## Introduction

This book is about the development of the Norwegian natural ice industry in the period 1870 to 1930, with a focus on Thomas Johannes Wiborg² (1845–1929), who was one of Norway's largest ice exporters. He was active in the Norwegian ice industry for almost 60 years, in extensive international shipping as charterer and from 1915 also as shipowner. The book discusses the growth and decline of the Norwegian natural ice industry, changes in the international market for ice, and the general relationship between ice exports and the shipping sector. How T. J. Wiborg managed to survive in the ice export industry for so long, where volumes and values changed almost from year to year, is a key question.

The book begins by exploring the international and the Norwegian natural ice industries before providing an overview of the Norwegian ice sector. Afterwards the book is mainly chronologically laid out, and the chapters cover the topics by first discussing market developments and Norwegian ice exports, before focusing on the development of T. J. Wiborg's business activities. The starting point of this part, 1870, was the year when Wiborg started his own business, having already worked for his father's ice and timber business for a few years. The end point, 1930, was the year that Wiborg died. It is also the last year for which we have official Norwegian export statistics for natural ice. The years from 1870 until 1900 were characterised by gradual developments: in business cycles, temperatures and other events. Thereafter, up to and including the First World War and the post-war period until 1930, was a period marked

Thomas Johannes Wiborg is generally referred to as T. J. Wiborg or Wiborg hereafter. His son with the same name is referred to as Tom Wiborg, while his father, also with the same name, is generally referred to as T. J. Wiborg Snr. We mainly use the Wiborg companies where two or more of the companies he was involved in are seen together.

<sup>3</sup> Statistics Norway's Historical statistics of external trade with ice extend from 1847 to 1930. https://www.ssb.no/a/histstat/publikasjoner/histemne-o8.html

by recession and drama. At the end of the book, concluding remarks are made.

The book is a part of the project 'The Last Ice Age: The trade in natural ice as an agent of modernization and economic integration in the nineteenth and early twentieth centuries', funded by the Research Council of Norway.

The aim of this project is to place the ice industry in a larger geographical, economic, technological and cultural context. The project highlights the long-term effects of the trade in natural ice in the decades before artificial ice and refrigeration technology took over in the 1900s and thus links local Norwegian ice production to worldwide phenomena and developments.<sup>4</sup> The book constitutes an important contribution to the project in that it assesses the market for the export of ice on several levels over a 60-year period, while also drawing on the relationship between the shipping and ice industries.<sup>5</sup>

During the project period, I have been working as a researcher at the Department of Business, History and Social Sciences, University of South-Eastern Norway (USN), School of Business.

The book is based on extensive research and brings novel source material and new empirical evidence to the historical discussion. The Thos. J. Wiborg Archive has been particularly important, which, together with statistical data, have made it possible to reconstruct aspects of the Norwegian natural ice industry and its exports linked to the shipping sector. The writing has benefited greatly from digital publications at

The project has been organised around four partly overlapping main tracks in the exploration of the natural ice trade: 1. Ice production, technology and the environment/climate; 2. Shipment and transport of ice; 3. The market and areas of use for Norwegian natural ice and the competition with artificial cold; and 4. Changes in food and drink culture in Northern and Western Europe that accompanied the use of ice.

The project, which was formally concluded at the turn of 2022/2023, has, in addition to a large number of articles and lectures, so far resulted in two PhD dissertations, *Tracing the Norwegian Ice Trade in Northern France 1870–1920: Reception, Controversies and the Politics of the Trade* by Efstathia Dorovitsa (University of Hull) and *Nature's Factory: A Case Study of Norwegian Natural Ice Exports in the Era of Industrialization, 1840–1920* by Eyvind Bagle (University of South-Eastern Norway), three master's theses, one of which should be highlighted: *Ice as an Agent of Change in a Colonisation Project. Norwegian Ice to Algeria in the 19th Century* by Solfrid Klakegg Surland (University of Oslo), and a scientific monograph, *Ice Blocks from Norway: The Importation of Natural Ice to Britain, ca. 1870 to 1925* by Michael Freeman.

Statistics Norway, especially *Historical statistics of external trade* and *Consular reports*, as well as the National Library of Norway's digitised collection of books, periodicals and newspapers.

The literature on Norwegian production and export of natural ice is relatively extensive.<sup>6</sup> Much of it is local and regional historical literature that focuses on ice plants and ice export from specific cities or customs districts.<sup>7</sup> One aspect that will be discussed in this book are the locations of the industry, not just in terms of where the resources were located, but also where the enterprises that produced and exported them operated from. As we shall see, the Wiborg companies represent firms that operated in much larger areas.

A second aspect worth mentioning is how the ice industry was linked to shipping. In much of the literature, the Norwegian ice trade has been seen as a typical Norwegian activity, mostly carried out with the ice exporter's own ships or local ships. In this book, aspects that will be discussed are the various ways of obtaining ships for the transport of ice and the internationality of the shipping of ice. As we shall see, Wiborg participated in a larger shipping market than the Norwegian one. A third aspect concerns the international nature of the ice industry. Much literature has until recently placed emphasis on domestic developments. In this book we will use Wiborg's export activities to discuss aspects of the international dimension of the ice trade. A fourth aspect is the different ways of organising ice exports. Much of the existing literature has placed little emphasis on brokers, agents and the mix of different contract types. Through Wiborg's export activities, we will highlight the importance of this.

<sup>6</sup> See Norseng (2014) for a review of literature on the topic.

See, for example, Pedersen (1933); Schilbred (1946); Tønnesen (1957); Hals (1968); Gardåsen (2004); Sørensen (2010); Gundersen (2021); as well as several references in Norseng (2014), pp. 158–159.

<sup>8</sup> See, for example, Pedersen (1933) pp. 40–48; Tønnesen (1957), p 305; Sørensen (2010), p. 2; Norseng (2019), p. 227.

<sup>9</sup> See, for example, Pedersen (1933); Schilbred (1946); Hals (1968); Gardåsen (2004); Sørensen (2010); Gundersen (2021); as well as several references in Norseng (2014), pp. 158–159.

<sup>10</sup> Ibid