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Methodologies for Inspiring, Locally Grounded Sustainability Transitions: The Value Case for Annecy, France

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Abstract
Methodologies that draw on heritage and local values can stimulate new ideas and actions to make sustainability transitions more locally grounded and inspiring. The value case approach is one such methodology that was applied to the lake and city of Annecy, in France, during a course on water systems design. The author describes the steps of the value case and discusses how heritage and local values served as a compass to develop a vision and to propose actions toward an inspiring future.

Policy Recommendations

- Annecy's actors in governance, environment, culture and tourism should explore ways to reactivate local water heritage and draw on shared values to support the sustainability transition. A participatory workshop could initiate this, drawing inspiration from the tools and proposed actions detailed in this article.
- The French government should develop holistic policy responses to the ecological crisis, with greater emphasis on biodiversity restoration and climate justice. The government should be consistent with its long-term climate neutrality objectives by increasing the national budget for the ecological transition (Pisani-Ferry and Mahfouz 2023) and ensure sustained support for the Green Fund (Fond Vert), which provides essential financing to local authorities (Poirier 2024).
- EU member states should use their National Action Plans under the new European Nature Restoration Law (2024) as an opportunity to promote locally grounded approaches that draw on the strengths and heritage of specific territories. Such approaches could foster a reconnection with nature through a combination of spatial, cultural and educational interventions (e.g., "drop" interventions, as featured in a video series produced by the consortium Bauhaus of the Seas Sails [2024]).

KEYWORDS

Water heritage
Climate justice
Value case approach
Sustainability transitions
Climate change adaptation

WATER ICONS

CLIMATE

Cfb: Temperate oceanic climate

< Fig. 1 Annecy (Source: Guilhem Vellut, 2020. CC-BY 2.0, via Wikimedia Commons).

Introduction

Sustainability transitions bring opportunities to rethink society and economic prosperity in a way that benefits both people and nature. Yet, current ways of framing and implementing sustainability transitions often do not inspire citizens or resonate with their lived experiences (Salzinger 2025). Predominant political narratives and policy measures present sustainability transitions in terms of short-term losses and focus on overly technical solutions that fail to account for people's social and cultural realities. This has led to low popular support for sustainability transitions, even backlash (Salzinger 2025).

As the ecological crisis continues to deepen (Richardson et al. 2023), there is an urgent need to strengthen alternative narratives and solutions to accelerate a just sustainability transition. However, few know about methodologies that support these pathways. This article explores the potential of the value case approach to make sustainability transitions more inspiring and locally grounded. This methodology is applied to the case of the lake and city of Annecy, in France.

The Value Case Approach

The value case approach was developed by a team from the UNESCO Chair Water, Ports and Historic Cities under the leadership of Carola Hein (D'Agostino and Hein 2024). It recognizes that transitions are never neutral and draw on a set of values or underlying motivations which drive actions and decisions. Values are understood as fluid and context-specific, not as fixed universal moral standards. Considering the existence of many conflicting interests around water systems (especially in the short term) which hinder sustainability transitions, a value-based approach seeks to shift perspectives toward the bigger picture and long-term thinking. This is accomplished by focusing on what shared values exist among relevant actors, and how those could be reinforced in support of sustainability transitions. According to D'Agostino and Hein (2024), "a careful understanding of which values shape stakeholders' logic and interests can shed light on solutions able to address multiple needs and create positive ripple effects for all parties in the context of intervention."

Water heritage refers to ways of living with water that societies have inherited and how they shape cultural identities. Water heritage includes places, structures and objects but also practices, traditions and beliefs linked to water. These are plural and contested, with some practices and identities becoming dominant and others marginalized. Heritage also provides insight into values and how they have changed over time (D'Agostino and Hein 2024). In the case of Annecy, applying a value case approach that draws on heritage seeks to look beyond aesthetic aspects of the lake to examine the dynamic relationship between the lake and the city of Annecy and how different values and interests have been prioritized at different times. It helps to better envision the possibility of change within continuity in support of change for the lake-city system of Annecy.

