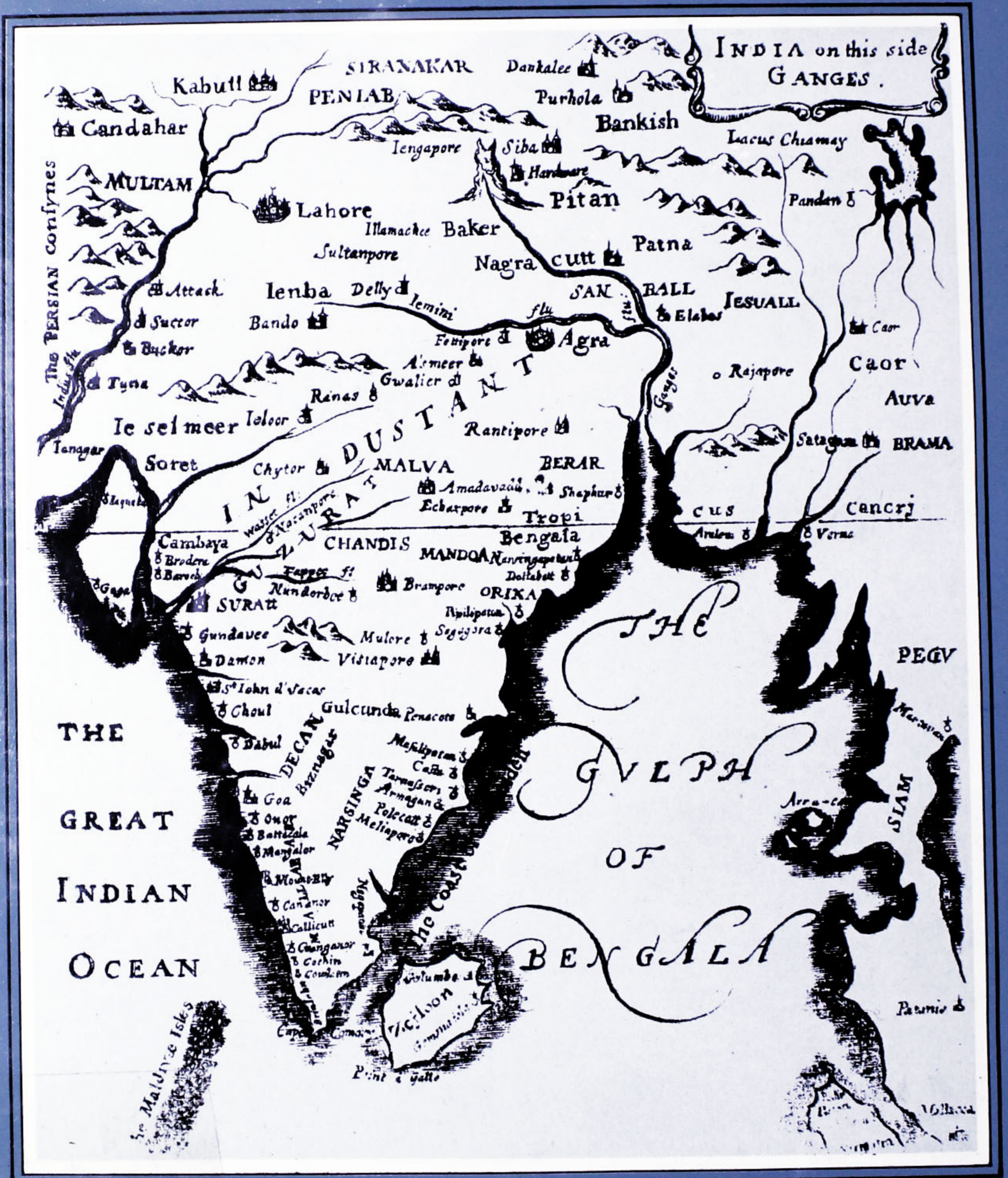


INDIA WITHIN THE GANGES

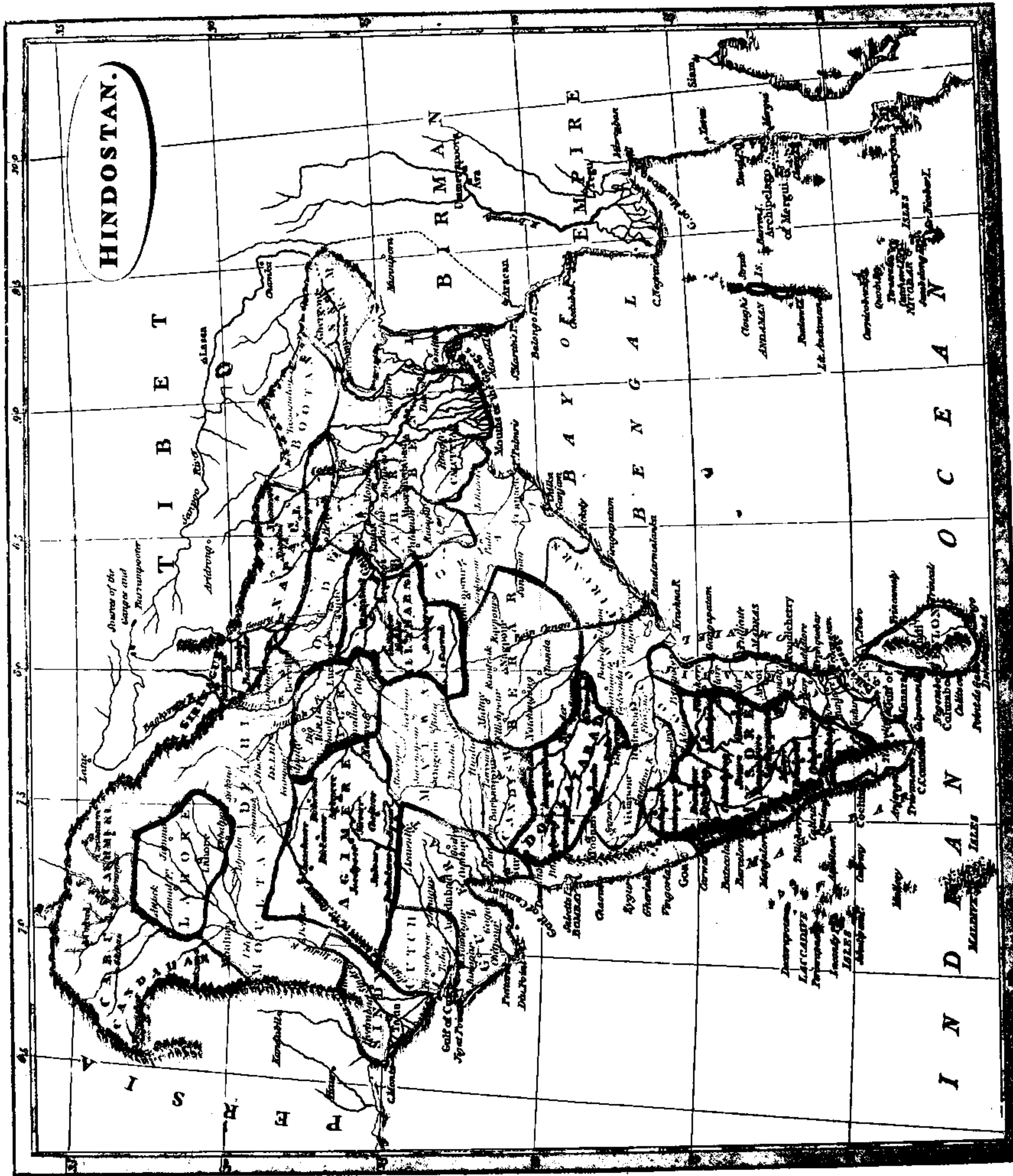


SUSAN GOLE

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Russell's map of Hindostan, c. 1806.

INDIA WITHIN THE GANGES

Susan Gole



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PREFACE

India intra Gangem—India within the Ganges—was the Latin name used by Europeans for many centuries when they were referring to what we now call the Indian sub-continent or South Asia. There were many Indias, since the term was used for all known or unknown land beyond the river Indus, and even for some areas on the African continent. Hence our India was known as India 'on this side of the Ganges', to distinguish it from 'India beyond the Ganges' which meant mainland south-east Asia, 'India superior' which might extend to northern China, or the more general term 'India orientalis' which included all the islands, from Australia to Japan and beyond.

This book is about the maps of the country called India in the twentieth century. Since they take no account of modern political boundaries, which have changed many times since the maps were printed, and they were often drawn from incomplete knowledge of the terrain, no reliance can be placed on their accuracy, nor can they be used to bolster any territorial claims. Their interest and charm lie elsewhere, in their aesthetic value, in the glimpses they allow of the way early travellers viewed the country, as evidence of the changing importance of towns and districts over the years, in any way people enjoy looking at them.

Almost all map reproduction prior to the mid-nineteenth century was in monochrome. Colours were applied by hand, sometimes in the printery itself, in the bookshop, or at any time later. Hence the maps reproduced here are also in black and white, losing perhaps some of their appeal, but nearer to how they must have appeared when they first came off the presses, though necessarily now much reduced in size. Some maps have already been used to illustrate my two previous books on the maps of India. The majority of the maps in this book have not been reprinted before, and even the famous world maps have been used only partially here, throwing emphasis on their delineation of India. A few of the early maps are essential to any discussion on the mapping of India, either for their originality, or the influence they had on other cartographers; this requires their use in every publication, though

they are still not so well known.

The value of early maps is rarely recognized, especially in India where maps of any period are difficult to obtain. It is hoped that the present book will encourage more people to appreciate not only the maps themselves, but the amount of effort that went into their production. Before the time of surveys, it was an adventure to undertake a long journey, often through unknown lands, and the reports of such travellers were the main sources for the maps. Their descriptions can be found in libraries, and when they are read along with a map of the period, their tales come to life. Though the map may be less than accurate, it depicts the country as it was imagined to be at that time. That is why so many travel books contained maps, as well as engravings of the people, the countryside and the monuments. These maps are frequently detached from the books they were once bound in, since they have achieved an antique value independent of the text they accompanied, and an aesthetic value as decoration.

In this book I have tried to satisfy two widely differing groups of readers. The text chapters provide the story of how the maps came to be drawn, and here I have used some of the material from my earlier book, since it formed the basic structure for the history of the maps of India. The results of my later research have been woven into this framework. The second part of the book is for use as a reference work, not only for the serious student of Indian history, sociology or geography, but for anyone who has a map of India printed before 1800 and would like to know when and where it was made, how many editions were printed, what other maps were bound in the same book, or just to identify the cartographer. For these readers, the three indexes should make the task of tracking any loose sheet map a quick and easy one. In the main catalogue section the works of any one cartographer have been placed together, and his order in the list is determined by the date of his first known map of India.

I am grateful to the museums and publishers who have permitted me to reproduce maps in their possession. I am also grateful to the staff of the libraries, who were unfailingly helpful, patiently answered all my questions, and produced nearly all the books I wanted to see. Most of my research was done in the British Library and Map Room, one of my most favourite places. I also received assistance from many friends, in map and book shops, auction rooms, and in their homes, and I take this opportunity to thank them all. The study of early maps has opened many worlds to me, and I shall repay a little of the debt I owe to all who have helped me, if I can pass on some of my joy through the pages of this book.

Susan Gole
New Delhi, 1983

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1

Indigenous Maps

From a very early period Indians studied the world they lived in, and by observation and calculation postulated theories to explain what they saw around them. It is possible that they drew maps to illustrate their idea of the world and of their own country, but unfortunately none of them have survived. We have only brief references to what might have been cartographic depictions in the early literature.¹ Mathematics however was a highly developed science, and as early as the sixth century A.D. Aryabhatta had calculated the size of the earth fairly correctly. His measurement was not generally accepted, and other mathematicians before and after him gave their own widely differing opinions. But that the earth was round was never disputed. It is said that the use of latitudes and longitudes to provide coordinates was understood, and they were able to fix north. Names were given to various instruments used for survey, and there is mention of a world map on a square golden plate of one cubit's length. There is even a hint of a collection of maps, perhaps a very early atlas, but such references are open to differing interpretations, and must remain obscure unless an example of such a map is discovered.

In a play written in the eighth century, *Uttaramacharita* by Bhavabhuti, one section is called 'the inspection of the painting', and there is a description of wall paintings from the Ramayana, some perhaps of a geographical nature.² What is obvious from the literary works of that period is that the authors had a wide knowledge of their own country, and the relationships between different places. There are extensive lists of realms, rivers and mountains, each placed in their correct quarter. From Kalidas' directions to his Cloud Messenger in his poem *Meghdoot* one can see that he had a wide knowledge of the country, almost as if a map were spread out before him.

When Chinese travellers came to India in search of knowledge of the Buddha and to gather manuscripts of his teachings, they already had a clear idea of the shape of the country. The earliest known reference to India in Chinese writings, from the second century B.C., mentions Yan-tu, or Yin-tu,

India within the Ganges

meaning Hindu, and Shin-tu meaning Sindhu.³ Fa-hien, in the early fifth century A.D. wrote that the country is narrow towards the south and broad towards the north, like the faces of the inhabitants. After Hiuen Tsang's extensive travels in the middle of the seventh century, maps were made in China to illustrate his book, the Si Yu Ki. India was then divided into five parts, hence the maps refer to the Five Indies, or Gotenjiku Zu. The oldest extant map from Japan was copied by Jukai, a Buddhist priest, in 1364.⁴ It shows a pear-shaped continent called Jambudvipa, lying to the south of Mount Sumeru. In the centre is Lake Anavatapta (Manasarovar), from which flow four rivers, the Ganges, the Indus, the Oxus and the Tarim. The places visited by Hiuen Tsang are marked and his route is shown in red. These maps follow so closely the geographical descriptions in early Indian literature that it is possible they were copied from maps actually made in India which no longer exist. When knowledge and trade were passing so freely between India and China, it is hard to believe that the idea of maps did not also cross the boundaries from one country to the other. It is very difficult now to say where they originated. Jain maps of India were more in the realm of cosmography than geography, and reflect the withdrawal from scientific enquiry which took place throughout India. It is possible that the art of map making was forgotten in India, but continued to flourish in China. When Europeans came much later to India they were able to obtain indigenous maps of Tibet, Nepal and Burma. These show a strong Chinese influence, and were perhaps drawn by local cartographers who had learnt the art from the Chinese. Their dates are uncertain, but probably none are earlier than the sixteenth century.

16 Apart from being frequent travellers by land, either on pilgrimage or for trade and administration, early Indians were also great sailors. They went east to the Malay peninsula and Indonesia, setting up colonies and spreading their religion and literary culture. These journeys were by sea, before the age of Brahminical rigidity when it was forbidden to cross the water. No trace of any sea charts has survived, though it is likely that sailing directions were written and followed, if not actual charts. When Marco Polo sailed from China round India on a mission for the Chinese emperor, he consulted the mariners' charts and made three references to them in his book. Two centuries later Vasco da Gama was amazed to see the charts of the Arabian sea in use with sailors he met. By this time the Indians had stopped going to sea, and trade was in the hands of the Arabs. So much scientific and mathematical knowledge had passed from India to Arabia, it is possible that the art of navigation had also been developed in India, and then followed by the Arabs.

Though many books on geography were written by Arabic and Persian scholars, few of them included maps. Those that were drawn were rudimentary, and showed little progress in cartography since the time of Ptolemy. Ebn Haukel, the Arab geographer of the tenth century, travelled widely and had firsthand knowledge of India, but as Abul feda wrote: 'The book of Ebn Haukel is a work of considerable length, in which the different countries are

Indigenous Maps

described with sufficient exactness. But neither are the names of places marked by the correct points, nor are their longitudes or latitudes expressed; this frequently occasions an uncertainty respecting the places and proper names &c.'⁵ Ebn Haukel left maps of Sind and Hind, in which geometrical precision is more prized than geographical location, hence they are difficult to recognize. He made no commentary or map for the further parts of India, as he found the people to be infidels or Idolators, and therefore not worthy of record!

The work of another Arab geographer has also survived. Al Idrisi was born at Ceuta in north Africa in 1100 A.D., and he travelled widely over western Europe before being invited by Roger II of Sicily to make his home on that island. This invitation was probably more on political grounds than in the interests of furthering science or geography, as Idrisi was a claimant to the Moorish throne and had not at that time become famous as a geographer.

