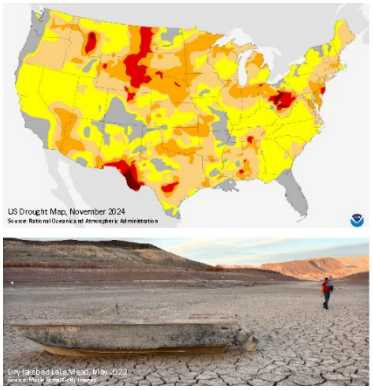
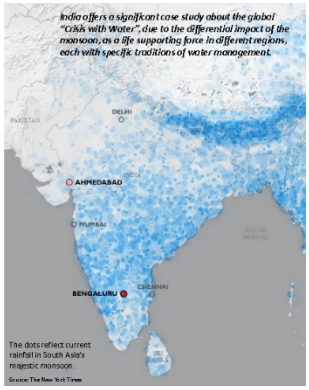
**GSAPP WS 2025 - Presentation**
03/10/2025

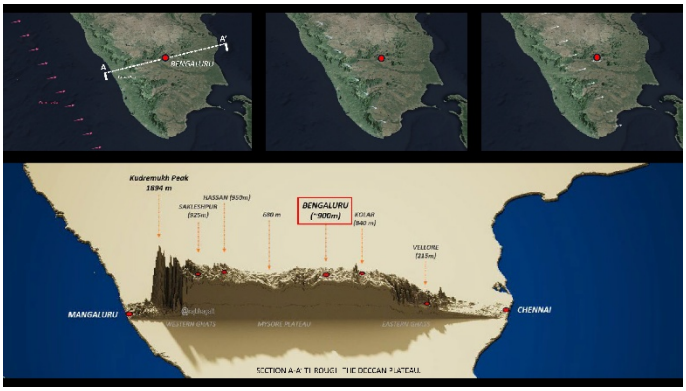

1. The relationship between rain and life is a worldwide phenomenon, yet the seasonal monsoon cycle in India has historically played a pivotal role in establishing an agricultural commons around water management.





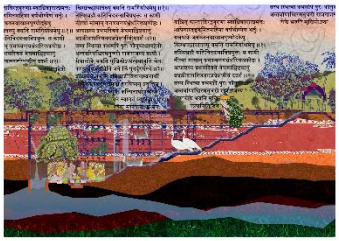




2. India is the world's largest ground water extractor followed by the US. On the left is a drought map of the US. On the right is a map depicting monsoon rainfall over the Indian subcontinent, where water management traditions have sustained for centuries complex bio-ecologies, for the benefit of human and nonhuman lives.




3. For this Workshop, we will be traveling to Bengaluru, in southern India. Above, you see maps of the monsoon winds approaching from the west coast, and discharging rain on the Deccan Plateau, where Bengaluru is situated. While the city receives abundant rainfall, most of it drains to the east towards the city of Chennai.

The workshop will be organized over a period of three weeks from **July 21st – August 8th**. The first week will be held at GSAPP, Avery Hall focusing on research on systemic topics. The second and third week will be based in Bengaluru.



***Week 1:*** The week of work at Avery will include lectures by invited guests, followed by full days of research & investigation.

***Week 2:*** During the first week overseas, we will visit both historical and contemporary architectures, peri-urban and rural lakes, meeting with multiple constituents working on the issue of water and environment in Bengaluru.

***Week 3:*** The collected documentation in sketch and digital formats will inform the second week in Bengaluru.

Students will work intensively in a studio space where further encounters with local agencies will support the production of their ideas for an *'environmental apparatus'*.

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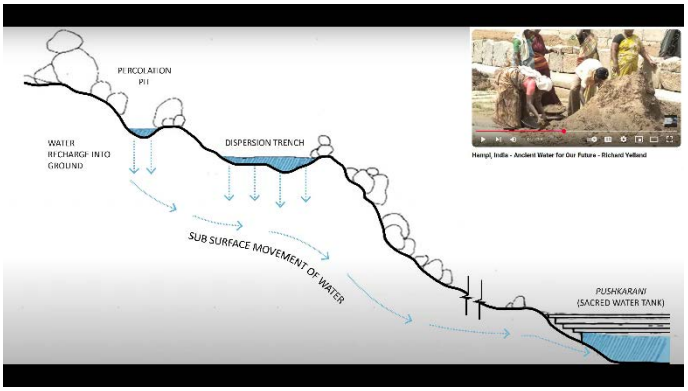
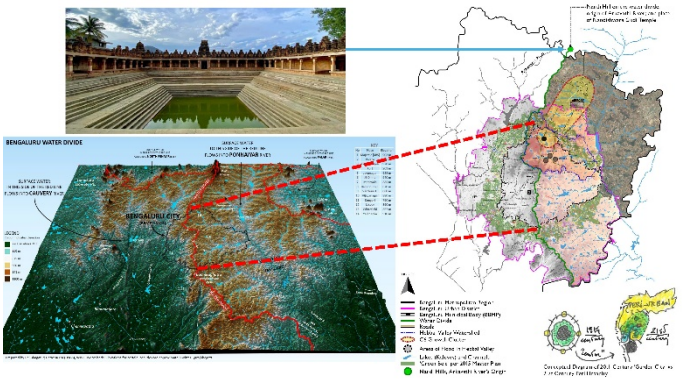
5. We will also be visiting Hampi, an incredibly beautiful ancient city of half a million people. Hampi has demonstrated, over the course of 400 years, an ever more relevant approach to water management wisdom, through a practice of *commoning* focused on the collective maintenance of earthworks.