In the context of the professional education course Water System Design: Learning from

1. Water Systems Design: Learning from the Past for Resilient Water Futures, https://online-learning.tudelft.nl/courses/water-systems-design-learning-from-the-past-for-resilient-water-futures/.

the Past for Resilient Water Futures (TU Delft),[1] I have applied the value case approach to the lake of Annecy. The course guides learners through a series of design steps to explore the water system of their choice, combining long-term thinking with context-sensitive planning to propose interventions that add value for multiple actors (D'Agostino and Hein 2024). The city of Annecy, which was used as a case study, is located in the French Alps. Residents have used Lake Annecy for fishing, commercial navigation, industry, drinking water, tourism and leisure (Barraqué 1986). The history of Annecy, its cultural heritage and its economic prosperity are strongly tied to the lake ecosystem, which is impacted by climate change and biodiversity loss (Massemin 2018; Nikolli 2022; Soares et al. 2025). The process of applying the value case approach to Annecy has helped establish a path forward in pursuit of a sustainable future of the lake and city.

The following sections explain the methodological process and analytical tools. The goal is not to argue for specific solutions for Annecy. The proposed actions discussed below should be seen as possibilities that need to be further discussed and refined with local actors, to reflect their needs and aspirations.

Understanding Annecy's Complex Water System

A holistic understanding of Annecy's context is essential for developing inspiring narratives and pathways for sustainable transitions that are grounded in local realities. This requires considering the set of actors, values, historical legacies and spatial relationships that influence the lake and city of Annecy. The Water Systems Design course devoted ample time to this task, based on the view that connecting past, present and future experiences of living with water would support the development of pathways aligned with local conditions and cultural identities. By highlighting existing strengths and knowledge within the community, this approach can also make challenges of climate adaptation and sustainability transitions feel less daunting.

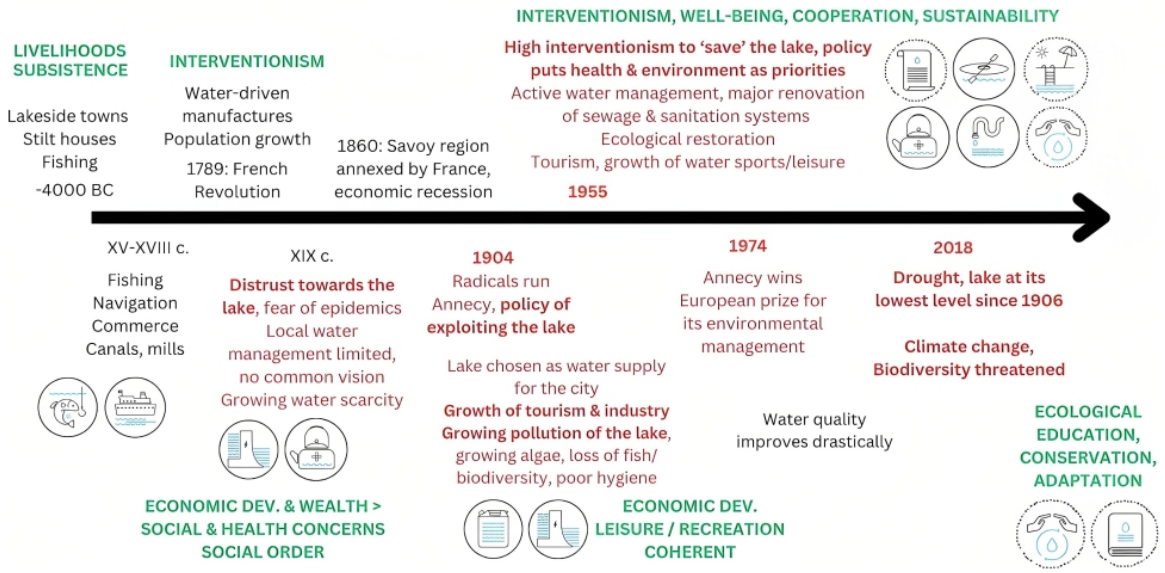
Step 1: Analyzing the History and Evolving Values Underpinning the Lake-city Relationship