A Persian ms map from an encyclopaedia by Sadiq Isfahani, completed at Jaunpur in 1647. West is at the top of the page, with the Bay of Bengal lower left, and the Ganges and the Jumna flowing from the right. The following towns are named, line by line, left to right:

1. Sirohi, Jodhpur
2. Ajmer
4. Mandu, Ujjain, Biyana, Delhi
5. Sarangpur, Gwalior, Akbarabad
6. Burhanpur, Hindia, Sironj, Kabar
7. Elichpur, Chanderi, Kalanjar, Allahabad, Bahraich
8. Ahtmaman, Banares
9. Dist. of Udisa, Patna
10. Satgam (Satgaon), Akbarnagar
12. Biharuttarkoch (North Cooch-behar)
14. Bangla, Bhilda, Jehangirnagar
17. Sylhet, Jattia
18. Chatgam (Chittagong?)
19. Cachar
20. Arkhank (Arakan?)

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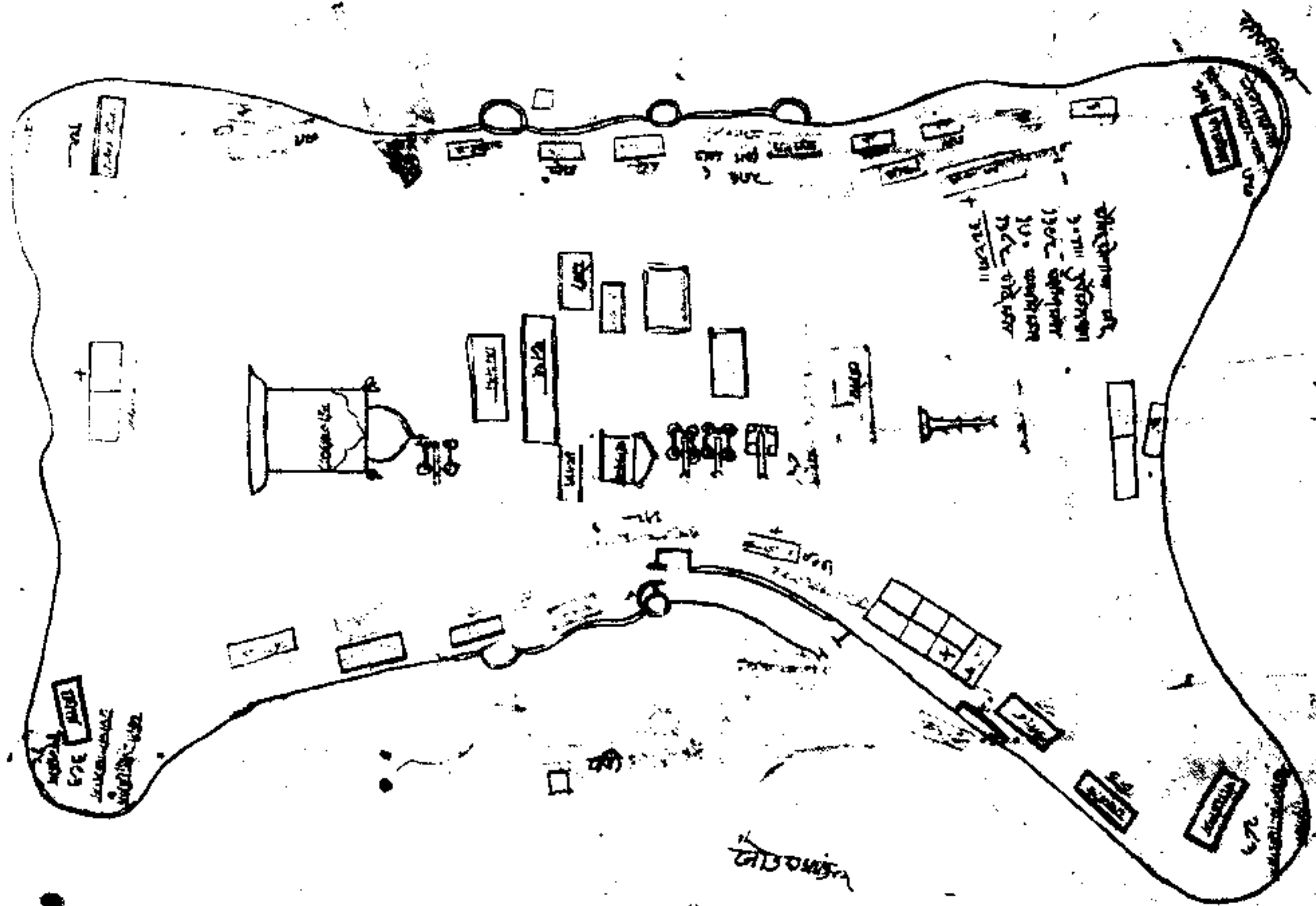
India within the Ganges

Using Ptolemy's outline he had difficulty fitting in his better knowledge of India. His map shows a land-locked Indian ocean, an idea of great advantage to the Arabs. This fallacy was maintained by Arab merchants as long as possible, ensuring them a monopoly of the rich trade from the Indies.

The works of some other Arabic, or more correctly Persian, geographers have come down to us. But it is disappointing that, with their opportunities for travel, and the knowledge of science gained from India, they did not develop the art of mapmaking. The most notable in the tenth century was Abu Zaid who made an atlas of twenty-one maps, which were copied by Istahri and Mukaddasi. From the next century al Biruni left a detailed account of most of India. He lived at the court of Mahmud of Ghazni and accompanied him on his raids into India. Later came al Kazwini who was a scholar of law, geography and natural history. But these men were geographers not cartographers, and they did nothing to improve the cartographic art.

Two sets of maps in Persian, one of them made in India, came nearer to showing the correct shape of India. A world map by Hamdullah Mustaufi in 1340, drawn from coordinates of various places, shows India as a peninsula, discarding the Ptolemaic idea of an east-west coastline. Three hundred years

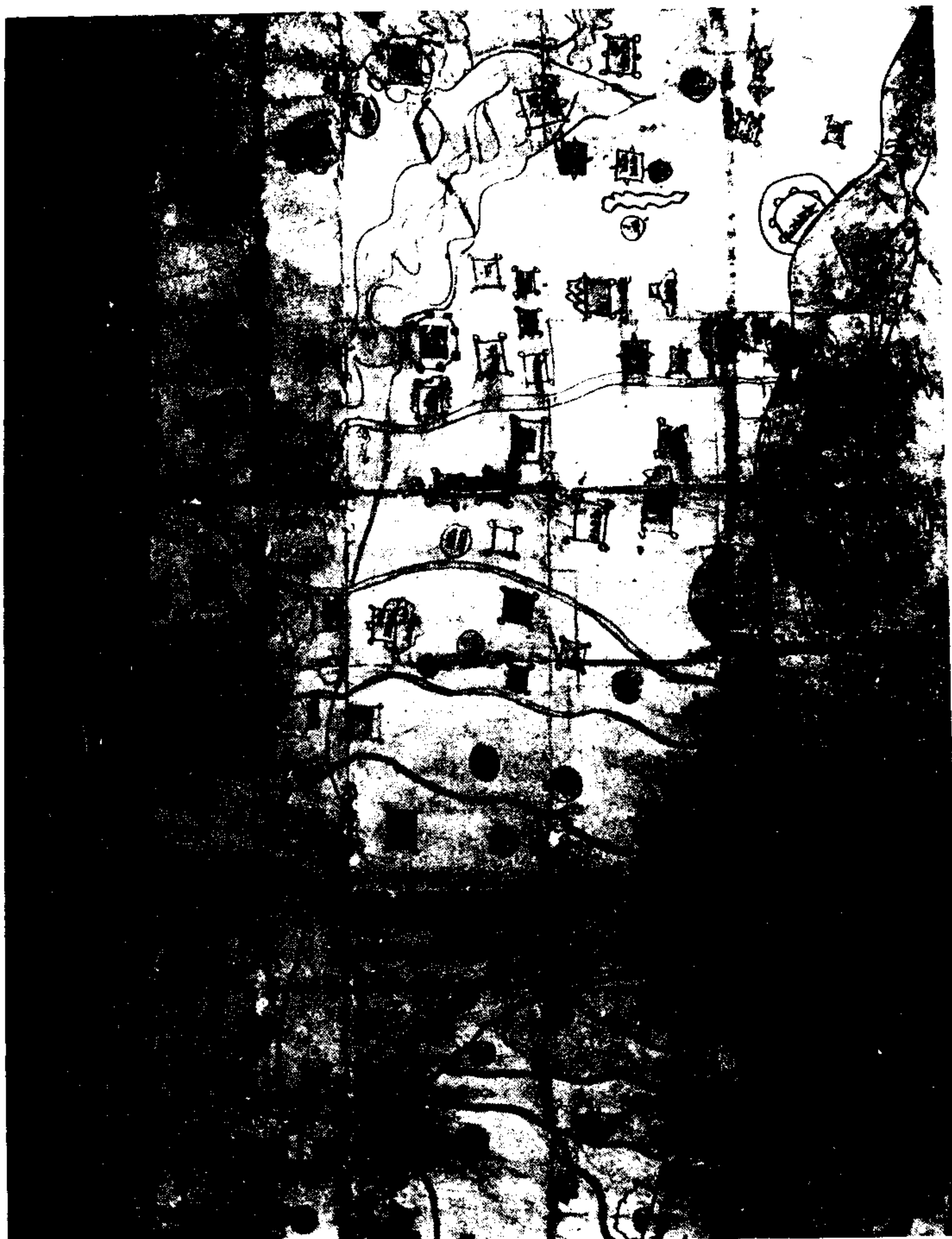
18



A plan of a hill fort with Modi script (court language of the Marathas). By permission of Bharata Itihasa Samshodhaka Mandala, Pune.



A ms map of the south-west coast of India in Marathi. The large fort on the lower left is Deogad, fortified by Kanhoji Angre about 1705. By permission of *Bharata Itihasa Samshodhaka Mandala, Pune.*



20

Part of a large map of south India, found in the family home of Nana Phadnavis. It shows the east coast from Chengalapat to the Caveri delta. Between is Phulcheri (Pondicheri). By permission of Bharata Itihasa Samshodhaka Mandala, Pune.

Indigenous Maps

later Sadiq Isfahani of Jaunpur included India on six sheets in an atlas of the 'Inhabited Quarter' of the world. These covered most of north India, with the major towns marked, and showed a truer course for the Ganges and Jumna rivers than was available in European maps at the time.

Europeans who came to India frequently searched for indigenous maps of the country. They were able to find very few, and most of these were probably drawn after knowledge of western maps had become widely available. During the eighteenth century many Indian rulers employed Europeans in their armies, mainly for training or for assistance and skill in casting guns. They would have printed maps in their possession, or would have been able to assist the rulers in preparing maps of their own territory. There are maps of Maratha forts in manuscript, undated but probably from the late eighteenth century.⁶ They are in Modi script, most of them have east at the top of the page, and rarely is any scale shown. They appear very crude when compared with those of the East India Company surveyors. There are also maps of the coast of south-west India, again with east at the top of the page. All the rivers run at right angles to the coast, mostly out of proportion to their actual size—large enough to accommodate fish swimming down them. A large map, about fifteen feet by ten, was discovered recently near Pune. It covers the peninsula of India from Pundharpur southwards. It marks clearly the hill forts, and the distances between them, as well as rivers and towns. Fortified places have a small circle of boulders around them. The map unfortunately is in a very poor state, almost in tatters, so it is not possible to see it fully.⁷

When Rennell was constructing his large map of India in 1782 he made use of four maps drawn by Indians.⁸ The first was a large map of Punjab with the names in Persian, covering an area of about 250 British miles. The roads in the north-west had not at that time been measured by European travellers with any accuracy, and Rennell found the map particularly useful for the bearings of Lahore, Multan and Attock, and the placing of the rivers. 'I consider this MS. as a valuable acquisition;' he wrote in his *Memoir*, 'for it not only conveys a distinct idea of the courses and names of the five rivers, which we never had before: but, with the aid of the *Ayin Acbaree*, sets us right as to the identity of the rivers crossed by Alexander.'

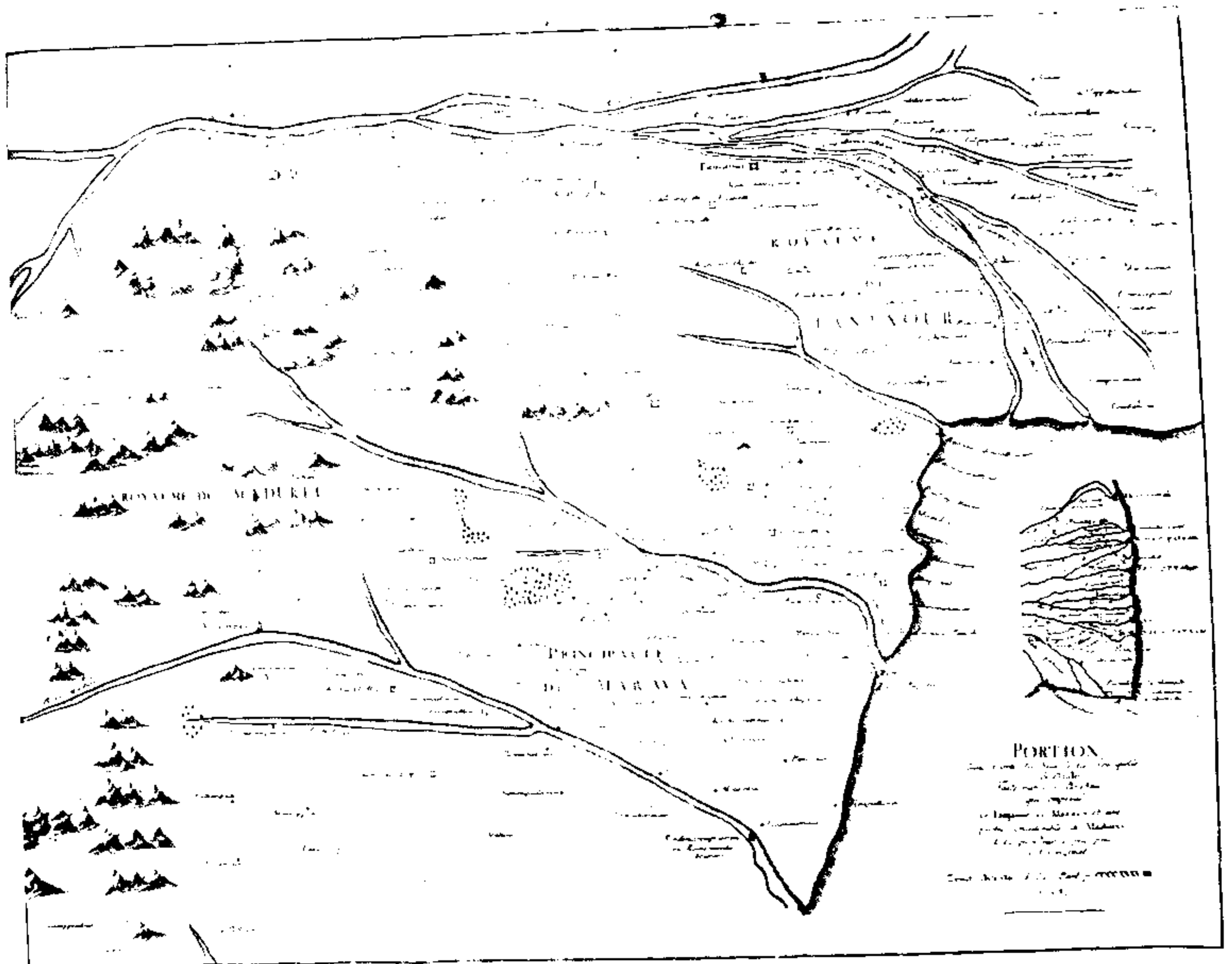
The second map was by a 'native of Guzerat'. Whether it was done on instructions from the presidency of Bombay, or independently, is not stated, but it gave 'the form of Guzerat with more accuracy, than most of the European maps can boast.' Rennell also mentioned a 'Hindoo map of Bundela or Bundeland, including generally the tract between the Betwah and Soane rivers, and from the Ganges to the Nerbudda' with the names in Persian. The fourth map was a 'Malabar map; or rather a map drawn by a native of the Carnatic. . . The map alluded to, is not constructed by a scale, but rudely sketched out without much proportion being observed either in the bearings, or distances of places, from each other: and the names, and the distances between the stages, are written in the Malabar language.'

