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CONCEPTS, THEORIES, & INTRODUCTIONS

Island Water Administration: New and Old Challenges and Opportunities

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While the interest in freshwater has been growing in global sociological, anthropological and geographical research since the last decades of the 20th century, island studies scholarship continues to focus mainly on the sea/ocean water of insular worlds. Water, in the deep sea as well as in island streams and lakes, but also in the skies and in the underground, is discussed in relation to islanders' socio-economic-cultural life in blue humanities, critical ocean studies, socio-hydrology and other interdisciplinary fields engaging in small island research. This special section of 'Island Studies Journal' considers island water management and administration in five islands and archipelagos in East Asia, Southeast Asia, the Indian Ocean, and Europe. The articles demonstrate how various island contexts confront similar pressures while building local solutions. The articles show how local knowledge, adaptation (and coping) strategies, technological innovation, cultural resilience, and social practices together shape the water administration landscape of the island contexts.

While the interest in freshwater has been growing in global sociological, anthropological and geographical research since the last decades of the 20th century, island studies scholarship continues to focus mainly on the sea/ocean water of insular worlds. Until recently, only few projects engaged in the analysis of the role and position of surface water flows and bodies – except for the lacustrine or riverine contexts of islands – in island studies (Hayward, 2026). Water, in the deep sea as well as in island streams and lakes, but also in the skies and in the underground, are discussed in relation to islanders' socio-economic-cultural life in blue humanities, critical ocean studies, socio-hydrology and other interdisciplinary fields engaging in small island research. Water is good to think with and can even, as ungraspable space, be presented as a "theory machine" (Steinberg & Peters, 2015, p. 257) reconceptualizing our geographical understandings. The island surface water is a part of the assemblage of multiple blue spatialities – seas, oceans, rivers, islands, etc. – constituting a key element of the relationship between island societies, climates and freshwater systems (Albrecht & Palermo, 2027). The

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interest in water management, governance and politics in not new among researchers, but the critical study of rivers and cultures is a relatively new theme of interdisciplinary research (e.g., Brito et al., 2025; Strang, 2004).

Only 0.001% of the water on our planet is inland waters. The internal hydrology comprises lakes, ponds, streams, aquifers, and so on. Even if streams and rivers represent only a fragment of inland waters, "they represent most of the water that we all, humans and other species on earth, need to maintain our lives" (Wantzen, 2023). Water is essential for life; it connects the atmosphere, land, and biosphere through a tricky (global) cycle. One of the key water challenges today, is the persistent decline of freshwater biodiversity throughout the Anthropocene (Wantzen et al., 2016). Water pollution and extreme drought on a global scale have bolstered the idea of and debate on a global water crisis (Schulz & Gros, 2024, p. 1). Water is, in other words, at the heart of the environmental crisis in the world today. Water insecurity represents a risk in a set of elementary interlinked risks threatening small island societies (Henrich et al., 2026).

One of the main causes of freshwater disruption today is climate change. Islands are interesting here, because islands lie at the forefront of water vulnerability (IWRA, 2026). It is therefore critically important to secure just and sustainable management of freshwater in island societies. Many islands are characterized by fragile ecosystems, isolation and limited freshwater resource access, and these conditions make them highly vulnerable to climate change. Island societies, Howell and Fielding (2019) underline, can be seen as "microcosms of environmental awareness" (p. 19) because of their high vulnerability to environmental change. Demographic pressure and large-scale tourism have also accelerated water stress in some small islands (Skrimizea & Parra, 2020). As a consequence of the lack of sufficient freshwater resources, a variety of smaller islands around the globe face serious challenges of "how to provide their inhabitants with a living from an absolutely restricted resource base and/or find restrictions placed on their development" (Royle, 1989, p. 111).

As a resource, water is linked to power structures (Boelens, 2015). Access and rights to water are in many island societies unevenly distributed among citizens. Water governance is also strongly influenced by the impact of unique island geography on water resources (Bailey et al., 2024). There is therefore a growing need for information on how island societies plan, organise and manage water resources and how they address new environmental pressures. Administration of freshwater in island contexts, which may be impacted by jurisdictional setting (sovereign states vs subnational island jurisdictions), presents nuances and possibilities of differences vis-à-vis mainland approaches. Administration is here referring to the different processes necessary to capture, process, deliver, use and dispose of freshwater on islands. Freshwater administration in islands requires policy and regulation.

