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The battle over the commons in port cities

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ABSTRACT

The zone of intersection between land and sea within an urban context has long been viewed as a special type of urban commons. The well-researched port-city interface, however, tells a rather tragic story about the use and management of this valuable resource. This study asks how four major regulatory-institutional issues in the interface – land ownership, activities allowed in port area, planning autonomy, and public access – affect the ability of ports and cities to preserve elements of “commons” in urban coasts? Furthermore, it assesses if and how Elinor Ostrom’s principles for overcoming commons-related tensions, could contribute to the management of port-city conflicts over land-uses in the Mediterranean urban coastline and the various questions that may derive from such an application. For these purposes the study combines a comprehensive literature review with the analysis of planning regulation and in-depth, semi-structured interviews of key-stakeholders in seven port cities across three Mediterranean countries. The common experience in these different cases suggests that through a strategy involving scaling-down spatial decisions or governance, and built-in mechanisms for spatial cooperation, ports and the cities that host them can find a new joint path, which will strengthen local synergies and the quality of urban, public space.

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Introduction: the tragedy of the urban coastal land

Urban conflicts have long been conceptualized through the lens of the “commons” (Blomley, 2004; Huron, 2015; Lee & Webster, 2006) albeit the concept’s various definitions and interpretations (Hess, 2008; Holder & Flessas, 2008). From natural resources and historic public spaces, through cultural identity to information and technology – its various objects suggest complex, multidimensional understandings as well as applications.

Specifically, the zone of intersection between the land and sea within an urban landscape, was already identified as a *special* “urban commons”, transcending spatial and temporal locations: from the historic European city of Naples to the modern American city of Seattle (Armiero, 2011; Klinge, 2008). The urban coast usually rests in public ownership (Eidelman, 2016) and it is valued by its users on its

everyday functions (Nonini, 2007). It is, however, a special “commons” because it also has the qualities of a public sphere in the Habermasian sense, a physical and conceptual intermediate zone between the governmental and the private institutes (Habermas, 1962; see also Huron, 2015). Rather than collectively owned or managed by all of its users like “true commons”, it is often owned and regulated by the state or state’s agencies at various scales or forms of governance, for the benefit of the public, and under heavy constitutional and regulatory limitations (Nonini, 2007; Garnett, 2012).

Similar to other common resources, the urban coastal land is also a conflictual area, used and misused by multiple functions. Seaports are only one of other major infrastructure, including power station and desalination plants that require a significant stretch of the coastal land. Yet, while efforts are being made to site such facilities far from populated locations, seaports and cities share a history of development, as well as a disentangled space. In fact, the world’s top fifty ports are contained within urban agglomerations (Hall & Jacobs, 2012). The urban hinterland contributes to the competitiveness of the port, thus leaving many of them strongly “territorially constrained” (Lee & Ducruet, 2009). Despite the fact that the use of the urban coast by ports is heavily regulated by the state through designated national and international laws – Hardin’s (1968) solution to the over-exploitation of the commons – ongoing conflicts suggest that current land-use arrangements are far from settled.

On the other side of the divide, municipalities hold the traditional role of safeguarding urban commons, including the coast, for various civic goals, including housing, commerce and recreation. Moreover, the urban coastal land and waterfronts in decaying ports’ facilities, have been globally recreated as public spaces in numerous redevelopment efforts (Degen & Garcia, 2012; Eidelman, 2016; Goheen, 2000). Such spaces hold the potential to play a key role in improving the quality of urban life, intrinsic to vital, sustainable urban communities and a platform to diverse activities (Degen & Garcia, 2012).

Nevertheless, the unsettled spatial conflicts between ports and cities, tell a rather tragic story about the use and management of the urban coastal land in many port-cities across the world (Saz-Salazar, Salvador Del, García-Menéndez, & Merk, 2014). Different public functions, fragmented ownerships and obscure property rights play a role in this port-city interplay, with goals that span strategic, political, economic and social considerations and that bare implications on the lasting and quality of the urban coast.

This study has identified four major issues, which the ports and the local governments rarely agree upon. It asks how these controversies, vis-a-vis the regulatory-institutional settings that structure them in each location, will possibly impact the “inching-back” of the urban coastal commons. In other words, how do these issues impact the ability of ports and municipalities to preserve elements of “commons” in the urban coast? I assume that national legislation has a direct influence not only on the possibility to plan urban spaces and mixed areas along the urban coast, but also on the ability of decision-makers to accept such scenarios.

The first issue is the status of land ownership. The urban coast may be under the definition of a public land ownership (Eidelman, 2016), but this definition does not take

into account that different public institutions (such as municipalities and port authorities) would have divergent views of what that actually means.

The second issue is the level of autonomy each institution poses both in land-related legislation and “on the ground”. The third topic focuses on the types of activities that are allowed by in port areas. The point of departure is that large sections of ports’ territory are not intensively used and therefore some residual “commons” use rights can co-exist. Finally and related to the latter, is the extent to which the public already has an access to the urban coastal zone and especially to the waterfront, and the ways the law perceives the importance of public access, if at all.