The timeline (fig. 2) shows the continued importance of water for the city's development, suggesting that the past, present and futures of Annecy are inextricably tied to the lake. At the same time, it introduces a more complex vision of Annecy's waters beyond the dominant narrative of the lake's beautiful, transparent waters – which mainly serves the city's tourism and leisure sectors (Nikolli 2022; Salzinger 2025). The timeline presents important moments in the lake-city relationship and the main value changes that happened around these moments in Annecy. Key shifts include the move from the use of water for subsistence to economic development, especially for commerce, energy, industry and tourism (Barraqué 1986). This emphasis on economic development has been, and remains, a driving value in the lake-city relationship at least since the fifteenth century. Also, note in the timeline the choice to use the lake as the main supply of drinking water for the city, and the "rescue" of the lake from pollution beginning in the 1950s. Residents, including fisherfolk, demanded better health and environmental protection alongside profits. As a result of this bottom-up pressure and of the strong policy response that met the demands, the quality of the lake waters improved considerably in the following decades (Barraqué 1986).

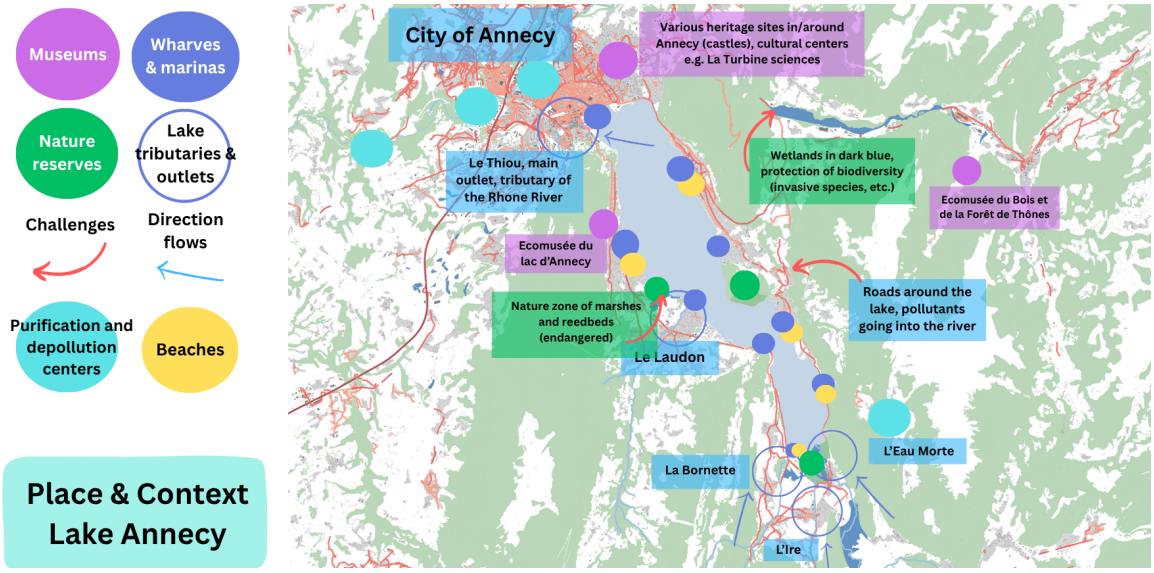
This first step of the methodology led to three important findings regarding the lake-city relationship. First, the combination of bottom-up pressures and effective local governance enabled a value change and its operationalization in Annecy. For instance, the creation of a structure (the Syndicat Mixte du Lac d'Annecy, or SILA) to treat sewage water and monitor water quality not only rescued the lake from pollution but also institutionalized long-term mechanisms that benefit the lake environment and public health (Barraqué 1986; Conservatoire d'Espaces Naturels de Haute-Savoie 2016; Vinet 2022). Second, the prioritization of health and water quality was framed as complementary, not opposed, to the economic prosperity of Annecy. The improvement in water quality would eventually boost the tourism sector and the reputation of Annecy's clear waters. This suggests that, while conflicting values and interests should be considered, grassroots and governance actors can focus on narratives and actions that support shared values and benefits, such as the provision of clean water (benefiting residents, tourism actors, fisherfolk, biodiversity). A third key finding is that widespread recognition of the lake's value beyond its contribution to human activities and well-being has not yet occurred. At the time of the lake's "rescue," values of public health and livability seem to have taken precedence over biodiversity and environmental protection (based on Barraqué 1986). Reciprocity between humans and non-humans (plants, animals, micro-organisms) as part of the lake ecosystem is not yet driving the city's development. Still there are promising developments in favor of biodiversity and climate action, with the election of Ecologist candidate François Astorg as mayor of Annecy in July 2020 (previous mayors were mainly from the center-right) (Hédiard 2020). His current mandate will end in 2026.

