CPF - One-day conference *Water Heritage in Mountainous Areas*

Université de Pau et des Pays de l'Adour, 10 april 2026

The project 'Water Heritage: Traditional Irrigation Systems and Uses of Water in the Mountains' (Starting Grants UNITA) aims to explore the relationships between societies and aquatic environments in mountainous regions, where water is an essential ecological resource, but also a major economic, social, cultural and political issue. The Water Heritage in Mountainous Areas study day (one-day workshop) aims to examine these relationships based on case studies from the Pyrenees, the Alps, the Carpathians and the Serra de Estrada, bringing together multidisciplinary perspectives in a transnational framework.

Physically, mountain hydrological systems are characterised by strong seasonality (snowmelt, summer low flows), torrential regimes and increased sensitivity to the effects of climate change (reduced flows, glacial retreat, changes in precipitation). Projections of declining river flows by 2100 (up to -20% in the Pyrenees) illustrate the vulnerability of these systems and the need to consider water uses. From an economic and technical perspective, water is essential for agriculture (gravity irrigation, irrigated hay meadows, slope cultivation), industry (mills, forges, sawmills, etc.) and hydroelectric systems. As a result, the landscape is criss-crossed by networks of traditional canals, some of which are centuries old, such as the bisses in Valais in the Swiss Alps or the stone canals in Cerdagne in the Pyrénées-Orientales. Water is also a social and political issue: it is subject to property regimes, usage rights, collective regulations and forms of community self-organisation (assemblies, water rotations, maintenance duties) that have contributed to the resilience of these socio-ecosystems. Finally, water is a cultural and symbolic object: springs, baths, thermal spas, rituals, water festivals, place names, local stories and memories all contribute to the construction of specific cultural landscapes and shared imaginaries.

The study day is part of UNESCO's recognition of water-related practices as intangible cultural heritage (ICH). The inclusion in 2023 of 'Traditional irrigation: knowledge, technique and organisation' on the Representative List of Intangible Cultural Heritage of Humanity, supported by several European countries, recognises the importance of gravity irrigation systems, their technical knowledge, their modes of collective organisation and their ecological and landscape functions. At the local and regional levels, communities are attempting to reconcile heritage and sustainable development (restoring mills as hydroelectric power stations, new forms of tourism, reviving traditional knowledge, etc.).

From this perspective, water heritage is not limited to infrastructure but encompasses the knowledge, skills and institutions that govern its design, maintenance, governance and transmission: empirical hydrological knowledge (reading flow rates, anticipating floods); technical skills (terracing, adjusting slopes, building with stone, managing losses); community organisation methods (water rotation systems, sharing rules, conflict resolution). These tangible and intangible forms of heritage are now caught up in conflicting dynamics: agricultural decline and the abandonment of canals, selective heritage

preservation, the development of irrigated landscapes for tourism, and demands for 'ecological continuity' that can conflict with the conservation of historic structures.

We wish to contribute to the analysis of mountain water heritage through a multidisciplinary approach in order to better understand the relationship between humans and water and to propose avenues for reflection on the links between heritage, sustainability and resilience, from a dynamic and diachronic perspective. In short, to what extent are heritage issues and sustainable development compatible?

To this end, several approaches will be considered:

- The study of mountain hydraulic techniques and landscapes: the origins, evolution, abandonment and conversion of water collection systems (such as irrigation and hydroelectricity).
- Communities, institutions and water governance: commons, water rights, conflicts, negotiations, environmental justice.
- Intangible cultural heritage: transmission of knowledge, know-how and technical skills, stories, rituals, heritage preservation initiatives.
- Water, risks and resilience in the context of climate change: droughts, floods, landslides, adaptation, reactivation or invention of traditional methods.

Interdisciplinary methods and mechanisms for studying water heritage: methodological crossovers, digital tools, participatory approaches and transnational comparisons.

Selective bibliography :

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Hubert BONIN, *Les concessions hydroélectriques dans le grand Sud-Ouest, Histoire et débats, 1902-2015*, Presses Universitaires du Septentrion, Lille, 2015.

Christophe BOUNEAU, Denis VARASCHIN, Léonard LABORIE, Renan VIGUIE & Yves BOUVIER (dir.), Les paysages de l'électricité, Perspectives historiques et enjeux contemporains (XIXe-XXIe siècles), Peter Lang, Bruxelles, 2012.

Patrick FOURNIER et Sandrine LAVAUD, *Eaux et conflits dans l'Europe médiévale et moderne: actes des XXXIIes Journées internationales d'histoire de l'abbaye de Flaran, 8 et 9 octobre 2010*, Toulouse, Presses universitaires du Mirail, 2012.

Alice INGOLD, « To historicize or naturalize nature : Hydraulic communities and administrative states in nineteenth-century Europe », *French historical studies*, 32-3, 2009, p. 385-417.

Elinor OSTROM, *La Gouvernance des biens communs : Pour une nouvelle approche des ressources naturelles [« Governing the Commons: The Evolution of Institutions for Collective Action »]*, De Boeck, 2010.

Brien A. MEILLEUR, Fabrice MOUTHON et Anne-Marie BIMET, *À ciel ouvert: les canaux d'irrigation en pays de Vanoise*, Paris, l'Harmattan, 2017.

Willem J. H. WILLEMS, Henk P. J. van SCHAIK, UNESCO, et INTERNATIONAL COUNCIL ON MONUMENTS AND SITES (dir.), *Water & heritage: material, conceptual and spiritual connections*, Leiden, Sidestone Press, 2015.

Submission guidelines:

The call for papers is open to member universities of the UNITA network. Proposals (maximum 1,500 characters) should be sent to Mathilde Lamothe (mathilde.lamothe@univ-pau.fr) and Julien Marchesi (julien.marchesi@univ-pau.fr) before 1 March 2026.

Presentations may be given in English or French (with PowerPoint presentation in English).

Travel and accommodation expenses will be the responsibility of the presenters.

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For more information on the project 'Water Heritage: Traditional Irrigation Systems and Uses of Water in the Mountains': https://pciter.hypotheses.org/1221

Chantier participatif pour l’entretien des rigoles à Campan, Hautes-Pyrénées, 25 octobre 2025 © M. Lamothe