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Protect our Ports! But wait, what are we talking about?

A call for relational planning first, spatial planning second.



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The thesis of this commentary is that the success of ports does not depend on results, but on the perception of the port. Today, the success of the port is changing rapidly. From being a logistical champion in attracting cargo, we now increasingly want ports to help our society; this through innovation, post-fossil energy production, a circular economy, high quality jobs, etc. However, this new societal purpose of ports is at odds with the decades-old perception of ports and the way we have institutionalised this perception. This commentary explains that if we want to find the real answers to the challenges facing our ports and society, we need to rethink our perception of ports. If we don't, the policies we develop will miss the mark. We need to adopt a relational perception of the port first, and a spatial planning second. In this way we will be able to see how innovation happens, who is involved, where the key players are and who benefits.

Ports become pawns in the global political game

On 18 September 2023, the European Parliament voted a motion calling on the European Commission to draw up a European port strategy “to ensure the future competitiveness and resilience of European ports and avoids any foreign dependency in this sector”¹. This is because Europe and its ports are subject to what some call the new permanent state of ‘polycrisis’². This includes the energy transition (e.g. post-fossil, hydrogen), the sustainable transition (e.g. bio-based, circular economy), the logistical transition (e.g. multimodality, congestion, security), the digital transition (e.g. ‘smart port’, customs), the socio-economic transition (e.g. number and quality of jobs), and the political transition (e.g. geopolitical pressure to ‘protect’ maritime companies and activities). The changing relationship with China plays an important role here. The political storm following the acquisition of the German Tollerort container terminal in Hamburg by the Chinese Cosco is illustrative: potentially a smart economic decision³, but strongly opposed by geopolitical concerns.

Although the new port strategy doesn't exist yet, the difference in language and goals with the former European Commission's port strategy is remarkable. In this 2013 strategy, the main idea is that “we need to connect ports with railways and inland waterways to promote sustainable

growth in transport. The success of a good port is a solid connection to its immediate surrounding inland area: its hinterland”⁴.



Although the new European Commission’s port strategy doesn’t exist yet, the difference in language and goals with the former port strategy is remarkable.

I won’t go deeper into the details of both documents, but the main thing that I want to stress here is that the two documents define the ‘success of a port’ completely different. In 2013, the success of a port depended on its logistical performance and its accessibility to its hinterland and to the rest of the world, now the success of a port depends on its societal relevance and even its independence from global processes.

In this comment, I want to explain that this shift in what makes a successful port, is part of a fundamental, even philosophical change that is ongoing in spatial planning and management: the way we perceive space and how this influences and limits our spatial planning measures, such as plans, policies, and strategies. This goes beyond ports, but ports are an ideal illustration of this change. The proposition of this commentary is therefore that the success of a port does not depend on the results achieved, where most attention goes too, but on the perception of the port. So, if we want to ‘protect our ports’, we need to know what we are talking about.



The success of a port does not depend on the results achieved, but on the perception of the port. So, if we want to ‘protect our ports’, we need to know what we are talking about.

My comment is structured as follows. First, I will explain the different ways in which space is perceived in geography, and how this perception has become institutionalised. Then I will explain ‘another’ way of perceiving the port, and how this perception would allow us to think of different – perhaps better? – ways of dealing with the ‘polycrisis’.

Why we think we have Any Ports

My comment is structured as follows. First, I will explain the different ways in which space is perceived in geography, and how this perception has become institutionalised. Then I will explain ‘another’ way of perceiving the port, and how this perception would allow us to think of different – perhaps better? – ways of dealing with the ‘polycrisis’.

Let me begin by pointing out that there are three dominant perceptions of reality in geography. The first is the perception that people today associate most with physical and landscape geography. This perception uses observation to create a reality. One start with a white sheet of paper and collect data, for example by digging up soil, measuring fauna or temperature, or creating typologies of the built environment. These data are aggregated to form classifications. Finally, these classifications are reprojected onto the former white sheet and a ‘new reality’ is created. There are many examples, but the most widely known is for example the Koppen-Geiger climate classification world map, but also any topographical map showing roads, urban centres, agricultural areas, coastal zones, mountain ranges, etc. can be regarded as such. The ultimate goal of this first perception is to create a reality.

