

10th International Session of IFGR From September 27th to October 1st – Switzerland

Agenda

Thematic

River, lake and city: the conditions for a successful alliance Fleuve

L hybrid format with Zoom video-conference

Monday 27 th September – <i>Château de la Porte du Scex – Vouvry</i>	
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- 11.30 am: Official opening of the session
 In presence of Véronique Diab-Vuadens, Mayor of Vouvry; Béatrice Métraux, State Councillor of the Canton of Vaud; Franz Ruppen, State Councillor of the Canton of Valais
- 2.15-3:45 pm: Introductory presentations: The Rhône, between nature and society: understanding the functions and uses of the river and the lake
 - **Emmanuel Reynard**, Director of the Interdisciplinary Mountain Research Center at the University of Lausanne, Professor of Physical Geography at the University of Lausanne and President of the Association *Mémoires du Rhône*

The Rhône upstream of Lake Geneva: characteristics, perceptions and resources of an Alpine river

The presentation will first present the main physical characteristics of the Alpine Rhône, before focusing on various aspects of the tumultuous relations that societies have had with the river over the course of time, in particular the different uses of the river, the evolution of perceptions of the Rhône throughout history, the temporality of development work and the question of the separation of land and water.

- Lionel Gauthier, Curator of the Leman Museum

Adapting to the lake and then adapting the lake: from wild Lake Geneva to domesticated Lake Geneva

During the 19th century, the inhabitants of Lake Geneva began to adapt the lake to their needs. They fixed its level and redesigned its shores, upsetting a thousand-year-old balance. Two centuries later, Lake Geneva remains a domesticated lake, for better and increasingly for worse.



- 4.00-4.45 pm: A view from elsewhere: the Great Lakes and St. Lawrence River
 - Phil Enquist, Architect-urban planner, Skidmore, Owings & Merrill-SOM (USA) The Great Lakes Century Vision

A collaboration with the International Secretariat of Water, The Great Lakes and St. Lawrence River Mayor's Initiative, the Chicago Architecture Center. Dozens of important efforts to protect and restore the Great Lakes and the St. Lawrence River water basins exist, but there has yet to be a holistic and comprehensive vision for the full watershed and its diverse urban and natural systems. Inspired by the centennial of Daniel Burnham's Plan of Chicago, Phil Enquist and the firm of Skidmore, Owings & Merrill, began a 100 year "call to action" that outlines measures to see and protect this unique watershed and promote sustainable strategies through the 21st century.

 5.45-6.45 pm: Field visit with Marianne Gfeller, Head of section Rhône 3, Environment Department, Canton of Vaud Visit of the Delta sector (3rd Rhône correction)

Tuesday 28th September – *Château de la Porte du Scex – Vouvry*

- 9 am 12 pm: Working session I: Managing flood risk: securing & reconnecting with the river (safety / economy / ecological renewal)
 - Tony Arborino, Head of the Rhone Flood Protection Service, Canton of Valais The 3rd Rhône correction

The 3rd Rhône correction is an emblematic project in Switzerland for the development of waterways by its scale (160 km), its temporality (more than 30 years of work) and its desire to improve not only safety but also environmental and socio-economic aspects, particularly by giving more space to the river.

- Sébastien Beuchat, Director, Department of Natural Resources and Heritage, Canton of Vaud

Management of water and natural spaces in the *Chablais vaudois*, example of some projects carried out by the Canton

The management of water in the Chablais vaudois is relatively complex between Lake Geneva, the Rhône, numerous tributaries with torrential regimes and wetlands of international importance, all in a relatively constructed plain. The presentation aims to provide a broader view of the actions undertaken by the Vaudois authorities and the evolution of management actions.

Bertrand Vignal, Co-director of the BASE Agency
 Construction of a landscape narrative around the project of the 3rd correction of the Rhône

Two contrasting scales of geo-narratives, developing processes of fabrication of river public spaces, carrying the notions of acclimatizations, living environments, contemplation and spontaneous appropriations. One territorial, installing the climatic framework of the major landscape project of the 3rd correction of the Rhone in Switzerland, the other more local and urban, anchoring Rhodanian public spaces in a more endemic response.





• 02.00-4.30 pm: Workshop on data: For shared scientific knowledge: production, dissemination of data, action research and citizen participation (animated in collaboration with Christian Bréthaut et Aline Telle, University of Geneva)

SOnly the introductory presentations (2.00-3.30 pm) and the restitution (5.00-5.30 pm) will be available in videoconference

Keynote speakers:

- Dominique Bourg, Philosopher, professor at the University of Lausanne, Institute of Geography and Sustainability (ecology and participatory democracy)
 Ecological democracy: how to associate citizens, scientists and decision-makers
- Géraldine Pflieger, Mayor of Saint-Gingolph, Professor of Urban Policy and Environment at the University of Geneva, Director of the Institute of Environmental Sciences

Knowledge in the field of water, towards a polycentric governance

- Anoulak Kittikhoun, Chief Strategy and Partnership Officer of the Mekong River Commission (MRC) Secretariat The transboundary cooperation on data sharing in the Mekong River Basin
- 4.30-5:30 pm: Restitution and synthesis of the workshop

