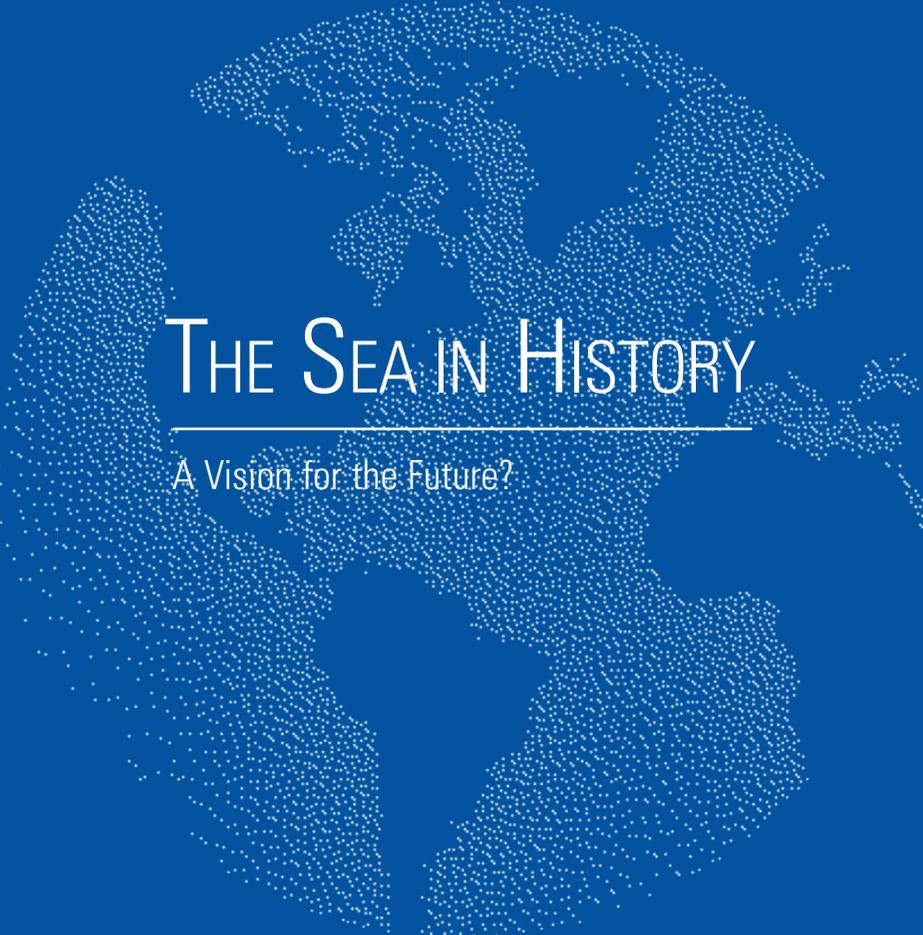


— ÉTUDES MARINES —

SPECIAL ISSUE



THE SEA IN HISTORY

A Vision for the Future?

March 2017

Centre d'études stratégiques de la Marine

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THE SEA IN HISTORY

A Vision for the Future?

Christian Buchet, Scientific Director of Océanides

Special Issue – March 2017
Centre d'études stratégiques de la Marine

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Océanides, Five Years of Research on 5,000 Years of History

Its conclusions in three pages

Océanides is, by its scale, the most significant programme in Social Sciences since the 18th century French Encyclopédie, bringing together 260 researchers from 40 countries. The ambition and originality of this five-year international research programme has been to assess the impact of the maritime in the history of mankind, from the prehistoric times to the present days, and to answer the following issues:

Is the sea impacting on the general evolution of the peoples? What are the evolutions attributed to the sea in History and in the history specific to entities, notably political entities? How has the sea changed the trajectory of the social groups considered? How does the fact of turning towards the sea make it possible to best use the demographic potential, the geographical, political and financial situation, or even the scientific knowledge to constitute a powerful driving force of development and power? Is the sea a factor of success, development or influence?

From all the contributions published *in extenso* in four volumes, in French and in English, by Boydell & Brewer, three fundamental waves emerge which clearly answer our questioning. Yes, the fact of turning towards the sea, regardless of time or place, is the most powerful driving force that can positively impact on historical trajectories. It is because the sea is the drive of history; the drive of power and influence; the catalyst of economic and political development.

I.

THE SEA AS THE DRIVE OF HISTORY

Taking the sea, and no longer the land, as a place of historical reference is a complete reversal of attitude. It allows us to concentrate the study of our research on what unites the different sets and not only within the territorial, national or political framework. It is to consider the maritime space, not as a separation, but as a link, an area of exchanges whether commercial, cultural, scientific. It is no longer satisfactory just to study political groups by themselves or the rivalries they have had with their neighbours, but to apprehend them in their participation within the general synergy that emerges from the dynamic flow which is called History.

Océanides has reconsidered the entire structure of World History made up of four periods (Antiquity, Middle Ages, Modern and Contemporary), a Western-centric approach inadequate to the historical realities of other geographical regions, and has substituted it for a division into three periods, rendering the dynamics of History

much more comprehensible and meaningful if we want to understand the great geopolitical shifts:

- the era of the Mediterraneans, which corresponds to the Ancient and Middle Ages periods;
- the era of the Atlantic, which corresponds to the Modern and Contemporary periods;
- the “New Oceanic” era, or the age of the Global Ocean in which we enter at full speed, and which marks the end of a crisis as a result of a new maritime development. A new maritime development brought about by four very structuring factors which are about to change the geopolitics and the geo-economy of the old order in the long term: the development of the Asian Mediterranean; the demographic boom and the population concentration on coastlines; the new law of the sea upsetting the balance among powers; the geographical revolution initiated by the sea routes to the north.

Under the battering of the sea, the whole World History becomes simple, easy to understand and invites pondering over.

II.

THE SEA AS A DRIVE OF POWER AND INFLUENCE

The predominance of a political entity, regardless of its nature (e.g. city, State, alliance), time or place, always goes to that which owns the largest number of ships. One thinks of warships, merchant vessels, fishing boats, but also nowadays of research vessels.

From one conflict to another, the same observation is made, which is impossible to comprehend fully if we do not analyse History in terms of mobility and connectivity of flows, which are difficult to grasp and which precisely embody the maritime world. The Revolutionary and Napoleonic wars, the First World War, the Second World War and the Cold War give a striking example of this. It is always the country or the alliance that masters the currents that prevails. Who controls the sea controls the land in the end: this is one of the main lessons that emerges after assessing the role and place of the maritime in History.

An observation overturns all the geopolitics that has until now always focused on land history to detect structural elements. This is the whole vision of Sir Halford Mackinder, the founder of geopolitical thinking, that is undermined. And it is interesting to note

that the power that commands the Indian Ocean commands most of the world trade. Much more than the heartland (Eurasia) in which Mackinder saw the pivotal element of world domination, the Indian Ocean might well be what we like to call by analogy the heartsea, whose mastery has always conferred power.

III.

THE SEA AS A CATALYST OF ECONOMIC AND POLITICAL DEVELOPMENT

The political entities that turned towards the sea were involved in traffics and exchanges, and demonstrated openness, all of which were the driving forces of economic development. Maritime transportation clearly appears to have been the driving force behind the agricultural revolution led by specialization, which adapted crops production to land and climate. As a catalyst for exchanges and trade, maritime development also prompted the Industrial Revolution through the considerable impact shipbuilding had on innovation and on the development of the metal industry.

Such process implied, of course, to be sustained by a continuous financial capacity that injected the necessary liquidity into the economy. Again, this aptitude stemmed largely from the initial impact of the sea on the agricultural revolution. The resulting rural exodus, which kept the populations within cities, made it possible to drain savings away and facilitated investment by controlling interest rates.

Océanides' work clearly shows that the maritime world is the most structuring element of history that both confers a military, economic and cultural predominance and is the drive for competitiveness with social and societal consequences. Any political entity, which turns towards the sea, optimises its demographic, geographical or political parameters, and starts a phase of development and influence, in which power goes together with growth, employment, buying power and well-being. We have here not a reflection but an observation, even a new vision of History. May it be enlightening for any decision-maker and show everyone that the sea is the key to history, and thus, more than ever, the catalyst of our future.





The sea and the seabed are now at the heart of the main economic and scientific issues. The Mediterranean, white gorgonian (*Eunicella singularis*).

© Musée océanographique de Monaco / M. Dagnino.

The sea will never stop surprising us. Pascal Picq, a paleontologist at the Collège de France, shows how one of the elements differentiating *Homo Erectus* from the Great Apes is indeed his ability to go to sea. And the ability to navigate and go beyond the visible lands appears to be the characteristic of *Homo Sapiens* supplanting *Homo Erectus*. This is to say how deeply the sea, the “maritimity” is at the deep heart of our humanity.

Three compelling conclusions emerge from the 260 contributions brought together in the four volumes published by Boydell & Brewer, offering a clear response to our questions¹. Indeed, engaging in maritime activities, anywhere and in any age, is the single most powerful *impetus* to create a positive impact on historical trajectories. This is so because the sea acts as the driver of History (I); the driver of predominance and leadership (II); the accelerator of political and economic development (III).

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1. References to chapters in the *Sea in History* volumes are given by author name and volume. The volume titles (the Ancient World, the Medieval World, the Early Modern World and the Modern World) are shortened to Ancient, Medieval, Early Modern and Modern respectively.

I.
THE SEA AS THE DRIVE
OF HISTORY



The *Sedov* near the harbour of Sète, Hérault, France. © C. Ferrer.

Scholars almost everywhere divide History into four periods: Antiquity, the Middle Ages, the Early Modern era (16th, 17th and 18th centuries) and the Modern world. This breakdown reflects a reality. Each of these eras forms a coherent, characteristic whole, defined by a certain way of thinking, behaving, producing and consuming, and even its own way of using the five senses. Distinguishing each period from the others, these aspects are what build our mindset and therefore our way of understanding the world. And this goes as far as shaping our methods for problem-solving.

Each period perished as a new era came to birth. The fall of the Western Roman Empire, which re-emerged transformed and extended in the Holy Roman Empire, laid the groundwork for the Middle Ages. The deadly spasms of the black plague in the 14th century, the shortage of precious metals—an early form of monetary crisis—and the decadence of the old scholastic philosophy led to the collapse of the Middle Ages and sparked the powerful and explosive revolution that became the Renaissance. And in turn the Renaissance set the stage for the modern era, before the defeat of the *Ancien Régime*, in a France incapable of controlling its debts, brought us in 1789—or at the end of the French Revolutionary and Napoleonic wars in various countries—into the modern era.

Four periods. Four historical eras, each fascinating and unique, all reflect a Western division of History which very imperfectly fits the history of other regions in the world, especially Asia and Oceania.

However, this is a different way of understanding, approaching and presenting History, which was the whole point of the Océanides Programme. The work conducted by the 260 contributors has led me to suggest a different structure which more adequately reflects history, the history specific to each geographical region, providing a framework that makes the time dynamic much more intelligible and powerful. What if we used the sea as the instrument through which to analyse and understand major geopolitical shifts?

Instead of considering the land as the space used for marking out history, we could change our attitude completely by considering the sea, shifting focus away from studying our subjects of research within a regional, national or political framework to studying that which unites these different entities. This approach considers the sea not as a separation but as a bridge. It is the quintessential domain of all forms of exchange—commercial, cultural, scientific, etc. This viewpoint involves no longer studying political entities in isolation and in rivalry with their neighbours,

but understanding them through their participation in the overall synergy created by these flow dynamics called History.

This synergy, these dynamics, this connectivity are the very essence of the sea. I have always believed that studying a people from the point of view of their relationship with the sea would be valuable and revealing of their overall mindset. The sea offers us an exceptional lens through which to observe both the general history of a people and history itself, because the sea is the common denominator, the shared space of all. It is the sea that, when we take a closer look, sets the pace of the ups and downs of history.

From this perspective, we can define not four eras but two which have presided over human destiny: the era of “the Mediterraneans”, and the era of the Atlantic. This approach, this universal framework in no way invalidates our division into four periods, but in fact confirms it and specifies their relevance. The ancient and medieval periods fall into the era of “the Mediterraneans”, while the early-modern and modern periods belong to the Atlantic Era. But even the Atlantic Era is already over. Without fully realising it, we have left the Modern period and moved into a new, third era in History, in which anything is possible. We will call it the Age of the Global Ocean.

When seen from the point of view of the sea, the ancient and medieval periods actually form a whole: the era of “the Mediterraneans”.

By putting the word “Mediterranean” in the plural, we refer to the history of several regions, of several spaces in which History unfolded at the same time. History unfolded everywhere, of course, where large human communities lived. But in western societies, we have too often neglected the history of Asia, spread around what François Gipouloux, in line with the work of Jacob Van Leur, Georges Coedès and Fernand Braudel, referred to as the “Asian Mediterranean”¹. In other words, this sea corridor articulated around several interconnected basins: the Sea of Japan, the Yellow Sea, the South and East China Seas, the Sulu Sea, the Celebes Sea, flowing into the Indian Ocean. We have barely begun to discover all the strength and wealth of this history built on encounters, exchanges and conflicts. On one side of it stands the great Chinese space, which has continuously swayed between continental power and openness to this maritime space, which lies at its heart and drives its flows. It is the same dynamic as that inspired by *mare nostrum*, the sea in the middle of lands, along

1. François Gipouloux, *La Méditerranée asiatique*, Paris, CNRS Éditions, 2009. Cf. also Alain Guillerm, *Géopolitique des mers, les Méditerranées d'Europe et d'Asie*, Paris, Cirpés, 1999, and the contribution by Pierre-Yves Manguin, “L'Insulinde et la Mer avant l'arrivée des Occidentaux”, Medieval.

the shores of which the most brilliant civilisations were founded and developed, such as Assur, Egypt under the Pharaohs, Greece, Byzantium, Rome, Venice, Genoa...

