

# Scurvy during Vasco da Gama's first voyage (1497-1499)

Scurvy was described on Vasco da Gama's first voyage to India, which appears to be the first description of scurvy during sea voyages. This document describes the extracts that are relevant about scurvy from Ravenstein's translation of the journal of the voyage.

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**Yellow** is used to indicate the more important sections.

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## Kenneth Carpenter's description of scurvy on Vasco da Gama's first voyage

In his book "*History of Scurvy and Vitamin C*",<sup>1</sup> Kenneth Carpenter extracted descriptions of scurvy symptoms described on Vasco da Gama's first voyage as follows (p.1-2):

Vasco da Gama led an expedition designed to go by this route all the way to the Indies. The fleet of four ships, with a total of about 140 people on board, left Lisbon on July 9. By January 24 of the new year 1498, they had rounded the Cape and reached a river mouth on the southeast coast of Africa. They spent a month there cleaning the ship hulls and refitting a mast. Da Gama notes that "many of our men fell ill here, their feet and hands swelling, and their gums growing over their teeth so that they could not eat." [p.20-21] They ran up the eastern coast, and on April 6, while beached at night, two boats manned by Moorish traders approached, one laden with fine oranges "better than those of Portugal." [p.34] Two of the moors remained on board, accompanying them that day to Mombasa. "In front of the city there lay numerous vessels all dressed in flags... Anxious not to be outdone we even surpassed their show, for we wanted in nothing but men, even the few we had being very ill." [p.34-35] By April 12, "it pleased God in his mercy that... all our sick recovered their health for the air of this place is very good." [p.39]

On the return journey across the Arabian Sea, they were hindered by "frequent calms and foul winds," and were twelve weeks at sea (October to December, 1498). The sailors "again suffered from their gums; their legs also swelled, and other parts of the body, and these swellings spread until the sufferer died, without exhibiting symptoms of any other disease." [p.87] As on the previous occasion, thirty men died, and only seven or eight were fit enough to navigate each ship. [p.87]

In another two weeks there would have been no men at all to navigate the ships... [p.87]  
all bonds of discipline had gone... [p.87]  
we addressed vows and petitions to the Saints... [p.87]  
it pleased God in his mercy to send us a wind which, in the course of six days,  
carried us within sight of land... at this we rejoiced as... [p.87]  
we hoped to recover our health there as we had done once before... [p.87]  
On Monday, the 7th of January we again cast anchor off Mitindy... [p.89]  
the Captain-Major sent a man on shore to bring off a supply of oranges which were  
much desired by our sick [p.89].

... What can we conclude from this record?

First, it seems that the sickness they encountered had been quite outside their previous experience; nor do they relate it to anything they had read. It would also seem that, by the time of its second appearance, the crew were convinced that the oranges that they had eaten on the earlier occasion were powerful curatives, because they were specifically asking for them...

The purpose of this document is to provide Carpenter's extracts easily available with wider textual contexts for the events, and to provide links to the digitized version of Ravenstein's translation of "*Roteiro*", the journal of Vasco da Gama's first voyage. The page numbers given above in the square brackets indicate the number of page in Ravenstein's translation, which are shown on the right-hand side of the extracts. This document is primarily focused on the contexts describing the symptoms and the contexts of scurvy. The most useful document of da Gama's first voyage is the *Roteiro*, which was translated by Ravenstein. The sections on scurvy during da Gama's voyage described by Correa and Castanheda are shown in footnotes, and the section of Camoens poem *Lusiad* on scurvy is shown at the end of this document.

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1 Kenneth J. Carpenter (1988) *The History of Scurvy and Vitamin C*. Cambridge  
<https://www.cambridge.org/fi/universitypress/subjects/history/history-medicine/history-scurvy-and-vitamin-c>

## **Biographies of Vasco da Gama and discussions of the first voyage**

[https://en.wikipedia.org/wiki/Vasco\\_da\\_Gama](https://en.wikipedia.org/wiki/Vasco_da_Gama)

<https://www.britannica.com/biography/Vasco-da-Gama>

<https://exploration.marinersmuseum.org/subject/vasco-da-gama/>

The Fourth Centenary of Vasco da Gama's Voyage to India (1898)

<https://doi.org/10.2307/1774494>

Vasco da Gama (1898)

<https://doi.org/10.5281/zenodo.17779397>

<https://www.jstor.org/stable/25208011>

The Fourth Centenary of the Death of Vasco Da Gama (1925)

<https://doi.org/10.2307/1782341>

Vasco da Gama—First Count of Vidigueira (1940)

<https://doi.org/10.2307/2506808>

A Mediaeval Navigator: Vasco da Gama (1944)

<https://www.jstor.org/stable/717806>

Discovery of the Sea-Route to India (1982)

<https://www.jstor.org/stable/45071773>

Vasco da Gama and Africa: An Era of Mutual Discovery, 1497-1800 (1998)

<https://www.jstor.org/stable/20078728>

Da Gama's Blundering: Trade Encounters in Africa and Asia during the European 'Age of Discovery,' 1450-1520 (1998)

<https://doi.org/10.2307/494876>

Vasco da Gama's Voyage: Myths and Realities in Maritime History (2003)

<https://www.jstor.org/stable/41105193>

Did Vasco da Gama Matter for European Markets? (2009)

<https://www.jstor.org/stable/20542963>

Vasco da Gama and his successors: 1460-1580 (1910)

<https://archive.org/details/vascodagamahissu00jayn/page/32/mode/2up>

<https://archive.org/details/vascodagamahissu00jaynuoft/page/32/mode/2up>

The Career and Legend of Vasco da Gama by Sanjay Subrahmanyam (1997; Book reviews)

<https://doi.org/10.1086/235226>

<https://doi.org/10.1177/084387149901100222>

<https://doi.org/10.2307/2543592>

<https://doi.org/10.2307/2651265>

<https://doi.org/10.2307/2659376>

<https://www.jstor.org/stable/20078794>

<https://www.jstor.org/stable/206259>

<https://www.jstor.org/stable/24424663>

<https://www.jstor.org/stable/27586624>

<https://www.jstor.org/stable/40107945>

<https://www.jstor.org/stable/41105073>

<https://www.jstor.org/stable/4407158>

## Clements Markham (1898) Vasco da Gama<sup>2</sup>

We are assembled this evening to commemorate one of the events in the history of the world—the discovery of the ocean route to India by the Portuguese...

Prince Henry<sup>3</sup> gave the first impetus, and during a quarter of a century he created a school of seamen who rounded Cape Bojador in 1435, Cape Blanco in 1443, Cape Verde in 1445, and reached the Gambia in 1454. All this was done in the lifetime of the Prince Navigator. At his death the work was continued, with almost equal zeal, by the kings—his nephews—Alfonso the African, João the Perfect Prince, Manoel the Fortunate...

The *padraos* were intended to be eternal monuments of Portuguese achievement. They were stone pillars with an inscription, and the arms of Portugal carved upon them—the well-known “cinco chagas,” with the orle of the seven castles of Algarve. Each explorer was to plant one on a conspicuous point at his furthest point. The *padraos* were named after saints... It was the ambition of each successive Portuguese voyager to plant a national monument beyond the furthest point reached by his predecessor...

The goal was well in sight. The eastern side of Africa had been reached by Diaz,<sup>4</sup> and was known through the report of Covilham.<sup>5</sup> Thence the next explorer would stretch across to the shores of India. King João prepared for the final and crowning expedition by the building of two suitable ships, which were commenced under the superintendence of Bartholomeu Diaz, the ablest and most successful Portuguese explorer of that age. But in 1495 the king died, and the great work remained to be achieved in the reign of his successor, King Manoel (“O Fortunado”),<sup>6</sup> who was at the head of Portuguese affairs for the next fifty-six years. He continued the equipment of the expedition, which had been commenced by his predecessor.

Then it was that Da Gama appeared on the scene... Estevan da Gama,<sup>7</sup> their father, was chief magistrate of Sines;<sup>8</sup> and here Vasco and his brothers were born. The little town of Sines is situated in a bay, about halfway between Lisbon and Cape St. Vincent. To the west are the blue waves of the Atlantic, but to landward an undulating sandy plain extends for several leagues. On the north side of the bay there is a granite ridge running out into the sea, and on the top of the cliff there is a small church built by Vasco da Gama towards the end of his life.

The four sons of Estevan da Gama appear to have been born and brought up at Sines; but I believe that little or nothing is known of them before the date of the great expedition...

... Six *padraos* were taken out, to be set up on prominent headlands, but not one of them is now known to exist.<sup>9</sup> The fleet was accompanied by the great navigator, Bartholomeu Diaz, as far as the Cape Verde islands...

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2 Markham C. The Fourth Centenary of Vasco da Gama's Voyage to India. *Geographical Journal* 1898;12(1):10–19.

<https://doi.org/10.2307/1774494>

[https://en.wikipedia.org/wiki/Clements\\_Markham](https://en.wikipedia.org/wiki/Clements_Markham)

<https://www.rgs.org/our-collections/stories-from-our-collections/explore-our-collections/portrait-of-sir-clements-markham>

3 [https://en.wikipedia.org/wiki/Prince\\_Henry\\_the\\_Navigator](https://en.wikipedia.org/wiki/Prince_Henry_the_Navigator)

4 [https://en.wikipedia.org/wiki/Bartolomeu\\_Dias](https://en.wikipedia.org/wiki/Bartolomeu_Dias)

5 [https://en.wikipedia.org/wiki/P%C3%AAro\\_da\\_Covilh%C3%A3](https://en.wikipedia.org/wiki/P%C3%AAro_da_Covilh%C3%A3)

6 [https://en.wikipedia.org/wiki/Manuel\\_I\\_of\\_Portugal](https://en.wikipedia.org/wiki/Manuel_I_of_Portugal)

7 [https://en.wikipedia.org/wiki/Est%C3%AAv%C3%A3o\\_da\\_Gama\\_\(15th\\_century\)](https://en.wikipedia.org/wiki/Est%C3%AAv%C3%A3o_da_Gama_(15th_century))

8 <https://en.wikipedia.org/wiki/Sines>

9 There is a Vasco da Gama pillar in Malindi.

[https://en.wikipedia.org/wiki/Vasco\\_da\\_Gama\\_Pillar,\\_Malindi](https://en.wikipedia.org/wiki/Vasco_da_Gama_Pillar,_Malindi)

<https://museums.or.ke/vasco-dagama-pillar>

Vasco da Gama passed the coast, which was named by him “Natal,”<sup>10</sup> on Christmas Day, and was well received by the natives of Delagoa bay. He was at Quillimane in January, 1498; at Mozambique in March; and he reached Melinde on April 15. **There was a terrible outbreak of scurvy off Mozambique, and again on the way home;** and then it was that Paulo da Gama proved the guardian spirit of the expedition, giving up all his own private stores for the use of the sick, ministering to them, and warding off despondency by his words of encouragement and by his example.

The King of Melinde supplied the Portuguese with an Indian pilot, a native of Gujarat, and on April 24 the voyage was commenced across the Indian Ocean, from the east coast of Africa to Malabar. Before starting, Vasco da Gama, with the hearty concurrence of the King of Melinde, set up one of the *padraos*,<sup>9</sup> with the escutcheon of the *Quinas* carved on one side, and a shield bearing a sphere on the other. Beneath was King Manoel’s name. It was placed on a hill above the town.

...

Luis Camoens, the great epic poet, is said to have been born in the year that Da Gama died; and Lord Stanley says, I think truly, that the name Vasco da Gama has left in history is due largely to the great genius of Camoens. “The discovery of India,” says Schlegel, “the greatest event of modern times, could only be worthily celebrated by one who had himself passed a portion of his life in those regions. A warrior could only thus have written.

At the proudest moment of that brief but glorious period of Portugal’s greatness, one great national song broke forth, like the dying note of the fabled swan, a dirge for the departing hero-nation. The remembrance of her departed glory is enshrined in this immortal work, created by the divine genius of her national poet to immortalize her fame. The exquisite bloom and grace of the diction of Camoens are unparalleled among modern writers.”

...

The Hakluyt Society,<sup>11</sup> of which I have the honour to be President, has also laboured to make the achievement of Vasco da Gama better known in this country. In 1869 we brought out the ‘Lendas’ by Gaspar Correa,<sup>12</sup> translated and edited by Lord Stanley of Alderley;<sup>13</sup> and **this year [1898], with a view to celebrating the present commemoration, we have published the ‘Roteiro’ of the first voyage, which has been ably translated and edited by Mr. Ravenstein.**<sup>14</sup>

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10 <https://en.wikipedia.org/wiki/KwaZulu-Natal>

11 [https://en.wikipedia.org/wiki/Hakluyt\\_Society](https://en.wikipedia.org/wiki/Hakluyt_Society)

12 <https://archive.org/details/voyageroundworld01tayl/page/n7/mode/2up>  
<https://archive.org/details/threevoyagesvas00corrgoog/page/n13/mode/2up>  
<https://archive.org/details/pli.kerala.rare.7020/page/n3/mode/2up>

13 [https://en.wikipedia.org/wiki/Henry\\_St Stanley, 3rd Baron Stanley of Alderley](https://en.wikipedia.org/wiki/Henry_St Stanley, 3rd Baron Stanley of Alderley)

14 [https://en.wikipedia.org/wiki/Ernst\\_Georg\\_Ravenstein](https://en.wikipedia.org/wiki/Ernst_Georg_Ravenstein)

## Ravenstein EG (1898) A Journal of the First Voyage of Vasco da Gama, 1497-1499

Ravenstein's translation of Vasco da Gama's first voyage is widely available in digitized versions. Ravenstein translated the journal, wrote Introduction and added Notes, but the original author of the journals is unknown, see section "Introduction of Ravenstein's translation".