Port studies are no exception. Every academic PhD student whose subject is the port-city will read and refer to the work of *James Bird*⁵. During the 1960s, James Bird observed that many of

the UK's port-cities were developing in a similar way, which he modelled in his now well-known 'Any Port' model (Figure 1).

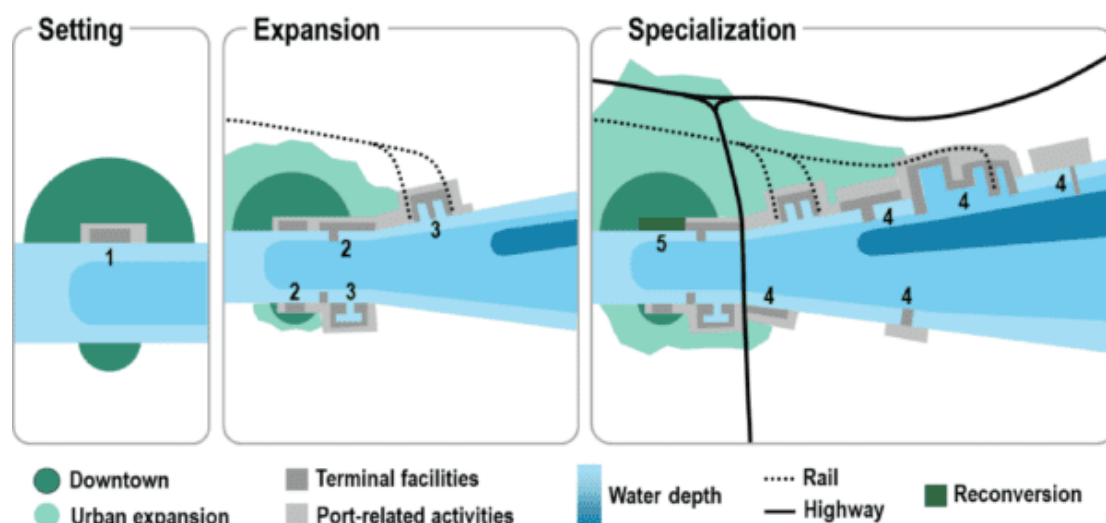


Figure 1: The development of port cities (Bird, 1963)

Within this model, Bird describes three general phases that a port-city goes through: an initial phase in which the port and the city are in symbiosis, an expansion phase in which the port activities – broadly defined as logistical large-scale activities -, move out of the city centre downstream or along the coast in search of greenfield sites capable of accommodating dedicated and upscaled infrastructure, and a specialisation phase, in which this specialisation and upscaling continues.

There are, however, many other models that exist alongside this one, or an improvement or variant of Bird's, but they all essentially assert the same thing: that the port and city are two spatially distinct entities. Geographical observations and subsequent modelling are always inaccurate and incomplete, as geographers know. The goal is, therefore, to use modelling to better understand and analyse ongoing developments. In other words, it is an analytical representation of reality.



Brian Hoyle warned that the port-city is an integrated system, and that one should be cautious when using models.

Even Brian Hoyle, another geographer whose sequential model 'the port-city interface' ⁶ is based on Bird's work, argues in his paper that 'the port-city should be seen as an integrated economic system', as a kind of warning to the reader to be cautious when using his and other models. Of course, in the academic jungle of 'publish or perish', this warning is usually overlooked. The moment I realised that models are limited in their explanation, was when I applied the Hoyle's model to the evolution of the port cities of Bruges, Ghent, and Antwerp ⁷. But perhaps the best explanation of why these models are limited is to try to answer or explain what the first 'setting/symbiotic' phase entailed.



The Latin 'portus' means, among other things: a gate or door. If we consider the 'port' as nothing more than a line to enter or leave the city, we see a symbiotic port-city system.

You will quickly discover that from a spatial point of view, in these pre-modern port cities, it is impossible to say where the port ends or the city begins. The best one can do, is to draw a line along the river or the coast. It is interesting to note that a port is, in fact, what it means in Latin: a gate or door; and a port is no different from a door of a room to go in or out. In other words, a port is no separate space.

The created region as a given

The question is why this spatially simplistic notion of a port and city as two separate entities became institutionalised and indeed a reality. To answer this, we need to move to a second dominant perspective in geography; a perception where the reality is a given. In a way, the starting point for this kind of geographical research begins where the first perception ends. The observation of what 'the Netherlands' is, what a coastal zone is, which areas can be considered as urban and which not, is no longer questioned, but is regarded as a given.