This study has gone further to ask how Elinor Ostrom’s principles could potentially contribute to the easement of the port-city conflict. In order to do so, this paper goes back to her understating of the commons as “resource systems regardless of the property rights involved” (Ostrom et al., 1999). In her Nobel-awarded theorization, Ostrom offered recommendations for overcoming commons-related tensions. The recommendations were stipulated based on her findings on how communities are able to devise ways to overcome the tragedy of the commons and assure their perpetuation for future generations (McGinnis & Ostrom, 2008; Ostrom, 1990). Above all, her eight-staged model is about communication, designing social interaction of appropriators of the commons and providing framework for joint management, monitoring and self-constraint (Borch & Kornberger, 2015).

In the rest of the paper the research methods and a literature review of the port-city interface are presented. I then present the major findings and discuss their implications with relation to Ostrom’s model. In the conclusions, I suggest that her insights may support resilient commons, throughout a complimentary view of these territories as public spheres. Accordingly, whereas the management of the urban areas does not very often succeed in adequately allowing for multiple uses, some areas where the port resides have the potential to be an asset and an opportunity for the city rather than a constraint.

Cross-national analysis and research methods

This study is based on a cross-national, in-depth analysis, of land-related conflicts in seven port cities across three Mediterranean countries: Spain, Greece and Israel. Along with the large port cities of Barcelona and Thessaloniki, as well as the port city of Haifa, other case-studies in this study include Volos and Kavala (Greece), Alicante and Tarragona (Spain), which represent secondary national ports. These are usually neglected by researchers heretofore, despite their important strategic and economic role at both national and local levels. The collection of three primary national contexts provides a wide range of land-related planning and land-use regulatory tools. A methodology of cross-national comparisons of planning approach and regulation can be found in studies which are interested in providing either model examples or scale – against which local performance could be measured (Alterman, 2010). It also provides different views and perceptions regarding the nature of the interface between the port and the city along with practical reasoning on current gaps between law and practice and between plans and reality. A joint research venture that focused on the implementation of the Integrated Coastal Zone Management (ICZM) protocol (entitled Mare

Nostrum), with various participants from these three countries (Alterman et al., 2016), served as a starting point for this expedition.

In order to see if and how existing mechanisms (regulatory, institutional) could help to lessen the locked-in port-city interface, the main relevant legislation was identified and analyzed vis-à-vis local cases of conflicts. This body of legislation includes mainly Port Laws and Planning and Building Laws. A comparison of planning regulation, however, is a challenging task, not only because very often legal documents are only published in the national language, but mainly because details and practices in each country are complex and nuanced, and require pre-knowledge with the national context (Alterman, 2010). Therefore, to better understand the perils and potential of strategies that may reduce port-urban conflicts the complementary method used was face-to-face, in-depth, semi-structured interviews that took place during 2015–2017 (total of 32 interviewees). These included municipal planners and representatives of port authorities, high-level decision-makers such as heads of departments in the relevant regional or national government and people with considerable experience in issues related to building and planning in each national context, such as local academic personnel and local lawyers with expertise in relevant fields. The comparison was conducted thematically and horizontally, according to pre-identified criteria.

Ports-cities and the urban coastal commons

Already a decade ago, according to the IPCC (2014), the coastal zone contained 10% of the world's population and 13% of the world's urban population. The coastal environment along oceans and rivers, both in natural areas and in built-up areas, is indeed under ever-growing pressure, and vulnerability to climate-change impacts is, literally, on the rise. Various regulatory measures at different levels of governance are taken to preserve what is left of the natural coastlines; to increase efficient use of coastal land; and to improve public access to recreational and economic assets (Portmanet et al., 2012).

The port-city interface: coupling or de-coupling?

Globalization has been seen by economic geographers as the main catalyst for significant changes in port geography. The technical improvement of containerization advanced efficacious globalized marine trade. Additional improvements allowed for lower transportation costs, reduced timings, and shortened distances. Subsequently, these innovations spurred the development of new supply chains that opened up new global markets of import and export (Notteboom & Rodrigue, 2008). The volume of global maritime trade, which is concentrated in hands of transnational corporations, handles more than 80% of the total global trade and accounts for over 70% of its value (United Nations, 2012). Still, improvements clearly did not guarantee efficiency: Challenges associated with containerization, such as the “empty container problem”, have begun to surface. Caused by trade imbalances, it is estimated that approximately 20% of the containers at sea and 40% of the containers on land are transported empty (Wolff, Herz, & Flaming, 2011).

Another challenge of these techno-distributional dynamics is the increasing tension between port development and urban land-uses (Notteboom, 2016). The understanding

of the spatial and socio-economic interrelationships of ports and their adjacent cities is based primarily on Bird's Anyport model of port development (Bird, 1971). The Anyport model depicted three main stages in the spatial development of large traditional ports: from a small site with quays at the midst of a town center, through its expansion away from the central business district, to a port specialization, which requires the removal of port activity away from the old, inadequate infrastructure (Notteboom & Rodrigue, 2005). Containerization required the deepening and widening of marine channels and terminals, thus creating new negative environmental consequences as well as pushing port facilities downstream or upstream (Notteboom, 2016). In his six-stage model, Hoyle (1989) added another stage in which waterfront regeneration takes place in what used to be a "gray zone" of decay and conflict (Ng & Ducruet 2014). Hayuth (1982) and Hoyle (1989) observed as well that in the last couple of decades, ports and cities have lost their geographical and functional ties, and that segregation between the two entities has emerged – a "de-coupling".