<https://doi.org/10.1017/CBO9780511708480.002>

<https://www.gutenberg.org/ebooks/46440>

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n10/mode/2up>

<https://archive.org/details/ajournalfirstvo01ravegoog/page/n12/mode/2up>

<https://archive.org/details/ajournalfirstvo02ravegoog/page/n11/mode/2up>

[https://archive.org/details/bub\\_gb\\_13stAAAAMAAJ/page/n9/mode/2up](https://archive.org/details/bub_gb_13stAAAAMAAJ/page/n9/mode/2up)

[https://archive.org/details/bub\\_gb\\_13stAAAAMAAJ\\_2/page/n9/mode/2up](https://archive.org/details/bub_gb_13stAAAAMAAJ_2/page/n9/mode/2up)

<https://archive.org/details/dli.ministry.15443/page/n5/mode/2up>

<https://archive.org/details/in.ernet.dli.2015.106906/page/n5/mode/2up>

<https://archive.org/details/in.ernet.dli.2015.181606/page/n9/mode/2up>

<https://archive.org/details/in.ernet.dli.2015.49451/page/n7/mode/2up>

<https://archive.org/details/in.ernet.dli.2015.536306/page/n5/mode/2up>

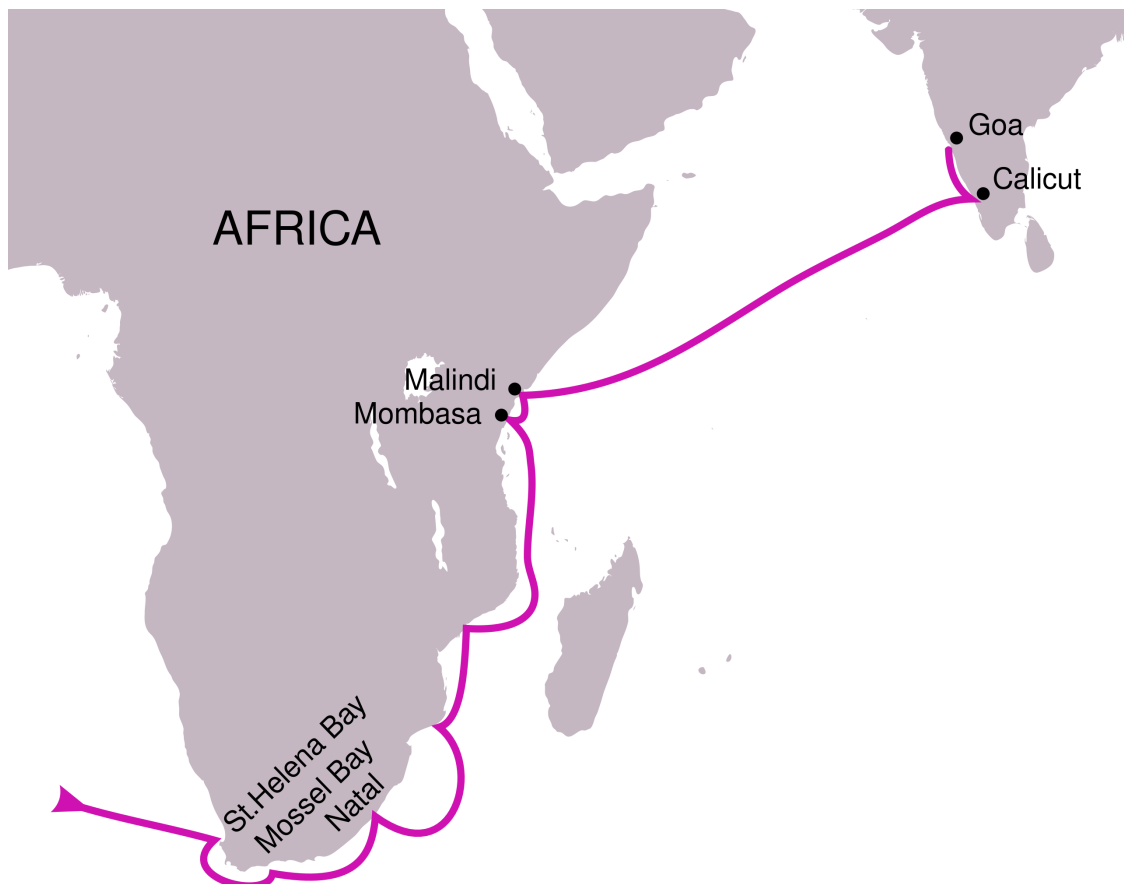
<https://archive.org/details/in.gov.ignca.21285/page/n5/mode/2up>

<https://archive.org/details/journaloffirstvo0000unse/page/n7/mode/2up>

<https://catalog.hathitrust.org/Record/002811069>

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015019066623&seq=13>

<https://babel.hathitrust.org/cgi/pt?id=hvd.32044014417612&seq=11>



The route followed in Vasco da Gama's first voyage (1497-1499) (from Wikipedia)

A JOURNAL  
OF  
THE FIRST VOYAGE  
OF  
VASCO DA GAMA,  
1497-1499.

*Translated and Edited, with Notes, an Introduction and Appendices,*

BY

E. G. RAVENSTEIN, F.R.G.S.,

LONDON:

PRINTED FOR THE HAKLUYT SOCIETY.

M.DCCC.XCVIII.

## A JOURNAL OF THE FIRST VOYAGE OF VASCO DA GAMA IN 1497-99.<sup>15</sup>

[Words and Dates not in the MS. have been placed within square brackets.]

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n50/mode/2up>  
<https://archive.org/details/ajournalfirstvo02ravegoog/page/n49/mode/2up>

IN the name of God. Amen!

p.1

In the year 1497 King Dom Manuel, the first of that name in Portugal, despatched four vessels to make discoveries and go in search of spices. Vasco da Gama was the captain-major<sup>16</sup> of these vessels; Paulo da Gama, his brother, commanded one of them, and Nicolau Coelho another.

[Lisbon to the Cape Verde Islands.]<sup>17</sup>

We left Restello on Saturday, July 8, 1497. May God our Lord permit us to accomplish this voyage in his service. Amen!

On the following Saturday [July 15] we sighted the Canaries, and in the night passed to the lee<sup>18</sup> of Lançarote. During the following night, at break of day [July 16] we made the Terra Alta, where we fished for a couple of hours, and in the evening, at dusk, we were off the Rio do Ouro.<sup>19</sup>

p.2

...

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15 See the original footnotes in the digitized version.

Except for Ravenstein's note about symptoms consistent with scurvy; here Footnote 25, other footnotes are additions to this version by Hemilä.

16 Captain major. Commander in chief.

17 [https://en.wikipedia.org/wiki/Cape\\_Verde](https://en.wikipedia.org/wiki/Cape_Verde)

18 Lee. Downwind side.

[https://en.wikipedia.org/wiki/Windward\\_and\\_leeward](https://en.wikipedia.org/wiki/Windward_and_leeward)

19 [https://en.wikipedia.org/wiki/R%C3%ADo\\_de\\_Oro](https://en.wikipedia.org/wiki/R%C3%ADo_de_Oro)



[*Rio dos Bons Signaes.*]

On Monday [January 22] we discovered a low coast p.19  
thickly wooded with tall trees. Continuing our course we  
perceived the broad mouth of a river. As it was necessary  
to find out where we were, we cast anchor. On Thursday  
[January 25], at night, we entered. The *Berrio* was  
already there, having entered the night before—that is eight  
days before the end of January [*i.e.*, January 24.]

The country is low and marshy, and covered with tall  
trees yielding an abundance of various fruits, which p.20  
the inhabitants eat.

These people are black and well made. They go naked,  
merely wearing a piece of cotton stuff around their loins,  
that worn by the women being larger than that worn by the  
men. The young women are good-looking. Their lips  
are pierced in three places, and they wear in them bits of  
twisted tin. These people took much delight in us. They  
brought us in their *almadias*<sup>20</sup> what they had, whilst we  
went into their village to procure water.

When we had been two or three days at this place  
two gentlemen (*senhores*) of the country came to see us.  
They were very haughty, and valued nothing which we  
gave them. One of them wore a *touca*,<sup>21</sup> with a fringe  
embroidered in silk, and the other a cap of green satin.  
A young man in their company—so we understood from their  
signs—had come from a distant country, and had already  
seen big ships like ours. These tokens (*signaes*) glad-  
dened our hearts, for it appeared as if we were really  
approaching the bourne<sup>22</sup> of our desires. These gentlemen  
had some huts built on the river bank, close to the ships,  
in which they stayed seven days, sending daily to the ships,  
offering to barter cloths which bore a mark of red ochre.  
And when they were tired of being there, they left in their  
*almadias* for the upper river.

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20 A canoe made from tree bark, formerly used in Africa.

A boat formerly used by traders off the coast of India, about eighty feet long and six or seven feet wide.  
<https://en.wiktionary.org/wiki/almadie>

21 Touca. Hairdress.  
<https://www.jstor.org/stable/717806>

22 Bourne. Boundary, limit.

As to ourselves, we spent thirty-two days in the river taking in water, careening<sup>23</sup> the ships, and repairing the mast of the *Raphael*. Many of our men fell ill here, their feet and hands swelling, and their gums growing over their teeth, so that they could not eat.<sup>24, 25, 26, 27, 28, 29</sup>

p.21

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23 <https://en.wikipedia.org/wiki/Careening>

24 Swollen and bleeding gums are typical for scurvy. However, there is no description of foods in *Roteiro*. During long sea voyages the food gets poorer over time, whereas here the reparation of ships was done in a river and they might have bought fresh fruit and vegetables when close to land. In any case, on the return journey, "... it took us three months less three days to cross this gulf, and all our people again suffered from their gums, which grew over their teeth, so that they could not eat. Their legs also swelled..." This supports the interpretation that the first occurrence was also explained by scurvy.

25 **Footnote in Ravenstein's translation:**

"This disease was evidently scurvy, so fatal to our early navigators. Castanheda (I. c. 4) tells us that in this time of trouble Paulo da Gama visited the sick night and day, condoled with them, and freely distributed the medicines which he had brought for his own use."

26 **Joinville (1249)** wrote about scurvy on the Seventh Crusade as follows:

"The sickness became much more severe throughout the camp, and the proud flesh in our men's mouths [proud flesh: an excessive growth of granulation tissue] grew to such excess that the barber-surgeons were obliged to cut it off, to give them a chance of chewing their food or swallowing anything. It was piteous to hear through the camp the shrieks of the people who were being operated upon for proud flesh, for they shrieked like women in childbirth."

<https://doi.org/10.5281/zenodo.17341537>

27 Scurvy caused a number of deaths also on **Magellan's voyage (1519-1522):**

<https://pmc.ncbi.nlm.nih.gov/articles/PMC1806596>

<https://pubmed.ncbi.nlm.nih.gov/25007107>

"Besides the above-named evils, this misfortune which I will mention was the worst, it was that the upper and lower gums of most of our men grew so much that they could not eat, and in this way so many suffered, that nineteen died... Besides those who died, twenty-five or thirty fell ill of divers sicknesses, both in the arms and legs, and other places, in such manner that very few remained healthy."

<https://www.gutenberg.org/ebooks/74723> p.65

<https://archive.org/details/firstvoyageround00piga/page/n143/mode/2up>

<https://archive.org/details/magellan-pigafetta-2010/page/65/mode/2up>

28 **Castanheda (1551); English translation (1582) p.13**

[https://archive.org/details/firstbookeofhist00cast\\_0/page/n41/mode/2up](https://archive.org/details/firstbookeofhist00cast_0/page/n41/mode/2up)

<https://archive.org/details/b30327982/page/n45/mode/2up>

<https://archive.org/details/firstbookeofhist00cast/page/n41/mode/2up>

"Captaines then determined upon, that all the shippes should be brought on ground, which determination was executed accordinglye, & the same ships repaired, dressed, and trimmed in all points needfull and necessarie: In dooing whereof they spent and passed over two and thirtie daies, in which time our men suffered and passed over great troubles and tormentes of minde, by occasion of a sicknesse there happened amongst them, which was thought to growe by meanes of the aire of that countrie, for that the hands and feete of so many of them, and also their gums in such sorte did swell, that they could not eate, and the same so rotted, that the stinke which came out of their mouthes was so great and pestiferous, that none could abide the savour therof, with this pestilent infection & sicknes our men were greatly discomfited, & ma-

We erected here a pillar which we called the pillar of St. Raphael, because it had been brought in the ship bearing that name. The river we called Rio dos Bons Signaes (River of good signs or tokens).

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ny of them dyed thereof, which also put the rest of the companie in greate feare and perplexitie of minde: Yea, and further would have increased and aggravated their griefes of bodye and sorrowes of minde, were it not that one De Gama a man of good nature and condition had taken speciall care and used greate diligence, for the recoverye of their healths, and putting them in comfort: who continually visited the sicke, and liberally departed unto them such wholesome and medicinable things, as for his owne bodye hee had provided, and carried with him, through whole good counsell given, great pains taken, and franke distribution of that he had, many of our men were recoverd, which would otherwise have died, and all the rest thereby were greatly recomforted.

29 **Correa (~1556); English translation (1869) p.71-73**

<https://archive.org/details/pli.kerala.rare.7020/page/70/mode/2up>

<https://archive.org/details/voyageroundworld01tayl/page/70/mode/2up>

“Here it was observed that in this river there were no flies, for they never saw any all the time they were there, which was twenty days; and they went away because the crew began to fall ill. It seems that it was from that fruit which was very delicious to eat; and the principal ailment was that their gums swelled and rotted, so that their teeth fell out, and there was such a foul smell from the mouth that no one could endure it. The captain-major provided a remedy for this, for he ordered that each one should wash his mouth with his own water each time that he passed it, by doing which in a few days they obtained health. The captain-major made a hole with pickaxes in a stone slab at the entrance of this river, and set up a marble pillar, of which he had brought many for that purpose...”

**Correa (~1556); English translation (1869) p.71 footnote by Alderley:**

“Barros describes this sickness, and says that it happened during the stay of the ships for a month to careen and repair, but he places the re-fitting of the ships in February in the river of *Bona Sinaes*, north of Cabo de Corrientes and of Sofala, instead of in January in the river of *Misericordia* of Correa, which must be the same as Barros’ river *dos Reis* (Twelfth Day), since Correa says “it was now January” just before they entered the river of *Misericordia*. Barros says of the sickness—

‘The greater part of the sickness was erysipelas, and the so great growth of the flesh of their gums, that it would hardly be contained in the men’s mouths, and as it grew it rotted, and they cut into it like into dead flesh: a very pitiable thing to see; which sickness they afterwards came to know proceeded from the salt meat and fish, and biscuit spoiled by long time.’

This is probably the first occurrence or mention of the scurvy at sea.”

