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The sixteenth-century Portuguese *Suma Oriental* and the Arab pilots: a comparative *summa orientalis*?

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Summary
Starting from a consideration of Tomé Pires' 1515 *Suma Oriental*, this article considers the feasibility, nature, and relevance of a *summa orientalis* in the form of a Portuguese Early Maritime Corpus. When this corpus is compared with Arabic nautical literature, primarily Ibn Mājid and Sulaymān al-Mahrī, and especially with attention to the technical aspects of their writings, then the desirability of an Indian Ocean Maritime Corpus is envisaged. The centrality and the mediating role of Arab pilots and Arabic nautical literature indicate that the first step is the delimitation of an Arabic Early Maritime Corpus.

Keywords: Arab navigation, early modern encounters, Indian Ocean nautical literature, knowledge transfer, Portuguese expansion

My initial subject of interest for this article was very specific. It was a famous sixteenth-century Portuguese work, the *Suma Oriental* by Tomé Pires (Pires 1944 provides the only existing English translation), described as 'the oldest and most extensive account of the Portuguese East at the beginning of the 16th century' (Kwa et al. 2019: 57), and as 'the first great treatise of Asian geography by a European author, following the discovery of the maritime route to India' (Pires 2017: 17). I wanted to track down, analyse, and put in context any mention of the legendary 'Arab' pilots, and I was going to do that by delving into the *Suma Oriental*. What exactly did they do? What did their skill consist of? How often were they mentioned? What was their status? How did they compare with their Western counterparts, especially as characterized in the works of Aḥmad ibn Mājid and Sulaymān al-Mahrī?

However, as I made progress in the preparation of this article, I realized that the *Suma* was not quite what I had expected, and that I had been lured by its resounding scholastic title, *Suma Oriental*, so promising and grandiose. It holds a mighty promise, because it offers to the reader's mind a comprehensive account of all things related to the East, a *Summa Orientalis*, and this especially because it came from the hand of one of the first Europeans who had direct, unmediated access to the Oriental routes. We must remember that when Tomé Pires collected his wealth of information regarding the Indian Ocean and beyond, you could still count in dozens those who were sailing directly from Europe to Asia.

I was therefore initially dismayed to realize that this *Suma*, finalized by 1515 in Malacca, did not hold all the promising material I had expected, and that it was actually more similar to the ancient Greek *periploi* and to Marco Polo's *Milione* than I had anticipated — a generally dry account of instances of a voyage, without too much on the circumstances; rich on the *what* of the travels, with little on the *how*. Fascinating in its own way, but often all too practical, perhaps in need of an explanatory subtitle.

This initial disappointment had three effects: it allowed me to understand clearly that the implicit promise of the *Suma* is fulfilled not by one single work, but by a body of literature; it also allowed me to refine the object of my questions; and it prompted me to try to articulate and to delineate in some more detail the work needed to answer my questions. It is thus on these three elements that I shall elaborate briefly here, especially because the last two are directly related to Arabic literature.

As a sort of contextual caveat, it may be worth noting that my current research is inscribed within a larger project in the history of science, the ERC RUTTER Project based in Lisbon, with the general aim of drawing

new, explicit knowledge and wider cultural implications from the early modern European maritime literature. This means in effect mostly Iberian literature since, as it is well known that Portugal and Spain held in exclusivity, for almost 100 years, the techno-scientific knowledge of the direct sailing routes to Asia and the Americas.

The body of literature I am referring to is what I shall call — hoping it also sounds a bit grandiose but not too pompous — the Portuguese Early Maritime Corpus, including logbooks, rutters, journals, chronicles, and any other accounts of overseas voyages produced in the wake of Portuguese expeditions, mostly in Portuguese, but also in Italian and other languages, by crew and passengers alike. The time frame for this should be, tentatively, from the return of Da Gama's first expedition in 1499, to the departure, in 1595, of the first Dutch fleet to India, which would effectively put an end to the Portuguese monopoly of the Cape route. This corpus, which is the primary object of study of the RUTTER Project and partly the contents of its related library, A Sea of Books (www.aseaofbooks.org/), is to a certain extent still in manuscript form and largely untranslated. In fact, only a few of its works have received a full satisfactory editorial treatment; it is fortunately the case of the *Suma Oriental*, a critical edition of which was published in 2017 by Rui Loureiro. Some of these early works, like Da Gama's voyage journal and the important *Esmeraldo de situ orbis*, lay in libraries for centuries to resurface haphazardly and enter the world of scholarship and publications only in the eighteenth or nineteenth century.

On the eastern side of the Cape, around the shores of the Indian Ocean, we do not have anything like a unitary corpus of literature, of course; instead we have vast libraries of all sorts of travel-related genres in a host of languages of different families: Arabic books of wonders and chronicles from various provenances, royal annals in various Indian languages and in Chinese, Persian treatises. For one example close to my case, and as a telling sign of the situation, it is astonishing that even to this date some of the works of Aḥmad ibn Mājid and of Sulaymān al-Mahrī have remained in manuscript form, and that nothing of al-Mahrī has yet been translated, aside from citations here and there.

