

1

Complex Gateways: The North Adriatic Port System in Historical Perspective

Giulio Mellinato

University of Milano Bicocca, Department of Economics, Management and Statistics

Every seaport is a very peculiar kind of organization, each in its own way. Seaport management staff must simultaneously solve complicated technical difficulties, coordinate various (and sometimes conflicting) interests, and succeed in the harmonization of a wide set of competencies within a varied workforce. At the same time, they must keep the entire system economically competitive, technologically up-to-date, and reliable for all possible customers.

Moreover, seaports are usually distinctive key elements inside the socioeconomic fabric of the city surrounding them, bringing to mind a symbiotic relation between the two, each receiving and at the same time giving something vital to the other.

Probably because of this intrinsic complexity, the history of seaports has experienced a strange destiny: on the one hand, it is considered to be of key importance for understanding the historical patterns of international trade; on the other hand, very few researchers seem to choose the 'internal' history of the port activities as their primary field of study. Clearly, seaport history is a fringe specialization, with very few acolytes.

Most of the time, even the mainstream economic theories neglect what actually takes place inside the port areas: what matters is to assess what enters and what leaves the port, in quantity and quality. If anything, scholars measure the ports' competitiveness in an aggregate way, considering port systems as relatively homogeneous, a very standardized mechanism, whose performances can easily be compared from one country to another, from one sea to another. The port, in itself, remains

Mellinato, Giulio, Aleksander Panjek, eds. 2022. *Complex Gateways. Labour and Urban History of Maritime Port Cities: The Northern Adriatic in a Comparative Perspective*.

Koper: Založba Univerze na Primorskem. <https://doi.org/10.26493/978-961-293-191-9-9-31>

a black box, and very few scholars try to open and analyse it. However, port histories are rich in very useful insights. Consider that, in order to be successful, each port must effectively manage and overcome fundamental economic contradictions that are deeply rooted inside the local environment. Traders want rates as low as possible, but the profits of the logistic operators are tied to high rates; furthermore, the interests of port workers clash head-on with those of both merchants and logistic operators. Thinking on another level, we can recall the fact that all the main economic actors (traders, logistic operators, port workers) are together interested in preserving the largest autonomy possible for their activities, while at the national, regional, and municipal levels, the political operators want to contain such independencies as much as possible. From some points of view, seaports are self-governing bodies, living side-by-side with other urban activities, with the risk of clashes between the port's and the city's priorities, especially those involving movements of people and goods, with ever-present risks of congestion, potentially jeopardizing many other urban activities. The cases for the emergence of conflicts are potentially countless. Moreover, we can speak about the implementation of customs duties and border controls, the issues related to health protection and safety, smuggling and tax evasion, the availability and the quality of insurance services and other financial activities related to trade, and so on.

We think that, within the available literature, some research questions seem to remain too poorly answered. In what ways did the internal organization of ports, the management of the various work specializations necessary for their functioning, and the need to continuously renew the port organization interact and adapt to external changes over time? And how were those issues recomposed into forms of unitary governance? How effective were those forms of management in economic, social, and even geopolitical and institutional terms? What about the human factor, inside the history of port development? Only a broad comparative analysis, through different geographical cases and different historical periods, can allow us to find at least some satisfactory answers.

In November 2019, the Koper conference started looking for some possible answers to these questions, beginning with the case of the Northern Adriatic seaports, with some useful comparisons to verify on a broader level the results coming from other local researches. As usually

happens on the best of occasions, the answers to the first questions came alongside the emergence of new queries.

In our perspective, ports could be, at the same time, gateways or chokepoints for commercial flows, or springboards for national economies aspiring to expand abroad, but also openings for the infiltration of unwanted influences, just to get the discussion started. Ports live, and even prosper, amid the most fundamental contradiction of all: to be primary actors in the economic field, but politically subjected entities, inside the institutional architecture of a modern state. Clearly, there is something in need of an explanation, in a way that primarily must pay respect to the complexity of the problems under observation.

In the end, ports are not simply places where the interchanges linking sea and land transport networks occur. Truly, they are locations connecting the greater part of the opportunities of the international economy. Moreover, most of the time, they are spaces where the solution of the contradictions arising from the confrontation of such different interests are found, granting stability to the entire system.

The recent literature has seen seaports mainly as components of wide networks of interconnections, stressing topics such as their governance (in order to guarantee the economic competitiveness and the technical viability of the entire network), their efficiency, and their resilience in the face of perturbations, or confronting the inner instability of the global trade system and the global supply chains. From another point of view, the theoretical literature has highlighted some key distinctive features among different kinds of seaports: links, gateways, nodes, hubs, or corridors (Ng et al. 2018).

The question is not trivial, in the sense that the increasing trade networks complexity urged scholars to dig deeper in search of the specific properties and functions the different seaports are displaying inside the global system of interconnectedness. The topic is not new (Hoyle and Hilling 1984, 14; Stevens 1999), but we think that its key research questions can be observed in a new light nowadays. More importantly for our analysis, this effort towards a more unambiguous definition of the seaport system's main characteristics produced a new line of thinking about the relations of port systems and the public authorities, stressing the differences in the patterns observable around the world (Neilson, Pritchard, and Wai-chung Yeung 2015). In some studies, the usual relation between economic activities and political institutions was completely reversed, in

favour of the latter, including in the analysis cases occurring inside some market economy frameworks (Ramos 2016).

