



Revital Cohen and Tuur Van Balen, *b/NdAlTaAu*, 2015. Neodymium (Nd), aluminium (Al), tantalum (Ta), gold (Au), 14 x 9 x 7 cm
 Overall installation: Dimensions variable. Commissioned by Thyssen-Bornemisza Art Contemporary, Vienna, for the exhibition *Rare Earth*, 2015. Installation view. Photo: Joe Clark

sucks you through its screen and pulls you through the rabbit hole of electronic connections that spit you out on the other side of the world in a muddy mine in eastern Congo with people staring you in your white face wondering where you came from all of a sudden and why you're so interested in the things they're digging out of the ground since only ten years ago nobody cared about the black ore that is dust in rivers or nuggets in old tin mines abandoned by the companies that officially still have the licenses to dig

Coltan, short for columbite–tantalite, is a dull metallic ore from which the elements niobium and tantalum are extracted. Tantalum from coltan is used to manufacture tantalum capacitors, used in almost every electronic product, from smart phones to game consoles. Without tantalum, there would be no connections.

Most of the world's coltan supply comes from East Congo, an area where the functioning of the Congolese state has been characterised by weak governance, corruption, lawlessness and impunity.¹ Since the mid-nineties, the region has been trapped in a spiral of conflict and violence, resulting in extortion, mass rape, widespread displacement and child recruitment by rebel groups. Although the mineral is not the root cause of the conflict, coltan has played an important role in the dynamics of conflict: controlling mines and trade routes has played a central role in funding and fuelling warring parties.²

Open your phone, look for small black or yellow capacitors on the circuit boards. Scratch away their coating and you've dug your way to Congo. We're all carrying around a piece of Congo in our pockets, constantly connected to its conflicts.

1 Ken Matthysen and Andres Zaragoza Montejano, „*Conflict Minerals*“ *Initiatives in DR Congo: Perceptions of Local Mining Communities* (Antwerp: IPIS, 2013).

2 Ibidem.

*

Welcome!

The earliest beginnings of mankind's spirituality originate in the Congo. Similarly, the oldest and purest forms of Magick are rooted here as well. We are the Dongo Remi family and we have practiced traditional African Magick for generations. Our spells are real, potent and powerful. They have the ability to heal, change lives and even end them. Only the most serious cases are considered. This is not a place to play, explore or experiment. It is for serious men and women who desire strong, fast and real African spiritual workings. We can do rituals, spells and spiritual work in person, by telephone or long-distance.³

*

I'm a kid growing up in eighties Belgium. Family stories make up our dreams of Congo, where my father was born and his father worked as a doctor. His 8mm films show my grandmother as Jackie Kennedy with a pet monkey in the garden of their big house. A school trip brings me to the Royal Museum of Central Africa near Brussels, originally built by Belgian King Leopold II. Dreams can be nightmares. The museum has a huge taxidermy elephant alongside elaborate dioramas. Three leopards attack an antelope, one of them bites the neck, with his claws piercing an eye and fake blood dripping from the real fur into the soil.

*

Artisanal mining in the DRC dates back to colonial times, yet grew significantly since the 1970s in the eastern part of the country, with the volume and value of artisanal production exceeding that of industrial production by the 1990s. The economy is largely informal: very few miners and traders are officially registered. Opaque conditions make state oversight near impossible, leaving armed groups (including state security services) to profit from the region's mineral wealth. Militias control some of the mines, oversee collecting stations, run smuggling networks or simply put up roadblocks charging trucks to pass. Digging down the murky mineral supply chain, we find at its source hundreds of thousands of 'creuseurs', extracting ores with rudimentary tools and manpower under difficult working conditions.⁴

Most big companies shy away from the territory plagued by war and corruption. The ones that don't tend to create closed supply chains for their metals and often abuse their monopoly to exploit local workers. Some have tried to form cooperatives but struggle to find people willing to share. They are prevented by the dream of that day, soon, when their shovel will strike big. Like the Lottery of Babylon, so is the soil of Congo the source of dreams.

*

I keep my eyes tightly shut as I follow the stream down the river. The minerals go through my hands, through my mind, through my bank account. The end is always in sight, I justify the means. I try to establish a video link in Kivu. I edit a film of Chinese labourers on my Macbook Pro. I look for my reflection in the water and cannot find it there.

3 African Magick, accessed October 17, 2017, <http://www.africanmagick.com/>.

4 Matthysen and Zaragoza Montejano, „Conflict Minerals“ *Initiatives in DR Congo: Perceptions of Local Mining Communities*.

*

Google "guardian destroys hard drives". It takes the search engine 0.57 seconds to come up with about 826,000 results. On the 20th of July 2013, three employees of The Guardian destroy computers and hard drives containing the leaked Snowden files. Two agents from the British government spy agency GCHQ overlook the futile destruction. Everyone in the room knows these aren't the only copies of the files yet carry on their performance in front of the cameras. A video made by The Guardian itself shows an angle grinder and drill destroy chips on circuit boards. Photos show the newspaper's employees posing with a Dremel power tool above the damaged aluminium platters from a hard disk.

*

Dismembering a computer, my pliers remove a flat square plate. It is branded Foxconn. This aluminium rectangle contains an enormous and expanding anti-suicide net, surrounding the factory where earth is standardised and turned into magick. The name spells the dance of Chinese fingers assembling tiny synthetic insects in endless repetition. I cannot melt this plate. I put it on the floor near the debris of circuits, like a rare collected stamp from a far away place.

