

Water Infrastructures of Smartness

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Group Research Program: The Social Life of the Naryn and Syr Darya Rivers



Naryn valley, Kyrgyzstan



Highly managed, disputed transnational river system



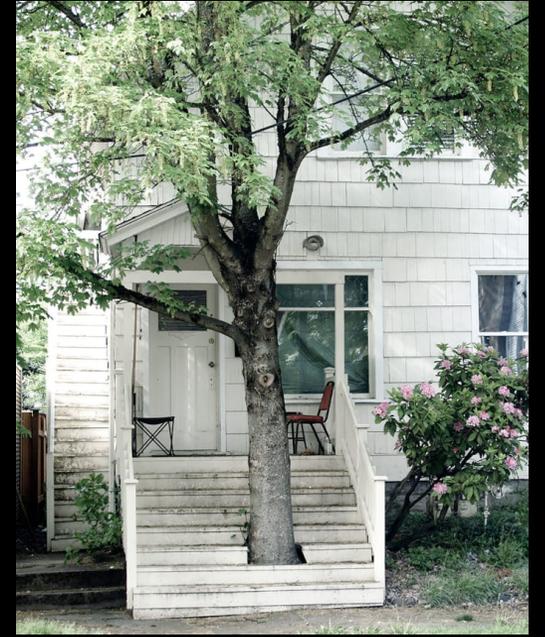
Overview

1. Making Real-Life Use of Academic Ideas?
2. What is Water?
3. What is Infrastructure?
4. Examples
 - Qanat/Kariz (Persian aqueducts)
 - Zimbabwe Bush Pump
 - Northern Aral Sea Restoration (Kazakhstan)
5. Imagining Urban Water Otherwise