This type of research is often seen as synonymous with socio-economic geography. Here, data is collected using the given reality as a structuring framework. For example, a researcher collects data on the number of people with or without a job, calculates the GDP, or the number of sustainable companies. These figures are then aggregated for a given reality, often a statistical unit such as a municipality, province, or country. The result is a map, which in many cases uses a colour scheme to show which statistical unit is performing better or worse than the average. Given the need for (big) data, it's no coincidence that this perception really took off in the 1980s and 1990s, with the advent of the computer revolution – or better known as the quantitative revolution. Programmes such as ArcGIS are now the standard tools for this type of research.

Ports are again no exception. Here, researchers started to take the constructed perception of a port (e.g. 'purple' industrial colour on spatial planning maps) in order to calculate, for example, the number of jobs, or the energy consumed. What is remarkable, however, is that also other spatial functions have also been observed and classified as 'out of the city', such as shopping centres, sports stadiums, or green spaces. But it's not as if these are seen as a different reality and have separate realities with their own institutional organisation. Even within the industrial 'definition', there are many 'purple areas', within or outside the city, that do not belong to a dedicated authority, at least not in a similar way as port authorities. The reason for the specificity of ports has to be explained by globalisation.

Hyper-globalisation

Globalisation can be explained in many ways, but one of the best ways is to explain it by looking at the evolution of the relative share of trade activities as part of the total global GPP. In other words, this parameter uses the proxy of trade to explain how 'open' the world is, trade that can be both material and immaterial. The graph is quite remarkable (Figure 2). Just before the First World War, a level of 20% was reached for the first time. After the two world wars and the continuous protectionist measures, the same level was not reached until the second half of the 1960s. Since then, we have seen an increase, but especially from the late 1980s to the 2000s, the increase is significant.

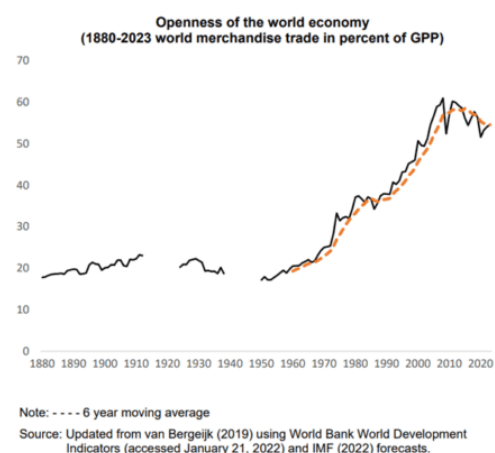


Figure 2: Openness of the world economy (1880-2023 world merchandise trade in percent of GPP) ⁸

Today, we call this period 'hyper-globalisation', a period in which the trade activities increased exponentially. There are many reasons for this, but among those the fall of the Iron Curtain, the creation of the European Single Market, the entry of China into the world economy, and digitalisation are the most important. The huge increase in trade - and the need for trade - has transformed port cities in the West in particular. This commentary does not have the space to fully explain the rationale, but to summarise, trade is a derivative demand of activities, activities such as agriculture and industrial production. Because of globalisation and the huge increase of a complex web of supply and demand (e.g. cheap stuff from China to the West), functions that facilitate trade also increased enormously; functions such as banking, insurance, but also logistics. In turn, a port city that wanted to benefit from this hyper-globalisation therefore needed had to adapt its spatial policy. Cities started to (continue to) develop business centres, and ports began to develop infrastructure to support specific logistical activities. Of the latter, container activities are the best known.

Institutionalised port reality

The growth in demand for service functions was so fast that it was argued that the 'traditional' way of managing ports, through democratic municipal processes, was too slow. Simply put, a port that was slower than another port to decide on the construction of a new container terminal, a new railway, or a pipeline, became less competitive, lost its market share, and thus received less revenue. To a certain extent this is true if we look at the steep decline of the former world port of Liverpool ⁹.

This moment is a crucial development. Here, the perception of the port created in the 1960s became institutionalised. It became a new reality, a spatial reality that differs of other industrial areas and differs from the city it used to belong to. This was necessary because the new institutionalized port came with different regulations and a new form of governance: the port authority. If one creates a new governance body, logically tasks and responsibilities are given. Inspired by corporate business models, the decision was made that port authorities should earn money. The way they were allowed to earn money was by taxing in- and outgoing ships, and by the leasing of land.

