



The River Keeps the Score

Research Plan

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religion (noun)
re·li·gion | \ ri-'li-jən \

from *religare* (Latin): to bind, to put
together what has previously been
separated

*1: a personal set or institutionalized system
of religious attitudes, beliefs, and practices*

Introduction

For millennia, humans have lived, constructed, and cultivated along the banks of rivers – natural, ecological, flowing streams of freshwater, part of continuous, natural Earth processes. Throughout the centuries, these natural landscapes have been shaped by such human processes, heavily altering the environment, in space and performance. The contemporary urban landscape of such riverside cities consists of endless encounters between these human and natural processes. Many means of human control have been established through building architecture, such as riverbanks, flood prevention systems, and bridges. Not without consequence, as rivers are increasingly under extreme environmental stress, being inaccessible to humans and dealing issues such as with pollution and contamination, ultimately leading to the need for repair of these effects.

The river is the *genius loci* of such riverside cities, carrying the spirit of the place and its people, as a body of water, always flowing. Signs of the times, from wars to urban development are visible along the entirety of the riverbank as evidence of human-nature encounters between the water and its people. Showcasing the triumphs and traumas of the city, for example through memorials, buildings, and bridges.

In *The Body Keeps the Score*, Van der Kolk (2014), a scientific researcher and therapist, describes how traumatized people manifest their experiences not only mentally but also in their bodies. His research has led to new methods for trauma recovery that are more focused on bodily function and autonomy. When we consider the river as a body of water, in a similar manner, it is able to carry the same experiences and life of the city and its people. Through architectural objects like those mentioned previously, these human-nature encounters are made tangible, as the river ‘keeps the score’ of what has happened in the past. Likewise, the river’s score – as in arrangement - has dictated the composition of the city.

Rivers have been the source of life upon which civilization was built, but are also spiritually deeply meaningful for several religions and philosophies, particularly those in which nature is revered. For instance, in classical Greek and Roman mythology, the river Styx is the border between the Earth and the Underworld (Hades), which must be crossed in order to enter Hades. In Hinduism, the river Ganges, which runs through India and Bangladesh, takes the form of the goddess Ganga as the mother of humanity. Water itself becomes a body; but also, water and the human body share an important relationship, for example in ritual purification. These beliefs, of sacred rivers, water, flows, and connection to the spirit and body of the water, are central to the question of human-nature encounters. The elemental nature of

water is represented through various materials, for example in churches and mosques, or in gardens, statues, altars, and fountains.

Religion is understood not only as the institutionalized systems of beliefs such as Christianity, Islam, etc. that operate in the world today, but also with the origin of the word. Derived from the Latin word of *religare*, it means ‘to bind’ or ‘to put together what has previously been separated’. In doing so, it allows for a different perspective of the aforementioned. Human processes have severely impacted the natural landscapes of the Earth, resulting in drastic environmental issues. An ecological approach, with respect to

nature, is therefore in a sense religious, as it aims for reconnection of what has been fragmented, the relationship between humans and nature. It is the very nature of human-nature encounters that is called into question. Relating the river to this twofold meaning of religion therefore reveals two ways of looking: the established systems of faith in which nature and the element of water are divine, as a source of inspiration; and the river as a natural body of water existing alongside human processes in which its flow and spirit is disrupted. In this project, this particular approach to the state of the environment, in the case of the river – reconnecting what has been damaged – is explored.



Problem statement

The river Danube, or *Duna* in Hungarian, is the second longest river in Europe. It flows through 10 countries, including Hungary, and has played a central role in the forming and political position of cities in central and southeastern Europe. As a waterway, it remains an important route for industry and trade. In the case of Budapest, the Danube directly connects and separates the two parts of Buda and Pest, originally disconnected but unified to form the metropolis that Budapest is today.

Budapest's Danube is under increasing social and environmental stress. Considering Budapest's lengthy history, throughout times of war and industry, its riverbanks have been contaminated, physically and spiritually. By establishing various memorials along the riverbanks, the river has 'kept score' of traumatic events of the past, such as the memorial of the Hableány disaster of 2019, a collision between two river cruises, and the Shoes on the Danube Bank, a WWII memorial. These events are the materialized form of history, kept by the river. The riverbank of the Danube consists of mostly hardened quays, with a great height difference between water and the shore, as a means of flood protection but also resulting in limited access to the water for people. On the shores lay ships that

function as buildings. The riverbank is mainly lined with car roads. Facades looking at the river and bridges landing upon the river make up the urban landscape of Budapest's Danube. On the east of the Danube lies Pest, which contrary to the hills of western Buda, is completely flat which leaves little resistance to flooding.

The project focuses on the urban river that flows through Budapest, through a 'religious' approach as defined in multiple ways in the previous section. The project imagines the river Danube as a body of water, playing a central role in much of the city's history. While the entirety of the river is relevant, the focus is set on the area between two bridges, the Árpád Bridge and Margaret Bridge. This area covers a part of the Danube where the river splits in two parallel streams, enclosing Margaret Island. It meets two bridges, connecting the hills of Buda on the east to the lands of Pest on the west. Its diverse urban landscape offers a suitable site to address the research questions that follow.

