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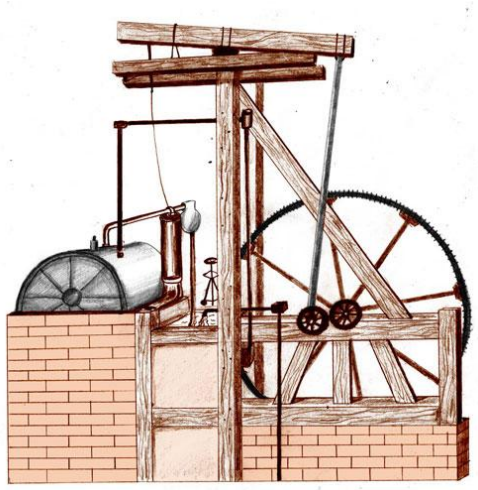
The Steam Engine

Porras Chassignet, Marina

Initiated by the growing need for raw materials, the development of steam power set off a chain reaction. In order to pump pit water out of mines, steam engines were built near mining sites. Because these steam engines were powered by coal, coal mining became profitable—a mutually beneficial system. Steam power became the energy source for many machines and vehicles, making it cheaper and easier to produce commodities in large amounts. This in turn increased the demand for raw materials used to build more machines that can produce even more commodities. This interdependency accelerated during the Industrial Revolution, and provides insight into the key factors that initiated the social process that today, in turn, gives rise to the Anthropocene revolution.



Steam Engine
Marina Porras Chassignet

Drawn by *Marina Porras Chassignet* , 2014.

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Lifting water with fire: The steam engine

Text and images by Marina Porras Chassignet
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Lifting Water with Fire
"Wow, what power this steam has!"

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Now we're going to put big water pumps into the mines!

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We'll finally be able to dig deeper into the ground and get more coal and iron out of the Earth!

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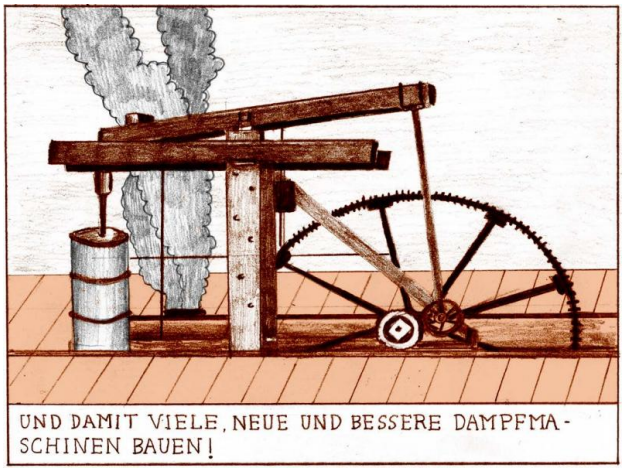

And, by doing that, we'll be able to build new and improved steam engines!

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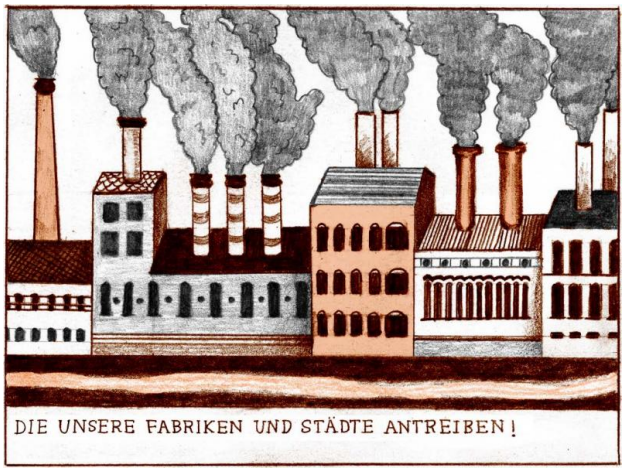

That will power our factories and cities!

