

Light bulb

Ann Meskens – January 5th 2020

Column 2: Week theme 'Sharing'

The Neverending Park. De Grond der Dingen.

It is getting dark in the city. Turn on the light. I'll tell you a winter story.

It happened in the Christmas period of 1923 in Genève, Switzerland. Important light bulb manufacturers from all over the world came together to hold a serious conversation. They had a problem. The improved light bulb burned for far too long, and lowered the sale of new lamps. What could be done?

At that time, the light bulb had been around for barely fifty years. For centuries people had lit their houses with candles and oil lamps. That was not healthy, not safe and there was a constantly need for new stock. The modern electric light bulb was only invented in 1879. New York businessman Thomas Edison bought this bright idea, improved it and brought the light bulb on the market. Others followed and perfected the lamp, especially with regard to burning hours. If a lamp from 1881 burned for only fifteen hundred hours, it would soon last a few thousand hours.

The Western world suddenly bathed in an unseen festive light. But we are not yet halfway through our story. The light manufacturers gathered in beautiful Geneva to found *The Phoebus Cartel*, named after the Greek sun god Phoebus Apollo, but it was a dark society. It was secretly decided that in the future the light bulb could only burn for a thousand hours. A supervisory committee was appointed, heavy fines were installed for producers worldwide and a rebranding had to make consumers forget how good the previous light bulbs were. Moreover, from then on, engineers and designers had to use their bright minds to produce an inferior product.

That worked wonderfully well. At the end of the century we had gained a gigantic quantity of light bulbs. The producers had done well complying with the agreements, bulbs were not energy efficient and broke quickly. They were massively produced and sold, and both profits and waste accumulated enormously. In 2009, Europe finally ruled out a ban on the entire light bulb trade. There are some gaps in the law, there are some exceptions such as Christmas lighting but for general lighting this was the beginning of the end of the light bulb story.

However, it could have been different. In a fire station in the American town of Livermore, since 1901, a wonderful bulb has been burning almost continuously. From 2001 a webcam follows this beautiful old-fashioned light bulb. The lamp has been on for a million hours, the modern webcams had to be replaced more than once. In 2015 the town held a birthday party for the hundred and fourteen year old. They are already looking forward to 2021.

Shame on you. *General Electric, Osram, Philips, Compagnie des Lampes*. All companies that decided in a cheerful Christmas atmosphere for the first time to deliberately design defects. Designed to fail. And yes, this idea was inspiring. Our cars and washing machines, mobile phones and printers are today so ingeniously designed that they break down quickly, usually just after the warranty period. 'Look. We need a new one!' In addition, many devices are equipped with small adjustments so that older devices can no longer keep up. *'There. We will just buy a new one?'* This approach is called *designed to be outdated*. Finally, they also figured out how to design things that are quickly out of fashion. *'Yes, we really want a new one!'* That is called *designed to be outfashioned*.

One designs. One produces. One consumes. And in today's society, nobody is responsible for the gigantic toxic mountains of waste and the over-exploitation of raw materials and materials. Whoever would like to return his personal light bulb, washing machine, telephone or ink printer, should travel to Ghana. It's one of the largest dumps in the world, a consequence of the so-called *electronic or e-waste dumping*. Google the bizarre word *Agbogbloshie* and it will immediately make things clear. Shame on us.

And yes, we now obediently use energy-saving lamps or LED lamps, but the design, production and consumption system in which we live today remains the same as one hundred years ago. According to observant critics, the disaster is that, just like back then, people still assume that there is an infinite earth and an infinite amount of raw material consumption and they still have the naive idea that the lights on earth will always be shining.

In the meantime, we are gradually realizing that not only we people and our light bulbs are finite, but also all raw materials and our entire earth. The real story is so disastrous that many keep plugging their ears so as not to hear it.

And yet there is light in the darkness. Some people tell a more promising story such as the most radical architect in the Netherlands, Thomas Rau. In the previous century, he invented buildings that are producing energy instead of consuming it; he is not against sharing products and services. He realizes, however, that the entire production and consumption system must be redesigned if we really want to do justice to earth so that we can survive in the long term.

Listen. Only ten years ago he contacted *Philips lighting* for the redesign of the Amsterdam office. The day before they would come, he was looking out the window. In the street there were discarded boilers that he had seen being installed before, apparently the building got new tenants and they needed a new system. The boilers will most likely find their way to Ghana. This bleak situation sharpened his question to Philips.

The next day he suggested that he would only be supplied with light, that he would not buy any fixtures or fittings and that the company would remain the owner of the materials. Philips was surprised but agreed. The contract was the first *Light-as-Service contract*, the system has since been promoted by Philips as *Circular Lighting*.

Please note, this approach is entirely different from traditional leasing or renting or even sharing a car or bicycle. That was clear from the start. Philips was especially interested in bringing down the energy bill that was now theirs. They used lamps that worked as long as possible and were as energy-efficient as possible, the parts that broke easily were designed to be replaced and reused

with as little cost as possible. Schiphol became a Philips customer in 2015. The airport asked for 15 years of light. Philips is and always will be the owner of the installation and provides management, maintenance and innovation.

What was the result there? The LED lights will last for 15 years until the end of the contract. A weaker element, the driver is now placed outside for easy replacement. Software indicates the required maintenance. The fixture and installation will not end up in Ghana but at Philips. Thank you, Philips.

Well. We were smart enough to invent the light bulb. We were smart enough to design and create, to bring on the market and make use of modern products. What is stopping us from being smart enough again to come up with new products and systems, and perhaps, while we're at it, to write new laws that punish the human stupidity that puts our world at risk?

No. This story is not over yet. You can order the revolutionary book *Material Matters* by Thomas Rau and Sabine Oberhuber. You can also borrow it from me (in Dutch). Then you can watch the VPRO Tegenlicht broadcast, *Het einde van bezit*. But perhaps you better start by watching the short documentary *The Light Bulb* conspiracy on YouTube. In this way you have a clear view of the immense garbage dump in Ghana and you will realize why a fundamental reversal is rather urgent.

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