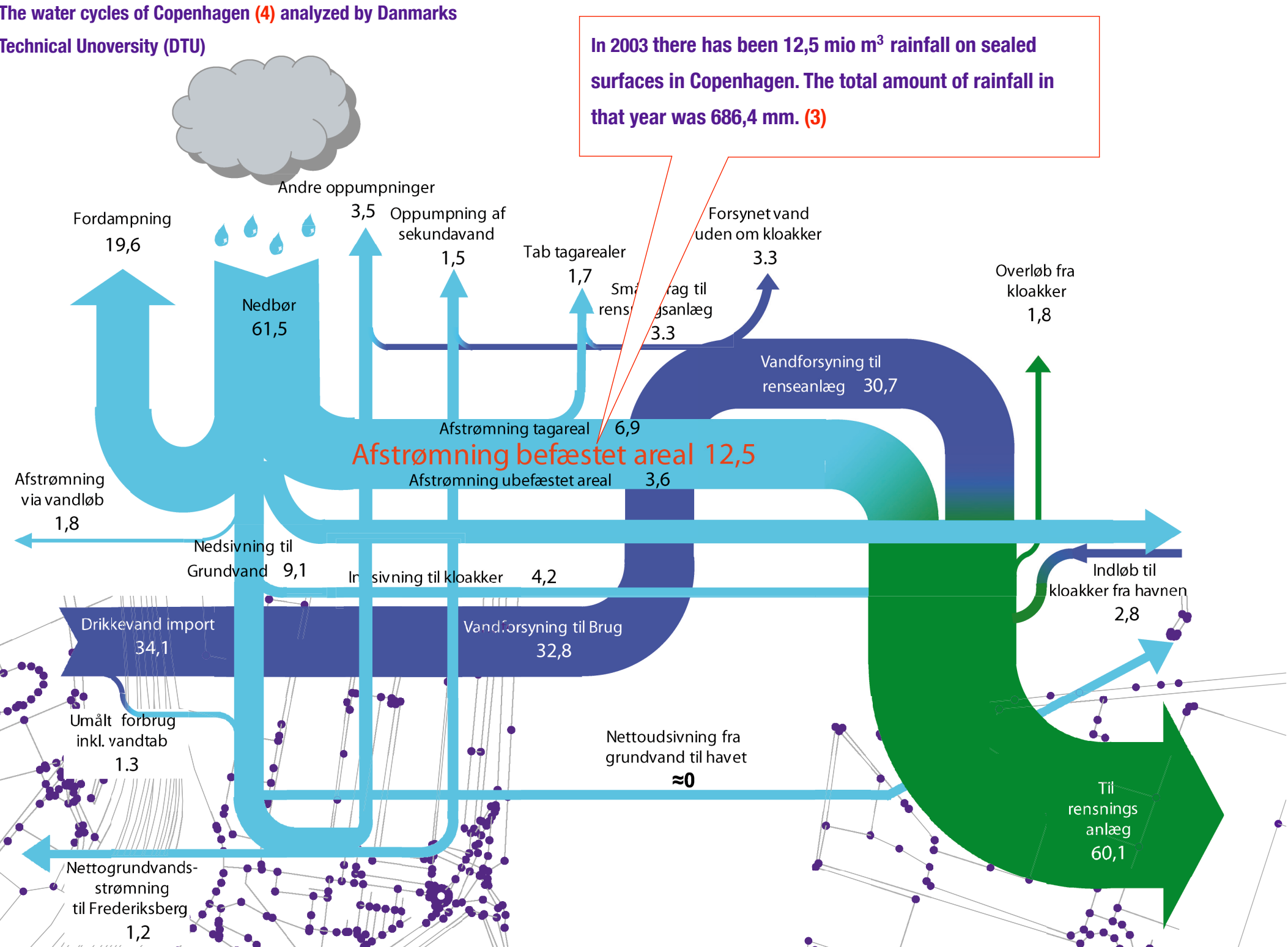