There is usually no disagreement over the contribution of seaports to the countries' economies as national infrastructure. The cycles of influence of the port activity are broad and include, inter alia, a large number and a variety of interdependent industries. However, at the urban level, the port's economic contribution is very difficult to quantify and depends on both the type of port and the goods passing through it as well as the nature of the industry that accompanies it (e.g. banking versus oil refining). In addition, international studies have been showing that nowadays the activities of the port do not necessarily have a direct contribution to its city. The observation in the Ports and Cities report of the OECD that there is no straightforward mutual growth of ports and cities and that "port decline can go together with urban growth; and population decline can combine with port growth" (Merk, 2013, p. 14) – is another expression of the port-city de-coupling.

Furthermore, while the port used to be a major source of employment, studies have shown that today, economic activities of the positive effects of port's activities can be found in relatively remote regions, not necessarily in the adjacent city. For example, another OECD report notes that 90% of the indirect economic activities of the Hamburg and Le Havre ports occur in other provinces (Merk & Dank, 2013; see also Gripaos & Gripaos, 1995; Jung, 2011). A study conducted by Felsenstein, Lichter, and Ashbel (2014) in the port city of Haifa, Israel, found that future port expansion may have a positive impact on employment and residential development, but also that the anticipated impact is limited and does not necessarily correlate with the size of expansion.

While the economic advantages of the industrial port do not necessarily contribute directly to the nearby city, the negative consequences of port activity are very much local. Port activity imposes a range of risks on the marine life, the coastal area and the urban space, including sea pollution and air pollution. It blocks public access to the waterfront, creates visual obstruction, consumes land, and increases the load on roads and railways (Saz-Salazar et al., 2014).

The tragedy of the urban coast has, therefore, several manifestations. Not a rare sight in port cities is a largely neglected and under-utilized landscape surrounding port facilities (Felsenstein et al., 2014). Additional growing environmental pressure is attributed to the intensity of industrial activities surrounding the ports and their impact on the adjacent urban communities (Lee & Ducruet, 2009). Massive transportation lines

and rail-yards create physical barriers between the port and the city, as has been documented in cities like Lisbon, Marseille and Barcelona (Daamen & Vries, 2013; Garcia, 2008). In short, between urban uses and port uses there are often “zones of conflict” (Daamen & Vries, 2013).

Yet, the port-city interface is attributed not only to physical or spatial conflicts, but also to the institutional separation between these two entities. With distinct interests and overlapping land-usages, cities and ports developed mutual fears of being restricted and the relationship between management bodies of both cities and ports is characterized by lack of cooperation and mistrust (Ng & Pallis, 2010). Despite much effort to reconcile the battle over the precious urban coastal land through different cooperation mechanisms, and a few exemplar cases of waterfront regeneration in obsolete port land (as will be further discussed), there are still many port-cities which strive to find a common ground over topics, such as environmental controls, legal control of planning and development, types of land uses permitted in the port areas, access to the public land and property ownership, control and financing of infrastructure as well as payment of fees and taxes. On-going conflicts may imply that the coupling of ports and cities was not brought to its end and that “ports are still urban” (Hall & Jacobs, 2012, p. 202).

Waterfront regeneration projects as the new (urban) commons?

While “ports are still urban”, in their quest for more land, they have freed obsolete areas. Waterfront regeneration mega-projects in such areas, which became a global phenomenon since the 1970’s and 1980’s, exhibit, however, complex dynamics (Desfor et al., 2011). The transitions of several ports into waterfront projects that includes luxury housing, entertainment, hotels, maritime heritage museums and art centers, in cities like Baltimore, New York, Barcelona, Bilbao, and Vancouver, are being used as reference points, serving in processes of production, dissemination and legitimation of plans in other cities (Cook & Ward, 2012). Some may argue that such transformation point to the fact that despite evidence of de-coupling, port-related industries and shipping companies have aligned their goals with “non-port interests” in the waterfront. According to Bunce and Desfor (2007), the result of the struggle to determine primary land-use in the waterfront seems to be “won by proponents for residential, entertainment, leisure and mixed-used commercial developments”.

Yet, since drivers of waterfront regeneration are similar to those of urban development more generally, exercised through the promotion of economic and political visions of planners and developers (Dovey, 2005; Wakefield, 2007) – the shift from a working port to civic space is “socially painful and politically contentious” (Ward, 2017, p. 96). A significant scholarly work has critically examined waterfront revitalization projects, emphasizing their inherent politics and complex interaction between culture and place (Avni, 2017; Kinder, 2015). For example, studies have pointed to the uneven distribution of social benefits from the project’s outcome (Lehrer & Laidley, 2008; Wakefield, 2007) and the exclusion of local population from the planning process (O’Callaghan & Linehan, 2007). Challenges in waterfront projects are indeed multi-faceted and include a limited access to the waterfront’s edge, the obstruction of view, type and purpose of usages on the site (i.e. tourists vs. local population), the quality of design and the speed of implementation (Brown, 2009). What is more, it seems that in

most cases, ownership and control of land and property in waterfronts remained issues rife with conflict, involving multiple interests of competing stakeholders, including port authorities, city agencies, private individuals and companies, military and central government. The focus of much research is on the highly contentious clash between public and private interests, which exemplify neo-liberal battles over property rights and financial profits (i.e. Boland, Bronte, & Muir, 2017; Grubbauer & Čamprag, 2018).