Conceptual framework

To restore the fragmented relationship between humans and nature, this leads to the main research question: *How can a religious architecture be made for the urban landscape of the river?*

In order to answer this, sub questions are:

What does ecology mean for architecture?

What role do rivers/water play in established religions and how is this expressed through the architecture?

What does it mean to imagine water as a body, or a body as water?

How is architecture spiritual?

How is iconography used in architecture and religion?

These questions will be investigated through a thorough literature review, with state-of-the-art developments, as well as historical sources. For instance, on ecology, Peg Rawes' (2013) edit of *Relational Architectural Ecologies* gives a multifaceted account of the current discourse of ecological architecture from various fields of material, spatial, and socio-political concerns. It considers ecology beyond the popular practice of 'sustainable' and 'green building' architecture and emphasizes on a more relational, interdisciplinary perspective, because it is the very relations that constitute the current state of the environment. In the anthology *Architectural Theories*

of the Environment: Posthuman Territory, Harrison (2013) highlights the need for a posthuman comprehension of the actors, the human and the non-human, that operate in the design environment, as "the posthuman challenges the long-standing conception of the building as an object autonomous from its environment and governed by disciplinary interiority" (p. 3). The anthology collects notions on bodies, nature, and territories, offering a critical account of the dynamic between architecture and the environment in the current time.

Subsequently, to consider the contemporary discourse of ecology it is equally important to acknowledge the accounts that came prior. For example, in *The Three Ecologies* by Guattari (1989) he stresses a broader definition of ecology that takes social relations and human subjectivity as essential for the ecological crisis, arguing for a new ecosophical approach. Looking even more back in time, more classical environmental theories are described in *A Companion to Environmental Philosophy* (Jamieson, 2007), describing traditions from classical China, India, Greece; Buddhism, Christianity, Judaism, Islam, etc. Drawing on classical traditions of thought about nature introduces the spiritual meaning of nature, particularly the water and the river. By reading about a wide variety of cultures and traditions, the aim is to gain a deeper and broader understanding of the root of ecological thought, as well various meanings of the river, that will inform and inspire

the project. *Aquatecture: Architecture and Water* (Wylson, 1986) describes the architectural forms of water related to culture as well as different urban trends throughout time. Comparing these respective ideas will allow me to substantiate my own position.

Lastly, bringing together the ecology of the river and the spirit of the water, several accounts by Neimanis are relevant. For example, in *Hydrofeminism: Or, On Becoming a Body of Water* (2012) she describes the strong metaphysical relationship between water and the human body. She compares them to each other as both bodies made up of water. In this manner, it becomes possible to imagine the river as a body. Considering *The Body Keeps the Score* (Van der Kolk, 2014), the river as a body therefore also carries the experience of the urban landscape it lies within. “Water is also a planetary archive of meaning and matter” (p. 98) describes exactly the way this thesis contemplates the river in its very nature.

Respectively, this project considers all these topics as relational, each informing the other. Drawing from traditional and current discourses on nature and the river, along with its spiritual meaning in religion and culture, offers an interdisciplinary lens

through which to view architectural ecologies within the built environment. In answering the research question, transitioning between the different areas of study to paint the full picture will lead to a synthesized and consistent project.

Research questions & methods

The previously formulated research questions are investigated through the case of the river Danube in Budapest. To carefully conduct an analysis within this context, new questions are asked, with appropriate research methods attached.

Reflecting upon the epistemes, there are several that are closest to the topic which will be the main instruments to answer the questions. The combination of different methods is necessary to build a multifaceted understanding for the project.

Ecology considers how humans relate to our built and natural environment, and how and where these encounter each other. To conduct an ecological analysis of Budapest, I will examine the 'natural' and 'human' processes of the Danube. Doing so will reveal the encounters between these processes.

What is the history of the river Danube?

- What is the geographical history?

Method: mapping a geographical timeline of the Danube throughout the millennia, focused on the around within and around Budapest

- What is the etymological origin?

Method: looking into writing and literature, and linking this to religious or cultural meanings

- What historical events have happened there?

Method: cataloguing the events in which the Danube played a significant role, describing them and mapping the locations and spatial impacts

- What does the Danube mean for the country of Hungary and more specifically, the city of Budapest?

Method: semiotic analysis of the river Danube in iconography, existing architecture, and literature, looking at symbols, through describing and ascribing meaning

Through *praxeology*, the relationship between humans and nature in the context of the riverbanks will be analyzed, to see what people do in this environment, where and when these encounter each other. I will use *semiology* to understand the river and its meanings, from the facades that line it to the materialization in the memorials. This will reveal what kind of explicit and implicit meanings and memories are displayed through the iconography, symbolism and architecture along the river.

What is the role of the river today?

- How do people use the riverbanks?

Method: behavioral analysis of what activities happen along the riverbank, when, and where, through drawing and photographic materials; conducting interviews with local people; inspired by methods of *Image of the City* (Lynch, 1964) in which he describes how people subconsciously make mental maps of

the cities they experience.