Overall, a systematic intellectual structuration of what a seaport is and what are its main connections with its economic, social, and institutional environment seems to still be lacking (Pallis, Vitsounis, and De Langen 2010). At the same time, there is a proliferation of specialized books and papers, each starting from a highly-focused perspective and dealing with only a portion of the multilayered and multifaceted dynamic structure of a seaport. The old-fashion specialized subject of port economics seems to be not so popular anymore (Cullinane and Talley 2006; Talley 2009; Coto-Millan, Pesquera, and Castanedo 2010), but there are some very interesting books presenting cases of entangled developments between ports and cities (Wang et al. 2016; Hesse and McDonough 2018). Moreover, among the leading scholars dealing in various ways with the search for a comprehensive definition of what roles a seaport can play in the global connectivity system, there are some researchers sustaining the importance of path dependencies (Ducruet 2017), while others see as determinant and defining all the technological and organizational novelties which have appeared during the last decades (Lee and Cullinane 2016; Jacobs and Notteboom 2011).

Geographers, more than economists or historians, appear to be on the way to comprehensively defining port activities, urban synergies and regional positionalities inside the global environment. Recently, César Ducruet published three essays, formally distinct but closely linked within a very innovative conception of port activities as a dynamic and propulsive constituent of the complex mechanism of inter- and supraregional modernization, since the end of the eighteenth century up to very recent times (Ducruet, Cuyala, and El Hosni 2018; Ducruet 2018; Ducruet, Juhász et al. 2019). The indissoluble link between the history of ports and urban history seems to have been reaffirmed, while the connections between the economic history and the social history of seaports still appears weakly analysed.

Anyhow, as Sarah Palmer said more than 20 years ago, ‘ports have rarely been treated as urban entities’ (Palmer 1999, 100), in the sense that the human and social side of the seaports’ activities have attracted less attention than the technical and economic ones. Since then, the reconstructions and the discussions regarding the rationality applied in seaport planning, building, and managing have been by far more numerous

than the ones regarding labour, the social impacts of port activities, and their relations with the urban environment (Williams 2003).

Something changed when attention shifted towards the ‘global cities’ and their key role in shaping the arrangement of the new level of interconnectedness, emerging so clearly at the beginning of the new millennium. The ‘port-city-region relationships’ became one of the focal points (Wanga and Ducruet 2012), recognizing the fact that the enhancement of the new functions, proper of a global-level seaport, were extremely demanding in terms of space and resources. The result was the determining of the entire development path, not only at an urban but also at a regional level, as was actually the case both for the rapidly growing Chinese seaports and for some old-style ports, forced to undergo rapid transitions in order to catch up with the innovations (Grossmann 2008; Wang and Cheng 2010).

During the first two decades of our century, the scholarship highlighted two different dynamics, coupling their effects inside the seaports’ ongoing experimentations in better ways to capture (and to exploit) the flows of goods and wealth: on one hand, the transition towards a service-led economy and the dematerialization of the most lucrative forms of economic exchange; on the other hand, the radical relocation of several labour-intensive production and industrial activities. The latter has caused the need to rethink the use and the destination of numerous metropolitan areas, also determining the allocation of spaces for the more and more space-demanding port activities. During these years, the two main sets of specialists interested in the history of seaports (maritime historians and urban historians) divided themselves into more specialized subgroups, losing sight of the greater picture. At the same time, economists began to look at ports (both sea- and airports) with new eyes, considering them not only as hubs for goods and trade flows, but also as possible cornerstones for the newly emerging knowledge economy (Conventz et al. 2013; Conventz et al. 2015; Díez-Pisonero 2020). In the theoretical literature, we can also appreciate a drift from the study of the “hard” portion of port competitiveness (infrastructures, spaces, technologies) to the “soft” one, with an increasing attention devoted to human resources, organization, the ability to improve and adapt to changing situations (Ng 2006), and the interrelations between port activities and urban constraints (Alpcan 2019).

The idea that the traditional seaports' arrangement was about to be replaced by a new one gave birth to a new stream of researches, aiming at the preservation of the memories and the cultures embedded in the old seaports' operational structures (Davis et al. 2000; Beaven, Bell, and James 2016; Worthington 2017). In this present book, Janine Schemmer also presents a good example of memory safeguarding.

Very recently, a new topic has imposed itself on the interest of historians: that of sustainability, both environmental and social (Ng, Monios, and Jiang 2020; Carpenter and Lozano 2020), along with a more articulated interest in the historical development of city functions, developed particularly by urban historians (Wakeman 2020). From our point of view, this new research trajectory is extremely interesting, because it suggests a holistic approach to the study of port human-technical-economic functions (Fobbe, Lozano, and Carpenter 2020), and because it tries to overcome the long standing dichotomy dividing port and city destinies, recommending the use of a port-city approach, instead of the traditional port/city one (Van den Berghe and Daamen 2020). Within this book, we have collected a good number of cases.

We are confident that history will find new perspectives and materials to work with. In this sense, the North Adriatic port system seems to be a particularly insightful example, in the sense that it can couple the perspectives presented by two interesting lines of research: one dealing with the border gateways, and another one analysing the 'ports in proximity'.

Ake Andersson, two decades ago, defined a commercial hub as the point (properly, a *node*) where the different links of a network encounter one another, enabling the interconnection of different trade routes; from his perspective, a gateway is a place where different networks converge, making possible the transshipments between different means of transport. In historical terms, most of the time a hub corresponds to a city, but more properly a gateway is an area, as in the case of a big city and its surroundings, or a region, being a gateway by far more space- and resource-demanding than a hub (A. E. Andersson 2000). In this sense, the North Adriatic area has traditionally covered the role of a gateway region since the Roman and Venetian times.

Within the gateway-region perspective, in our times public institutions are vested with a pivotal role, in the sense that all the infrastructures needed for the gateway to be effective are by far too expensive and

too complex to manage for private investors. Historically, the emergence of some hubs can be seen as the result of private enterprises (as in the case of airports, chosen by companies as their home base, and then consequently infrastructured), but the emergence of all the major gateways was the result of some kind of public intervention (D. E. Andersson 2000). In turn, the localization of fundamental infrastructures in some areas creates long-term paths, which concentrate and channel not only traffic, but also opportunities for development and further concentration of flows in that area. A kind of virtuous circle, able to make the gateway region more and more central, and the surrounding territories dependent.

