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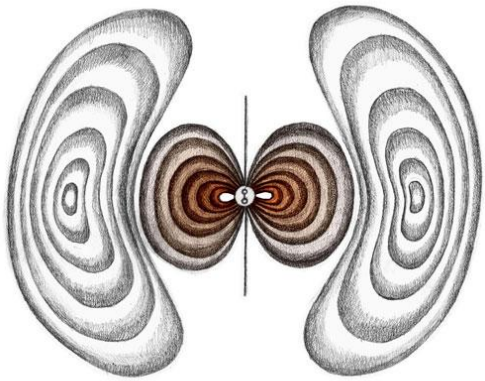
Hertz: Electromagnetic Waves

Kindli, Csenge

Technology allows humans to go beyond their own biological limits. Thanks to the discovery of electromagnetic waves, "we find ourselves present (whether actively or passively) in many places simultaneously, across land and sea, in every corner of the world," writes Jesuit priest and paleontologist Teilhard de Chardin, in a book posthumously published in 1959. The World Wide Web is like an electronic nervous system that envelops the entire planet, serving as the forerunner of what American poet John Perry Barlow calls a "World Wide Brain," wherein human brains combine and create a planetary consciousness. This "Noosphere," as Tailhard calls it, is the premise required to find solutions to global challenges such as climate change, and to recognize and react to its corresponding consequences.



Electromagnetic Waves, drawing of the original apparatus by Heinrich Hertz (Inv.-Nr.: 1913/40057a, 1913/40057b, 1913/40059, 1913/40058, 1913/40055)
Csenge Kindli

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When Henrich Hertz discovered electromagnetic waves ...

Text and images by Csenge Kindli
University of the Arts (UdK), Berlin



When Heinrich Hertz discovered electromagnetic waves...
...he never thought that later...

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...through these waves, messages would be sent across oceans...

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...the human body would be x-rayed...

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...metal objects would be located in the water...

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...sounds and images would be transmitted wirelessly...

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...phone calls would be made at any time and place...

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...not only on Earth, but also in space...

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...and that people all over the world would be connected.

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Artist's comment:

I knew nothing about electromagnetic waves prior to our project and thought that it would be difficult to come up with and illustrate a story about an invisible physical phenomenon. However, during my research, I found out that Heinrich Herz's discovery had a huge impact on our world and that the topic was much more fascinating than I had initially thought.

How to cite

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The comic also appears in Alexandra Hamann, Reinhold Leinfelder, Helmuth Trischler, and Henning Wagenbreth, eds., *Anthropozän – 30 Meilensteine auf dem Weg in ein neues Erdzeitalter. Eine Comic-Anthologie* (Munich: Deutsches Museum, 2014).

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Further readings:

- Sources and Literature for the Anthropocene Milestone Comics

Related links:

- Welcome to the Anthropocene. The Earth in Our Hands. Special exhibition at the Deutsches Museum http://www.deutsches-museum.de/en/exhibitions/special-exhibitions/archive/2015/anthropocene/
- Welcome to the Anthropocene. The Earth in Our Hands. Virtual exhibition on the Environment & Society Portal https://www.environmentandsociety.org/node/6354
- 125 Years Discovery of Electromagnetic Waves (Karlsruhe Institute of Technology) https://www.kit.edu/kit/english/pi_2011_8434.php
- Comic-Anthology, Deutsches Museum Website http://www.deutsches-museum.de/sammlungen/entdecken/comics/jekt/

Websites linked in image captions:

- http://www.deutsches-museum.de/sammlungen/meisterwerke/meisterwerke-v/originalapparate/grossansicht-originalapparate/