

# **EXPLORATIONS IN MAHARASHTRA**

**THE PROCEEDINGS OF THE FOURTH WORKSHOP**

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**CENTRE FOR EXTRA-MURAL STUDIES,  
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**EDITED BY**

**DR KURUSH F DALAL**

**CO-EDITED BY**

**RAAMESH GOWRI RAGHAVAN**



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## Exploring the Candidacy of Dungi as the Ptolemaic emporium of Dounga

Raamesh Gowri Raghavan<sup>2</sup>, Kurush F. Dalal<sup>3</sup> and Sagar Mundhe<sup>4</sup>

### Revised Abstract

*In his magnum opus Geographia, the 2nd c. CE Roman writer Claudius Ptolemy presents a list of ports and emporia of Larike, Ariake and Limurike, along with latitude and longitude, now identified as the coasts of Gujarat, the Konkan and Southern India. As archaeologists of the Konkan region, we interested ourselves in the identification of these ports. Some of them are well-described and corroborated by references in Indian literature and epigraphy.*

*Among the unidentified sites is the port or emporium of Dounga. Herein, we posit, through physical exploration and satellite imagery, that the modern village of Dungi, on a southern branch of the Panvel Creek, is the likely site of Ptolemy's Dounga. To test this hypothesis, two of the authors physically explored the area around Dungi Cave, which has been established as an unfinished cave of the Traikūṭaka period, now converted into the subaltern Hindu shrine of Kerumata. The cave oversees an excellent harbour which has resisted silting. Local place-name practices suggest that Dungi or Dunga are names for boat building and boat repair yards. In addition, it is in the trade route between Kalyan (a major Indo-Roman port that is nevertheless omitted by Ptolemy) and Chaul, and also on the route leading towards Ter via the Bhor Ghat and to Junnar via Ambivali Caves.*

### Keywords

Ancient Konkan; Indo-Roman Trade, Dounga, Ptolemy, Geographia, Dungi

### Introduction

Ptolemy's *Geographia* is a fascinating document for scholars of ancient India, with its abundance of place names. With respect to the Konkan—known as Aparānta in ancient times—the region of India best known to the trading Greeks and Romans, the

*Geographia* carries a list of *emporía*<sup>5</sup> in Asia, dividing the western Indian coast into four regions: Larike (Lāṭa, Gujarat), Ariake Sadinon, Andron Peiraton and Limurike (Damerica or Southern India). A vast number of goods passed through its important ports Chēmūlaka (now Cheul), Sūrparaka (now Sopara), Kalyāṇa and Panvel on their way to the great interior cities of Pratiṣṭhāṇa (now Paithan) and Tagāra (now Ter).

The region of *Ariake Sadinon* according to Ptolemy includes the *emporía* of Soupāra (modern Sopara), the mouth of the Goáris, Dounga, the mouth of the Benda, Símylla, Hippokoura and Baltipátna, corresponding roughly to the harbours and coastal inlets in the Palghar, Thane and Raigad districts of Maharashtra (Fig. 1).

	§. 6.	Ἀριακῆς Σαδινῶν	
		Σουπάρα . . . . . ραβ̄ ε̄ ιᾱ ε̄	
10		Γοάριος ποταμοῦ ἐβολαί . . . ραβ̄ δ̄ ιᾱ ε̄	
		Δοῦγγα . . . . . ριᾱ ε̄ ιᾱ	
		Βήρδα ποταμοῦ ἐβολαί . . . ρῑ ε̄ ιᾱ	
		Σήμελλα ἐμπορίον καὶ ἄλλα . . ρῑ ιᾱ ε̄ δ̄	
		Ἰππόκουρα . . . . . ριᾱ ε̄ δ̄ ιᾱ ε̄	
15		Βαλιπάτνα . . . . . ριᾱ ε̄ ιᾱ γ̄	
	§. 7.	ἄνδρῶν Πειρατῶν	
		Μανδάγαρα . . . . . ραγ̄ ιᾱ	
		Βυζάντιον . . . . . ραγ̄ ρο̄ ιᾱ ρο̄	
		Χερσόνησος . . . . . ραδ̄ γ̄ ιᾱ ε̄	
20		Ἀρμιάγαρα . . . . . ραδ̄ γ̄ ιᾱ γ̄	
		Ναναγοῦνα ποταμοῦ ἐβολαί ραδ̄ ε̄ ιγ̄ εγ̄	
		Νίτρα ἐμπορίον . . . . . ριᾱ ε̄ ιᾱ ρο̄	

Figure 1: The ports of the Konkan as mentioned in Ptolemy.