Again, the North Adriatic case fits the definition. The entries of both Trieste and Rijeka into modern world trade were decided by the Habsburg monarchy, and supported over time respecting the dual nature of the Habsburg possessions: Trieste was the gateway for the Austrian half of the Empire, and Rijeka for the Hungarian half. Two world wars broke the old arrangement into pieces, and very slowly a new equilibrium emerged after the Second World War, when Trieste was recognized as the Southern link of the Iron Curtain, and the federal organization of the new Yugoslavia assigned Rijeka to Croatia, leaving Slovenia to commit to having its own maritime outlet.

This new polycentric asset did not dismantle the gateway nature of the region. As in other cases (Houtum, Kramsch, and Zierhofer 2005), the rigidity of the infrastructural network was almost impossible to overcome in the short term. On the contrary, the new situation pushed that role towards a higher level of complexity, where the actors did not collaborate directly, but were forced to take into consideration the others' actions when they drafted their future perspectives. In the case of Koper, as Rogoznica displays in her chapter, the possibility of a development closely linked with Trieste was taken into consideration, notwithstanding the politically hot nature of the border dividing the two cities.

At the same time, the coexistence of three seaports in a single region was not easy. In this case, the literature regarding the so-called 'ports in proximity' can help in designing a theoretical background (Notteboom, Ducruet, and de Langen 2009). Following this line of inquiry, the researchers have underlined how the multilevel and multispecialized organization of modern trade flows not only allows the coexistence of different ports within the same gateway region, but in some cases even favours it. The price to pay consists of a more than proportional increase in manage-

ment difficulties, and the need to create extremely complex and articulated governance structures. From this point of view, the North Adriatic case begins to diverge from the standard, opening a new possible line of research dealing with the history of ports in proximity inside the same gateway region, but linked to different political frameworks.

For all three ports, a succession of strong political wills have supported their developments, overcoming the difficulties arising from changes in the local social conditions and international trade developments. The historical evolution of work conditions could be a good mirror: the need to import workforce from the hinterland was similar in Genoa and Trieste, starting from pre-industrial times. However, the Genoa city authorities successfully managed not to integrate the immigrated workforce into the urban society, while in Trieste some problems emerged precisely because of the impossibility (or the unwillingness) of sending the immigrant workers back to their hometowns in the countryside, as Piccinno and Kalc show in their chapters. Not such a dated problem, since Panariti, Schemmer, and Centrih can actualize it to our days.

Another long-lasting issue is the institutional one, especially from the point of view of the burdens public authorities were willing to impose on the seaports' management, gaining control but at the same time risking the loss of opportunities and momentum for economic development, as Delogu and Darovec show in their essays, while a significant literature regarding Trieste already exists (Andreozzi 2003; Andreozzi 2013; Andreozzi 2015). With reference to the Upper Adriatic case, in order to analyse the relationship between port development and public authorities, we believe that the best observation point is the first decade following the Second World War. The book devotes two chapters to this period, embracing all three ports we have considered (Giulio Mellinato and Deborah Rogoznica).

Essentially, a strong governmental will backed the creation of all three ports. In the case of Trieste and Rijeka it was the Habsburg emperors, and a heavy involvement of the new Slovenian republican institutions in the case of Koper. At different times, all three ports were burdened with the task of representing symbols of national pride, causing long-lasting problems in Trieste and Rijeka (Mellinato 2018), but also favouring an early development for the port of Koper, due to the large commitment of the population in its construction, with the gift of free work by the common people and the great dedication of its first management.

Our research has shown that a fragile equilibrium between coexistence and competition emerged over time, producing a strange path towards competitiveness. Usually, especially thinking about medium-size seaports, the improvement of their commercial positionality is associated with their specialization and a closer symbiosis with their socio-economic environment. The three North-Adriatic ports acquired the latter, but failed in the former, especially during the post-war period.

Until the First World War, the ports of Trieste and Rijeka lived two quite parallel evolutive paths inside their own environments (Austria for Trieste, Hungary for Rijeka), even before the formal division of the Habsburg empire in 1867. Trieste was the first to cross some thresholds (the first regular steamship service, the first railway connection, the first telegraphic lines), gaining some competitive advantages, but Rijeka followed soon after, developing into one of the most important seaports in the Eastern Mediterranean. Between the two World Wars, both ports became Italian, sharing more problems than opportunities deriving from the situation (Mellinato 2001). The framework changed again after the Second World War, especially after the settlement of the so-called Trieste question, in 1954.

During the period 1960–1990, the three North Adriatic ports developed in very different ways. Considering only the traffic not involving oil, during those 30 years the port movements grew by 153% in Trieste, 471% in Rijeka, and 3,970% in Koper, where clearly the figure is affected by the very low level of its activities at the beginning. Starting almost from nothing, by 1990 the port of Koper was able to handle 4,856,931 tons of goods other than oil, while in the same year Trieste handled 7,750,851 tons. Since the mid-Seventies, more than half of the non-oil movements in the port of Koper were actually international, to or from Austria (40.96% of the international movements in 1985), Czechoslovakia (28.20%), and Hungary (23.97%) (Borruso 1996). Koper was able to substitute Trieste in serving part of its traditional hinterland, creating de facto a quasi-system out of the sum of the two ports sharing the same gulf. This system developed in various forms of competition and collaboration after Slovenian independence, finally forming the cornerstone from which in 2010 the North Adriatic Ports Association was founded. Now NAPA brings together the ports of Trieste, Venice, Koper, Rijeka, and Ravenna, aiming at the creation of that long-awaited systematization of the Northern Adriatic maritime gateway region.

