

**Zeitschrift:** Pamphlet  
**Herausgeber:** Professur für Landschaftsarchitektur, Christophe Girot, ETH Zürich  
**Band:** - (2018)  
**Heft:** 22: Rift : 7.5 views on the Jordan Valley

**Artikel:** A landscape of intersections  
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**DOI:** <https://doi.org/10.5169/seals-984634>

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VIEW #5  
A LANDSCAPE OF INTERSECTIONS

Gidon Bromberg, Mira Edelstein,  
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The Jordan River is a meandering river, a total of 360 kilometers (223 miles) in length, which starts from tributaries in the border region of Israel, Lebanon, and Syria and flows down to the Sea of Galilee before emptying into the Dead Sea. The river has the lowest elevation of any river in the world, and the Dead Sea is the lowest land point.<sup>1</sup> The Jordan River, part of the Great Rift Valley, is an area with rich biodiversity and a place of geological and cultural importance. The lower part of the river, from the Sea of Galilee to the Dead Sea, is shared between the Palestinian territories and Israel along its west bank, and Jordan on its east bank. It provides a considerable amount of water for domestic and agricultural purposes to its basin populations. However, political tensions and ongoing conflict have resulted in the river's demise, including unequal access to freshwater, pollution, and restricted movement, all of which prevent riparian populations from reaping the river valley's full benefits.

Water has been both the mainspring of civilizations and a cause for struggle throughout history. It is a vital resource and particularly dear to those in areas with scarce water resources, as is the case for much of the Middle East. As such, the Lebanese, Syrians, Jordanians, Palestinians, and Israelis have all been trying to get a share of the Jordan River's water. The gains by some have often been at the expense of others. Israel is estimated to divert about half of the Jordan River's water flow, while Syria and Jordan divert the other half. Meanwhile, Palestinians are left with no access to the waters of the Jordan River. It has been a race by each party to claim as much of the limited natural water resource as possible.<sup>2</sup>

To better understand the extent to which the river has been mismanaged and diminished, it is helpful to look back at its historical magnitude. US Navy Lieutenant William Francis Lynch kept comprehensive records of his sailing expedition down the Jordan River

1 "Jordan River," Encyclopaedia Britannica Online, accessed April 11, 2018, Britannica.com.

2 "River Out of Eden: Water, Ecology, and the Jordan River in the Christian Tradition," EcoPeace,

June 2014. Print and online: [http://ecopeace-me.org/uploads/14036833860~%5E\\$%5E~Sourcebook\\_Christianity\\_FINAL.pdf](http://ecopeace-me.org/uploads/14036833860~%5E$%5E~Sourcebook_Christianity_FINAL.pdf).

in 1849. Three boats set out on the voyage. One was nearly lost and later destroyed while sailing down the rapids which ran over the “ruins of the bridge of Semakh,”<sup>3</sup> a town along the southern-most shore of Lake Tiberias, near to where the lake connects to the Jordan River. The lieutenant described the landscape, including details such as the breadth and depth of the river, the speed of the currents, the height of the river’s banks, its flora and fauna, and the direction that the river flowed—given that in one instance the ships’ course shifted from northwest to south within a ten-minute period at the current’s steady rate of two and a half knots. He remarked on the scarlet anemones and yellow marigolds that “clothed” the river’s northern banks, later noting trees along its edge: tamarisk and “ghurrah-trees” which yield seasonal, edible red berries. He also observed various animals, notably birds such as small-bodied brown, black, and white birds, wild pigeons, and a “fish-hawk.”

The Jordan River was a strategic point on many levels. It provided access to multiple transportation and trade networks as well as hydropower to many towns throughout the region. A clear testimony to the importance of the river as an historical crossing point on the Lower Jordan River, the Old Gesher site still features three bridges over the river: a 2,000-year-old Roman bridge, an Ottoman railway bridge (an offshoot of the Hejaz railway), and a more recent British Mandate bridge. Also on site are the remnants of a large Mamluk khan (“inn”) from the fifteenth century, an old customs house, and a notable effort to harness the former power of the river in the form of the hydroelectric power plant completed by Pinhas Rutenberg in 1932. Without wasting water and without taking it far from its source, Rutenberg created a series of canals and dams to bring water from both the Jordan and Yarmuk Rivers into an artificial lake, making it possible to generate a continuous supply of electricity for much of the Jordan Valley. Lieutenant Lynch’s descriptions and Rutenberg’s project illustrate the Jordan River’s past power. Further still, they create an image that contrasts

<sup>3</sup> Lieutenant W. F. Lynch, *Official Report of the United States’ Expedition to Explore the Dead Sea and the River Jordan* (Baltimore: John Murphy & Co., 1852), 48–49.

the typical picture of the Jordan River today: a river diverted for national interests, struggling to sustain previous water levels, and full of pollutants.

