Worldwide, the least electricity is used around 5:00 am Eastern time

Instarring
an electric story of destruction and incomplete metamorphosis

The first time she was hit, Linda Cooper lost her memory. She was standing in front of a post office when she heard the loudest bang, followed by a burning sensation moving from her neck down, nearly shattering her teeth, shocking her ribs and numbing her legs. As it poured out of her right foot, with the same sudden force with which it entered, the charge did not leave a single physical mark. Linda admits to an audience at *The Lightning Strike and Electric Shock Survivors International World Conference*, that it took her a few days before she realized she had been struck by lightning.

231 years prior to that – in 1752 – lightning struck a kite, flowed down its twine and passed into a glass bottle, where it was stored. With this experiment, the scientist Benjamin Franklin had proved that lightning was in fact of the same nature as the 'electric fluid' he had recognized, flowing between certain metals and inside the body. The bottle – for what else to call a container of something you consider to be liquid – became the first battery, harnessing a lightning bolt.

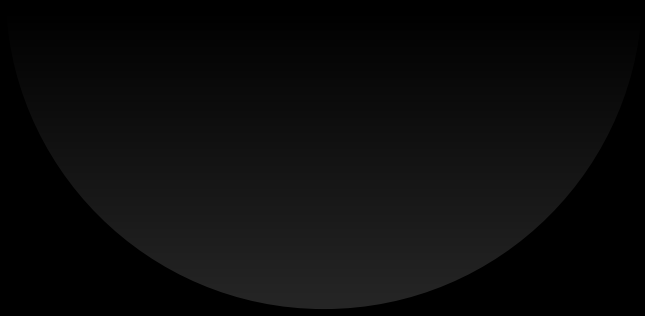
Electricity travels light, exciting things along its path based on chemical composition, defying divisions between subject and object. Its upright stature and the large percentage of water make the human body prone to catch electric charge. What other invisible forces might this body draw towards itself?

The infrastructures built around electric energy have throughout history become increasingly defining in the way we shape our landscapes, our daily life, our language, ourselves. To get a sense of this, I explore ways in which electricity is generated, distributed and used. How has living in an electrically-powered society defined the way in which we assign animated qualities to inanimate objects? And conversely, how has it made us think of ourselves as subjects made up of conducting materials?

After all, batteries die all the time.

I am drawn to think of art as a space of wild circulation; an environment that, like a power station, also generates, distributes and uses immaterial excitement. Or perhaps art is rather like a substation, a 'transformer' which not merely transforms intensities of voltage but instead serves as a transmission space of a more complex alchemy, of a life-like substance. Is it a coincidence that in 1883 the first substation from which electricity was distributed and became commonly available to the people of London, was housed inside an art gallery on Bond Street? And there are numerous examples of contemporary art spaces – from Shanghai to London and from the outskirts of Berlin to Brussels – that inhabit the solid walls of (former) power houses.

An idea might actually be a spark.

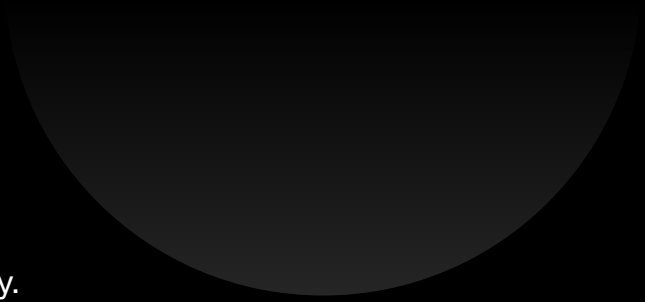


A process of regeneration does not necessarily need walls of concrete; it may also take shape within the cellular walls of skin or an exoskeleton. Take the transformation embodied by the ‘instar’: a certain stage in the metamorphosis of hemimetabolous insects, such as moths and butterflies. Latin for ‘form’ or ‘likeness’, the ‘instar’ refers to a body in between the shedding of skins. An incomplete metamorphosis. The former body being digested into the next, made of cells entirely different and radically the same. Finally, when a moth or butterfly emerges from the pupa, one body is destroyed and one is generated. The unfixed state of the instar contains life and death simultaneously. A temporal phase of continuous becoming.