One of the strong points of the Océanides Programme is the special importance given to the Indian Ocean, the “great sea” as it was called in Antiquity. The Indian Ocean connected these two Mediterranean waters much more than it separated them. Much historical and archaeological research is needed to assess the position and role played by the Indian Ocean in human history. The Indian Ocean could in fact be the heart, the epicentre of all the disruptions in the world, as it was the point where the roads linking the three continents of the ancient world converged: the Malacca road, linking the Malacca, or Malay, peninsula and the island of Sumatra to China and Japan, the Persian Gulf road, the Red Sea road and soon, after 1488, the Cape of Good Hope road.

Maritime relations between the Indian Ocean and the China Sea in the Middle Age



We could even say, to paraphrase Walter Raleigh, that whoever commands the Indian Ocean commands most of trade of the world. More than the *Heartland* (Eurasia), which Mackinder believed to be the key to world domination, the Indian Ocean could actually be what we would like to call by analogy the *Heartsea*. And control over this space brought world predominance². All of world History would benefit

2. The outstanding book on this subject by Milo Kearney, *The Indian Ocean in World History*, New York, Routledge, 2004.

from being reinterpreted through this prism, to understand the order of geopolitical balance from the ancient world to the world today.

May we consider, for example, that the decline of the Roman Empire could be closely linked to losing control of trade in the Indian Ocean? As of 242, warfare weakened the Roman Empire, while the Goths from Ukraine settled on its lands. The Sassanids, rising after the fall of the Parthians, invaded Mesopotamia, while Zenobia Queen of Palmyra proclaimed independence and seized Antioch. The Ethiopian kingdom of Aksum crossed the Gulf of Aden and seized Yemen, gaining control over access to the Red Sea. As a result, the silk trade slipped through the hands of the Romans into those of the Ethiopians and the Persians. The steady devaluation of the Roman currency could therefore result from the continuous drain towards India and rising prices due to the loss of trade routes. These events did not directly cause the fall of the Roman Empire, but marked its gradual collapse, while the Sassanid Persians took control of trade in the Indian Ocean³.

As we gain knowledge through further study, might we be able to add other Mediterraneans, viewed as trade hubs within a given maritime boundary, shaping regional history in a melting pot of fluidity? From this point of view, François Gipouloux argues that the Baltic Sea and North Sea resemble a northern Mediterranean. And Polynesia could also, perhaps, be viewed as a Mediterranean.

What defines this first era is the relative separation of these maritime spaces and their individual history, even though, as we illustrated above, we may distinguish the same lines of force and the same lessons, varying as each political or trade entity was able to turn towards the epicentre of this space, the sea.

But then a geographic Big Bang occurred—a genuine Copernican Revolution within an extraordinarily short period of time—four years! All of human history was turned upside down by the events that took place between 1488 and 1492, opening the second era of history, a history that became universal. It was the beginning of the Atlantic Era, named after the ocean that fuelled the movement.

1488: The Portuguese explorer Bartholomeu Dias sailed around the tip of Africa, the Cape of Good Hope. This was the discovery of the sea route to the Orient, and this new passage would shake up the economic powers of the world as it had existed up to that point. Spices, fragrances and other goods brought from Asia since the Early

3. Arthur Landon, Master's thesis under the supervision of Christian Buchet, Institut Catholique de Paris, 2015-2016.

Antiquity *via* land routes to the ports of Beirut and Alexandria, would now come directly by the Atlantic, which connects the Indian Ocean to Europe. In 1498, barely ten years after the discovery of the route used to reach the Cape of Good Hope, Vasco de Gama reached India, landing in Calicut.

The era of economic supremacy of the Atlantic, or Western, world had come. That meant the end of the countless intermediaries, who, relying on the strength of camels, from caravan to caravan, slowly carried spices and fragrances to the shores of the Mediterranean. From now on, European ship-owners in Atlantic countries would lay claim to all the gains from this trade, taking it over from end to end. The wealth that had been dispersed along the land routes was now pooled in Europe. Profits exploded, as Europeans did not limit themselves to this global trade. They soon participated in, and at times dominated, regional trade in India and Indonesia, referred to at the time as “country trade”. For the first time in history, the world economy was controlled by a single geographic area, and the West experienced tremendous economic and technological growth which gave the region the predominance it has to this day.

Within less than a century, all Mediterranean trade collapsed, replaced by Atlantic trade. Merchants in Italian cities, which maintained ties with Asia by shipping these goods overland, were unable to hold on to the Era of “the Mediterraneans”, now part of the past. The number of ships in Mediterranean trade fell inexorably, year after year in the 16th century. Now it was the Portuguese and soon the Dutch and British who would be bringing the goods from overseas. The sun rose on the Atlantic world. Venice was better than Genoa at developing in other areas, as night does not fall on those who can adapt, innovate and optimize their strengths. As it could not maintain its trade links, *La Serenissima* specialized in manufacturing luxury goods, such as glass, and in banking, the heritage of its expertise gained in the sea trade.

1492: Christopher Columbus discovered, or rediscovered, America. Have we adequately measured the upheaval that this represented for England, until then the nation lying at the outermost tip of the known world? All of a sudden, it was thrust into the centre of the New World. Before that point, England’s only possibility for expansion had been to the east, towards the continent. This explains the Hundred Years’ War from 1337 to 1453. However, the country could now focus on the west, not so much to conquer land as to control trade. And rightly so. Due to wind and ocean currents, the return routes from America pass precisely off the coast of Lizard Point, England’s westernmost tip. Spain’s ban on all other countries from trading with its new possessions, its American territories, did not stop England, at the nerve centre of Atlantic trade, from answering its calling.

1488 to 1492, the dice are cast! The game is now being played by the new rules of the Atlantic Era, the “great opening up of the planet” to paraphrase the French historian Pierre Chaunu.

The full impact of this revolution was not understood, especially in France and Spain, countries each with one foot in the Mediterranean and the other in the Atlantic. The situation was different for England, as we have seen, as well as Portugal and the Dutch Republic, which emerged from their peripheral backwater and found themselves repositioned in the centre; back in the saddle, as horsemen say.

This era coincides with the early-modern and modern eras of history. They flow without a break, but are distinguishable by the increasing rate of breaking down of barriers.

The 16th, 17th and 18th centuries in fact began maritime globalisation. European powers pushed their networks to the outermost corners of the globe in ruthless competition, but trade volumes were still limited. From this point of view, the 19th century is when things truly accelerated with the industrial revolution, which was driven by three factors: the maritime revolution (with the development of steam shipping, marine technology, copper sheathing used on hulls, etc.), the development of ironclad ships and railways which extended sea trade in an increasingly massive shift inland.

The major discoveries of the modern era had already enabled Europeans to increase the size of available land per inhabitant six-fold. From the 19th century, with the exponential growth of shipbuilding, the cost of sea transport plummeted as sea trade continued to rise in volume, taking on an entirely different magnitude⁴. The era of planetary de-isolation was being replaced by the era of globalisation. Sea trade grew by some 1% per year between 1500 and 1800, not a bad performance in a world where growth rates generally stood at about 0.1% or 0.2% per year. After 1815, the annual growth rate of the sea trade rose to 3.7%. And that rate remained relatively stable, except in periods of war or crisis, until 1992.

The flow of goods from one continent to another continued to flatten price differentials, gradually giving rise to a genuine global market. Farmers in the American Mid-West, the Argentine pampas, the Punjab, Burma, Russia and Australia increasingly competed with farmers in Western Europe and Japan. This had considerable consequences for

4. Kevin O'Rourke, "Free Trade, Industrialisation and the Global Economy, 1815-1914", Modern.

countries with the most open markets, such as England and Germany, which were then able to lead their people towards industrial transformation, encouraging more profitable, high value-added goods over cheap agricultural imports. It is worth noting that without this explosion in sea links, in terms of both imports of agricultural products in exchange for manufactured goods and of emigration (60 million people left Europe between 1815 and 1914), Europe would not have been able to support its tremendous population growth⁵. Africa, having left sea travel largely undeveloped, missed out on these opportunities in the 20th century.

This Atlantic Era has dissipated, even though we still refer to the Atlantic Alliance, the last phase for a community which became aware of its shared values and worked to protect them. Since the early 1990s, we have been experienced a geographic, economic and cultural revolution of no lesser magnitude than the Renaissance at the turn of the 15th and 16th centuries, which brought us into the Atlantic Era.

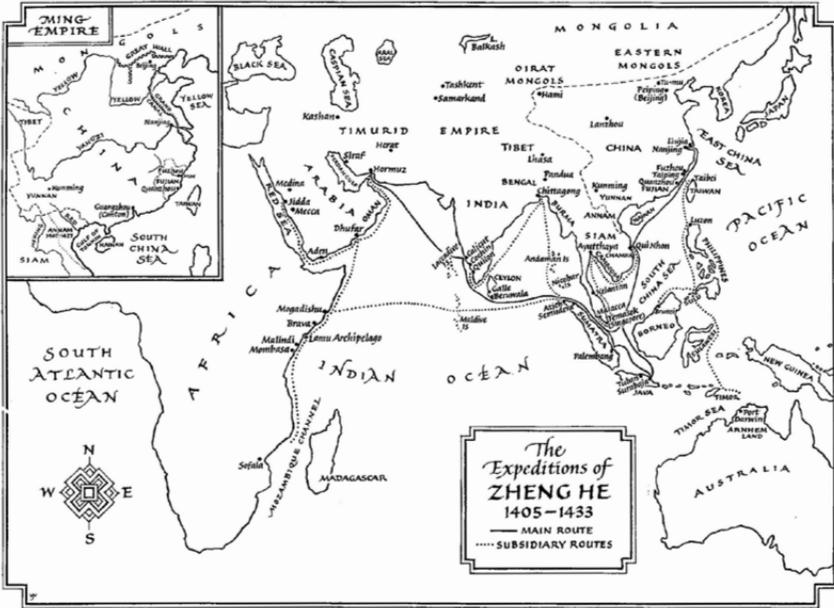
While many, still seeing the world through the lens of bygone times, talk of crisis, we are actually living in a period of extraordinary and ever accelerating changes. And this has caused us to lose our bearings, precisely because this third era in History before us, the “New Oceanic Era”, is more than ever founded on flexibility and connections, or, basically, a relationship with the sea. We have chosen the term “New Oceanic Era” as it is the ocean, the global ocean, that has given life to the modern world.

The absolute supremacy of the Atlantic powers is over, and the Asian space has taken back control of its economic destiny. The Chinese example is an amazing reflection of this. The Middle Kingdom has left its centre of gravity and wholeheartedly embraced the sea.

Alain Peyrefitte has been one of the first to forecast the consequences of the Chinese growth within the global economy. The title of his famous book *Quand la Chine s'éveillera...* [When China Awakes] would have been closer to the reality, to the revolution that was going to take place if it had been named *Quand la Chine ouvrira sur les Mers* [When China Opens on the Seas].

More than any other country, China has too often turned its back on the sea, which has outlined and shaped the course of History. The remarkable expeditions led by Zheng He between 1405 and 1433 cannot overshadow the fact that China had, over extremely long periods, deliberately isolated itself, closed off to the north by the Great

5. John Beeler, “Maintaining Naval Hegemony in the Industrial Age: Britain, 1850-1889”, *Modern*.



The expeditions of Zheng He (1405-1433) in Louise Levathes, *When China Ruled the Seas*. Simon & Schuster, cop., New York, 1994.

Wall and to the east by the sea. The sea was thought of as an enclosure, sometimes even a border not to be crossed. In certain periods, the authorities went as far as banning ocean navigation and, to avoid it completely, building an artificial river, the Grand Canal. If we recall that the country developed a printing press long before Gutenberg, and paper money as early as the 12th century, building on these inventions, along with the sternpost rudder, gunpowder, the compass and a population of some 250 million —compared with France’s population of only 20 million under Louis XIV, and England’s 7 million—China undeniably could have rewritten history as we know it. In fact, it is China that logically should have sent its ships out to travel the seas in the 12th and 13th centuries, opening up world-wide communication. Through China, Asia would have been the epicentre of a geopolitical upheaval that would have robbed the West of its geographic Big Bang of 1488 to 1492. History would have been reversed, and the Pacific Era would have replaced the Atlantic Era. But it was not to be, due to essentially ideological reasons.

The country is no longer closed off now. It has finally awakened from its torpor, its complacent world view of being the Centre, the Middle Kingdom. It has now

learnt from the lessons of History. And it is no accident that the country once again honours Zheng He today. He instilled the mental image that he had of the sea, which, far from being considered a wall, would from now on be seen as the most powerful communication channel of all. And all of China is taking giant steps forward in its maritime development. More than the force of China's demography, it is its opening to the sea, its awakening from a secular hibernation, which provokes the current historical turning point. The maritime percentage within China's GDP exceeds 8%. This is an absolute record, far from the 1 to 3% which is the rule in European countries. China has become the main factory for the world, and it will continue to be for a long time, thanks to its formidable exporting capacity linked to its opening to the sea. That is certainly why it still surpasses the other Asian giant, India. India is a country whose population will surpass China in 2030, but is severely handicapped by its lack of infrastructure in roads, rails, inland waterways and especially ports. There should be a sustained catch-up effort. But China is already a long way ahead, in an initiative that it strives to reinforce its effort by creating new trade routes with its neighbours, and, no less significantly, isolating India. This is the whole concept of the "New Silk Road" in which China is investing in a wide range of port infrastructure projects, costing billions of dollars.