[*To Moçambique.*]

On Saturday [February 24] we left this place and gained the open sea. During the night we stood N.E., so as to keep away from the land, which was very pleasing to look upon. On Sunday [February 25] we still stood N.E., and at vesper time<sup>30</sup> discovered three small islands, out in the open, of which two were covered with tall trees, while the third and smallest was barren. The distance from one island to the other was four leagues.<sup>31</sup>

On the following day we pursued our route, and did so during six days, lying to at night.

On Thursday, the 1st of March, we sighted islands and the mainland, but as it was late we again stood out to sea, and lay to till morning. We then approached the land, of which I shall speak in what follows.

p.22

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30 Vesper. Evening.

<https://en.wiktionary.org/wiki/vesper>

31 League. Distance ranging from 2 km to 8 km in different cultures.

[https://en.wikipedia.org/wiki/League\\_\(unit\)](https://en.wikipedia.org/wiki/League_(unit))

Ravenstein writes “each league being equal to 4 ¼ of our miles” p.124.  
See also Footnote 45: 1 League ~ 4 km.

[April 6]...

On the mainland, facing these shoals, there rises a lofty range of mountains, beautiful of aspect. These mountains we called *Serras de São Raphael*, and we gave the same name to the shoals. p.33

Whilst the vessel was high and dry, **two *Almadias* approached us. One was laden with fine oranges, better than those of Portugal.** Two of the Moors<sup>32</sup> remained on board, and accompanied us next day to Mombaça. p.34

On Saturday morning, the 7th of the month, and eve of Palm Sunday, we ran along the coast and saw some islands at a distance of fifteen leagues from the mainland, and about six leagues in extent. They supply the vessels of the country with masts. All are inhabited by Moors.

[*Mombaça*].<sup>33</sup>

On Saturday [April 7] we cast anchor off Mombaça, but did not enter the port. No sooner had we been perceived than a *zavra*<sup>34</sup> manned by Moors came out to us: in front of the city there lay numerous vessels all dressed in flags. And we, **anxious not to be outdone, also dressed our ships, and we actually surpassed their show, for we wanted in nothing but men, even the few whom we had being very ill.** We anchored here with much pleasure, for we confidently hoped that on the following day we might go on land and hear mass jointly with the Christians reported to live there under their own *alcaide*<sup>35</sup> in a quarter separate from that of the Moors. p.35

The pilots who had come with us told us there resided both Moors and Christians in this city; that these latter lived apart under their own lords, and that on our arrival they would receive us with much honour and take us to their houses. But they said this for a purpose of their own, for it was not true. At midnight there approached us a

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32 Moor. Used to designate primarily the Muslim populations of North Africa and the Iberian Peninsula during the Middle Ages.

<https://en.wikipedia.org/wiki/Moors>

33 <https://en.wikipedia.org/wiki/Mombasa>

34 Zavra. A small open vessel with a square sail of matting.

35 Alcaide. A Portuguese and Spanish name, meaning 'castle commander'.  
<https://en.wikipedia.org/wiki/Alcaide>

*zavra* with about a hundred men, all armed with cutlasses<sup>36</sup> (tarçados) and bucklers.<sup>37</sup> When they came to the vessel of the captain-major they attempted to board her, armed as they were, but this was not permitted, only four or five of the most distinguished men among them being allowed on board. They remained about a couple of hours, and it seemed to us that they paid us this visit merely to find out whether they might not capture one or the other of our vessels.

p.36

On Palm Sunday [April 8] the King of Mombaça sent the captain-major a sheep and large quantities of oranges, lemons and sugar-cane, together with a ring, as a pledge of safety, letting him know that in case of his entering the port he would be supplied with all he stood in need of. This present was conveyed to us by two men, almost white, who said they were Christians, which appeared to be the fact. The captain-major sent the king a string of coral-beads as a return present, and let him know that he purposed entering the port on the following day. On the same day the captain-major's vessel was visited by four Moors of distinction.

Two men were sent by the captain-major to the king, still further to confirm these peaceful assurances. When these landed they were followed by a crowd as far as the gates of the palace. Before reaching the king they passed through four doors, each guarded by a doorkeeper with a drawn cutlass. The king received them hospitably, and ordered that they should be shown over the city. They stopped on their way at the house of two Christian merchants, who showed them a paper (*carta*), an object of their adoration, on which was a sketch of the Holy Ghost.<sup>38</sup> When they had seen all, the king sent them back with samples of cloves, pepper and corn, with which articles he would allow us to load our ships.

On Tuesday [April 10], when weighing anchor to enter the port, the captain-major's vessel would not pay off, and struck the vessel which followed astern.<sup>39</sup> We therefore again cast anchor. When the Moors who were in our

p.37

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36 Cutlass. A short, broad sabre or slashing sword with a straight or slightly curved blade sharpened on the cutting edge and a hilt often featuring a solid cupped or basket-shaped guard. It was a former common naval weapon during the Age of Sail.  
<https://en.wikipedia.org/wiki/Cutlass>

37 Buckler. A small shield, up to 45 cm (up to 18 in) in diameter.  
<https://en.wikipedia.org/wiki/Buckler>

38 [https://en.wikipedia.org/wiki/Holy\\_Spirit](https://en.wikipedia.org/wiki/Holy_Spirit)

39 Astern. Toward the rear of a ship (opposite of 'forward').  
[https://en.wikipedia.org/wiki/List\\_of\\_ship\\_directions](https://en.wikipedia.org/wiki/List_of_ship_directions)

ship saw that we did not go on, they scrambled into a *zavra* attached to our stern;<sup>40</sup> whilst the two pilots whom we had brought from Moçambique jumped into the water, and were picked up by the men in the *zavra*. At night the captain-major “questioned” two Moors [from Moçambique] whom we had on board, by dropping boiling oil upon their skin, so that they might confess any treachery intended against us. They said that orders had been given to capture us as soon as we entered the port, and thus to avenge what we had done at Moçambique. And when this torture was being applied a second time, one of the Moors, although his hands were tied, threw himself into the sea, whilst the other did so during the morning watch.

About midnight two *almadias*, with many men in them, approached. The *almadias* stood off whilst the men entered the water, some swimming in the direction of the *Berrio*, others in that of the *Raphael*. Those who swam to the *Berrio* began to cut the cable. The men on watch thought at first that they were tunny fish, but when they perceived their mistake they shouted to the other vessels. The other swimmers had already got hold of the rigging<sup>41</sup> of the mizzen-mast. Seeing themselves discovered, they silently slipped down and fled. These and other wicked tricks were practised upon us by these dogs, but our Lord did not allow them to succeed, because they were unbelievers.

p.38

Mombaça is a large city seated upon an eminence washed by the sea. Its port is entered daily by numerous vessels. At its entrance stands a pillar, and by the sea a low-lying fortress. Those who had gone on shore told us that in the town they had seen many men in irons; and it seemed to us that these must be Christians, as the Christians in that country are at war with the Moors.

p.39

The Christian merchants in the town are only temporary residents, and are held in much subjection, they not being allowed to do anything except by the order of the Moorish King.

It pleased God in his mercy that on arriving at this city all our sick recovered their health, for the climate (“air”) of this place is very good.<sup>42</sup>

40 Stern. The rear of a ship.

41 [https://en.wikipedia.org/wiki/Rig\\_\(sailing\)](https://en.wikipedia.org/wiki/Rig_(sailing))

42 A few days previously, “two Almadias approached us. One was laden with fine oranges, better than those of Portugal” and “the King of Mombaça sent the captain-major a sheep and large quantities of oranges, lemons”, see above. Evidently, they are much more likely

After the malice and treachery planned by these dogs had been discovered, we still remained on Wednesday and Thursday [April 11 and 12].

[*Mombaça to Malindi.*]<sup>43</sup>

We left in the morning [April 13], the wind being light, and anchored about eight leagues from Mombaça, close to the shore. At break of day [April 14] we saw two boats (*barcas*) about three leagues to the leeward,<sup>44</sup> in the open sea, and at once gave chase, with the intention of capturing them, for we wanted to secure a pilot who would guide us to where we wanted to go. At vesper-time we came up with one of them, and captured it, the other escaping towards the land. In the one we took we found seventeen men, besides gold, silver, and an abundance of maize and other provisions; as also a young woman, who was the wife of an old Moor of distinction, who was a passenger. When we came up with the boat they all threw themselves into the water, but we picked them up from our boats.

That same day [April 14] at sunset, we cast anchor off a place called Milinde (Malindi), which is thirty leagues<sup>45</sup> from Mombaça. The following places are between Mombaça and Milinde, viz., Benapa, Toça and Nuguonquioniete.

p.40

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explanations for recovery from the symptoms consistent with scurvy than the climate.

43 <https://en.wikipedia.org/wiki/Malindi>

44 Leeward is downwind from the point of reference, i.e., along the direction towards which the wind is going. [https://en.wikipedia.org/wiki/Windward\\_and\\_leeward](https://en.wikipedia.org/wiki/Windward_and_leeward)

45 Distance between Mombasa and Malindi is about 120 km, which corresponds to 1 League ~ 4 km.



[THE VOYAGE HOME.]

p.79

I now again speak of our voyage home.

Going thus along the coast we kept tacking, with the aid of the land and sea breezes, for the wind was feeble. When becalmed in the day we lay to.

On Monday, September 10, the captain-major landed one of the men whom we had taken, and who had lost an eye, with a letter to the Çamolin, written in Moorish [Arabic] by one of the Moors who came with us. The country where we landed this Moor was called Compia, and its king, Biaquolle, was at war with the King of Calecut.<sup>46</sup>

On the following day [September 11], whilst becalmed, boats approached the ships, and the boatmen, who offered fish for sale, came on board without exhibiting any fear.

[*Santa Maria Islands.*]<sup>47</sup>

p.80

On Saturday, the 15th of said month, we found ourselves near some islets, about two leagues from the land. We there launched a boat and put up a pillar on one of these islets, which we called Santa Maria, the king having ordered three pillars (padrões), to be named S. Raphael, S. Gabriel, and Santa Maria. We had thus succeeded in erecting these three,<sup>48</sup> *scilicet*,<sup>49</sup> the first, that of S. Raphael, on the Rio dos bons signaes; the second, that of S. Gabriel, at Calecut; and this, the last, named Santa Maria.

Here again many boats came to us with fish, and the captain made the boatmen happy by presenting them with shirts. He asked them whether they would be glad if he placed a pillar upon the island. They said that they

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46 <https://en.wikipedia.org/wiki/Kozhikode>

See the location on page 6.

“Calicut [Kalikut, Kozhikode] ... had become the emporium [trading post] of the trade of the Indian Ocean. Spices and pepper were collected here from different places in India, as also from Ceylon and South East Asia, for export and re-export.”

<https://www.jstor.org/stable/45071773>

47 [https://en.wikipedia.org/wiki/St.\\_Mary%27s\\_Islands](https://en.wikipedia.org/wiki/St._Mary%27s_Islands)

48 There is still a Vasco da Gama pillar in Malindi “erected by the Portuguese explorer Vasco da Gama”; it is not clear how that relates to the three pillars mentioned here.

In addition, Markham wrote “Six padraos were taken out”, see page 4.

[https://en.wikipedia.org/wiki/Vasco\\_da\\_Gama\\_Pillar,\\_Malindi](https://en.wikipedia.org/wiki/Vasco_da_Gama_Pillar,_Malindi)

<https://museums.or.ke/vasco-dagama-pillar>

49 *Scilicet*. Namely, as follows.

<https://en.wiktionary.org/wiki/scilicet>

would be very glad indeed, for its erection would confirm the fact that we were Christians like themselves. The pillar was consequently erected in much amity.

[*Anjediva, September 20 to October 5.*]<sup>50</sup>

That same night, with a land breeze, we made sail and pursued our route. On the following Thursday, the 20th of the month, we came to a hilly country, very beautiful and salubrious, close to which there were six small islands. There we anchored, near the land, and launched a boat to take in water and wood to last us during our voyage across the Gulf, which we hoped to accomplish, if the wind favoured us. On landing we met a young man, who pointed out to us a spring of excellent water rising between two hills on the bank of a river. The captain-major gave this man a cap, and asked whether he was a Moor or a Christian. The man said that he was a Christian, and when told that we too were Christians he was much pleased.

p.81

Paulo da Gama, in the meanwhile, had sought the Christians who had come with this visitor, and asked who he was. They said he was a pirate (*armador*), who had come to attack us, and that his ships, with many people in them, had remained on the coast. Knowing this much, and conjecturing the rest, we seized him, took him to the vessel drawn up on the beach, and there began to thrash him, in order to make him confess whether he was really a pirate, or what was the object with which he had come to us. He then told us that he was well aware that the whole country was ill-disposed towards us, and that numbers of armed men were around, hidden within the creeks, but that they would not for the present venture to attack us, as they were expecting some forty vessels which were being armed to pursue us. He added that he did not know when they would be ready to attack us. As to himself he said nothing except what he had said at first. Afterwards he was “questioned” three or four times, and although he did not definitely say so, we understood from his gestures that he had come to see the ships, so that he might know what sort of people we were, and how we were armed.

p.85

p.86

At this island we remained twelve days, eating much fish, which was brought for sale from the mainland, as also many pumpkins and cucumbers. They also brought us boat-loads of green cinnamon-wood with the leaves still on.

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50 [https://en.wikipedia.org/wiki/Anjediva\\_Island](https://en.wikipedia.org/wiki/Anjediva_Island)

When our ships had been careened, and we had taken in as much water as we needed, and had broken up the vessel which we had captured, we took our departure. This happened on Friday, October 5.

Before the vessel referred to was broken up, its captain offered us 1000 fanões for it, but the captain-major said that it was not for sale, and as it belonged to an enemy he preferred to burn it.