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India within the Ganges

Anquetil du Perron had copied a map of the peninsula when he was in Bombay in 1761. A part of this was published by Bernoulli in 1787, but with the names translated into French. The original 'faite par des Brahmes' seems to have remained in Bombay. He also mentioned another map of part of the coast and interior that he saw at Cochin, and took a copy, but this was not published. Again it is difficult to know how much western influence there was in the making of these maps. Anquetil du Perron found that people in India were accustomed from childhood to indicating the position of things in accordance with the direction of the compass points. As an example he described a mother sending her child into the house to fetch something, saying the basket is to the east, and the scissors to the south, and the child can find them, almost with his eyes closed. This knowledge, he said, extended to all the sixteen points of the compass, e.g. south-south-east, and north-north-east. Several times he tested this by drawing a rough compass rose with the sixteen directions on a piece of paper, rotating it so that north pointed to the actual north. He would tell an Indian that his birth place, or any other place well known to him, was at the centre of the rose, and ask him to point out the

22



An indigenous map of south India, as published for Anquetil du Perron in 1787, with the names translated into French. The original has not been traced. *By permission of the British Library.*

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direction and distance of other places in relation to it. He found this worked very well for short distances and could be built up over a wider area by asking many different people. He avidly searched for maps throughout his travels in India, but was able to find very few, and most of these had been drawn by Europeans.⁹

It is unfortunate that so little cartographic material has survived in India. Under western domination it later became one of the best surveyed areas outside Europe, and once accurate maps became available there was little interest for the more primitive methods of Indian cartographers. Even those that had been drawn lost their importance after correct surveys were made, and were not preserved, so there appears to be a wide gap in the cartographic history, covering the whole subcontinent. As a result the story of maps of India must be recounted almost entirely from a European viewpoint.

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Early European Contacts

India was known to the Greeks as a country with plentiful supplies of gold, and very strange customs. Herodotus in the fifth century B.C. wrote about a tribe who ate their parents' dead bodies, men who lived underground, others who refused to take life in any form, but who sowed no seed and lived on a vegetable diet. The most interesting thing he found, however, was their method of collecting gold. These two facts, the strangeness of Indian habits and the wealth of the country, were to attract Europeans for more than two thousand years.

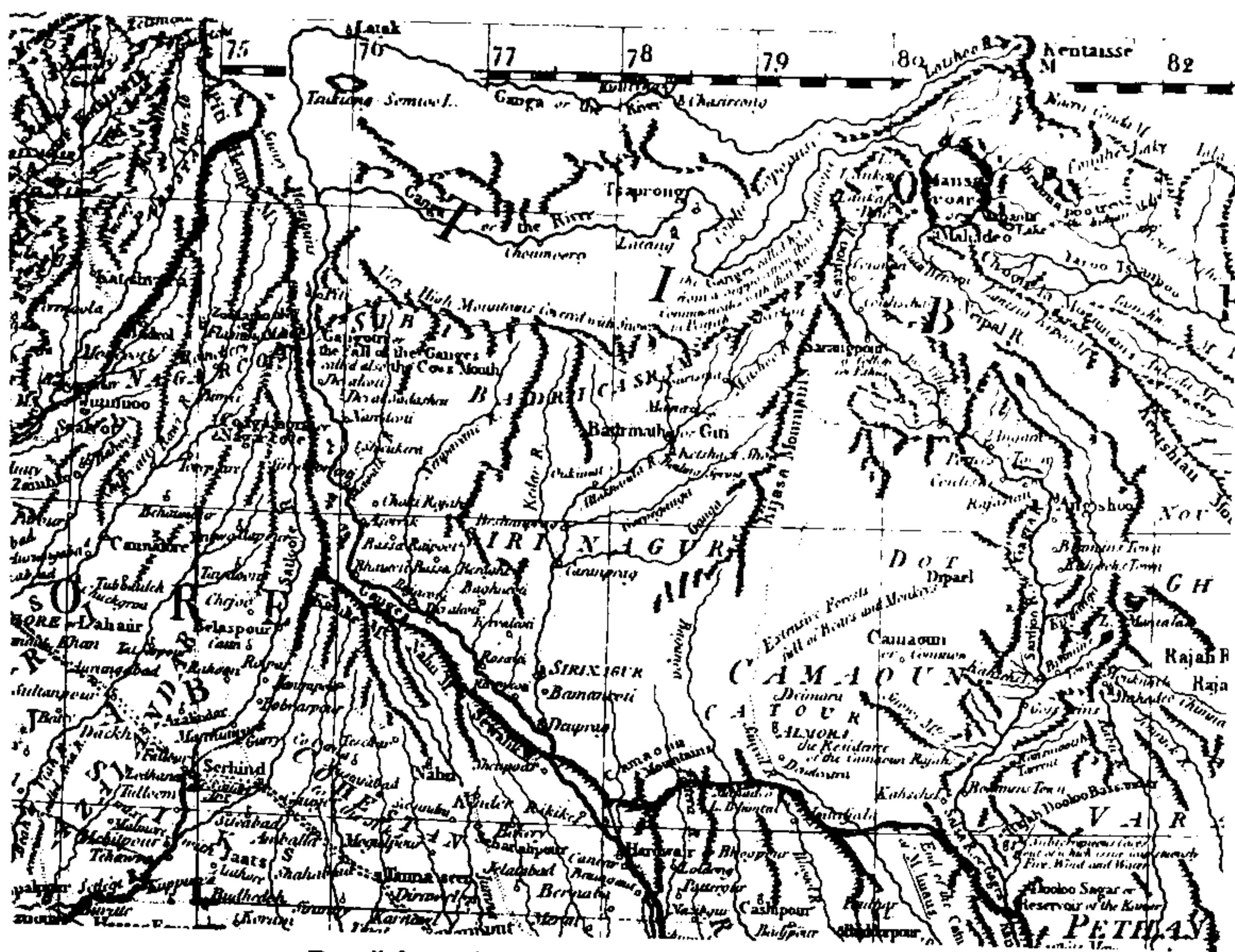
24 Little was known of countries beyond Persia. Herodotus wrote that 'Asia is inhabited as far as India; further east the country is uninhabited and nobody knows what it is like'.¹ India was known to be 'the most populous nation in the known world'. Darius of Persia was supposed to have discovered the greater part of Asia when he sent Scylax on a thirty month journey to find out where the Indus joined the sea. Scylax was to sail eastwards to its mouth, and bring back full accounts of the people and the country. This was to supplement the knowledge of the world gained by a circumnavigation of Africa. Trade was already being carried from India to ports in the Red Sea, and seals from the Indus valley civilization have been found there. The similarity between buildings at Mohenjodaro and those further west also implies movement of people by land. In the sixth century B.C. after the decline of the Indus valley towns, Cyrus, the Achaemenid emperor of Persia, crossed the Hindu Kush mountains and was receiving tribute from the provinces of north-west India in the form of gold dust. According to Herodotus this was the largest contribution from any nation, and formed nearly half of the total Persian tax collection.

This fabled wealth encouraged Alexander, king of Macedonia in northern Greece in the fourth century B.C., to attempt conquest of the known world as far as the Great Bay. That was where the 'world Ocean' was believed to start, according to the geographers of the time. Alexander led his army through Persia and Afghanistan and crossed the Jhelum and Chenab rivers.

thanks of the public. . . has furnished me from his valuable collection, with every material in it that could contribute towards perfecting my plan. And accordingly, the most valuable of all the new matter that respects the sea coasts (the surveys made by the direction of the Bengal Presidency excepted) is taken from his collection; and also a very considerable portion of what respects the inland parts of the peninsula, and the northern circars.'

Alexander Dalrymple had gone to Madras as a writer in 1752. There he taught himself French and Spanish and became interested in hydrography. After several voyages he returned to England and published many coastal charts. In 1791, with a grant from the East India Company, he began publishing the *Oriental Repertory*, a miscellany of facts about the Indies, including many letters and treatises which might otherwise have been lost. Some were from his own collection, others were obtained elsewhere. He was the first to hold the office of Hydrographer to the Admiralty, together with the same post at India House. Unlike many others, who were jealous of their knowledge and possessions, he was willing to share, in the interests of enlarging the British experience in India.

Rennell also acknowledged several individuals for 'MS. maps, sketches and various articles of information'. His main problem lay in adjusting often divergent accounts, and deciding which was the most accurate. There were



Detail from de la Rochette's map of India, 1788.

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also many gaps in his knowledge, which he had to fill in from sources he knew to be unreliable. The northwest and the central parts of the country were the least known, since so few people had travelled in these parts, and he had to rely on individual itineraries. The *Memoir*, divided geographically into four sections, gave details of the alternative sources, and his reasons for selecting those he had used in the map.

In the second edition, in 1785, Rennell added an 'Account of the Ganges and Burrampooter Rivers' already published by the Philosophical Society, and an account of the Coimbatore and Nair countries in the south, obtained from two army colonels who had marched through the area in the course of the war against Tipu Sultan. By 1788 he had received so much new material that he felt obliged to redraw the map, and compile an entirely new edition of the *Memoir*. To this was now added a brief history of India, in which he outlined the early Greek and Roman knowledge, but regretted that 'There is no known history of Hindoostan (that rests on the foundation of Hindoo materials or records) extant, before the period of the Mahomedan conquests: for either the Hindoos kept no regular histories; or they were all destroyed, or secluded from the common eyes by the Pundits . . . It is chiefly to Persian pens that we are indebted for that portion of Indian history, which we possess.' Several Persian maps were used by Rennell for the northern part of India, to supplement material taken from the Persian historians. In this edition of the map Rennell revised the upper courses of the Ganges and the Gogra, from information which had been supplied to him by Johan Bernoulli of Berlin.

90 In 1785 Bernoulli published an account of the missionary Joseph Tieffenthaler, with a map of the course of the Ganges made up from several small sketches. Tieffenthaler had sailed to India in 1743 from Portugal and then spent more than thirty years travelling over the country recording the geography and drawing sketch maps. He sent his manuscripts to Anquetil du Perron in Paris, whom he had met in Surat in 1759. Anquetil du Perron was an oriental and linguistic scholar and his researches into the history and chronology of India formed the second volume of Bernoulli's work. Tieffenthaler had not himself travelled to all the places he described, but sent Indians, particularly into the mountainous areas, who were instructed about the necessary information that was required. In the large map compiled from his sketches three of the sections of the Ganges were described as being drawn by Indians. Tieffenthaler was able to list thirty-two places where a correct reading for longitude and latitude had been taken. For a long time, without sufficiently exact timepieces, it had been difficult to fix longitude with any degree of accuracy. But after 1761 the use of the chronometer changed this. Latitude was determined by Hadley's Quadrant, and surveys, when they started, were made by compass and chain.

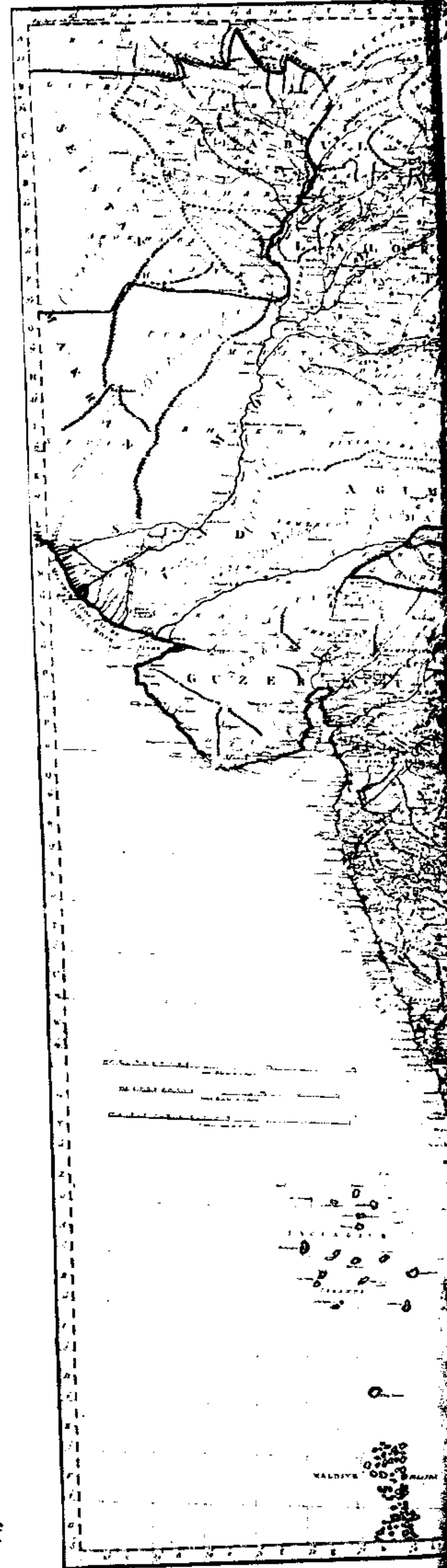
Bernoulli also published a copy of Rennell's map of Hindoostan, re-engraved in Berlin, but much inferior in workmanship to the original. He also included the small maps from the *Memoir*, along with the full translation of

the 1785 edition. In the section on the geography of India by Anquetil du Perron, several of Rennell's views were disputed, but this frank interchange of ideas added to the fund of knowledge gradually being built up. In Paris the work of the missionaries was more easily accessible, while the material in London was mainly derived from the men of the East India Company. The Company, however, was reluctant to undertake the expense of publication.

After the Jagir lands became part of the Company's territory in 1763, Thomas Barnard had been sent to draw a correct survey of the Company's land around Madras. But he was not given any equipment or money, as the Board of Directors refused to sanction the expense. However, he completed the field work in the next ten years and submitted the maps to Calcutta for approval. They were published in London by Alexander Dalrymple in 1778. In the same year Robert Kelly offered to compile an atlas of south India but again the Board refused to grant him expenses to do so. As he had found it very difficult without proper maps, he proceeded to do the work on his own and in 1782 he took to Calcutta a specimen of the atlas containing sixty-four small sketch maps. Since the Regulating Act of 1772 Bombay and Madras had come under the jurisdiction of Calcutta and Warren Hastings had been made Governor General of the Company's lands in India. Kelly was allotted a small gratuity in acknowledgement of the work he had done and he was commended to the Directors in London. But they did not think it worth while to print his atlas at Company expense.

All the early maps drawn from surveys were printed privately in London. In 1775 Ross had been urging the importance of establishing the post of surveyor for the Madras Presidency. In 1792 William Topping was asked to take the job but without being given the title or extra salary—there was still no provision for it officially. However, there were frequent letters from London demanding accurate surveys so that the Directors could see what territory they owned. Clive had promised Orme that he would send him maps as soon as he could, and after Rennell returned to London there were orders that all rough maps should be sent home for Rennell to fit into his larger maps. When at last the Company sanctioned money for field workers there were complaints that they were wasting time doing beautifully finished maps when the Company wanted only rough but accurate sketches which could be finished in London. Orders were given that as soon as a sketch map was brought into the office, one copy only should be made, for safety, and the sketch itself should be immediately despatched to London. There was always the fear that if many copies were made they would fall into the hands of the Company's enemies. This caused needless delays between the time an area was surveyed and the time when an officer in the field could have use of a map for the territory he was administering. The average sailing time between London and Madras was five to seven months and ships sailed from London only during the winter months. However, Rennell reported in 1776 that letters sent from Marseilles on 3rd June reached Calcutta on 20th August. They had come by the newly opened Suez route which Hastings had

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The first edition of Rennell's map of
Hindoostan, 1782.