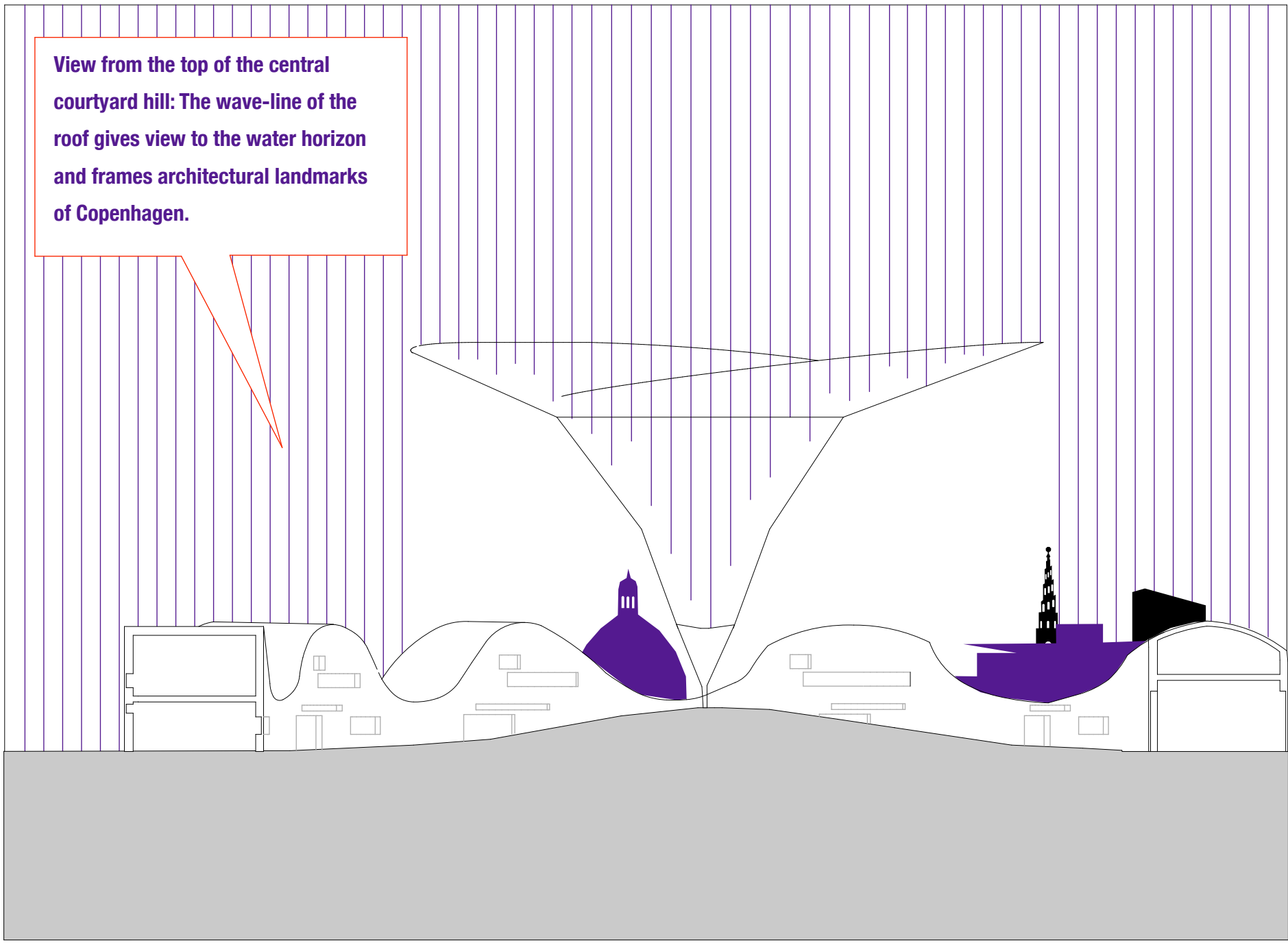