Step 2: Mapping the Territory to Reveal Spatial Relations, Challenges and Opportunities

The spatial mapping (fig. 3) helps visualize key local actors, structures and relations around the lake, such as water inlets and outlets, the



^ Fig. 2 Annecy and its Lake, the "Cleanest in Europe". Assignment 1, Water Systems Design (Source: Maëlle Salzinger, 2024).



^ Fig. 3 Assignment 2, Water Systems Design. (Source: Maëlle Salzinger, 2024).[2]

location of touristic and natural areas around the lake, and the presence of water purification centers. Additional research was later conducted to better identify water treatment centers and industries in the area. The process undertaken in the course was useful as a way to locate the lake within its wider territorial context, showing how water flows connect mountains to lakes and cities, and how climate change affecting mountain ecosystems upstream can have far-reaching consequences for people downstream. For instance, the main outlet of Lake Annecy, the Thiou, is a tributary of the Rhone River, which supplies a significant portion of the French population with water for commercial transportation, drinking and agriculture (Les Agences de l'Eau 2019). This suggests an important role for governance actors at various levels, including regional and national, in supporting a sustainability transition.

This step also highlighted challenges and opportunities to consider when developing sustainability pathways for Annecy. The mapping revealed the concentration of structures and activities to support tourism and mobility around the lake (boarding areas and marinas for boats, beaches, hiking paths, roads) and their proximity to natural reserves and vulnerable wetlands, including endangered local species such as reedbeds. Indeed, 80 per cent of the lake's reedbeds have disappeared (Massemin 2018). This suggests a particular challenge in combining economic and ecological values in Annecy. At the same time, the map includes actors and structures that already support, or could support, a sustainability transition in Annecy. For instance, the presence of several ecomuseums offers opportunities for connecting and reinforcing heritage and ecological values in the area. Additionally, the existence of a range of

2. Data retrieved from: Syndicat Mixte du Lac d'Annecy. n.d. "Les infrastructures d'assainissement collectif: Carte interactive – UDEP." Accessed April 23, 2025. https://www.sila.fr/nos-missions/assainir-vos-eaux/les-infrastructures-dassainissement-collectif/carte-interactive-udep/.; and OpenStreetMap contributors. n.d. OpenStreetMap data extract: Rhone-Alpes (Data set). Geofabrik GmbH. Accessed April 23, 2025. https://download.geofabrik.de/

businesses and industries (services, tech, sport, agro-industry, etc.) around Annecy highlights the possibilities for further economic diversification, reducing dependence on recreational tourism (Immobilier Annecien n.d.). However, the map presents the lake as a flat, homogeneous surface, failing to visualize its biodiversity, underwater flows and the spatial relationships between humans and nonhumans (fish, reedbeds, etc.). The use of other types of maps and visualization technologies could be explored to provide a fuller picture of the lake-city ecosystem and its diverse inhabitants.

