



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

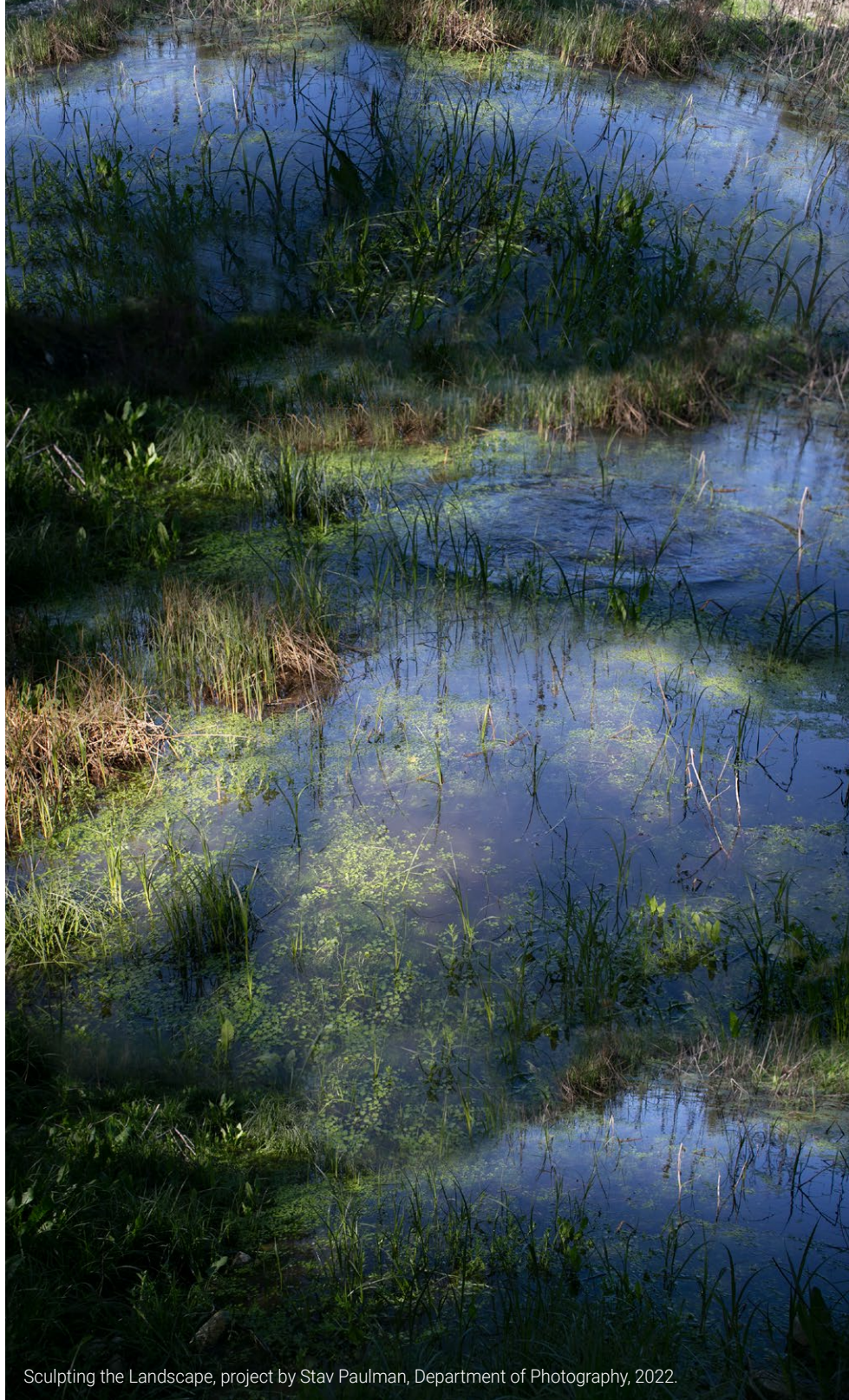
## RESEARCH

### Microbial Community in Freshwater

A new study by Dr. Orna Schweitzer-Natan, a former student of Prof. Daniel Sher, reveals that the global rise of harmful cyanobacterial blooms (cyano-HABs) threatens water safety and sustainability, affecting both drinking water and agriculture. [The study found](#) that during the extensive 2016 winter bloom in Lake Kinneret, the Microcystis population remained uniform across the bloom area. Additionally, contrary to expectations, the microbial community structure was unaffected by the Microcystis biomass.

### New Methodology in Water Management

Modern water management turns runoff into a resource through integrated approaches. Prof. Mashor Housh, of the Faculty of Social Sciences, and others propose in [an article](#) a methodology to help planners and stakeholders maximize flood mitigation benefits by combining hydrological and land-use planning models.



Sculpting the Landscape, project by Stav Paulman, Department of Photography, 2022.

### Cyanobacteria-Phage Web of Interactions

[Dr. Avrani and her team](#) study the interactions between phages and their cyanobacterial hosts. They focus on how these interactions influence the evolution of both phages and hosts and examine the broader environmental impacts.

## COMMUNITY ENGAGEMENT

### Beads Against Pollution: Innovative Solutions for Cleaner Water

A new project, led by Ma'ayan Keinyan, Sustainability and Environment Manager at Philips, using chromatography methods (Size, Affinity) for removing contaminants or excess materials from water reservoirs. The application will be carried out by "loading" water reservoirs with beads that will allow for filtering materials based on the size of the bead network or based on the affinity to the molecules adsorbed onto the beads. The project is part of the SwitchMad program.

## LEARNING AND STUDENTS

### Selected Chapters in Environmental Pollution and Treatment

Prof. Eyal Kurzbaum's online course provides students with fundamental tools and knowledge to understand environmental pollution processes and methods for pollution remediation, as well as basics in toxicology.

The course will cover pollution sources, and the fate and impact of pollutants on the environment, including potential effects of heavy metals, pesticides, and fertilizers on animals and humans. It will review environmental remediation methods, from 'green' techniques using plants and bacteria to advanced technologies for pollution management.

## OPERATIONS

### Reducing Disposable Usage

In August 2023, the university launched a pilot program to reduce disposable cup use by installing dishwashers in the kitchenettes of select units. Based on the positive results from employees many units opted to [keep the dishwashers](#).

### Mindful Water Consumption

To reduce water waste, water consumption during weekends is carefully monitored. Increased water consumption during weekends can be often attributed to leaks.

Over the past several months, this procedure enabled the detection and elimination of several considerable leaks, saving valuable drinking water.



Members of the Marine Chemical Ecology Lab (Credit: lab website).