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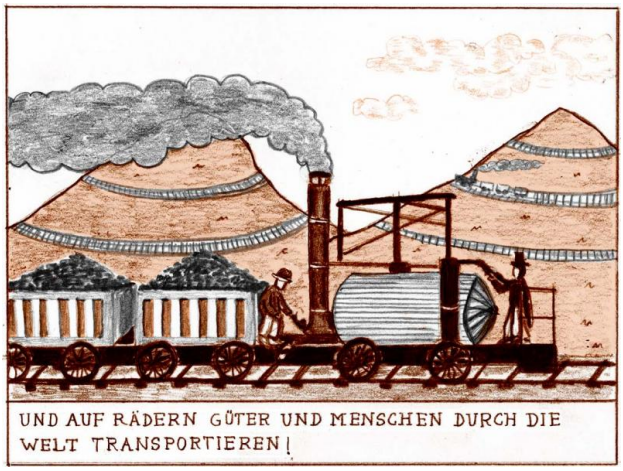

And will transport goods and people all over the world on wheels!

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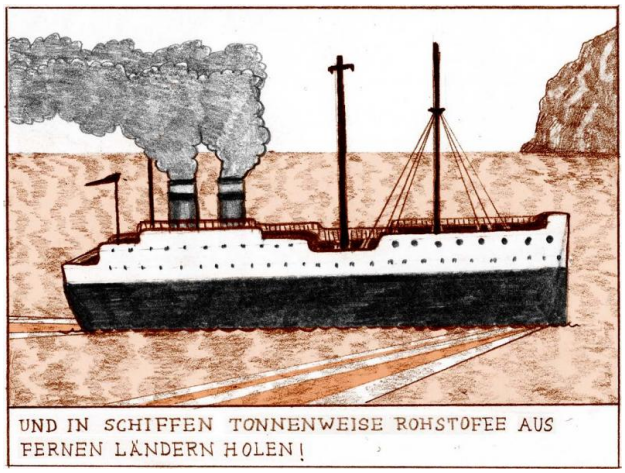

And get raw materials from far-away lands using ships!

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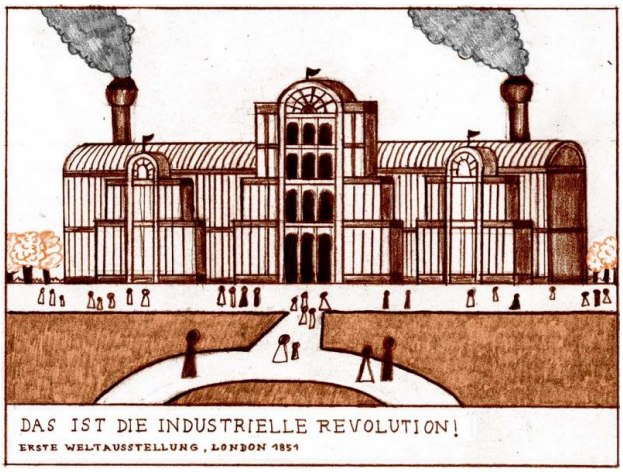

That is the Industrial Revolution!
The first World Fair, London 1851

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Artist's comment:

I used to think that steam engines were only used in trains, so I was suprised to learn of the importance of this machine. Humans created something very powerful from something as simple as steam. The steam engine is a good example for how humanity's constant striving for innovation and development has changed the world. It opened up new dimensions of possibility.

How to cite

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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
- Steam Engine (Encyclopædia Britannica) http://www.britannica.com/technology/steam-engine
- Comic-Anthology, Deutsches Museum Website http://www.deutsches-museum.de/sammlungen/entdecken/comics/

Websites linked in this text:

- http://www.marinaporras.com
- http://www.marinaporras.com

Websites linked in image captions:

- http://www.deutsches-museum.de/information/jugend-im-museum/erfinderpfad/antriebe/dampfmaschine/

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