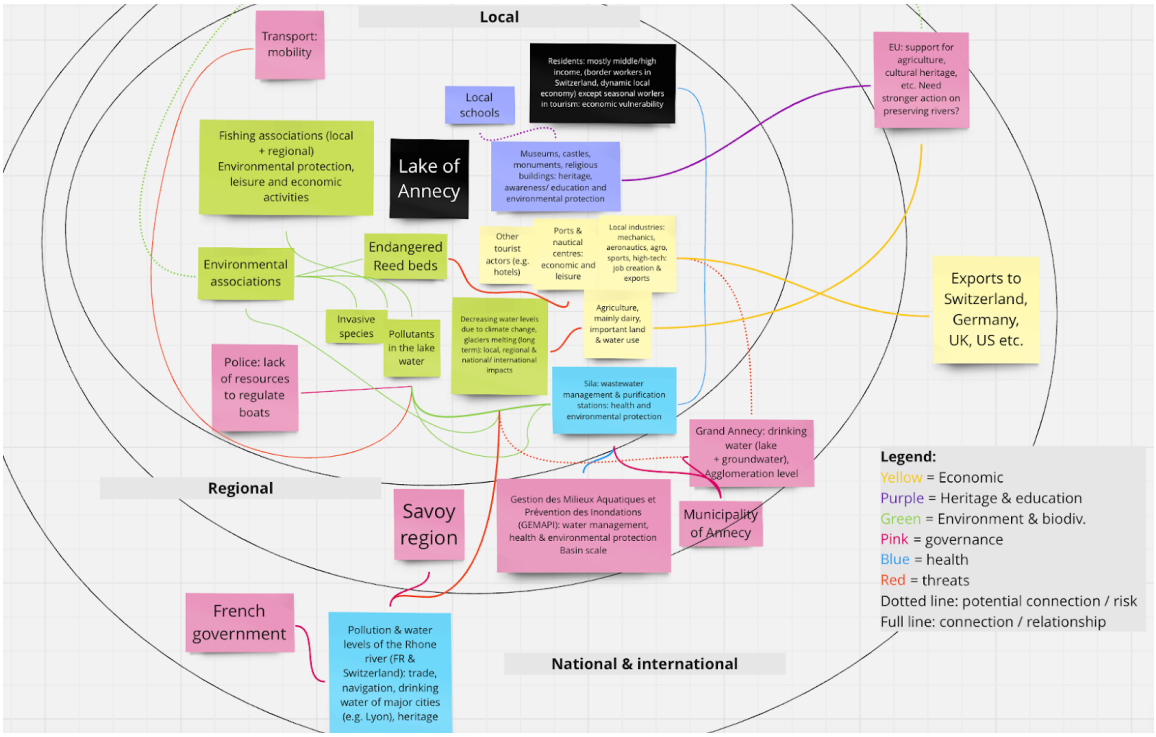
Step 3: Mapping Dynamic, Multilevel Systems to Reveal Potential Alliances

The mapping (fig. 4), developed as part of assignment 3 in Water Systems Design, uses the "canvas" methodology developed by Agence d'Urbanisme Flandre-Dunkerke (AGUR) to visualize complex systems across various scales, from the local to the international (Vereecke and Deveycx 2022). It helps to better represent the cross-border identity of the city of Annecy and its inhabitants. The process of zooming in and out afforded a more diverse picture of who has agency and who has responsibility over the water challenges affecting Annecy. It also helped identify connections within and across scales, which could be used to promote alliance-building between actors (called "agents" in the methodology). This proves particularly useful for the development of a vision and possible actions, which took place later in the course. In terms of potential alliances, local schools could partner with ecomuseums, water engineers and environmental associations to sensitize local children and other visitors to the lake's sustainability challenges. A potential role for the European Commission also appears as part of its implementation of the European Green Deal (2020–2030), in promoting environmental education and the revitalization of water heritage (along with UNESCO) as well as subsidizing cross-border research and innovation regarding, for example, water-systems adaptation to climate change in the Alps, light water vehicles and water-efficient agriculture (European Commission n.d.).

The canvas facilitated lively discussions in the course about which governance actors are better suited to address the sustainability challenges affecting Annecy. For example, while municipal and regional actors are responsible for water management and environmental protection of the lake, the central government can create an enabling environment for sustainability transitions by subsidizing the renewable energy sector (e.g., hydropower plants) and adopting an ambitious nature action plan for biodiversity restoration following the entry into force of the European Nature Restoration Law in August 2024 (Hallosserie and Fofana 2024). Additionally, this mapping tool allows for the integration of nonhuman agents, such as endangered reedbeds and invasive species. In sum, this step helped capture the complex, relational and multi-scalar nature of the water system in Annecy and its crosscutting implications for ecology, culture, education, transport and mobility, agriculture, industry, trade, tourism, leisure, health and sanitation.

