

Introduction

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The overall aim of the research group 'Understanding the Role of Water in History and Development' was to consider why the initial phases of the Industrial Revolution (c. 1760s-1820s) took place in Northwest Europe in general and in England in particular. With the Industrial Revolution, the 'West' established an economic lead that has shaped the world ever since. At the outset, however, it was not at all inevitable that the Industrial Revolution should have originated in the northern reaches of Europe rather than in, for instance, China or India (Tvedt 2010a, 2010b).

The analysis of water systems in general and during the Industrial Revolution in particular can be understood to consist of three interconnected layers. The first layer can be understood to address the physical form and behaviour of actual waterscapes. This can include precipitation, evaporation, how rivers run within the landscape and how much water they contain at a given time of the year, the relationship between rivers and the sea, and the development patterns to which these physical structures may give rise. Historically, variations in physical space have been of the utmost importance where development is concerned. The second analytical layer addresses human modifications and adaptations to the actual water-worlds. The ways in which people in different societies have utilised water in the creation of social opportunity, and how modifications have limited the physical constraints of scarce water resources, have at all times structured societies and their future development. The third and final analytical layer addresses cultural concepts and ideas of water and water systems. Management practices, control of water and ways in which humans engage with their water-worlds are intrinsic aspects of culture and cosmology. As a result, perceptions of

water influence the technological use and development of water systems (Tvedt 2010a, 2010b). The first two layers relating to complex and multifunctional water systems are not the main topic of this book; here, it is mainly the third level that will be addressed: perceptions of water in Britain from early modern times to the present, spanning the era in which the Industrial Revolution took place.

All societies and social systems have a hydraulic dimension, and water has been and still is an integral part of social interactions and perceptions of worldviews and religions, but few works have been published on the ideas and perceptions of water. Cultural and religious ideas about water structure society, technological developments and understandings of nature. The world people live in, adapt to and exploit, on the one hand, and, on the other hand, the physical restrictions and ecological limitations they face can be understood as different water landscapes. Scenarios in which there is too little or too much water, when the seasonal rains arrive (or fail to), and different climatic zones such as deserts, savannas and arctic areas, all present different waterscapes where the water itself is in constant flux (Tvedt & Oestigaard 2010).

Society is structured, therefore, by varying perceptions of different waterscapes, and a range of cultural understandings relating to the potential use, adaption and change of various water-worlds, given the technological know-how available in different time periods. Because of this, history's development narrative should by rights pivot around water. Water played a fundamental role in the initial phase of the Industrial Revolution in England and Western Europe during the late eighteenth and early nineteenth centuries. Thus, one may put forward a new and opposite theory of social development: 'the more humans seek to control water and socialise it, the more power water and variations in the water landscape will exercise over societies' (Tvedt & Oestigaard 2010:10).

Water is always located in time- and space-specific contexts and although from a hydrological point of view the very same water is used for steam production, bathing and baptism, ideas of

water are context-dependent. Water's cultural manifestation and incorporation within society and religion are outcomes of what were seen to be its specific characteristics at given times and places. This makes it important to analyse why certain water categories have been assigned particular characteristics and qualities at different times in history (Tvedt & Oestigaard 2010).

The specific water-world within any given historical context transcends dichotomies such as culture-nature or society and religion. All over the world, from everyday activities to religious ceremonies, water has been an intrinsic factor that unites and transcends societal and cosmological realms and spheres. Water is a reality, or more correctly, realities; social, natural and religious realities. A water-world is therefore a web of significance spun by people around water, transforming it from a natural phenomena to a vital aspect of culture, society and religion. It reflects diverse aspects of lives lived, where water has been used within elaborate systems of symbolism, reflecting conceptualisations of both people themselves, and the world in which they have lived (Tvedt & Oestigaard 2006).

Consequently, perceptions of water in Britain between early modern times and the present have taken context-dependent forms of particular significance. With the emergence of science and modernity, social transition meant that older ideas about water increasingly came under pressure to adapt and change. At the same time, there was an enduring continuity in perceptions of and practices relating to water. In this time of syncretism, the water-world that formed the backdrop to the Industrial Revolution remained an important bridge spanning traditions.

This anthology is based upon papers presented at the workshop 'Fluid Approaches to History' held at the Centre for Advanced Study at the University of Oslo, January 26-27, 2009, where the aim was to present current research and discussions on the relationship between the scientific and technological developments of the period 1500-1850, and images and ideas about water during the same period. Obviously, this is only a small contribution to a research field deserving of far greater

attention; hopefully, it will stimulate more water research in these and other areas.

The chapters in this book have been ordered chronologically, beginning with the Reformation and its somewhat ambiguous influence on the decline of magic, and concluding with the extent to which pre-industrial approaches to river- and landscape management continue to shape perceptions of contemporary watercourses.

Terje Oestigaard focuses on the topography of holy water in England after the Reformation. Following the Reformation, the Church aimed to abolish all belief in the magical powers of water, its ambition being to eradicate the traditional water cult, a cult that it viewed as diabolic and a testimony to the power of Satan. However, the development of science in the eighteenth and early nineteenth centuries brought about an enhanced understanding of the hydrological cycle. The natural world came to be seen as a reflection of God's master plan rather than something dangerous, diabolic and controlled by the Devil. Where religion was concerned, water played a dual role in the creation of a topography of holy water that remained highly significant to lay Christianity long after the Reformation and well into the industrial period.

Karen V. Lykke Syse explores ideas about water prevalent during the early modern period in England. She uses the contested and perhaps anachronistic term 'leisure' to analyse the utilisation of river landscapes. Understanding the multifarious ways in which rivers have been used and perceived throughout history is an important aspect of the analysis of the history of mentality and ideas. Might established ideas about social class and gender have been somewhat dissolved through the symbolic liminality of the river? By following the historical development of three sporting activities; angling, swimming and rowing, Syse explores the river as an arena for and boundary to enjoyment within the English riverine and riparian landscape.

Angling is a leisure activity that Richard Coopey explores with great thoroughness. Using this particular form of recreation in Britain as a starting point, he emphasises the significance of

angling to the ways in which nature has been perceived by anglers, and the extent to which these perceptions influenced subsequent environmental thought. Tracing the spatial, technological and social development of angling, Coopey notes how nature itself became controlled or engineered by the anglers. In recent times, anglers' desire to control nature has proved beneficial to the many British watercourses that have as a result been cleaned up and restocked with fish. The visual and environmental impact of a clean river has positive repercussions far beyond the local angling club.

The problem of polluted watercourses is considered in depth by Justin Carter, who presents the aims and results of the Molendinar Project in Glasgow, Scotland. Unlike rivers that have been revitalised in the post-industrial age, the Molendinar continues to flow in murky darkness. The Molendinar Project set out to investigate the disappearance of a river at the heart of Glasgow's early medieval history. It was an attempt to discover how and why the burn had almost completely vanished. More importantly, it was an attempt to assess the impact this loss might have had on the city and its population in the context of yet further urban development.

Finally, Jill Payne analyses the construction of Britain's 'wild land' cultural identity. She argues that the backlash to the Industrial Revolution ushered in a highly romanticised perception of non-industrialised landscapes. In particular, the accelerated harnessing of metropolitan British water systems for energy and transport led to an enhanced appreciation of 'natural' waterscapes and geological features such as waterfalls. Payne deconstructs the emergence, within the Scottish periphery, of a British water-and-mountain aesthetic. She explores the extent to which an aesthetic response based on late eighteenth- and early nineteenth-century attitudes towards the place of water within industrialised and non-industrialised settings may have continued to influence ideas about hydroelectric development in Scotland well into the twentieth century.

References

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