”a mode of motion”: electricity in the words of Thomas Edison

Destruction lies at the core of most energy generation processes. No power station retrieves energy out of thin air; even when wind is the source, the steel and concrete of the wings of a windmill are used to cut through it. In certain methods of energy generation, the process of destruction defines a significant end of an entity and the simultaneous generation of a building block thought to be neutral: electricity. To recognize such an act of dismantling becomes especially meaningful when the source from which the energy is derived is particularly charged. For instance, when the source is illegal, protected, sentient or all of the above.

My research interacts with three infrastructures in which unlikely sources are used for the generation of electricity for the grid. I harness these energies, which are all prone to profound processes of destruction. A stranded whale; confiscated hard drugs; a glacier – their destruction so catastrophic. It is precisely those catastrophes that tangibly power our society. They form the electric fuel for our most mundane activities.



I'm just not wired that way.

A moving force that runs through a giant body at one moment and appears as a melody on an archaic instrument the next; for an instant taking shape within the slow flow of a frozen wave, to strike with a flash of light just a moment later.

If energy is not lost but merely transforms, as it does according to the laws of thermodynamics, what remains of its associations? What if its metamorphosis – like with the instar – is in some way incomplete? What if the source and the output of electricity stand in direct relation through the electric grid, with nothing between them but meters of copper and fibre optic cabling – a switch? If we could experience the stranded whale, the wild hit, or the glacier charging our everyday activities, could we feel ourselves to be in energic relation? If we could be reminded by the echo of destruction, would we be more aware users of electricity? What then? "And by then, I mean now."*

*channeling Sylvia Wynter

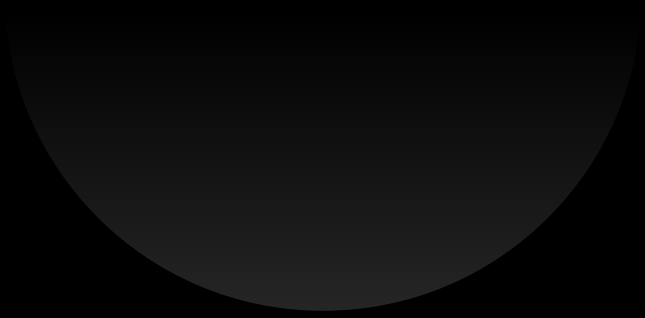
The electric grid is like a body of water, where every drop that is added can never again be retrieved. Add a drop of electricity to the grid and it dissolves. It runs through no cable in particular, it runs through all of them simultaneously.

GLACIER

When the Kraftwerke Zervreila was first activated amidst the Swiss Alps in the late 1950s, electricity was not generated on Sundays, so as not to disturb mass in the chapel nearby. The roaring fall of water used for its hydraulic force and the mechanical spinning of the dynamos might offset those hushed in prayer. This is no longer so today, as most prayers have moved to other quarters or may have disappeared altogether. Because people use power seven days a week – to charge their phones, blow-dry their hair, run the washing machine – it needs to be generated accordingly. Nowadays, those last Sunday prayers have to stick up for themselves, toughen up, project through the noise of a lake crashing into a power facility. A prayer needs to be more forceful than 88 megawatts. But then again, prayers have always managed in dire circumstances, a belief might still be stronger than any sound.

“What kind of noise is it,” I ask the man, “what does the generation of electricity sound like?” “Massive,” he answers, “it might as well be rock, so solid is the sound of water falling. 1200 L or 1200 kg a second. Dead weight.”

And then there is the sound of the electricity, fresh high voltage, leaving the dynamo with the sound of a train. His Swiss German offers him the words “pfeifen” and “rauschen” to voice the electricity, which, like any onomatope, puts the sound right into his mouth. The sound of electricity: like a passing train inside a man’s mouth. His throat, his tongue, his teeth, his breath all wrapped around it.



The artist Laurie Anderson pointed out how ‘ice’ sits inside ‘voice’. Ways in which one thing can contain another, like the glacier that melted and flowed inside a lake. Like the lake that fell through a shaft carved out by the nail-less hands of man, through pipes inside a dynamo; like that melted glacier water from which electricity was derived; like that electricity that runs through the power facility in which a man has worked for over 40 years and knows the sound by heart. He embodies it, he voices it. How ice sits inside voice.