The scholarly critique of urban regeneration projects focuses on issues related to social justice, accessibility, distribution of benefits, and inclusion of interests, public engagement and environmental integrity. Underlying this critique is the view of the waterfronts as an urban public space. As such, they are not a pure commons in legal terms, as they have owners (i.e., the State, local government or Port Authorities), while “true” common-pool-resources are unowned. But they resemble commons since various political and regulatory limitations are placed on those owners, “dramatically curtail the extent to which they control those spaces” (Garnett, 2012, p. 2005) and as such, they too suffer from a pathological tragedy.

A cross-national regulatory challenge to protect the coastal zone

The Roman Civil Law defined the air, the sea and the shore as commons already in 500 A.D. (Portman, 2016). Since then, several international efforts were made to protect them from misuse or overexploitation. While the International Convention for the Prevention of Pollution from Ships (MARPOL) addresses some of the negative impacts of shipping activity (especially air and water pollution) it does not cover additional negative potential impacts created by ports. Interestingly, ports are exempted also from the regulatory guidance of the ICZM Protocol. The ICZM Protocol to the Barcelona Convention, adopted in January 2008, was the first, and as of today the only international legal instrument specifically addressing coastal zones management (Rochette & Bille, 2012). Yet, ports and ICZM initiatives are rarely synergized (De Langen & Nijdam, 2007), despite the integrative aspirations the Protocol carries, which traverse pure physical-environmental issues (and include, for example, accessibility, public participation in planning or management and coordination institutions). Article 9(f) in the Protocol includes only a weak reference to what it calls “economic activities” (“infrastructure, energy facilities, ports and maritime works and structures”). The Protocol purports “*to subject such infrastructure, facilities, works and structures to authorisation so that their negative impact on coastal ecosystems, landscapes and geomorphology is minimised or, where appropriate, compensated by non-financial measures*”. The question is whether such a general recommendation is sufficient to expedite sustainable management of coastal areas in cases of large-scale infrastructures.

The following section opens with a short presentation of background details related to port governance and planning systems in the three national cases. It then presents the analysis of findings from seven case-studies across three countries. The analysis will focus on four major spatially-related, regulatory-institutional issues, in the port-city interface: land ownership, planning autonomy, activities allowed in port area and the arrangements to safeguard public access. These topics play a key-role in the ability to govern the coastal commons, as will be further discussed.

Findings from three mediterranean countries

The three countries in this study (which have signed and ratified the ICZM protocol), have significantly different socio-geographical conditions. Greece and Israel represent the two extremes in terms of coastal population densities: while in Greece (including its endless seashores of the islands) there is one person for each coastal kilometer, Israel is the most crowded country along the Mediterranean, with approx. 40,000 people per km of coastline.

Both Greece and Spain are maritime nations, with hundreds of ports of various size, as well as historical and symbolic connections to the sea. Israel, on the other hand, has only three industrial ports and the country depends on its maritime gate for 98% of its foreign trade. In both Spain and Greece, each port has its own Port Authority that functions as an independent administration, with the overarching regulatory umbrella of a national authority (PdeE in Spain and recently established RAL and PAP in Greece). Israel has one national Port Corporation (IPC), serving as a port authority under the Ministry of Transport and three management companies in each port.

In terms of planning regulation, decentralized Spain has almost no national arrangements. The post-Franco Constitution (1978) ascribes land-use planning authority to the Autonomous Communities and to regional governments. Municipalities too have some control over issues of land-use planning and building. Only infrastructure crossing more than one Autonomous Community remains under the responsibility of the national government. As opposed to that, Greece and Israel are essentially centralized in their planning approach. In Israel, the Planning and Building Law (1965) regulates the statutory planning process, which is structured in a hierarchal, top-to-bottom manner through national, regional and local commissions and statutory outline plans. Greece as well is very centralized and almost all planning decisions must be approved by national government or even the President, in alignment with the Greek Constitution (article 24(2), which places urban and regional planning under state authority and control (Giannakourou & Balla, 2012). At the local level, it has been argued, urban plans are usually responsive, ex-post regulating historical and on-going unauthorized building, led by private land owners and reinforced by development rights – despite their unclear legal stance (Getimis & Giannakourou, 2014).

Regardless of the extensive differences in land-use planning framework as well as port governance and structure, studies have shown that the port-city interface crosses countries and institutional-regulatory contexts. The following analysis will discuss and compare such variations in relation to four issues.