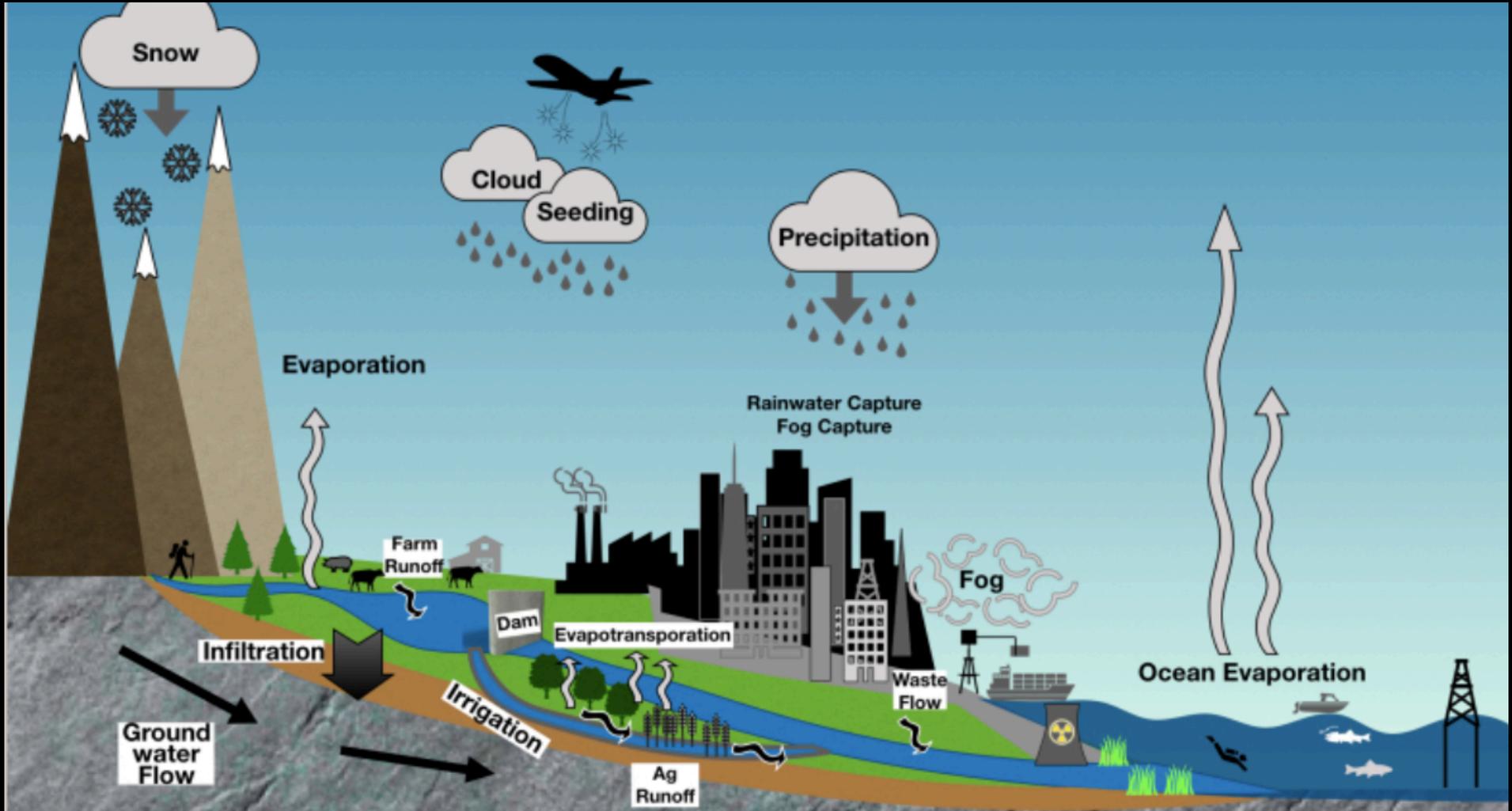


1. Dry academia, juicy ideas for urban water - otherwise?

- Activism = intellectual thinking ‘with the people in’
- Sustainability as: making space for **several** viable futures
- Sustainability Research as ‘Arts of Noticing’ (Anna Tsing)
- **Imagining** an other Dehradun, an other Tübingen rather than blue-print models



2. What is Water?



The Hydro-Social Cycle (illustrated by K.S. Sammler and L. House-Peter 2017)

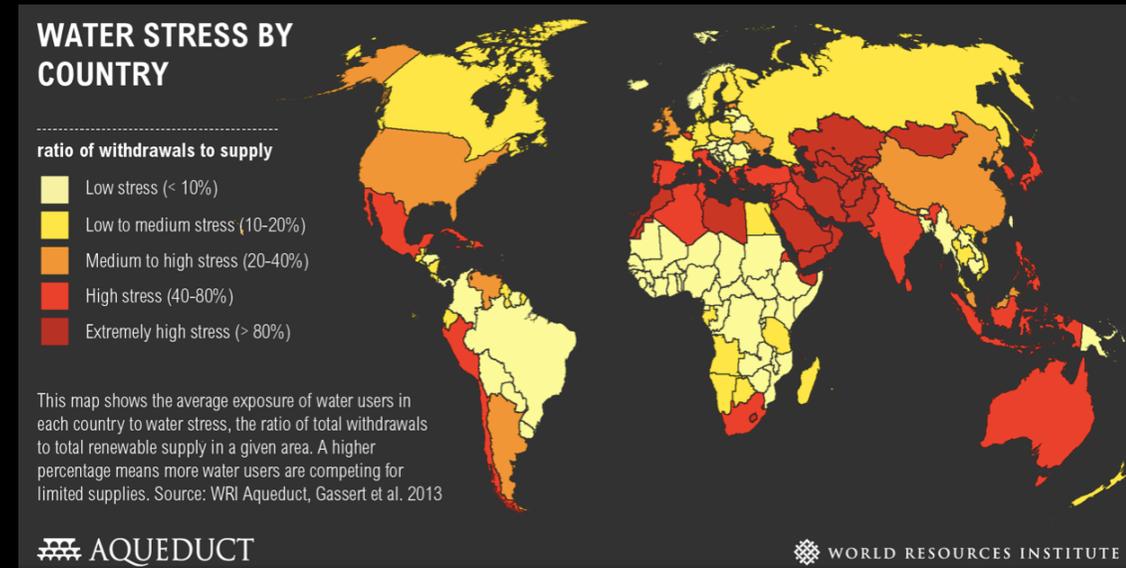
How do we know water in the world?