What holds true for China also applies to most of the countries in the region, starting with Indonesia. In 2014, President Joko Widodo, following the example of his Chinese counterpart, decided to invest in the maritime industry, making it a top priority to ensure his country's economic development. Maritime investment has been growing steadily since the 1990s, creating an ever accelerating growth dynamic. Revenue from maritime development is increasing, boosting government budgets, creating jobs and stimulating industrialisation. The trade flows across the Pacific are already higher than those crossing the Atlantic. China, Japan and South Korea are also moving into the Indian Ocean to trade with Europe, Africa and the Middle East. Trade from member economies of the Asia Pacific Economic Cooperation (APEC) accounts for nearly half of global trade and their economies are experiencing growth three times higher than that of European countries, driving global trade, which is expected to rise from 9 billion tons in 2012 to about 15 billion tons by 2025⁶.

And of course, these countries' investment in naval defence is following the same exponential growth and, through a knock-on effect, fuelling technological, industrial and commercial development. American experts believe that in 2030, investment in naval defence by Asian countries should reach some US\$170 billion. For the first

6. Geoffrey Till, "Changes in Naval Power and Seaborne Trade in Postwar Asian Waters", *Modern*.

time in over 400 years, their investments would exceed the budgets allocated by all European countries to their navies.

The frenetic development of the “Asian Mediterranean” is not the only factor that has moved us from the Atlantic Era into the “New Oceanic” Era. Three other profound structural changes are also simultaneously and lastingly affecting the geopolitics and geo-economics of the old order: overpopulation and the concentration of people along coastlines, the new law of the sea upsetting the balance of powers, and the geographical revolution opened by the northern sea routes.

Demographic growth is guiding this shift, both in its extent and its makeup. Growth of this magnitude is unprecedented in the History of humanity. In 1804, only one billion people lived on Earth. In October 2011, the world population was seven billion. And there will be eight billion of us in 2025. The world population is expected to reach about 9.1 billion in 2050, i.e. an increase of over two billion people on the planet in just 35 years. And more and more of these people will be living by the sea. In 2025, 75% of the world population of eight billion people will be concentrated within 75 kilometres of the coast, and 80% of the nine or so billion people will be living on that same strip of land by 2050. This suggests how much we will be increasingly counting on the sea, which, as the 327 experts who worked on the Grenelle Maritime Forum debate in France put it, holds “virtually all the solutions” for a future that is not just sustainable but desirable⁷.

There are various ways to use the sea and they tend to multiply. Fishing and transport are no longer the only two activities that man practices at sea. What is unique to the new oceanic era is that we have and will increasingly resort to the sea in its three-dimensionality (surface, water column, and the seabed) to meet our needs. The sea and the seabed are now at the heart of the main economic and scientific issues. While space telecommunications may have suggested that the era of ocean cables is gone, the emergence of fibre-optic cables that offer considerable transmission capabilities has again placed submarine cables at the forefront of global development. The deep-water drills below the seabed open up astonishing prospects; the abyss gives us access to new resources, such as “rare earths”, those 17 strategic metals that we exponentially need in high technology⁸; the new processes in the fields of renewable marine energies, with hydro-turbines and sea thermal energy in particular (ETM) prove to be extremely promising. The development of marine biotechnology has

7. Christian Buchet, *Cap sur l'avenir! À contre-courant, les raisons d'être optimistes*, Paris, Éditions du Moment, 2014.

8. Alain Beltran, “Les Nouvelles ressources océaniques”, *Modern*.

only just begun. The discovery of new life forms in these oases at great depths, such as hydrothermal springs, allows us to glimpse the great alchemy of the origins of life and are in the process of revolutionising research in pharmacology and cosmetics. Still, according to the ocean scientists, we know only 10% of marine fauna and flora and probably no more than 1% of marine microbiology. Studies on algae and forthcoming developments could soon revolutionise food habits, nutrition as well as packaging, and contribute to the eradication of malnutrition that is responsible for the deaths of one child out of three in Africa and one in five in Asia. Aquaculture of herbivorous fish should contribute significantly to meeting protein requirements. The desalination of seawater will soon become essential on a large scale to meet our freshwater needs. It should be remembered that these only represent 2.5% of the world's waters which are clearly badly shared. Mineral waters of marine origin, captured at great depths to be free of any trace of pollution, could very quickly appear on the markets under the double pressure of the worrying decline of groundwater levels and their contamination by pollutants. More and more research teams are considering optimizing the yield of coastal agricultural land through the use of cold water from the depths which, circulating in pipes buried in the ground, would allow irrigation through condensation without an external water supply, and would allow too hot lands to benefit from new agricultural areas.

Today, the sea is not simply driving economic development, planetary de-isolation and globalisation. It is the very heart of the world economy⁹. The “New Oceanic” Era is when humans will push back and break through the last frontier. Under the glittering surface of the sea, humans are on the edge of a new world. The sea bed is the shoreline separating them from their future, the last continent to be explored¹⁰.

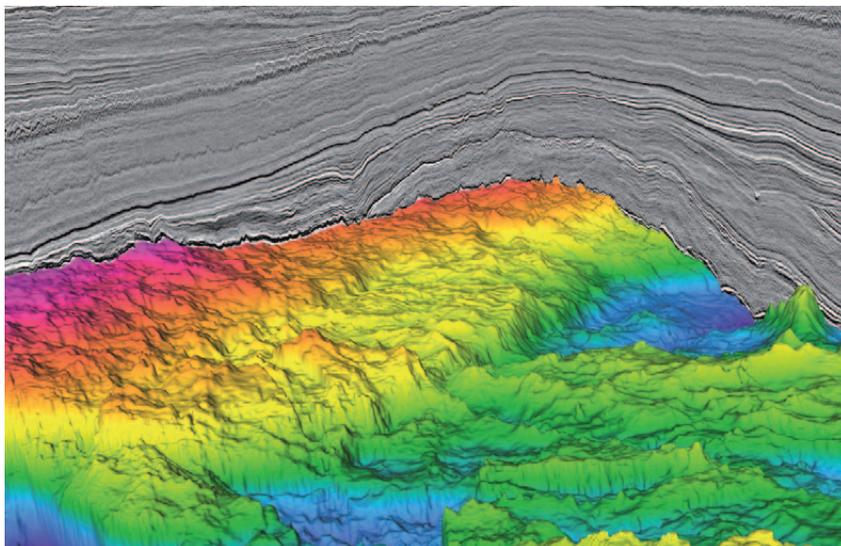
Political entities are, unsurprisingly, joining this movement by turning to the sea¹¹. The Law of the Sea signed in Montego Bay, Jamaica in 1982 and in effect since 1994 has thrown political geo-economics off course by establishing exclusive economic zones (EEZ)¹². In addition to sovereignty over their territorial sea extending up to 12 nautical miles off their coast, coastal States will have sovereign rights over the economic activities from surface to sea bed in a zone stretching out at least 200 nautical miles (372 kilometres) from their baseline.

9. Hubert Bonin, “Océans et globalisation depuis 1945”, Modern.

10. *Sous la Mer, le sixième continent*, ed. Christian Buchet, Paris, Presses de l'université de Paris-Sorbonne, 2001.

11. Jeremy Black, “Looking to the Future”, Modern.

12. Sam Bateman, “UNCLOS and the Modern Law of the Sea”, Modern.



Industry-leading subsurface imaging technology brings clarity and detail to Central North Sea geology. © *Courtesy of CGG.*

This EEZ can reach a maximum of 350 nautical miles if the country can establish that as the outer limit of its continental shelf. Bearing in mind that most of the raw materials and fishing resources are found in the waters closest to dry land, we can easily understand why the most well-informed countries, such as the United States, Canada, Russia and China, are so eager to expand their maritime boundaries as far as possible¹³. China's claims to islands that belong to Japan, Korea, Philippines and Vietnam have no other explanation, as the giant currently has only the tenth largest maritime area behind the United States, France, Australia, New Zealand, Indonesia, Canada, the United Kingdom and Japan.

With the enlargement of the Panama and Suez Canals, as well as plans to build new canals to establish further maritime connections, the northern routes, like the 1488-1492 geographic Big Bang, will completely revolutionise the world economy.

The Northwest Passage along the Canadian coast and the Northeast Passage along the Russian coast, which due to global warming can be used 365 days a year using icebreakers—a feat accomplished by LNG carriers in the middle of winter for the past

13. Alain Beltran, *op. cit.*

three years—are altering the entire geopolitical landscape. Whichever route is taken, the distance between the West and Asia has been reduced to 15,700 kilometres from 21,000 kilometres via the Suez Canal and 23,000 kilometres via Panama. That means 25% to 30% fewer kilometres to be covered and nearly 40% less time travel by doing away with the administrative procedures and inevitable ship manoeuvring required to get through the canals. It also means the end of problems due to draught, which will no longer limit the size of ships. Furthermore, these two routes have another major advantage as they offer safer waterways located far from high-risk regions.

If we look at the situation realistically, without in any way advocating global warming, nothing will stop the development of traffic through these passages, which will gradually become like sea highways. They not only represent safe, extraordinary shortcuts for Europe-Asia trade routes, but they will also open up the two richest areas on the planet, which have until now been inaccessible dead ends: northern Canada and Siberia. Both the land and sea in these regions are abundant in oil, natural gas, iron ore, nickel, diamonds and more. But these raw materials cannot be exploited without routes to reach them. And now they will be constantly within reach of the most frequently travelled sea lanes.

In the “New Oceanic” Era, the global ocean, having broken through all geographic barriers and with its coastlines soon being home to 80% of the world’s population, is what truly sets the pace of the planet. This global ocean offers a fertile pool, from which we will increasingly draw the materials and chemicals that dry land can no longer provide in adequate amounts. As such, it is undergoing such high pressure that its development brings threats that are as serious as the hopes it is fuelling. Experts agree that this development is at the core of many of the challenges we face today: climate change, collapsing sedimentary rock and coastal erosion, exhaustion of certain species of fish¹⁴, pollution and threats to marine ecosystems that are home to 80% of the planet’s biodiversity.

One of the biggest challenges of this nascent “New Oceanic” Era will be to find a new approach to the old concept of the “common good”¹⁵. Seas and oceans fall under *res communis*, a new form of *mare nostrum* on a global scale in which the traditional relationship with power between nations must leave more latitude for the needs of a new understanding. The sea, understood as a unique, global and physically unified space, where the expression of sovereignty—in regions currently fragmented

14. Ingo Heidbrink, “Fisheries”, *Modern*.

15. Sam Bateman, *op. cit.*

by laws—could fade with the expression of a new collective responsibility managed by governments and civil society together, with shared governance concerned with keeping exploitation at reasonable levels. In the end, the sea is the future of the Earth, and we have no spare oceans.

II.

THE SEA AS A DRIVE
OF POWER AND INFLUENCE



A swinging ship for the navigation withing the inland Seas of Insulinde, 9th century.
© EFEO / P.-Y. Manguin.

For all political entities, regardless of nature (city, State, alliance, etc.), period or location, prominence always seems to be the condition of those with the greatest number of ships. Warships, merchant vessels and fishing vessels spring to mind, but why not also scientific vessels?

Egypt in the age of the Pharaohs managed to supplant its adversaries thanks to the sea, initiating a vigorous tradition of trade¹. In the first naval battle in recorded history, around 1191 BC, Ramses III used his fleet to push back invaders from the north, known as “peoples of the sea”. Moreover, the decline of ancient Egypt resulted from the Pharaohs’ decision to rely on a Greek and Phoenician fleet for defence from the 4th century onwards.

So too did the Greek city-States incorporate the sea as a factor of power. In the case of ancient Greece, it would surely be premature to speak of thalassocracy, a form of outside domination through which States base their power essentially on control of the sea². Nonetheless, certain States had already implemented large-scale maritime policies. Such was the case for Miletus, Naxos, Phocaea, Corinth and Samos, Aegina and others. According to Herodotus, Miletus had sailing vessels and controlled the sea right from the late 7th century BC, and continued to do so until it was conquered by Darius. Likewise, it was thanks to the sea that Aegina was able to break off from Epidaurus and pursue a policy of plundering coastal populations.

For a true thalassocracy to exist, a State must have external support, permanent facilities and a fleet that is not only large but well-maintained and constantly replaced, unlike certain fleets of Antiquity that were built for a specific purpose and soon forgotten. For a fleet to be maintained, it must be indispensable. As such, a State’s foreign policy must require extensive mastery of the sea, either to underpin dominance on land or to contribute to territorial expansion. Such was the case of the Persian Empire, the first maritime power in history, which continually expanded from the final third of the 6th century to the beginning of the 5th century BC, controlling the entire coastline from Asia Minor to Syria. Control later extended as far as Egypt following the conquest by Cambyses, who boasted of having completed his father’s empire by adding an empire of the sea. The Persians initially relied on Phoenician expertise to build their powerful fleet, but were forced to go further. It was then that, thanks to contact with Egypt during the fight against Amasis, the trireme came into being.

1. Graciela Gestoso Singer, “Development of Maritime Trade in the Egyptian World During the Late Bronze Age”, *Ancient and Sydney Hervé Auffrère*, “Un Événement nautique de la 26^e dynastie: le voyage de la future divine adoratrice Nitocris de Saïs à Thèbes sous le règne de Psammétique I^{er} en 655 avant Jésus-Christ”, *Ancient*.