Currently, about ninety-five percent of the river's historic water flow of 1.3 billion cubic meters per year is diverted for household and agricultural use. This diversion is a key reason for why the Dead Sea surface level is dropping more than one meter per year, taking a toll on the surrounding environment and local communities. What remains of the water flow is highly polluted by raw and partially treated sewage, saline effluents, and agricultural runoff.<sup>4</sup> In addition to the Jordan River being heavily strained due to freshwater diversion and pollution, tributaries have also been negatively affected. From the east, the major tributaries and wadis ("valleys") have been dammed, while the flow south of the Sea of Galilee had until recently been brought to a complete halt. Populations in Jordan and Palestine still lack sewage infrastructure, while Israeli fish farms emit nutrient pollution. Based on research previously undertaken by EcoPeace, a joint Jordanian-Israeli-Palestinian environmental peace-building organization, a biodiversity loss of up to fifty percent was found around the Lower Jordan River, in large part due to the loss of habitat and high salinity levels in the water.<sup>5</sup>

Not only is the river system geographically unique and important for biodiversity; the river is an important cultural and religious site for the three Abrahamic religions: Judaism, Christianity, and Islam. For Judaism and Christianity, key biblical events have taken place in the Jordan Valley and in the river itself. For Islam, several companions to the Prophet Mohammed were buried along its banks. It then becomes apparent that conserving the health of the river and its surrounding environment also becomes an important aspect of preserving cultural history.

<sup>4</sup> Regional NGO Master Plan for Sustainable Development in the Jordan Valley, EcoPeace, 2015. Print and online, accessed April 17, 2018: [http://ecopeaceme.org/uploads/Regional\\_NGO\\_Master\\_Plan\\_Final.pdf](http://ecopeaceme.org/uploads/Regional_NGO_Master_Plan_Final.pdf).

<sup>5</sup> "Towards a Living Jordan River: An Environmental Flows Report on the Rehabilitation of the Lower Jordan River," EcoPeace, May 2010. Print and online, accessed April 17, 2018: [http://ecopeaceme.org/uploads/publications\\_publ117\\_1.pdf](http://ecopeaceme.org/uploads/publications_publ117_1.pdf).

Continued misuse of natural resources and the persistent lack of regional cooperation in the Jordan River Basin also threaten national and regional security issues. To begin, there is a higher possibility of disease spreading across borders and civil unrest to develop amongst an unsatisfied population unable to secure safe drinking water. Lack of fair sharing and mismanagement of the river water and surrounding natural resources help feed a cycle of underdevelopment and poverty in the Jordan Valley. Furthermore, existing water stress raises concerns about Jordan's ability to accommodate an influx of Syrian refugees that compete for the already limited water with host populations.<sup>6</sup> The 2013 "water swap" agreement between Israel and Jordan, when implemented, will see an additional fifty million cubic meters of water being sold and transferred to Jordan from the Sea of Galilee per year, while Israel will buy a similar amount from Jordan in a new desalination facility to be built in Aqaba. This arrangement will not help the Jordan River's quality or quantity, but will certainly go a long way in furthering regional cooperation—an important step toward better water management practices in Jordan and Israel in the future.

More recently, efforts have been made to correct the river's volume loss and address pollution concerns. Environmental factors were considered and actions suggested in the 1994 peace treaty between Israel and Jordan. The agreement called for both parties to cooperate for the betterment of the Jordan River through ecological rehabilitation of the river, establishment of nature reserves and protected areas, and transboundary tourism initiatives.<sup>7</sup> Despite the passing of twenty-three years since the signing of the peace treaty, much remains to be done.

What can one do when governments are at a stalemate? Non-governmental organizations (NGOs) such as EcoPeace Middle East can make a difference. By working in partnership with local authorities and communities, NGOs can address issues through policy and community outreach, advancing an agenda for the betterment

<sup>6</sup> Regional NGO Master Plan for Sustainable Development in the Jordan Valley, EcoPeace.

