

The prominence of Omani Maritime Networks

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Abstract:

Omani family historical records have a wealth of cultural and social content. The Omani's maritime heritage is one aspect of the tremendous historical legacy of Arabians in the Gulf territory. ¹Unquestionably, the memories of the Omanis regarding navigation and the ocean have a central and gracious role.² Maritime history, as it has been developed among the Omani people from the ancient civilizations, tends to be written by the sailors for the sailors. Oman exemplifies the model of a state enjoying the various marine activities such as fishing, shipbuilding, trades, and sailing towards the east and west of the surrounding area. The interactivity of land and sea instead of life at sea would seem to be the focus for historians exploring oceanic themes. The Sultanate of Oman could play an important role in the construction of the maritime trade movements from the Arabian Sea to the Indo-Pacific, China, and the Southeast Asian countries such as Indonesia and Malaysia. The author provides valuable details about the factors that make Omani maritime prominent over all the region since the old generations. This paper seeks to provide and explore the history of Omani maritime, celestial navigation science at Omanis, and the most famous boatswain and trader, and his contributions in maritime science.

Introduction:

It is important to understand how the oceans and the life forms where the oceans cover 75% of the planet's surface. Almost the human population lives crowded in coastal areas, living in a narrow relationship with coastal seas. The Sultanate of Oman is one the shining example that represents life in the coastal areas due to its strategic location in the Arabian Sea.³ Omanis were relying on marine activities in their life, and they were the most active people in commercial ships.⁴ Therefore, they established strong fleets on many coasts like

¹ Linda Pappas Funsch, *Oman Reborn: Balancing Tradition and Modernization*, (New York, Palgrave Macmillan, 2015), p.2.

² Ibid, p.161.

³ El-Ashban, Abdul Aziz, "The Formation of the Omani Trading Empire under the Ya'aribah Dynasty (1624-1719)." *Arab Studies Quarterly* 1, no. 4 (1979): 354–71. Accessed on 14 February 2022 at <http://www.jstor.org/stable/41857520>.

⁴ Ibid

Muscat, Sur, Musandam, and Dhofar.⁵ Moreover, Omani people gave great importance to building ships for seafaring towards other surrounding countries.⁶ The Omanis were able to expand their maritime sovereignty where they crossed with their ships and naval fleets the world's continents.⁷ Hence, they were a truly maritime nation, which contributed greatly to the spread of Islam in the lands with which they had contacts; and this contributed to enhancing the commercial ties and civilizational connections with ancient and modern civilizations such as Mesopotamia, North and West Africa, China, India and Southeast Asian countries and the USA.⁸ The development of the maritime industry in Oman had resulted in the establishment and great development of celestial navigation science by many boatswains (captains). They created guidelines and rules that set the boundaries of safety and efficiency in shipping where people can travel around the globe by ships with legal and justice rules that control them. Trading is one of the most important applications of maritime activities in the Sultanate, where most people take it as their main job and enjoy their interest in exploring the sea situation and celestial science more.⁹ The Sultanate of Oman is one of the countries that have exclusive ownership of trade routes and get the most benefits out of maritime transport, it moved beyond to include all the celestial navigation science as well.¹⁰ To conclude, through trade, Oman is considered a prominent example that shows how different civilisations and cultural elements moved from one place to another.

I- A brief history of Omani maritime

The history of maritime claims that Omani was the first nation who moved and crossed the Indian Ocean. The Omani started their marine activities and trades before many ancient nations and civilizations such as Egyptians, Greeks, and Romanians...etc.¹¹ Omani was very interested in trade activities and the marine, and their geographic location made them curious to seek routes to reach other countries in the Indian-Pacific region.¹² Though it's obvious in the location that The Sultanate of Oman is situated in Southwest Asia, bordering the Arabian Sea, Gulf of Oman, and the Persian Gulf, between Yemen and the United Arab Emirates (UAE).¹³ Thus, Omani was the top in maritime science and explorations and

⁵Lees, G. M., Reginald A. Smith, and N. B. Kinnear, "The Physical Geography of South-Eastern Arabia." *The Geographical Journal* 71, no. 5 (1928): 441–66. Accessed on 14th February 2022 at <https://doi.org/10.2307/1783278>.