2. Jean-Nicolas Corvisier, “La Naissance des flottes en Égée”, *Ancient*.

The Persian maritime juggernaut culminated with Darius (522-486 BC) who conquered Samos in 517 BC, ventured into the Cyclades, starting with Naxos, and attacked the Scythians with an armada of 600 ships. He also succeeded in placing Cyrenaica under Persian influence, retaking control of Cyprus and strengthening his hold over the Hellespont. The Battle of Lade (494 BC), where the first stirrings of the art of naval tactics can be seen, brought together a total of 600 Phoenician, Cilician, Cypriot and Egyptian warships fighting for the Persians. The armada vanquished the 353 Greek triremes (80 from Miletus, 12 from Priene, 3 from Myus, 17 from Teos, 100 from Chios, 8 from Erythraea, 3 from Phocaea, 70 from Lesbos, 60 from Samos).

These expeditions and those that followed, targeting the Cyclades, Euboea and Aegina, reflect the thalassocratic rationale of control of the land by the sea. In 490 BC, thanks to the technical effect of its victory of Lade, the undertaking was quite reasonable. The ultimate defeat, at Salamis and Plataea, was due to the creation in Athens, at the initiative of Themistocles, of the first standing war fleet capable of measuring up to the Persian armada. Moreover, this new force was perfectly suited to a specific vessel, the trireme. Although it was not an Athenian invention, the Athenians nonetheless recognised the true worth of this design. Twenty-three centuries before Alfred Mahan, conceptualisation of naval power had been achieved³. It would seem that the only way to triumph over maritime predominance is with maritime predominance itself.

But Poseidon is capricious, and the slightest technology gap can be fatal. The superiority of its triremes led Athens to victory in the Greco-Persian Wars, but her disregard for new forms of combat which favoured large-size vessels and boarding enemy ships rather than mobility and ramming, resulted in defeat, first in the Bay of Syracuse and later at the Battle of Aegospotami⁴.

Carthage, thanks to its maritime strength, took the place of Athens as the dominant power, reigning over the western Mediterranean from the 6th century BC until the first Punic War in 241 BC, when it fell to the single greatest naval power of Antiquity: Rome.

Yes, Rome. Well before the fabled military supremacy of the legions under Caesar and other illustrious generals, Rome was first and foremost a naval power. If Hannibal, Rome's mortal enemy, chose to skirt the Mediterranean by land, enduring the painful ordeal of crossing the Pyrenees and Alps with elephants, it was simply because his

3. Jean-Nicolas Corvisier, *Ancient, op. cit.* and Vincent Gabrielsen, "Financial, Human, Material and Economic Resources Required to Build and Operate Navies in the Classical Greek World", *Ancient*.

4. Cf. for example, the role of innovation in conflicts between Athens and Sparta in Daniel Battesti-Lauren Leclercq, "Les Expéditions athéniennes en Sicile, ou la difficulté pour une marine de garder sa supériorité", *Ancient*.

age-old adversary ruled the waves; reaching Italy by sea would have been impossible. This same maritime dominance made it possible for Scipio to land in Africa, where he definitively crushed Hannibal at Zama (202 BC), thereby ending the second Punic War. The Roman navy was everywhere, contributing to combined operations with what today is called force projection: a portion of the troops reached the battlefield by land, while the others travelled by sea (or an inland waterway) to surround the enemy. Ships were also mobilised specifically to observe and report on enemy movements. Thanks to the *pax maritima*, Rome held control over maritime traffic, which then continued by land as far as the regions around the Indian Ocean⁵. Only piracy—the poor man’s warfare—occasionally succeeded in disrupting delivery of supplies to the Empire’s constellation of urban centres. However, any act of piracy elicited a strong and determined response: in 67 BC, General Pompey was entrusted with 500 vessels and 120,000 men, i.e. the equivalent of 20 legions, to eradicate pirates. His success elevated him to the highest rank of the imperial podium.

But the time came when Roman stability fell victim to acerbic ambitions throughout the excessively large empire. The sea continued to take centre stage in these conflicts. The naval Battle of Actium (31 BC) brought Octavian victory over Mark Antony and Cleopatra; the equally decisive battle of Eleous (324 AD) brought Constantine victory over Licinius, a follower of highly combative polytheism, and ensured continuing adherence to monotheistic Christianity. Under Julian, the Roman war fleet once again provided strong support to land operations as it had for centuries. However, funds were lacking and the navy would soon become impossible to maintain. The weight and precious metal content in Roman currency was decreasing. The Roman navy fell into decline and soon became incapable of taking effective action against the ever more numerous—and better organised—barbarians at the borders⁶.

The Vandal King Genseric was able to dominate the entire western Mediterranean for nearly half a century thanks to the naval force he established. Sea power was also the key to his conquest of Rome in 455. Likewise, maritime development lies behind Neustria’s turning the scales to dominate Burgundy and Austrasia in the late 6th century⁷.

In the south, Byzantium, a direct successor of the empire, replaced Rome. It endured from the founding of its arsenal following the Battle of the Dardanelles in 324 until the 10th-11th centuries, some 700 years. From the 4th to the 10th centuries, the imperial city relied on the main fleet based in the Bosphorus, as well as provincial fleets. It

5. Phyllis Culham, “The Roman Empire and the Seas”, Ancient.

6. Yann Le Bohec, “La Marine de guerre romaine de 284 à 363”, Ancient.

7. Régine Le Jan, “Les Royaumes barbares et la mer, V^e – début du VIII^e siècle”, Medieval.

remained impregnable until the assault and sack of the Fourth Crusade (1202-1204). The Byzantine phenomenon represents the mirror image of the paradoxically maritime domination of the Roman Empire. Rome rose to supremacy through successive conquests of the shores of the Mediterranean, which ultimately became a Roman lake. Having inherited Rome's naval power, Byzantium disintegrated due to the loss of its coastlines, as the core of Byzantine resistance consisted of the city-navy relationship. Technological superiority, manifested principally by Greek fire, played a fundamental role until the secret behind this weapon was revealed, making it available to all. The Byzantine fleet made extensive use of surprise tactics in the form of sophisticated assaults. The fleet served at once as a weapon of combat, logistical tool, strike force and a means of force projection. Our knowledge of the Byzantine merchant marine remains largely uncertain. It would seem that in comparison with Italian cities, the decline of this institution was much less clear-cut than traditionally thought. The Middle East became a Muslim territory following the Arab conquest of the 7th to 10th centuries, with the final blows to Byzantium delivered by the Seljuq dynasty and later the Ottoman Empire. Byzantium, already crumbling in the wake of betrayal by Venice, Genoa and the crusaders, endured the final stages of a very slow decline.

The coast was thus clear for the Italian cities, radiating with opulence and splendour taken directly from the sea. The Doges of Venice officially recognised the Adriatic as their benefactor every year at the feast of the Ascension, celebrating the marriage between *La Serenissima* and the sea. "We wed thee, sea, as a sign of the true and everlasting Lord", they would say, throwing a ring into the water from the State barge, the *Bucentaur*.

Indeed, the notion of maritime predominance seems to be the key to geopolitical oscillations. Henri Legohérel (Medieval) arrives at the same conclusions in his remarkable contribution, "Capetians and Plantagenets: the Struggle for Maritime Supremacy", which radically upsets the traditional, land-focused understanding of this period. Maritime struggles in fact play the role of kingmaker over the 250-year period in question. The sea divides the period into different segments, bestowing predominance on the side with the most proactive maritime policy.

From this perspective, the business of Aquitaine is enlightening. Triggered by disputes between seamen from Bayonne and Normandy, it ultimately led to the confiscation of the fiefdom of Aquitaine in 1294, followed by a counter-attack by England, unwilling to abandon one of its foremost possessions: an English fleet devastated the French Atlantic coast, sailed up the Gironde to La Réole, well past Bordeaux, and liberated Bayonne. Philip IV rose to England's challenge by establishing the Clos des Galées in Rouen,

France's first dockyard, and building a fleet that outnumbered Edward I Plantagenet's 500 ships. The result was spectacular: the Capetian navy gained control of the sea. Philip IV attempted a sort of blockade of England, while the French Navy engaged in ever more attacks on a terrorised English coast. The sea took the day: the peace of 1299 led Edward I to evacuate Flanders and accept French occupation of Bordeaux.

Likewise, the predominance of the Capetian navy over the following 30 years contributed to consolidating and strengthening the reign of Philip IV by protecting the salt convoys from the Bay of Bourgneuf and providing security for areas with significant merchant marine activity (the Seine estuary, the area around the Channel Islands, tidal passages in Brittany, the Saintonge Narrows).

The same is true for the Hundred Years' War. Each of the conflict's three phases was fought at sea.

The first (1337-1360) was marked by English preponderance. England's mastery of the sea brought wealth through development of trade, while making it possible to transport English troops. Such factors serve to explain England's successes and France's setbacks (Poitiers in 1356 and the capture of King John II).

During the second phase of the war (1360-1413), France took the necessary steps: Charles V reorganised and strengthened the *Clos des Galées*, put the Admiral of France at the same rank as the Constable and found the right man for the job, Jean de Vienne. In 1377, France took back the initiative at sea, and the waves were once again under Capetian control. English ports were neutralised, supply routes towards the continent were cut off and the morale of the English maritime community hit hard. French control of the sea created excellent conditions for the land-based campaign of Du Guesclin and Clisson. France held sway until 1386, when dissent within the government composed of the uncles of Charles VI led the French to abandon the plan for a land invasion of England. Faced with the decline of French naval forces, Jean de Vienne left to join the Crusade.

The third and final phase witnessed a dual victory thanks once again to the sea. Henry V, the most brilliant of the Lancasters, was the first Plantagenet since Richard the Lionheart to understand how to use naval might as a tool of war. He rebuilt a powerful fleet with ships of up to 800 tons, such as the *Grace-Dieu* and the *Trinity*. England's only hope against a wealthier enemy motivated by defending its own land was use the mobility offered by the sea to take the strategic initiative, choosing the time and place of the decisive encounter. The English victory was absolute. Henry V

had shown military superiority and would become heir to the French crown on the death of Charles VI a few weeks later. The enemy fleet had disappeared and the English Channel was once again *mare britannicum*. As such, why continue to maintain a costly and seemingly useless English fleet that had unquestionably grown too large? In 1423, the government of the young King Henry VI, presided by his uncle, the Duke of Bedford, took the peculiar decision to sell most of England's ships. This was a sensible decision from a purely financial standpoint, but scorning such a beneficial ally as the sea turned out to be a major strategic error. History abounds with lessons...

The tide soon turned. The Plantagenet government no longer had the means to convey reinforcements to the continent: there is no other explanation for England's weak reaction to the campaigns of Joan of Arc and her successors, as well as the decisive French victories at the final battles of Formigny (1450) and Castillon (1453).

We tend not to realise that a second Hundred Years' War opposed France and England, starting in 1689 with the beginning of the penultimate war waged by Louis XIV, and continuing until the end of the Napoleonic Wars. Despite what one reads in history books, this was no simple string of conflicts, but indeed a Hundred Years' War fought not for eastern territorial expansion, but rather for maritime predominance in the west and access to American markets. In the age-old struggle between land and sea, the sea took the day as it always has. England, umbilically connected to the sea, took the mantle of worldwide supremacy that continental France had temporarily achieved due to its excessive centralisation and strong population growth. Great Britain would display this manifestation of power throughout the seven seas, with an empire upon which the sun never set, until the 1922 Washington Conference at which England graciously accepted to share its supremacy with its protective big brother on the other side of the Atlantic⁸. England's brilliance lies in its having been the first to realise that the sea is the world's largest free-trade zone.

As we have seen, history repeats itself. The "Continental Blockade" decreed by Napoleon did much more harm to France's empire than to England. Thanks to the mobility of its fleets, the latter was always able to obtain the resources it needed and to maintain its trade, even if that meant expanding over the world to develop its economy and meet its needs. Ultimately, he who controls the sea controls the land: this is one of the primary lessons of this study of the role and place of maritime activities in the march of History.

8. Phillips Payson O'Brien, "The Washington Treaty Era, 1919-1936: Naval Arms Limitation", *Modern*.

By addressing human history through the lens of the sea for the first time, the research conducted by Océanides utterly revises our approach to History, and thus to geopolitics, which has heretofore focused on land-based history in its search for structural components. Sir Halford Mackinder, in the famed lecture of 25 January 1904 that established him as the founding father of twentieth century geopolitics, defined his notion of “Heartland”, the Geographical Pivot of history and “Citadel of the World Empire”. “Who rules the Heartland commands the World-Island”, he wrote, “who rules the World-Island commands the world”. This is far from the 1595 quote by Sir Walter Raleigh, beautifully expressing the British ideal from the depths of the Tower of London where he was held prisoner: “For whosoever commands the sea commands the trade; whosoever commands the trade of the world commands the riches of the world, and consequently the world itself”. Taken in its full depth, History favours Raleigh over Mackinder⁹. Do we fully realise this fact? Geopolitics remains an eminently land-based science despite the work of Alfred Thayer Mahan at the end of the 19th century and John Spykman’s adaptation of Mackinder’s thoughts at the turning point of World War II, introducing the particularly central notion of “Rimland”.

War after war, the same conclusion stands out. It only becomes perceptible by reading between the lines of history to understand the importance of mobility and connectivity of flows, the very quintessence of maritime activities. Following the imperial epic, in World War I, World War II and even the Cold War, victory went to the country or alliance that has mastered these flows.