Nevertheless, besides being gateways and nodes within international transport networks, seaports are also complex organizations in themselves, interconnecting functions, operations, and roles with material and immaterial flows of merchandise, people, and information. How do they really work? What are the essential organizational instruments processing and making operative all the complex interplay required for a seaport to be efficient? Finally, who really governs them? What are the real conditions granting an efficient functioning of an urban seaport?

Usually, mainstream economics portrays port systems following research paradigms largely included within the umbrella definition of functionalism, focused on the explanation of the actual situation, the rational choice approach, and quantification, substantially in line with a positivistic approach (Woo et al. 2011), along the same lines of the entire transportation research field (Modak et al. 2019). More or less the same could be said for other specialized research fields, such as Transport Geography (Ducruet, Panahi et al. 2019), Global Economic Relations (Michie 2019; Vivares 2020), and International Trade Studies (Martin 2015).

Sometimes, looking forward to future research, the necessity of a more empiric and real case-based approach is remembered (Buckley, Doh, and Benischke 2017), but the great majority of papers remain linked with a theoretical and mostly abstract view, giving little room to considerations concerning the real operational conditions in seaports. Even when the focus of the research is on the broader conditions allowing higher performances in the best-equipped seaports, the topics remain inside a dehumanized conception of 'infrastructure' and 'services' (Gani 2017), where the human and the labour factors are substantially missing.

Surprisingly, the human factor is considered mostly exogenous, even in papers where the aim of the research deals with more labour-related issues, and then discarded from the set of eligible topics worth consideration. For example, in the case of social sustainability, the bibliography is not only scarce, but also interested in topics like management and performance (Lim et al. 2019), rather than the working conditions, the workers' motivation, and the social footprint seaports can produce on the surrounding areas, contributing to the dynamics of the human environment well beyond the waterfront and the dock areas. Researching the transportation system in the light of their resilience, scholars privileged mathematical modelling and simulations. In a review of the available bibliography about port-system resilience, real-case studies were counted as

by far the smallest group within the different research methods chosen (Wan et al. 2018). The same could be said for maritime clusters (Shi et al. 2020), port competitiveness (Munim and Saeed 2019; Fiskin and Cerit 2020), and other sub-subjects.

In recent times, some recommendations were presented, suggesting new and more comprehensive ways to deal with the complexities of port history, both in relation to the subjects chosen and the chronological extension of the research. Port work (and workers') historical studies have been recognized as a promising sub-field of research, although scholars specializing in this subfield tend to have little interactions with other port historians. As Sarah Palmer pointed out, 'those specializing in the study of port labour tend not to identify themselves with other types of port historian, seeing themselves as social rather than maritime historians' (Palmer 2020).

On the other hand, port economists feel themselves so close to the economic research paradigm to neglect, or simply consider exogenous, the social and cultural environment.

By the beginning of the new century, the publication of two green papers (by the World Bank and UNCTAD) ignited a new debate, leading to a broad assessment of the scope, limits and possible application of inquiries regarding the relationship between styles of governance and port performance. Immediately after the publication of those "official" papers, within a general reconsideration of the matter, Mary R. Brooks and Kevin Cullinane have highlighted the fact that an oversimplification of the approaches used to study the functioning of port systems could lead to a poor understanding, and therefore to serious errors of governance and programming. As they have said, the fruitful approach is the one where 'port performance is viewed as a function (output) of the match (or fit) among the characteristics of the organization's external operating (or task) environment, strategies and structures' (Brooks and Cullinane 2007, 392). In theory, this approach considers the economic and the non-economic goals equally important, clearly reflecting a full appreciation of the hybrid nature of seaports, as simultaneously profit-seeking firms, government extensions, key services providers for entire economic sectors, utilities and logistic nodes, and so on. Notwithstanding this more open-minded approach, the human factor remained missing in these studies, including in recent times (Lacoste and Douet 2013; Munim, Saeed, and Larsen 2019). Actually, economic literature dealing with the

functioning of port systems evolved in the sense of a focalization and a polarization on the internal and more technical processes, especially those involved in the acquisition of higher levels of performance (Fiskin and Cerit 2020).

The suggestions aiming at a broadening of the analytical gaze outside the port areas have also produced a new current of studies, which, however, has first of all extended towards the perimeter the very mechanical and technical approach adopted to analyse the inner side of port systems, rather than integrating external socio-economic dynamics into port performance research (Ducruet, Itoh, and July 2015; Munim and Schramm 2018).

Recently, some new insights in the sense of a more careful consideration of the human contribution to the port economic performance came firstly from the stream of comparative port studies (Ensslin et al. 2018), and secondly from the application of complexity theory to the field of port-system studies (Goulielmos, Pardali, and Miliaraki 2007). However, both these approaches are awaiting further development, and of now they are only presenting the first results of some innovative research efforts, still not giving us a complete map of a substantially new territory.

On the other side, studies on port work (and workers) have gained a new momentum since the year 2000, with the publication of the ponderous *Dock Workers: International Explorations in Comparative Labour History 1790–1970*, in two volumes (Davis et al. 2000). As already stated, until now this research stream has remained connected more with trade union history and the social history of workers and their environment (working, living, housing conditions, processes of socialization, labour culture and identities, family and social connections, and so on), than with the economic side of port-system studies.

During the years following 2000, the speeding up in the evolution of the entire global commercial connectivity system directed researchers towards a more holistic approach, considering the growing imbrication of economic and social factors in seaport-systems development. Starting with the extension to port studies of the analytical schemes of ‘classical’ industrial relations studies (Barton and Turnbull 2002; Turnbull and Wass 2007), to a growing interest in the outcomes related to the privatization of port activities (Reveley and Tull 2008), researchers recognized seaports as frontiers for the massification and work downsizing process-

es increasingly interesting all the traditional productive sectors, starting from the 1980s and 1990s.