Ptolemy's listing of Dounga in the northern Konkan between Sopara and Semylla is certainly very curious, as is the notable omission of the similarly located port of Kalyan (Καλλιένα), which is prominently mentioned by both the contemporary author of the Periplus, and by Cosmas Indicopleustes writing in the 6th century CE. Candidates for the site of Dounga have been variously argued on linguistic and geographic grounds (Fig. 2). A place named Dongri, on the southern bank of the Vasai Creek (identified with the Goaris), has been posed as a potential location of Dounga (Johnston, 1941: p209) and equated with *Dhēnukākaṭa*. Palmer (1946: p172) placed it in Juhu, on the west coast of Salsette island. H.C. Raychaudhuri identified it with the village of Dugad

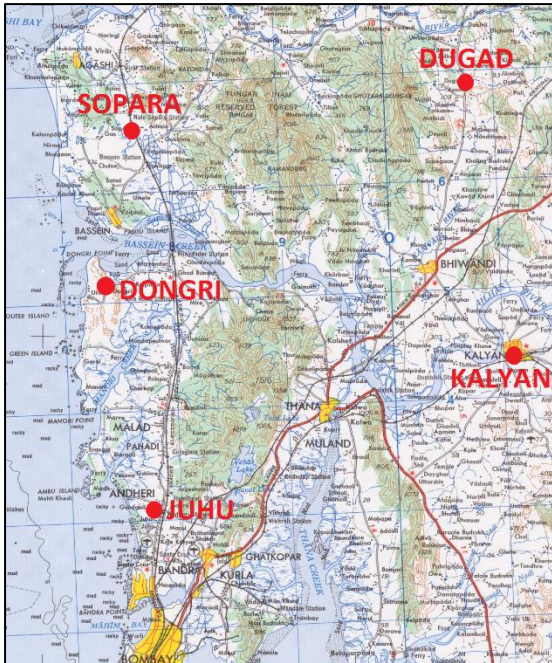
<sup>2</sup> Research Associate, INSTUCEN Trust, Mumbai - 400097

<sup>3</sup> Assistant Professor, Centre for Extra-Mural Studies, University of Mumbai, Vidyanagri, Mumbai - 400098

<sup>4</sup> 1516B, Chhatrapati Shivaji Maharaj Road, Line Ali, Panvel 410206

<sup>5</sup> A word best translated from Greek as a trading town, not necessarily a port.

near Bhiwandi (Panda, 2007: p125). Chattopadhyaya (1974: p74) as well as Moti Chandra (1977, p103) write of Dounga temporarily supplanting Kalyan because of the pressure of piracy from the 'Pirate Coast' further south, but this is unattested.



**Figure 2:** Previously 'identified' locations of Dounga, in the context of the ports of Sopara and Kalyan. Map source: U.S. Army Map Service, 1955

Archaeological and literary sources for ports of both the Early Historical and Mediaeval periods suggest that all ports and emporia including Kammoni/Kāmṛēj (Gupta, Gupta, Garge et al. 2004), Barygaza/Bharuch, Sanjan (Gupta, Dalal, Dandekar et al., 2004), Sōpārā, Kalliena/Kalyan and Bombay (Arunachalam, 2004), Semylla/Chaul (Gogte, 2003; Gogte, Pradhan, Dandekar et al., 2006) are all sheltered harbours with a landmass in between them and the open sea. Barygaza, for example, sits 55 km inland from the sea on the River Narmada, which corresponds to the distance of 300 stadia mentioned in the Periplus. However, many of these harbours, some of which were in use right until the start of the 20th century, have now disappeared due to heavy siltation, as a result of deforestation for charcoal-making, as well as land clearance for agriculture and industry (Chaudhuri, 2015; Kumar, 1978: 388; Wakhare, 2003). For example, Barygaza/Bharuch continued as a port of dwindling importance till the mouth of the Narmada began

silting up after the construction of the Sardar Sarovar Dam (Gaur and Sundaresh, 2016: p86).