From this point of view, it may be interesting to focus on World War I, a conflict for which historians have come to the overly hasty conclusion that navies had little impact on the military events that brought the war to an end. After Norman Friedman¹⁰, Avner Offer (Modern) of Oxford demonstrates precisely the contrary for Océanides.

Indeed, unable to procure foodstuffs on the world market for lack of a strong navy, Germany and Austria-Hungary needed men in the fields and could therefore not mobilise as many soldiers as would have been necessary. Russia’s choice of ensuring a strong military by sacrificing agricultural production soon led to a famine that precipitated the October Revolution. Conversely, England and France enjoyed communications thanks to mastery of the sea, thus guaranteeing supplies of food and energy, especially coal. In the long run, this advantage inevitably led to victory.

9. Christian Buchet, “Du Heartland à Océanides”, *Revue de Défense Nationale*, April 2016, p. 49-53.

10. Norman Friedman, *Fighting the Great War at Sea: Strategy, Tactics and Technology*, Barnsley, Seaforth Publishing, 2014.

In order for the Central Powers to prevail, the war would have to be short. Only sufficient destruction of allied trade by U-boats could have made the difference. However, such a turn of events would hardly have been a realistic ambition so long as the German Empire could not command the sea. Moreover, merciless undersea warfare precipitated American participation in the conflict in 1917, transforming the Atlantic into a bridgehead that forced Germany to accept unconditional surrender.

Like Napoleon, Germany in the First and Second World Wars attempted to overcome this food and energy shortage by advancing ever further into the continent, as far as Russia, serving only to prolong the war without changing the final outcome¹¹.

Later in the century, another war fought on the Atlantic—but this time against the submarines of Admiral Dönitz—together with the construction of some 8 million tonnes of merchant ships, made it possible to liberate Europe and guarantee the Allied victory during World War II¹². Mastery of the sea makes for primacy in trade and therefore economic predominance, enhancing military capacity and inevitably overcoming the adversary. This is precisely what Charles de Gaulle conveyed, with such vision and *grandeur*, in his famous Appeal of 18 June. France had lost a battle, but not the war, he wrote, because the country was “overwhelmed by the mechanical, ground and air forces of the enemy”. But France was not alone. She was not alone because she had a vast Empire behind her and could “align with the British Empire that holds the sea and continues the fight” and “like England, use without limit the immense industry of the United States”.

Thanks to the work of Christopher Baxter (Modern) and G. Baer, we also discover how the collapse of Japanese trade, by stifling the national economy, prevented Japan from maintaining its operational capacity and allowed American and British forces to win the war in the Pacific. By August of 1945, Japan’s foreign trade had dropped to 312,000 tonnes (less than 12% of pre-war traffic), while the Allies enjoyed 88 million tonnes in trade.

Likewise, throughout the Cold War, Soviet inability to develop maritime trade, and thus its economy as a whole, ultimately undermined the willpower of Russian leaders to contain American hegemony. Today, we are conscious that the Soviet navy would have been powerless to contest U.S. supremacy¹³. The Reagan administration’s

11. Avner Offer, *The First World War: An Agrarian Interpretation*, Oxford, Clarendon Press, 1989, p. 317. Cf. also Nicholas A. Lambert, *Planning Armageddon: British Economic Warfare and the First World War*, Cambridge, Harvard University Press, 2012.

12. Christopher Baxter, “Britain and the Sea, 1943-1945”, Modern et W.J.R. Gardner, “Britain on the Defensive, 1939-1942”, Modern.

13. Colin S. Gray, “The Sea and the Soviet Empire”, Modern.

considerable efforts to strengthen naval capacity, aiming for 600 warships that also surpassed the Soviet fleet in terms of quality, was the key factor in the collapse of the Soviet Union, marking the end of the Cold War and Western victory¹⁴. For the third time in the 20th century, on an ever more oceanic planet, a maritime alliance eclipsed a land-based alliance...

All things considered, developing, and in particular maintaining, a navy requires wealth that cannot exist without powerful trade. Control of international trade is thus an indispensable factor for the long-term conservation of naval power. However, one must also keep in mind that, by the same token, a powerful navy is essential for a strong maritime economy. The counter-example for the Soviet navy is the French merchant fleet, which grew spectacularly under Louis XV and was poised to overtake British trade. However, England deliberately undertook to destroy French maritime trade through periodic wars. Indeed, without a sufficiently powerful French Navy, war served to shatter French trade while benefiting the English merchant marine.

In this regard, Patrick Villiers (Early Modern) has beautifully demonstrated that maritime trade can only be maintained or strengthened when it enjoys the support of a modern and powerful navy. From this perspective, the British model brilliantly illustrates the paradigm of naval policy contributing to a maritime economy. In 1815, England achieved the long-standing dream of Portugal, Spain and the Dutch Republic: a virtual monopoly in maritime trade, a powerful driver of economic development.

The example of Russia is even more enlightening, magnificently illustrating the impact of the sea on nations' development or decline. As long as Denmark, Sweden and the Hanseatic League denied Russia access to trade in the Baltic Sea, the country was unable to develop economically. Thus, contrary to the classic pattern according to which fishing is the first to develop, followed by trade, and finally a naval force to protect the rest, Russia started by instituting a navy under Czar Aleksey Mikhailovich (1645-1676) and especially Peter the Great (1682-1725), who established a maritime capital in the country. The navy allowed Russia to enjoy economic development engendered by trade, while gaining the military and diplomatic status of a major power¹⁵.

14. Eric Grove, "NATO's Maritime Strategy was a Key Factor in Exerting the Decisive Strategic Pressure on the Soviet Union that Caused the Implosion that Ended the Cold War with Western Victory", Modern.

15. Pavel Krotov, "Ambiguous Relations between Russia and the Sea: Causes and Consequences", Early Modern and Jakob Seerup, "Sweedish and Danish Rivalry to become Great Powers through the Development of Naval and Merchant Fleets", Early Modern.

Much further south, the lesson was the same. Cyrille Poirier-Coutansais (Early Modern) shows a gap between Persia under the Safavid dynasty (1501-1736) and its Ottoman neighbour. The former, due to a lack of a maritime outlook, gradually found itself excluded from trade and was soon faced with a critical situation in its struggle against the Ottoman Empire of Selim I. Yet, a different policy would certainly have been possible.

The Mayan Empire offers the perfect demonstration of this phenomenon, having established and maintained its supremacy through maritime trade in salt, obsidian, precious stones, gold and copper. This activity brought power and wealth, creating and expanding a territorial unit through an internal market. Nonetheless, this sea-based predominance fell victim to the superior technology of Spanish ships, which were able to bring the empire to a rapid collapse by severing its maritime links¹⁶.

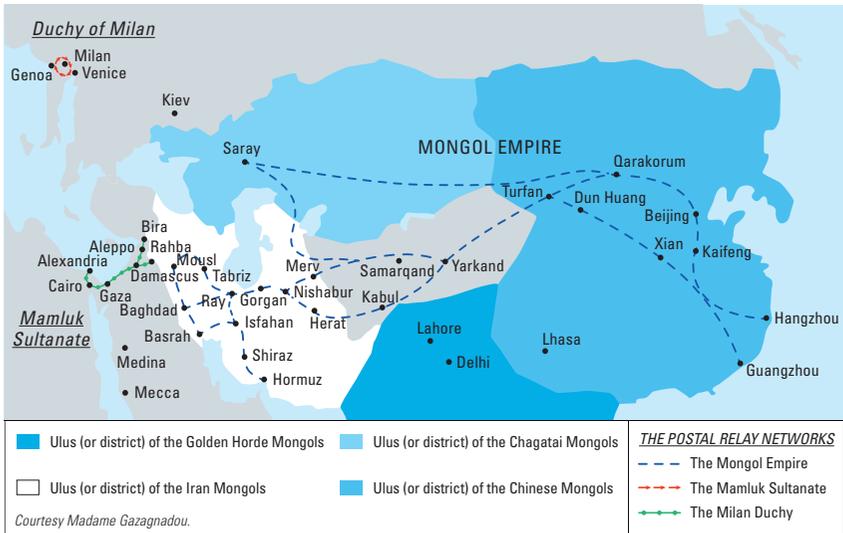
The same conclusion applies in Asia. In China, the prohibition of deep sea shipping following the death of the eunuch Zheng He in 1434, and the decision to favour inland waterways, particularly the Grand Canal, impeded the development of commercial capitalism, the system that brought glory to Japan during the Meiji era in the late 19th century. Note that today all G8 and even G20 countries are maritime States.

The question arises, in contrast to these converging examples, whether political entities can develop and achieve predominance without turning to the sea. From this perspective, the Mongol Empire serves as the perfect counter-example. Indeed, the Mongols created the most extensive empire of all time, while completely neglecting the Pacific and Indian Oceans to which they enjoyed potential access. Their world was the world of steppes, forests, deserts, lakes and rivers, and they never entertained even symbolic ties with the great maritime spaces. They aimed to conquer land.

The work of Didier Gazagnadou (Medieval) is particularly helpful in understanding the factors that made it possible to establish and maintain this empire without being affected by the sea. The Mongols owed their success to a typically maritime feature: fluidity. By creating a dense network of post houses and caravanserais, they managed to develop a veritable hinterland, while the gravitational motion of caravans made for trade flows similar to those of the *voltas* of vessels operated by maritime powers. The Mongol Empire employed tens of thousands of men astride,

16. Heather McKillop, "Early Maya Navigation and Maritime Connections in Mesoamerican", Medieval and Émiliano Melgar, "The Maya Caribbean: Fishing, Navigation and Trade", Medieval. Cf. also the contribution of Sebastian Kolditz, "Connectivity and Sea Power—Entangled Maritime Dimensions in the Medieval Mediterranean", Medieval on this issue of Mediterranean connectivity in the medieval period.

Main postal relay networks in the Mongol Empire, 13th and 14th centuries



no fewer than 200,000 horses and even more camels and dromedaries, from the Pacific coast to the shores of the Black Sea, from the borders of Indochina to the heart of Tibet, from China to the borders of the Iranian world and Iraq, over a vast network covering at least 50 to 60,000 kilometres. “These great nomads opened up Eurasian societies thanks to the fluidity of the traffic they established. Metaphorically speaking, they treated the land as an ocean”¹⁷. Goods were transported by camel and dromedary caravans, “ships of the steppes and the desert” (Bactrian camels travel some 60 kilometres per day carrying between 150 and 200 kilogrammes on average, and dromedaries between 100 and 150 kilogrammes).

It remains to be seen whether the failure to develop and control the Indian and Pacific Oceans contributed to the collapse of the Mongol Empire. Perhaps, says Didier Gazagnadou, and despite the fluidity of the land networks along the silk roads that conveyed substantial flows of goods, especially from east to west. Land transport is always slower and more expensive, and requires many more intermediaries and transshipments than maritime transport. . . If the Mongols in Iran and China had built fleets and undertook to conquer the oceans, the history of Africa, America and the world as a whole might have been very different. The Indian Ocean provides access

17. Didier Gazagnadou, “Fluidité des circulations dans l’Empire mongol du XIII^e siècle”, Medieval.

to Africa and the Indies; the Pacific provides access to the Americas. Unknown to the Mongols, these liaisons allowed many European businessmen and religious leaders to discover little-known lands in Asia, encouraging them to circumvent this immense empire, taking to the seas to establish direct contact with the rich wonders of China and the Indies. Indeed, as of the late 15th century European mariners struck out on sea expeditions, financed by powerful settled States, to make direct contact with Asian worlds and, by chance, discover the Americas.

In the same vein, India under the Great Moghul deserved to be examined, because of its conventional reputation as a hopelessly land-based geographic area unable to turn to the sea, except at rare and short-lived intervals. Hindu society, and particularly elite castes, are said to have felt not only indifference for the sea, but actual repugnance at the idea of leaving the shore due to religious prohibitions. Historical realities are in fact infinitely more complex. Close examination of the facts over several centuries shows that here as well, the success or failure of the various sovereigns hinged on the sea¹⁸.

Indeed, Sher Shah Suri's disregard for the sea and maritime trade contributed greatly to his ultimate failure. In contrast, Akbar (1566-1605) broke down barriers within his empire by linking production centres to the coast in Bengal and Gujarat, and implemented a mercantile policy grounded in the concept of the hinterland. By doing so, he brought about the development of prosperous towns at the crossroads of trade routes connected with seaborne trade and earned the title of "Great Moghul". This initiative was suspended by his successors Jahangir (1605-1627) and Shah Jahan (1628-1657), only to be renewed under Aurangzeb (1659-1707), who went so far as to transfer the capital south to Aurangabad, a choice geopolitical and economic location at the junction of the two maritime regions of Golkonda and Vijayapur. This increased tax revenue, making it possible to consolidate the empire and resist the Maratha uprisings.

It is also interesting to consider the role and place of the sea for groups whose epicentre is distant from the sea. Olivier Chaline's study of Central Europe and the sea in modern times (Early Modern) shows how far inland maritime shock waves stirred the continent. Indeed, at first glance the sea may have had virtually nothing to do with the successes or failures of Central European States. Nonetheless, at certain key moments, maritime factors played a decisive role. Central Europe was largely deprived of access to the sea by coastal States. Such was the case of Sweden, which thanks to

18. Michel Vergé-Franceschi, "Le Grand Mogol et la mer", *Early Modern*.

its navy was able to project power well into Central Europe¹⁹. The Holy Roman Empire and Poland both paid a high price, the former for its inability to develop naval power in time, and the latter for its inability to maintain its influence on the seas. At the height of their power in 1629, the Habsburgs were unable to prevent the seaborne landing by Gustavus Adolphus the following year and the establishment of lasting Swedish influence in the northern part of the Empire. Likewise, Austria and Prussia would have met with defeat in any number of conflicts without the support of maritime allies.