The question of port-work organization has remained debated over time, as the port reform process continued during the 2000s and 2010s, directing a lively interest towards the analysis of seaport governance, management, and organization. Particular attention has been devoted to understanding the origins of the new level of conflict triggered by the continuous reforms in work organization (Cole and Hart 2018; Bottalico 2019). Several papers followed more or less the same scheme: the containerization process and the development of global supply chains led to a substantial disruption of local port-work habits and organizations, seen in various ways as consuetudinary and culturally driven or linked to privileges and benefits. As Peter Cole has effectively summarized, in the port workers' eyes, the transformation was so revolutionary that they were unable to say if they were 'working the containers, or getting worked by them' (Cole 2018, 191). Subsequently, the reforms sparked quite harsh reactions by the workforce, especially the less specialized levels, and thus those more at risk of expulsion from the new high-performative logistic structures (see Tonizzi 2014; Bottalico 2017 for the Italian case), sometimes reproducing situations of conflicts already experienced during other periods of techno-organizational deep changes (Hamark 2014). Unfortunately, the examination of these historical precedents does not seem to have attracted much scholarly interest.

At least in one case, the port-city relationship has become the primary issue of the research, but from a clear urban-sociological point of view (Mah 2014). Other scholars have analysed the evolution of the port-city interrelation using different paradigms (Konvitz 2013), oftentimes underlying the inner tensions between port systems and the surrounding urban areas (Nogué-Algueró 2020), but a synthesis is still missing.

This is quite disappointing, because some of the most researched tropes, such as 'flows', 'circulation' and 'connectivity', are intrinsically related not only to the connection of different spaces and activities, but also to a very wide and comprehensive perception of the backgrounds required and the outcomes produced by trade and transportation activities. Thus the question: why are these activities so transversally stretched within different economic sectors and social environments, and the research about them is not?

Very recently, a few scholars tried to find new paths, in order to find a more holistic approach for writing histories of ports and cities as an interconnected whole, sometimes looking back to the age of steam (Heerten 2021) and sometimes studying the structure and functions of contemporary maritime clusters (Shi et al. 2020). In some cases, scholars meritoriously chose the port workers' positionality inside the new equilibria of the globalized supply chains and the emerging 'internet of things' as their investigation focal points (Lee 2013; Alimahomed-Wilson and Ness 2018). However, these are still isolated cases and sporadic experiments, waiting for their structuration inside a reliable research agenda.

In this book, we try to find out our own way to deal with the complexity of the social, technical, economic, and institutional entanglement defining the history of any seaport. Our common implicit research question was: can we use our thinking about the historical identity of the city-port nexus to find new insights about the possibility of overcoming the specialized approaches, and have an evolutionary representation of the symbiotic/syncretic arrangement of the city-port systems, inside the peculiar North Adriatic environment?

We have adopted a transdisciplinary approach, encompassing economics, sociology, anthropology, and politics, with the common aim of crossing disciplinary boundaries and studying the city-port nexus as an integrated entity.

Over a long-run perspective, the definition of a seaport identity has resulted from the stratification of many waves of intervention, from the first institutional definitions of its roles, privileges, and operational areas (also in an abstract and theoretical way, as Delogu reminded us) to the subsequent slow definition of its economic, social, and even cultural and symbolic values (Janine Schemmer).

One of the things our research has collectively pointed out is that the oftentimes-supposed independence of a seaport in determining its own development path is strongly in need of a redefinition. External forces shaped and directed the possible options, limiting the freedom of choice of the actors. Firstly, the actions of the international networks in modern times (Luisa Piccinno), and later at the advent of the supply chains, the technological development, the transport revolutions, and other exogenous-produced changes were several times more important than internal decisions in defining the evolutive path of the city-ports we have considered. In almost all the chapters, the same mechanism repeated itself: the

pressures from the external environment were mainly discharged over the labour factor, triggering a stimulus and response dynamic that every time led to a conflictual phase. The labour factor was never passive in determining the new outline of port organization, and in so doing, workers largely contributed to the redefinition of the new settlement of the port-city nexus. After our research, we can say that excluding the labour dynamics from every historical analysis of the evolution of a port system can lead to serious misunderstandings.

Some other transversal themes are present throughout the entire book. According to us, the two most important are: the overlap of governing responsibilities and the role of the context within which a seaport operates.

On the one hand, the overlap of roles and responsibilities (port management; city, regional national governing bodies; port, logistic and maritime independent operators, workers) inevitably causes a systemic instability, where a dynamic equilibrium between regulations and interdependencies must be found and implemented continuously. The overlap seems to be the heart of the entire question: if it is managed well, then the city-port nexus is functioning, and the port can be a real gateway. In contrast, if the overlap is not managed efficiently, the port performs badly, projecting its dysfunctionalities into the entire local socioeconomic environment, triggering a vicious circuit of greater conflict, less profitability, and a worsening of the general conditions.

On the other hand, the research published in this book suggests that a sound evaluation of the general economic performance of such a complex system as the city-port nexus is possible only when the social environment is fully integrated within the analysis. Technically speaking, ignoring the social context may bias every analysis related to the real level of efficiency and performance of a seaport, because considering exogenous the human and social dimensions will inevitably lead to an underestimation of the so-called 'transition costs' related to the technological development. In times of continuous and accelerating techno-organizational change, it seems to be a far from marginal limitation.

The chapters in this book can provide many examples. Some of them seem to be quite evident even at a first glance. For example, the struggle concerning the degree of rigidity of the port-labour market in Genoa and Trieste (Luisa Piccinno and Aleksej Kalc) during the eighteenth-nineteenth centuries presents a structural similarity to the conflicts for la-

bour conditions during the twentieth and twenty-first centuries (Lev Centrih and Loredana Panariti). Moreover, the unsatisfactory outcomes caused by the overlap of responsibilities, but also by the mismatch of the strategic goals, was more or less the same in Rijeka during the eighteenth century (Ervin Dubrović), in Trieste during the AMG years (Giulio Mellinato) and in Koper when the times seemed ready for the creation of an oil terminal (Deborah Rogoznica). An interesting precursor can be found at the very beginning of the modern debate on free ports (Giulia Delogu), suggesting that precisely the overlay of responsibilities can be one of the most important (and understudied) components of the complexity inherent in these kind of studies.