British Conquest



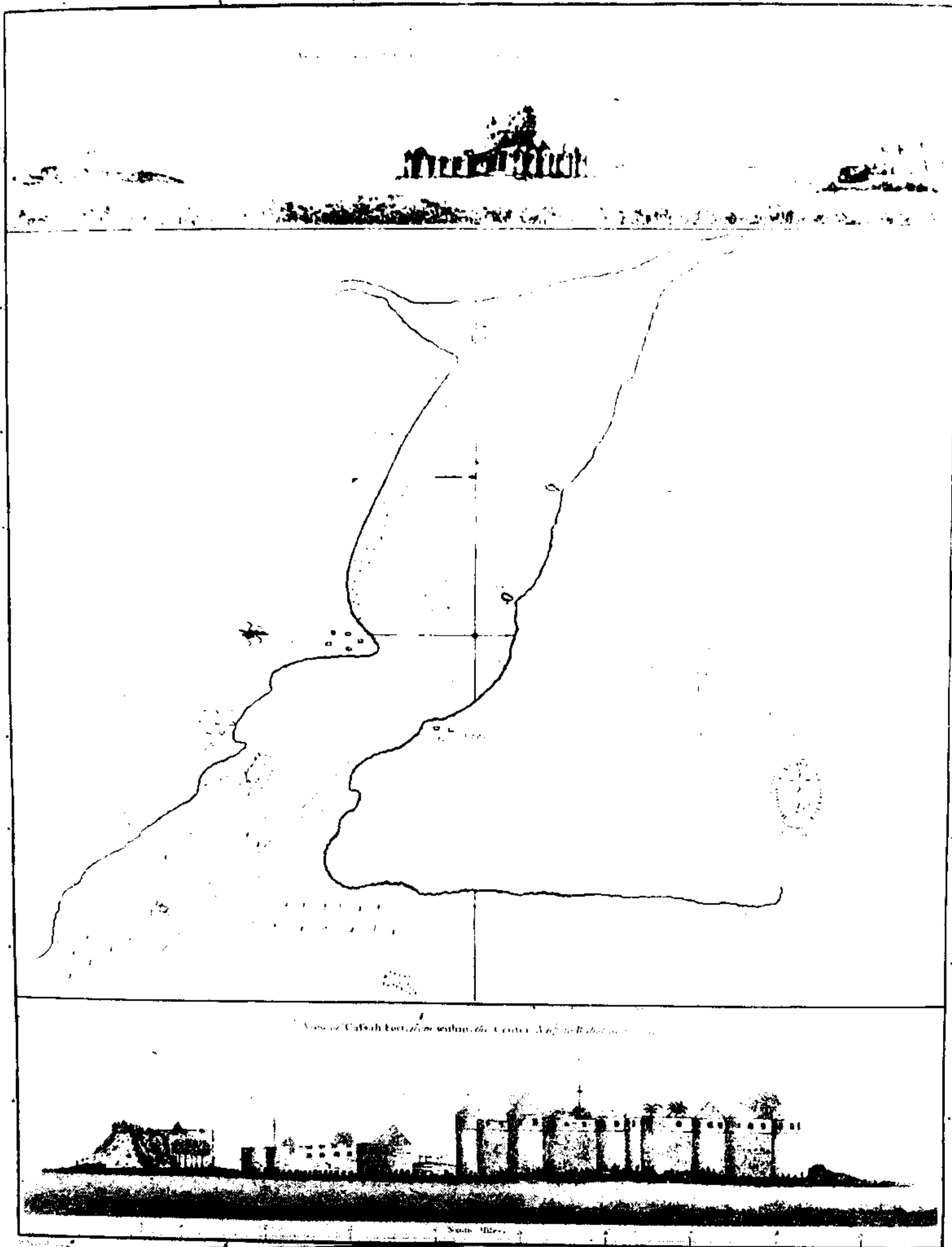
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instituted. Passengers, as well as mail, travelled by land to Marseilles, crossed the Mediterranean by boat, travelled overland to the Red Sea, and then embarked for India. The Suez Canal was not opened until 1869. Despite this shortening of the route, it was usually some years between the time a district was surveyed and a printed map of the area was available.

In his enlarged edition of the *Memoir*, Rennell included a map of the country between the Indus and the Caspian Sea, largely derived from the account of George Forster who had travelled that way, in disguise, on his way to Russia. For his next edition, in 1792, he was able to include a larger map of the countries between Delhi and Candahar, based on a description supplied by a Bengal army captain. Every addition, however, contained short addenda or foot-notes about new information which Rennell had received during the period of production, or since the last map was engraved. People in England were gradually realizing the involvement of the British in India, and there had been a response to Rennell's appeal to come forward with any material which might be lying in private hands with no recognition of its importance. Rennell's earlier maps had done much to encourage this interest. As he wrote in the first Preface: 'Whilst the theatre of the British Wars in Hindoostan was limited to a particular province of it; little curiosity was excited towards the general Geography of the country: but now that we are engaged either in wars, alliances, or negociations, with all the principal powers of the Empire, and have displayed the British Standards from one extreme of it to the other; A Map of Hindoostan, such as will explain the local circumstances of our political connections, and the marches of our Armies, cannot but be highly interesting to every person whose imagination has been struck by the splendor of our victories, or whose attention is roused by the present critical state of our affairs, in that quarter of the globe.'

94 There was still little contact between the three presidencies of Calcutta, Madras and Bengal, and men going from England were appointed directly to a particular presidency. The wars against Tipu Sultan at the end of the century, however, entailed the transfer of army units from Bengal to the south, and army engineers, used to the surveys in Bengal, took a keen interest in surveying territory that was so far little known to the British. Rennell had published a separate map of south India in 1788, acknowledging Dalrymple for supplying the source material. He redrew the map in 1792 for the *Memoir*, and drew also a large one, on a scale of ten miles to an inch, with which he included a short memoir based on documents supplied by Cornwallis, the army commander. William Faden had already published a large map of south India in 1788, which he supplemented with a two sheet map in 1792. This map was very popular and reprinted several times, with the dates when new territory was acquired being added to the plates. Several books were written describing the campaigns in south India, some of them containing detailed plans of the battles. There were also books of views of the beautiful countryside of Mysore, now freely open to British artists.

Rennell was now well established in London as official geographer for



One of the many original surveys preserved by Dalrymple—Radjapore river south of Bombay.

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the East India Company. In this position he was able to advise the Company on which maps were worth financing and which ones were of no import. One casualty of his decisions was a large map by Charles Reynolds. Reynolds had come to India at the age of fourteen and immediately joined the army in Bombay. While taking part in campaigns against the Marathas and Tipu Sultan he became interested in making surveys and in 1783 was appointed surveyor to the army. As the Company owned so little land around Bombay they saw no need to appoint a Surveyor General for the region and it was only after repeated requests that the post was created in 1796 and Reynolds appointed. In the meantime he had devoted himself fully to the task of surveying as large an area as possible. He himself made many trips inland, quietly taking measurements of the Deccan area without letting it be seen that he was making a survey. At this time the British were hoping to detach the Marathas from their alliance with Tipu Sultan, and were against any seemingly suspicious moves that might upset this plan.

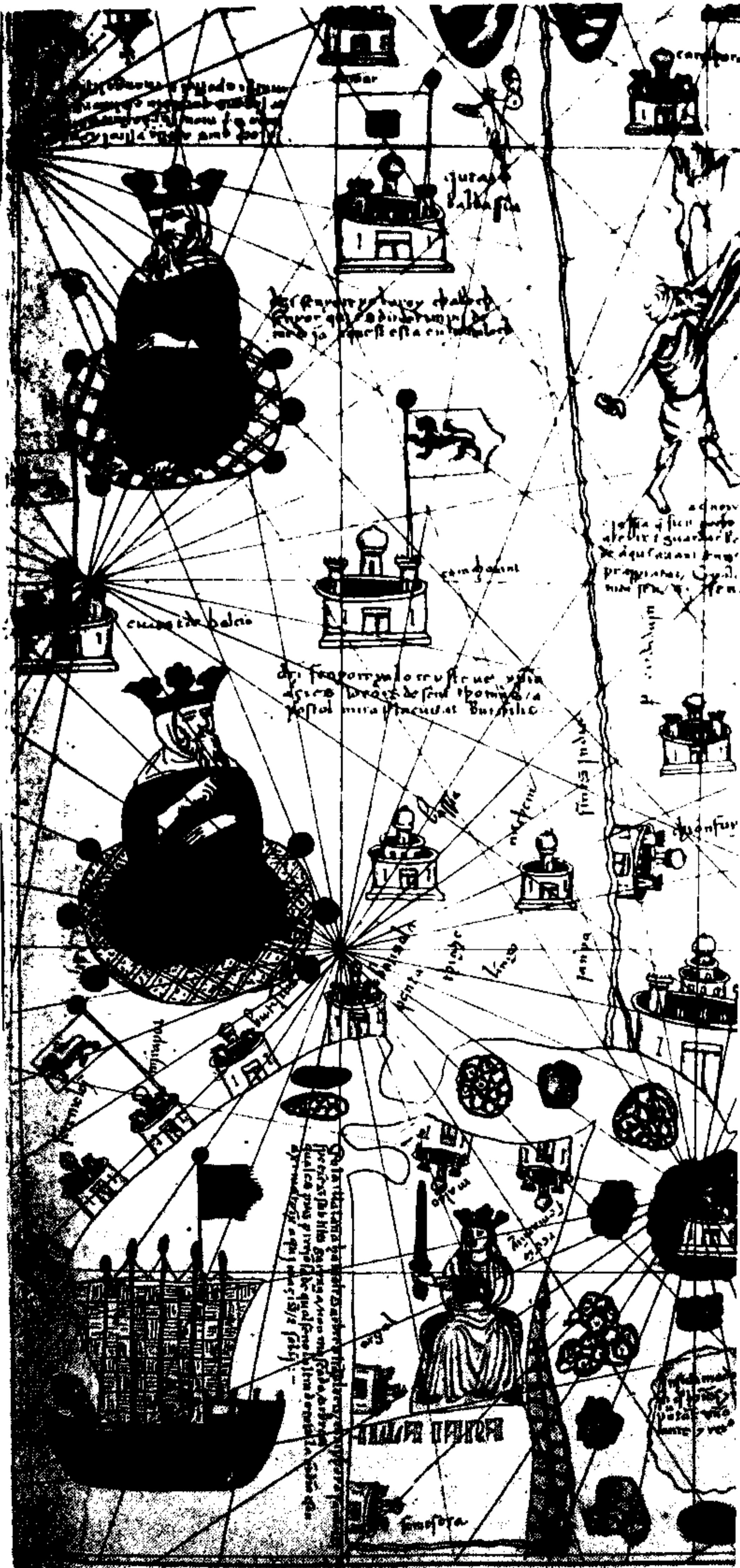
Reynolds was the first to make extensive use of Indian employees in his surveys. He had earlier applied to the Company for copies of the surveys that had been made so far, but the reply came that his map was to be drawn entirely from his own knowledge and not to depend on the work of others. He therefore instructed his employees in their duties and sent them far afield to bring back reports of roads and measurements which he then filled in on his map of India. The Company objected to this large expenditure, but they objected even more to Reynolds paying them himself from his own pocket: 'If the native Surveyors are to be so deployed . . . the expence should be regularly paid by the Company, and not defrayed by an Individual at his own expence, who would thereby have a claim on the Company hereafter to an unlimited extent, without any vouchers for the Expenditure.'³

Reynolds worked on his map for fourteen years and a friend wrote: 'In his hall I had the gratification of crawling over a map fourteen feet long and ten feet broad; to do which, without injury to a production intended to be presented to the Court of Directors, he furnished me with silk stockings for hands and feet.'⁴ This major work was unfortunately never published and no copy is known to have survived, although it formed the basis for all maps of western India for many years. A few rough sketch maps are all that remain.

96 Another large map of which no copy is now known to exist was that of Thomas Call. By 1787 Call had nearly completed an Atlas of India in twenty sheets which were to be put together into one general map on a smaller scale. The Council were very pleased with it and ordered a fair copy made to be hung in the Council Room in Calcutta for constant reference. Call returned to England the following year and died shortly after. Nothing is now known of his map on which he had spent so much time and effort.

While all this detailed and painstakingly acquired knowledge was gradually being put together, many publishers were still issuing maps which were long out of date. Thus Bonne in France and Zatta in Italy were still engraving, and presumably selling, maps which bore no evidence of the

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Part of the Catalan atlas, 1375, showing north India. Tentative identification of names (George Grosjean, *Mapamundi, The Catalan Atlas*, publ. URS Graf, Zurich, 1978) includes

from the west

Nocran—Makran
 Checimo—'I of Quishu'
 Damonela—Dabul
 Bargelidoa—Baroda?
 Femenat—Somnath
 Cuitat de Goga—
 Barochi—Broach
 Hoerbelch—
 Neruala—Anhilwar, Patan
 Canbetum—Cambay
 Cap de Paschinor—
 Jaleym—
 Cuitat de Delly—Delhi
 Paychinor—Bacanor, Faenur
 Diogil—
 Chintabor—Sindapur, Goa
 Nandor—Onore, Hunawar
 Pescamor—Barcelore
 Binder—
 Mangalore
 Elly
 cuitat de Columbo—Quilon

from the south-east

Carocam—Karikal?
 Setemetti—corrupt for 'Septem
 templi'? Perhaps a town near
 Negapatam
 Mirapor—Mailapore
 Butifilis—Motupalle
 Bangala—Bengal
 Cuitat de Balcia—
 Corachasant—
 Bassia—

The caption near the king in Bengal reads: 'Here reigns King Stephen, who is a Christian. Here is buried the body of Saint Thomas the apostle. He is looking towards the town of Butifilis'. The Polo family are seen riding across the north. *By permission of the British Library.*

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the places on his voyage from China to Persia. But it was mainly the account of Marco Polo which was used for the Catalan atlas compiled by Abraham Cresques in Portugal.

The Catalan atlas of 1375 is the earliest surviving map to show India as a peninsula. Though it does not extend to the southern tip and there is little knowledge about the inland parts, it was far more accurate than many maps drawn long after the arrival of the Portuguese. Most of the towns marked along both the western and the eastern coasts have been identified, and the city of Dely is shown in the centre, with a picture of the king of Dely to show his importance. Within the river flowing in a straight line north-south (Ganges) to mark the eastern frontier of India lies Bangala and further inland is a caption which translated means 'Here reigns King Stephen who is a Christian. Here is [also buried] the body of Saint Thomas the Apostle. He is looking towards the town of Butifilis [Motupalle].'

Marco Polo had given quite an extensive account of India, and particularly the story of St Thomas, but these accounts were scattered throughout the book, and sometimes he described things as he thought of them, rather than in a geographical sequence. To complicate matters the term 'India' had been used earlier to describe the farthest known parts of Asia, and as more land was discovered the same name Indies was used. Even though products like pepper were reaching Rome from further east than India, they were transhipped in southern India and were thus known as Indian produce. Silk from China along the land routes passed through the Indo-Greek kingdoms of northern India. Thus most of Asia was known as the Indies, subdivided into India within and beyond the Ganges, India extrema or superior, Greater India, Middle India, and Lesser India. According to Marco Polo, the province of Abyssinia was in Middle India, while Greater India extended from Malabar to Kech-Makran (on the Iran coast), and Lesser India with eight major kingdoms ran from Chamba (in S. Vietnam) to Motupalli.³ He also met men from Kashmir, Tibet and Bengal, but did not say where these kingdoms were, which caused great confusion to cartographers, as will be seen when maps of the early sixteenth century are described.

34 Other cartographers attempted to fit in new information as it was brought back by travellers. Thus an anonymous Genoese map of 1457 included information supplied by Niccolo di Conti who returned to Venice in 1444 after twenty-five years in the east, going as far as Indonesia. A Russian, Athanasius Nikitin, was one of the few early travellers who went inland, but his accounts were not available to cartographers till much later. There were also many Arab travellers and geographers, but their work remained unknown till after the fall of Constantinople in 1453, and was not widely circulated then. By this time Ptolemy's maps had been rediscovered and his fame as a geographer was so great that maps drawn to accompany the text of the *Geographia* were more acceptable than the work of other cartographers. The first edition containing maps was printed in Bologna in 1477, quickly followed by editions in Rome (1478), Florence (1480) and Ulm (1482). Then

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at the end of the century Portuguese sailors rounded Cape Horn, and were the first western Europeans to sail directly to India. Though they tried to keep their discoveries secret, news leaked out, and soon cartographers were busy redrawing Ptolemy's maps, or adding completely new shapes to the maps of Asia.

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Portuguese Foothold

When the Arabs closed the direct trade routes to the east, the Venetians became their intermediaries for produce brought in from Asia. They charged very heavy duties for the goods they handled, and had complete control of the trade. Spices were a necessary ingredient in foods that had to be preserved for long periods of the winter, and there was also a growing demand for the fine silks and muslins not made in Europe. This need, coupled with the growing awareness of distant lands, encouraged the desire among other Europeans to grasp a share in the trade. Since the Venetians were in control of the Mediterranean, an alternative route had to be found, and it was the Portuguese, situated on the edge of Europe, looking out over vast seas, who decided to develop the capability of their ships, so that they could sail further afield.

Henry of Portugal, called the Navigator, was the far-sighted prince who directed the necessary ship-building activity. Until his death in 1460 he supervised the designing of new ships, sent captains out to probe the western coast of Africa, and saw that their discoveries were included on the charts. The magnetic compass, releasing sailors from the need to keep close to the shore, had been improved at the beginning of the century. Now they also had large ships, strong enough to withstand the fierce Atlantic gales. Apart from the economic need to trade with the east, there was growing pressure in the Christian world to find some way of combating the Muslim threats. This was a period of intense religious fervour, when the whole Christian church seemed about to be eclipsed. Rumours were widespread about a great Christian king who ruled in the east, and one of the reasons for the attempts to sail round Africa was to find and seek help from the fabled Prester John. No one knew exactly where his kingdom lay, only that it was in the east.