Shaping Sustainable Pathways for Annecy Using Local Heritage and Values as a Compass

The methodologies presented in steps 1, 2 and 3 helped capture the complexity of the water system and the lake-city relationship in Annecy. How to move from this holistic understanding to sustainable pathways and actions, however, is not straightforward. This third section pre-



^ Fig. 4 Assignment 3, Water Systems Design. (Source: Maëlle Salzinger, 2024).[3]

sents steps to narrow down possible pathways and target actions that are locally and culturally rooted, thereby offering multiple benefits and hopefully giving the inhabitants of Annecy an inspiring narrative for the future. I drew from the UN Sustainable Development Goals (SDG) framework to shape the long-term vision for Annecy and identify useful synergies. Heritage and values served as a compass to select actions that can reinforce connections which are meaningful for Annecians.

Step 4: Applying the Lens of Heritage and Local Values to Sustainable Development Goals to Activate Synergies and Long-term Impact

The SDGs, adopted by all UN member states in 2015, provide a global framework of goals and indicators to guide sustainable development efforts across multiple sectors and themes until 2030. The framework places a strong emphasis on the interconnectedness of the 17 SDGs. The SDGs have limitations and suffer from reduced political steam in recent years, for instance due to the Russia-Ukraine war and its consequences for the European political agenda (Barchiche 2022; UN 2024; Sherriff and Veron 2024). Nonetheless, the course proposes that they can be used as a tool, rather than a solution, to think about long-term impacts and activate synergies between sectors and themes in support of sustainability transitions (Hein 2022). For the case study of Annecy, the author of this article used the SDGs during the development of pathways and actions based on local heritage and values.

3. "Sila" on the mapping refers to the Syndicat Mixte du Lac d'Annecy (SILA).

Figure 5 shows a selection of related and indirectly related SDGs that were used to refine and enrich the proposed pathways and actions for Lake Annecy and the city of Annecy.

This step had two main benefits for this case study. First, applying the SDG framework supported long-term thinking about the potential cascading impacts of climate change and sustainability transitions on the fulfillment of basic needs like food, drinking water and security. From a long-term perspective, none of the 17 SDGs was deemed irrelevant. Long-term thinking about the disruptive nature of climate change and societal transitions justifies the need for inclusive sustainability transitions to avoid adverse effects on poverty, inequality and social conflict. As a result, the value of inclusion was given more weight in the proposed actions for Annecy, in line with local challenges such as the financial precarity of seasonal tourism workers and economic inequalities between women and men. Indeed, in the Haute-Savoie region, women earn less than men despite better academic performance; female-headed single-parent families are more likely to live beneath the poverty line, according to data from the Département Haute-Savoie and the National Institute of Statistics and Economic Studies known as INSEE (ODS Radio 2024; Delfosse 2024).

Second, the SDG framework helped identify synergies that could be activated by the proposed heritage and value-based pathways for Annecy. For instance, one of the proposed actions to make mobility and transport in Annecy less carbon-emitting and less polluting for the lake (lighter water vehicles, reducing roads close to the lake, improving access by train) supports life below water (SDG 14), climate action (SDG 13) and sustainable cities and communities (SDG 11) but can also

^ Fig. 5 Assignment 4, Water Systems Design. (Source: Maëlle Salzinger, 2024).

support the local innovation sector (SDG 9) if measures to promote water-based innovations are established in Annecy. This was included in the proposed pathways and actions for Annecy, which are detailed in the next subsection.

Another example is the proposed action to revive Annecy's water heritage to promote more culturally rooted, educational and sustainable forms of tourism, which supports SDG 12 (responsible consumption and production) and 4 (quality education) but could also contribute to addressing the local socioeconomic challenges mentioned above. Specific measures to make the local tourism sector more inclusive and attractive year round (rather than only in the summer months) were added to the proposed actions, contributing to reduced inequalities (SDG 10) and boosting gender equality (SDG 5). For instance, women-led small and medium-sized enterprises (SMEs) in ecotourism could be supported by setting up a dedicated incubator in Annecy, launching an outreach program or providing financial incentives (e.g., tax reduction). As shown by the examples in this section, applying the SDGs helped refine the proposed actions by identifying ways to create shared value for more actors and sectors in Annecy.