Satellite imagery, especially Google Earth has been established as a new tool of archaeological exploration (Thakuria et al, 2013), by examining contours and mounds, especially at the site of Sisupalgarh, Odisha. We decided to use Google Earth along with Google Maps to look for Indo-Roman port sites along the Konkan coast, by marking the coastline for siltation. These deposited sands (light brown, sometimes appearing translucent) stand out very clearly in satellite images from both deep water (blue) and firm land (green or deep brown), allowing us to trace the outlines of the old harbour. Once such harbours were identified, we compared their current latitudes and longitudes with those mentioned by Ptolemy (the Periplus makes no mention of any co-ordinates).

#### *From Ptolemaic to Modern Coordinates*

We compared Ptolemy's coordinates to the modern coordinates of identified ports (Bharuch, Sopara, Kalyan & Chaul), and plotted the potential coordinates of the intervening *emporía*. We calculated modern coordinates for the locations mentioned by Ptolemy between Souppara and Semylla (Chaul), the next confirmed Indo-Roman site. These calculations place the Mouth of the Goaris at the mouth of what is now the Mahim Creek, but which would in ancient times have been the passage between the Mahim and Salsette Islands. The sites of Dounga and the Mouth of the Benda have the same co-ordinates in the *Geographia*, which in our calculations place them at the mouth of modern Bombay Harbour.

Three interesting candidates are thrown up at this location:

1. The locality of modern Mumbai city now known as Dongri on the west bank of the harbour
2. The hill of Dronagiri on the east bank of the harbour, by the Karanja Creek, which has suitable beaching grounds
3. A branch of the Panvel creek a little further north-east and inland called the Dungi Creek, leading to the village of Dungi (Fig. 4)

Of these names, Dungi is the closest linguistically to Ptolemy's Dounga. Besides, Dungi or Dunga is also the Marathi name for a boat-building harbour, and



**Figure 3:** Satellite image of the Panvel Creek, with the ancient shoreline highlighted in red. The cave of Dungs lay in a small ridge to the south of the creek, before being demolished in 2018-19.



**Figure 4:** The cave shrine of Kerumata at Dungi, with the constructed Bhōga-mandira in front of it.

the Dungi creek is used by small sea-going vessels even today. A rock-cut cave not far from Dungi village has been reported by several sources (Suraj Pandit, pers. comm; Sayed and Dhanawade, unpublished). We decided to physically explore the cave, also called Kerumata Temple. The shrine has since been demolished along with the hills it is cut into, to make way for the construction of the Navi Mumbai International Airport.

### **Description of the Cave Shrine**

On 5<sup>th</sup> August 2017, two of the authors, Raamesh Gowri Raghavan and Sagar Mundhe visited the cave of Dungi and explored the environs. The cave was accessed by a narrow road from Panvel to Ulwe, passing through the villages of Pargaon, Varcha Owale and Dungi, just before Waghiwali Wada and Kombadbhuje villages.

As of our date of exploration, the cave consisted of a shrine to the local deity Kerumata, with a ‘Bhōga-mandira’ built of cement-concrete in front of it and roofed with iron sheets (Fig. 4). A few people had also taken up residence within the cave.



**Figure 5:** Pillars in various stages of finishing

The cave might have been constructed towards the end of the 4<sup>th</sup> c. CE or early 5<sup>th</sup> CE, and may possibly be of the Traikūṭaka / Maitraka style (Suraj Pandit, pers. comm; as raised by him at the 4<sup>th</sup> Explorations in Maharashtra Workshop). The cave shows signs of being both unfinished and heavily eroded, with only one pillar on the right showing signs of finishing (Fig. 5), topped by a circular, bulbous capital (Fig. 6). The floors of the *Bhōga-mandira* as well as the cave itself have been filled in, raised and covered in modern polished shrines (Fig. 7). The interior walls have also been whitewashed. Otherwise no other modifications have been made. What appears to be a pair of unfinished monastic cells or inner chambers

are now used as water-reservoirs. Their original floors have not been raised in tandem with the rest of the cave, and are instead filled with rain water presumably (Fig. 8).