In 1488, under the orders of King John II of Portugal, Bartolomeo Dias succeeded in rounding the Cape. He did not attempt to cross the Indian Ocean, but turned back to Portugal to make his report. There was still doubt about a sea route to India, so Friar Antonio of Lisbon was sent overland, but abandoned his journey in Jerusalem when he discovered he could go no

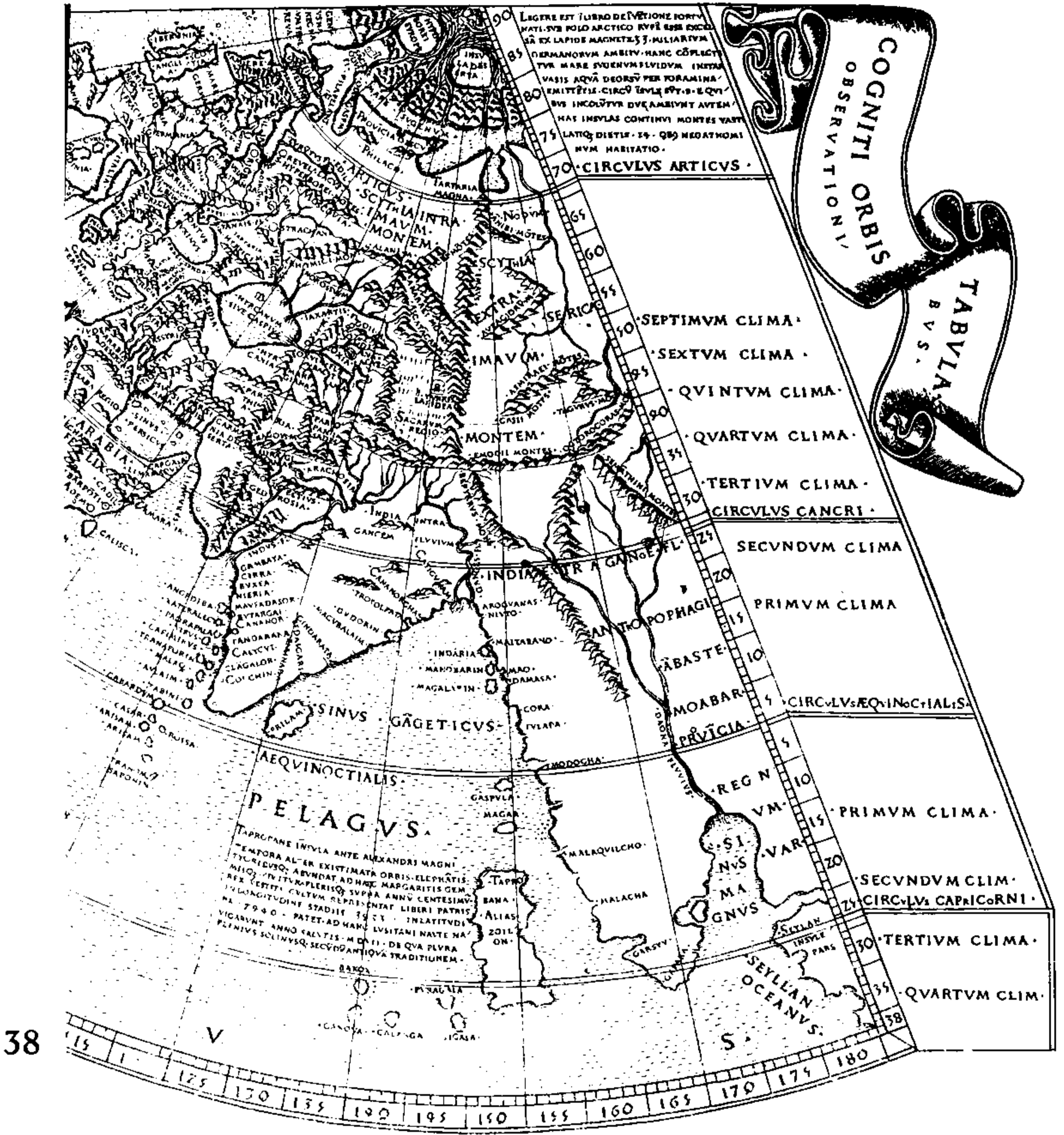
further without a knowledge of Arabic. The following year John sent Pedro de Covilha and Alfonso de Payna overland, both of whom knew Arabic, with instructions to reach India and enquire whether there was a sea route to India around Africa. He gave them for guidance a Sea Carde taken from a map of the world by Calsadilla, bishop of Vysen,¹ of whom unfortunately no more is known. According to Purchas, 'They gave them a sea-card, taken out of a general map of the world . . . and all was done very secretly in the house of Peter di Alcazora, and all . . . showed the uttermost of their knowledge of a passage into our western seas, because, the said doctors said, they had found some memorial of the matter.'² Covilha and Payna reached Toro on the Red Sea, which was a centre for trade with Calicut and the Indies. There they split up, Payna going to Ethiopia in search of Prester John, and Covilha taking passage in an Arab boat to Cananor. He then travelled to Calicut, and reportedly filled in his new knowledge on the Sea Carde. Returning as far as Sofala on the Ethiopian coast, he entrusted the letters to King John with a Jew, Rabi Abraham, and travelled to Ormus on the Persian Gulf. He was prevented from leaving that place as the kings were constantly changing and none would give him permission to travel further. His reports, however, that there was definitely a sea route around Africa to India reached back to King Manuel, who had in the meantime succeeded John II in Portugal.

As a result of these reports a fleet of three ships under the command of Vasco da Gama successfully rounded the coast of Africa in 1497 and reached the port of Calicut. This journey was described in a book by Herman Lopes de Castanheda published in the middle of the sixteenth century, and translated into English in 1582 by N. Litchfield, with a dedication to Sir Francis Drake. In the prologue Castanheda wrote that his intention in setting the whole journey down on paper was that the brave deeds of these men should not be forgotten and he declared them to be more worthy of note than those of any who had gone before. Faria y Souza writing nearly a century later, commented that neither Castanheda's style nor his geography were commendable but he wrote many curious, though tedious, remarks about India. Souza preferred the reports of Juan de Barros and particularly esteemed Barros for his geography.³

According to Castanheda, Vasco da Gama landed at Calicut on the coast of Malabar. He described Malabar as a province which stretched from Mount Dely to Cape Comory, and a high hill separated it from the province of Narsinga. A convict, the first man to be sent ashore, was taken to the house of an Arab trader, Bontayno by name, who expressed surprise that they had come all the way from Portugal by sea. He asked why, if Portugal could send ships, France, Spain and Venice had not also done so!

After the successful return of Vasco da Gama to Portugal, a second fleet was quickly prepared and sent out under the command of Pedro Alvarez Cabral. While sailing south they were blown too far to the west and discovered the coast of Brazil. On their arrival in Calicut, the Portuguese were requested by the Arabs to assist them in attacking a Ceylonese ship

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Part of the Ruysch world map of 1508. As the map was drawn, on a conical projection, India appeared near the right end, and Asia on the left. Here they are reversed, to bring the two parts of Asia together. Note Tebet and Bangala in northern China. *From A.E. Nordenskiöld, Facsimile-Atlas.*

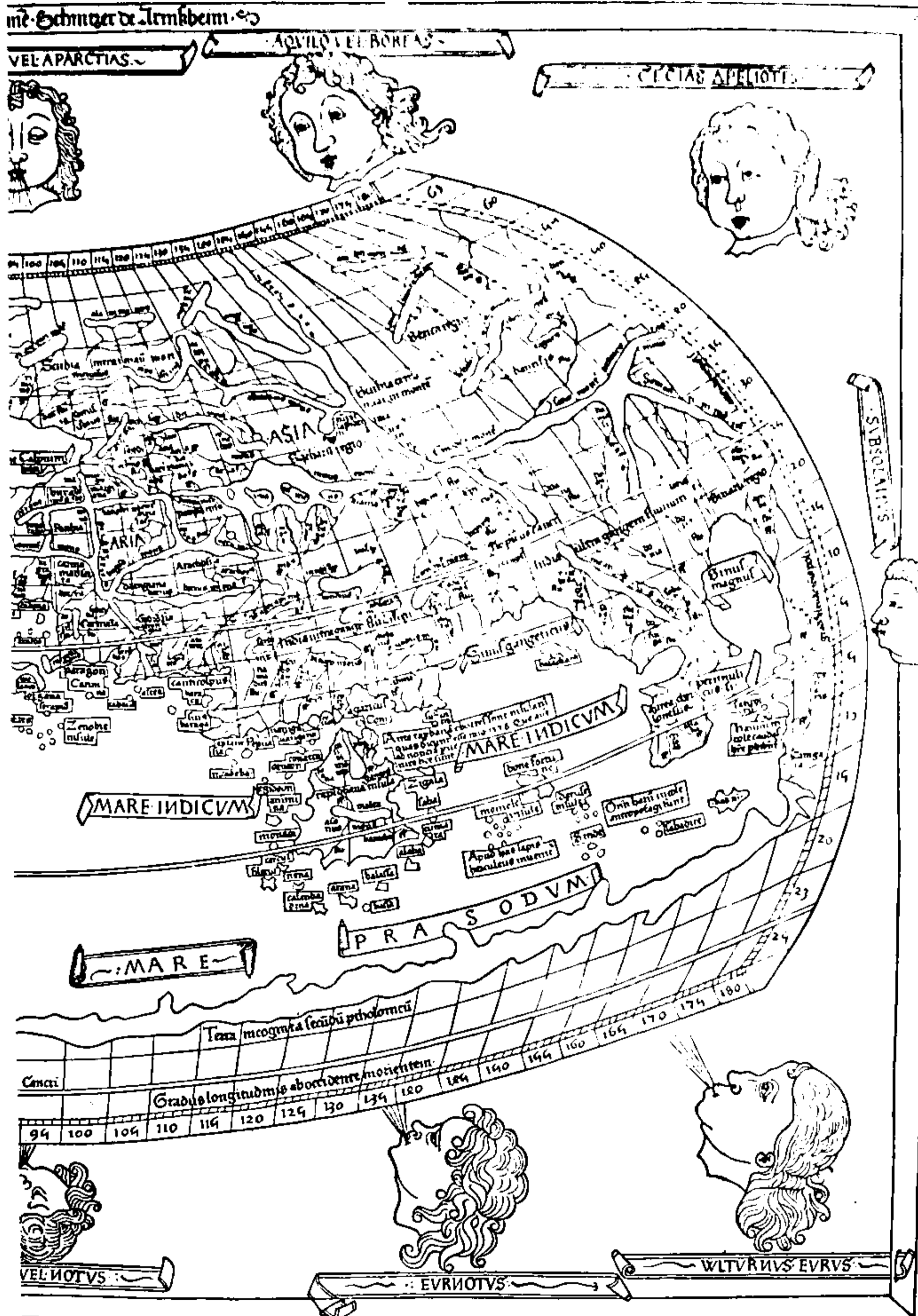
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sailing to Cambay with a cargo of elephants. The Arabs were jealous of any other trading vessels in an area they thought of as their own, and could not foretell that the Europeans were soon to deprive them of all trade in the Indian Ocean.

The ease with which the early Portuguese traders established their factories on the west coast of India convinced the authorities at home that the prize was well worth while. Accordingly a fleet of twenty ships was sent in 1502. For the next hundred years the Portuguese were the only Europeans in strength in the sub-continent, and they soon had trading stations all along the west coast, and missionary stations inland. Father Monserrat, a Jesuit priest, was sent to the court of Akbar in 1579, and he accompanied the emperor on a visit to Kabul, as tutor for the young prince Murad. He drew a map to illustrate his travels but it does not appear in any European records until the nineteenth century.

The discoveries of the Portuguese were quickly reproduced in manuscript maps. But these charts were the closely guarded property of the king. Before each voyage the captain was allowed to draw a map from the royal library, and had to return it as soon as he was safely home, marking in any new territory he had discovered. However, in 1502, Alberto Cantino, an agent of Duke Ercole d'Este of Ferrara, stole a chart from Lisbon and carried it safely away to Italy. It is now preserved in the Biblioteca Estense at Modena. Thus the details of the Portuguese discoveries leaked out to the rest of Europe. India was shown as a long, narrow peninsula, with a small island of Ceylon, while Ptolemy's Taprobana had moved east to become Sumatra.

40 The Portuguese were jealous of their new knowledge, and no report was published till 1506. That year a new world map appeared, the first printed map to show the Portuguese discoveries. It was a cone-shaped map drawn by Giovanni Contarini in Italy and engraved on copper. The peninsula of India is there in the shape given to it by Cantino, with the names of places visited by the Portuguese fleet, but immediately to the east is Ptolemy's idea of India, since that had to be fitted in too, and the enormous island of Ceylon. Further east is Ptolemy's Chersonese and the Great Bay, then on a long peninsula extending south-west come places reported by Marco Polo: the province of Moabar with five kingdoms, and the city of St Thomas, with a caption nearby reading, 'Here dwell the Brahmans who dread falsehood above measure. Here dwell Christians, Jews and idolators.' Marco Polo had made no mention of the Ganges, sailing as he did directly across the Indian ocean, though this great river was well known to be the eastern boundary of India. So cartographers fitted in the places he mentioned how they would, since there were no clear directions where they should be located. The most curious feature of Contarini's map is the appearance of Tebeth on the coast of China. Marco Polo wrote that he met men from there, but the account is included in his description of China. Since the map is made in the shape of a cone, with the ends joining in Asia, when it is laid flat Tibet appears almost the other side of the world from India. The South American continent has been pushed



The eastern part of the world map from the edition of Ptolemy printed at Ulm in 1482. From A.E. Nordenskiöld, Facsimile-Atlas.

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south, so that the way to the Indies across the Atlantic lies open, bearing out Toscanelli's remark to king Alfonso of Portugal some fifty years earlier that the quickest way to reach the Indies is to sail westwards.

Ptolemy's fame as a geographer and his popularity, now that printed editions of his work were widely available, made it difficult for cartographers to disagree with him. Modern maps of Europe were first bound in the *Geographia* published at Florence in 1482. The first edition to include a new world map with the correct peninsula of India was published at Rome in 1508. Johan Ruysch, a Dutchman working in Italy, followed the same cone projection of Contarini, but his map was a great improvement. India is depicted in a fairly correct triangular shape, and beyond the Sinus Gangeticus (Ganges Bay) is the Malay peninsula. This still contains the Moabar province, but without mention of St Thome, and next to Tibet in

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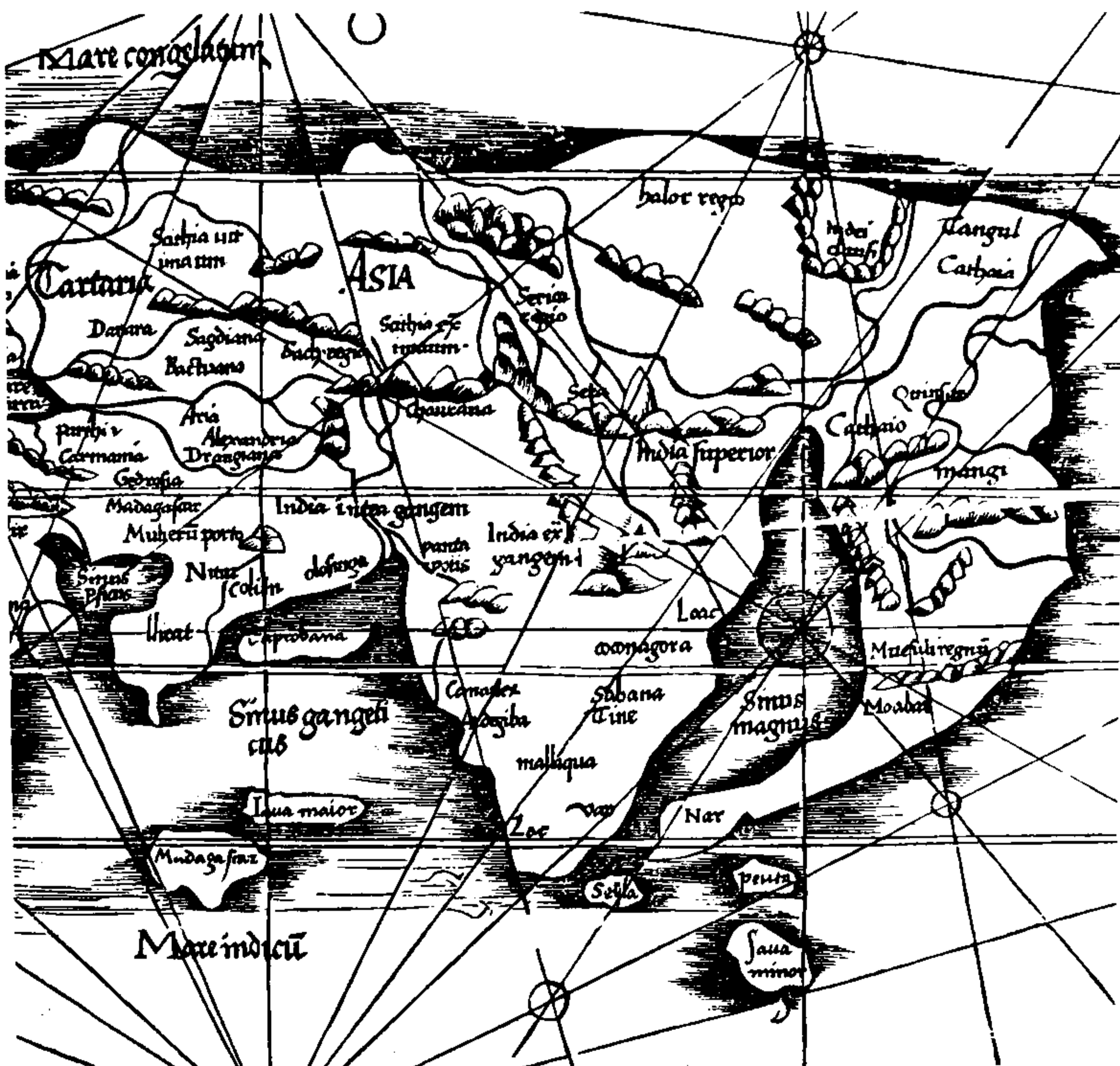
Part of *Tabula Asiae Sexta* from the 1511 edition of Ptolemy, edited by Bernardo Sylvanus. The Carmanian peninsula has been elongated to allow space for towns of India, reported by the Portuguese: Mangalore, Cananore, Calicut, and Cochin. The adjoining map, *Tabula X*, retained the accepted Ptolemaic shape of India.