By definition, the notion of predominance concerns but one political entity at any given time, or of two or three at the very most. However, in addition to generating virtuous economic cycles, as shown in the first part of our study, the turn to the sea provides groups with greater dynamism and positions of leadership, impelling historical trajectories in a favourable direction for institutions, populations and intellectual and cultural life.

The example of Portugal likewise reveals the benefits of maritime dynamics. Indeed, the sea forged the country's destiny and independence. Portugal's geographic location on the Atlantic Ocean and proactive openness to the sea were the two factors that shaped the character of this "maritime nation", as well as its ability, thanks to the sea, to play an infinitely greater role in History than its demographic weight would otherwise have allowed²⁰.

The existence, independence and wealth of the Dutch Republic can also be understood only through the sea. The country's control of the seaports was the factor that allowed it to break away from Spain²¹. Thanks to fishing, trade and the ensuing agricultural specialisation, as well as the resulting industrial innovations, the Dutch population enjoyed the highest standard of living in Europe, and thus in the world, during the first half of the 17th century²². The Dutch Republic was known at the time as the ultimate "enlightened power", the country with the greatest respect for the values of freedom and tolerance. Newsletters enjoyed extraordinary editorial freedom for the time, and printers revelled in dissent. The country offered refuge to scholars and

19. Jakob Scerup, *op. cit.*, Early Modern.

20. Jorge Semedo de Matos, "Portugal, the West Seafront of Europe", Early Modern.

21. Louis Sicking, "Le Maritime, fondement de la prédominance commerciale et économique des Provinces-Unies", Early Modern.

22. Throughout the 17th and 18th centuries, maritime activities served as the foundation for economic development of the Dutch Republic. In the 17th century, more than 25% of the active male population worked on ships' crews, and 1/6 continued to be employed at sea at the end of the 18th century. This demand for seafarers required significant foreign labour and spectacular investments in human capital in terms of training, generating substantial economic benefits. Cf. Jelle Van Lotrum, "The Necessity and Consequences of Internationalisation: Maritime Work in the Dutch Republic in the 17th and 18th Centuries", Early Modern.

philosophers, not least among whom Descartes and Spinoza. Urban concentration, wealth and an entrepreneurial spirit gave rise to the greatest commercial entities of the age, including the VOC, the famous Dutch East India Company, founded in 1602 as the first joint-stock company. It was in the Dutch Republic as well that many decisive inventions came into being: the telescope, microscope, chronometer, optical lenses, the first spectacles, etc.²³

The sea also proved to be a decisive factor in Korean history, as control of the coasts ensured not only the kingdom's rise to power, but its very survival, independence and sovereignty for nearly a millennium²⁴. In the same way, but over a much shorter period, the establishment of a navy profoundly modified the course of history for some 60 years in the small Indian kingdom of Maratha, located in the north-west of the Indian subcontinent. The existence of a navy resulted in economic and commercial development, each strengthening the other. Furthermore, this maritime development offered the small kingdom unprecedented political influence, even for a certain time preventing European navies from taking advantage of the resulting economic benefits²⁵.

On a different scale, the sea made it possible for military orders, including the Knights Hospitaller, the Templars and the Teutonic Order, to assert their supranationality and derive substantial revenues from trade. It was thus no coincidence that fighting orders gave rise to illustrious seafarers of modern times, such as the Portuguese explorers Vasco de Gama and Pedro Alvares Cabral who explored the coasts of India and Brazil under the flag of the Order of Christ²⁶. Furthermore, if the Order of Malta continues to exist to the present day, it is thanks to a greater focus on maritime activities than other orders²⁷.

Likewise, do we truly realise that not only was the sea the stage for the greatest human migrations, as we have mentioned, but also for the global transfer of ideas and beliefs? This is true for all three major monotheistic religions, as well as for Hinduism and Buddhism²⁸. In Europe, caricatures of the work of Max Weber have sometimes led to the conclusion that the protestant work ethic is more conducive to the development of

23. Jean-Pierre Poussou, *Les Îles Britanniques, les Provinces-Unies, la guerre et la paix au XVII^e siècle*, Paris, Économica, 1991.

24. Alexandre Le Bouteiller, "Corée: les navires garants de la souveraineté", *Early Modern*.

25. Sachin Pendse, "Shipbuilding in India up to the 15th century", *Early Modern*.

26. Pierre-Vincent Claverie, "Les Ordres militaires et la mer", *Medieval and Juhan Kreem*, "The Teutonic Order and the Baltic Sea in the 13th-16th centuries", *Medieval*.

27. Alain Blondy, "L'Ordre des Hospitaliers de Saint-Jean de Jérusalem, Rhodes et Malte, puissance maritime", *Early Modern*.

28. Cf. in particular, Chantal Reynier, "La Mer, vecteur d'expansion du christianisme au I^{er} siècle", *Ancient and Tansen Sen*, "Early China and the Indian Ocean Networks", *Ancient*.

a capitalist spirit, although perfect counter-examples undermine this hypothesis²⁹. It is true that the relationship to money often differs considerably between countries with Catholic or Protestant majorities, but is not this fact more a corollary than a cause? It is interesting to note that Protestantism spread very quickly through maritime communities, and that the sea carried the Reformation over a large part of the

European coast. Rather than the cause of this famous protestant work ethic, the Reformation seems to have been adopted on the basis of a pre-existing attitude towards trade, an attitude developed through contact with the sea. In our opinion, the true division lies rather between rural and maritime traditions, between a spirit of openness and one of inland isolationism. There is a striking contrast between 18th century France, where Physiocrats, particularly François Quesnay, saw the land as the sole source of wealth, and England, where the first optimistic portrayal of industrial philosophy appeared in 1776: Adam Smith's *The Wealth of Nations*³⁰.



Siege of Rhodes in 1480, Ms. Latin 6067, fol.80 v°, BnF. [Wikimedia Commons](#).

Along the same lines, utopian socialist theories like those of Fourier, Saint-Simon and Cabet are based on the establishment of rural communities of craftsmen with one common

characteristic: a location far from the sea, unlike Thomas More's island of *Utopia*. The same trend stands out in Spain with the *Proyectistas*, as well as in Russia, where the countryside continued to be of enormous significance, and where industrialisation had hardly begun at the end of the 19th century, despite the efforts of the State.

Perhaps more than any other, the Polynesian people, a veritable "Ocean People", as Emmanuel Desclèves (Early Modern) elegantly describes them, achieved exceptional

29. Klaus Malettke in *La Puissance maritime*, ed. Christian Buchet, Jean Meyer and Jean-Pierre Poussou, Paris, PUPS, 2004; Philippe Masson, *De la Mer et de sa stratégie*, Paris, Taillandier, 1986.

30. Christian Buchet, *Une Autre Histoire des océans et de l'homme*, preface by President Jacques Chirac, Paris, Robert Laffont, 2004.

influence thanks to the sea. The Polynesian character is connected at its very core with the sea, at one with the ocean from which it derives strength, prestige and which profoundly forged its originality. Spread along the coasts of South-east Asia and the Americas, the maritime peoples of Oceania lived with a single point of reference: the sea, a source of both knowledge and power. Their gods and founding myths took shape in the ocean. From this perspective, discovery appears as an act of creation. The chiefs were the descendants of the gods, enlightened leaders and guardians of the ancestral *mana*. They were the masters of discoveries and relations with the other islands, their power granted by their people's incomparable ability to navigate freely across this empty space open to inter-island communications. Communing with the ocean and the sky overhead, Polynesians are at home everywhere in this vast area. That is why they conceive the universe very differently from sedentary peoples whose horizon ends at the coast. Claire Laux (Modern) shows that Polynesian maritime societies appear as dynamic and hierarchical, while land-based Melanesian societies remained much more split up, as if unable to produce organised and hierarchical structures. Once again, we see the influence of a connection with the sea—or lack thereof—even on social attitudes. Claire Laux goes further, considering that within the Polynesian population “the most dynamic individuals were ‘people of contact’, particularly those of mixed race whose very existence was the fruit of maritime contact³¹”. “Our ancestors saw the world as a ‘sea of islands’ rather than as ‘islands in the sea’”, said the Polynesian anthropologist Epeli Hau’ofa.

In certain parts of the African continent one sees this same close connection between the ability to govern and the ability to navigate at sea, the foundation and legitimisation of power and a factor of prestige and political influence. Myths collected in the 20th century portray seaborne expeditions, a ritual carried out under the watchful eye of a benevolent rainmaking goddess, as a sign of blessedness or a test used to choose a new king, particularly when there is no natural successor. A century ago on the coast of southern Somalia or northern Kenya, a Persian folk tale rich in maritime imagery recounted the long journey of a young man across the Indian Ocean. Upon his return, he is recognised by his people as their king, and by traveling merchants as a Muslim. Such practices also seem to have existed in the Malian Empire in the 14th century³². These rituals indicate that the sea, as François-Xavier Fauvelle-Aymar (Medieval) rightly states, serves as a political horizon, the matrix or mirror of a sovereign and occult afterlife: unfathomable, apt to provide answers to the mysteries of power, apt to bring forth dynastic legitimacy.

31. Emmanuel Desclèves, “Le Modèle maritime polynésien ou l’océan source de stimulation intellectuelle”, *Early Modern*.

32. François-Xavier Fauvelle-Aymar, “Le Mali et la mer (XIV^e siècle): autour du récit du sultan Mûsâ sur l’expédition de son prédécesseur Muhammad”, *Medieval*.

The sea is not only a means of discoveries and exchanges, but also a powerful driver of literary and artistic creation and inspiration³³. Indeed, mankind's vision of the world and other cultures has long been impelled by the stories of seafarers. Maritime history has left a profound mark upon literary traditions and the history of ideas. This close correlation deserves a book in itself. For example, the maritime orientation of Indonesian ports in the Middle Ages gave rise to the country's assimilation of cultural influences, with Indian-style art mixing with the Muslim religion. The Indonesian language itself features words from the four corners of the Indian Ocean³⁴.

Maritime contacts have inspired and driven original artistic developments such as Manueline architecture, as well as interior design. Thus the Indo-Portuguese style, encouraged by the Jesuits, combined ivory, exotic woods and Indian aesthetics for sculpture and furnishings.

As another example, the rise of Holland as a maritime power led to the birth of bourgeois art. An Antwerp-based community long established in Genoa accounts for the proliferation of Flemish workshops in the city in the early 17th century, at the same time that artists in Haarlem were producing the first paintings to portray the sea. Hotels on *Via Balbi* were hung with the work of Dutch and Flemish masters, as well as paintings by the emerging school of Genoese painters. As François Bellec (Early Modern) has demonstrated, the Ligurian school of painting developed a passion for decorative compositions—*Vedute di Marina*, *Bataglie Navali* and *Fortuna di Mare*—while Dutch and Flemish painters glorified the Dutch Republic by emphasising the fruitfulness of the sea. Freed from the obligation to produce hagiography and biblical scenes, and stirred by patriotic enthusiasm, the first school of marine painting was established in Haarlem, born from the convergence of a brilliant artistic tradition, the maritime vocation of a nation intimately connected with the sea, and a new clientele of wealthy art patrons. Andries van Eertvelt was the first to immortalise *The Return to Amsterdam of the Second Expedition to the East Indies* in 1599³⁵. Three years later, the founding of the VOC, the famous Dutch East India Company, marked the emergence of a maritime and economic world power.

Starting in the 1620s, Amsterdam developed a new school founded on atmospheric painting in muted tones, more impressionist than documentary. Aelbert Cuyp's *A Senior Merchant of the Dutch East India Company*, *Jacob Mathieusen and his Wife*

33. Sydney Hervé Aufrère, *op. cit.*, Ancient for ancient Egypt.

34. Paul Wormser, "Les Relations maritimes entre l'Indonésie et l'Océan Indien au Moyen Âge", Medieval. Cf. also Fabrizia Baldissera, "The Mobility of People and Ideas on the Seas of Ancient India", Ancient for India.

35. François Bellec, "Les Retombées littéraires et philosophiques des découvertes maritimes", Early Modern.

presented as an established reality Holland's quiet power, prosperity, and industrial, commercial and maritime competence. England called upon Dutch artists, who appeared as useful as the carpenters in Amsterdam shipyards, to understand and appropriate the sea. They worked for England with no misgivings, even settling in the country despite the ongoing wars. Vroom, Bakhuizen and the Van de Veldes were soon as famous in London as in their home country. Furthermore, as had been the case in Portugal, the East Indies brought a touch of exoticism to European furnishings. This was particularly true for Jingdezhen porcelain, imported by the million and inspiring enduring aesthetic tastes³⁶.

36. *Ibid.*

III.

THE SEA AS A CATALYST
OF ECONOMIC AND POLITICAL
DEVELOPMENT



The *Bougainville*, container-ship from the French company CMA-CGM.
© *Malmif photography*.

The archaeological sites at Pinnacle Point in South Africa, Haida Gwaii in British Columbia and On Your Knees Cave on Alaska's Prince of Wales Island, which offer the oldest known evidence of a subsistence economy based on marine mammals, seals, sea lions, cetaceans, as well as fish, some of them quite large, and shellfish such as mussels and sea snails, illustrate that the sea has always provided coastal populations with a significant source of additional resources. Isotopic remains of a 20-year-old man dating from 10,300 years ago show a diet made up mainly of food taken from the sea¹.