- What kind of iconography and symbols are found along the river?

Method: semiotic analysis of the existing architecture, memorials, bridges, and statues, alongside the riverbanks, through mapping the iconography/symbols and architecture and its meanings; based on methods from Learning from Las Vegas (Venturi et al., 1972), in which the architecture of Las Vegas is analyzed based on symbols and signs.

- What is the ecological status of the river?

Method: mapping the green/gray spaces along the river, biodiversity, and green/water quality; conducting interviews with local experts on the topic.

By analyzing the past and the present of the river Danube, questions about the future can be explored. All these research methods are paired with ethnographic fieldwork done on-site. The combination of all analyses will be in synthesis to answer the research questions, along with the conceptual and disciplinary analysis.

Precedent studies

As part of the disciplinary analysis, two precedents from Budapest have been selected to support the research. These precedents have been studied in person and are further developed from desk research. The precedents are found along the Danube: the Margaret Bridge and the Gellért Bath.

The *Margaret Bridge* is one of the many bridges connecting Buda and Pest, located at the edge of Újlipótváros. The case study will look carefully at the role this bridge plays in connecting the two sides of the city with each other and providing access to Margaret Island. The bridge is closely analyzed in its purpose, organization (transport planning and hierarchy between pedestrians, cars, trams, and cyclists), and elements and details (ornaments, symbols, and iconography). With regards to the latter, the bridge will be particularly evaluated as an icon in itself and the role and meaning it portrays in Budapest; as well as the iconographic materials found in its symbols and ornaments. The Margaret Bridge is the bridge that connects the two sides of Budapest and constitutes the tangible connection between land and water. As part of the series of bridges in Budapest, as many as eight, it exemplifies how the city of Budapest takes control of the river Danube and therefore controls its waters. This notion of infrastructural

power is further explored according to Easterling's (2016) *Extrastatecraft*.

The case study analysis will:

- Map the iconography of the ornaments to consider what the bridge communicates and how it lands on the water, through describing meaning (semiology)
- Map the textures and materials and their thresholds, to understand the materialization of its working (material culture)
- Draw the organization of space (road, bike lane, tram lines, pedestrian) to reflect on the hierarchy that exists within the crossing of this bridge (praxeology)
- Analyze how one enters and leaves the bridge and how the bridge is connected within the urban fabric of the city (morphology).



The second precedent is the *Gellért Bath*, located at the foot of the Gellért Hill on the Buda side of the Danube. Built in 1918 in the Art Nouveau Style, it was one of the first Hungarian bathhouses that was, contrary to its predecessors, not Ottoman; it is an example of how the Hungarians have made bathing their own tradition.

The Gellért is analyzed based on its ornaments and symbols, similarly to the Margaret Bridge, to consider its meaning and iconography. Its strategic location, at the bottom of the hill and along the water, is considered in terms of the relation to the Danube. Specifically a bathhouse has been chosen to learn about the relationship between body and water; in a way, it functions religiously in that it is ritualistic and connects body to a deep, spiritual bodily experience of water. The role of water in Hungarian culture is thereby analyzed.

The case study analysis will:

- Draw and catalogue the ornaments and symbols found in the building, to understand the iconographic meaning
- Use photographs and drawings to conduct a behavioral study of how people use the bathing facilities and what rituals take place

- Draw an axonometric of the building, in the way of communicating to the river, the Gellért Hill and Pest

Ultimately, through considering both precedents in light of iconographic meaning, they become comparable. As icons for the city, in the city, and with many icons and symbols found in the architecture itself, layers of meaning are unraveled to gain a deeper understanding of their role in Budapest and relation to the river Danube.



research diagram

building bridges between
context, concept, and discipline,
across & along the river



Conclusion

To conclude, the research plan has been tremendously useful in putting thoughts into words, making ideas more concrete, and devising a workable plan for the thesis project. The combination of the contextual, conceptual, and disciplinary analyses allowed me to approach the topic of the river from different perspectives. The contextual analysis on the site in Budapest revealed the tangible and spatial components that make up the urban landscape; the conceptual analysis comprised the research methods and theoretical framework for the topic; and the disciplinary analysis allowed a closer look to two relevant, representative projects. These analyses have come together into a consistent and clear account on a subject that lies very close to me. Developing the project further into a design proposal, while simultaneously continuing the research, will allow me to keep developing my position as an architect.

Moving towards a project proposal, the conclusions from the research at this stage make clear the scope and depth. Seeing the river in this light – as a body, as a deity, as a nature that needs to be reconnected to – the goal of the project is to create a system of places of spirit that captures this. Similar to architecture in the form of traditional gardens, churches, mosques, or

synagogues, as places of contemplation and worship, the project will be part of a system of belief, a kind of religion of nature, *religare*, where we can rekindle a spiritual connection. In this case, with the river Danube in Budapest. Inspiration can be drawn from classical religious spaces, but also contemporary notions of spiritual space. Situating this along the riverbank of the Danube, the project will allow humans to reevaluate their relationship to nature through architecture. The river keeps the score, but it also *makes* it, and dictates the composition of the city.

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