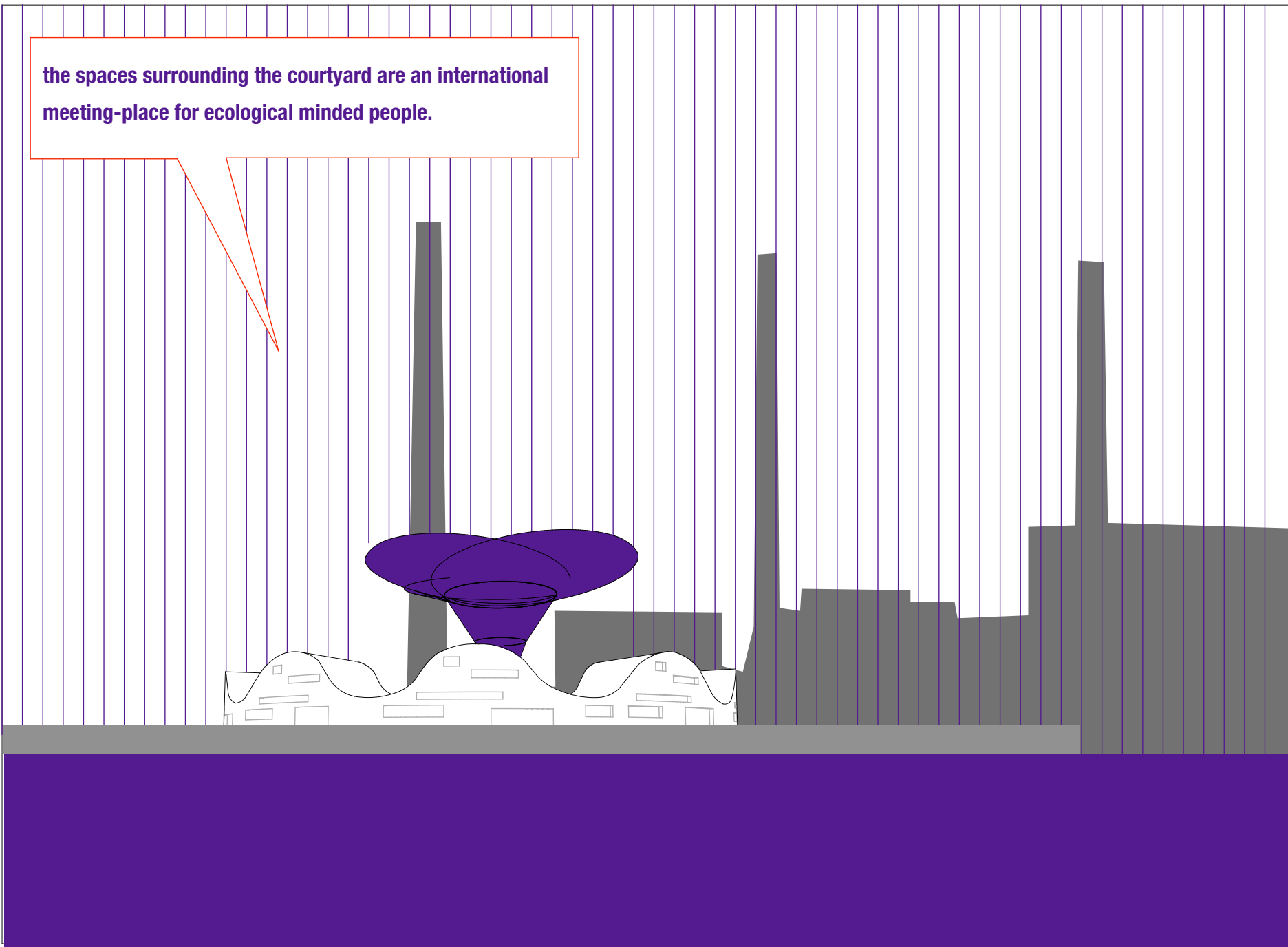
vand krone