<sup>7</sup> "Treaty of Peace Between the State of Israel and the Hashemite Kingdom of Jordan," United

Nations website, accessed April 11, 2018: [https://peacemaker.un.org/sites/peacemaker.un.org/files/IL%20JO\\_941026\\_PeaceTreatyIsraelJordan.pdf](https://peacemaker.un.org/sites/peacemaker.un.org/files/IL%20JO_941026_PeaceTreatyIsraelJordan.pdf).

of regional water and environmental health, and the improvement of everyday conditions for communities in the river valley.

The Master Plan for Sustainable Development in the Jordan Valley was released by EcoPeace in June 2015 after three years of joint Jordanian-Israeli-Palestinian EU-funded research led by the international Royal Haskoning DHV engineering consultancy. Combining national plans for the Jordanian and Palestinian sides of the valley, along with a government-led Israeli master plan currently underway, this master plan became the first ever regional development plan for the valley. The master plan was developed around seven strategic objectives: pollution control, sustainable water management and river rehabilitation, sustainable agriculture, Jordan River Basin governance, ecological rehabilitation, sustainable tourism and cultural heritage development, urban and infrastructure development. The measures in the plan included coordinating regional flow regimes, setting water quality standards, finding solutions to treat all pollution sources, developing restoration and preservation programs, the establishment of ecological corridors and opportunities to expand ecotourism infrastructures in the Jordan Valley, including the preparation of regional heritage routes.<sup>8</sup>

Through the implementation of the master plan, it was shown that all populations in the Jordan Valley could greatly benefit environmentally and economically from a healthy river. The potential boost in GDP was estimated to increase from the current four billion US dollars to seventy-three billion US dollars annually, if the 127 interventions in the plan were to be advanced. The Jordanian government has officially adopted the master plan sections for Jordan; one of the priorities for the kingdom is to invest in the development of needed sanitation infrastructure, also in the Jordan Valley, which would greatly increase the well-being of the valley's populations.

One note of success that reflects change in policies on the Israeli side is that as of May 2013, the Israel Water Authority agreed to allow nine million cubic meters of freshwater to flow regularly

<sup>8</sup> Regional NGO Master Plan for Sustainable Development in the Jordan Valley, EcoPeace.

<sup>9</sup> "Achievements," EcoPeace Middle East website, accessed April 11, 2018, [ecopeace.org](http://ecopeace.org).

from the Sea of Galilee into the Lower Jordan River per year, establishing an important precedent for the rehabilitation of the river. Moreover, new waste water treatment plants have been built in Israel, Jordan, and Palestine, all in close proximity to the river, in an effort to eliminate some of the sewage being discharged into the river from the surrounding communities.<sup>9</sup>

Many of the improvements in the area have been in large part the results of grassroots efforts impacting national policies. Amongst these efforts is the Good Water Neighbors' (GWN) project, which involves bringing together youth from Jordanian, Palestinian, and Israeli communities throughout the Jordan Valley to learn about environmental issues, how they can be addressed, and to form a sense of shared heritage and responsibility amongst communities living in the same basin. The project is carried out in fourteen cross-border communities along the Jordan River, including three Palestinian communities, three Israeli communities and eight Jordanian communities in the Jordan River Valley. Utilizing the mutual dependence on the Jordan River, GWN has fostered dialogue and cooperation amongst local stakeholders and municipal leaders, built trust and understanding between neighboring communities, and encouraged common problem-solving and peace-building efforts in the midst of conflict.<sup>10</sup>

In general, if the water quality of the Jordan River improves, local communities and their economies will also improve and even thrive due to better access to clean water, improved agriculture, the attraction of ecotourism, and the interaction between different communities. Even though conflict and tensions remain, there is at least hope for continued cooperation and improvement at lower governmental levels and especially between communities. As demonstrated above, there has already been some success in gathering the different parties together to make a positive difference for the Jordan Valley's environments and communities.

It is important to continue to invest in the Jordan River and the valley for the well-being of local communities, both physically and economically; for the sake of maintaining treasured historical,

<sup>10</sup> "Achievements," accessed April 11, 2018.

cultural, and religious sites of global value for future generations; and to preserve important flora and fauna—some of which is native and unique to this area of the world—to which we are all linked through the ecological web.