Defining water elements e.g.:

- Alive? Ritual vs. chemical pollution
- Where do water qualities begin and end?
- **Whose** water crisis? (Distribution)
- Governance (Public/Private Response-Ability?)

→ What is the **value** of this form of water?

→ **Our** water as a socio-natural hybrid?



3. What is Infrastructure?

- Is infrastructure a network of things?
- Where does an infrastructure end, intersect?

‘technologically mediated, dynamic forms that continuously produce and transform socio-technological relations... ’

(Harvey, Jensen and Morita 2017:5)



Chao Phraya Delta: layered land or water?



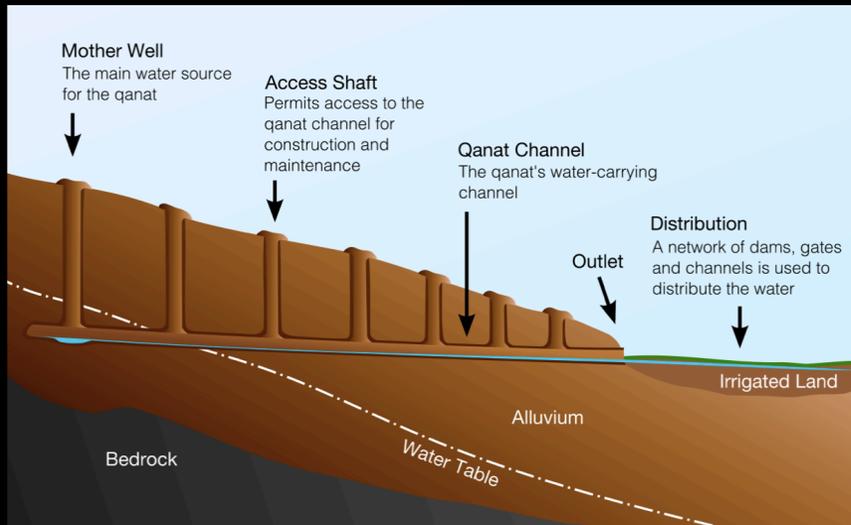
Boats are still seen docked by the houses at *Mitrkham*, reflecting their riverine way of life.
(Photo: B. Tribune)

Infrastructure: characteristics

- spatially distributed systems, intersect with others (e.g. plastic buckets)
- are embedded in/embed social practice and skills
- infrastructures connect, make relationships between things and people
- can be invisible or spectacular