Gravitation water vortex power plant (1) generates up to 50 MW (5) of electricity each year

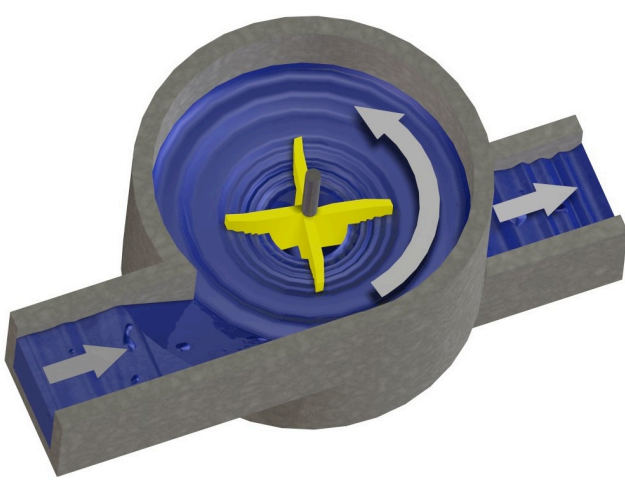
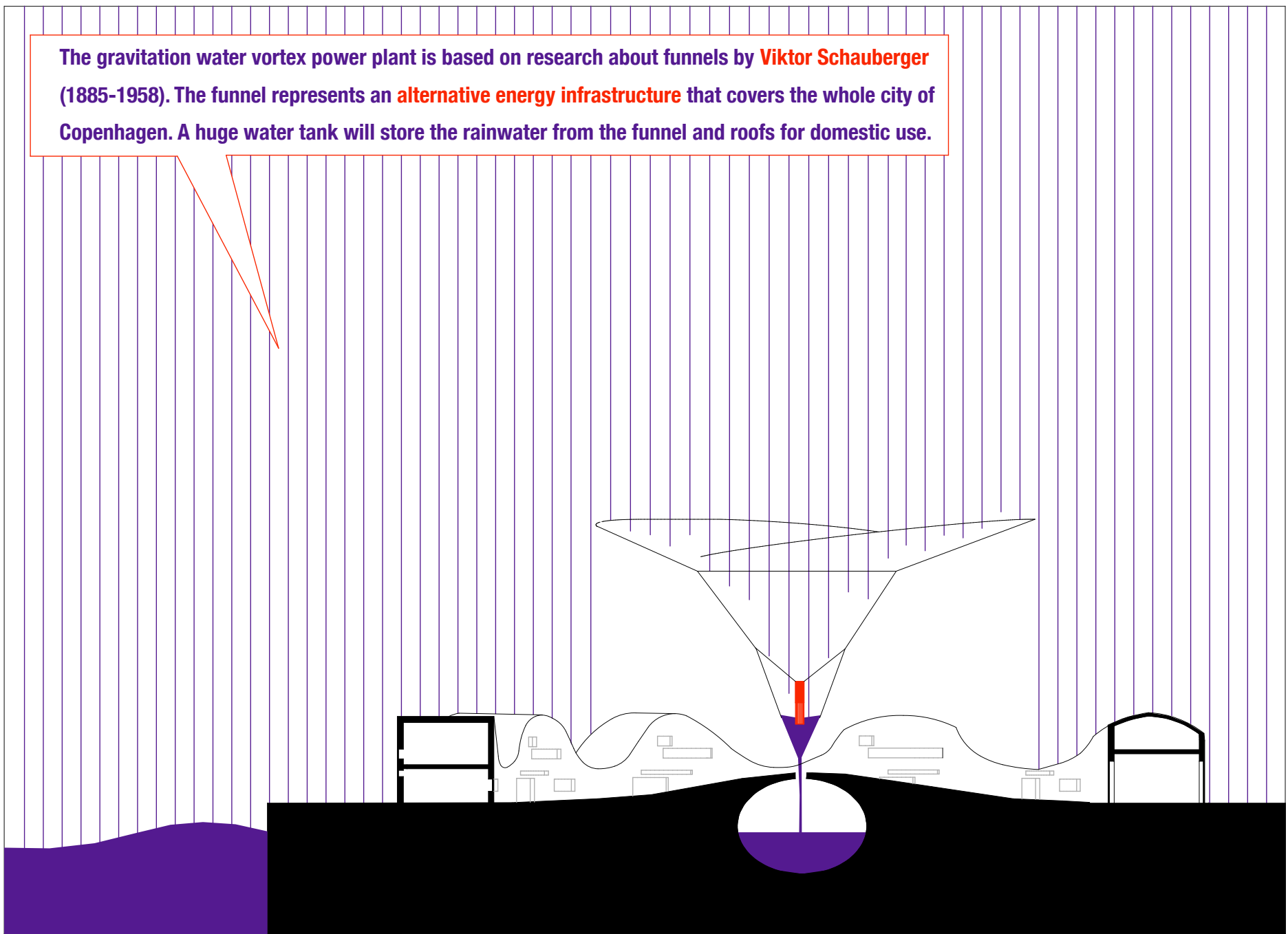
Integreret håndtering af vand og spildevand i København DTU 2006