With regard to the idea of a corpus and of particular interest here, is the prominence of Arabic nautical literature throughout the many facets of Indian Ocean maritime literature. Although it is clear that sailing techniques and practices are mostly heterogeneous and untraceable, the impact of Arabic terminology goes hand in hand with the geographical centrality of the Arabian Peninsula in the western Indian Ocean, and it can be verified in Swahili, Gujarati, and Malayalam contexts as recently as the middle of the twentieth century (Al Salimi & Staples 2019: 9, 13). It is not by chance that the two authors of what is a unique Arabic nautical corpus — the above-mentioned Aḥmad ibn Mājid and Sulaymān al-Mahrī — were from the lands of our contemporary Oman and Yemen. As is verified in other fields of knowledge, and due in part to the expansion of Islam along the Indian Ocean shores, to a great extent Arabic served the purpose of a maritime lingua franca, enabling and facilitating trade and many other exchanges. These Arab captains and their crews must have been truly international dragomans *avant la lettre*, mediating on a range of different fields of action and familiar with an equally impressive range of languages. In fact, as has been pointed out by Michael Pearson, Portuguese and Arabic, or colourful varieties of them, evolved together into the two most common lingua francas of the Indian Ocean world (Pearson 2009: 22).

My questions refer more specifically to our particular context of Arabian studies, and I will therefore dwell a little longer on them: they have to do with what I called above 'the legendary Arab pilots'. Who were they exactly? What did they do? What did their skill consist of? How often were they mentioned? What was their status? How did they compare with their Western counterparts?

I have called them 'legendary' because as soon as the Portuguese started receiving direct information about Indian Ocean trade — as early as 1487 when Bartolome Dias rounded the Cape, and 1490 when King John II received detailed news from his international scout extraordinaire Pêro da Covilhã (Alvares 1883: 127–129) — there were accounts of Arab pilots who mastered the routes between Africa, Arabia, and India. Da Gama's voyage journal confirmed these earlier reports, and it described the spectacularly crucial help sought by the armada from the local pilots of the African coast. According to the text, collated with other contemporary sources, a pilot called Malemo Caná or Canaqua, variously described as Christian, Moor, or Gujarati, guided the armada from Malindi to Calicut (Da

Gama & Ames 2009: 67). This is the starting point of the legend according to which Vasco da Gama, on his first voyage to India (1497–1499), would have had Aḥmad ibn Mājid himself, *the* Arab pilot par excellence, as his pilot. This legend has long been disproved, but its broad lines reflect a reality which became almost commonplace in Portuguese maritime literature: that there was this wealth of accumulated Indian Ocean know-how, commercial, nautical, geographical, diplomatic... and that the Portuguese explorers were able to enrol help here and there and so tap into this knowledge when they were new to the region.

Their identities remain vague, in fact they are only very exceptionally named, and the details of their technical guidance are for the most part also quite vague. In the *Livro de Francisco Rodrigues* (1515), a rutter called by some 'the first world atlas' and, interestingly for us, copied alongside the *Suma Oriental* in the same manuscript, there is repeated mention of a 'Moor *rubbān*' ('o robão mouro'). The Arabic *rubbān* usually means 'captain', but in the context the meaning is closer to 'pilot', someone who takes a major role in the decisions of the crew: they ask him at every turn about geographical features and for nautical directions (Pires 1978: 106–108).

An important part of their skills was the knowledge of the monsoon and accordingly, of the right times to sail throughout the year. Another set of skills of these pilots, which my colleague Inês Bénard is currently documenting, is the rich knowledge of nautical astronomy used across the Indian Ocean, where sailing by the stars had a level of sophistication and complexity which was neither needed nor developed under the Mediterranean and northern Atlantic skies (Malhão Pereira 2012: 10–15).

One of the most remarkable passages found in Ibn Mājid's *Fawā'id* (Khoury & Hasan 1970–1972, I: 1; the closest we have to a single-volume early modern Arabic nautical summa) about the Mediterranean-European in contrast to the Indian Ocean-Arabic nautical techniques, is when he speaks about the Westerners, referring to them as 'the people of the Egyptian abodes' (*ahl al-diyār al-miṣrīyah*):

> '...they have the compass, and in it they have lines, and marks for miles, and their rhumbs are only sixteen... We use thirty-two rhumbs... and they are incapable of understanding our level of attainment, whereas we do reach as far as their knowledge goes and we can sail their ships, for the Indian Ocean is connected to the Atlantic Ocean [al-Baḥr al-Muḥīṭ], and it has a knowledge recorded in writings and stellar altitude measures...'

> ... ونحن أَخْنائُنا اثنان وثلاثون خَنًّا ولنا تَرفّات وأزوام وقياسات لا يقدرون عليها وليس هي عندهم ولا يقدرون أن يحملوا دركنا ونحن نحمل دركهم وندرك معرفتهم ونسافر بمراكبهم لأنّ البحر الهندي هو متعلّق بالبحر المحيط وله علم في الـكتب وقياس...