As already said, almost all the chapters deal with the analysis of the relationship between the port and its surrounding environment in the broader sense, even from the cultural point of view (Janine Schemmer). Every time, and independently, all authors have highlighted the multilevel interdependencies linking (but also bounding) ports and their socio-economic environment, well beyond the usual roles assigned to ports as providers of working positions, services, utilities, and so on. New issues have been pointed out: how can seaports play a role in the construction of consensus towards the established order, of symbolic values to the advantage of the entire port-city nexus, of new instruments for controlling social marginality, at the local level, or even of means of pressure and direction of foreign policy.

The evidence we have studied suggests that the human factor is largely undervalued and that some adjustments are in order. The cases presented in this book have the aim of bringing out a research perspective closer than usual to the real life of operating city-port systems. From this perspective, we think we can say that port performances rely on more than one equilibrium (technosocial, institutional, financial, environmental, human, and others) in such a complex way that an equally elaborate set of analytical tools must be arranged and made operational, in order that this research topic may be appropriately studied.

Bibliography

References

Alimahomed-Wilson, J., and I. Ness, eds. 2018. *Choke Points: Logistics Workers Disrupting the Global Supply Chain*. London: Pluto.

- Alpcan, O. 2019. 'Efficiency and Competitiveness Analysis of Port of Izmir.' Master's thesis, World Maritime University.
- Andreozzi, D. 2003. 'L'organizzazione degli interessi a Trieste (1719–1914).' In *Storia economica e sociale di Trieste: la città dei traffici, 1719–1918*, edited by R. Finzi, L. Panariti and G. Panjek, 191–231. Trieste: Lint.
- . 2013. '«La segretezza degli affari suoi»: commerci, regole e reati a Trieste nella seconda metà del Settecento.' *Quaderni storici* 143 (2): 467–96.
- . 2015. '«La gloria di un dilatato commercio»: l'intrico delle politiche e lo sviluppo di Trieste nell'Adriatico centro settentrionale (1700–1730).' *Mélanges de L'École française de Rome* 127:1–18.
- Andersson, A. E. 2000. 'Gateway Regions of the World: An Introduction.' In *Gateways to the Global Economy*, edited by A. E. Andersson and D. E. Andersson, 3–16. Chaltenham: Elgar.
- Andersson, D. E. 2000. 'The Role of Institutions and Self-organizing Networks in the Economic History of Regions.' In *Gateways to the Global Economy*, edited by A. E. Andersson and D. E. Andersson, 365–80. Chaltenham: Elgar.
- Barton, H., and P. Turnbull. 2002. 'Labour Regulation and Competitive Performance in the Port Transport Industry: The Changing Fortunes of Three Major European Seaports.' *European Journal of Industrial Relations* 8 (2): 133–56.
- Beaven, B., K. Bell, and R. James, eds. 2016. *Port Towns and Urban Cultures: International Histories of the Waterfront, c. 1700–2000*. London: Palgrave Macmillan.
- Borruso, G., ed. 1996. *I porti dell'Alto Adriatico: Trieste, Capodistria e Fiume*. Trieste: Lint.
- Bottalico, A. 2017. 'Across the Chain: Dock Labour Systems in the European Ports: A Comparative Analysis on Two Container Terminals.' PhD diss., University of Milan.
- . 2019. 'Towards the Mapping of Port Labour Systems and Conflicts Across Europe: A Literature Review.' *Work Organisation, Labour & Globalisation* 13 (1): 130–54.
- Brooks, M. R., and K. Cullinane, eds. 2007. *Devolution, Port Governance and Port Performance*. Oxford: Elsevier.

- Buckley, P. J., J. P. Doh, and M. H. Benischke. 2017. 'Towards a Renaissance in International Business Research? Big Questions, Grand Challenges, and the Future of IB Scholarship.' *Journal of International Business Studies* 48:1045–64.
- Carpenter, A., and Lozano, R. 2020. *European Port Cities in Transition: Moving Towards More Sustainable Sea Transport Hubs*. Cham: Springer.
- Cole, P. 2018. *Dockworker Power: Race and Activism in Durban and the San Francisco Bay Area*. Urbana: University of Illinois Press.
- Cole, P., and J. Hart. 2018. 'Trade, Transport, and Services.' In *Handbook The Global History of Work*, edited by K. Hofmeester and M. van der Linden, 277–95. Berlin: De Gruyter.
- Coto-Millan, P., M. A. Pesquera, and J. Castanedo, eds. 2010. *Essays on Port Economics*. Berlin: Springer.
- Cullinane, K., and W. K. Talley, eds. 2006. *Port Economics*. Amsterdam: Elsevier.
- Conventz, S., B. Derudder, A. Thierstein, and F. Witlox, eds. 2013. *Hub Cities in the Knowledge Economy: Seaports, Airports, Brainports*. Farnham: Ashgate.
- Conventz, S., A. Thierstein, F. Wiedmann, and A. M. Salama. 2015. 'When the Oryx Takes off: Doha a New Rising Knowledge Hub in the Gulf Region.' *International Journal of Knowledge-Based Development* 6 (1): 65–82.
- Davies, S., C. J. Davis, D. de Vries, L. Heerma van Voss, L. Hesselink, and K. Weinbauer, eds. 2000. *Dock Workers: International Explorations in Comparative Labour History, 1790–1970*. London: Routledge.
- Díez-Pisonero, R. 2020. 'Ciudades y conectividad aérea en el sistema mundo: nodos consolidados y centros emergentes.' *EURE: Revista Latinoamericana de Estudios Urbanos Regionales* 139 (46): 113–41.
- Ducruet, C., H. Itoh, and O. Joly. 2015. 'Ports and the Local Embedding of Commodity Flows.' *Papers in Regional Science* 94 (3): 607–27.
- Ducruet, C. 2017. 'Multilayer Dynamics of Complex Spatial Networks: The Case of Global Maritime Flows (1977–2008).' *Journal of Transport Geography* 60:47–58.
- Ducruet, C., S. Cuyala, and A. El Hosni. 2018. 'Maritime Networks as Systems of Cities: The Long-Term Interdependencies between