Step 5: Proposed Pathway and Actions for a More Sustainable Lake-city System in Annecy

Applying the value case approach highlighted the possibility of change within continuity and continuity in support of change for the lake-city system of Annecy. Industry and tourism have played an important role in the economic prosperity of the city but pose long-term risks for human and nonhuman inhabitants around the lake by contributing to CO2 emissions, environmental degradation and biodiversity loss. Rather than seeing industry and tourism as homogeneous sectors that should be abandoned, there is an opportunity to rethink their economic model to identify a more inclusive and regenerative pathway with multiple benefits for human and nonhuman inhabitants living in and around the lake. This proposed pathway seeks to take advantage of and reinforce the long-standing relationship between the lake and the city. It brings together existing values of economic prosperity and innovation, health and well-being as well as environmental quality (natural environment and clear waters as a source of local pride), with new values of ecological regeneration and inclusion, to support a thriving lake ecosystem in the long term.

To achieve this alternative pathway, I propose the following two actions. These should be further refined by the inhabitants of Annecy and implemented in a phased approach to produce incremental, mutually reinforcing effects. The pathway and actions assume a strong governance role for local authorities, accompanied by policies and financial incentives, which are deemed possible based on past governance achievements (e.g., the rescue of the lake) and the city's wealth.

Proposed pathway: A Thriving Lake Ecosystem in the Long Term, Underpinned by Values of Regeneration, Heritage and Innovation

Action 1: Shaping an alternative economic model of tourism around the lake via ecotourism.

The ecotourism sector in Annecy could be centered on the idea of co-living with water, based on Annecy's historical and cultural heritage as well as objectives of ecological regeneration. In the short term (0–5 years), an enabling environment can be set up to support the transition to ecotourism[3] and disseminate regenerative approaches:

- Create a committee or other structure with local actors (e.g., environmental associations, ecomuseums, fisherfolk) to inform city decision-makers about local biodiversity and promote regenerative approaches. Consult the models of the Zoöp and Multispecies Assembly (Bauhaus of the Sea Sails 2024; Zoöp n.d.).
- Set up financial incentives (e.g., tax cuts) or an incubator for SMEs in ecotourism, especially for women-led SMEs.
- Provide training and financial support for "traditional" tourism businesses to transition to ecotourism.
- Create and disseminate a blue-green label for ecotourism around water bodies to sensitize consumers.
- Support the protection and restoration of endangered reedbeds and wetlands with additional resources and actions.
- Promote the use of "light" watercraft (e.g., canoes) on the lake.

3. Stimulating ecotourism poses the risk of advantaging external investors over local actors. City decision-makers should ensure that residents benefit from ecotourism and that taxation to finance this new model is progressive, avoiding a burden on disadvantaged residents.

In the medium term (5–10 years), spatial changes and new experiences can be developed to further transform Annecy's tourism sector, from leisure/recreation to an immersive, educational dive into Annecy's cultural and natural heritage, peace and beauty:

- Develop immersive experiences for locals and tourists in partnership with local schools, ecomuseums, restaurants and ecologists that promote respect for the environment and reconnection with nonhumans around the lake – these might include ecolodges (e.g., stilt houses), educational dives and hikes, nature observatories, ecofood menus/restaurants with local products (e.g., fish), regenerative suppliers (e.g., permaculture) and plant-based options.
- Restore historical waterworks to promote the water heritage of Annecy and sensitize visitors to past, present and future water-related challenges, for instance reviving the memory of the successful de-pollution of the lake.
- Gradually implement stricter regulations to limit recreational boats on the lake and reinforce monitoring and enforcement.

In the longer term (10+ years), more extensive transformation of infrastructure and mobility can be imagined to support the shift to a more regenerative local economy:

- Gradually replace the roads close to the lake with a green belt (for pedestrians, bikes and nonhumans) to protect the lake from car pollution.
- Densify the public transport network, especially the railway; increase accessibility measures for users from marginalized groups (disabled, elderly, low-income).
- Disseminate the blue-green ecotourism label throughout the Savoy region, and hopefully, beyond regional and national boundaries.
- Reduce the number of marinas or create a system of alternating use so that all marinas cannot be used year round. Gradually increase mixed spaces around the lake where informed visitors and nonhumans cohabit and respect one another.