Land ownership

While reforms and changes in port management and the provision of services have undergone dramatic changes in recent years in all three national contexts (especially toward privatization, in alignment with the “Landlord Model” of the World Bank) – the laws define coastal land, including port territory, as public domain. . Unlike the Australian case, where port assets including land in 99-years leaseholds were sold to the private sector (Brooks, Cullinane, & Pallis, 2017), the status of national ownership of the land will probably not change, even in the case of full privatization in Greece, as

anticipated in both the ports of Piraeus and Thessaloniki (Interview with municipality member in the governing board of Thessaloniki PA, Greece). Also in alignment with the landlord operation model, it is usually the State who owns the land. The land is transferred through a lease to a Port Authority (PA), a public body, which leases out the terminals to private operators. Nevertheless, there are some variations across countries, especially in their institutional arsenal. Importantly, location-based laws and planning constrains also impose conditions on land transfer, acquisition and use.

In Greece, the seashore and coastline belong to the State. Land and maritime space are defined as State property. This is also true in Israel, where over 90% of the land is nationally-owned, including the coast. But in the Israeli case, the leasing arrangement is still under negotiation: since the beginning of the port reform in 2004 and until today, the issue of land ownership is not fully resolved with a satisfying legal arrangement, which involves the Israeli Port Corporation (IPC) and the national land holder – Israel's Land Authority. Spain is different, with three levels of ownership, which include (1) the "Coastal territory", with state's ownership protected by the Spanish constitution; (2) "Land territory", which is owned by Port Authorities mainly for logistical operation of the port and can be sold; and (3) "Local public domain", which is the area adjacent to the port (including, for example, highway area) which is owned by the local government (the Ports and Merchant Shipping Act, 2/2011).

Studies have highlight land ownership as a key controversy (Daamen & Vries, 2013). But why is land ownership so critical, when we discuss public infrastructure on national land? This is a question that still begs an answer. Blomley (2016, p. 594) provides a strong normative linkage in his discussion of the concept of "property". He writes: "Within modern liberal society, it [property] appears indelibly tied to a specific spatial configuration, that being the territory, a bounded social space that inscribes powerful meanings – in particular relating to spatial access or exclusion – onto defined segments of the world".

The port, to the extent it remains a public infrastructure, is an interesting entity, Janus faced; a zone that is both owned and used in a mixture of public-private properties. Eidelman (2016) has already identified that it is exactly this degree of ownership fragmentation among public and private interests – that affects redevelopment plans in waterfronts. The findings of our current study further suggest that societies may attach two levels of meaning to the ownership and use of urban coastal land: a practical-regulatory and a symbolic level. In practice, the matter does not rest within the ownership *per se*, but within the rights of access (exclusion and inclusion) or rights of use (for example, the right of the Port Authority to initiate land-use plans, or the right to use the land for non-port activities as will be further detailed).

At the symbolic level, however, ownership of land, especially land that is historically preserved as public domain, can embed various types of ideologies. For example, an ideology which sees the commons as a resource that belongs to the public, and which values communal, open access (Ostrom, 2015) – in our case to the waterfront or nearby coastal area. Despite the fact the symbolic level does not necessarily align with current legal-regulatory reality, it may create expectations. Each of the parties with an interest (local residents, the general public, ports authorities and companies, the municipality or the government) develops different perceptions of how this space should be managed.

Such expectations might eventually mature into reality-changing forces, as have happened in some waterfront regeneration projects (c.f. Eidelman, 2016).

Ng and Pallis (2010) have already linked between land ownership and the port-city conflict. According to their comparative research, in cases where the municipal government owns the land, it is more involved in planning the construction of infrastructure, as well as the introduction and enactment of port-related laws and regulations. In contrast, where the national government is the owner of port land, local government was found to play a very limited role in port development projects and governance more generally. So differences between countries as to ownership of port land do exist and these matter.

Land-use planning autonomy of ports

The findings of this current study suggest that the degree of port autonomy and control over planning procedures and building regulations vary among the studied countries. While in Israel and Spain (except for a special case in Barcelona and variations between regional legislation) the port planning process must comply with national and regional planning and building regulations, in Greece ports have autonomy to determine their own building codes and restrictions. The Greek Committee for Ports Planning and Development (ESAL) is a national but designated body, responsible for the general planning, monitoring and implementation of port programs, the allocation of financing and the adaptation of infrastructure (undergone recently reorganization).¹ Master plans for the port area (coastal zone of the harbour) are prepared by the Port Organizations and are approved by ESAL, therefore, the master plans of the major Greek ports do not require even the approval of general planning authorities of Greece. In the 13 Greek Ports of National Importance, changes to the master plan require the approval of the Minister (Interview with Kavala PA representatives, Greece). Yet, in Ports of National Importance, according to the Greek Law 2932/2001, the administrative council of each of the Ports Authorities includes also one representative of the region and one representative of the local municipality. In this way the municipalities can at least negotiate some aspects in the spatial decisions adopted.

Spanish ports also have planning autonomy but there are also mechanisms that promote collaboration. In most regions, including Catalonia, land-use plans of the port are initiated by the PA and are planned independently, but they also must conduct a public hearing, in which the local and regional government note their comments (“El plan especial”). The port and the municipality have six months to resolve any disagreements before the Minister can take a final decision. Local municipalities are required to incorporate the port Special Plan into their urban plans.