⁶Dionisius A. Agius, "Omani Seafaring Identity before the Early 1600s: Ethnic and Linguistic Diversity", (UK: Georg Olms, 2013), pp.50-51.

⁷Ibid.

⁸ Ibid, pp.42-43.

⁹Robert G. Hoyland, *Arabia and The Arabs: From Bronze Age to the COMing of Islam*, (London: Routledge. 2001), p.33.

¹⁰Lionel Casson, *The Ancient Mariners: Seafarers and Sea Fighters of The Mediterranean in Ancient Times*, (New York: The Macmillan Company, 1959), p.8.

¹¹Hammoud bin Hamad Al-Ghailani, *Lords of the Seas*, 2nd ed, (2017), p.27.

¹² Khamis Salim Sulaiman AlJabri, "Oman's Maritime Doctrine", a PhD dissertation, (UK: University of Exeter, 2021), p.40.

¹³ Arshad Islam, "Arab navigation in the Indian Ocean before European dominance in South and Southeast Asia : a historical study", *Journal of the Pakistan Historical Society*, 58 (2). pp. 7-23, 2010. Available at <http://irep.iium.edu.my/id/eprint/3462>

traveling over this region as well. Russian historical scholars affirmed that Omani had great importance in the marine trades and navigations, one of them was the scholar Andrei Shgakov who said that Omani were the first nation who sailed across the Indian Ocean in the fourth millennia BCE. The Omani seafaring was also towards Indonesia, China, Sri Lanka, Madagascar, and Zanzibar.¹⁴ In the 15th century CE, Omani mariner attained a well-developed stage that enabled it to extend its control over all the region of the Indian Ocean. They, therefore, were able to discover the unidentified information from other oceans. At that time, there were many big and active fleets established by the Omani mariners, among the most famous and strong ships in the history of the Omani fleet are (Taj Bucks), (Caroline), (Shah Alam), (Liverpool), (Sultana) and (Crown). When the researcher seeks to discover the history of Omani maritime linking towards the surrounding region, he inevitably remarks that Omani has the leading way in sailing across the Arabian Sea to the Indo-Pacific, China, and the south-Asian countries such as Indonesia and Malaysia.¹⁵ The existence of Omani people in Indonesia and Malaysia is affirmed by Dr. Abdullah bin Saleh bin Hussain Al-Arimi, who met one of the Malaysian people who is one of the Omani offspring from the ancient Omani sailors who arrived in Malaysia.¹⁶ As it is mentioned before about Omani-Indian and Omani-China maritime relationships, and because there is the Malay Islands through the sailing way to China, it is not a denial that there were exchanging commercial maritime relationships with South Asian Islands like Malay Island, Indonesia, and Malaysia. This rare reference on the Gulf area is indeed interesting and Kedah will provide to be a close-knit counterpart of the Gulf particularly of Oman from 9th century CE until the time of colonial full domination following the establishment of English settlements in Penang (1786), Province Wellesley (1800), Malacca and Singapore (1824). Omani factor on the Malay Peninsula which will be demonstrated in the following sections also had its ancient origin, where the early king of Kedah was stated in local annals to had come from the land of Rum and Gumarun, both were overlapping locality situated in the port city of Hormuz.¹⁷ The king was stated to come from a branch of a royal family ruling the Gulf region.¹⁸



Figure 1: The Omani ships' sailing to Indonesia and Malaysia

¹⁴Hammoud bin Hamad Al-Ghailani, p.31.

¹⁵ Ibid, p.31.

¹⁶ Ibid, p.37.

¹⁷MaziarMozaffariFalarti, *Malay Kingship in Kedah Religion, Trade, and Society*, (Petaling Jaya: SIRD, 2013), p.57.