Action 2: Positioning Annecy as a regional and international hub for innovation and knowledge exchange on climate mitigation and adaptation, with a focus on mountain lake ecosystems.

This can draw on the already dynamic economic sector (tech, innovation, industry) and knowledge centers (e.g., universities) and the cross-border identity of Annecy. In the short term (0-5 years), key partnerships can be set up:

- Build partnerships between local/regional innovation, business and knowledge actors to: (1) promote blue-green innovations for mountain lake ecosystems, e.g., development of water-efficient systems for water mobility (joint objective with action 1), hydraulic energy, industry and agriculture in the region; (2) based on climate change scenarios, develop adaptive systems to ensure long-term availability of water for drinking, agriculture, industry, etc. Social scientists should be included to ensure socioeconomic and cultural implications of innovations are considered.

In the medium term (5-10 years), Annecy can be promoted as a business destination for innovators and investors in blue-green innovation, with an emphasis on travel by train:

- Densify the train network (joint objective with action 1) in France and incentivize

cross-border train travel (e.g., fast speed trains, night trains) from Switzerland, Italy, Germany and Austria, which face similar challenges around mountain lake ecosystems.
- Invest in communications to attract national and international businesses, investors and researchers in blue-green innovations for mountain lake ecosystems.
- Use tourism services (ecolodges, eco-food restaurants, etc.) to accommodate business travel, ensuring more stable revenues for ecotourism actors year round (joint objective with action 1).

In the longer term (10+ years), Annecy could become a true international hub for knowledge and innovation on mountain lake ecosystems and contribute more actively to global climate justice:

- Build long-term partnerships with companies and universities from countries hard-hit by climate change (e.g., melting glaciers in the Himalayas, South Asia) to share knowledge around mountain lake ecosystems. Prioritize long, qualitative trust-building and knowledge-sharing visits between partners over short regular trips, to limit carbon emissions from flying.
- Seek European Commission funding to guarantee the durability of international knowledge-sharing and innovation programs.

The two actions aim to create mutually reinforcing systems (economy, infrastructure, mobility, education) in support of shared values of regeneration, heritage and innovation for the long-term benefit of human and nonhuman inhabitants in Annecy. The infographic (fig. 6)

^ Fig. 6 Assignment 5, Water Systems Design course. (Source: Maëlle Salzinger, 2024).

summarizes the impacts that could be derived from the two actions and their joint effects in the short, medium and long term.

Conclusion

This article has explored how methodologies that consider heritage and local values can be applied to a complex water system – specifically, the lake and city of Annecy – to help shape inspiring and locally grounded pathways that support sustainability transitions. These methodologies can help reframe the dominant narrative about climate action, from a costly burden to an opportunity for communities to revive cultural heritage, advance shared values and reap benefits across sectors and stakeholder groups.

Rather than proposing singular solutions for Annecy, the article has guided readers through the process of analyzing the history, evolving values, spatial relationships and multi-scalar dimensions of the lake and city, as undertaken in the Water System Design course. From this complexity, local heritage and values served as a compass for identifying a sustainable pathway for Annecy's future. In this pathway, technical or technological innovations (e.g., light water vehicles) are not viewed as a panacea. Instead, they are part of a broader effort to rethink Annecy's economic model, promoting more responsible resource use and regenerative approaches that support biodiversity.

The proposed pathway for Annecy also recognizes that sustainability transitions are inherently political endeavors, requiring grassroots and governance actors, including municipalities, to play an active role and negotiate competing priorities. As such, the methodologies discussed here should be implemented as part of a participatory process involving local stakeholders like residents, grassroots organizations, business owners in the tourism sector and city decision-makers. Such a process might be facilitated by local universities or policymakers in Annecy, with careful attention to power dynamics among participants (e.g, differences in mandates, resources, abilities to exert influence, confidence and ability to cooperate with others) (Delgado-Baena and Sianes 2024; Hiemstra, Brouwer and Van Vugt 2012; Huttunen et al. 2022). Facilitators may consider tools like co-managed workshop agendas to help less powerful actors promote the values that matter to them (Delgado-Baena and Sianes 2024). In sum, sustainability transitions can become more compelling to citizens when grounded in local cultures, responsive to socioeconomic realities and shaped through inclusive engagement.

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