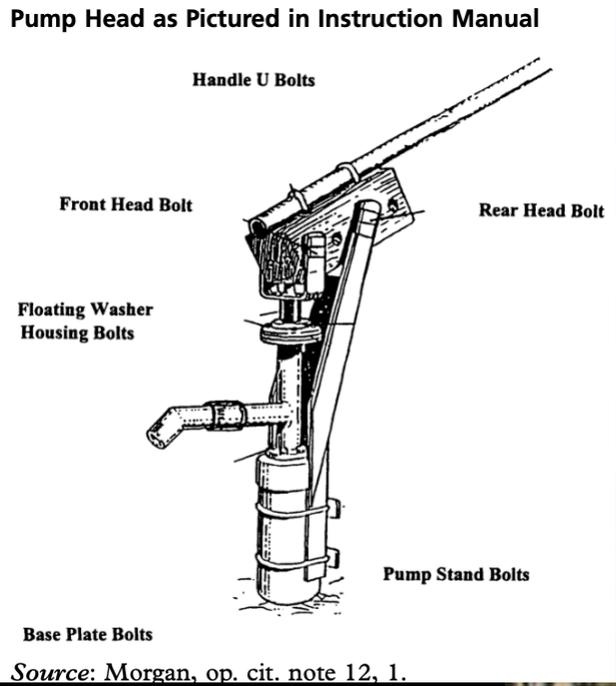


Example: Qanat/Kariz

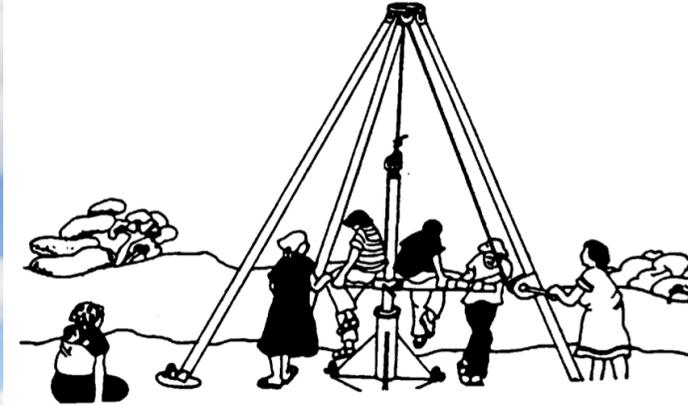


The Persian Qanat: Aerial View. Jugar. Bah-e Shahzadeh (Mahan) © S.H. Rashedi

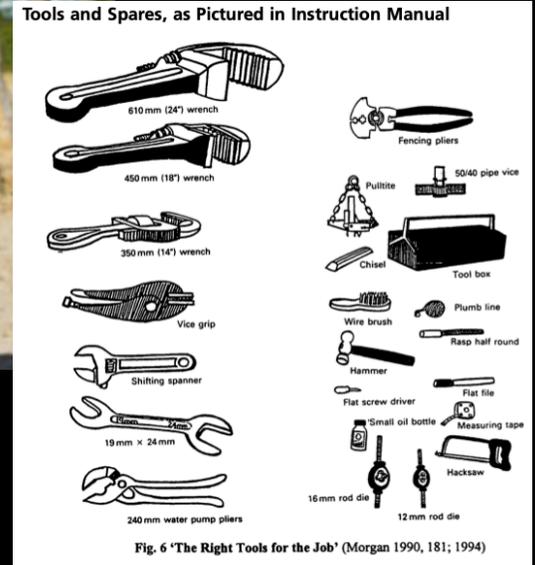
Example: Zimbabwe Bush Pump



Community Drilling a Borehole



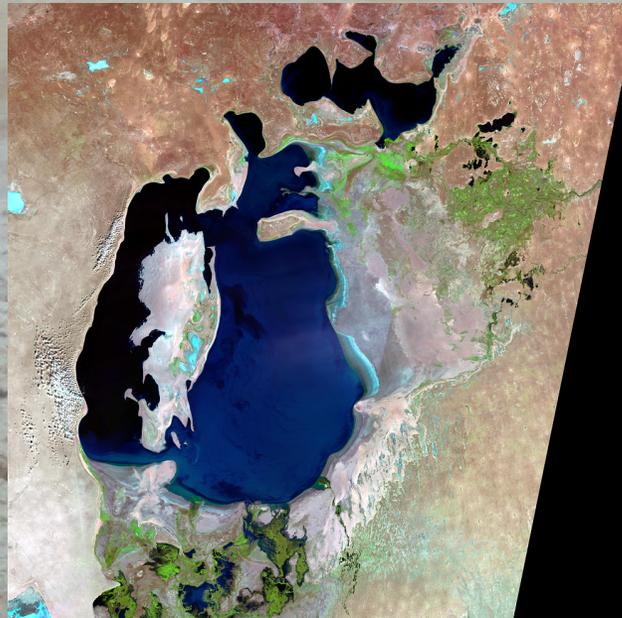
Source: [Morgan, 51].