¹⁸Rahmah Ahmad H. OsmanNabilNadri, *The Historical Reference and Cultural Heritage of Omani Nation in Malaysia*, 2018.

What makes Omani maritime prominent over all the region?

The Omani mariner gained professional experience, vast and comprehensive knowledge in celestial navigation maritime arts, as they sailed towards the Pacific Ocean, till China and the Eastern region in Asia, towards the Indian Ocean to Cape of Good Hope in the West, and from the North towards the Persian Gulf and the Red Sea. This achievement in the maritime was, consequently, Omani civilizational connections with ancient civilizations such as Ancient Indian civilization, Chinese, Mesopotamia, Ancient civilization of Egypt, and the East African civilization. Omani maritime had the marine constituents which helped and enriched the Omani mariners to be prominent in world maritime history.¹⁹ These factors are as follows:

First: -The geographic location of Oman

If one looks at the location of Oman on the map, he will realize that the Sultanate of Oman has been granted a distinguished geographic location, which made the Omani professionals of marine navigation and the country a pioneer in maritime sciences. Oman is situated in the southeast corner of the Arabian Peninsula, and it controls the main gate to the Arabian Gulf.²⁰ Then, it is considered the maximum extension of the Arab land to the east. It also results from its long coasts stretching from the Strait of Hormuz junction of the Persian Gulf and the Arabian Sea to the Indian Ocean coasts.²¹ As a consequence, this site, with the Omanis' excellence in their maritime science and experience in maritime trade, earned them an extraordinary advantage and ability that the Yemenis and Egyptians could not with. In addition to that, the Sultanate of Oman's vital geography from mountains, deserts, and plains has been an important factor in making the Omani go towards marine and seafaring.²² Oman's topography contains a large number of navigable and shipbuilding ports like Muscat, Sur, Sohar, and Mirbat.²³ Further, this terrain made these ports nature reserves, safe for long maritime routes to India, East China, and eastern Africa in the west.²⁴



Oman Geographic Location²⁵

¹⁹Ibid, p.40.

²⁰ Ibid, p.41.

²¹ Ibid

²² Mike Searle, *Geology of OfThe Oman Mountains, Eastern Arabia*, (UK: Springer,2019), pp.3&6

²³ Eric Staples, "Oman and Islamic Maritime Networks (632–1507 CE)", (New York: DieDeutsche,2017) ,p.91.

²⁴ Rahmah Ahmad H. OsmanNabilNadri, p.41.

²⁵ Jeremy Jones and Nicholas Ridout, *A History of Modern Oman*, (Cambridge University Press,2015,x)

Second: - The nature of Oman (Movement of marine currents)

The geographical nature of Oman and the extension of its marine coasts, about 3165 km, and the spread of the valley like Muscat, Sur, Musandam, and Dhofar helped in the emergence of safe seaports such as Muscat, Sur, Sohar, Sumhuram, Khasab....etc. Moreover, the movement of marine currents in the Sea of Oman and the Arabian Sea stretches as far as the rest of the seas where Omani navigators took the way through. In addition to that, Monsoons extend from August until the end of May helps in sailing old ships from the North to the South and vice versa.²⁶ Further, Omani coasts in Muscat, Sur, Musandam, and Dhofar are characterized by the depth of seawater. Thus, this characteristic helps in docking ships directly on the beaches without the need for the smaller and flattened ships to drop off the goods in those ports.²⁷

Third: - The experience and knowledge of Omani in the marine navigation

Through its long history, Oman is considered as an active center that interacted in the ancient world. Oman was a crucial center on what was called “the silk way” between the East and the West.²⁸ Commercial cruises have given expertise to Omani navigators, so it earned them enough experience in the maritime. Therefore, they later used it to expand their knowledge of marine science. Then, as a result, they wrote books and sea guides. This considerable gained experience and the deep discovered knowledge have made Omani peasants with a high capacity to know the routes and seaways and select the offshore centers and ports they commercially deal with and navigation. They established regulations and rules for stability, security, and maritime sovereignty in the Indian Ocean, these rules are known as “maritime doctrine” or “sailing law”.²⁹

