Multiple modes of materiality thinking
Assemblages, metabolisms and dispositifs

Sören Becker, Ludger Gailing, Timothy Moss
Tampa, April 2014
Overview

- Background
- Different approaches to socio-materiality
- Dispositif (Foucault 2000, Agamben 2009)
- Assemblage (McFarlane 2011, Farías & Bender 2010)
- Metabolism (Wachsmuth 2012, Heynen et al. 2006)
- Tales from the Prignitz region: heteronomous wind power and composting poultry farming
- Geo-energy spaces and opening energy geographies
The German “Energiewende“

- Nuclear phase-out and feed-in tariff system for renewables
- Increase in electricity output from renewables (about 25% of total consumption)
- Infrastructure readjustments (“energy highways”)
- New forms of decentral organization: e.g. 650 energy co-operatives
- Financial redistribution vs. energy poverty
- Debate limited to electricity; heating and mobility marginalized
Developing Mané-Estrada

- Geopolitical approach: energy resources, economic structures and political options
- Materiality: here inscribed in characteristics of resources and distribution facilities
- Assumes certain elements of socio-materiality (e.g. state interest in resource security)
- Remains on the level of economic blocs and states

⇒ How can we assess socio-material configurations?
⇒ Less accepting, more unearthing
⇒ Applicable to different scales
Foucauldian dispositifs

- Confusion about dispositif and apparatus (Plöger 2008)
  - “Le dispositif lui-même, c'est le réseau qu'on peut établir entre ces éléments“
  - “The apparatus itself is a system of relations that can be established between these elements“

- Involves discursive and non-discursive practice, institutions and materialisations

- Mode of configuration: knowledge and power in the production of discursive and non-discursive practice
Relational assemblages

- Many terms around ANT: “agencement“, “alignments“, “ensembles“, “assemblages“

- “The individual elements define the assemblage by their co-functioning, and can be stabilised ... or destabilised through this mutual imbrication“ (McFarlane 2011: 208)

- Involves “indeterminacy, emergence, becoming, processuality, turbulence and the sociomateriality of phenomena“ (McFarlane 2011:206)

- Mode of configuration: „tiny conduits through which big structuring forces ... or distinctive ways of associating like risk assessment, are given shape, stabilized, and made hegemonic.“ (Holifield 2009: 655)
Marxist metabolisms

- Metabolism a key term on Marxist understandings of socio-nature (Wachsmuth 2012, Swyngedouw 2006)
- “fuses together physical dynamics with the social regulatory and framing conditions set by the historically specific arrangement of the social relations of appropriation, production, and exchange—in other words, the mode of production” (Swyngedouw 2006: 24)
- Mode of configuration: “discursively, politically and economically mobilized and socially appropriated to produce environments that embody and reflect positions of social power” (Heynen et al. 2006: 6)
## Synopsis

<table>
<thead>
<tr>
<th></th>
<th>dispositif</th>
<th>assemblage</th>
<th>metabolism</th>
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</thead>
<tbody>
<tr>
<td><strong>material ontology</strong></td>
<td>Discursive and non-discursive practices, architecture</td>
<td>Vital materialism and dispersed agency</td>
<td>Ontological materialism</td>
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<tr>
<td><strong>configuration</strong></td>
<td>Knowledge and power</td>
<td>Tiny conduits, territorialisation and de-territorialisation</td>
<td>Mode of production and social mobilisation</td>
</tr>
</tbody>
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Energy Region Prignitz

Ratio of Renewable electricity generation / electricity consumption: 245%

Net generation 2012 in Mwh/a/ km²: 686

Literally no local ownership
Poultry farming in Gumtow

- Mass poultry farming, stock above 200,000
- 2,900 metric tons of dung, added to corn and cattle manure → biogas plant
- Closed cycle of matter
- Local environmental citizen initiative
## Discussion

<table>
<thead>
<tr>
<th>Prignitz region</th>
<th>Dispostif</th>
<th>Assemblage</th>
<th>Metabolism</th>
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<tbody>
<tr>
<td>Variety of dispositifs at work, eg.</td>
<td>Multiplicity of actants</td>
<td>Need for energy generation</td>
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<td>Energy transition</td>
<td>What is the relation between these many elements?</td>
<td>Includes uneven development</td>
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<tr>
<td>Property and planning</td>
<td>Identify / localise assemblage?</td>
<td>Valorisation of landscape</td>
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</tbody>
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<tr>
<td>Indirect influence of different dispositifs</td>
<td>Re-assembling material flows</td>
<td>Industrial production of meat</td>
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<td>Efficiency and recycling</td>
<td>Human and non-human actants</td>
<td>Valorisation of biomass</td>
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<td>Making money</td>
<td>How are they related/ enacted?</td>
<td>Antagonist mobilisation</td>
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<td>Eating chicken</td>
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## Discussion

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<td><strong>Regional level</strong></td>
<td>indirect</td>
<td>(?)</td>
<td>X</td>
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<tr>
<td><strong>Local / artefact level</strong></td>
<td>indirect</td>
<td>X</td>
<td>X</td>
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</tbody>
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Conclusion

- Different ontologies, different insights
- Unearthing the modes of configuration can be fruitful
- The level of analysis is to be considered, concepts could use scalar refinement
- Question: „Can we suppose that there is laws in the geo-energy space“
Thank you!

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