- Global Shipping Flows and Urban Development (1890–2010).’ *Journal of Transport Geography* 66:340–55.
- Ducruet, C., ed. 2018. *Advances in Shipping Data Analysis and Modeling. Tracking and Mapping Maritime Flows in the Age of Big Data*. Abingdon: Routledge.
- Ducruet, C., R. Juhász, D. K. Nagy, and C. Steinwender. 2019. ‘All Aboard: The Aggregate Effects of Port Development.’ Barcelona GSE Working Paper Series 1160, Barcelona Graduate School of Economics.
- Ducruet, C., R. Panahi, A. K. Y. Ng, C. Jiang, and M. Afenyo. 2019. ‘Between Geography and Transport: A Scientometric Analysis of Port Studies in Journal of Transport Geography.’ *Journal of Transport Geography* 81:102527. <https://doi.org/10.1016/j.jtrangeo.2019.102527>.
- Ensslin, L., V. Dezem, A. Dutra, S. Rolim Ensslin, and K. Somensi. 2019. ‘Seaport-Performance Tools: An Analysis of the International Literature.’ *Maritime Economics & Logistics* 20:587–602.
- Fiskin, C. S., and A. G. Cerit. 2020. ‘Comparative Bibliometric and Network Analysis of Maritime Transport/Shipping Literature Using the Web of Science Database.’ *Scientific Journals of the Maritime University of Szczecin* 61 (133): 160–70.
- Fobbe, L., R. Lozano, and A. Carpenter. 2020 ‘Proposing a Holistic Framework to Assess Sustainability Performance in Seaports.’ In *European Port Cities in Transition: Moving Towards More Sustainable Sea Transport Hubs*, edited by A. Carpenter and R. Lozano, 149–68. Cham: Springer.
- Gani, A. 2017. ‘The Logistics Performance Effect in International Trade.’ *The Asian Journal of Shipping and Logistics* 33 (4): 279–88.
- Goulielmos, A. M., M. A. Pardali, and M. M. Miliaraki. 2007. ‘Applied Theory of Complexity: The Case of Human Factor in the Container Terminal of the Port of Piraeus.’ *SPOUDAI – Journal of Economics and Business* 57 (1): 36–57.
- Grossmann, I. 2008. ‘Perspectives for Hamburg as a Port City in the Context of a Changing Global Environment.’ *Geoforum* 39:2062–72.
- Hamark, J. 2014. *Ports, Dock Workers and Labour Market Conflicts*. Gothenburg: University of Gothenburg.
- Hesse, M., and E. McDonough. 2018. ‘Port, Cities and the Global Maritime Infrastructure.’ In *Handbook of the Geographies of Globalization*, edited by R. C. Kloosterman, V. Mamadouh and P. Terhorst, 354–66. Cheltenham: Elgar.

- Heerten, L. 2021. 'Mooring Mobilities, Fixing Flows: Towards a Global Urban History of Port Cities in the Age of Steam.' *Journal of Historical Sociology* 34:350–74.
- Houtum, H. van, O. Kramsch, and W. Zierhofer, eds. 2005. *B/ordering Space*. Aldershot: Ashgate.
- Hoyle, B. S., and D. Hilling, eds. 1984. *Seaport Systems and Spatial Change: Technology, Industry and Development Strategies*. Chichester: Wiley.
- Jacobs, W., and T. Notteboom. 2011. 'An Evolutionary Perspective on Regional Port Systems: The Role of Windows of Opportunity in Shaping Seaport Competition.' *Environment and Planning A* 43:1674–92.
- Konvitz, J. 2013. 'Contemporary Urban History: What the Study of Port Cities Implies for Evidence, Methodology, and Conceptualization.' *Journal of Urban History* 39 (4): 801–6.
- Lacoste, R., and M. Douet. 2013. 'The Adaptation of the Landlord Port Model to France's Major Seaports: A Critical Analysis of Local Solutions.' *Maritime Policy & Management* 40 (1): 27–47.
- Lee, P. T-W., and K. Cullinane, eds. 2016. *Dynamic Shipping and Port Development in the Globalized Economy*. Basingstoke: Palgrave.
- Lee, R. 2013. 'The Seafarers' Urban World: A Critical Review.' *International Journal of Maritime History* 25 (1): 23–64.
- Lim, S., S. Pettit, W. Abouarghoub, and A. Beresford. 2019. 'Port Sustainability and Performance: A Systematic Literature Review.' *Transportation Research Part D: Transport and Environment* 72:47–64.
- Mah, A. 2014. *Port Cities and Global Legacies: Urban Identity, Waterfront Work, and Radicalism*. Basingstoke: Palgrave.
- Martin, L. L., ed. 2015. *The Oxford Handbook of the Political Economy of International Trade*. New York: Oxford University Press.
- Mellinato, G. 2001. *Crescita senza sviluppo: l'economia marittima della Venezia Giulia tra impero asburgico ed autarchia, 1914–1936*. San Canzian d'Isonzo: Consorzio culturale del Monfalconese.
- . 2018. *L'Adriatico conteso: commerci, politica e affari tra Italia e Austria-Ungheria (1882–1914)*. Milan: Angeli.
- Michie, J., ed. 2019. *The Handbook of Globalisation*. Cheltenham: Elgar.
- Modak, N. M., J. M. Merigó, R. Weber, F. Manzor, and J. de Dios Ortúzar. 2019. 'Fifty Years of Transportation Research Journals:

- A Bibliometric Overview.’ *Transportation Research Part A: Policy and Practice* 120:188–223.
- Munim, Z. H., and H.-J. Schramm. 2018. ‘The Impacts of Port Infrastructure and Logistics Performance on Economic Growth: The Mediating Role of Seaborne Trade.’ *Journal of Shipping and Trade* 3 (1): 1–19.
- Munim, Z. H., and N. Saeed. 2019. ‘Seaport Competitiveness Research: The Past, Present and Future.’ *International Journal of Shipping and Transport Logistics* 11 (6): 533–57.
- Munim, Z. H., N. Saeed, and O. I. Larsen. 2019. ‘“Tool Port” to ‘Landlord Port’: A Game Theory Approach to Analyse Gains from Governance Model Transformation.’ *Maritime Policy & Management* 46 (1): 43–60.
- Neilson, J., B. Pritchard, and H. Wai-chung Yeung, eds. 2015. *Global Value Chains and Global Production Networks: Changes in the International Political Economy*. London: Routledge.
- Ng, A. K. Y. 2006. *Theory and Structure of Port Competition: A Case Study of Container Transshipment in North Europe*. PhD diss. Oxford: University of Oxford.
- Ng, A. K. Y., C. Jiang, P. Larson, B. Prentice, and B. T. Duval. 2018. *Transport Nodal System*. Cambridge: Elsevier.
- Ng, A. K. Y., J. Monios, and C. Jiang, eds. 2020. *Maritime Transport and Regional Sustainability*. Amsterdam: Elsevier.
- Nogué-Algueró, B. 2020. ‘Growth in the Docks: Ports, Metabolic Flows and Socio-environmental Impacts.’ *Sustainability Science* 15:11–30.
- Notteboom, T., C. Ducruet, and P. de Langen, eds. 2009. *Ports in Proximity. Competition and Coordination among Adjacent Seaports*. Farnham: Ashgate.
- Pallis, A. A., T. K. Vitsounis, and P. W. de Langen. 2010. ‘Port Economics, Policy and Management: Review of an Emerging Research Field.’ *Transport Reviews: A Transnational Transdisciplinary Journal* 30 (1): 115–61.
- Palmer, S. 1999. ‘Current Port Trends in an Historical Perspective.’ *Journal for Maritime Research* 1 (1): 99–111.
- . 2020. ‘History of the Ports.’ *The International Journal of Maritime History* 32 (2): 426–33.

- Ramos, S. J. 2016. *Dubai Amplified: The Engineering of a Port Geography*. London: Routledge.
- Reveley, J., and M. T. Tull. 2008. *Port Privatisation: The Asia-Pacific Experience*. Cheltenham: Elgar.
- Shi, X., H. Jiang, H. Li, and D. Xu. 2020. 'Maritime Cluster Research: Evolutionary Classification and Future Development.' *Transportation Research Part A* 133:237–54.
- Stevens, H. 1999. *The Institutional Position of Seaports: An International Comparison*. Dordrecht: Kluwer Academic Publishers.
- Talley, W. K. 2009. *Port Economics*. Abington: Routledge.
- Tonizzi, M. E. 2014. 'Lavoro e lavoratori del mare nell'età della globalizzazione.' *Contemporanea* 4:691–701.
- Turnbull, P. J., and V. J. Wass. 2007. 'Defending Dock Workers—Globalization and Labor Relations in the World's Ports.' *Industrial Relations* 46 (3): 582–612.
- Van den Berghe, K. B. J., and T. A. Daamen. 2020. 'From Planning the Port/City to Planning the Port-City: Exploring the Economic Interface in European Port Cities.' In *European Port Cities in Transition*, edited by A. Carpenter and R. Lozano 2020, 89–108. Cham: Springer.
- Vivares, E., ed. 2020. *The Routledge Handbook to Global Political Economy: Conversations and Inquiries*. New York: Routledge.
- Wan, C., Z. Yang, D. Zhang, X. Yan, and S. Wan. 2018. 'Resilience in Transportation Systems: A Systematic Review and Future Directions.' *Transport Reviews* 38 (4): 479–98.
- Wanga, C., and C. Ducruet. 2012. 'New Port Development and Global City Making: Emergence of the Shanghai–Yangshan Multilayered Gateway Hub.' *Journal of Transport Geography* 25:58–69.
- Wang, J. J., and M. C. Cheng. 2010. 'From a Hub Port City to a Global Supply Chain Management Center: A Case Study of Hong Kong.' *Journal of Transport Geography* 18:104–15.
- Wang, J., D. Olivier, T. Notteboom, and B. Slack, eds. 2016. *Ports, Cities, and Global Supply Chains*. 2nd ed. Abingdon: Routledge.
- Wakeman, R. 2020. *A Modern History of European Cities: 1815 to the Present*. London: Bloomsbury.
- Williams, D. M. 2003. 'Recent Trends in Maritime and Port History.' In *Struggling for Leadership: Antwerp–Rotterdam Port Competition bet-*

Complex Gateways: The North Adriatic Port System in Historical Perspective

ween 1870–2000, edited by R. Loyen, E. Buyst, and G. Devos, 11–26. Berlin: Springer.

Woo, S.-H., S. J. Pettit, D.-W. Kwak, and A. K. C. Beresford. 2011. 'Seaport Research: A Structured Literature Review on Methodological Issues Since the 1980s.' *Transportation Research Part A* 45:667–85.

Worthington, D., ed. 2017. *The New Coastal History: Cultural and Environmental Perspectives from Scotland and Beyond*. Basingstoke: Palgrave.