Fourth: - The marine science

Historically, the relationship between the Omani and the sea rooted before the third millennium BC.³⁰ Since that date, Omani navigation has been continuously evolving and scientific prosperity for astronomy and sea sciences. Through practical experience, monitoring, observation, and discovery of navigation devices, Omani navigators have tended to document all of this in their books and guides known as the Rahamanyat. They have documented routes, waterways, and winds, their names, their directions, their strength, and their expectations. They map out the locations of cities, ports, and landmarks that determine locations. They also identified the latitude and longitude and mentioned the names and how navigational devices were used. These navigators and captains have left their epistemological impact on their performances. Here are some names of Omani marine scholars:

²⁶Ibid, p.42.

²⁷ Ibid, p.43.

²⁸ Gerald Randall Tibbetts. “Pre-Islamic Arabia and South-East Asia.” *Journal of the Malayan Branch of the Royal Asiatic Society* 29, no. 3 (175) (1956): 182–208. Available at <http://www.jstor.org/stable/41503102>.

²⁹Jeremy Jones and Nicholas Ridout, p.44.

³⁰H. E. Malallah bin Ali bin Habib Al-Lawati, “Paper Submitted at the International Seminar of The Contributions of the Islamic Culture for the Maritime Silk Route,” in *The Contributions of the Islamic Culture for the Maritime Silk Route program*, (China: UNESCO, 1994), pp. 1-3.

- The scholar navigator Ahmed Ben Majid was a pioneer in the science of navigation in both practical and theoretical terms. He had many books and marine poetries such as book “Benefits in the Fundamental Concepts of Marine Science and Rules”, and “Container for Abbreviation in the Origins of Marine Science”. From the practical point of view, one of his most prominent contributions was: Compass, Ahmed Ben Majid is considered the first scholar who had evolved the navigation compass as it is known in the modern concept, which was called before by the Arab navigators (Al-Haqah). Besides, Ibn Majid observed a rudimentary manner (measuring with the fingers) to identify Qiblah and sites, so that he added his improvement on what is known as (woods and boards). Then, he called it machine perfection.
- The scholar navigator Nasser Bin Ali Al-Khadouri, the writer of the book “Mineral Secrets in Marine Science” and “Alert the Inattentive to Know the Marine Science and Rules”.
- The scholar navigator Khamis Bin Mohamed Bin Muslim Bin Hamad Bin Jumua’a, the writer of the book “Tables in Marine Science”.³¹

Fifth: - The economic activities

The Sultanate of Oman is characterized by the existence of islands surrounding it and with a long coastline from the Arabian Sea and the entrance to the Indian Ocean in the far south-west.³² Thus, the majority of people live along the coastline and on islands. Omanis, since ancient times, have been captivated by the sea, depending primarily on the sea for their livelihood through fishing, building wooden ships, and/or related activities.³³ Therefore, these marine activities may well directly contribute to the economy of the country. The relationship between economic growth and maritime trade points out the vital role of the shipping industry and its supporting activities. Indeed, the link of marine astronomical navigation at Omanis to business helped in establishing an active trade movement with China and India, Indonesia, Africa, Yemen, Red Sea, and countries in the Arab Gulf, especially Iraq and Iran.³⁴ As a result, Omani maritime trade has become the first correspondent of Omani economic activity. It is enough to be known that more geographical nomads and historians linked Omani maritime navigation to countertrade with different civilizations and Nations, which were established in Asia and Africa and that are located at the Indian Ocean and Pacific coasts as China and East Asia.³⁵

Sixth: - The political and historical factors

The historical and political factors have a crucial role in the stability of any state. The Omanis, because of the geographical conditions of their homeland, established an independent figure who refused to submit or subordination to any political forces that have

³¹Jeremy Jones and Nicholas Ridout, p.47.