This special section consists of five articles covering five island communities. It emerges from the 1st Island Water Congress, held in Tórshavn, the capital of the Faroe Islands, in September 2024. The congress gathered a broad range of researchers, policymakers, practitioners and students from 40 countries. The congress' main aim was not to focus on a single island case but to discuss shared experiences of island societies around the globe. The articles in this special section explore challenges concerning island water administration, a key theme from the congress, but most of the contributors did not participate at the congress. Their entrance to the special section of the *Island Studies Journal* was our public call for papers announcement. The articles take us to Kinmen and Okinawa in the East China Sea, Pasaran Island in the Southeast Asian archipelago, Mayotte in the Indian Ocean, and Cyprus in the Mediterranean. The articles, engaging with the existing body of island studies literature, include island processes and 'islandness' in their analysis of island water administration. The articles demonstrate how various island contexts confront similar pressures while building local solutions. The articles show how local knowledge, adaptation (and coping) strategies, technological innovation, cultural resilience, and social practices together shape the water administration landscape of the island contexts. Smallness, remoteness, peripherality, boundedness, vulnerability, and islandness are key concepts shared by all the case studies of the special section.

The special section starts with three studies from East and Southeast Asia, illustrating how water governance, infrastructure and ecosystems impact local life and islandness.

The first paper by Chen discusses water infrastructure challenges in the water-stressed Kinmen Islands. It explains how the islands' dependence on freshwater transported through undersea pipelines from the Chinese mainland is linked to a history of local infrastructure failure in Kinmen. Chen uses infrastructure failure as entry point for the understanding of debates around islandness. The article contributes to scholarly knowledge on the relationship between islandness and water supply infrastructure. It emphasizes the relational character of the remoteness, peripherality and other islandness-related conditions associated with small island societies. It spells out the relational effects of islandness on water resource infrastructure (Chen, 2026).

The second contribution, Sari et al.'s article on island women's adaptation strategies to tidal flooding in Pasaran, Indonesia, examines female anchovy processors' precarious livelihoods in relation to coastal ecosystems. The article demonstrates the gendered dimension of islanders' coping strategies in relation to ecological and economic pressures. Environmental deterioration, first and foremost the annual tidal floods, poses a threat for the local community. The study explains that Pasaran Island women's vulnerability is a result of interaction between different factors: socioeconomic status, geography, unequal gender relations, and so on. The paper concludes that

women's vulnerability in small island societies can be reduced through gender-sensitive women's empowerment and better access to information and financing sources.

The third and final contribution from Asia is Shimabukuro's ethnographic study of *Kà* Springs in Okinawa. This article focuses on water governance through an anthropological lens underlining the value of local (and intergenerational) knowledge, cultural heritage and social practice. Springs known as *kà* have been rediscovered in the southernmost region of Japan in recent years. The study explains how the islanders revalue *kà* as water sources for disaster resilience, but also as traditional places associated with ritual practice, cultural memory and identity. It examines *kà* as as physical water reservoirs, cultural places, and community-led resource management. It demonstrates how the continuous intersection between water, memory, local governance, and administration resonates island water resilience.

Then we move to the Indian Ocean and Mayotte, an overseas department and region of France, with Olivero Fugera's study on water administration and islandness with focus on Mayotte's current water infrastructure crisis. Olivero Fugera examines Mahoran islandness, which is approached as a question of administrative arrangements and infrastructural decisions, as well as everyday experiences of scarcity, with the aim of explaining the economic, social and health inequalities in water access in Mayotte. Her study shows how governance, local resource management and the relationship to the metropole (Paris) are impacting the political debate on the water crisis. Islandness, Olivero Fugera points out in the conclusion, is a reality shaped by the interplay between environmental phenomena, governance practices, and claims of belonging" (Olivero Fugera, 2026).

The focus then shifts to Europe and Cyprus, with Stylianou's contribution on the role of contemporary photography and artistic practices in discussions on islandness and the 're-making' of islands based on alternative local perspectives. The article, exploring Cypriotness through history and culture, uses the work of the Cyprus-born photographer Stelios Kallinikou as case study. Stylianou examines contemporary island photography in Cyprus as a project (un)making islands and reinterpreting island water in liquid landscapes. The photographer uses the water and ever-changing condition of water (fluidity) as metaphor and symbol for discussions on islandness and the performative process of making and unmaking.

This special section presents a compelling exploration of freshwater administration challenges and opportunities in very different island contexts. The contributions demonstrate the close relationship between people, water and islands in the work towards solutions to various island freshwater resource challenges today.

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