Portuguese Foothold

China is now Bangala as well—another place mentioned by Marco Polo with no indication of where it lay. A small map of Africa published by Montalboddo in 1508 also showed the Portuguese route, but extended eastward only as far as a pointed peninsula of Calicut; possibly Ptolemy's India might have been beyond it if the map were larger.

There were now three models to copy when drawing India into the world maps. Ptolemy's tenth table of Asia was engraved for more than forty editions, until 1730, though most of the editions in the sixteenth century contained modern maps as well. In 1511 a new edition was published in Venice by Pentius de Leucho. It was handsomely printed in two colours, the names of provinces and seas being in red. The editor, Bernardus Sylvani, dared to correct some of Ptolemy's text, and even to alter the maps instead of



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The eastern part of the world map by Laurentius Frisius printed in 1522. From A.E. Nordenskiöld, Facsimile-Atlas.

placing new ones at the end. Faced with the problem of two Indias, he decided to retain the tenth table as it was, but on the table to the west, the sixth, he extended the Carmanian peninsula, and inserted the Portuguese settlements of Mangalore, Canonore, Calicut and Cochin between the original Ptolemaic names. He justified this by citing Strabo, Arrian and the Portuguese navigators but did not mention Contarini's map. This double India persisted for some years, appearing on a globe at Ingolstadt in 1518, in a book by Benedetto Bordone in 1528, in a world map by Peter Apian in 1530, in Munster's *Orbis Novis* of 1532, and in an edition of Solinus published in Basle in 1538 with maps by Münster.

The correct shape of India, as shown by Ruysch, was also drawn by Martin Waldseemüller at about the same time. Though his new world map was not published until it was included in an edition of Ptolemy in 1513, he had drawn it some years before, and proof copies were printed at Nuremberg in 1507. The map was revised and redrawn for the final version but the better shape of India was retained. In the same edition of Ptolemy appeared the first modern map of India on a separate sheet. It extends from part of Africa and Arabia to the Great Bay beyond the Malay peninsula and was called 'Tabula Moderna Indiae'. After Waldseemüller's death it was re-engraved in reduced size, in 1522, and the empty spaces were decorated with small illustrations. In the north is a typical German rural scene, while just below, a satanical goat is assisting a woman to commit *sati*—one of the strangest tales of Indian life that travellers had brought back. In the centre sits the king of Narsinga. When the Portuguese landed on the west coast, the most powerful king in the peninsula was Narasinha Rao of Vijayanagar. His name was used by the Portuguese in place of that of his capital, and hence Narsinga became one of the best known places of India. It appeared on all maps for more than two hundred years, though its location varied from Orissa to Cape Comorin.

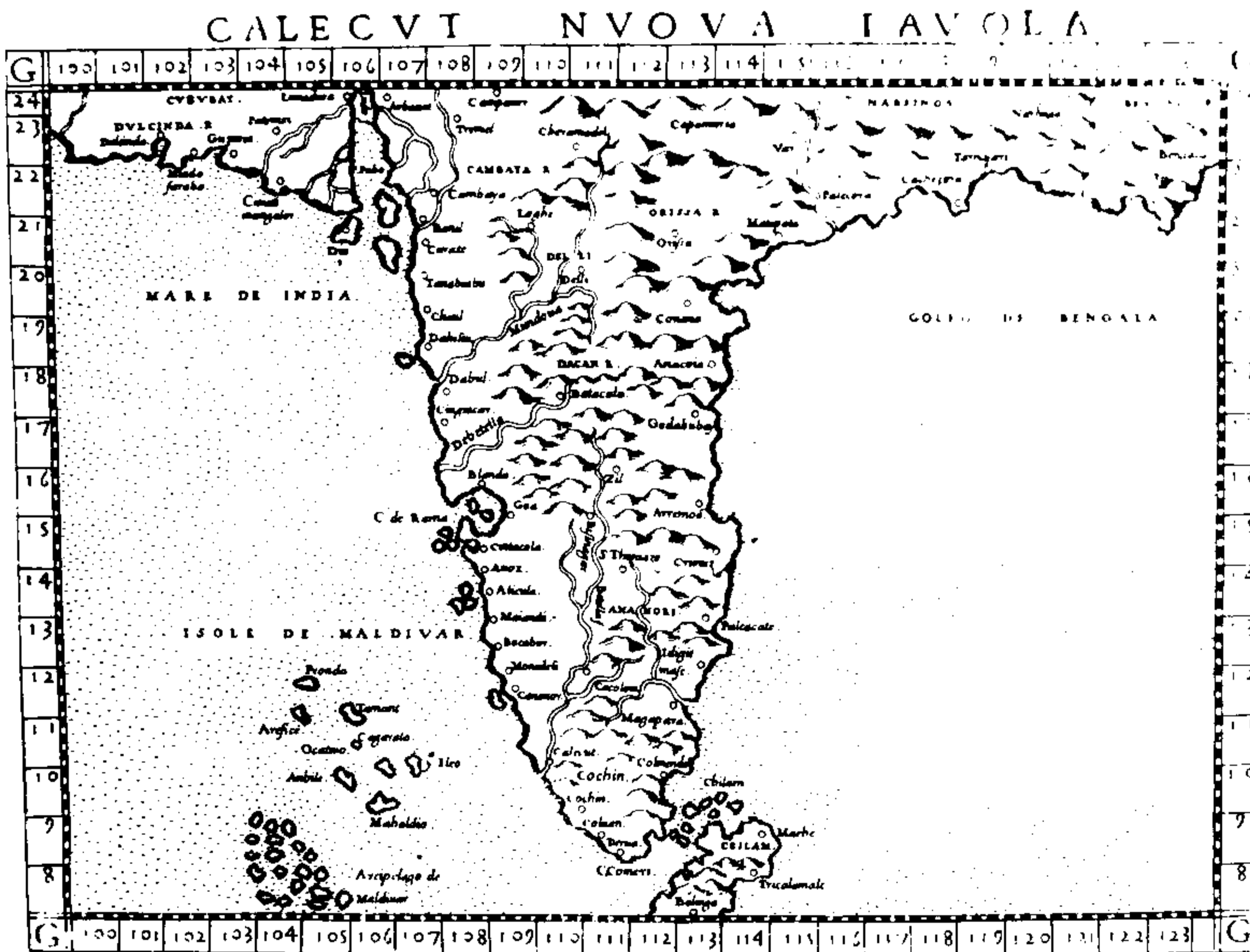
When Sebastian Münster's maps for an edition of Ptolemy were published in Basle in 1540, there was no new map of India, but one of the whole of Asia called 'India Extrema'. India within the Ganges contained only the Portuguese cities of Calicut, Cananor and Goa, and Cambay west of the Indus. One Indian kingdom is marked, Narsinga, too far north, and the coast beyond it is extended eastwards before the mouths of the Ganges. North of Cathay in farthest Asia is India superior with no known towns. In his world map Münster inserted the single word 'India' north of the Malay peninsula. This was a transitional phase, when the new peninsula was known to be there and had to be included, but space was still allowed for a vague depiction of Ptolemy's India beyond it. 45

The next new map of India was drawn by Giacomo Gastaldi in Italy in 1548. This also was included in an edition of Ptolemy as a modern map, and it was the first to give prominence to India on a separate page, though Gastaldi entitled it simply Calecut, and showed the peninsula only—the known extent of Portuguese penetration so far. Two other travellers had also published books on India by this time, Ludovico di Varthema in 1510 and Tome Pires in

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1515. Both of them gave detailed descriptions of the country, and much information was now available to cartographers. In Gastaldi's map the west coast is drawn from fairly extensive if inaccurate knowledge, but there are very few towns shown on the east coast. Bengala is marked, but the map does not extend far enough to show the mouths of the Ganges. The kingdom of Narsinga is shown north of Orissa, Delhi is on the same latitude as modern Bombay, north of the kingdom of Dacan. The rivers run mostly north-south and blank areas are filled with mountains, although the western ghats are omitted. The Maldive islands are given undue prominence—a reflection of the relief felt by sailors when they once more sighted land after the long run from the African coast. Gastaldi is said to have been influenced by Münster in his maps, and it is possible that this little map of Calicut was copied from one bound with Johann Honter's book of geography though the earliest known date for its publication is later than Gastaldi's map. Honter's work was published in Basle by Henricus Petri who also published Münster's maps.

Another map by Gastaldi was used to illustrate a travel book published in Venice in 1554. Ramusio's *Delle Navigazioni et Viaggi* was the earliest of a



The first separate map of the Indian peninsula—one of the new maps added to Gastaldi's edition of Ptolemy in 1548—here in the enlarged version of 1561–1574. Narsinga is near Bengal, and Delli is on the Mundova river which enters the sea at Dabul.

India within the Ganges

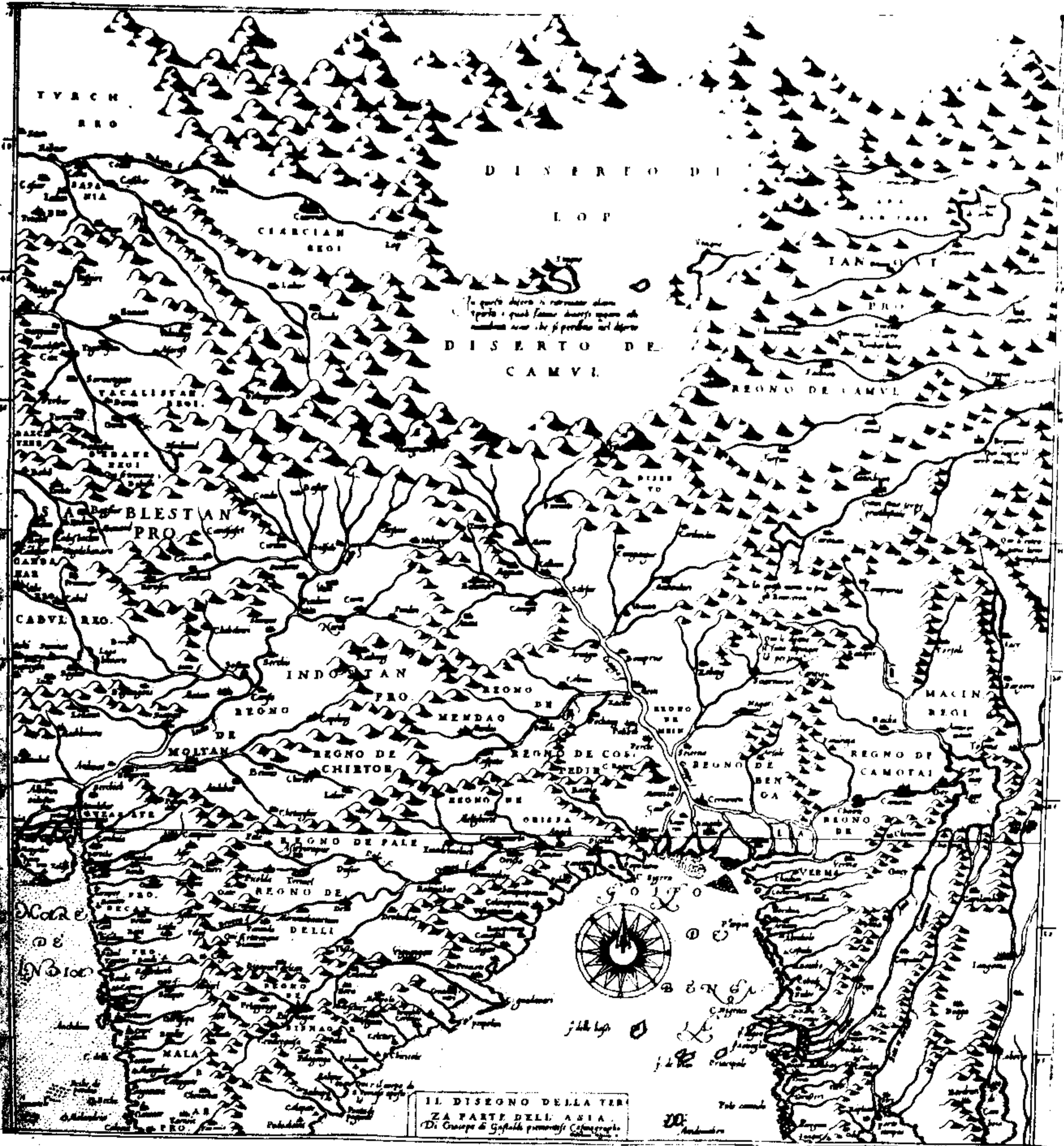
long line of travel books reproducing travellers' tales from most parts of the world. Though other countries of Europe were not sufficiently advanced in the art of ship-building to despatch fleets around the world, there was a growing interest in strange lands and peoples, and the developments of printing had encouraged the spread of literacy. Books were no longer the prerogative of kings and monks, and next to religious themes, the tales of distant travellers were most popular. Ramusio gathered as many as he could find, translated those in foreign languages into Italian, and reproduced them in three volumes. In the preface he stated that he had asked Gastaldi to reduce three maps from his large world map published in 1548. Later, in 1561, Gastaldi drew a very fine three part map of Asia. Yet the shape of India is very different in the one contained in Ramusio's book. South is at the top of the page instead of north which had already become the conventional direction, and the peninsula is in the form of a stubby triangle, not the long pointed shape of his world map. There was a fire in the printing press in 1557, and the wooden block of this map was probably destroyed, as later editions, though almost identical in geographical information, were more decorative, with two extra fish near the top margin.

From Gastaldi's map of Asia, the portion showing India was issued as a separate sheet. Most of the information for the northern part was taken from Marco Polo's account, which Ramusio had published in Italian, but it was supplemented with recent information. Thus he included the 'Indostan pro.', using the Persian name for India for the first time. Babar had marched south to establish the Moghul rule in 1526. Juan de Barros writing about the exploits of the Portuguese in India had described a large river called the Ganga or Guenga formed by two rivers, the Crusuar and the Benhar, which rose behind the western ghats, united near Andanagar, and after passing through Romana, the capital of Orixia, hastened to join the Ganges with which they entered the sea. This Guenga was absent in Gastaldi's first map, but it appeared in nearly all maps until in the middle of the eighteenth century its existence began to be doubted.

48 Along with the interest in travel books and maps to illustrate them there was a demand for views of the towns now being mentioned so frequently. In Cologne in Germany six large volumes appeared, published by Georg Braun in 1572, purporting to show all the cities of the world. Four of the views were of India, Calechut, Cananor, Diu and Goa, the towns captured by the Portuguese, as if no other towns in India existed. Braun acknowledged a Hansa merchant for supplying him with the sketches, with descriptions of the towns written by hand. It is unfortunate that he could obtain no sketches of other places, such as Vijayanagar, which far surpassed many European towns in the splendour of its buildings.