Logistics trumps industry

Because of the specific design and choice of the business model, and the decision that port authorities can or have to make money, the logistics sector became a favoured sector for issuing land permits. Logistical activities such as containers take up a lot of space for temporary storage and generate a lot of ship movements. This is less the case for industrial activities, which sometimes require only one ship per week and are relatively limited in terms of square metres. The decision not to raise revenue by, for example, taxing added value, or indirectly by increasing tax revenues from people earning higher salaries in industrial companies, have thus turned ports into logistics centres.



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What is a successful port?

This brings me to the question: What is a successful port? For decades, a successful port was rather easy to define. If there was an increase in throughput, and therefore an increase in revenue according to the chosen business model, then things were going well and the investment in the port's infrastructure was justified. Of course, building infrastructure is not enough to be successful, companies also must come. This was and even is today not a problem. The global demand for logistics activities remains high. But the success is a self-fulfilling prophecy. If we agree that a successful port is one that is a service-oriented port, and we adapt our business models and institutional structures in such a way that they benefit logistics functions, which we in turn consider to be successful, isn't this a self-created success?

Such self-creation of success is not exclusively an aspect of ports, although for ports we know that the definition of success is increasingly being questioned. In 2016, the Dutch Advisory Council on Infrastructure and the Environment published the report 'Beyond the Mainport'¹⁰. The central message of the report is the ongoing economic 'law of diminishing returns' of port developments. In summary, the law defines a point on a production curve where producing an additional unit of output results in a loss and is known as negative returns. Simply put, the investments made to build another container terminal will produce increasingly less economic benefit, to the point where it may even become negative if more is invested. This doesn't mean that the absolute revenues can't increase, but that relative productivity will decrease.



On a global scale, there will be relatively less trade activity and relatively more money to be made in other activities such as industry and agriculture.

More recently, however, another development has had a far greater impact in challenging the port's business models. As shown in Figure 2, after the crises of 2008, there was a so-called 'slowbalisation', and now a deglobalisation is underway, although this is still debated in the academic literature. This implies that, on a global scale, there will be relatively less trade activity and relatively more money to be made in other activities such as industry and agriculture. In other words, the demand for trading activities is likely to decrease. But even if these figures can be nuanced or countered in one way or another, the political turn can no longer be ignored.

Trump's 'America First', the US 'Inflation Act', China's ban on the export of critical materials, the EU's Green Deal and Chip Act, are some of the many examples of a changing world. Ports, once a textbook example of globally oriented systems, are at the heart of these political debates. Or in other words, ports become pawns in the global political game. The political discussion following the acquisition of a container terminal in Hamburg by China's Cosco, the subsequent EU decision to protect European ports, and the Dutch initiative to protect its maritime industry, are illustrative. This combined with the growing climate protests, the call for better jobs, and the need for a bio-based and circular economy, means that we need a new definition of success for our ports.

Relational planning first, spatial planning second

There is no port authority today that doesn't realise that it must act. The many efforts and the ongoing initiatives should be applauded. However, the reality remains that port authorities are creations of the globalisation era, from a spatial, institutional, and business point of view; perhaps even in terms of norms and values. Can we as a society find the right answers to the question of what constitutes the port's success if we do not first question how the port is perceived?



The reality remains that port authorities are creations of the globalisation era, from a spatial, institutional, and business point of view; perhaps even in terms of norms and values. Can we as a society find the right answers to the question of what constitutes the port's success if we do not first question how the port is perceived?

The answer to this question goes beyond ports but is relevant to the field of spatial (economic) planning in general. Building on the modernist tradition and linked to the perspectives outlined above, the organisation of space is topographical. However, the real reason why these spaces exist is not because we appointed they are 'cities' or 'ports', but they exist following the interactions by actors, companies, or organisations. In other words, a city is not defined by its built environment, but its built environment enables specific interactions and added value. Often, we reverse this causality, at least implicitly. The same applies to ports.

