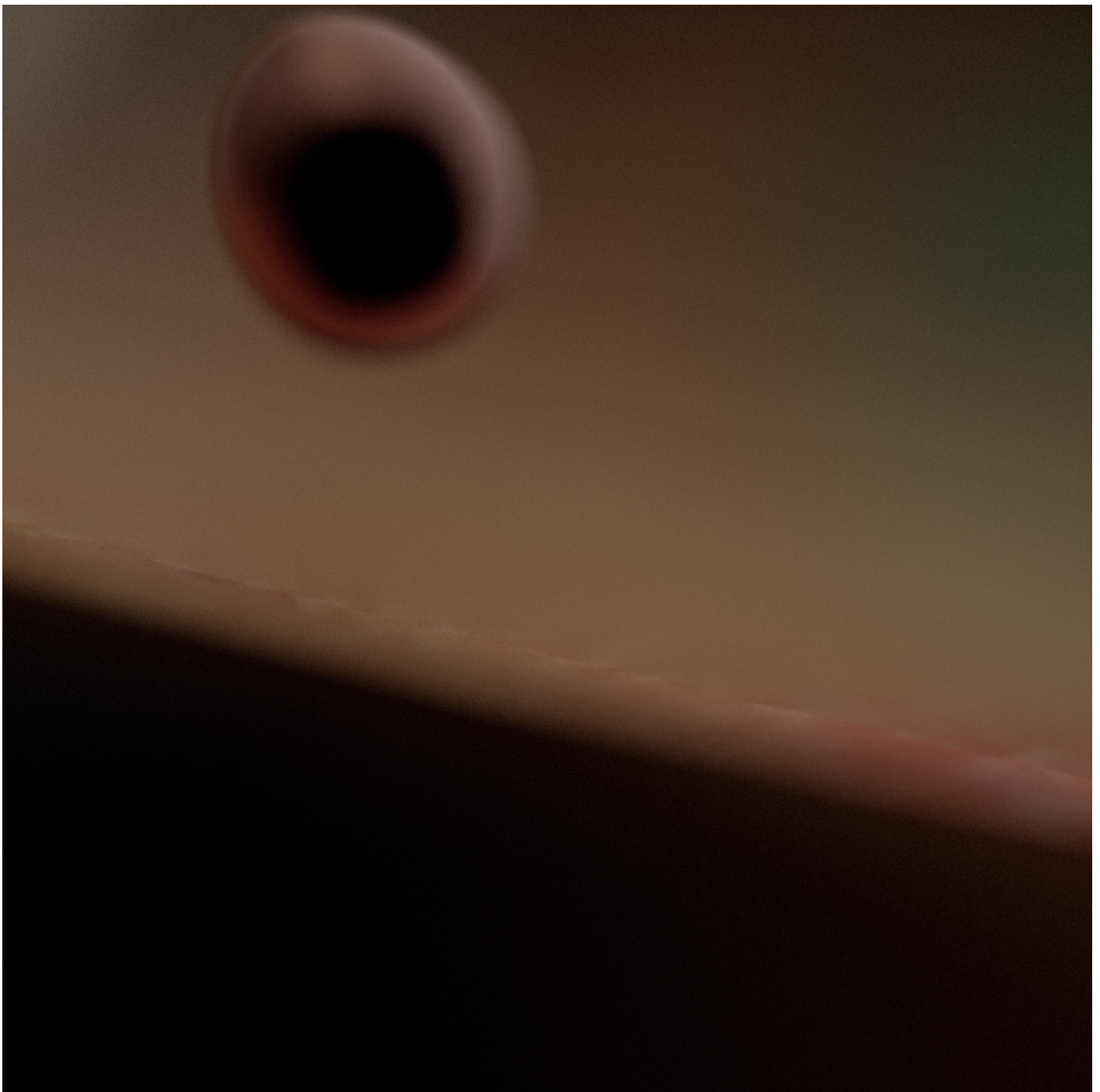


thesis outline
Adèle Grégoire
#1004849

rare earths

a scenario about (digital) landscapes,
and the sweat of their makers



applaus

2020

NATURE_MORTE_08_CYCLES64.png
rendered in Cycles with the 3D software blender

Introduction [500 words]

Sentimental background

I feel instinctively more connected to pieces of electronics and images than living beings. Why do I feel guilty about it ? I have been struggling these past few years with the things I love. I found myself rejecting the cultures that have shaped me, the places where I have found some sort of refuge, acceptance, belonging, emotional connexion, digital caresses, where I got shaped by films, tv series, videos, blogs, vlogs, tumblr, and internet communities. Safe behind the comfortable design of my screen, the magicity of these places is fading away... What seems to remain are toxic garbage, unsolvable problems, sleep deprivation and a constant headache...

