RHIN(e): 6th Transnational Rhine Conference

Rivers and Innovation in International Comparative Perspective

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Rivers are often seen as being part of a static natural condition. They are, however, neither static nor just a given, natural condition. Societies constantly transform rivers through major innovations, because they use them for diverse purposes, including drinking, refreshing, fishing, as a sewer for their waste, irrigation, as cooling water, and as a source of hydro-electric power. Rivers are a source of natural life and all kinds of vegetation, and many animal species cannot survive without rivers. Furthermore, the river forms the basis of the cheapest mode of transport and, in earlier periods, inland navigation was often the only mode of large-scale transport. As a consequence, in river valleys products could be commercially transported while everywhere else it was simply not economical because of the transport costs. Of course, with railways and later motor vehicles, alternative forms of transport were developed. But for bulk goods, water transport remained cheap, efficient and sustainable. The advantages of living near rivers and river systems were translated into population growth and high levels of urbanization. Rivers were also used for national borders. Therefore, fortifications were often build along them, but at the same time rivers could integrate transnational regions when crossing borders and, thereby, connect different cultures. Consequently, it was and is interesting to live near a river, although living in a river valley can also be dangerous, as superfluous water and ice can easily result in disastrous floods. It is expected that climate change, resulting in periods of low, but also in period of extremely high water, could result in higher and dangerous floods.

Rivers connect, but can also divide local communities, regions and nations, because choices have to be made about how to use them. When, for example, one upstream riparian community decides to use a river as a sewer, it cannot be used anymore for swimming or drinking water by another downstream riparian community, while it will also lose much of its value for fishing. Canalizing the river to improve the flow of water and ice, and thus preventing floods, can easily undermine the transport function as it may result in a too strong a current, or in extremely low water during summer. When canalizing and

normalizing a river it is therefore essential to find a compromise between transport requirements and other functions. Technical innovations and canalization also depend on the kind of shipping which is operating. Traditional shipping, sailing downstream and towing upstream, needed wide rivers as it was easier to sail. The fact that a wide river often was not very deep was less relevant, as the barges were small at the time. From the moment steam power was introduced, and competition with railways became relevant, only large scale inland shipping could survive. Therefore a smaller, but especially in summertime deeper, river was needed. New modern modes of transport also demanded strong and stable bridges. Consequently, a compromise had to be found between the interests of water transport – that needed high-level bridges – and of railways and motorways, which could make do without such expensive constructions.

Living alongside a river constantly demands finding compromises between the diverse functions of the stream and looking for new technological and institutional solutions. In the contemporary world where questions of sustainability and preservation of nature are so important, it is even more complicated to find the compromises between the diverse social, economic and environmental functions of rivers. As they often flow through a number of countries, or at least through a number of administrative authorities, international or regional conflicts can easily arise. However, sometimes transnational committees (e.g. Central Commission for Navigation on the Rhine -CCNR) try to develop river regions in a way advantageous to all. As ideas and technologies are changing continuously, it is not easy to tell what should be the right mix of river functions. Clearly, however, technological and institutional innovations plays and played a key role in bridging the various functions of rivers and conflicting interests of river communities.

The 6th Transnational Rhine Conference – RHIN(e) – focusses on the key role played by technological and institutional innovations in the development of the Rhine, and compares the historical development of this river with another major European river, the Danube, and China's most important river, the Yangtze. The conference will address the following questions: Why did the Rhine region become Europe's industrial centre at the end of the 19th century, why did such industrial centres not develop along the shores of other European continental rivers like the Danube, and what role did pre-industrial institutions play in this respect? Did path dependence play a role? Can we find similarities between the

historical evolution of the Rhine and the Yangtze? What were the institutional differences between the Rhine, Yangtze, Danube and other rivers in the world? What role did technological innovations play in the development of the Rhine, and how can we explain differences with other rivers?

Right from the start, seven years ago, the organizers aimed to build a transnational network of scholars interested in the history of the river Rhine. Initially consisting of scholars from countries along the Rhine and its delta, this transnational network has gradually expanded to comprise scholars from other parts of the world, including Japan, China and the US. It now also endeavours to compare its results with studies of other rivers. The organizing committee has invited an international group of scholars to present their papers and others to discuss these. However, all those interested in participating in the discussion are encouraged to do so. For more information please contact Ben Wubs (wubs@eshcc.eur.nl) or Ralf Banken (Ralf.Banken@t-online.de).

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