By 1580 Portugal had exhausted its resources, both of men to send to the new colonies, and of money to equip fleets. When the king died that year, the Portuguese resigned themselves to being ruled by Philip II of Spain. In the meantime the Dutch, who had been under Spanish rule for some decades,

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Part of Gastaldi's map of Asia, 1561, re-engraved as a separate sheet map. Delli is shown on the mythical river Ganga, the capital of the kingdom of Delli. Further north is the province of Indostan. *By permission of the British Library.*

India within the Ganges

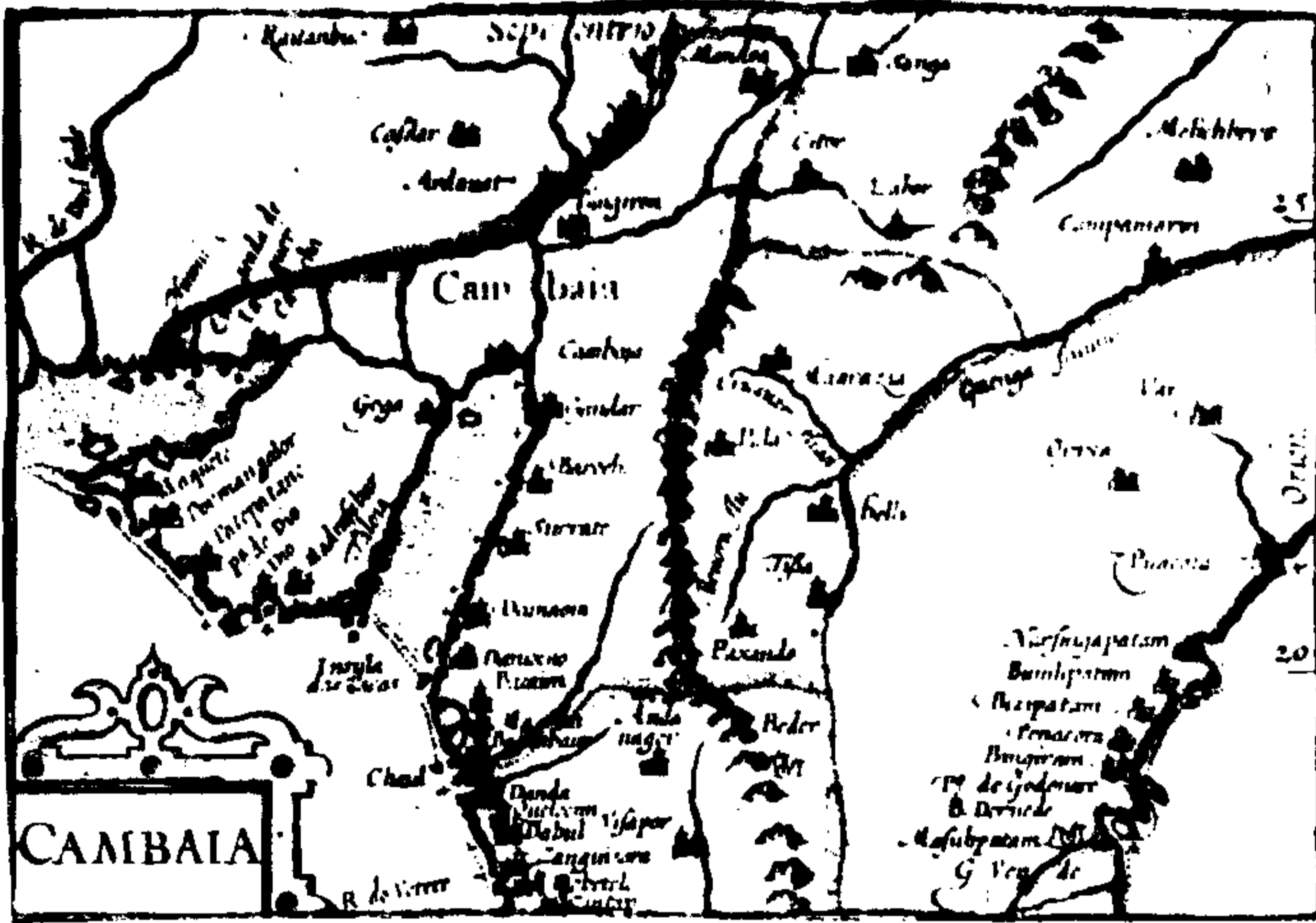
were gaining experience aboard Portuguese and Spanish ships, as mariners and as cartographers. Though there was no map trade in Spain and Portugal, and maps were not printed, the best charts were still those of the Portuguese sailors. Their skill was gradually acquired by a few men in the Low Countries, and the printers there were unrivalled in their skill at reproduction. The charts of famous Portuguese mapmakers, like the Homems, Luiz Teixeira and Fernao Vaz Dourado, were engraved in the Netherlands during the late 16th and early 17th centuries.

An enterprising Dutchman Jan Huyghen van Linschoten, wishing to see something of the world, joined his two brothers who were merchants in Spain. From there he went as assistant to the archbishop of Goa and stayed in India for seven years, collecting charts and information about the trade carried on by the Portuguese. On his return to Holland he published his book *Itinerario, Voyage ofte Schipvaert*, in which he showed that the mighty Portuguese empire was already decayed and rotten within, and that it was in no position to withstand challenge from other nations. The maps for Linschoten's book were probably drawn by Peter Plancius who later became an official cartographer for the Dutch East India Company. They were re-engraved by Robert Becket for the English edition published in London in 1598 and that of the coast of Africa to the Bay of Bengal was probably the first map of India published in English. Though very elegantly drawn the map showed little more detail of India than Gastaldi's had.

Linschoten's book was very popular and many editions were printed. It also contained a very fine engraving of Goa, where Linschoten lived for so long. This was far more detailed than the one published by Braun and marked all the main buildings and the streets between them. In the river were Portuguese ships and even a small local skiff which had capsized and two men are shown floundering in the water. Soon after Linschoten's book appeared his maps were copied for a small geography book by Pieter van den Keere. The *Caert Thresoor*, published first in Middelburg in 1598, had a brief text by an anonymous author. Two years later it was re-issued from Amsterdam and La Haye with a new text by Petrus Bertius and the same maps copied from Linschoten. These were very small maps, each one showing only a portion of the country, and with text and map facing each other on every page. Five of the maps were of India, Bengal, Malabar, Narsinga and Ceylon, Cambay, and the Maldive Islands. The maps of Malabar and Narsinga were sometimes confused and in some editions that of Narsinga was used instead of Malabar. It was a very popular pocket-sized book and was re-issued up to 1650, though by 1616 the plates must have got worn out, as the maps were redrawn by van den Keere's brother-in-law, Jodocus Hondius.

Though Portugal had lost its domination in the east to Dutch, maps were still being drawn. When Barros' fourth volume on the Portuguese conquests was published posthumously in Madrid in 1615 it included two new maps of part of India. These were the kingdoms of Gujarat and Bengal, and they showed more detail than any earlier maps. Both had east at the top

P. BERTII V. 1109



Two versions of Cambaia from the *Caart Thresoor*, the upper one from a German edition of 1612, with the map probably by Pieter van den Keere, and the lower one from a French edition of 1616, with the new map by Jodocus Hondius.



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Map of Gujarat from Barros' *Quarta Decada da Asia*, edited by Lavanha in 1615. By permission of the British Library.

of the page and they were carefully drawn on a large scale of six and fifteen leagues to an inch, compared with Linschoten's fifty-two. Different types of trees are indicated and the towns are drawn with sufficient detail to mark their relative size. They appear to be the earliest examples of surveyed maps made in India.

The India of the sixteenth century that the Portuguese had discovered was politically divided into three large areas. In the north, Babur had marched in from Kabul and established his capital at Agra in 1526. The power of the Delhi Sultanate had collapsed before him, putting up only token resistance at Panipat. The two leading Rajput rulers were those of Mewar and Marwar. Rana Sanga of Mewar had hoped to use Babur to rid India of the Sultanate, but he was himself defeated at Kanwaha and Chanderi. The rich kingdom of Gujarat fell in 1566, giving the Moghuls control of the trade to the west. In the east Sher Khan Sur had declared himself ruler of Bengal, and on Babur's death he had forced Humayun to retreat to the hills of Central Asia. Humayun was able to fight his way back to Agra and left the empire intact for his more famous son, Akbar, in 1556. The forty-five years of Akbar's rule saw the consolidation of the Moghul empire. This was the cultural peak of Muslim India, and the splendour and learning of the Moghul court amazed all the visitors from Europe.

In the peninsula the Bahmani kingdom had split up into five smaller kingdoms, Ahmednagar, Bijapur, Golconda, Bidar and Berar. The kingdom of Narsinga, mentioned by all travellers of the time and shown in their maps, was that of Vijayanagar. At one time this empire stretched from the coast of Orissa to Goa, and if it could have maintained its power, the Europeans would have faced as united an empire in south India as they found in the north.

Further south were many small states, those on the west coast owing allegiance to the Zamorin of Calicut, and the eastern part of the peninsula divided between the Cholas and the Pandyas. The name of the east coast, Choromandel, which inspired so many English cabin-boys and story-tellers, was derived from *cholamandalam*, meaning the place of the Cholas. The Cholas had been ruling since the third century B.C., but their empire was at its height between the tenth and the thirteenth centuries A.D.

European travellers found great difficulty in reproducing the names of places they visited. None of the European languages were suitable for transcribing Indian sounds, and those who tried hardest to copy a place name in their own tongue often made it more difficult for translators into other European languages. Thus Vijayanagar, once it had been given its correct name and was no longer called Narsinga, appeared variously in later maps as Bisnagar, Bisnaga, Beejanugger, Bidjanagar, Bichenegher, Bijanagher, and was also confused with the neighbouring town of Bijapur. As Thomas Jefferys was to write at a later date: 'We must not omit this Occasion to take notice of the Confusion produced in History by such inaccurate Accounts, as well as by the Corruption of the Names of Places, in which the several European Nations seem to strive, who shall disfigure them most. A barbarous

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Contention this! and in which the French had so effectually succeeded, that one of the Missioners in the year 1724 wrote word to Europe, "that scarce any of the Names of People or Places found in Mr. Will. del Isle's Map of Ceylon (properly Selan) were found in the Indies" .⁴

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4

Finding the Way

During most of the sixteenth century, the Portuguese were the only European nation with established stations in the east. However their strength was rapidly being sapped by rich living and the drain of young men to distant parts of the world. In 1580 Portugal was usurped by Philip II of Spain. At that time the Netherlands was also a province of Spain, and many Dutch sailors went as crew in Portuguese ships. With their monopoly of the sea routes, the Portuguese brought merchandise to Lisbon, and the Dutch then distributed it throughout western Europe. As Portugal weakened, her place in the east Indies was taken by the Dutch who finally broke away from the yoke of Spain. English traders, seeing the profits made by the Portuguese and the Dutch, attempted to grasp a share of the booty.

Popular demand was also growing among the citizens of England for the rich products of India. Two ships of the Portuguese East Indian fleet were captured and one was towed into Dartmouth harbour. For the first time the people of England saw for themselves the rich plunder of spices and silks, carpets and calicoes, jewels and drugs, hides and ivory. When, in addition, at the turn of the century the Dutch raised the price of pepper from three shillings to six shillings a pound there was a general feeling that the English should enter the trade for themselves. A group of merchants approached Queen Elizabeth for a charter to form a company and the East India Company was formed on 31 December 1600.

The Portuguese and the Dutch had gone east for two purposes only, trading and the spread of Christianity. They made little attempt to learn the manners and customs of the countries they settled in—they were only interested in profits. It was left to the English, who also started out as traders, to gain some understanding of the eastern way of life.

As the European view of the world expanded, more and more people became interested in learning about the new and strange lands that were being discovered. To feed this interest, travel books were published, many times reprinted and translated into other European languages. The earliest

collection of travel reports in England was by Richard Hakluyt. Born in 1553 Hakluyt's love of geography and discovery led him to collect and publish all the material he could find. Thus he brought out an English translation of Cesar Fredericke, a merchant from Venice who visited India in 1567, and a letter from Thomas Stevens to his father dated 1579. Stevens, a Catholic, had joined the Jesuits in Rome and requested to be sent on missionary work in India. He was to be of great help to four Englishmen taken to Goa as prisoners in 1583. Only one of the four, Ralph Fitch, finally returned to England and the account of his travels was published by Samuel Purchas, the successor to Richard Hakluyt. A letter to Hakluyt from John Newberry, one of Fitch's companions, dated 1583 from Aleppo, shows the interest and pains that were taken to make these accounts as complete as possible. 'Since my coming to Tripoli, I have made very earnest inquiry both here and there, for the book of Cosmography of Abulfeda Ismail, but by no means can hear of it. Some say that possibly it may be had in Persia, but notwithstanding I will not fail to make enquiry for it, both in Babylon and Balsara, and if I can find it in any of these places, I will send it to you from thence.'

Fitch and Newberry escaped from Goa, and decided to travel to the court of the Great Moghul to request his assistance in reaching home. They travelled through Belgaum and Bijapur to Golconda, where they were very interested to see the diamonds that were mined there. Then, passing through Bidar, Mandu and Ujjain, they reached Agra and learnt that the Emperor was at Fatehpur Sikri. They had an audience with him there and then separated, Newberry planning to return to England overland and promising to meet Fitch in two years' time in Bengal with an English ship. Unfortunately no more is heard of him, so it is likely that he died on the journey. Fitch travelled down the Jumna by boat, recording the places he passed, Prayag, Bannaras, Patenaw and Tanda. Then he left the Ganges for a short visit to Couch Behar and mentioned the trade caravans he saw there from Tibet and Bhutan. He stayed for some time at the Portuguese settlement of Hugeli and recorded that it was at twenty-three degrees in the northerly latitude, which is almost correct. From there he visited Pegu (Burma) and finally returned to England, after being away for eight years. In the meantime he had been presumed dead, and there is a record that his will, made in 1582 before he set out, was proved and his property divided among his heirs.

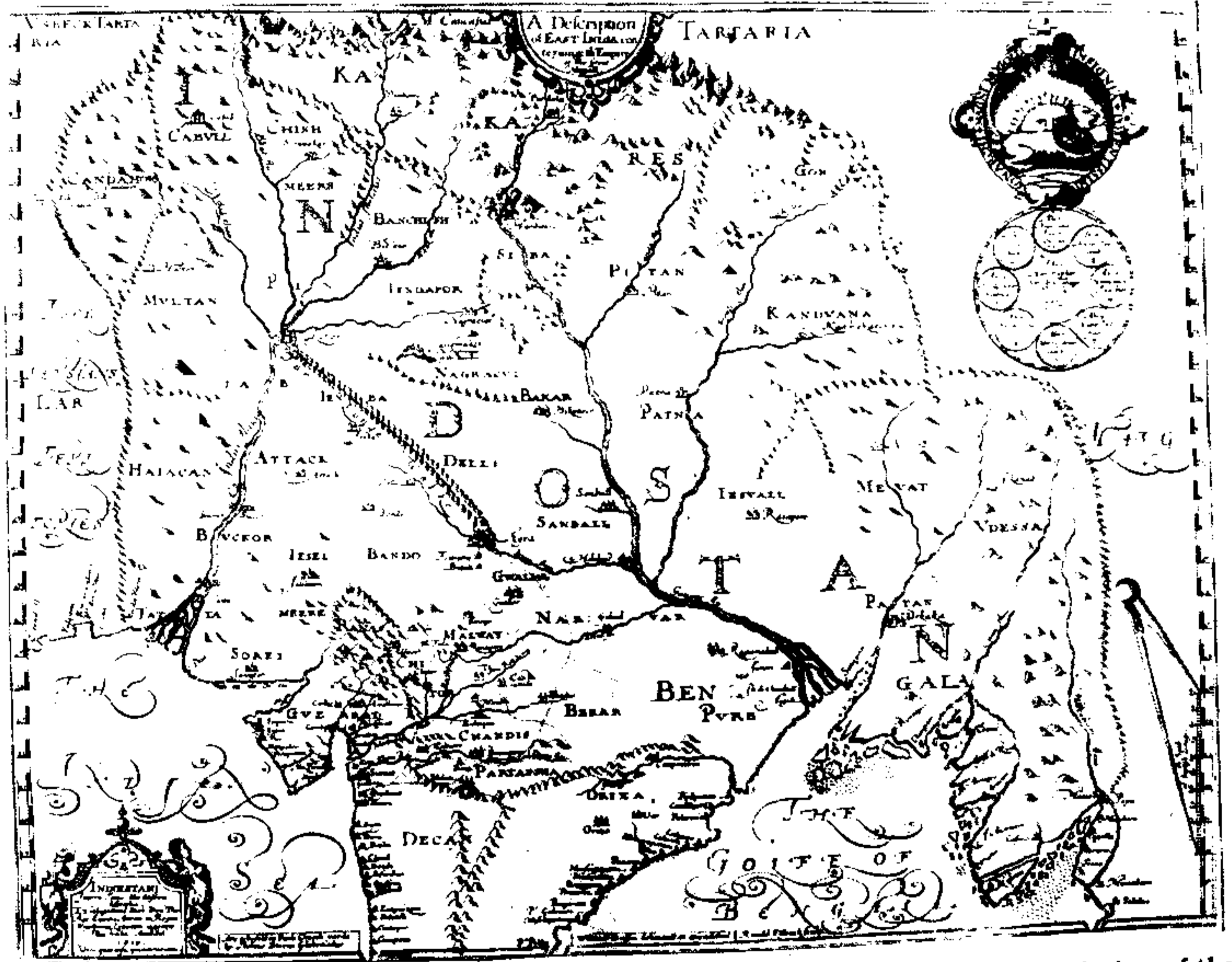
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The first official expedition of the East India Company to reach India arrived at Surat in 1608, led by William Hawkins. They met with great opposition from the Portuguese and the Dutch who were by then well known to the Moghuls and who feared competition from a third European nation. So, in 1615, the Company decided to ask king James I to send an ambassador to the Emperor Jehangir, with the intention of gaining firm decrees allowing the English to set up factories, as the trading stations were called, in India. Sir Thomas Roe was chosen, and he spent four years at the court. Roe saw himself only the land between Surat, where he landed, and Agra and Ajmer, where Jehangir had his court, and some of the country further south when he

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accompanied the Emperor on one of his war marches. However the map issued under his name was the standard map of north India for nearly a hundred years. It was drawn by William Baffin, the first mate on the ship *Anne* by which Roe returned to England. Baffin had earlier become famous for his surveys of the Canadian coast, and the fact that he was the first modern English cartographer of India is less well known.