³² *The Periplus of the Erythraean Sea, by an unknown author With some extracts from Agatharkhides ‘On the Erythraean Sea’*, edited by G.W.B Huntingford, (UK: Hakluyt Society, 1980), pp. 40 & 122 & 152.

³³Khamis Salim Sulaiman AlJabri, p.31.

³⁴ Dionisius A. Agius, *Seafaring in The Arabian Gulf and Oman: The People of The Dhow*, (New York: Routledge, 2005), p.111.

³⁵Khamis Salim Sulaiman AlJabri, p.44.

emerged in the near East in ancient history. Thus, they refused to submit to the Persian hegemony and then to the Umayyad and Abbasid states.³⁶ Then, before that, they refused to submit to Alexander the Great's control when he tried to control maritime trade with India. So that they directed their approach toward East Africa.³⁷ Therefore, active centers have emerged because of Omani maritime activity and Omani migrations to Eastern Africa have emerged as Al-Junaidi Said and Suleiman's migration, Suleiman bin Suleiman bin Muzzafar bin al-Nabhani's migration, and Al-Harth migration.³⁸ In short, East Africa has been intercultural and emotionally associated with the coast of Oman and its people. Further, Omanis have been associated through marriage between families and settled in that area.³⁹

The first guide book of the Omani captain (A-Rahmaniyat الرحمانيات)

Definition: A-Rahmaniyat or A-Rahminat

- A- Linguistic:** this Arabic word means the marine guidebook of sailing-ships' captains as known in Oman " A-Nawakhidhah" or " A-Rababinah", and it is believed that the word (Rahmani) or (Rahmanj) is taken from (Rahmani) and means in Persian (Book of the Road).
- B- Terminology:** A-Rahmaniyat is a book that contains the basic information that the captain needs, which includes the names of the regions, anchors, and inferred signs for locations such as mountain peaks or marine heads. Furthermore, it contains the distances between each region and another. These locations are identified on the marine compass (A-Dirah) and map (A-Naliyah) and also determined latitude and longitude and benchmarks using the perfection machine, Al-Batily and other marine equipment. The Omani captains gave first and special interest to the marine guidebook (A-Rahmaniyat) in the research and blogging, depending on their personal experience in driving the sailing ships, also through their visits to the ports and bays of the countries that they have documented in their books. No ports mentioned in their books except that they visited it and determined its location by accurate measurement. One of these most famous guidebooks is "Benefits Filed in the Origins of the Science of the Sea and Rules" and "Shortcut Container in the Origins of Marine Science", which was written by Ahmad bin Majid Al-Galfari.⁴⁰

The components of the guidebook.

The guidebook consists of several chapters, these constituents are based on their number of papers. The guidebook of Ibn Mater is considered as the biggest one in its number of papers; it reached around 274 sheets without the missing papers of the manuscript. The most important components of the guidebook is the measurement, which is intended to identify measurement methods for each navigation device and determine anchors, gulfs,

³⁶ George Percy Badger, *History of the Imams and Seyyids of Oman by Salil Ibn Razik from AD 661 -1856*, (London: Ashgate Publishing Company, 2010), p. introduction and analysis

³⁷ Khamis Salim Sulaiman AlJabri, p.44.

³⁸Mustafa Darwish Al-Nabhani, "An Omani Approach for Addressing Piracy Off the E.C of Africa", (New York: Nippon Foundation, 2012), p.24-27.

³⁹Khamis Salim Sulaiman AlJabri, p.44.