Wednesday 29th September – Veytaux-Montreux/Geneva

- 9.00 am-12.30pm: Working session II: Preserving aquatic environments while guaranteeing human activities: means and common ambition
 - Audrey Klein, Secretary General and Frédéric Soulignac, scientific collaborator, the CIPEL

Heading toward Lake Geneva 2030

Thanks to a process of cooperation that has been underway for almost sixty years, the International Commission for the Protection of the Waters of Lake Geneva (CIPEL) has been able to carry out exemplary action in the field of water quality management of large transboundary lakes. Today we are in charge of an exceptional heritage: a lake whose state of health has improved but which remains fragile, subject to the effects of climate change and the increasing pressure of human activities. In addition to the numerous actions to fight against the pollution of the waters of Lake Geneva, the challenge of the next action plan 2021-2030 will be to succeed in articulating all levels of involvement on the territory of the CIPEL. Indeed, whether you are a local authority, an association, a Swiss or French institutional partner, we are all aware of the need to act together, so that Lake Geneva lives!



- Grégory Giuliani and Anthony Lehmann, University of Geneva Benefits of cartographic and modelling tools for environmental monitoring and decision support

Integrated water management requires monitoring of key climate and water variables, as well as watershed characteristics and human activities. These data allow for the development of useful indicators from the past to the present in order to make decisions for the future. Since the availability of free archives of NASA and ESA Earth observation satellites, it is increasingly possible to make this wealth of information available, which traces the history of our territories for over 35 years. The Swiss Data Cube exploits this new source of data in an efficient way to meet the needs of public policies. In order to project into the future, it is also necessary to be able to model the hydrology of watersheds at different scales. Examples from our work on the Black Sea (Danube) and Lake Geneva (Rhone) basins will be presented in relation to the objectives of the International Water Protection Commissions in charge of these basins. All the works presented lead us to an information system allowing a management of the waters of the great rivers in a perspective of Climate-Agriculture-Water-Energy-Ecosystem Nexus.

• **3.30-05:00 pm**: Open forum between the IFGR Delegation and the International Geneva in collaboration with the Geneva Environment Network and the Geneva Cities Hub

Thursday 30th September –Nautical Society of Geneva

- 8.45 am-12.30 pm: Working session III: Water in cities: new resilience and governance issues
 - Introduction by Gilles Mulhauser, Executive Director, Geneva Water Office Challenges of integrated water management in the French-Vaud-Geneva agglomeration
 - Bernd Gunderman, Architect, executive director of Urbia Group-Think Beyond Changing Climate - Changing Cities Usually, cities are changing slowly over generations. However, humanity's delayed response to climate change now requires rapid research and implementation of adaptive measures. Cities must become porous. Excess water from both extreme rainfalls and floods should permeate the built up naturally. The Sponge City concept, primarily has been applied to new urban developments in emerging regions (China), therefore the concept should be adopted to existing European cities as well. This is much more than an engineering task, because it should both beautify the cities and improve the urban lifestyle as well. Finally, these measures help to re-connect cities with nature's cycles.



 Frédéric Bachmann, Head of the Territory and Strategy Unit, Geneva Water Office When water comes to the city

After years of implementing "sanitation" (wastewater and stormwater management) with a know-how of piping, managing water in the city opens up issues of transversality and cooperation that imply not only "technical" changes in planning, but above all an awareness of another way of thinking and doing. Putting a river back into the open while transforming an industrial district, slowing down runoff during an intense rain event, advising communities and private individuals on water management choices at the parcel level, responding to the demand for access to the freshness of aquatic environments: these are all facets that are in full effervescence in the practice in Geneva.

- Michel Meyer, Head of Geothermal energy Department, Services Industriels de Genève

GEothermies Program, or how to reinvent hot water

Geothermal energy has a key role to play in the fight against the climate emergency declared by the Canton of Geneva in 2019. In order to exploit this clean, local and renewable energy source, the State of Geneva and the Services Industriels de Genève (SIG) have launched the GEothermies program (www.geothermies.ch). The aim of this program, subsidized by the Swiss Federal Office of Energy, is to map the subsoil of the Geneva basin in order to specify the geothermal potential and to set up a framework favorable to its development. The investigations carried out and still in progress have already made it possible to highlight diversified groundwater resources, which present challenges not only in terms of energy but also in terms of drinking water, and which are therefore of a strategic nature that the public authorities want to develop in a sustainable and coordinated manner.

- Gilles Garazi, Director of Energy Transition, Services Industriels de Genève Hydrothermal energy: lakes to the rescue of the climate?

The use of the thermal capacity of surface waters is set to play a significant role in the Energy Transition. It makes it possible to dispense with energy-intensive electric air-conditioning and provides a cold source to power heat pumps in winter in urban centres where geothermal drilling is often impossible. The limits and constraints of such systems will be discussed, as well as their impact on surface water temperature and aquatic ecosystems.

Friday 1st October – Geneva

 10.30 am: Official restitution
 In presence of Antonio HODGERS, State Councillor of the Republic and Canton of Geneva

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