Thesis statement

Rare earth is a term commonly used to designate rare metal or oxides elements. Also called “strategic metals”, they are a family of *17 nearly indistinguishable lustrous silvery-white soft heavy metals*¹ endowed with exceptional magnetic and conductive properties, which makes them extremely valuable for the development of the technologies required “to make this world a better place”.

The term rare earth is misleading, as these elements are quite abundant and dispersed all over, in the terrestrial crust as well as in the minerals laying at the bottom of the oceans. What makes them “rare” is more how complicated it is to separate them from the dirt and raffine them into their purest form, in order to make the best out of their precious abilities. This extracting and cleaning process is quite a sweat because rare earths tend to stick to each other as well as to hazardous and capriciously radioactive heavy metals. Presently, only a few places in the world are equipped to handle the whole chain, from the extraction to the exportation, requiring heavy duty infrastructures: a mining complex, a refinery complex, roads, ports and airports. In 20 years, the rare metal mining industries, induced by profit and opportunities, have changed numerous landscapes in a radical way, erasing mountains from top to bottom, erecting “green” and “smart” cities, and allowing thoughts of emerging metaverses².

The term *Rare earth*, used outside of its context, opens my imaginary. I think of a secret place somewhere in the middle of a forest, under water, inside of the earth, floating in a cloud, or hidden somewhere in a corner of the internet. A place gathering all sorts of beings working hard to form a friendly and safe community³.

1. Rare-earth element
- Wikipedia

2. <https://www.youtube.com/watch?v=Uvufun6xer8>

Our wonderful future
envisioned
by the very serious
Mark Zuckerberg



3. Chapatiz achipelago, 2010
example of a digital piece of
land where I spend my
pre-teen years.
On this Island, people used
to be eggs with a face and
floating hands and feet,
until we were colonized by
humans...

Since the beginning of 2021, the GPU market has exploded. The demand in virtual spaces and cryptocurrency mines became too high to handle, microchips and GPUs are out of stock. The efficiency of the industry is reaching a limit, struggling to generate one of the major money making workforce of today... But GPUs are also sensitive beings, they contribute to generate our wildest dreams, they take us outside of our normative lives to stare at another possible view. They are not only money calculators, they are the hot translating workforce that deciphers the data composing the images that construct our everyday view.

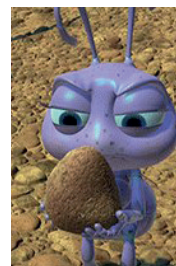
With these ideas in mind, I would like to put cyberspacious utopias in relation to physical matter and environments, linking the hardwares and the softwares needed to make them come true. In a sense, those *Rare earths are made out of Rare-earth elements*.

All of that is a lot to take in and can be confusing. This is why I want to take my time, slowly working on earth with worms, on energy with a bike, and on translating images from LEDs to graphite with meditative drawings from observations.

Hito Steyerl talks of images as *beings like you and me*. Drawing from this idea, I would like to ask the participants of the making of these images, from the render engine to the graphics card to the rare earth to the makers of the earth, what they feel about images, about my drawings, about their position in the supply-chain of images and the politics of representation. Here I'd like to set up the making of a film where I'm the camera, the render engine, and the editing software. I've been trying to become a camera for a bit more than 7 years. I've had several internships with different cameras that showed me their visions. I know I'll never be one of them... this is delusional. But right now I need you to trust me and let me try at least.

As Tilt would say:

Pretend this is a seed'
holding a pebble



A Bug's life
1998

Pixar Animation studios

Thesis format

travelling lines and trails of thoughts

I would like my thesis to be a possible scenario² retracing the paths and tangents my pencil takes me to. The elements, the encounters and the collaborations generated by my project become the characters and the scenery retelling the journey of my research. It will be composed of a few scenes in which those characters meet, their discussions generate disturbances in their ways of living, in their thoughts, and towards their environments. Playing with the form of a script, I would like to use descriptions, dialogues and slug lines to unravel the staging of the characters in a fictional story. With the help of footnotes I want to include personal interests, concerns, and factual information that clarify the staging process of my project's piece and how it relates to the practice of filmmaking and the material implications linked to the making and the consumption of images.

1. Seeding:

social marketing:

taking a video and putting it on different platforms to provoke a viral effect.

peer-to-peer sharing:

uploading of already downloaded content for others to download from.

cryptocurrency:

a seed phrase is a series of words generated by your cryptocurrency wallet that give you to the crypto associated with that wallet.

planet seeding

(or panspermia):

hypothesis that life exists throughout the universe, distributed by space dust, meteoroids, asteroids, comets, and planetoids, as well as by spacecraft carrying unintended contamination by microorganisms.

2. Un scénario in French

is at the same time the possible situation and the written document used as a base to transform it into a film.