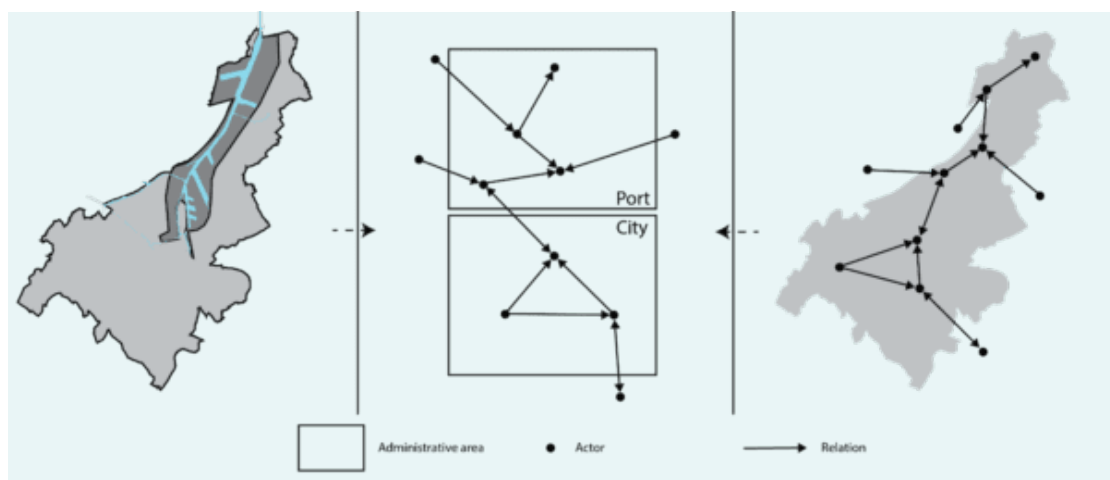


Figure 3: A relational view of space, in this case the port city¹¹

If we follow this line of argument, a port or port city is 'conditioned by the systems of actors, while at the same time it conditions these systems' (cf. Paasi, 2010¹²).

There are M-Any Ports – so we need also M-Any policy measurements

A relational perspective on the port city (Figure 3) reveals that there are numerous 'realities' of the port and the port city. Logistical relations remain an important one, but if we consider for example R&D relations or financial relations, a different perception of the port emerges. Particularly in terms of implementation in Europe and its Member States, we must continue to innovate to remain independent, and insight into how innovation (not) occurs is essential in order to really know how we, as a society, can intervene. At the moment, the way in which ports are and will be protected, is mostly through measures that are in themselves part of the globalisation era: giving financial benefits to the big companies and providing dedicated infrastructure.



At the moment, the way in which ports are and will be protected, is mostly through measures that are in themselves part of the globalisation era. This calls for a different perception of the port and thus a different way of defining its success.

This call for a different perception of the port and thus a different definition of its success, is not a plea to get rid of port authorities, quite the opposite. Port authorities have developed a capacity to understand and interact with global players that city governments don't really have. This will remain necessary. However, we need to rethink how port authorities can operate and if and how they can make money. If we were to agree that port authorities need to achieve societal goals, such as more jobs, more innovation, more biodiversity, more strategic production, a circular economy, etc., and that they are also rewarded for doing so, this would lead directly to a different understanding of the port and the city.

Facilitating scale-ups to (re)connect urban and maritime economies

Finally, I would like to make one specific recommendation: facilitate scale-ups. Both the port and the city need to overcome their biased perception of "what they are and what they do", as explained above, and understand that scale-ups effectively link the urban knowledge economy, where innovation originates, and the maritime production and logistics economy, where markets shape supply and demand.



Both the port and the city need to overcome their biased perception of 'what they are and what they do' and understand that scale-ups effectively link the urban knowledge economy, where innovation originates, and the maritime production and logistics economy, where markets shape supply and demand.

We often forget that the urban and maritime economies are not separate but interlinked and, more importantly, cannot exist without one or the other. Herein lies the real way forward to 'protect our ports'. Facilitating this, is by facilitating scale-ups. This is opposite to the spatial planning of scale-ups today. Scale-ups are not welcome in cities because of their nuisance, and not in ports because of their lack of throughput. So the paradox is that we want to protect our ports and let them become independent, but our perception prevents us from doing so – but we don't even realise it! However, if we can do this, the answers to the current 'polycrisis' may be easier to find.

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For more elaboration on the relational port city, see the PhD of Karel Van den Berghe “Planning the port city : a contribution to and application of the relational approach, based on five case studies in Amsterdam (The Netherlands) and Ghent (Belgium)” <http://hdl.handle.net/1854/LU-8575801>