6. In Hampi, an extensive percolation system was used to catch and store monsoon water through human-made dams. Subsurface movement of water recharged the aquifer, filling tanks known as *Pushkarnis*, at the lower elevations, in support of the encounter between water and sacredness.

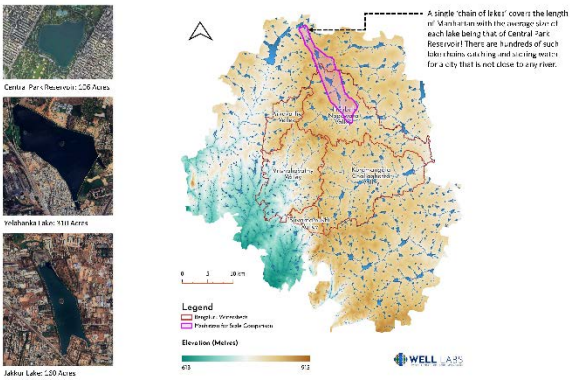



7. This is the sacred tank (*Pushkarani*) at the base of the previous section, surrounded by intense granitic topography, typical of this region's geology. Due to the specific percolation system, the waters gathering in this water body (of the *kund* type) are particularly clear and free of impurities.

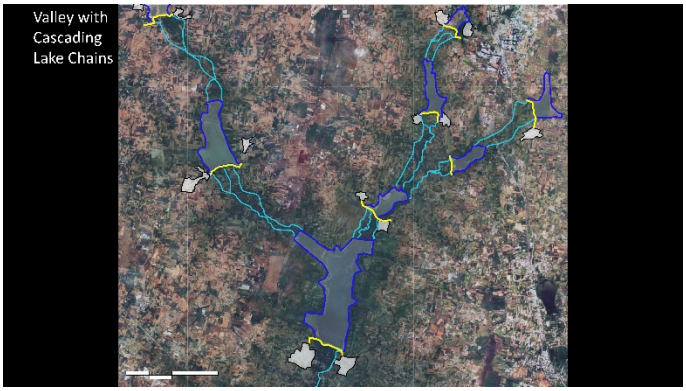

8. Bengaluru's topography splits the city in two watersheds, with a temple/pond at the origin of the two rivers. While the western half flows in a single valley, metropolitan development in the intensely ridged eastern half is thrusting towards the recently completed airport, engaging further peri-urban valleys and their chains of lakes.



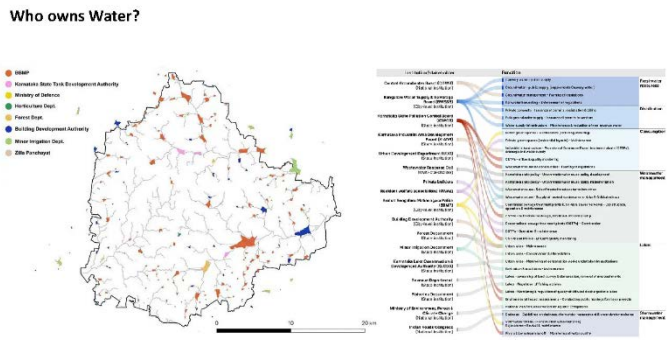
9. A single ‘chain of lakes’ in the city's western portion corresponds to the length of Manhattan with the average size of each lake larger than that of the Central Park Reservoir. There are hundreds of such lake chains catching and storing water for a city that is not close to any river from which water could be artificially extracted through pumping.



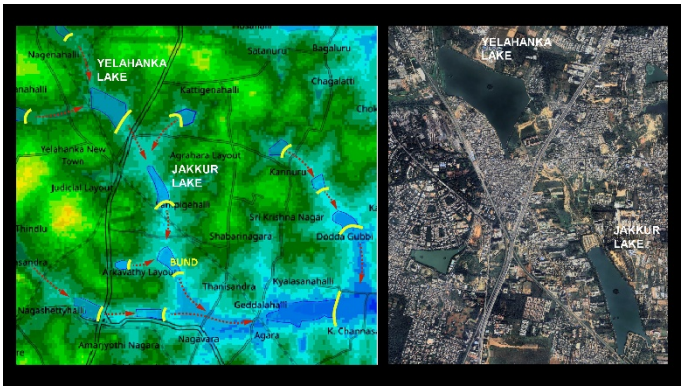

10. This is a typical example of the cascading chain of lakes system with earthen dams (in yellow) and connecting drainage channels, that also feed the surrounding agricultural fields. We will visit and map specific areas in which questions about water and infrastructure are most apparent, in terms of multi-scalar flows and actors.