The image of Kerumata, which is in current worship, seems to be a monolithic projection of the cave wall itself, with possibly some other function intended for it originally. The Devi is now enclosed in a steel cage that acts as the *sanctum sanctorum*. A modern idol of four-handed Lakshmi is placed alongside, but worshipped as Kerumata Devi (Fig. 9).



**Figure 6:** Pillar with circular capital



**Figure 7:** The floor of the cave raised and tiled over.



**Figure 8:** Unfinished inner chamber filled with water.



**Figure 9:** The sanctum sanctorum of Kerumata

### *The environs of the Cave*

Dungi Cave is located on the eastern side of a ridge that extends southwards from the Panvel Creek, facing the Dungi creek, the southern branch of the Panvel Creek, which extends to the village of Dungi to the south. We climbed to the top of the ridge to get a view of the neighbourhood. The cave commanded a complete view of the creek, which is deep and navigable throughout the year (Figs. 10 & 11). The creek has a boat-building yard much further to the south, near the village. On the day of exploration however, we saw several boats mining sand from the bed of the creek (Fig. 12).

Northwest of the Kerumata shrine was the village of Waghivali, located on high ground surrounded by silted-up inlets of the Panvel Creek, which was dammed on the eastern side to create a large tank. The village was accessible by a causeway. The village has now been abandoned and its residents relocated to make way for the new International Airport. However, geography suggests that in older times, it would have been an island, or a sandbar extending into the creek.



**Figure 10:** Southern reaches of Dungi Creek.



**Figure 11:** Northern reaches of Dungi Creek, with Panvel Creek in the background (far left).



**Figure 12:** Sand mining from the bed of the creek.





**Figure 13:** Waghivali village, accessed by a causeway from the main road from Dungi to Targhar. The suburb of Belapur is in the background.

### Conclusions

The candidacy of Dungi to be a port of historic times required assessment not only in terms of its potential location, but also the suitability of the harbour for seagoing vessels. We therefore looked at levels of siltation in the Panvel Creek using Google Earth. As discussed earlier, at the start of the 20th century, loss of forest cover for charcoal-making and land clearance caused top soil loss, leading to heavy siltation in the creeks of the Konkan (Chaudhuri, 2015; Kumar, 1978: 388; Wakhare, 2003). Though the creek is no longer navigable to large vessels in modern times, mapping siltation (Fig. 1) revealed that the Panvel Creek was wider and deeper than currently, and perhaps very much so at the time Ptolemy wrote the *Geographia*.

The above lends credence to the hypothesis that the Dungi creek might have been the sight of an ancient port, if not necessarily the Dounga of Ptolemy. The presence of the unfinished or abandoned Kerumata cave on the harbour of Dungi creek, even though it is erected towards the closing phase of the Indo-Roman trade in the Traikūṭaka or Maitraka period, also suggests that Dungi was a port of some importance. The location of rock-cut caves on or near ancient trade routes is by now a well-established feature of Indian history (Moti Chandra, 1977).

In addition, the Panvel Creek and Dungi within it lie on the trade route between Kalyan (a major Indo-Roman port that is nevertheless omitted by Ptolemy) and Chaul, and also on the route leading towards Ter via the Bhor Ghat and to Junnar via Ambivali Caves (Jadhav, 2017).

We therefore propose that the above arguments clinch the case for Dungi to be the site of Ptolemy's Dounga. Investigation of the harbour for remains of surface finds of antiquities may assist in the confirmation or refutation of this hypothesis. Unfortunately, the construction of the Navi Mumbai International Airport on the south bank of the creek renders us very little time to carry out such exploration, and any rescue archaeology as might be possible. A speedy investigation is therefore sought from the powers that be.

We nevertheless, cannot rule out the candidacy of Elephanta Island to be Dounga. Its location at the mouth of the Bombay harbour parallels the identical coordinates Ptolemy gave for Dounga and the mouth of the Benda. Black Ware from Early Historical levels has been identified on the island and demonstrated similar to that found elsewhere in the near East (Gupta, 1997). Popular newspapers in 2006 reported finds of Roman amphorae from the island (Sheth, 2006), but we have been unable to find academic literature confirming or describing the finds.