The sea was thus a source of food, clothing and primitive currency based on shells, as well as functional and artistic objects. Very early on, through the dynamism of maritime activities, the sea provided a structure for economic sociability among coastal populations, whether in Asia, Europe, Africa or the Americas².

Even more significantly, the sea was the principal vector of trade because it offered an easy means of transport. Indeed, propelling a vessel on the water requires infinitely less energy than land transport³. People turned increasingly to the sea, travelling ever further from the coast, to find food supplements and other necessary products.

Mesopotamian civilisation offers a perfect example of this phenomenon as far back as the third millennium BC. Located in the Fertile Crescent, Mesopotamia—literally, the land between rivers—was rich in agricultural foodstuffs. However, it was painfully lacking in natural resources. Consequently, populations exploited waterways—rivers and the sea—to find wood for construction, copper and other metals for metalworking, diorite and gabbro for royal statues, lapis lazuli, gold, ivory and more. This rapidly growing trade, controlled by rich and powerful sovereigns, thus enabled the development of irrigation systems and other defences against the floods that threatened cultivated land. An impressive transport fleet was built in an effort to secure trade. Dockyards were established at Gu'aba and Nigin in Girsu province, Apisal and Guedena in Umma province and Drehem and Nibru in the Ur region. Between the years 900 and 1000, these dockyards employed as many as 900 or 1,000 men, under the direction of a dedicated administration, the *Marsa*. The full magnificence

1. Pascal Picq, "La Mer est le propre d'Homo Sapiens", *Ancient*.

2. Jorge Ortiz Sotelo, "The Central Andean People and their Relationship to the Sea", *Medieval*; Alioune Dème, "Pêche et interactions entre la Moyenne Vallée du fleuve Sénégal et le littoral atlantique sénégal-mauritanien durant le dernier millénaire BC", *Ancient*; Benoit Bérard, "Une Approche maritime et archipélique de l'occupation amérindienne des Antilles", *Ancient*; Barry Cunliffe, "The Importance of the Sea for Prehistoric Societies in Western Europe", *Ancient* and Richard T. Callaghan, "The Taino of the Caribbean: Six Thousand Years of Seafaring and Cultural Development", *Ancient*.

3. Cf. for example, Benoit Bérard, *op. cit.*, *Ancient*, for the Caribbean; Carla Antonaccio, "Greek Colonisation, Connectivity and the Middle Sea", *Ancient* and Graciela Gestoso Singer, *op. cit.*, *Ancient* for the Connected Nature of Trade in the Mediterranean; Félix Chami, "Ancient Seafaring in Eastern African Indian Ocean Waters", *Ancient*, for the Indian Ocean.

of Mesopotamian civilisation emerged from this network of waterways, as shown by the significant role of ships and marine navigation in mythological compositions, hymns, prayers and proverbs⁴.

Asia provides a similar illustration. From the first millennium BC, a veritable marine network linked South China to the Moluccas and India. Cloves, nutmeg and other spices and perfumes were the main merchandise of a very active trade system, whereby goods travelled up through the seas of Celebes and Java to the Strait of Malacca, some being distributed to China, others through the Indian Ocean and beyond, all the way to the Red Sea⁵. From the 4th century BC, the Egyptians tended to pay their tribute to Rome in cloves from the Moluccas⁶. In the 1st century BC, the opening of the Bahrain Pearl Road, better known as the Maritime Silk Road, which linked China to the Persian Gulf and the Red Sea, created unprecedented prosperity.

In time, valuable commodities like lapis lazuli, rhinoceros horns, ivory, precious woods, and precious metals (copper, gold, silver and iron) began circulating on Asian seas, bestowing unprecedented splendour on cities or States which participated in or controlled trade. Such was the case, for example, of Funan on the Mekong Delta, one of the most important kingdoms in Southeast Asia. Similarly, Srivijaya, today Palembang, on the island of Sumatra, was a true Venice of Asia. Between the 7th and 11th centuries, Srivijaya successfully made itself the seat of trade links between the Indian Ocean, the South China Sea and the Java Sea, dazzling contemporaries with the brilliance of a thalassocratic city of unparalleled wealth and artistic development. This power was seized by the Chola kingdom at the south of the Indian peninsula, which conquered Srivijaya in 1025 with an eye to controlling the most significant naval resources. The kingdom of Majapahit in East Sumatra, followed by Malacca and then Guangzhou, gateway to a vast Chinese hinterland, succeeded to spectacular prestige. These were nerve centres before their time in this vast trade network⁷.

With the momentum of coastal and urban population growth, hinterlands were soon unable to produce sufficient quantities of food. Indeed, crop yields were poor due to a lack of draught animals capable of adequately ploughing the soil (part of a vicious cycle: insufficient yields made it impossible to feed the animals that could have increased production). This was combined with crops that in many cases were

4. Ariel M. Bagg, "Watercraft at the Beginning of History: The Case of Third Millenium Southern Mesopotamia", Ancient and Grégory Chambon, "La Navigation fluviale sur l'Euphrate au second millénaire avant Jésus-Christ: usages, enjeux et communautés de pratiques", Ancient.

5. John Miksic, "Ships, Sailors and Kingdoms of Ancient Southeast Asia", Ancient.

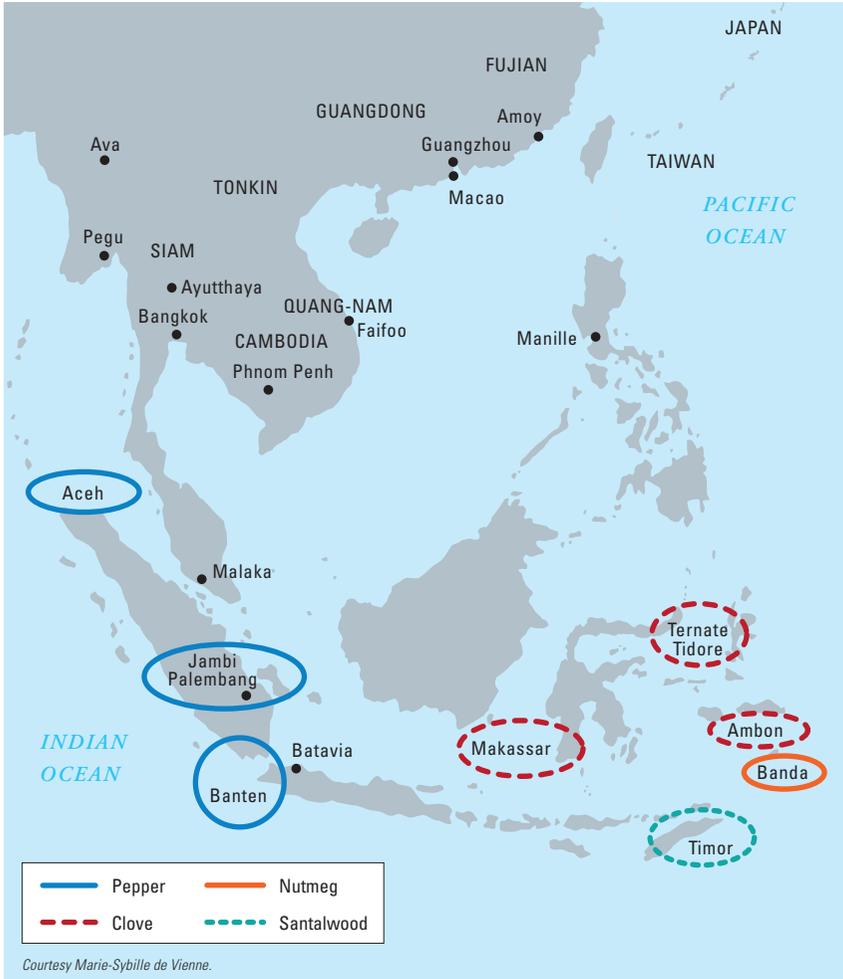
6. Eric H. Warmington, *The Commerce between the Roman Empire and India*, Cambridge, 1928.

7. Tansen Sen, *op. cit.*, Ancient, Pierre-Yves Manguin, *op. cit.*, Medieval, Paul Wormser, *op. cit.*, Medieval.

ill suited to the local soil. Farmers nonetheless continued to plant such crops due to the urgent need for the main staples of the local diet.

From this point of view, maritime transport clearly seems to have been the catalyst and driving force of a gradual trend in agricultural specialisation that made it possible to adapt crops to the local climate and thereby escape the fundamental deadlock

Emporiums and products of the Insulinde trade in the 17th century



outlined above. This food input enabled population settlements on or near the coast to grow steadily and continuously. Athens imported more than half of its wheat from the Black Sea, Thrace, Sicily, and even Egypt. By the height of the Roman Empire, one million people were concentrated in Rome and Alexandria. Feeding such urban densities required the progressive development of increasingly substantial port infrastructures. The Roman Empire is the prime example, with a network of maritime innovations which remind us of the revolution in marine transport taking place today, at the start of the third millennium.

From this perspective, the work of Pascal Arnaud (Ancient) on the ports of Antiquity is particularly enlightening. Perhaps as early as the 2nd millennium BC, *entrepôt* ports started to arise next to commercial ports, making for permanent spaces designed to facilitate the exchange of local surpluses for needed goods. This was a new model for trade based on a concentration of goods of different origins, only part of which would be absorbed by the local market, the remainder being sent to other destinations. *Entrepôt* ports were part of specialised networks of direct trade and redistribution that are far removed from the primitive picture which is sometimes painted of trade in Antiquity. Indeed, seaborne trade, a key driver of transformation, was already moving full speed ahead on a regional scale. As early as the Hellenistic period, there existed an entire network made up of main ports, intended for international trade (*emporía*), and ‘secondary’ structures.

Trade made the sea a strategic factor. Control of the sea and coast became essential, leading to unprecedented levels of military pressure. Piracy flourished, often with the discreet support of states, making port cities a choice target for raids, a pirate speciality.

In this highly unstable context, war fleets became the strategic instrument of wars fought for mastery of the sea. The sea became the primary means of carrying troops and supplies over long distances. Cutting these communications or depriving the enemy of needed supplies was a major step towards victory. An arms race thus began among States, in terms of the number and tonnage of ships and the required infrastructure. Highly specialised military ports appeared from the Hellenistic period, like the *naustathmos* of the Thalamegos or the ‘avisos arsenal’ in Schedia, outside Alexandria⁸. This progress drove economic development, as Vincent Gabrielsen (Ancient) has illustrated in the case of Athens.

8. Pascal Arnaud, “Les Infrastructures portuaires antiques”, Ancient.

During Antiquity, the Roman Empire brought this development to its most complete form⁹. The imperial age was characterised by several key innovations: political unification of the Mediterranean, the “inland” sea around which all of the empire’s possessions were spread (the Roman Empire could not survive without controlling the *mare nostrum*); universal development of an urban civilisation engendering new needs and consumer hubs; finally—a consequence of the first two phenomena—safeguarded and income-generating maritime traffic on an unprecedented scale¹⁰.

The new economic, social and cultural model that developed with the Roman Empire created unprecedented needs among consumers. The development of megacities with populations of over one million inhabitants called for massive volumes of supplies. Considering only consumer needs for the basic necessities of wine and wheat, Rome required 2,000 round voyages per year for ships with a load capacity of 400 tons, or 8,000 for ships with the more common load capacity of 100 tons...

Nonetheless, conceptualising maritime traffic as revolving exclusively around megacities would lead to a severely deformed image of this phenomenon in Roman times. The development of widespread urban culture and massive consumer communities at the borders, where soldiers with high purchasing power were stationed, attracted substantial inflows of goods. Imports were mainly sent to transshipment ports at the intersections of major shipping routes and Mediterranean basins, or at sites where inland waterways converged with maritime routes.

New needs triggered the development of new infrastructures, which in turn led to profound changes to the art and techniques of construction, making it possible to create artificial ports. Two inventions seen as Roman “signatures”, hydraulic concrete capable of setting under water, and the arch, made it possible to go ever further from the shore without having to manage the transport, handling and positioning of hewed blocks of stone. They made building moles in submerged areas a commonplace practice, thereby facilitating access for vessels with greater draught. Increasing depths (5 to 7 meters in Ostia) led in turn to the development of quays and pontoons. Not only did this new design provide for greater security, it also facilitated hauling operations and allowed for new containers. No more 30-kilogram bags and amphorae, with the slow and delicate handling they required: these delicate containers were supplanted by barrels. This development stands out as a prime example of continuous

9. Catherine Virlouvet, “La Mer et l’approvisionnement de la ville de Rome”, *Ancient*.

10. Phyllis Culham, “The Roman Empire and the Seas”, *Ancient* and Nicholas Purcell, “Taxing the Sea”, *Ancient*.

action and feedback leading to clusters of innovation. Rome drew its power from its trade flows and maritime connectivity in the “blue blood” of the sea.

History tends to repeat itself. Development of maritime links, a key feature of European modernity in the 16th and 17th centuries, sparked an agricultural revolution based on specialisation, making it possible to concentrate on crops suited to the local soil and climate. From this point of view, comparing England and France provides profound insight into a nation’s choice to turn to the sea and the ensuing commercial and industrial rewards.

