

Audioessay

Object Biography Smartphone / Neodymium (10 minutes)

We are star dust, the remains of exploded stars in the galaxy.

Millions of years of continuous accumulation, accumulation of accumulation
Millions of year old layers, extracted and mined

Where and how does the narrative of the life of a smartphone begin?

There is not just one story.

There are only variations and patterns of a life that does not pass away.

Materials that move, transform, shift.

Restless matter, alive, active.

Something always remains behind.

But what exactly?

This is an attempt to tell history from the perspective of matter:

especially of material that lives in the smartphone – neodymium.

A history consisting of certain patterns.

Patterns that sometimes vary.

But how can the story be told when the strands are always severed?

I came into the world as dust; as the remains of an exploded star. I encamped in the steppes of Mongolia, and became a rare earth metal. For 150 years, I have been called Neodymium. I am a chemical element and have many siblings. We are scattered all over the Earth's crust; yet even in faraway wastelands it's worth it to get us out. Like all earth elements, we live in groups. I do so along with praseodymium, thorium, lanthanum, uranium. Humans wrest us apart, for we are needed pure. So uranium and thorium migrate into the tailings – waste lakes. Most of us are garnered in China. Cheaply produced, we are sold at a price. Our defence is our radioactivity, lung cancer for the miners. It is only with me that high-performance magnets consisting of iron, neodymium and boron can be manufactured, those which are need for the microphones, loudspeakers and vibrators in the smartphone. I am multifarious.

I've come a long way.

And I am small. But a smartphone would not be a smartphone without me. How come?

If, for example, my speaker breaks, most people simply want a new smartphone.

Then things such as us end up in electronic waste. In Switzerland, the cheapest thing to do is to shred the whole device. Only the battery is taken out because of the lithium, or perhaps the circuit board because of the copper.

A lot cannot be repaired with these sealed up objects, but a few of their organs can be exchanged through donation.

I was lucky. The microphone in which I live was replaced. So I met one of my scattered sisters: she comes from Australia.

To separate her from her radioactive partners, she was shipped to Malaysia. In the middle of a mangrove forest. It's cheaper to stockpile them there.

With her I can hear properly once more.

But let me get the story straight. My first owner soon passed me and my smartphone on to his son. Then the microphone broke, and they sold us to an online trader. He had me repaired and sold us on to a Serbian broker. He chauffeured us to Belgrade, along with a lot of other electrical appliances. At some point, something went wrong again. So we landed up in a market in Nairobi, where a student bought us. But then the smartphone wouldn't start up. Our owner took us to an electronic-waste collection centre. From there we went to Uganda, to one of those new dismantling workshops. Such places are healthier for the workers. Then they took apart my old housing, as far as they could. Speaker and microphone ended up in special waste, for which in Africa there is as yet no regulation. In Europe, we would have been shipped to a smelting plant to get the precious metals out. There are few of them worldwide, most are in Europe. Metals such as gold, silver and palladium come from such smelters and are sold on metal exchanges. I have no idea where the cheap residues go. We, the worthless leftovers had to stay in Africa. Actually, my speaker was buried in a backyard, the microphone was destroyed. It's dark; no one will tell me where I am.

Below ground, in a Swiss high-security customs warehouse, strategic metals are stored as investment.

Rare earths elements like me are strategic metals, raw materials whose prices are determined on commodity exchanges. When there is a shortage, prices rise.

Raw materials have exchange value, capital value.

Liquid values, detached from space and time.

The goods stand still.

This is exchange abstraction.

The money-making of matter.

Held in suspension, the goods are deprived of their properties. Their materiality counts only in their capacity to be substance, raw material.

No matter how we end up, there is always something leftover.

My smartphone and I were chucked into household rubbish and then incinerated. We became slag: a sediment that can be stored outdoors, as long as everything is sealed and secured with drainage pipes. For acid rain can dissolve heavy metals, and so activate the materials and their forces. These residues go into the sewage treatment plant.

The history of waste disposal in Switzerland is a success story. Everything works, everything is burnt. Even our death provides energy.

Something also remains in the filter cakes and the e-filter dust from refuse incinerators. Toxic remnants. They go into underground storage repositories. How long will they happily rest there?

Where and how to end the story from the perspective of matter?

With the stories of a smartphone and its resident – neodymium?

Remnants.

This is the pattern, repeated billions of times over: something is always leftover.

“Recycling” – a word in quote marks.

Will there ever be other patterns?