In Israel, land-use plans of the ports are initiated and promoted centrally by the national Port Corporation and are approved through the regular planning system. Yet, they do not require the direct involvement of the municipality, only through the city’s representation in the regional planning committee. One of the main concerns of some of the municipal planners of Haifa interviewed for this study, is the “complete separation between the port and the city in land-use plans” and the “black holes this approach forms in the space” (Interview with municipality planner, Haifa, Israel). This has led to an absurd situation during the planning process of

Haifa's comprehensive land use plan that took place during 2007–2016. The appointee who heard the 1,222 public objections submitted to the plan, noted in his final report, that one of the main objections was the competition between the national activities in the urban coastal zone, and the urban activities (employment, open spaces, etc.). Accordingly, port development plans and the accompanied industrial activity are sources for functional, visual and environmental nuisances. The connection of the waterfront to the city, and the continuity of free passage along the coast are additional key public concerns. The fact the entire port area is integrated into the municipal plan in Haifa, unlike the studied case of Tarragona (Spain) for example, means that such concerns are likely to be disregarded.

Activities on port land

National laws in the three Mediterranean cases used to prohibit completely, or at least condition, non-port related economic activities in port land owned by Port Authorities or run by Port Companies. Yet, this approach appears to be changing with the introduction of new port laws. The reason for the original condition is clear: the only justification for the existence of such an authority is to provide uncompromised port and shipping services, strategically and economically important to the state. Beyond Europe and the Mediterranean, this is, however, not always the case as some public Port Authorities, in the US, for example, historically evolved into regional development authorities. The American authorities develop and own assets or infrastructure beyond sole port use, such as bridges, tunnels, airport, rail systems, industrial parks, and more (Poole, 2017).

Nowadays, the Greek port law prohibits residential housing but permits, within the areas of the two ports of “Major Interest” (Piraeus and Thessaloniki), the construction of hotels, parking, offices, restaurants, and shops under the condition that they are included in the ports' Master Plans and approved by the ESAL (article 46). The laws prohibit non-port activities in all other ports. There are some other exemptions; and in ports of National Importance (medium size ports), non-port activities can be promoted by either the port authority or the local municipality if the land-use change is approved by the Regional Units (Interviews with Kavala PA). Nevertheless, it was hard to find concrete examples because this might require greater cooperation between stakeholders than is currently practiced.

According to Daamen and Vries (2013), in France, as oppose to Greece, leisure, tourism, culture and port business activities, cruise, ferries and retail business are allowed by law on port lands. Yet housing on this land is still prohibited. A similar distinction between housing and all other activities can be found in the Spanish Port Law (excluding the Catalan Port of Barcelona). This comprehensive Law (article 77) defines permitted and prohibited uses of port land. Public areas, cultural and recreational facilities, events, exhibitions and other commercial activities that are not strictly linked to port activity are allowed under certain conditions (i.e. the economic activity does not impair the current or future development of the port). However, residence in any form, i.e. housing, apartments or hotels, as well as overhead lines of high voltage power lines; and commercial advertising through posters, billboards or acoustic or audiovisual media – are uses expressly prohibited in the Port Public Domain. Again,

there are exemptions: hotels can be approved by the Council of Ministers, subject to a Special Plan (article 56).

In Israel, land use is strictly limited to port-related activities under the Shipping and Ports Law 2004 and the Property Law 1969 (article 111). According to these statutes, where land is not used for port-related activities, the Port Authority's (Company Ltd.) rights to the land are revoked. Theoretically, it can therefore be transformed to general use by an approved land-use plan. De facto, Haifa's port's development plan for the port hinterland includes not only direct port operations (customs, container storage and haulage areas), but also involves designating land for supplementary "urban functions" such as warehousing, logistics parks and business service areas (Felsenstein et al., 2014).

The implications of the type of permitted activity in port land can vary. Do urban activities (such as hotels) in port land impose economic competition on the local municipality? Or, do they permit the creation of new urban spaces and mixed areas along the coast? In both Spain and Greece, interviewees from local municipalities had positive attitudes toward such activities in obsolete port area, where they were not seen as an economic threat. They did not express objection to such developments, mainly because the port invested money, which improved the city appearance (Interview with municipality planner, Alicante, Spain). In Israel, such activities are prohibited, but even industrial activities can be controversial, when the conflict over different usages of the land is intense. As one of the interviewees noted: "the national Port Corporation demands more land for storing containers, while it makes money from renting land to private companies and industries. Why does it not keep these areas for the direct needs – current and future – of the port?" (Interview with Kishon Park Authority manager, Haifa, Israel).

Public access

The ICZM protocol considers public access to the coast to be an important value. Article 8(3)(d) states that national legal instruments need to provide "freedom of access by the public to the sea and along the shore". Despite national Coastal Laws which generally safeguards the principle that the seashore and beach are to remain openly accessible, in practice there are variations in the levels of their enforcement. In Greece, for example, parts of the coast are not horizontally accessible because of infrastructure, tourism, illegal constructions and fences. Also in Israel, most of the coastal zone is not accessible to the public because there are many infrastructure installations, including desalination plants, power plants and naval bases (Alterman et al., 2016).