When we were about two hundred leagues out at sea, the Moor whom we had taken with us declared that the time for dissembling was now past. It was true that he had heard at the house of his master that we had lost ourselves along the coast, and were unable to find our way home; that for this reason many vessels had been despatched to capture us; and that his master had sent him to find out what we were doing and to entice us to his country, for if a privateer had taken us he would not have received a share of the booty, whilst if we had landed within his territory we should have been completely in his power, and being valiant men, he could have employed us in his wars with the neighbouring kings. This reckoning, however, was made without the host.

p.87

*[The Voyage across the Arabian Sea.]*

Owing to frequent calms and foul winds it took us three months less three days to cross this gulf, and all our people again suffered from their gums, which grew over their teeth, so that they could not eat. Their legs also swelled, and other parts of the body,<sup>51</sup> and these swellings spread until the sufferer died,<sup>52</sup> without exhibiting symptoms of any other disease. Thirty of our men died in this manner—an equal number having died previously—and those able to navigate each ship were only seven or eight, and even these were not as well as they ought to have been. I assure you that if this state of affairs had continued for another fortnight, there would have been no men at all to navigate the ships. We had come to such a pass that all bonds of discipline had gone. Whilst suffering this

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51 Scurvy can cause heart failure, which can cause swellings, e.g.  
<https://pubmed.ncbi.nlm.nih.gov/38504249>  
<https://pubmed.ncbi.nlm.nih.gov/35282368>  
<https://pubmed.ncbi.nlm.nih.gov/38464798>  
<https://pubmed.ncbi.nlm.nih.gov/27682441>

52 Scurvy can cause sudden deaths, probably due to acute heart events, e.g.  
<https://www.gutenberg.org/ebooks/40505>  
<https://doi.org/10.5281/zenodo.17455962>  
<https://doi.org/10.5281/zenodo.10685194>

affliction we addressed vows and petitions to the saints on behalf of our ships. The captains had held council, and they had agreed that if a favourable wind enabled us we would return to India whence we had come.

But it pleased God in his mercy to send us a wind which, in the course of six days, carried us within sight of land, and at this we rejoiced as much as if the land we saw had been Portugal, for with the help of God we hoped to recover our health there, as we had done once before.<sup>53, 54</sup>

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53 **Correa (~1556); English translation (1869) p.253 footnote by Alderlay**

<https://archive.org/details/voyageroundworld01tayl/page/252/mode/2up>

<https://archive.org/details/pli.kerala.rare.7020/page/252/mode/2up>

“... Castanheda gives a few additional details of the return voyage from Angediva to Melinde, which he says lasted four months, what with calms and other causes: the crew were again sick, with their gums swollen and rotten as at the river Bons sinaes, and they had ulcers in their arms and legs, and thirty persons died, and others could hardly move; they were also short of water, which had to be served out by measure. The pilots wanted to put back to Calicut, and made a conspiracy, which Vasco da Gama discovered, upon which he arrested them, and took the care of directing the ships’ course.”

54 **Castanheda (1551); English translation (1582) p.65**

[https://archive.org/details/firstbookeofhist00cast\\_0/page/n147/mode/2up](https://archive.org/details/firstbookeofhist00cast_0/page/n147/mode/2up)

<https://archive.org/details/b30327982/page/n151/mode/2up>

<https://archive.org/details/firstbookeofhist00cast/page/n147/mode/2up>

The Skurfe: “And going in this necessitie, and also with fowle weather, the people began to fall sicke with a disease in their gums, as they did in the river, De buenas Sennales, when as they went to Calicut, & also their armes and legs did swell, besides other swellings which did rise in their bodyes, by reason of a pestilent stinking humour, which did cast them into a laske [diarrhea], and of this new infirmitie, there dyed to the number of thirtie persons. And after that they began once to die, and had continued this kinde of weather uppon the Seas, ther arose such a feare amonst those that did remain alive, that they fared in the same, as it were men amazed, and beleaved verely that they should never goe from thence, for that as they thought this kinde of weather was alwayes durable there, and that the same was the cause that it indured so long. The Pastors and Pilots of the Fleete were of the lyke opinion, which made the rest beleieve it the sooner, that by this meanes the crye of all those that were there, as well of them that were sicke as of the other, was great, saiang that since the weather would not serve them to goe from thence, yet they requested him not to be an occasion of their death, but rather consent to retourne unto Calycut, or els to some other place in the Indias, and beeing ther, to receive what God shuld appoint them, rather then to dye in those seas of so terrible diseases, for which ther was no like lihoode [state] of any remedie, in especiall having lacke of all other things, as of victuals and water, which as then they began to want, by reason that by their long continuaunce in the said place was all spent.”

This happened on **January 2, 1499**. It was night when we came close to the land, and for this reason we put about ship and lay to. In the morning [January 3] we reconnoitred the coast, so as to find out whither the Lord had taken us, for there was not a pilot on board, nor any other man who could tell on the chart in what place we were. Some said that we must be among certain islands off Moçambique, about 300 leagues from the mainland; and they said this because a Moor whom we had taken at Moçambique had asserted that **these islands were very unhealthy, and that their inhabitants suffered from the same disease which had afflicted us.**

p.88

[*Magadoxo.*]<sup>55</sup>

We found ourselves off a large town, with houses of several stories, big palaces in its centre, and four towers around it. This town faced the sea, belonged to the Moors, and was called Magadoxo. When we were quite close to it we fired off many bombards, and continued along the coast with a fair wind. We went on thus during the day, but lay to at night, as we did not know how far we were from Milingue [Malindi] whither we wished to go.

On Saturday, the 5th of the month, being becalmed, a thunderstorm burst upon us, and tore the ties of the *Raphael*. Whilst repairing these a privateer came out from a town called Pate with eight boats and many men, but as soon as he came within reach of our bombards we fired upon him, and he fled. There being no wind we were not able to follow him.

[*Malindi.*]

p.89

On Monday, the 7th [of January] we again cast anchor off Milindy, when the king at once sent off to us a long boat<sup>56</sup> holding many people, with a present of sheep, and a message to the captain-major, bidding him welcome. The king said that he had been expected for days past, and gave expression to his amicable and peaceable sentiments. The captain-major sent a man on shore with these messengers with instructions to bring off a supply of oranges, which were much desired by our sick. These he brought on the following day, as also other kinds of fruit; but our sick did not much profit by this, for the climate affected them in such a way that many of them died here. Moors

55 <https://en.wikipedia.org/wiki/Mogadishu>

56 <https://en.wikipedia.org/wiki/Longboat>

also came on board, by order of the king, offering fowls and eggs.

When the captain saw that all this attention was shown us at a time when we stood so much in need of it, he sent a present to the king, and also a message by the mouth of one of our men who spoke Arabic, begging for a tusk of ivory to be given to the King [of Portugal], his Lord, and asking that a pillar be placed on the land as a sign of friendship.<sup>57</sup> The king replied that he would do what was asked out of love for the King of Portugal, whom he desired to serve; and, in fact, he at once ordered a tusk to be taken to the captain and ordered the pillar to be erected.

He also sent a young Moor, who desired to go with us to Portugal, and whom he recommended strongly to the captain-major, saying that he sent him in order that the King of Portugal might know how much he desired his friendship.

p.90

We remained five days at this place enjoying ourselves, and reposing from the hardships endured during a passage in the course of which all of us had been face to face with death.

p.91

We left on Friday [January 11], in the morning, and on Saturday, which was the 12th of the month, we passed close to Mombaça. On Sunday [January 13] we anchored at the *Baixos de S. Raphael*, where we set fire to the ship of that name, as **it was impossible for us to navigate three vessels with the few hands that remained to us.**

p.92

...

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57 Vasco da Gama pillar in Malindi.  
[https://en.wikipedia.org/wiki/Vasco\\_da\\_Gama\\_Pillar\\_Malindi](https://en.wikipedia.org/wiki/Vasco_da_Gama_Pillar_Malindi)  
<https://museums.or.ke/vasco-dagama-pillar>

## Appendix B. GIROLAMO SERNIGI'S FIRST LETTER TO A GENTLEMAN AT FLORENCE.

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n172/mode/2up>

<https://archive.org/details/ajournalfirstvo02ravegoog/page/n171/mode/2up>

On July x 1499 the vessel of 50 tons came back to this city. p.124

The captain, Vasco da Gama, remained at the Cape Verde islands with one of the vessels of 90 tons in order to land there his brother Paulo da Gama, who was very ill. The other vessel of 90 tons was burnt because there were not people enough to navigate and steer her. The store-ship also was burnt, for it was not intended she should return.

In the course of the voyage there died 55 men from a disease which first attacked the mouth, and thence descended to the throat; they also suffered great pain in the legs from the knee downwards.<sup>58</sup>

[Food.] p.132

Corn in abundance is found in this city of Chalichut, it being brought thither by the Moors. For 3 reals, which are smaller than ours, bread sufficient for the daily sustenance of a man can be purchased. Their bread is unleavened, resembling small cakes, which are baked daily in the ashes. Rice, likewise, is found in abundance. There are cows and oxen. They are small, but yield much milk and butter. Oranges of indifferent flavour are plentiful, as also lemons, citrons and limes, very good melons, dates, fresh and dried, and great variety of other kinds of fruit.

The king of this city of Chalichut eats neither of meat nor fish nor anything that has been killed, nor do his barons, courtiers, or other persons of quality, for they say that Jesus Christ said in his law that he who kills shall die. For this reason they refuse to eat anything that has been killed, and it is a great thing that they should be able to support themselves without eating meat or fish. The common people eat meat and fish, but they do not eat oxen or cows, for they hold these animals to be blessed (benedetto), and when they meet an ox on the highway they touch him, and afterwards kiss their hand, as a sign of great humility.

The king lives on rice, milk and butter, and so do his barons and some of the other men of quality. And the king is waited upon right royally at table. He drinks palm-wine out of a silver cup. This cup he does not put to his mouth, but holds at some distance and pours the wine down his throat. p.133

<sup>58</sup> Pain in the legs is a common symptom of scurvy. e.g.

<https://doi.org/10.5281/zenodo.17455962>

<https://doi.org/10.5281/zenodo.10685194>

<https://pubmed.ncbi.nlm.nih.gov/15797491>

## Appendix D. VASCO DA GAMA'S SHIPS

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n214/mode/2up>  
<https://archive.org/details/ajournalfirstvo02ravegoog/page/n215/mode/2up>

The hold was divided into three compartments. Amidships<sup>59</sup> were the water barrels, with coils of cable on the top of them—a very inconvenient arrangement; abaft was the powder-magazine, and most arms and munitions, including iron and stone balls, were kept there; the forward compartment was used for the storage of requisites, including spare sails and a spare anchor. p.165

The lower deck was divided by bulkheads into three compartments, two of which were set apart for provisions, presents, and articles of barter. The “provisions”, according to Castanheda, were calculated to suffice for three years, and the daily rations were on a liberal scale, consisting of 1½ pounds of biscuit, 1 pound of beef or half a pound of pork, 2½ pints of water, 1¼ pints of wine, one-third of a gill of vinegar, and half that quantity of oil. On fast days, half a pound of rice, of codfish, or cheese was substituted for the meat. There were, in addition, flour, lentils, sardines, plums, almonds, onions, garlic, mustard, salt, sugar and honey. These ships' stores were supplemented by fish, caught whenever an opportunity offered, and by fresh provisions obtained when in port, among which were oranges, which proved most acceptable to the many men suffering from scurvy. p.166

The merchandise was not only insufficient in quantity, but proved altogether unsuited to the Indian market. It seems to have included *lambel* (striped cotton stuff), sugar, olive-oil, honey, and coral beads. Among the objects intended for presents, there were wash-hand basins, scarlet hoods, silk jackets, pantaloons, hats, Moorish caps; besides such trifles as glass beads, little round bells, tin rings and bracelets, which were well enough suited for barter on the Guinea coast, but were not appreciated by the wealthy merchants of Calcutt. Of ready money there seems to have been little to spare. All this is made evident by the letters of **D. Manuel** and **Signor Sernigi**.

The scientific outfit of the expedition, it may safely be presumed, was the best to be procured at the time. The

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59 Amidship. In the middle of a ship (as opposed to bow or stern).  
<https://en.wiktionary.org/wiki/amidship>



learned **D. Diogo Ortiz de Vilhegas** furnished Da Gama with maps and books, including, almost as a matter of course, a copy of Ptolemy, and copies of the information on the East collected at Lisbon for years past. Among these reports, that sent home by **Pero de Covilhão** found, no doubt, a place, as also the information furnished by **Lucas Marcos**, an Abyssinian priest who visited Lisbon about 1490.

p.167

The astronomical instruments were provided by Zacut, the astronomer, and it is even stated that Vasco enjoyed the advantage of being trained as a practical observer by that learned Hebrew. These instruments included a large wooden astrolabe, smaller astrolabes of metal, and, in all probability, also quadrants; and they were accompanied by a copy of **Zacut's** *Almanach perpetuum Celestium motuum cujus radix est 1473*,<sup>60</sup> a translation of which, by **José Vizinho**, had been printed at Leiria in 1496. These tables enabled the navigator to calculate his latitudes by observing the altitude of the sun...

p.168

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60 [https://en.wikipedia.org/wiki/Abraham\\_Zacuto](https://en.wikipedia.org/wiki/Abraham_Zacuto)

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<https://archive.org/details/ajournalfirstvo00ravegoog/page/n222/mode/2up>  
<https://archive.org/details/ajournalfirstvo02ravegoog/page/n223/mode/2up>

The officers and men in Vasco da Gama's *armada* were carefully selected. Several of them had been with Bartholomeu Dias round the Cape; all of them, as appears from this "Journal", justified by their conduct under sometimes trying circumstances the selection which had been made.

Authorities widely differ as to the number of men who embarked. **Sernigi** (p. 124) says there were only **118**, of whom 55 died during the voyage and only 63 returned. **Galvão** says there were **120**, besides the men in the store-ship. **Castanheda** and **Goes** raise the number to **148**, of whom only 55 returned, many of them broken in health. **Faria y Sousa** and **San Ramon** say there were **160**, and the latter adds that 93 of these died during the voyage, thus confirming a statement made by King Manuel in his letter of February 20th, 1504, to the effect that less than one-half returned. According to **Barros** there were **170** men, including soldiers and sailors. **Correa** raises the number to **260**, for he says that in each of the three ships there were 80 officers and men, including servants, besides six convicts and two priests. He says nothing of the store-ship. By the time Vasco da Gama had reached the Rio da Misericordia only 150 out of this number are said to have been alive.