A scenario/script is not only a piece of writing, it's also a solid base, it's a tool and a trusted reference that allows everybody on the set to debate about the same page, the birth of the drama!

the worst-case scenario

=

the worst script or screenplay ever written

BODY OF THESIS [7000 words]

World building:

POTENTIAL PLACES TO STOP AT

- an old abandoned computer tower
- a worm hotel
- a crypto currency mine
- a rare metal refinery
- the garden of an old lady
- a data center
- the dark web
- a cloud
- ASML's manufacture complex
- a render-farm
- an e-waste dumpster
- a power plant
- the *Peace* route¹

POSSIBLE CHARACTERS/ENCOUNTERS

- a drawing («*unfettered capitalism*»)
- *the last straw on earth*
- two digital images soon to become NFTs (existential crisis)
- a tired GPU
- a render engine
- the biggest fan (amongst the crowd)
- a disfigured mountain
- a community of anarchist worms
- a retired computer worm
- an oma bike
- Neodime dust
- a conductive potato

Instead of chapters, this thesis will be composed of small scenes in which the characters and the places' interactions will inevitably build some sort of tension. Here are questions, ideas and concerns I may ride towards along the way.

Some questions about occupations and relationships

What happens if a tiger worm meets a computer worm⁴?

Is a computer worm inherently malicious?

What if a computer worm doesn't like it's job?

Does a worm eat or work?

Is producing earth the worm's job or is it its occupation?

What happens if a mountain is diagnosed with Solastalgia^{2,3}?

What does a graphic card think when they learn about their purpose in life?

What does a graphic card think when they realise they are made out of destruction?

What happens if a graphic card meets its biggest fan?

What landscape are you the most proud of?

Why not finally get rid of the hierarchical worth of human labour using computer's labour instead, in order to generate and earn globalized and decentralized money?

What does it feel like to produce wealth, and worth?

What's a render engine's relationship to nature?

Do you feel comfortable in a data cloud?

How to orient oneself under the ground or in the Dark Web?

Have you ever traveled from France to China inside taking the Peace cable?

How to make free electricity ?

How to reclaim power?

How to calculate the energy costs of the building of a smart city?

How to generate electric impulses out of simple drawings or images consumption?

What happens if a community of tiger worms meet a drawing?

Are you another dopamine digger?

How to make sense out of all the voices and the perpetual noise?

How to use energy to listen properly?

How to find positive solutions for a desirable future, out of youtube tutorials?

Did you know that it was possible to get the gold back from the circuits of an old motherboard?

1. The Peace route is the cable placed at the bottom of the Ocean taking our datas from France and South Africa to China.

2. term theorised by Glenn Albrecht

my interpretation:
Solastalgia, a homesickness you feel when your environment evolves without you. At a pace that your body can't grasp. The changes are too brutal, too fast, too violent or too insidious for you to be able to adapt. An anxiety takes you from sadness to anger, from devastating floods to fast spreading fires.

3. The Appalachian mountains in North Carolinain are being erased from the peak to the ground in order to extract coal to cool down apple, google and amazon's data centers
<https://www.smliv.com/stories/broken-mountains-broken-hearts/>
or as the North east of China where rare earth mining is changing the landscape radically
<https://e360.yale.edu/features/china-wrestles-with-the-toxic-aftermath-of-rare-earth-mining>

4. A computer worm is a standalone malicious program that replicates itself and spreads into computer networks. It relies on security failures from a computer, using it as a host to scan and infect other computers in the same network. The computer worm *Stuxnet* is a weapon developed by the US military in order to shut down the electricity network of a whole country.

about the landscape and scenery

What landscape do I feel safe in, comfortable in, inspired by? Inside of which landscape do I feel at peace?

“The landscape comes into acting not in the symbiosis between the material and spiritual or in between the objective and the subjective, but in the adjusting of the right distance and the connexion between a lived experience and its environment. [...] The way we live our environment makes our landscape. They are not in front of us, they participate in us as we participate in them.”

- transcription and translation of podcast les chemins de la philosophie² with Joelle Zask

2. <https://www.franceculture.fr/emissions/les-chemins-de-la-philosophie/quand-la-foret-brule>

Images invite us to think of landscapes as scenery. They participate as sensible tools in the theorisation of our environment. The painting invents the notion of landscape, and we see nature across paintings and photographs. In that context, with that filter, we secure our position as separated from landscapes. We position ourselves in an elitist position which participates in robbing people and beings inhabiting landscapes of having an aesthetical relationship to their environment.

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Timeline

September-April:

My writing habits are a bit eclectic, I often need to do a lot of things at the same time.
The subject I'm diving into is very triggering to me. I know it is way too much for 8000 words.
It's a possible scenario, but I can't really predict what I'm going to stumble upon in my journey.
What is sure:
I will take a lot of important detours.
I will probably be emotional.
I will probably never reach my destination.
I invite you
and I hope you'll enjoy experiencing the landscapes I'll make you cross and dive into.
May the journey begin.
Excited to find out what April will have to say.
Thank you.