⁴⁰Ibid, p.48.

marine heads and signs of inference such as mountain peaks close to the sea. It also determines latitude and longitude, star locations, and territories. Further, it defines the equipment and machines used in the ship such as the perfection machine, Al-Batily machine, Al-Qammazy, map (A-Naliyah), and marine compass (A-Dirah). The evidence of that like:

- latitude and longitude measurement tables
- foundation and waterway
- chapter of countries' names
- knowing latitude and longitude
- calculation of Al-Batily and its filter
- sites' names
- determine the marine waterways
- lands' names on latitude and longitude
- Locations' names and areas on the coastline in Oman Gulf, Persian Gulf, Red Sea, and south Asia seas as Bengal gulf, China Sea and what's on the Indian Ocean from East Africa.
- fragmented information about astronomical, Al-Akhnane, compass knowledge, and the knowledge of sun rotation
- in addition to different marine advices which known as "constitution", (Destour)⁴¹

Celestial navigation science at Omanis:

The maritime navigation science is intended as the mechanism for determining the location of the ship and driving it safely from one port to another. This is not far from astronomical navigation, except that it is at an earlier stage. However, celestial navigation science is a science of leadership ships by stars and planets. This science emerged at Omanis through their long experience over centuries of history. This experience was produced through viewing and experimentation until it reached the written manuscript stage. As a result of what was mentioned earlier, Omanis employed their navigational experience by thinking about finding machines and tools they discovered or developed. Therefore, the compass appeared after the master captain Ahmed Ben Majid added a magnetic needle to it which upgraded to identify trends' science away from the conclusions that are not scientifically programmed. They used Doroor calculation, which's a calculation of the year days and seasons starting from early of Suhail star, considering from the fifteenth August from each year before sunrise.⁴²

The most famous boatswain (bosun) and trader.

The Omanis knew the secrets of the sea, the movement of water currents and wind. They studied all this, so emanated from them masters, boatswains, and sailors. They, therefore, wrote books in maritime navigation science. Moreover, they invented many tools, navigable devices, and helpful tools to the boatswain for sailing toward the East and west of the earth. Omani boatswains practiced driving Omani ships or ships owned by a number

⁴¹ Ibid, p.49.

⁴² Ibid, p.50.

of ship owners as Persians, Gulf countries such as Bahrain, Kuwait, United Arab Emirates. The shipowners who arrived with their ships went to Sur port, where they contracted with a number of Omani ships' captains from Sur's sons to drive owners' ships towards the Arab sea and the Indian Ocean to Africa, India, and Yemen. This is because they were aware that the Omani boatswains are the masters of the Indian Ocean in East and West. Further, they are the most qualified and professional in leading their ships across the Indian Ocean towards their destination. This is in order to protect its safety and those in it including merchants, travelers, and goods. The role of Omani captains was not limited to leadership but he also practiced the trade. The Omani boatswains are originally traders, they buy the Omani goods or other goods from the ports where their ships anchor in. In short, the people of this coastal region were great ship-builders. Mainly, because of the timber, they imported from India, and sometimes exported to the Gulf of Aden region, through these maritime routes. Many were the ones who had led in the Omani seas; the most famous and professional boatswain selected in this writing is:

The boatswain: Ahmed Bin Majid Bin Abi Ma'alaq A-sa'adi Bin Abi A-Raka'ib A-Najdi

He was born in the 15th century CE between 1431 -1436, he had been known for many titles like *The Head of Sea Science and its Virtuous, Teacher, The Arabic Teacher, Organizer of the Two Qiblah, Sea Lion, Religion Meteor,etc*

His contributions to the progress of the navigation science

The Omani navigator Ahmad Bin Majid made direct contributions to the science of navigation, theoretical, scientific, and practical. This was as a result of his many and different experiences in the sailing and leadership of the ships and training other Omanis mariners as well. One of the main these contributions:

- 1- **Compass:** Ahmad Bin Majid is considered as the first to develop the navigational compass as it is called in the modern sense, which was called before by Arabs as "Al-Haqah". He was the first to innovate the suspension of the magnetized needle on an axis to move free movement.
- 2- **Measuring with the fingers and determining the qiblah:** Ibn Majid determined the link between the division of the horizon circle to 32 parts called "Akhname". (one Khan is a part of the navigational compass parts), and between the use of the fist of the hand and the arm extended forward to the sight in front of the monitor (the fist of the hand from the pinky to the thumb). The hand extended represents 1/32 part of the circumference of the circle, its center being the point of contact of the arm and to the shoulder. Therefore, according to this basis, the Arabic components (compass) were divided into 32 sections.
- 3- **Machine perfection:** (it's an improvement to the previous method of measurement "measuring with the fingers"). It is square wood in the form of a rectangular parallelepiped, in its middle is a hole that represents its center where a rope goes through. He divided this rope into parts separated by knots, in which its scale corresponds to the tangent of the mid-angle between the horizon, the observer's eyes, and the observed star.
- 4- **His awareness of the nature of monsoons and reflected currents in the Indian Ocean:** Ahmed Bin Majid has handled many details and explanations about the

dates of what he called closing the sea, opening the sea, and summer season. He intended by, “closing the sea”, is the dates when it is dangerous to sail in. Thus, he focused more on the importance of the boatswains’ knowledge to the times of closing and opening the sea. This is because of the rise of waves, the intensity of currents, and the Heavy rains in closing times.

- 5- **His interpretation of seawater sparkling at night:** after many observations, Ahmed Bin Majid interpreted the phenomenon of the shining of seawater at night and explained it as a result of “dew” or the result of the existence of living things such as “snakes” and alerts that the existence of this phenomenon spoils the measurement of the height of the stars as the boundary of the horizon and the water is not clear.
- 6- **Definition of territorial water:** it has been set approximately four nautical miles. It is estimated that the captain's eyes are away from the coast after his sailing above a sailboat while he is away from the land. Ahmed Bin Majid said in his book “the Benefits” about international water: if you fail to see the lands from your eyes, you only have your knowledge of stars and their guidance.
- 7- **His books:** Ibn Majid wrote around 53 books in navigation science which represents his scientific and theoretical contributions in maritime science. So, he established rules and a constitution for navigation with its three pillars. “Benefits in the origin of Sea Science and Rules” is considered the most valuable work in his scientific performance.⁴³



Manuscript in Marine Sciences (a’Nooniyah Al-Kobra: Principles of Marine Navigation) Ahmed bin Majid⁴⁴

⁴³ Ibid, p.170&184.

⁴⁴ [https://www.asyad.om/docs/default-source/publications/oman-maritime-heritage-\(eng\)-.pdf?sfvrsn=68cf8ca8_2](https://www.asyad.om/docs/default-source/publications/oman-maritime-heritage-(eng)-.pdf?sfvrsn=68cf8ca8_2)

Conclusion.

To conclude, the crucial factor of all is the consciousness and historical leadership of the Omani person who made his civilization with his own hands. Oman is a top model that displays how such various civilizations and their cultural elements moved from one place to another through trade activities. Oman had an important position and a leading role in international maritime trade. This contributed to Omani economic activity, which left a clear mark in its commercial dealings with the world. The Omani naval fleet has created a situation of the security and stability of maritime traffic and hence of international trade. Besides, Oman built strong ports and rich marine fleets mainly with different types of ships that support the mariners to be professional sailors and marine scientists. The presence of strong Omani naval fleets helped to preserve the borders of the Omani state both in the East and West. Therefore, this made Oman a strong established country in all its aspects and became a center of commercial activities and trade movements in the Indian Ocean and all the region. Hence, the navigational experience of Omani mariners has not come from a vacuum, but a long experience dating back more than seven thousand years. This experience has produced the scientists of the sea and navigation who have established and developed sea science, and they have been the leaders in this science. Through his studies of the natural environment and human needs, as well as economic activities of various kinds from industry, agriculture and trade, and his love for adventure and his discovery of the monster, all these reasons were a motivation for the Omani man to start by sailing his ship from various Omani ports. Thus, he established distinct ties with Mesopotamia, India, China, and East Africa.⁴⁵

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⁴⁵ Ibid (135,136,140)

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