Correa, no doubt, exaggerates. On the other hand, Sernigi's numbers seem to us to err quite as much on the [p.174] other side. It is quite true that a Mediterranean merchantman of 100 tons, in the sixteenth century, was manned by 12 able and 8 ordinary seamen; but in the case of an expedition sent forth for a number of years and to unknown dangers, this number would no doubt have been increased. We are, therefore, inclined to believe that the number given by De Barros—namely, 170—may be nearer the truth, namely 70 men in the flag-ship, 50 in the *S. Raphael*, 30 in the caravel, and 20 in the store-ship. The men in the flag-ship may have included 1 captain, 1 master, 1 pilot, 1 assistant pilot, 1 mate (contramestre), 1 boatswain (guardião), 20 able seamen (marinheiros), 10 ordinary seamen (grumetes), 2 boys (pagens), 1 chief gunner or constable, 8 bombardiers, 4 trumpeters, 1 clerk or purser (escrivão), 1 storekeeper (dispenseiro), 1 officer of justice (meirinho), 1 barber-surgeon, 2 interpreters,

61 A muster roll is the list of members of a military unit, often including their rank and the dates they joined or left.  
[https://en.wikipedia.org/wiki/Muster\\_\(military\)](https://en.wikipedia.org/wiki/Muster_(military))

1 chaplain, 6 artificers (ropemaker, carpenter, calker, cooper, armourer and cook), and 10 servants. One or more of these servants may have been negro slaves. The “Degradados”, or convicts on board, to be “adventured on land” (p. 48), are included in the total. Whether private gentlemen were permitted to join this expedition as volunteers history doth not record.

The following “muster-roll” contains short notices of all those who are stated to have embarked at Lisbon in Vasco da Gama’s fleet, or who subsequently joined it, either voluntarily or upon compulsion.

Apart from natives, thirty-one persons are mentioned, and with respect to twenty-six of these no reasonable doubt can be entertained that they were actually members of the ships’ companies...

## Appendix F. THE VOYAGE

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n248/mode/2up>

<https://archive.org/details/ajournalfirstvo02ravegoog/page/n249/mode/2up>

### *The Voyage Home.* [p.199]

In the afternoon of August 30th, a tornado carried Vasco da Gama out to sea (p. 77), and when making his way along the coast he was obliged to tack, depending for [p.200] his progress upon land and sea breezes, and laying-to when becalmed. At Cananor he sent ashore one of his captives (p. 79), but held no communication with the town himself. On September 15th he landed on a small island, and erected the padrão dedicated to St. Mary (p. 80).

On September 20th Vasco da Gama arrived at the Anjediva Islands, about 14° 45' N., having thus spent twenty-one days in accomplishing 240 miles. He seems, first of all, to have anchored near the Oyster Rocks, off the Kalipadi river, but on September 24th he landed on the largest of these islands, where he remained until October 5th, waiting for a propitious wind, and availed himself of the enforced leisure to careen the flagship and the *Berrio* (p. 83).

The passage across the gulf proved a fearful trial for the Portuguese. Foul winds and calms impeded their progress, whilst a renewed outbreak of scurvy carried off thirty victims and prostrated the remaining men, so that only seven or eight were fit to do duty in each vessel. Vasco da Gama had left Anjediva on October 5th (a Friday!), although the N.E. monsoon only sets in at the end of the month, and ninety days elapsed before the African coast came within sight, near Magadoxo, and five more before the hard-proved mariners once more found themselves with the friendly Sultan of Melinde (p. 89).

The remainder of the voyage home calls for little comment. Having left Melinde on January 11th, Vasco da Gama, passing between the mainland and Zanzibar, [p.201] stopped for a fortnight at the “baixos” upon which the *S. Raphael* had run in the outward voyage, and there that doomed ship was set on fire, as there were no men left to sail her. Late on February 1st the remaining two vessels hove to in front of S. Jorge Island, where a padrão was erected on the following morning in drenching rain. The voyage was continued without communicating with the town of Moçambique, and on March 3rd Vasco once more found himself in the Bay of S. Braz.

<https://archive.org/details/ajournalfirstvo00ravegoog/page/n20/mode/2up>  
<https://archive.org/details/ajournalfirstvo02ravegoog/page/n21/mode/2up>

THE discovery of an ocean route to India, in 1497-98, marks an epoch in the history of geographical exploration no less than in that of commerce. It confirmed the hypothesis of a circumambient ocean, first put forward by Hecataeus,<sup>63</sup> but rejected by Ptolemy<sup>64</sup> and his numerous followers; and, at the same time diverted into a new channel the profitable spice trade<sup>65</sup> with the East which for ages had passed through Syria and Alexandria. In consequence of this diversion Venice lost her monopoly, and Lisbon became for a time the great spice-market of Europe.

But Portugal was a small country whose resources were hardly even equal to the task of waging the continuous wars with the Moors in which she had so unwisely been engaged for generations past. And when, in addition to her African forces, she was called upon to maintain great fleets in the [p.xii] distant East, in order to enforce her monopoly of the spice trade, at first in the face only of the Moors, and afterwards in that of powerful European rivals, her resources speedily came to an end, and she found herself exhausted and helpless. It may well be asked whether Portugal would not be happier now, and richer, too, had she never had the opportunity of dwelling upon these ancient glories; had the wealth of the Indies never been poured into her lap, only to breed corruption; and had her strength not been wasted in a struggle to which she was materially unequal, and which ended in exhaustion and ruin.

Portugal, however, notwithstanding the sad ending of her vast Eastern enterprises, is still justly proud of the achievements of her “great” **Vasco da Gama**, and boldly places him by the side of **Magelhães** [p.xiii] and **Christopher Columbus**, as one of a noble triad which occupies the foremost rank among the great navigators of an Age of Great Discoveries.

Vasco da Gama was born, about 1460, at Sines, of which coast-town his father, Estevão, was alcaidemór.<sup>66</sup> He was the youngest of three brothers. Genealogists trace back his pedigree to a valiant soldier, Alvaro Annes da Gama, who resided at Olivença in 1280, and greatly distinguished himself in the wars with the Moors. The Gamas could thus boast of gentle blood, though they neither belonged to the aristocracy of Portugal, nor were they possessed of much worldly wealth.

We know next to nothing of Vasco da Gama’s youth. When **King João**, after the return of **Bartholomeu Dias**, decided to fit out an armada to complete the discovery of an ocean highway to India, he selected Vasco da Gama as its captain-major, and this choice of the King was confirmed by his successor, **D. Manuel**. Such an appointment would not have been made had not Vasco da Gama already been known as a man of energy, [p.xiv] capacity and

62 This is the Introduction of Ravenstein’s translation.

See several footnotes in the digitized versions; they are not copied here.

63 [https://en.wikipedia.org/wiki/Hecataeus\\_of\\_Miletus](https://en.wikipedia.org/wiki/Hecataeus_of_Miletus)

64 <https://en.wikipedia.org/wiki/Ptolemy>

65 Spice trade.

[https://en.wikipedia.org/wiki/Spice\\_trade](https://en.wikipedia.org/wiki/Spice_trade)

<https://www.britannica.com/money/spice-trade>

66 Alcaidemór. Castle commander.

<https://en.wikipedia.org/wiki/Alcaide>

competent knowledge. We ought therefore not be surprised if Garcia de Resende, in his *Chronicle of D. João II* (c. 146), tells us that he was a man whom the King trusted, as he had already served in his fleets and in maritime affairs, and whom he had consequently charged, in 1492, with the task of seizing the French vessels lying in the ports of Algarve, in reprisal for the capture by a French pirate of a Portuguese caravel returning from S. Jorge da Mina with gold.

**Castanheda** (I, c. 2) speaks of Vasco as having done good service in the time of King João II, and as being experienced in the affairs of the sea. Mariz (*Dial.*, iv, c. 14; v, c. 1) calls him a young man (*mancebo*), high-spirited and indefatigable, who had such a thorough knowledge of navigation (*arte maritima*) that he would have been able to hold his own with the most experienced pilots of Europe. We know, moreover, from **Barros** and **Goes** that [p.xv] he landed at S. Helena Bay<sup>67</sup> with his pilots in order to determine the latitude. These extracts show, at all events, that Vasco da Gama was not a mere landsman; nor is it likely that the command of an expedition, the one object of which was discovery, and not trade or war, would have been entrusted to such an one.

He was, moreover, well qualified for his post in other respects. His indomitable firmness made him shrink from no obstacle which opposed itself to the success of his expedition; and notwithstanding the unheard-of length of the voyage and the hardships endured, he retained the confidence of his men to the very last.

The question whether Da Gama can fairly be ranked with Columbus and Magelhães, has frequently been discussed.

The first place among these three undoubtedly belongs to Magelhães, the renegade Portuguese, who first guided a ship across the wide expanse of the Pacific. The second place is almost universally accorded to Columbus, whose unconscious discovery of a new world, fit to become the second home of the European races, was immensely more far-reaching in its consequences than the discovery of an ocean highway to India, now largely discarded in favour of the shorter route across the isthmus of Suez.

It is maintained, in support of the claims of Columbus, that he was the originator of the scheme the success of which covered him with everlasting [p.xvi] glory, whilst Vasco da Gama simply obeyed the behests of his King, when he took the lead of an expedition which was to crown the efforts made by little Portugal for generations past.

There is much truth in this contention. The scheme of reaching the East by a westward course across the Atlantic had no doubt been entertained in Portugal in the reign of Affonso the African [1438-81]. Fernão Martinz, the Royal Chaplain, had discussed its prospects with Paolo Toscanelli, when in Italy, and had been instructed to apply for further particulars to the Florentine physician, in response to which he had received the famous letter of June 25th, 1474, and the chart which accompanied it. But practically nothing was done, except that an adventurer or two were authorised to seek for the islands supposed to lie to the west of the Azores. Prince **Henry the Navigator** would perhaps have acted upon such a suggestion, had he been still alive, but the King's resources were devoted to Africa, or wasted in two disastrous wars with Spain.

Columbus, on the other hand, made the discarded scheme his own; he, too, applied to Toscanelli for counsel, and found confirmation of that physician's [p.xvii] erroneous

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67 [https://en.wikipedia.org/wiki/St\\_Helena\\_Bay](https://en.wikipedia.org/wiki/St_Helena_Bay)  
See also the map on page 6.

hypothesis as to the small breadth of the Atlantic by studying the *Imago Mundi* of Cardinal Pierre d'Ailly, and other writings. Nor did he rest until he found in Queen Isabella the Catholic a patron who enabled him to put his theories to the test of practical experience. It was his good fortune that Providence had placed the new world as a barrier between him and Marco Polo's Cipangu (Japan), which was his goal, or he might never have returned to claim the reward of his success.

On the accession of **D. João II**,<sup>68</sup> in 1481, the discovery of Africa was resumed with renewed vigour, and the councillors of that King acted wisely when they advised him to decline the offers of Columbus, for the resources of Portugal were quite unequal to pursuing at one and the same time a search for a western route and continuing the efforts for opening a practical route around the southern extremity of Africa. And thus it happened that Columbus "discovered a new world for Castile and Leon", and not for Portugal.

When, however, we come to consider the physical difficulties which had to be overcome by these great navigators in the accomplishment of their purpose, the greater credit must undoubtedly be awarded to Vasco da Gama. Columbus, trusting as implicitly to the chart and sailing directions [p.xviii] of Toscanelli as did Vasco da Gama to those of Dias,<sup>69</sup> and, perhaps, of **Pero de Covilhão**,<sup>70</sup> shaped a course westward of Gomera; and, having sailed in that direction for thirty-six days, and for a distance of 2,600 miles, made his first landfall at Guanahani, being favoured all the while by the prevailing easterly winds. The task which Vasco da Gama undertook was far more difficult of accomplishment. Instead of creeping along the coast, as had been done by his predecessors, he conceived the bold idea of shaping a course which would take him direct through the mid-Atlantic from the Cape Verde Islands to the Cape of Good Hope. The direct distance to be covered was 3,770 miles, but the physical obstacles presented by winds and currents could only be overcome by taking a circuitous course, and thus it happened that he spent ninety-three days at sea before he made his first landfall to the north of the bay of St. Helena. This first passage across the southern Atlantic is one of the great achievements recorded in the annals of maritime exploration.

Once beyond the Cape, Vasco had to struggle against the Agulhas current,<sup>71</sup> which had baffled Bartholomeu Dias, and against the current of Mozambique;<sup>72</sup> and it was only after he had secured a trustworthy pilot at Melinde that the difficulties of the outward voyage can be said to have been overcome.

In one other respect Vasco da Gama, or, perhaps, we ought to say his pilots, proved themselves the [p.xix] superiors of Columbus, namely, in the accuracy of the charts of their discoveries which they brought home to Portugal. Accepting the Cantino Chart as a fair embodiment of the work done by this expedition, we find that the greatest error in latitude amounts to 1° 40'. The errors of Columbus were far more considerable. In three places of his Journal the latitude of the north coast of Cuba is stated to be 42° by actual observation; and that this is no clerical error, thrice repeated in three different places, seems to be proved by the evidence of the charts. On that of Juan de la Cosa, for instance, Cuba is made to extend to lat. 35° N. (instead of 23° 10'), and even on the rough sketch drawn by Bartolomeo

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68 [https://en.wikipedia.org/wiki/John\\_II\\_of\\_Portugal](https://en.wikipedia.org/wiki/John_II_of_Portugal)

69 [https://en.wikipedia.org/wiki/Bartolomeu\\_Dias](https://en.wikipedia.org/wiki/Bartolomeu_Dias)

70 [https://en.wikipedia.org/wiki/P%C3%A1ro\\_da\\_Covilh%C3%A3](https://en.wikipedia.org/wiki/P%C3%A1ro_da_Covilh%C3%A3)

71 [https://en.wikipedia.org/wiki/Agulhas\\_Current](https://en.wikipedia.org/wiki/Agulhas_Current)

72 [https://en.wikipedia.org/wiki/Mozambique\\_Current](https://en.wikipedia.org/wiki/Mozambique_Current)

Columbus after the return from the Fourth Voyage, Jamaica and Puerto Rico (Spagnola) are placed 6° too far to the north.

Verily, the Portuguese of those days were superior as navigators to their Spanish rivals and the Italians.

Posterity is fortunate in possessing a very full abstract of the Journal which Columbus kept during [p.xx] his first voyage to the West Indies.<sup>73</sup> No such trustworthy record is available in the case of Vasco da Gama, whose original reports have disappeared. They were consulted, no doubt, by **João de Barros** and **Damião de Goes**; but these writers, much to our loss, dealt very briefly with all that refers to navigation. The only available account written by a member of the expedition is the *Roteiro* or Journal, a translation of which fills the bulk of this volume, and of which, later on, we shall speak at greater length. The only other contemporary accounts, which we also reproduce, are at second-hand, and are contained in the letters written by **King Manuel** and **Girolamo Sernigi** immediately after the return of Vasco da Gama's vessels from India.

