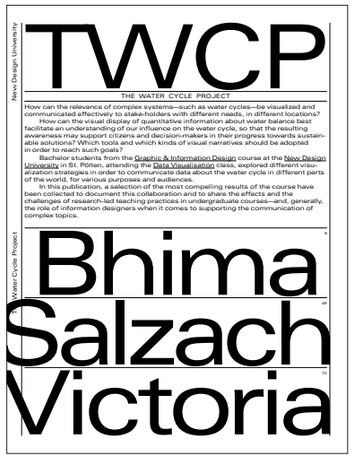
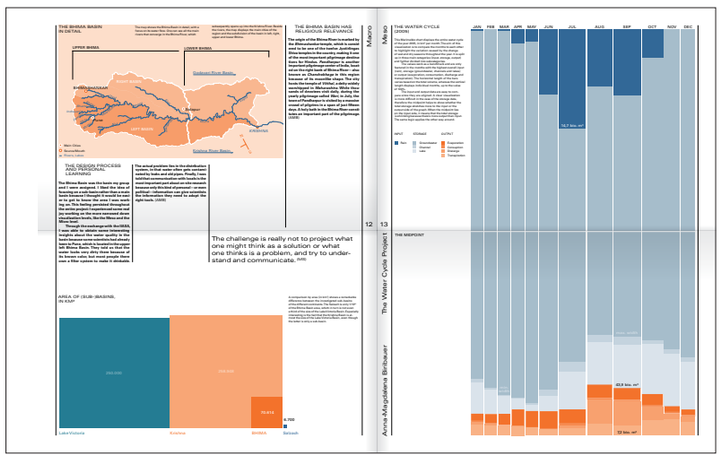
Category: Science amd Research

Project: The Water Cycle Project

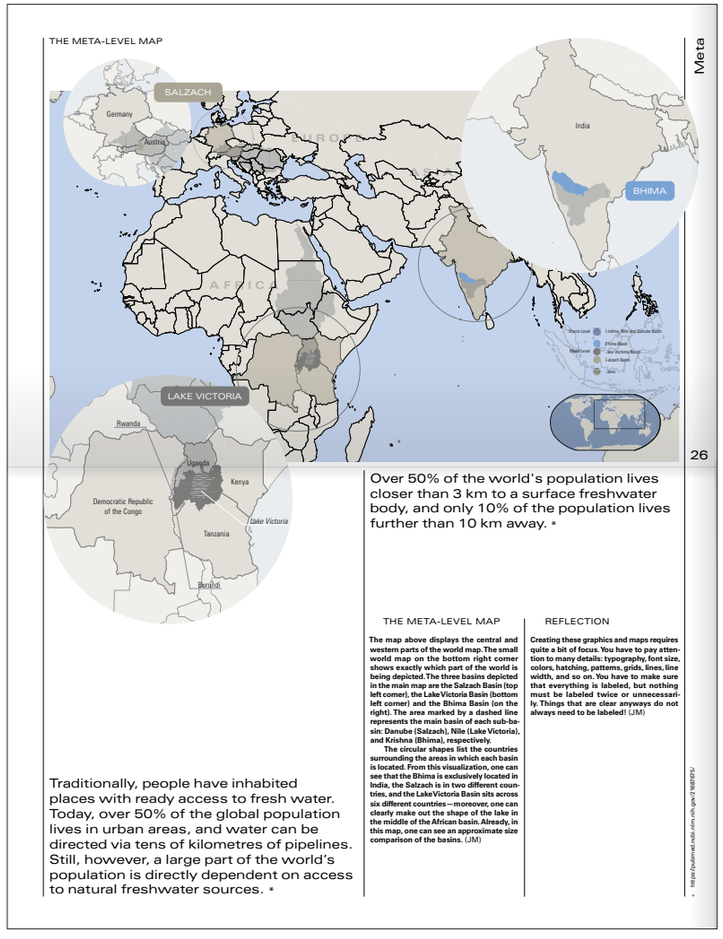


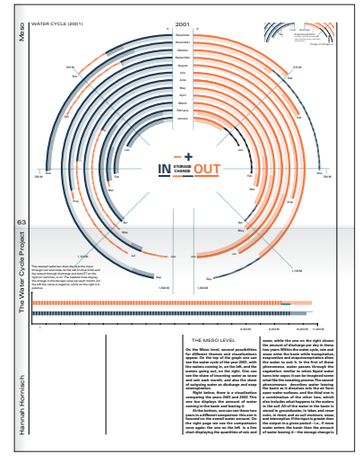


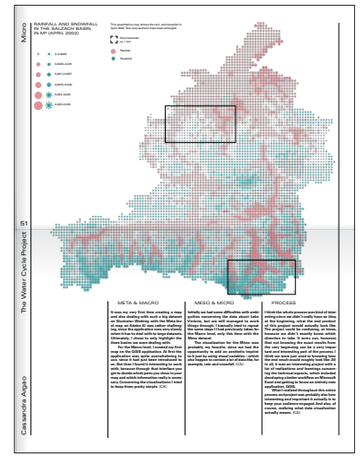
What was the challenge?
How can the relevance of complex systems —such as water cycles—be visualized and communicated effectively to stake-holders with different needs, in different locations? How can the visual display of quantitative information about water balance best facilitate an understanding of our influence on the water cycle, so that the resulting awareness may support citizens and decision-makers in their progress towards sustainable solutions?

What was the solution?
Bachelor students from the Graphic & Information Design course at the New Design University in St. Pölten, attending the Data Visualisation class, held by Prof. Enrico Bravi and Nina Bender, with the scientific support of Dr. Mikhail Smilovic (IIASA), explored different visualization strategies in order to communicate data about the water cycle and water balance in different parts of the world, for various purposes and audiences. Three different kind of basins and sub-basins around the world were selected: the Salzach Basin (Europe); the Lake Victoria Basin (Africa); the Bhima Basin (Asia).

These basins were investigated at four different levels of analysis, in order to frame the complex subject matter: Meta and Macro levels mainly introduced the larger context of the main basins on a continental, international scale; the Meso level focused on the sub-basins on a national and regional level, and finally the Micro level put the focus on smaller areas within the respective sub-basins.







What was the effect?
From an educational point of view, the students were able to benefit a great deal from the interdisciplinary collaboration with scientists. They gained new technical skills about statistical and cartographic data and became aware of the relevance, challenges and visual possibilities hidden in complex datasets. A selection of the most compelling results of the course have been collected in a tabloid-format publication to document the project and to share the effects and the challenges of research-led teaching practices in undergraduate courses and, generally, the role of information designers when it comes to supporting the communication and understanding of complex scientific topics.

Contact:
name: Univ.-Prof. Enrico Bravi, DA MA
company/organisation:
New Design University
e-mail: enrico.bravi@ndu.ac.at
website: www.ndu.ac.at