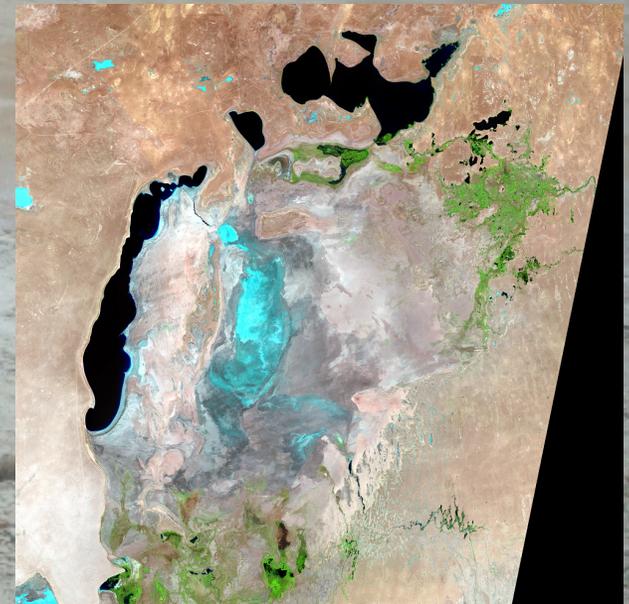
Example: Aral Sea Disaster



01.09.77 LandSat 2



01.09.1998 LandSat 5



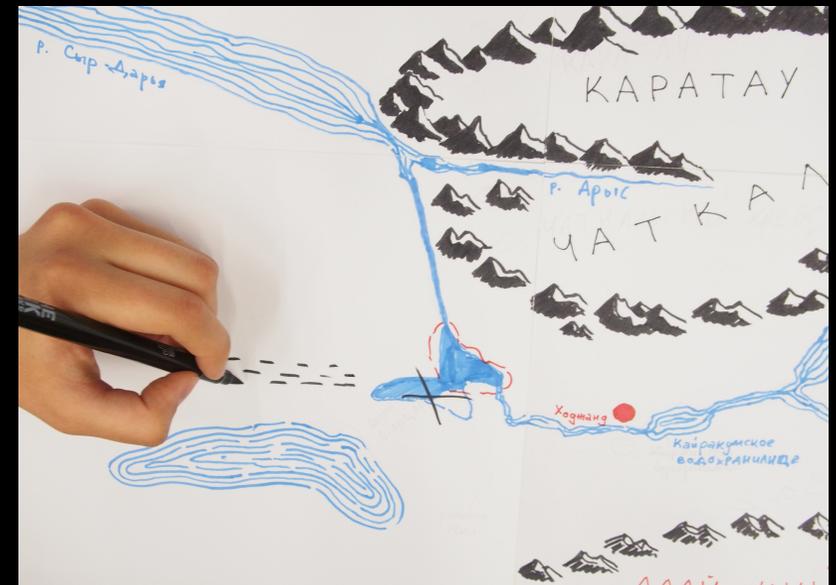
01.08.2014 LandSat 8

Northern Aral Sea: Livelihoods Restoration



Infrastructure as an Imagination of the World

- What is the 'master narrative' about this infrastructure?
- What is presented as 'fact'?
- What happens 'backstage', what kind of work is hidden?
- What makes this infrastructure work or break down?
- How flexible, adaptable is this infrastructure?



Remaking Water Infrastructures?

- Imagining, planning canals other-wise?
- Being pragmatic: living with a compromised '2nd Nature'
- Expect it to 'malfunction' a bit?



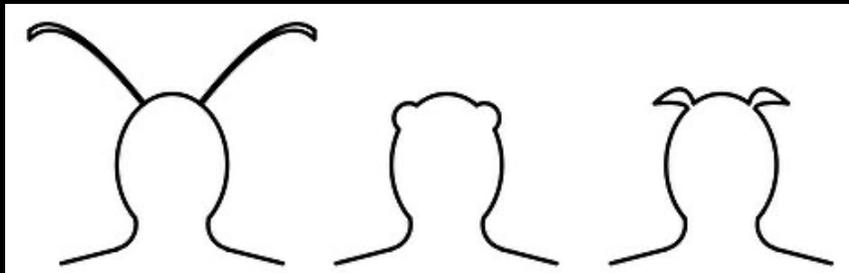
Sustainability: not smart - but wise?



- <https://www.internationalrivers.org>



- <https://www.changethecourse.us/about/>



- <https://thedesigninacrisis.wixsite.com/designinacrisis>

A wide-angle landscape photograph of a mountain valley. The foreground and middle ground are dominated by lush green hillsides. A dense forest of evergreen trees covers the lower slopes. In the distance, rugged mountain peaks are partially covered in snow under a clear blue sky. At the bottom of the valley, a small settlement is visible, featuring several white tents and a few buildings. A river flows through the valley on the right side.

Thank you!

References

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- Bruun Jensen, C. and A. Morita. 2017. Delta Ontologies: Infrastructural Transformations in the Chao Phraya Delta, Thailand. *Social Analysis*. 118-133.
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- de Laet, M. and Mol, A. 2000. The Zimbabwe Bush Pump: Mechanics of a Fluid Technology. *Social Study of Science* 30 (2), 225-63.