Apart from these, our chief authorities regarding this voyage are still the *Decades*<sup>74</sup> of **João de Barros**<sup>75</sup> and the *Chronicle* of King Manuel,<sup>76</sup> by **Damião de Goes**.<sup>77</sup> Both these authors held official positions which gave them access to the records preserved in the India House. **Castanheda** relied almost wholly upon the *Roteiro*, but a few additional statements of interest may be found in his pages.

As to the *Lendas* of **Gaspar Correa**, we are unable to look upon his account of Vasco da Gama's first voyage as anything but a jumble of truth and [p.xxi] fiction, notwithstanding that he claims to have made use of the diary of a priest, Figueiro, who is stated to have sailed in Vasco's fleet. Correa's long residence in India—from 1514 to the time of his death—must have proved an advantage when relating events which came under his personal observation, but it also precluded him from consulting the documents placed on record in the Archives of Lisbon. This much is certain: that whoever accepts Correa as his guide must reject the almost unanimous evidence of other writers of authority who have dealt with this important voyage.

A few additional facts may be gleaned from Faria y Sousa's *Asia Portuguesa*, from Duarte Pacheco Pereira and Antonio Galvão; but in the main we are dependent upon the *Roteiro*, for recent searches in the *Torre do Tombo* have yielded absolutely nothing, so far as we are aware, which throws additional light upon Da Gama's First Voyage, with which alone we are concerned.

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73 [https://en.wikipedia.org/wiki/Christopher\\_Columbus%27s\\_journal](https://en.wikipedia.org/wiki/Christopher_Columbus%27s_journal)  
[https://archive.org/details/journalofchristo00colu\\_0/page/n5/mode/2up](https://archive.org/details/journalofchristo00colu_0/page/n5/mode/2up)

74 [https://en.wikipedia.org/wiki/D%C3%A9cadas\\_da\\_%C3%81sia](https://en.wikipedia.org/wiki/D%C3%A9cadas_da_%C3%81sia)

75 [https://en.wikipedia.org/wiki/Jo%C3%A3o\\_de\\_Barros](https://en.wikipedia.org/wiki/Jo%C3%A3o_de_Barros)

76 <https://archive.org/details/chronicadelreidm01gi/page/n5/mode/2up>  
<https://archive.org/details/chronicadosereni00gisd/page/n5/mode/2up>

77 [https://en.wikipedia.org/wiki/Dami%C3%A3o\\_de\\_G%C3%B3is](https://en.wikipedia.org/wiki/Dami%C3%A3o_de_G%C3%B3is)



And now we shall proceed to give an account of the *Roteiro*. [p.xxii]

***The Manuscript of the “Roteiro”.***

In giving an account of the manuscript of this Journal, we entrust ourselves to the guidance of Professors **Kopke** and **Antonio da Costa Paiva**, the two gentlemen who first published it.

...

The manuscript originally belonged to the famous Convent of Santa Cruz at Coimbra, whence it was [p.xxiii] transferred, together with other precious MSS., to the public library of Oporto.

It is not an autograph, for on fol. 64 (p. 77 of this translation), where the author has left a blank, the copyist, to guard against his being supposed to have been careless in his task, has added these words: “The author has omitted to tell us how these weapons were made”. This copy, however, was taken in the beginning of the sixteenth century, as may be seen from the style of the writing as exhibited in the facsimile of the first paragraph of the work, shown on preceding page.

The MS. is in folio, and is rudely bound up in a sheet of parchment, torn out of some book of ecclesiastical offices. The ink is a little faded, but the writing is still perfectly legible. The paper is of ordinary strength, and of rather a dark tint; the manufacturer’s water mark is shown in the above facsimile. Blank leaves of more modern make, and having a different water-mark, have been inserted at the front and back, and the first of these leaves contains the following inscription in a modern hand, which is still legible, although pains have been taken to erase it ...

Immediately below this we read:—

“Dô Theotónio”,

and near the bottom of the page, in a modern hand, [p.xxiv] probably that of one of the librarians of the convent:—

“Descobrimento da India por D. Vasco da Gamma”.

Prof. **Kopke** suggests that the copyist of this valuable MS. was the famous historian **Fernão Lopes de Castanheda**, who was Apparitor and Keeper of the Archives in the University of Coimbra, and was engaged there during twenty years, much to the injury of his health and private fortune, in collecting the materials for his *Historia do Descobrimento e Conquista da India*.<sup>78</sup> In support of this assumption he publishes a signature (see the facsimile on page xxii) taken from a copy of the first book of Castanheda’s history, published in 1551. But **A. Herculano**, whilst admitting this signature to be genuine, points out that the cursive characters of the MS. are of a type exceedingly common during the first half of the sixteenth century, and that it would consequently not be safe to attribute it to any writer in particular. Until, therefore, further evidence is forthcoming, we cannot accept the Professor’s theory that

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78 [https://en.wikipedia.org/wiki/Fern%C3%A3o\\_Lopes\\_de\\_Castanheda](https://en.wikipedia.org/wiki/Fern%C3%A3o_Lopes_de_Castanheda)  
English translation (1582):  
[https://archive.org/details/firstbookeofhist00cast\\_0/page/n5/mode/2up](https://archive.org/details/firstbookeofhist00cast_0/page/n5/mode/2up)  
<https://archive.org/details/b30327982/page/n9/mode/2up>  
<https://archive.org/details/firstbookeofhist00cast/page/n5/mode/2up>

we are indebted for this copy to Castanheda; though, as we have already said, there can be no doubt that in writing his account of the First Voyage of Vasco da Gama he depended almost exclusively for his facts upon the anonymous author of this *Roteiro*.

*The Author of the “Roteiro”.* [p.xxv]

It is quite possible, as suggested by Prof. Kopke, that the title by which the *Roteiro* was known at the convent of Santa Cruz misled certain bibliographers into a belief that Vasco da Gama himself had written this account of his voyage.

Thus Nicoláo Antonio, in his *Bibliotheca Hispana Veta* (1672), lib. 10, c. 15, § 543, says

...

The words “quae lucem vidit” need not, however, be understood as conveying the meaning that this narrative was actually printed and published, for the same author, in his *Bibliotheca Hispana Nova*, makes use of the same equivocal expression when describing another voyage to India, expressly stated by him to be still in MS.

Moreri, in his *Dictionnaire* (1732), quoting as his authority a *Bibliotheca Portuguesa* in MS., which he had from “a man of judgment and of vast erudition”, states that Vasco da Gama is said to have published an account of his first voyage to India, but that no copy of it had up till then been discovered.

Similarly, Barbosa Machado, the author of the standard *Bibliotheca Lusitana* (t. iii, p. 775), 1752, accepting Nicoláo Antonio as his authority, says [p.xxvi] that Vasco da Gama “wrote an account of the voyage which he made to India in 1497”.

We are quite safe in assuming that no such a narrative has ever been published, although it is equally certain that Vasco da Gama furnished official reports of his proceedings, which were still available when João de Barros wrote his *Decades*, but are so no longer.

No one has yet succeeded in discovering the author of the *Roteiro*. Prof. Kopke attempts to arrive at the name by a process of elimination, and in doing so starts with several assumptions which we cannot accept. First of all he assumes that Castanheda must have known the writer of the MS. of which he made such excellent use in writing his history. But Castanheda only became acquainted with this MS. after 1530, when he took up his residence at Coimbra on his return from India, that is, more than thirty years after it had been written. Of course, the author might then have been still alive, notwithstanding the lapse of years; but had this been the case, and had Castanheda been personally acquainted with him, he would surely have obtained from him an account of the termination of the voyage, instead of abruptly breaking off in the same way as the *Roteiro* does, with the arrival of the fleet at the shoals of the [p.xxvii] Rio Grande (see p. 93), adding that he had been unable to ascertain the particulars of the further voyage of the captain-major, and only knew that Coelho arrived at Cascaes on July 10th, 1499. It is probable, moreover, that if Castanheda had known the name of the author to whom he was so greatly indebted, he would have mentioned it in his book.

Prof. Kopke assumes further that the writer was a common sailor or soldier, and most probably the former: first, because he frequently makes use of the expression “nós outros” (we others) as if to draw a distinction between the officers of the ships and the class to which

he himself belonged; and, secondly, because “the style of his narrative would seem to point to his humble condition”. We can admit neither of these conclusions. The author by no means uses the expression “we others” in the restricted sense in which Prof. Kopke understands it. In proof of this we may refer to such sentences as are to be found at pp. 57 and 61:—“When the King beckoned to the captain he looked at us others”; “as to us others, we diverted ourselves”—the “others”, in both these cases, including the thirteen men who attended Vasco da Gama to Calecut, and among whom were the three pursers, the captain-major’s secretary, and others who may [p.xxviii] not have been “persons of distinction” but who nevertheless cannot be classed with “common soldiers or sailors”. As to the literary style of the Journal, we may at once admit that its author cannot take rank with Barros, Castanheda or Correa, but this by no means proves him to have been an uncultured man, or of “humble condition.” His spelling may not have been quite in accordance with the somewhat loose rules followed in the fifteenth century, but his narrative is straightforward and to the point, and shows that he was a man of judgment perfectly able to give an intelligent account of the many novel facts which came under his observation. If he looked upon the Hindus as fellow-Christians, he shared that opinion with the other members of the expedition, including its chief. It only needs a perusal of such a collection of letters, reports, and narratives as is to be found in *Alguns documentos do Archivo nacional* (Lisbon, 1892) to convince us that there were men holding high positions in those days whose literary abilities fell short of those which can be claimed on behalf of our author. Moreover, it is not likely that access to the information required to enable him to write a *Roteiro da Viagem* would have been given to a “common sailor or soldier”, even if such a person had been bold enough to ask for it.

We shall now follow Prof. Kopke in his “process of elimination”:—

1. The author, in the course of his narrative, mentions a number of persons by name, and these [p.xxix] we must eliminate forthwith. They are: Vasco and Paulo da Gama, Nicolau Coelho (p. 22), Pero d’Alenquer (p. 5), João de Coimbra (p. 30), Martin Affonso (pp. 12, 17), Sancho Mexia (p. 6), and Fernão Veloso (p. 7).

2. We know further that the author served on board the *S. Raphael*. This disposes of Gonçalo Alvares and Diogo Dias of the *S. Gabriel*; and of Gonçalo Nunes, Pero Escolar, and Alvaro de Braga, of the *Berrio*.

3. The author mentions certain things as having been done by persons whose names he does not give. The name of one of these is supplied by Castanheda and Barros. We thus learn from Barros that Fernão Martins was the sailor mentioned by the author (p. 23) as being able to speak the language of the Moors; and from Castanheda (I, p. 51) that he was one of the two men sent with a message to the King of Calecut (p. 50). The convict who was sent to Calecut on May 21st (p. 48) was João Nunez, according to Correa. The author states (p. 64, line 18, and p. 65, last line) that the captain-major sent three men along [p.xxx] the beach in search of the ships’ boats. According to Castanheda (I, pp. 71 and 72), one of these men was Gonçalo Pires.

We may therefore strike out all these names from the list of possible authors.

4. Three members of the expedition are reported to have died during the voyage, namely, Pedro de Covilhão, the priest; Pedro de Faria de Figueredo, and his brother Francisco, all of them mentioned by Faria y Sousa alone.

5. Lastly, there are four convicts whose names are given by Correa, none of whom is likely to have been the author of the MS. The presence of some of these convicts is, moreover, very doubtful.

We have thus accounted for all the members of the expedition whose names are known, with the exception of eight.

Four of these—João de Sá, Alvaro Velho, João Palha and João de Setubal—are stated to have been among the thirteen who attended Vasco da Gama to Calecut (p. 51), and of these, **João de Sá** was clerk in the *S. Raphael*, the author's ship. He certainly might have been the author. Prof. Kopke thinks not, first, because of the author's supposed humble position; secondly, because João de Sá, if we may credit an anecdote recorded by Castanheda (I, p. 57), had his doubts about the people of India being Christians, whilst the author unhesitatingly affirms them to be so. The only other person mentioned [p.xxxi] by Castanheda as having been connected with the expedition is **Alvaro Velho**, a soldier, who, according to Prof. Kopke, may "fairly be looked upon as the author of this Journal." He admits, however, that this conclusion is acceptable only on the assumption that Castanheda knew the author: a purely gratuitous assumption, in our opinion.

Castanheda only mentions six out of the thirteen who were present at Vasco da Gama's audience of the Zamorin. Correa mentions two others—João de Setubal and João Palha. Five remain thus to be accounted for; and, although these may have included servants and trumpeters, not likely to have troubled about keeping a journal, our author may have been among them. It will thus be seen that this process of elimination has led to no result, and that we cannot even tell whether the author's name occurs in any single account of this expedition. Comparing his "Journal" with the contents of Sernigi's first letter, it almost seems as if he had been the person from whom the Florentine derived the bulk of his information. In that case his name may perhaps turn up some day in the Italian archives. If our choice were limited to **Alvaro Velho** and **João de Sá**, we should feel inclined to decide in favour of the latter.

Correa mentions three other persons as having been with Vasco da Gama: namely, João Figueiro, whose diary he claims to have used, and who cannot therefore have been the author of a "Journal" the contents of which are so widely different; André [p.xxxii] Gonçalves and João d'Amoixeira. Camões adds a fourth name, that of Leonardo Ribeyra. This exhausts the muster-roll, as far as the names are known to us.

### *The Portuguese Editions of the "Roteiro".*

The *Roteiro* was printed for the first time in 1838. The editors, **Diogo Kopke** and Dr. **Antonio da Costa Paiva**, both teachers at the *Academia Polytechnica* of Oporto, furnished it with an introduction, in which they give an account of the manuscript and discuss its authorship, add sixty-nine notes, explanatory of the text, and append King Manuel's letters patent of January 10th, 1502 (see p. 230). The illustrations include a map, the facsimile of a page of the MS., a portrait, and an illustrated title-page of poor design. The book was published by subscription. Three hundred and ninety-two copies were subscribed for, including two hundred and thirty-seven by residents in Oporto, among whom British wine-merchants figure prominently. Only five copies went abroad, and three of these were subscribed for by Captain Washington, R.N., the Royal Geographical Society, and the Geographical Society of Paris.