As we walk through the power station – this Kraftwerke – we pass by a wall that shows a large crack. He tells how the vibrations of the generators have slowly made the building rupture. How not even the sturdy architecture of the plant was able to withstand a flow so forceful; they had to back the building up. Make her strong enough for the power of a million horses to run through.

Then we enter a room in which yet another generator is placed, a smaller one running not on water but on diesel. Now out of use, this generator was installed decades ago to provide the power needed to construct the plant itself.

What screws together a screwdriver?
Every facility facilitated. Every power plant once planted
Enter the space of the mother generator, taken from the belly of a ship and placed between the Swiss mountains to power the building of a power plant.
She has done the work, that enables yet more energy to be generated. To light the pages and the screens of the news of years from now. To set into motion trains of unknown design to destinations that are now merely blueprints. The energy that will send notifications to break off engagements that still need to be made.

I am familiar with the high pitch of our nervous system, which I'm reminded of as I move around the 'transformer'. This is where the electricity is transformed from high to low voltage, still high enough to lethally travel across your spine. To touch these wires would be as fatal as to trip into the crevasse of a glacier. But unlike the slow-flowing ice, this current would pierce you to the core in a flash of a second. Your nervous system would fry instead of freeze.

A record number of babies were born in May 2013, exactly 9 months after the largest electric blackout which affected 620 million people in India.

WHALE

To hear the body of a whale, not merely its voice but the body's every inch. We know a whale can be big, bigger indeed than any other animal to have ever inhabited the Earth – or rather the Water. When it comes to the size of a whale the oceanic environment is crucial to the expansion of its giant body; its ever growing without having the consequences of gravity, pulling. Water and air pull differently. Or instead, they support differently. The world ocean serves as an enormous support system, carrying bodies rather than pulling them.
(Don't you remember, how each of us started our life submersed in liquid as well.)

Paradoxically, even the largest whale in this world lives its lifetime relatively weightless. So, in describing the size of a whale the unit of kilograms is not so very meaningful. I recently learned that the odd unit of kilowatt hours might strangely be more insightful, more accurate in many ways. A time-based unit, expressing a size across the horizontal axes of duration. To describe a body that has been shaped across millions of years of adapting to a life in a volume of water bigger than any continent.

Besides being an ingenious battery of biology – storing precious energy collected at a certain place of the globe to fuel the whale's journey to another – the body of a whale has long been an energy source for human society as well. Whale fat or oil is famously used for consumption, for lighting, for greasing machinery. Nowadays, the fat from whale carcasses is incinerated, a process from which electricity is generated.

COCAINE

Certificate of Destruction

This document certifies that confidential material has been securely destroyed.

Date of destruction:

Description of the destroyed material:

Method of destruction:

Pulping
Pulverizing
Shredding
Overwriting
Reformatting
Burying
Purging
Degaussing
Incinerating
Heating, to melt gradually yet irreversibly, as little as a few degrees might do the job
Crushing
Suffocating

Other:

Witnessed by:

A dead whale is incinerated because it is invaluable, and it legally belongs to nobody. Other things – like a batch of confiscated cocaine – may be destroyed precisely because the value is known very well, right down to the last cent, and it poses a threat that can be calculated to the gram.

There are many people whose job it is to confiscate things that our society believes should not be there. Thousands of banana boxes and human bodies are meticulously searched for it. And the find is so common that there is a seamless exchange for it: an extra month of incarceration for every ounce, according to Dutch law.

With a similar smoothness runs the infrastructure that orders the confiscated cocaine to be destroyed. As long as the cocaine exists, it is able to corrupt and its destruction by incineration is therefore the process to dismantle, to disarm – disharm. This way, cocaine is taken out of circulation on the market, yet its energetic counterpart simultaneously enters circulation on the electric grid.

Turning several kilowatt hours (perhaps minutes), an official certificate of destruction and an incarcerated human life into the only proof of the no longer existing drug. Making the generated electricity not merely a by-product, but also a stand-in. A neutral building block.

No rest takes place inside the pupa of a moth or butterfly. As a body is digesting itself into renewal. After its self-destruction, the new-born tissue that once belonged to a caterpillar can now shape either wing or antenna. A pupa is both a birth chamber and a coffin.