The urban coast is usually exempted from such legal access requirements, although the Spanish Coastal Law requires that in urban areas, vertical access roads to the beach are provided at a minimum interval of 500 meters. Pedestrian access must be provided at a minimum interval of 200 meters – whether on private or public land. In a comparative research on the Mediterranean coast, Alterman et al. (2016) have also reported that the Greek law does not contain specific requirements for vertical access in urban areas, but does allow local authorities to impose such requirements in city plans.

On port land, the waterfront and its adjacent hinterland are often inaccessible, usually due to security concerns, and may also be justified based of the International Ship and Port Facility Security (ISPS) Code. Daamen and Vries (2013) note that in

Marseille, for example, security regulations dominate the development plans of the ports, and access is designed in such a way that public space and amenities are elevated above port operations. In fact, access is possible only at the second floor of a commercial mall – and that access is limited to views of the sea. In the specific Spanish and Greek ports studied here, public access to the waterfront within port territory is much more extensive than in Marseille – with promenades easily accessible from the city centers, mainly driven by the existence of passenger docks, yacht marinas or small fishing harbors, but also because ports possess public amenities (such as restaurants, parking spaces or real estate rentals). Still, it is very common to encounter problems in the division of responsibilities between the municipality and port authorities in those areas, including maintenance, cleaning, security, city taxes, and management of environmental hazards (interviews with planning lawyer, Barcelona, Spain; municipal planners, Valencia, Spain; municipal planner, Thessaloniki, Greece). In Haifa (Israel), port land is a completely restricted space, and public access is prohibited. There is, however, an approved waterfront regeneration land-use plan in an older part of the port but according to interviewees, “it is not likely that the plan will be implemented, not in a foreseeable time frame or in the next decade or so” (interview with planner, Israel’s Planning Authority).

As discussed earlier, waterfront regeneration projects are not panacea to solving disputes over ownership, access or distribution of benefits. Clinging on such plans to recreate the commons in industrial/post-industrial areas may obscure not only their limited power to contribute to a significant transformation of the city, but it also obscures the inherent contradiction of port spaces in relation to the existence of both public and private interests in the land. Allowing non-port activities in ports’ land, as discussed above, is maybe a way to somehow bypass the “regulatory complex” of property and ownership, but is not a way to avoid conflictual questions regarding the constitutes of the commons or the quality of public spaces, and how or by whom these should be managed.

Discussion: lessons from Ostrom’s design principles for resilient commons

The interface between cities and ports creates many conflicts, primarily due to the statutory separation between the two entities, which also leads to different definitions of land ownership as well as varying degrees of control and accessibility to the waterline and surrounding land. The practice of separation between industrial or commercial activity of ports and urban and public activity (such as residential and recreational usages) has been historically another cause of conflict. But, strict separation of uses is increasingly considered an old paradigm, while new notions are being developed. As a result of technological and social changes, different uses of land and buildings can coexist, under arrangements that ensure security and safety (Wheeler, 2013). Ports and cities already share specific cultural historic landscapes, which precedes modern conflicts, and recall their “symbiosis starting” (Girard, 2013).

Landry (2012) argues that good city-making involves maximizing resources. The coastal resources are key assets in port cities and we consider that they should be treated as commons, both in (traditional) ecological economics sense (i.e. Colding & Barthel, 2013) and in terms of their “publicness” (cf. with Németh, 2012). The

importance of conceptualizing the urban coastal land, including ports' land, as "commons" transcend local governance-based solutions to its misuse, especially if one agrees with the call for a global land management, similar to that of air, water and the atmosphere (Creutzig, 2017), in order to better safeguard this valuable resource.

Still, regulatory and institutional gaps often prevent their sustainable use. Ostrom's design principles for overcoming commons-related tensions are based on the observation that "...when groups are relatively small, engage in face-to-face communication, and build norms of trust and reciprocity, they are able to agree on a strategy to solve social dilemmas and carry through on their agreements" (McGinnis & Ostrom, 2008, p.189). We now draw on Ostrom's key principles and discuss their applicability to the tensions associated with port-city territorial interface.

Ostrom's first requirement is to define clear boundaries between groups of participants who have rights to withdraw resource units from the commons and nonusers (Cox, Arnold, & Villamayor-Tomás, 2010; Ostrom et al., 1999). This is, however, not an easy task. In all the port cities studied here, despite the seemingly clear legal separation between land ownership and rights of use, and between physical planning, there are specific ongoing disputes, particularly revolving around definition of responsibilities for maintenance costs, cleaning or developing. Additionally, the "city" and the "port" are not two distinct entities with separate interests. Cities may promote port uses of the land over urban uses for various reasons; for example, because they believe port activity is beneficial to the urban economy. Similar to the multiple voices "the public" can express, also professional perceptions of what is good for the city are not univocal, as critical studies of waterfront regeneration have shown.

Moreover, an unequal distribution of power between groups challenges the task of defining group boundaries. There is an unstated assumption, in many of the studies conducted on the port-city interface, that the authority and ability of the various stakeholders to promote plans are not uniform. The Port Authorities are often seen as strong, while the local government is usually considered much weaker in its ability to define and implement its spatial goals. Yet, there are examples of institutional arrangements that can compensate for uneven political capital, such as stakeholders' representation in management boards, designated departments for port-city cooperation and foothold in the planning processes or a mutual ability to influence it.