A second edition appeared at Lisbon in 1861. [p.xxxiii] Its editors, **A. Herculano**, the famous historian, and **Baron do Castello de Paiva**, claim to have “got rid of those imperfections in the text, as also in the notes of the first edition, which must be attributed to the inexperience of the editors, and to their eagerness to bring before the public so precious an historical document”. Their emendations, however, are not of a kind to justify this somewhat brutal reference to the work done by their predecessors. They consist, in the main, of a modernisation of the spelling, the introduction of a few “philological” notes of no particular interest, and a short preface in which Correa’s *Lendas da India* are spoken of in terms of eulogy. These *Lendas* the editors consider to be “far superior in substance (*quanto á substancia*) to the *Decades* of João de Barros, and to the exuberant but evidently honest narrative of Castanheda.” After praising Correa “for depicting in firm contours and vivid colours” the human passions brought into play by close companionship within the narrow limits of a ship, they admit that as to “facts” “he is often vague, forgetful, or ambiguous”. They conclude by saying that the author of the *Roteiro* and the chronicle-writers mutually complement each other, and jointly acquaint us with all the details of one of the great events in the history of modern nations.

### ***The French Translations of the “Roteiro”.*** [p.xxxiv]

Two have been published. The first of these, by M. Ferdinand Denis, will be found in the third volume of Charton’s *Voyageurs Anciens et Modernes*, Paris, 1855. It is based upon the first Portuguese edition, and ends with the arrival of the two vessels at the Rio Grande. The notes by Professor Kopke are embodied in those of the translator, who has added an introduction, giving a short but excellent biography of Vasco da Gama, and a bibliography. The map of the original is retained, and there are twenty illustrations, including two portraits of Vasco da Gama, the one stated to be from Count Farrobo’s painting, as published in the *Panorama*, the other from a Paris MS. of Barretto de Rezende.

For the second French translation we are indebted to M. Arthur Morelet. It is from the second Portuguese edition, and not a word of either text or notes has been omitted. The translator has confined himself to supplying a short introduction. The map is retained, but a free rendering of Count Farrobo’s painting has been substituted for the poor portrait of Vasco da Gama in the original, and the portrait of King Manuel has been omitted as being “flat, without relief and vigour, and [p.xxxv] wanting even in that unaffected simplicity which marks the works of that period.”

### ***The English Translation.***

In 1869 the Hakluyt Society published Lord Stanley of Alderley’s translation of the *Three Voyages of Vasco da Gama*,<sup>79</sup> from the *Lendas* of Gaspar Correa, with numerous foot-notes indicating those instances in which Correa differs from Barros, Goes, Castanheda and other historians, as well as from the poetical version of this voyage presented in the *Lusiadas* of Camões.

It was intended at the same time to bring out an English version of the *Roteiro*, but no definite arrangements were made, and thus the matter was left in abeyance until the present Editor revived the idea, and suggested that the volume proposed might prove acceptable as

79 <https://archive.org/details/voyageroundworld01tayl/page/n7/mode/2up>  
<https://archive.org/details/threevoyagesvas00corrgoog/page/n13/mode/2up>  
<https://archive.org/details/pli.kerala.rare.7020/page/n3/mode/2up>

an interesting though humble contribution to the literature of the Fourth Centenary of Vasco da Gama's arrival in India, which Portugal is about to celebrate.

The translation of the *Roteiro* itself is literal and complete. The notes of the Portuguese editors have, however, been abridged, and only the substance of what they say in their introductions has been retained.

On the other hand, the Editor has added translations of the letters of King Manuel and Sernigi, and of three Portuguese accounts of the voyage. He has, [p.xxxvi] moreover, added Appendices, among which the one dealing with early maps will, he hopes, prove of some interest.

In conclusion, the Editor fulfils an agreeable duty in acknowledging the kindly help and advice extended to him by a number of gentlemen. To Capt. E. J. de Carvalho e Vasconcellos and Senhor José Bastos, of Lisbon, he is indebted for the fine portraits which ornament this edition; to Prof. Gallois for a tracing of the unpublished portion of Canerio's chart; to Dr. M. C. Caputo for a photograph of the African portion of the Cantino chart; to Prof. Biagi for a copy of Sernigi's letter in the *Biblioteca Riccardiana*; to Sir J. Kirk for several illustrations and important notes; to the late Rt. Rev. Dr. J. M. Speechley, and the Rev. J. J. Jaus, of the Basel Missionary Society, for notes on Calcutt; and for help in minor matters to Dr. Garnett, of the British Museum; Baron Hulot, Secretary of the Paris Geographical Society; M. Marcel, of the *Bibliothèque Nationale*; Prof. Dalla Vedova, of Rome; Prof. Berchet, of Venice; and Capt. B. B. da Silva, of Lisbon.

His special thanks are due to three members of the Hakluyt Society, namely, Sir Clements Markham, the President; Admiral Albert H. Markham, who acted as the Editor's nautical adviser; and Mr. William Foster, the Secretary, whose careful reading of the proofs kept this volume free from many a blunder.

LONDON, March, 1898.

[End of Ravenstein's Introduction]

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<sup>80</sup> The Hakluyt Society,<sup>81</sup> of which I<sup>82</sup> have the honour to be President, has also laboured to make the achievement of Vasco da Gama better known in this country. In 1869 we brought out the 'Lendas' by Gaspar Correa, translated and edited by Lord Stanley of Alderley; and this year [1898], with a view to celebrating the present commemoration, we have published the 'Roteiro' of the first voyage, which has been ably translated and edited by Mr. Ravenstein.<sup>83</sup>

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80 Markham C. The Fourth Centenary of Vasco da Gama's Voyage to India. *Geographical Journal* 1898;12(1):10–19.  
<https://doi.org/10.2307/1774494>

81 [https://en.wikipedia.org/wiki/Hakluyt\\_Society](https://en.wikipedia.org/wiki/Hakluyt_Society)

82 [https://en.wikipedia.org/wiki/Clements\\_Markham](https://en.wikipedia.org/wiki/Clements_Markham)

<https://www.rgs.org/our-collections/stories-from-our-collections/explore-our-collections/portrait-of-sir-clements-markham>

83 [https://en.wikipedia.org/wiki/Ernst\\_Georg\\_Ravenstein](https://en.wikipedia.org/wiki/Ernst_Georg_Ravenstein)



## Interpretations of ancient texts of scurvy: comments by Lind, Hirsh, and Immermann

There are several earlier texts that had been interpreted as scurvy.  
However,

**James Lind**<sup>84</sup> (1757) was not convinced that many old descriptions indicated scurvy.

<https://archive.org/details/treatiseonscurvy00lind/page/296/mode/2up>  
<https://wellcomecollection.org/works/xc2t7736/items?canvas=320>

Not that I would be understood to mean, that the  
scurvy never afflicted armies of old; but only that the ac-  
counts we have of it are dubious and imperfect. The first  
description of a true scurvy that I have met with, is what oc-  
curred in the Christian army in *Ægypt*, about the year **1260**,  
under *Lewis IX*. But there mention is made, not only of  
the legs being affected, but also of the spots. The fungous  
and putrid gums are particularly described, &c.  
*Vid. Histoire de Lewis IX, par le Sieur Joinville.*<sup>85</sup> p.296.

... there seems to have been two

p.297

reasons principally why it [scurvy] is so imperfectly, if  
at all, described by the antients, viz. their lit-  
tle knowledge of the northern countries,  
where it is peculiarly endemic, and their  
short coasting-voyages; so we find, that as  
soon as arts and sciences began to be culti-  
vated among those northern nations (about  
the beginning of the sixteenth century, a  
period remarkable for the advancement of  
learning over all *Europe*) this disease is men-  
tioned by their historians and other authors.  
We could not have expelled it sooner from  
their physicians, if we reflect: upon their ex-  
treme ignorance, and the little esteem this  
science was held in by them.<sup>86</sup> But when,  
after the taking of *Constantinople*, the *Greek*  
writings were dispersed over the western parts  
of the world, and in the beginning of the  
next century were made general and public

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84 [https://en.wikipedia.org/wiki/James\\_Lind](https://en.wikipedia.org/wiki/James_Lind)

Extracts of Lind's treatise:

<https://doi.org/10.5281/zenodo.10685194>

85 Description of scurvy on the Seventh Crusade by Jean de Joinville (1249).

<https://doi.org/10.5281/zenodo.17341537>

86 Description of scurvy symptoms by Olaus Magnus (1555)

<https://doi.org/10.5281/zenodo.13380745>

by the late invention of printing, the art of physic began to flourish in the northern parts of *Europe*; and we soon after find this disease accurately described there by physicians.

In like manner, no sooner were long voyages performed to distant parts of the world, by the great improvement of navigation, and by the discovery of the *Indies*, which happened much about the same period of time, than the seamen were afflicted with it; as appears by the voyage of *Vasco de Gama*, who first found out a passage by the Cape of *Good Hope* to the *East-Indies*, in the year 1497; above a hundred of his men, out of the number of a hundred and sixty, dying in this distemper. In the relation of which voyage, the first account of this disease at sea is to be met with.<sup>87</sup> At that time, and for a considerable time afterwards, it was a disease little known; as appears by the following narration...

It was acknowledged, that the best de-

p.vii

scriptions of it [scurvy] are met with in the accounts of voyages: but it was regretted, that those were the productions only of seamen;<sup>88</sup> and that no physician conversant with this disease at sea, had undertaken to throw light upon the subject, and clear it from the obscurity under which it had lain in the works of physicians who practised only at land.

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87 Lind's footnote:

"See the history of the *Portuguese* discoveries, &c. by *Hermen Lopes de Castanneda*."

English translation (1582):

[https://archive.org/details/firstbookeofhist00cast\\_0/page/n5/mode/2up](https://archive.org/details/firstbookeofhist00cast_0/page/n5/mode/2up)

<https://archive.org/details/b30327982/page/n9/mode/2up>

<https://archive.org/details/firstbookeofhist00cast/page/n5/mode/2up>

88 This is not accurate. John Woodall (1617) wrote about scurvy and its treatment with oranges over a century before Lind's treatise (1<sup>st</sup> ed 1753, 2<sup>nd</sup> ed 1757). Woodall was not a seaman, but a surgeon.

[https://en.wikipedia.org/wiki/John\\_Woodall](https://en.wikipedia.org/wiki/John_Woodall)

Description of scurvy symptoms by John Woodall (1617)

<https://doi.org/10.5281/zenodo.10651214>



*Olaus Magnus*, in his history of the northern nations, published ann. 1555, observing what diseases are peculiar to them, gives us a long description of the scurvy.<sup>83</sup>

p.303

p.304

Soon after we find three eminent physicians, all cotemporary, treating expressly of this distemper, viz. *Ronsseus*,<sup>89</sup> *Echthius*,<sup>90</sup> and *Wierus*.<sup>91</sup>

[Echthius] ... And it may not be amiss to remark, that this is the first description now extant of the scurvy by a physician.

p.307

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89 Description of scurvy by Ronsseus (1564)  
<https://doi.org/10.5281/zenodo.17093314>

90 Description of scurvy by Echthius (1541)  
<https://doi.org/10.5281/zenodo.17093279>

91 Description of scurvy by Wierus (1567)  
<https://doi.org/10.5281/zenodo.17093229>

**August Hirsch**<sup>92</sup> (1885) was also not convinced that early writings described scurvy.  
<https://doi.org/10.5281/zenodo.10104179> Section on scurvy separately  
<https://archive.org/details/handbookofgeogra02unse/page/508/mode/2up>  
<https://archive.org/details/handbookofgeogra02hirs/page/508/mode/2up>  
<https://babel.hathitrust.org/cgi/pt?id=uc2.ark:/13960/t39022v3n&seq=526>  
<https://babel.hathitrust.org/cgi/pt?id=mdp.39015006659547&seq=524>

The writings that have come down to us from antiquity and the middle ages give no help towards deciding whether scurvy occurred, or was known to medicine, in those times at all; or, if so, to what extent. In order to make out that the Graeco-Roman and Arabian physicians were acquainted with scurvy, special emphasis has been laid on a form of disease described under the name of “*lienes magni*” by Hippocrates, Celsus, Aretæus, Cælius Aurelianus, Paulus Ægineta, Avicenna and others... p.508

There is, in my view, but little reason to take that group of symptoms, characteristic of the “*lienes magni*,” as pointing to scurvy; firstly because swelling of the spleen, which was undoubtedly a constant occurrence in that malady according to the descriptions of observers, is by no means one of the more commonly noted phenomena of scurvy; and secondly because the Hippocratic writers themselves refer the origin of the malady in question to its true source—the malarial cachexia. This view of mine is further supported by the fact, to be afterwards adduced, that scurvy and malarial cachexia have often been confounded in later times... p.509

It is *a priori* highly probable that scurvy had been epidemic from time to time in antiquity under the same circumstances that have given rise to it in the modern period or in recent times. It certainly follows from the account given by **Jacques de Vitry**<sup>85</sup> of a disease called by him the plague, which ravaged the army of the crusaders before Damietta in 1218, and from **Joinville**’s<sup>85</sup> description of the sickness that broke out in 1250 among the army of Louis IX at the siege of Cairo, that scurvy had existed long before we have any medical recognition or description of it as a peculiar form of disease. p.511 p.512

The history of scurvy as an epidemic malady well known to the medical profession does not begin before the fifteenth century, or the period of the Renaissance—a movement which touched every relation of life, and by exciting an interest in foreign countries, gave occasion to sea voyages on

92 [https://en.wikipedia.org/wiki/August\\_Hirsch](https://en.wikipedia.org/wiki/August_Hirsch)  
<https://pmc.ncbi.nlm.nih.gov/articles/PMC2530992>

a scale never before known.

As early as the middle of the fifteenth century we find in the history of maritime commerce accounts of expeditions to remote regions which had only a partial success or even proved total failures owing to scurvy breaking out among the crews. One of these was the great expedition of **Vasco de Gama**, on board whose ships the disease appeared off the African coast in January, 1498, in so malignant a form that he lost fifty-five of his fellow-adventurers in a short time.