*

On July 21 2010 president Barack Obama signed into law the 'Dodd-Frank Wall Street Reform and Consumer Protection Act', in response to the global financial crisis. Section 1502 of the Dodd-Frank Act demands all companies listed on the US stock market to undertake due diligence measures on the source and chain of minerals sourced from the Democratic Republic of Congo. Canada, the EU, UN and OECD are working on similar legislation and guidelines. It wasn't altruism that inspired Apple and Intel to announce in early 2014 that they will clean up their supply chain.

Consequences in Congo have been disastrous. Hundreds of mines have cut output by as much as 95% because international cooperations have been frightened away from Congo altogether. The local economy plummeted. Meanwhile, the militia leaders and corrupt army commanders originally targeted by the legislation profit. Unlike smaller dealers, they run smuggling networks and take the metals across borders to sell them.⁵ Many of the 'conflict mineral' discourse and policies fail to understand the relationship between conflict and mineral and have yet to lead to meaningful improvement on the ground.⁶

*

"Everyone comes with dreams and illusions and promises. Everyone wants quick deals. They don't want to invest. We are real."
– Dan Gertler⁷

5 "Democratic Republic of Congo: Digging For Victory," *The Economist*, September 24, 2011, <http://www.economist.com/node/21530110>.

6 "An open letter on conflict minerals in DRC," *Pole Institute*, October 11, 2014, www.pole-institute.org/news/open-letter-conflict-minerals-drc.

7 Franz Wild, Michael Kavanagh, and Jonathan Ferziger, "Gertler Earns Billions as Mine Deals Leave Congo Poorest," *Bloomberg Markets*, December 5, 2012, <https://www.bloomberg.com/news/articles/2012-12-05/gertler-earns-billions-as-mine-deals-leave-congo-poorest>.

*

Armed with shovels, the men descend into the mine. A game controller gun is raised, looking for targets on the screen, in another continent. The men dig into the earth, their movements followed on screen, a connection is established and the trigger is pulled. Pyrotechnics detonate around the miners, piercing the dirt in explosions of golden metallic dust clouds. The more they extract matter from the earth, the more they become invisible.

*

*Drilling holes in drives is a cheap fast effective way to prevent unauthorised access to your data. It will take a very large amount of determination, motivation and funding to recover recognizable data from a hard drive with holes drilled through its platters. Punching or crushing entails use of a 12-20 ton metal press which punches through the body of the hard drive. This is operated manually and each of our vehicles travels with a punch or a drill. The data remains on the drive but the mechanical damage provides a considerable barrier to data recovery. Your average data recovery business will not even bother to attempt recovery on a hard drive once it has been punched or drilled.*⁸

*

In another window, a YouTube video by 'Moose Scrapper' teaches me how to recover gold from connections on the circuit boards of computers. Before his detailed instruction, the middle aged man starts with a statement that this is not an instructional video. Moose Scrapper pans down his webcam so we can see the computer he will take apart. It has a large screen. Concentrated muriatic acid in a glass jar loosens the gold from the printed circuit boards in a few hours. An aquarium bubbler speeds up the process. The amateur video shows him use coffee filters to recover the thin gold flakes. It will take him hundreds of kilos of computer scrap to yield a gram of gold.

*

40 Kilograms of destroyed hard drives were sourced from a data destruction service, a mountain of shiny deformed bricks that were scrapped out of the guts of computers. Mined out of soil, designed in the United States, made in China, destroyed in England. Labour starts in reverse, dissolving the virtual into the fake from the other end of the consumption chain. Metals and rare earth minerals are mined from the pile of hard drives and reconfigured back into mineral form. Neodymium (Nd) magnets are shredded with a water jet, tantalum (Ta) is filed out of capacitors and the gold (Au) recovered with acids. The aluminium (Al) platters - still holding their ones and zeros - are melted and recast in a sand mould. An artificial ore emerges from the earth, unexpectedly black.



Revital Cohen and Tuur Van Balen, *b/NdAlTaAu*, 2015
Neodymium (Nd), aluminium (Al), tantalum (Ta), gold (Au), 14 x 9 x 7 cm
Overall installation: Dimensions variable. Commissioned by Thyssen-Bornemisza Art Contemporary, Vienna, for the exhibition *Rare Earth*, 2015. Installation view. Photo: Jens Ziehe

*

```
01001001 01100110 00100000 01111001 01101111 01110101
11100010 10000000 10011001 01110010 01100101 00100000
01110100 01110010 01100001 01110000 01110000 01100101
01100100 00100000 01101001 01101110 00100000 01110100
01101000 01100101 00100000 01100100 01110010 01100101
01100001 01101101 00100000 01101111 01100110 00100000
01110100 01101000 01100101 00100000 01101111 01110100
01101000 01100101 01110010 00101100 00100000 01111001
01101111 01110101 11100010 10000000 10011001 01110010
01100101 00100000 01100110 01110101 01100011 01101011
01100101 0110010099
```

Revital Cohen and Tuur Van Balen

2015

Originally commissioned by Thyssen-Bornemisza Art Contemporary for the *Rare Earth* Catalogue, published by Sternberg Press, Berlin.

Revital Cohen and Tuur Van Balen's work is occupied with broad meanings of material and production. They work with objects, installation, film and photography to explore manufacturing processes as cultural, ethical and political practices.

8 London Computer Disposal Centre, accessed October 17, 2017, <http://www.londoncomputerdisposal.co.uk/info/>.

9 Gilles Deleuze