One particular point of interest in this quotation is the identification with the Egyptians. It is well known that early modern Arab pilots used to refer to the solar new year as Nayrūz (Tibbetts 1971: 361–366), which is obviously somehow related to the Persian Nowruz, but there is also a remarkable and as yet unstudied Coptic connection in the Arab nautical corpus, obvious in calendrical works by al-Mahrī, like his *Qilādāt al-shumūs.* I have found this connection in related literature as late as the nineteenth century (Acevedo 2021), and it may have to do with the autumnal beginning of the nautical Nayrūz. This Coptic connection warrants further study, and my current hypothesis is that it may be related to the fact that the consolidation of the Arabic nautical tradition took place during the Mamluk Sultanate, when the cultural radiation of Cairo was in full swing. I am aware of at least one very technical nautical manuscript which is related to this, Cairo's Dār al-Kutub DM 570, which has so far only been partially described by David King (1986: 91).

A group of key players in all these interactions was that of interpreters, who were important and in a different category from that of the pilots. The Portuguese knew (thanks to Dias and da Covilhã) that they would find Arab speakers on the African shores, and Da Gama's armada included at least three interpreters known by name (Hein 1993: 46–48). When the latter sailed northwards along the East African shores, it was the role of his Arabic interpreters to establish communications — this is how they were able to secure the help of the famous 'Christian' pilot and reach India.

As for the work needed to answer the questions, it is remarkable how much — often of high quality — has been done intermittently and unsystematically over decades and across countries and continents.

We need to define the corpora mentioned above: is an Indian Ocean Maritime Corpus possible at all? Perhaps not; it would be to fall greedily into the temptation of doing with the Indian Ocean what Braudel did with the Mediterranean. It would by far exceed the Arabic linguistic sphere and it would demand a team of researchers with formidable language skills. We have encouraging signs in this direction, for example, in the development of Indian Ocean studies as a distinct and very international field of studies, with new journals appearing and major initiatives based in Delhi, Leiden, Toronto, Réunion, and elsewhere. Last year we started keeping track of these initiatives when we published a technical note on Arab navigation with the RUTTER Project (Acevedo & Bénard 2020: 43–44).

But now, an Arabic Early Maritime Corpus does sound like a possibility—and it would in fact be a continuation of what Ibrahim Khoury started putting together in the early seventies in Damascus, when he launched the series *al-ʿUlūm al-baḥrīyah ʿinda al-ʿarab* (*Maritime sciences among the Arabs)*. In this case, however, it is evident that chronological boundaries would be much more difficult to establish, since there is hardly a historical breakthrough in what seems to have been a continuous Arab presence through many centuries.

As for comparing, comparing what? How? Not just information, like the mention of some stars used in a certain way, or of a certain particular technique, or a way of following a route, but also literary tropes, like an emphasis in the kind of transmission, or even a particular form of address to the reader — are they sets of instructions in the second person? Are they journal narratives? Are they offered as tribute to a high personage? And how are these variations combined (or not)? We would need to start recording mentions of navigators and pilots from both sides, and to do so systematically, keeping tallies which may eventually be the foundation of further work beyond the quantitative.

More characteristically, within a history of science enquiry proper, we must look at technicalities with an eye for the fastidious detail, because sometimes apparently minor technical details might reveal a connection, like the exact degree of the solstice in astronomical tables or the precise depth measurements of a given harbour (Acevedo 2021: 13).

Finally, what are we comparing for? Are we hunting for influences to determine the first origins of theories and practices? Not really, because although enticing the real-life complexity of the historical record has long given way to a less ambitious aim, to focus less on the influences and more on the flow of knowledge. Occasionally it may be possible to single out a starting point or a prime mover, but the more modest and realistic aim is to follow and study the points of contact that may eventually crystallize in the certainty of a transmission.

Over decades of uncoordinated efforts, it has become almost a truism that Arabic-speaking and Portuguese sailors exchanged technical information in their early modern encounters. It is known that when the Portuguese rounded the Cape, 'a certain closeness, familiarity and even skill with the language and alphabet of the Quran… enabled them to enter the linguistic complexity of the Indian Ocean, and, before that, to communicate on African shores' (Delmas 2017: 186).

The task ahead — what I wanted to outline with this article, and what is already under way — is a comprehensive parsing of the Portuguese and the Indian Ocean relevant literatures, to try to embrace and comprehend the multicultural richness of those encounters, and to do justice to the different fields of study — not just history of science but also religion, art, medicine, linguistics, etc. through specialized research and analysis. To a large extent, this will be a work of acknowledging, collecting, and systematizing previous efforts.

A specific way of contributing to this joint effort is to draw attention to the mediating role of the early modern Arab and Muslim navigators. It is not without reason that the notion of an Indian Ocean 'Arabic cosmopolis' has become current in related academic fields. It is also not without reason that Arabic, as the language of highly sophisticated nautical works, became the de facto language of seafaring, and this may actually be seen as a remarkable illustration of the Quranic verse, 'Thus We have made you a middle nation' (*wa-ka-dhālika jaʿalnākum ummatan wasaṭan*, 2:143), which became a geographical reality with the establishment of the India run. The Arabian Peninsula was right at the centre of this new enlarged Portuguese sphere of action and it was playing again, though now on a global scale, the pivotal role it had had for centuries.

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