**Hermann Immermann**<sup>93</sup> (1878) was also not convinced that early writings described scurvy.  
<https://doi.org/10.5281/zenodo.17302867> Section on scurvy separately  
<https://archive.org/details/63550630RX13.nlm.nih.gov/page/n123/mode/2up>  
[https://archive.org/details/b21503230\\_0017/page/104/mode/2up](https://archive.org/details/b21503230_0017/page/104/mode/2up)  
<https://collections.nlm.nih.gov/bookviewer?PID.nlm:nlmuid-63550630RX13-mvpart>

In the following brief historical sketch it is not our purpose  
p.107

to present an extended resume of this branch of our subject, but merely to point out those leading facts in the history of the disease which are important for a clear appreciation of its genesis.

Although neither the medical nor the historical literature of antiquity and the earlier middle ages contains a single passage that discriminates scurvy as a distinct species of disease, or even positively indicates its existence during these periods, it is hardly to be supposed that an affection so closely connected, as scurvy appears to be, with certain widely prevalent sanitary evils—particularly improper diet, hardships, and unfavorable meteorological influences—can have failed to manifest itself in all times whenever individuals or bodies of men have been subjected, under circumstances similar to those of recent times, to the influence of these noxious agents. So far, however, as historical evidence is concerned, the disease can be traced back only as far as the thirteenth century of the present era, and did not acquire actual historical importance as a frequent and widespread affection until about the middle of the fifteenth century, while its present name “scorbutus” made its appearance in medical and non-medical writings only at the beginning of the sixteenth century.

p.108

Attempts have not been wanting to prove the existence of scurvy in ancient times from certain descriptions of disease by the older writers, which have been supposed to refer to the affection in question. None of the evidence, however, will bear careful examination—much of it having no bearing whatever upon the point at issue, while the rest is at least untrustworthy. The most conspicuous instance of this misrepresentation is that which pretends to recognize scurvy in the affection described by Hippocrates, and after him by Aretaeus, Celsus, Caelius Aurelianus, Paulus Aegineta, Avicenna, and others, under the term “(magni lienes)” still, as **Hirsch** has pointed out, there can be scarcely a doubt that these “enlarged spleens” are merely what is now known as the lesion of chronic malarial cachexia...

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93 [https://de.wikipedia.org/wiki/Hermann\\_Immermann\\_\(Mediziner\)](https://de.wikipedia.org/wiki/Hermann_Immermann_(Mediziner))

... That the symptoms of this “*volvulus sanguineus*” strongly resemble those of scurvy cannot be denied; still, neither Hippocrates nor later writers give us any clue to the causes of the affection in question whereby the identity of the latter with scurvy can be satisfactorily established. Such an omission, moreover, when we bear in mind the marked, and indeed, characteristic etiology of scurvy, is fatal to the acceptance of supposed evidence of this kind from the ancient writers; and we can only conclude, therefore, that while the existence of scurvy in early times is *a priori* highly probable, direct proof of the suspected fact is still wanting. On the other hand, we possess unequivocal reports of the occurrence of scurvy at the time of the Crusades, in an epidemic form, and under external conditions completely similar to those ordinarily observed in more recent times, viz., want of food, hardship, unfavorable weather, etc., during marches and sieges. The first epidemic of this kind broke out in November, 1218, at the siege of the city of Damietta, among the forces of Count Saarbrücken,<sup>94</sup> and continued through the entire winter with great destruction of life. Another epidemic, still more malignant, occurred in 1249, in the army of St. Louis,<sup>95</sup> of France, when it was lying before Cairo and was suddenly deprived of its means of subsistence by an overflow of the Nile. The epidemic of 1218-1219 is described by Jacob de Vitry<sup>85</sup> as follows ...

...

And Joinville<sup>85</sup> relates in regard to the plague of the year 1249 ...

...

It is evident from these descriptions, in the thirteenth century, of what we can hardly fail to recognize as scurvy, that the disease had attracted the attention of historians long before it became the object of scientific investigation by physicians.

The immediate occasion of the increased nosological importance which scurvy suddenly acquired for the civilized populations of Europe in the second half of the fifteenth century, and continued to maintain for nearly three hundred years, was the wonderful transformation in the commerce of that epoch initiated by the bold voyages of the Spaniards and Portuguese, beginning with the discovery of America and of the passage to the East Indies. Whereas previous to this time the nautical enterprises of maritime nations had been almost wholly confined to coast voyages with frequent landings, and ship's crews, therefore, had only rarely been kept at sea for any considerable period, the spirit of adventure in the Old World now sought its scene of action upon the open seas, which thus became more and more the highway for purposes of conquest, colonization, and commerce. This extension of navigation, however, by necessitating the detention of the crews on shipboard for weeks or months at a time, naturally exposed them to certain sanitary evils, such as an impoverished and unvaried diet in connection with all kinds of hardships and deprivations. Under such conditions this affec-

94 [https://en.wikipedia.org/wiki/Simon\\_III,\\_Count\\_of\\_Saarbr%C3%BCcken](https://en.wikipedia.org/wiki/Simon_III,_Count_of_Saarbr%C3%BCcken)

95 [https://en.wikipedia.org/wiki/Louis\\_IX\\_of\\_France](https://en.wikipedia.org/wiki/Louis_IX_of_France)

tion, which from its comparative rarity hitherto had attracted but little attention, now became the great pestilence of ocean life, and, in fact, began its more important historic role among the nations of Europe as the special disease of *mariners*. So marked has been this peculiarity of scurvy up to quite recent times, that attempts have been made to distinguish, as regards the etiology and symptoms of the disease, between *sea* and *land* scurvy; but such a distinction can have no possible basis except in the general fact that the causes of the disease usually operate with greater intensity at sea than on land.

That this dreadful prevalence of scurvy at sea coincided with the beginning of modern navigation, and was in fact its most dangerous enemy, is shown very strikingly by the fearful epidemic of the disease which broke out among the crew of **Vasco de Gama**, in January, 1498, after the Cape of Good Hope had been passed on their way to the East Indies, and within a short time carried off 100 out of 160 of his companions. In fact, the annals of seafaring nations are full of distressing accounts of the devastations occasioned by scurvy during the sixteenth, seventeenth, and eighteenth centuries, especially during the voyages to the inhospitable Arctic and Antarctic regions. Thus, that admirable writer, **J. Lind**, in the preface to his classic work on Scurvy (1752),<sup>96</sup> complains that “the scurvy alone, during the last war (ending in 1748), proved a more destructive enemy and cut off more valuable lives than the united efforts of the French and Spanish arms.” The same writer also cites, from the history of maritime expeditions during the two centuries which had elapsed since Vasco de Gama’s time, numerous instances in which the failure of important undertakings at sea had been wholly occasioned by outbreaks of this scourge.

p.111

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96 <https://archive.org/details/treatiseonscurvy00lind/page/n9/mode/2up>  
<https://wellcomecollection.org/works/xc2t7736/items?canvas=9>

**Section of Luís de Camões' poem "*The Lusiads*" (1572)  
on the first occurrence of scurvy on Vasco da Gama's first voyage**

Luís de Camões

[https://en.wikipedia.org/wiki/Lu%C3%ADs\\_de\\_Cam%C3%B5es](https://en.wikipedia.org/wiki/Lu%C3%ADs_de_Cam%C3%B5es)

Wikipedia (2025) lists 9 translations of "*Os Lusíadas*" to English,  
still, the Quillinan translation (below) is missing from the list.

[https://en.wikipedia.org/wiki/Os\\_Lus%C3%ADadas](https://en.wikipedia.org/wiki/Os_Lus%C3%ADadas)

**Translation by Edward Quillinan<sup>97</sup> (1853), p.184-185**

<https://catalog.hathitrust.org/Record/006543462>

<https://babel.hathitrust.org/cgi/pt?id=uc2.ark:/13960/t50g3n55n&seq=208>

[https://babel.hathitrust.org/cgi/pt?id=uc1.\\$b315556&seq=210](https://babel.hathitrust.org/cgi/pt?id=uc1.$b315556&seq=210)

<https://babel.hathitrust.org/cgi/pt?id=hvd.32044020257572&seq=220>

<https://archive.org/details/lusiadluisdecam00adamgoog/page/n210/mode/2up>

**Also within the translation of the Correa text, p.73**

<https://archive.org/details/pli.kerala.rare.7020/page/72/mode/2up>

<https://archive.org/details/voyageroundworld01tayl/page/72/mode/2up>

78 – LXXVIII

We named the River of Good Signs; the shore  
Demanded our commemorative care,  
And of memorials that from home we bore  
For special landmarks, one we planted there,  
...

81 – LXXXI

Disease assail'd my crews,—such fell disease,  
And loathsome, as till then I ne'er beheld—  
Who would believe, that saw not, how in these  
The livid gums with growth prodigious swell'd,  
Breathing infection that depraved the breeze?  
Alas, how many a gallant life was quell'd,  
How many a proud and noble form laid low  
On yonder shore, and by so vile a foe!

82 – LXXXII

The air was sicken'd by the noisomeness  
That reek'd from this malignity obscure.  
Astute physician had we none, still less  
Chirurgeon subtle to resolve the cure;  
Whoso applied him to the task, by guess,  
Cut out, as if 'twere dead, the flesh impure:  
Not without reason, whatsoe'er the skill,  
For unextirpated, 'twas sure to kill.

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97 [https://en.wikipedia.org/wiki/Edward\\_Quillinan](https://en.wikipedia.org/wiki/Edward_Quillinan)

Translation by Richard Francis Burton<sup>98</sup> (1880), p.205-206

<https://archive.org/details/in.ernet.dli.2015.93444/page/n231/mode/2up>

<https://archive.org/details/in.ernet.dli.2015.60855/page/n233/mode/2up>

<https://babel.hathitrust.org/cgi/pt?id=uc1.b4056637&seq=236>

<https://babel.hathitrust.org/cgi/pt?id=coo.31924102142860&seq=236>

Comment in a footnote:

“Scurvy, first poetically described here.”

78

‘Stream of Good Signals ’ christened we the shore:  
A marble column on this coast we reared...

81

And ‘twas that sickness of a sore disgust,  
the worst I ever witness’d, came and stole  
the lives of many; and far alien dust  
buried for aye their bones in saddest dole.  
Who but eye-witness e’er my words could trust?  
of such disform and dreadful manner swole  
the mouth and gums, that grew proud flesh in foyson  
till gangrene seemed all the blood to poyson:

82

Gangrene that carried foul and fulsome taint,  
spreading infection through the neighb’ouring air:  
No cunning Leach aboard our navy went,  
much less a subtle Chirurgeon was there;  
but some whose knowledge of the craft was faint  
strove as they could the poisoned part to pare,  
as though ‘twere dead; and here they did aright;—  
all were Death’s victims who had caught the blight.

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98 [https://en.wikipedia.org/wiki/Richard\\_Francis\\_Burton](https://en.wikipedia.org/wiki/Richard_Francis_Burton)



Translation by Thomas Moore Musgrave<sup>99</sup> (1826), p.204-206

<https://archive.org/details/lusiadanepicpoe00musggoog/page/204/mode/2up>  
<https://archive.org/details/lusiadanepicpoe01musggoog/page/204/mode/2up>  
<https://archive.org/details/lusiadanepicpoe02musggoog/page/204/mode/2up>  
<https://babel.hathitrust.org/cgi/pt?id=nyp.33433081599585&seq=235>  
<https://babel.hathitrust.org/cgi/pt?id=hvd.32044004454559&seq=233>

Note 25 in the text

*“A morbid virulence assailed the mouth.*

...

The description given by the poet of the terrible effects of the scurvy corresponds with the passage of the Portuguese historian.”

And named ‘Good Signs’ the river where we first  
These tidings so propitious to our hopes  
Obtain’d. A stone memorial there we rais’d;—  
For, destin’d our discoveries to mark

...

Disease with pestilent malignity,—  
Such as had ne’er been seen,—many depriv’d  
Of life, and, distant from their native land,  
Their bones lie sepulchred<sup>100</sup> in foreign dust.  
Who could, unseen, such dire effects believe?  
A morbid virulence assail’d the mouth,  
Swelling the gums with strange deformity,  
While putrefaction rapidly ensued;  
And this putridity the very air

Infected with its noxious fetid scent.  
Nor any skilful in the healing art,  
Nor dexterous practitioner had we,  
His aid to yield; those who but little knew,  
Boldly extirpated the morbid part,  
Already dead become; for thus alone  
From death could the afflicted sufferer  
Be snatch’d. By this unknown calamity,  
For ever separated, here we lost  
Those brave companions who to this disease  
Victims became in our adventurous voyage.  
Easy it is to find a sepulchre;—  
The deep profound, or foreign mountain-grave,  
Alike is ready to receive our bones,  
Or those of the illustrious proud and great!

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99 [https://en.wikipedia.org/wiki/Thomas\\_Moore\\_Musgrave](https://en.wikipedia.org/wiki/Thomas_Moore_Musgrave)

100 Sepulchre.

<https://en.wikipedia.org/wiki/Tomb>

Translation by William Julius Mickle<sup>101</sup> (1776), p.158-159  
<https://www.gutenberg.org/ebooks/32528>  
<https://www.gutenberg.org/files/32528/32528-h/32528-h.htm>

Comment in an endnote 383:

“This poetical description of the scurvy is by no means exaggerated.  
It is what sometimes really happens in the course of a long voyage.”

And, “River of good signs,” the port we name

...

We rear a column on the friendly bay.

...

A dread disease its rankling horrors shed,  
And death’s dire ravage through mine army spread.  
Never mine eyes such dreary sight beheld,  
Ghastly the mouth and gums enormous swell’d;  
And instant, putrid like a dead man’s wound,  
Poisoned with fœtid steams the air around.  
No sage physician’s ever-watchful zeal,  
No skilful surgeon’s gentle hand to heal,  
Were found: each dreary mournful hour we gave  
Some brave companion to a foreign grave.  
A grave, the awful gift of every shore!—  
Alas! what weary toils with us they bore!  
Long, long endear’d by fellowship in woe,  
O’er their cold dust we give the tears to flow;  
And, in their hapless lot forbode our own,  
A foreign burial, and a grave unknown!

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101 [https://en.wikipedia.org/wiki/William\\_Julius\\_Mickle](https://en.wikipedia.org/wiki/William_Julius_Mickle)