11. We will be working with WELL Labs, our local partner in Bengaluru, an organization with extensive relationships with local actors. They have mapped the current entanglement between different agencies in charge of the lakes' management, in order to set the goal towards the city’s "water sufficiency."

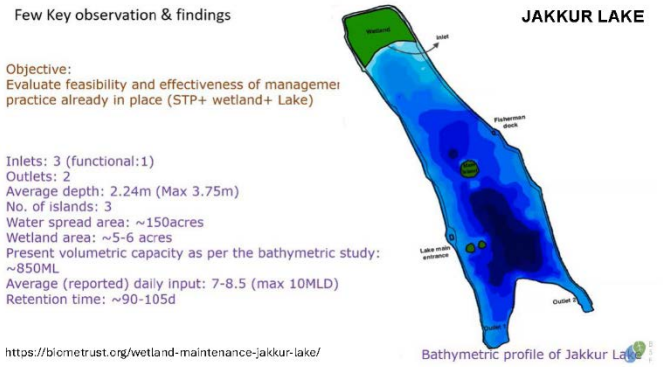



12. The Yelahanka and Jakkur lakes, shown here as inscribed in their topography of ridges and valleys, are an example of the city's dysfunctional hyper-development. Building activity is limiting their drainage channels and aggressively expanding in the valley zones, that were historically used as sponge areas to absorb excess water.



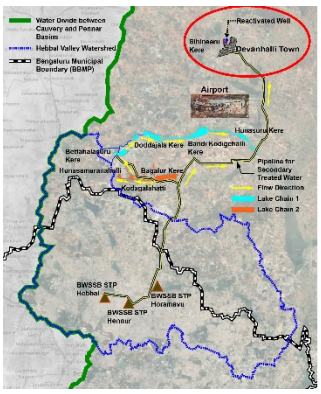
13. Significant floods of last October affected settlements in the valley zone of the Yelahanka lake, also interrupting traffic on the highway to the airport. This is an increasingly recurring counterpoint to drought conditions, as a symptom of how climate change has been affecting the remarkable economic dynamism of this tech-intensive city .

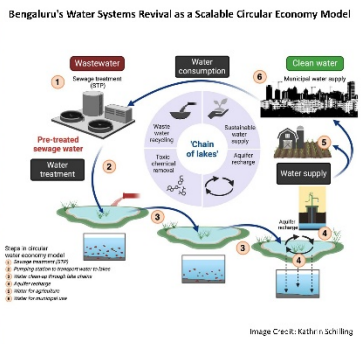
14. Citizens groups got organized in an attempt to address the water crisis in Jakkur lake, through the introduction of a wetland as a filtration apparatus at its main inlet. We will be meeting with this citizen group, government officials, and other constituents working on the issue of water and environment.



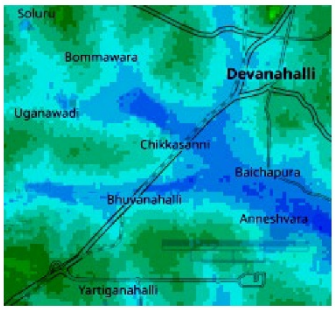

15. A close-up view of the wetland under construction shows the future water body's serpentine unfolding, where purification processes can take place. It is linked to a water treatment plant (above center), serving a recently built cluster of residential buildings (above right), which points towards a possible new paradigm of urban environmental integration.

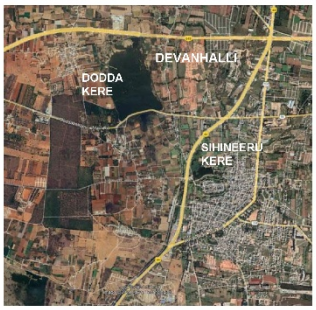
16. A regional scale goal set by municipal government is to introduce the notion of a circular economy, through feeding chains of lakes with secondary purified water from sewage treatment plants. This would use the city 's waste output in support of both urban development and agriculture in peri-urban areas, giving a new sense to historical chains of lakes.



17. At the end of the system being implemented, and shown in the previous map, the town of Devanahalli will be our Workshop's key case study. This municipality has managed to recover wastewater use for human and non-human uses, relying on the work by our second local partner, Biome Trust.




17. Biome Trust has focused attention on Sihineeru Kere, that is receiving secondary treated wastewater. The water filters through the ground to recharge the shallow aquifers which then becomes accessible through open wells. This water is further treated through advanced technologies effecting potable use for the town's human consumption.

18. An equitable and water-secure future might begin with the practice of *commoning*. Several NGO's are pursuing this path through bottom-up involvement of local citizens and farmers. Our local knowledge partners will assist us in setting up informed conversations with local citizenry about these collective processes, and their social challenges.

19. The work produced in the third week of the Workshop could become the basis for a traveling exhibition, with a first installation at the Indian Institute of Management building in Bengaluru, a key project by Pritzker Laureate architect B.V.Doshi. Right before the 2020 pandemic we met with Mr. Doshi, who remains an inspiration for this line of work, even since he left us last spring.

20. Lastly – before you select this Workshop, please check that you are eligible to apply for an Indian visa to travel, notwithstanding international tensions and current US immigration policies.