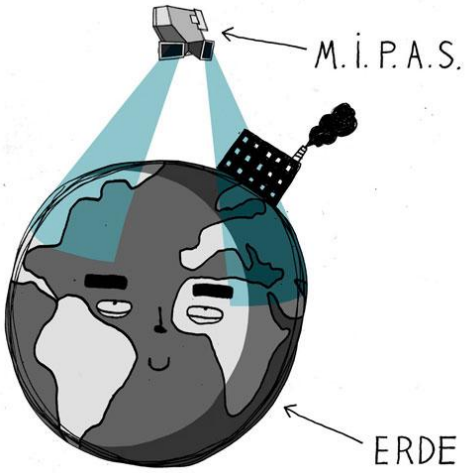
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The Michelson Interferometer for Passive Atmospheric Sounding (MIPAS)

Zalalyte, Martyna

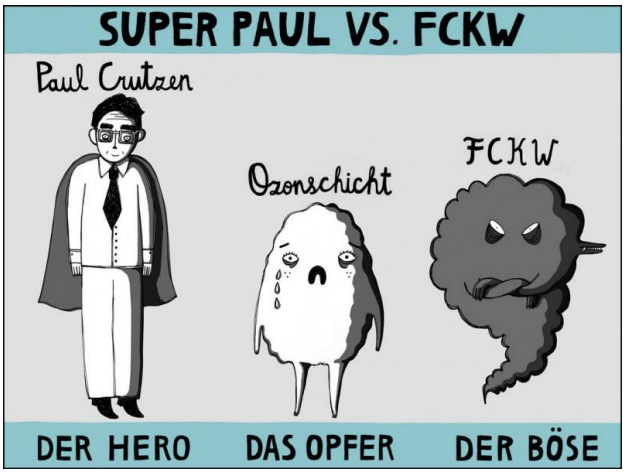
"We no longer live in the Holocene, we live in the Anthropocene—in an era shaped by the actions of humankind," says Paul Crutzen, atmospheric chemist and Nobel Prize winner. Evidence of this new geological era of humans can be found in the atmosphere. For instance, the Michelson Interferometer for Passive Atmospheric Sounding, a Fourier transform spectrometer onboard Europe's environmental research satellite ENVISAT, can detect 30 different trace gases in the atmosphere, which could provide information on global warming and the depletion of the ozone layer. In the 1980s, the findings of Crutzen and his team were used as the basis for the Montreal Protocol's ban on the use of chlorofluorocarbons (CFCs), identified as the primary cause for the hole in the ozone layer. Without this ban, the ozone layer, which absorbs most of the sun's UV radiation, would likely be completely depleted within the next 40 years.



MIPAS
Martyna Zalalyte

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MIPAS
Text and images by Martyna Zalalyte
University of the Arts (UdK), Berlin



Super Paul vs. CFC
Paul Crutzen – The Hero
The Ozone Layer – The Victim
CFC – The Bad Guy

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1987, somewhere in the atmosphere
“Help!!!”

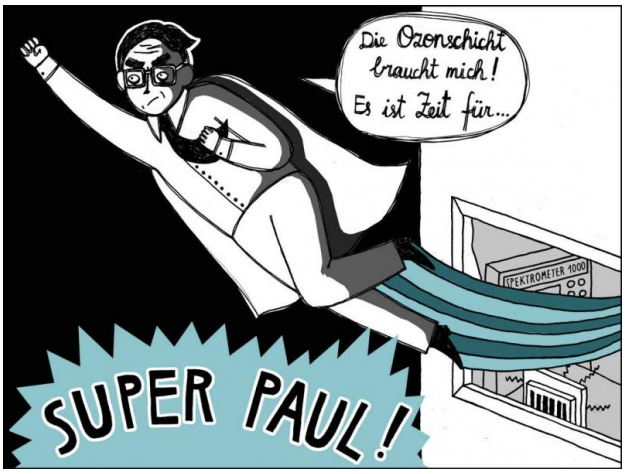
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Meanwhile, in Paul Crutzen´s office
“Chlorofluorocarbons!! I knew it!”
Caution! Ozone layer in danger!

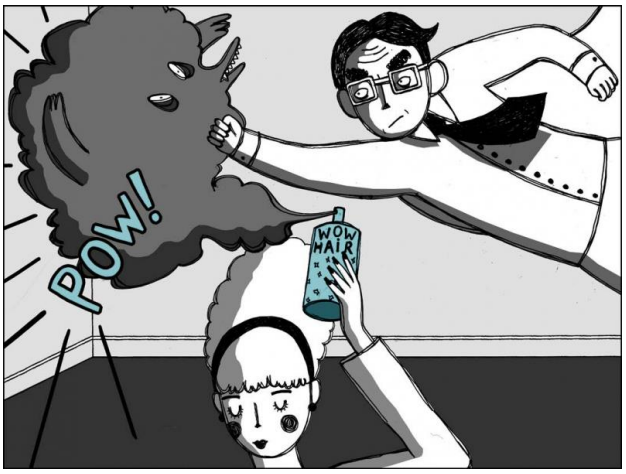
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"The ozone layer needs me! It is time for... SUPER PAUL!"

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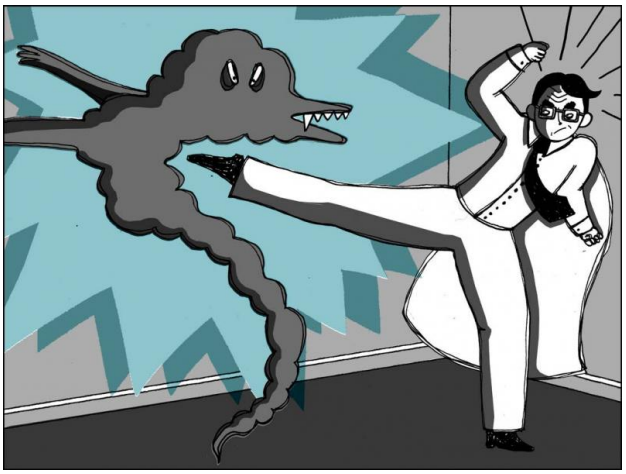
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"Thank you, Paul!!"
The End

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Artist's comment

I think my story is gratifying: a scientist discovers a hole in the ozone layer caused by CFCs. Although dire consequences lay in the distant future, he managed to initiate the right steps and prevented the problem from worsening. My story of a modern superhero plays with a hyperbole, which, in this case, is actually the truth.

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
- Comic-Anthology, Deutsches Museum Website http://www.deutsches-museum.de/sammlungen/entdecken/comics/

Websites linked in image captions:

- http://www.deutsches-museum.de/sammlungen/verkehr/raumfahrt/satelliten/mipas/