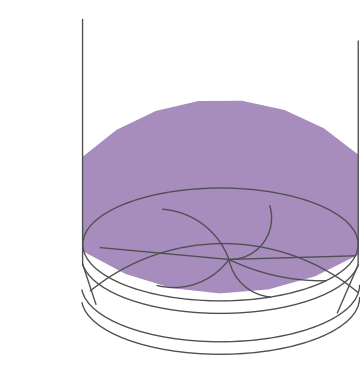
Figur 2 Vandbalance over København år 2003 (10⁶ m³). For detaljer se bilag 1



gravitation water vortex power plant



(1) The gravitation water vortex power plant is a type of micro hydro power plant which is capable of producing energy using a low hydraulic head of 0.7–3 metres (2 ft 4 in–9 ft 10 in). The technology is based on a round basin with a central drain. Above the drain the water forms a stable line vortex which drives a water turbine. It was invented by Austrian engineer Franz Zottlöterer while attempting to find a way to aerate water without an external power source. (Wikipedia)



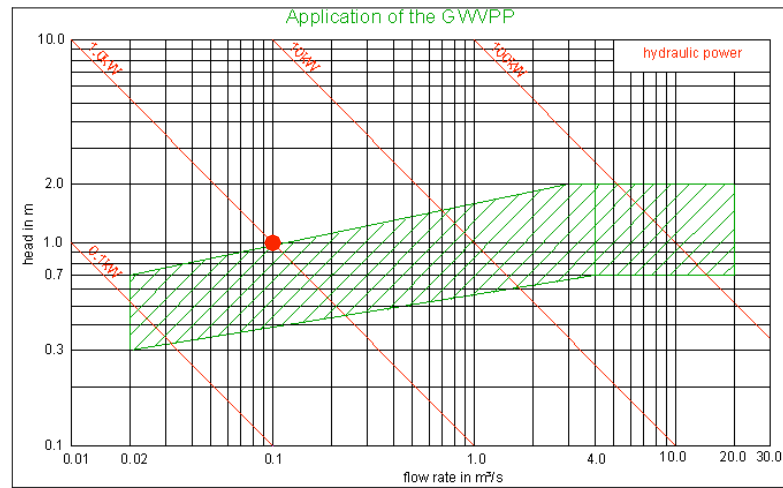
closed - collecting rainwater



open - generating energy



heavy shower - generating energy



(2) The principle of the iris control valve:

(3) Min. and Max. amount of rainfall (acquisition period: 43 years): 497mm and 987mm, Source: DMI Station 30370- Botanic garden

(4) "Integreret håndtering af vand og spildevand i København", Mikkel Boye Hauger og Philip John Binning, Institut for Miljø & Ressourcer, DTU, 2006

(5) Depending on the actual amount of rainfall. Model calculation: 987mm/a = 50 MW. In coming years the average mount of rainfall and the heavy rain will increase due to climate change. (See Copenhagen Climate Plan)