Contrary to popular belief, England’s increasing maritime activity was not motivated by relatively infertile soil, particularly compared to France, driving Englishmen to turn to the sea as fishermen at best, pirates at worst. The truth is quite the opposite. England took to the sea thanks to an early agricultural revolution that increased yields from the 16th century, gradually allowing the country to feed its population without putting the entire active population in the fields. Freed from the shackles of subsistence agriculture, the country focused on industrial development, buoyed by the intensification of maritime trade, which this newly available workforce had made possible. This was the start of a virtuous cycle from which England, the Dutch Republic and Portugal all benefited. How? Simply because by offering a channel to market agricultural products, sea/river shipping made it possible, year after year, to better match crops with local soil and climate. With trade among these three maritime pioneers growing, each country embraced a national specialisation: sheep farming for England, leading to a booming textile industry; dairy products for the Dutch Republic, where meadowlands are better suited to cattle than grain; wine for Portugal. All of these products offered high added value, allowing the three countries to procure the grain they needed at a lower cost than if they had cultivated it themselves. Amsterdam’s development in the wheat trade in the 16th century was a crucial step in the central role the Dutch Republic was to play in European commerce. The wheat trade, universally considered the mother of all trades (*moedernegotie*) at the time, became the main branch of Dutch foreign commerce in the 17th and 18th centuries¹¹.

Likewise, around the Vistula, as Jean-Pierre Poussou (Early Modern) has highlighted, Polish grain exports continued to grow, with rye figuring prominently. In Poland, exports accounted for only a very small share of production, around 10%. Nonetheless, it was a lucrative trade that provided the kingdom as a whole with additional resources. Meanwhile, France was at an utter standstill. No region was entitled to sell grain,

11. Louis Sicking and Jan de Vries, *The Dutch Rural Economy in the Golden Age, 1500-1700*, New Haven, Yale University Press, 1974.

the main component in the local diet, for fear of creating widespread famine. Every region thus was then required to be self-sufficient, making it virtually impossible to improve yields. While trading grain was the rule in other countries, in France the practice was still in its infancy in the late 18th century. Louis XVI's successive governments attempted to liberalise trade, provoking great discontent in the country. Some pointed to a "Pact of Famine" which contributed significantly to the French Revolution of 1789.

The mutually beneficial dynamism between the sea and agriculture continued well after its initial appearance, constantly marking the *continuum* of value creation. Trade grew more vigorous, going beyond local exchanges and becoming part of a worldwide system. This phenomenon was particularly pronounced in the 19th century, with unprecedented increase in volume due not only to a proliferation of vessels on the sea, but also to the ability of so-called "new-world" countries to meet demand. The rise of Argentine, Australian and New Zealand crop and livestock farming was spectacular, and soon became even more so with the use of cold storage systems on ships based on the invention of French engineer Charles Tellier. Throughout the world, Great Britain took advantage of the dominant positions it enjoyed thanks to its economic leadership and the primacy of the Royal Navy. For example, with respect to Argentina, Great Britain held a dominant economic and financial position that it initially leveraged starting in the 1850s to obtain increasing quantities of wool; imports of sheep meat subsequently followed as of the 1870s. Near the end of the century, trade began in beef, as well as wheat and corn¹². Argentina thus developed a highly substantial export-based agricultural economy: nearly two-thirds of national grain production was sold abroad. Initiatives abounded to optimise the quality of Argentine meat, particularly with the introduction of English breeds of sheep (such as Lincoln and Romney Marsh) and cattle (such as Hereford and Aberdeen Angus). An export-based agricultural economy thus emerged, dominated by the consumer, Great Britain, which absorbed 90% of Argentine agricultural exports.

The consequences of this "maritimisation" of agriculture were impressive: lower prices for imported products led to the collapse of the British farming population, notwithstanding great increases in the productivity of grain production thanks to imported fertilisers (guano and nitrates from Chile and Peru) brought to British shores by the powerful British merchant marine¹³. But these developments also had positive effects for the population as a whole, reducing the cost of living just as the momentum

12. Jean-Pierre Poussou, "Le Rôle capital de la mer pour les transformations agricoles", *Early Modern*.

13. Indeed, British grain yields were the highest in Europe: 26 hectolitres of wheat per hectare in 1876, compared to 15 in France.

of industrial development was putting upward pressure on wages: between 1860 and 1900, real wages rose by 60% in Great Britain.

By driving the agricultural revolution and consolidating trade, maritime development also contributed to the industrial revolution both through the conditions it created and the considerable impact of shipbuilding on innovation and growth of the metalworking industry, which was the foundation of industrial transformation. The example of England, which had experienced its first industrial revolution in the first half of the 17th century, is once again enlightening. Shipbuilding activities led to increasing price pressure for wood and to rising demand for metal to meet the Navy's massive needs for cannons (about 10 times greater than the Army's). These challenges contributed greatly to the increasing use of coal as a substitute for wood, as well as to the technological development of foundries. The reverberatory furnace thus gained in popularity during the Nine Years' War (1689-1697), while production of blast furnaces increased sharply during the War of the Spanish Succession (1701-1713). Throughout the following decades, the Royal Navy continued stimulating development of the copper industry¹⁴.

Likewise, we often do not recognise the extent to which construction of naval bases contributed to integrating isolated lands into the economy. The very notion of hinterlands was beginning to take shape back in the 18th century. A.J. Templeton thus points to the rise of shipyards in Kent at the beginning of the Seven Year's War (1756-1763), at a time when the regional road network was undergoing a significant extension¹⁵.

Such *momentum* naturally implies sustained underlying financial capacity to provide the market with the necessary liquidity. Once again, this achievement was due in large part to the initial progress-inducing impact of maritime activities on the agricultural revolution. The resulting rural exodus, made it much easier to attract savings by concentrating populations in cities. Indeed, rural isolation and unsafe roads hardly motivated people to deposit their savings in banks. The development of local "country banks" in England accelerated the trend even further, while abundant cash made for easy credit and low interest rates. It should be remembered that the Dutch Republic, the foremost merchant marine power in the first half of the 17th century,

14. Christian Buchet, "Le Maritime, moteur du développement économique?", pp. 509-514, in *La Puissance maritime*, Christian Buchet, Jean Meyer and Jean-Pierre Poussou, eds., Paris, PUPS, 2004.

15. Cf. the following sources for the Dutch Republic: Jan de Vries, *Barges and Capitalism: Passenger Transportation in the Dutch Economy, 1632-1839*, (Wageningen, A.A.G.Bijdragen n°21), 1978 and Jan de Vries and Ad Van Der Woude, *The First Modern Economy. Success, Failure, and Perseverance of the Dutch Economy, 1500-1815*, Cambridge, Cambridge University Press, 1997.

was at the same time the first country to have a majority of its population living in cities. England followed suit in the mid-19th century, whereas in France the urban population exceeded the rural one only in 1931.

The growing appeal of London as a financial market for Dutch investors, analysed by C.H. Wilson, further augmented England's ability, thanks to its financial capacity, to rule the waves and assimilate the wealth and power offered by the sea. During the War of the Austrian Succession, (1744-1748), the government was able to finance the war effort by borrowing at 3 to 4% interest rates, a 50% drop compared to rates at the beginning of the century. For the Seven Year's War, England, which as Paul Butel and Michel Morineau have shown, devoted the same amount overall to the war effort as France—1.8 billion pounds between 1756 and 1763—was able to cover 81% of these expenditures through borrowings (compared to 65% for France) with no effect on the extremely low interest rates. As for the American Revolution and the disastrous consequences that ensued for the French crown, Paul Kennedy (Modern) has calculated that the national debt stood at similar levels in France and England, but annual interest payments for France were twice as high as for its neighbour.

The work of Pierre-François Tuel (Early Modern), following that of Paul Bairoch, shows that when a country's capital is attuned to the sea, it catalyses an infinitely more pronounced demographic and economic concentration than land-based capitals. Focusing on eight modern capital cities, one can see that the land-based capitals Paris, Madrid, Moscow and Beijing accounted for no more than 3% of the total population of their respective countries, a rate that rises to 8 to 12% for maritime capitals (London, Amsterdam, Naples, capital of the kingdom of the Two Sicilies, and Lisbon). By combining the power of a political capital with the wealth of a maritime and therefore commercial city, throughout modern times maritime capitals have enjoyed a fierce supremacy arising from a commercial spirit that no land-based capital or simple port city could hope to attain. The blend of political and economic power makes for extraordinary dynamism thanks to the appeal of these cities at once for men and capital.

How could a city gain commercial *momentum* if it is not located at the epicentre of trade flows?

London was truly the country's economic nerve centre. At the end of the 18th century, it was already twice as large as Paris in terms of population with nearly one million inhabitants; the population of the British capital doubled in a century while Paris gained a mere 150,000 to 180,000 new inhabitants. It is essential to note that the

concentration of activity in London was not at all an obstacle for the development of other cities such as Glasgow, Hull, Bristol and Liverpool, as they were port cities and the lion's share of domestic traffic in England was carried by water. London, the heart of the country, relied on the sea for supplies. Moreover, the trade flows generated by this tentacular city in turn attracted capital that benefited investment and the stock exchange. London's immensity provided the fundamental means of expansion for large-scale English maritime trade. Everything naturally converged in London, located at the centre of all national networks. And this centripetal force, precisely because it was a natural phenomenon, required no outside intervention to speak of. In other words, the most centralised country from an official point of view, France, has always been in the grip of centrifugal forces. Whereas, in the most organically liberal country, England, everything has always flocked to the centre before heading back out to supply the provinces. In England, liberalism found its home. In France, power operated through institutions. In Great Britain, it operated through the economy.

There is little doubt that History would have been different had Spain's capital been Seville instead of Madrid, if the seaport of Rouen had played the role of Paris, Shanghai instead of Beijing, Saint Petersburg instead of Moscow, Budapest instead of Vienna, Mumbai instead of Delhi, São Paulo instead of Brasilia...

The lesson is clear: political entities that turn towards the sea think in terms of flows, exchanges and openness, all drivers of economic development. Through taxes and supply-based income, this dynamic contributed to the emergence of increasingly strong and structured political entities. Indeed, in addition to being a source of wealth, trade is also a source of conflict, and merchant marines require protection by navies, which are extremely costly to build and maintain. Navies everywhere have served as spearheads of modernity, with the construction and development of arsenals being the perfect example of the simultaneous technological and organisational development they engendered¹⁶. The creation of specialised warships, the birth and perennial renewal of permanent navies, as well as the growing, and today even exponential cost of technical innovations, made this financial challenge all the greater. Only sufficiently structured powers with an efficient system of administration and a citizenry capable of bearing a significant tax burden have been and will in the future be able to sustain a navy. With his concept of "fiscal-naval state", Patrick O'Brien (Early Modern) set the stage for an approach that seems to apply to all maritime and naval powers. The case of Great Britain was the textbook example: English economic growth, stimulated by

16. Jean Meyer, "De la décision de se tourner vers la mer", *Early Modern*; Daniel Baugh, "The Professionalisation of the English Navy and its Administration, 1660-1750", *Early Modern*; Jakob Seerup, *op. cit.*, *Early Modern*.

international trade, provided resources for the state budget, enabling the country to build and maintain the Royal Navy, which could in turn impose the *pax britannica* in international waters, thereby promoting increased trade. The links between economic development, taxation and the navy seem obvious, but it should be noted that nearly 50% of public expenditure in recent times has gone to the navy rather than the army, an English particularity that has clearly proved effective.

One could go even further by pointing to interactions between nature and society, the nature of the political system and that of military pursuits. Societies with a commercial spirit, founded on a spirit of political and social openness with strong participation by the middle class, have enjoyed a virtuous cycle of growth grounded in the development of maritime trade and a strong navy; the opposite has proven true for States governed by autocratic institutions, relying on land-based military power, a rural economy, etc¹⁷.

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17. Nicholas Rodger, "Social Structure and Naval Power: Britain and the Netherlands", Early Modern.

At the conclusion of this lengthy academic and editorial process that brought together 260 researchers from around the world, making *Océanides* the most extensive programme in the human sciences since the first *Encyclopaedia*, it is clear that maritime pursuits stand out as the most defining component of History. The sea bestows military, economic and cultural predominance and spurs competitiveness, with visible consequences for society. By turning toward the sea, any political entity improves its chances of success, whether in demographic, geographic, economic or political terms. May this new vision of history enlighten decision makers and show one and all that the sea is the key of history and, as such, more than ever the catalyst of our future.

Let's go further by pointing out that although the sea has been the catalyst of prosperity throughout history, so too has it been, as pointed out by Nicholas Rodger, it has been a tool for the development of democracy¹⁸. We recall the beginning of the second part of the *Discourse on the Origin of Inequality*: "The first," writes Rousseau, "who enclosed a field, said this is mine." The sea cannot be enclosed. It does not generate tyranny. The absence of constraint in nations having a strong maritime tradition is reflected in the freedom of individual life.

Source of democracy, and source of freedom. Source of relativity, too. "Everything flows," said Heraclitus. "What is the lesson of the ocean, if not the shifting shores, the crumbling cliffs, the continents which are nothing but islands. The sea does not learn eternity, but the eternity of change. The earth feeds a false feeling of permanence. But reality is in the waves—in this uncertainty which is a wealth".

Christian Buchet from the Académie de Marine
Maritime Studies Chair, Catholic University of Paris
Océanides Scientific Director

18. *Ibid.*



The *Hermione* sailing to the United States of America. © *Marine nationale / S. Marc.*



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in order to shed light on our future!

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Its primary objective is to provide the most global overview of maritime history to date, spanning five millennia and five continents. It aims to give policy makers the necessary tools with which to understand the close connection between humans and the sea, to appreciate the evidence of its crucial role in our future and to improve worldwide maritime policy.

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