### References

- Arrian, HTD; 1849. *Arriani Alexandrini Periplus Maris Erythraei*. H. M. Gottschalck, Dresden. Accessed online 23 April 2018: <https://archive.org/details/arrianialexandr00diectgoog>
- Arunachalam, B; 2004. *Mumbai by the Sea: Volume 7 of Maritime History Society Series*. Maritime History Society, Mumbai.
- Chattopadhyaya, S; 1974. *Some Early Dynasties of South India*. Motilal Banarsidass Publishers, New Delhi. Accessed online 24 April 2018: <https://books.google.co.in/books?id=78I5IDHU2jQC>.
- Gaur, AS and Sundaresh; 2016. *A Maritime Archaeological Exploration along the Narmada Estuary, West Coast of India*. Man and Environment XLI (1): 82-87.
- Gogte, VD; 2003. *Discovery of the Ancient Port of Chaul*. Man and Environment, XXVIII (1): p67-74.
- Gogte, VD, Pradhan S, Dandekar A et al.; 2006. *The Ancient Port at Chaul*. Journal of Indian Ocean Archaeology 3: 61-80.

- Gupta, SP, Dalal, KF, Dandekar, A et al.; 2001-2. A *Preliminary Report on the Excavations at Sanjan (2002)*. Puratattva, 32:182-244
- Gupta, SP, Gupta, S, Garge, T et al.; 2004. *On the Fast Track of the Periplus: Excavations at Kamrej-2003*. Journal of Indian Ocean Archaeology 1: 9-33.
- Gupta, SP, Dalal, KF, Dandekar, A et al.; 2004. *On the Footsteps of Zoroastrian Parsis in India: Excavations at Sanjan on the West Coast*. Journal of Indian Ocean Archaeology 1: 93-106.
- Gupta, Sunil; 1997. Roman Egypt to peninsular India - archaeological patterns of trade 1st century BC to 3rd century AD. Unpublished Ph.D. thesis submitted to Deccan College PGRI, Pune. Accessed online 8 September 2019: <https://shodhganga.inflibnet.ac.in/handle/10603/148601>
- Jadhav, Shreekant S; 2017. Relatively Unknown Buddhist Caves in the Garbhgiri Hills. In Proceedings of the Workshop on Explorations in Maharashtra (6th July 2014); ed. Kurush F. Dalal. Mumbai: INSTUCEN Trust.
- Johnston, EH; 1941. Two Notes on Ptolemy's Geography of India. The Journal of the Royal Asiatic Society of Great Britain and Ireland 3: 208-222.
- Kumar, V; 1978. Committees and Commissions in India 1947-80 (18 Vols.), Volume 3. Concept Publishing Company, Delhi.
- McCrindle, JW; 1885. *Ancient India as described by Ptolemy*. Trübner & Co., London.
- McCrindle, JW; 1897. *The Christian Topography of Cosmas, an Egyptian Monk*. The Hakluyt Society, London.
- Moti Chandra; 1977. *Trade and Trade Routes in Ancient India*. Abhinav Publications, New Delhi. Accessed online 24 April 2018: <https://books.google.co.in/books?id=rDL4kA7SWkEC>
- Nobbe, CAF; 1845. *Claudii Ptolemaei Geographia Vol. II*. Leipzig.
- Panda, H; 2007. *Prof. H.C. Raychaudhuri, as a Historian*. Northern Book Centre, New Delhi.
- Accessed online 24 April 2018: <https://books.google.co.in/books?id=f1XMtc2Q97IC>
- Sheth, Ninad D.; 15 September 2006. Roman relics found near Elephanta. DNA newspaper, online edition. Accessed online 8 September 2019: <https://www.dnaindia.com/india/report-roman-relics-found-near-elephanta-1053100>
- Thakuria, T; Padhan, T; Mohanty, RK; and Smith, ML; 2013. *Google Earth as an Archaeological Tool in the Developing World: An Example from India*. The SAA Archaeological Record 13(1): 20-24.
- U.S. Army Map Service, 1955. *Series U502:NE43:1*. Accessed online 24 April 2018: <http://legacy.lib.utexas.edu/maps/ams/india/ne-43-01a.jpg>
- Wakhare, A; 2003. *The study of beach and creek sedimentation processes\_ a case study of Valvati\_Aravi area from the west coast Maharashtra*. Unpublished Ph.D. Thesis. Savitribai Phule Pune University, Pune.