These could also support two more of Ostrom's principles: to provide low-cost means for dispute resolution among participants or between participants and the regulator, and to ensure that those affected by the rules can participate in modifying them. To implement the latter principle, not only representatives of city governments and ports, but also the local population must be allowed to participate. Implementation of effective mechanisms for public participation, albeit their imperfections, would also address an additional principle, which refers to a system which would monitor the behavior of members. The monitoring would be carried out by participating members or by an external regulator.

The fifth principle for robust management suggests matching the rules governing the use of common goods to local needs and conditions. This principle draws attention to the question of scale of governance and relates to the levels of decentralization of decision-making in each country. While most spatial decisions related to large

infrastructure are taken at a national level (see Marshall, 2013), Ostrom's model offers a local resolution approach. It requires the scaling-down of decision-making authority and planning to the city, or at least to the regional level.

Adjusting the level of governance to local conditions also supports the six principle, which calls to build responsibility for governing the common resource (appropriation, provision, monitoring, enforcement, conflict-resolution and governance activities) in nested tiers from the lowest level up to the entire interconnected system. "Gray zones", or "border zones", such as between the core area of port activity and the city, challenge current institutional-regulatory frameworks of planning which struggle to address conflicts and that will always favor, maybe unrealistically, conflict-free, empty zones. They also reflect the inherent tension between different levels of planning jurisdiction and their focus of attention. Such mismatch was observed and conceptualized as the lack of fit between institutions and socio-ecological systems (Folke et al., 2007). In such cases, horizontal forms of interaction prevail and each decision-making institution has its own perception of how such spaces should be occupied and managed. Usually, the result is that national strategic or economic interests override local planning goals.

Ostrom's remaining recommendations include the use of graduated sanctions for rule violators and the safeguarding, by external government authorities, of rule-making rights for participants. In order to design such mechanisms, there will be a need to define what it means to violate the rules of using the coastal commons. Violations may include unauthorized use of the land, non-compliance with environmental standards, or even a lack of cooperation from stakeholders.

The tensions between different levels of planning, between the practical and the symbolic, between ownership and use, and the interests of the various stakeholders are not an exclusive experience of port cities. All cities are characterized by a wide range of internal institutions whose conflicting objectives, values, and activities play a role in urban development (Wilson, 1987). Urban sociologists have also examined the phenomenon of physical or perceptually constructed boundaries within cities. The importance of this topic lies in the observation that the organization of and control over space affected by competing interests and governance, has traditionally produced social inequalities and exclusion, giving rise to questions of control and sovereignty (Agnew, 2013). Yet, not all efforts are in vain; several urban regeneration projects, for example, are considered new spaces of "collaborative commons" (Clemente et al., 2015, p. 113).

On a much larger scale, the ICZM protocol, in its current form, can serve only as a model. As the highest level framework intended to safeguard the coastal commons, it presents many achievements. However, the institutional and administrative fragmentation that characterizes the management of coastal areas in many countries (Portman et al., 2012) poses a significant challenge to its implementation. Port cities, with their many tensions and limitations to cooperation, provide a practical example of this fragmentation. Currently, the most widespread administrative model for ports is the landlord port model, advanced by the World Bank, in which governments establish Port Authorities to manage port activities. Yet that model is based on the paradigm that ports exist as separate, detached entities from cities. The picture emerging suggests that there is a need for a "landlord" in this spatial interface of ports and cities. In an interview with a municipality representative in Volos (Greece) he compellingly noted

that there is a common feeling that the port is “a city within a city”. There may be, however, various institutional-regulatory arrangements that can help to blur such boundaries, and accelerate the inching-back of the (urban) coastal commons.

Concluding remarks

It is not easy to think about port territory along the shoreline and inland as the commons, because these are massive, inaccessible and strategically important infrastructure at national level. But in a world where “natural” common pool resources are becoming increasingly rare and where a significant portion of the coast is built-up, it is necessary to expand the notion of urban commons also to the “gray areas”, post-industrial zones which hold the potential to become mixed-use, public spaces.

This study has demonstrated how land-based arrangements, primarily the four which we outlined in the results section, can be critical in understanding the sources of planning-related conflicts and potential solutions. Notably, the classification of port land as public domain or public land in the law of each country studied here does not bring with it any guarantee of “open access”, a “right of access” or the ability of representatives of the public to make a significant impact on the spatial design of the area. Similarity, waterfront regeneration projects sometimes exhibit a port-city resolution to some extent, creating new urban commons, while a critical look on this space may question its quality or overall contribution to different publics.

The common experiences found in the contrasting coastal cities cited in this study lead to a suggestion that – through combined strategies involving lessons from Ostrom’s design principles for managing resilient commons – ports and the cities that host them can find a new harmony and synergy which will strengthen local economies and quality of life. Since most previous studies of the port-city interface have focused on mapping and analyzing cases of conflict, it is time to take the examination one step further by focusing on mechanisms for greater spatial cooperation.

Note

1. For a comprehensive, updated review in English of port governance in Greece, see Pallis and George (2017).

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