This map shows evidence of combining all the travellers' tales that had so far been published or gained by hearsay. In 1612 Robert Coverte published his *Voyages and Travels, a True and Almost Incredible Journey*. He had been taken to Surat as a castaway, met William Hawkins in Agra, and then travelled by the southern route to Ormuz to take ship back to England. He had avoided the northern route through Lahore as John Mildenhall in 1605 had reported that it was very dangerous. Another solitary traveller was Thomas Coryat, who went on foot all over Europe and, via Jerusalem, found his way to the court of the Great Moghul. There he met Roe, and must have given him an account of the places further north that he had passed through. His book, *Coryat's Crudities* published in 1616, did not include a description of India, but he wrote many letters to England describing the marvels he had



William Baffin's map of the Moghul empire, printed in London in 1619. By permission of the British Library.

Finding the Way

seen and the places he had visited. So, in drawing his map, Baffin did not rely solely on what Roe had to tell him, or what could be gathered from the geographical description published along with Roe's journal by Samuel Purchas six years later. In France too, Jean Mocquet had published an account of his visit to Goa as apothecary to the Conde de Feira in 1617, and an English translation of the Comte de Montfart's travels overland to Goa was published in London in 1615. Francois Peyrard also published a lively account of his imprisonment by the Portuguese in Goa. He had been shipwrecked while on a voyage to the East Indies, and had been taken first to the Maldives where he stayed for seven years.

In his geographical description Roe named each province of the Moghul's empire and its chief town, starting, as he says, at the north-west. This led to considerable confusion in their placing on a map. Also, although he claimed that he had obtained the list from the royal records, he was not able to distinguish between the important and the small provinces. It is more likely that he copied a chronicle of the Moghul conquests. He was able, however, to place the mouth of the Indus in the correct position, and point out that it was incorrectly shown in Mercator's atlas. Roe had presented a copy of this atlas to Jehangir, but it was returned after four days as no one in the Moghul court could make any sense of it, thereby implying that they were not in the habit of seeing their land in a pictorial representation. It must also have been a surprise to find that their magnificent empire occupied so little space in the world known to the Europeans.

The kingdom of Orissa appears twice in Baffin's map. It was already known correctly from Portuguese reports, but Roe had stated that the province of Odessa with its principal town of Jagernat lay at the utmost east of the Moghul's territories, beyond the Bay of Bengal. So Baffin placed it between Bengal and Burma, keeping also the province of Orixia, obviously not recognizing them to be the same place. Patna is also incorrectly placed on a tributary of the Ganges, although Fitch had stated that he had passed through it while sailing down the Ganges, and it had been correctly located as early as Ptolemy. The large lake between India and China which had been reported by Marco Polo and Mendes Pinto is absent although it was present in most European maps published soon after, which were directly copied from Baffin's map. Mendes Pinto was a Portuguese sailor who had been

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Detail from Baffin's map to show the cow's head at Hardwar.



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shipwrecked off the coast of China in 1537. He and the only other survivor wandered around in China for twenty years, begging for food and frequently jailed for vagrancy. They were allowed to appeal in Peking against the sentence that their fingers should be cut off, and while there were rescued by a marauding band of Tartars. With their intimate, inside knowledge of Chinese fortresses they were able to assist their new friends in storming several citadels and were rewarded by being escorted to Indo-China where they found a boat to take them back to Goa.

Mendes Pinto's description of his adventures was published in 1614, with a Spanish translation appearing in 1620 and a shortened version by Purchas in 1625. The full English version appeared in 1653. In his book he described Lake Singapamor from which four rivers flowed, one running east, a second south-east, the third south, and the fourth he thought was possibly the Ganges, flowing to the sea through Bengala. Ortelius had shown this lake on his map of Asia in 1580, calling it Chyamai, but Roe obviously did not hear of it while he was at the Moghul court, and so Baffin did not include it in the map he drew on Roe's instructions. Yet within ten years this lake was again on all the maps appearing in Europe.

Roe had little knowledge of the Himalayas although he shows the Ganges issuing forth at Hardwar through the mouth of a cow. This cow's head was disbelieved by later copyists and changed to a small lake. The Ptolemy map had clearly shown the Himalayas as the northern boundary of India. It had been drawn when the holy mountains were held in high esteem by the people of India, and regular pilgrimages were made to holy places. When Roe went to India he met the Muslim hierarchy who were keen to emphasize their links with Persia and Afghanistan, and had no religious feelings about the mountains to the north. Hence they were given scant importance in Baffin's map and pushed much too far to the north. Dutch maps had mostly omitted the Himalayas. Ortelius, Mercator, de Jode and Hondius had not shown them in their maps, though their later maps all included Mendes Pinto's lake in the east. Their Ganges had its source far north in central Asia, with no Himalayan mountains to impede its direct north-south course. In a map of Asia published in 1637 by Mercator's son Rumold the Ganges is shown flowing due east to the China sea. Palimboira is on this Ganges, while Delli is on the Guenga in the peninsula. The Vindius mountains are much further north than Bengal, and the lettering of 'Indostan als India intra Gangem' starts above the bay of Bengal and extends across China to the ocean in the east. After Roe's map Henricum Hondius shortened his course of the Ganges, and followed Roe in placing Patna on a tributary, but on the whole in his map he preferred to follow the Dutch cartographers. Sanson in France followed Hondius.

Cartography as a pictorial decorative art was at its peak in Holland in the late sixteenth and early seventeenth centuries. Many of the maps appearing either as separate sheets or bound up as atlases were beautifully designed and engraved, and provided much topical information of styles of dress, strange

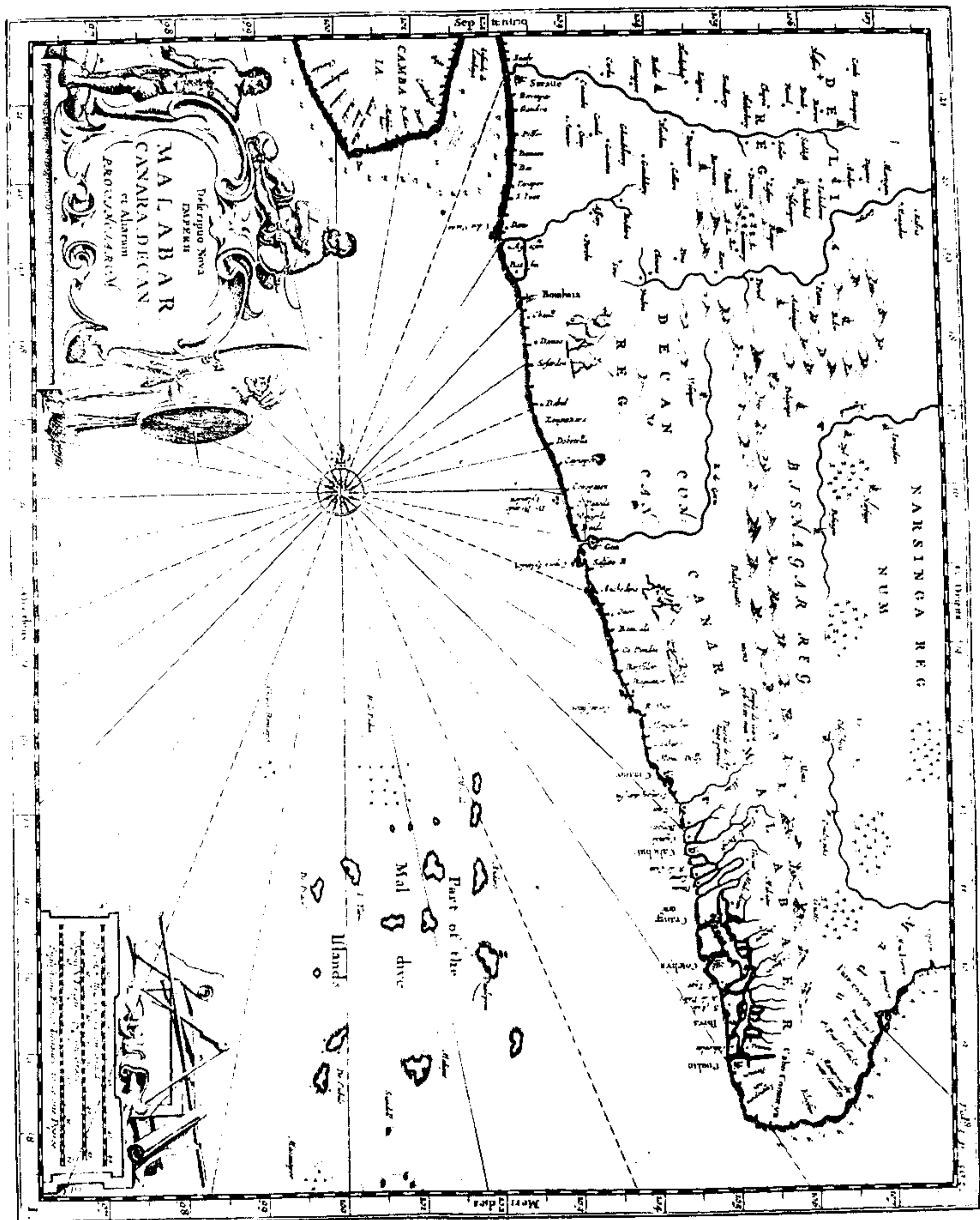
customs of the inhabitants, or the new types of animals and trees to be seen. Thus Blaeu's map of Africa has vignettes of the principal towns across the top and on either side are small pictures of native people in pairs. The sea is dotted with ships and various animals fill in the blank parts of the map where geographical knowledge was lacking. Many African maps of the period were similarly decorated. Yet Blaeu and Hondius engraved for their atlases only one map of India, that of the Moghul empire similar to Baffin's, with decoration limited to a cartouche and a few small animals. India apparently did not arouse the imagination of the cartographers, or possibly they hesitated to populate their maps with strange figures when travellers were reporting a civilization as rich or richer than any in Europe.

From the time of Baffin's map most maps of India were drawn in two parts, the northern one of the Moghul empire, and the southern of the peninsula, or India within the Ganges as it was called, as though the northern part were not also west of the Ganges. This was to distinguish it from India beyond the Ganges, or Malaya. In Blome's translation of Sanson's map in 1670 the words 'within' and 'without' were interchanged in the title. Possibly a misprint, but it was copied by John Seller nine years later, and meant perhaps the part of India south of the mythical Guenga, or Ganges, still on all the maps. There was no one kingdom in the south which could give its name to the whole area and thus make it easier to place in the atlas.

Despite the growing number of travel books, there were few new maps of India apart from Baffin's throughout the seventeenth century. Several small travel books, by Du Val and Mallet in France and Seller and Morden in England, provided reduced copies of the Dutch maps for the northern part and copied Sanson for the peninsula. Many Europeans were now returning from India and publishing books about what they had seen there and the places they had travelled to. William Methold visited the diamond mines of Golconda, Edward Terry who had accompanied Roe as his priest published his account, as did Mandeslo in 1644. Tavernier spent many years there and helped in the manufacture of the peacock throne for Aurengzeb, but his book was published without a single map. When Bernier returned to France he copied Sanson's map of north India in his first edition, but was later able to draw a good map of Kashmir. Towards the end of the century, however, new maps began to appear.

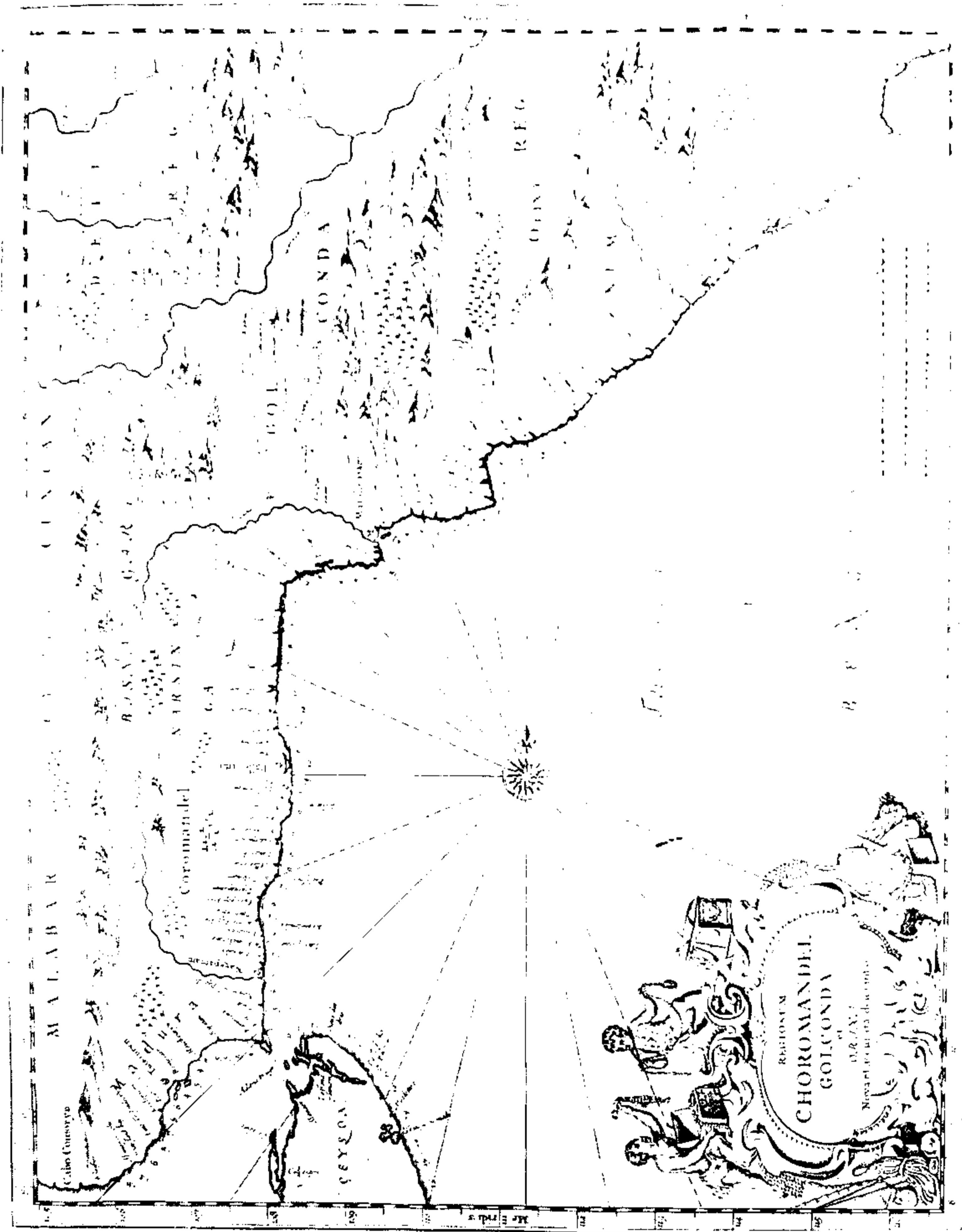
Phillipus Baldaeus of Holland published in 1672 a large book dealing exclusively with south India. He had lived for many years at Goa as a missionary, and travelled extensively. Apart from two maps of the peninsula, rather strangely split vertically so that one has east at the top of the page and the other west, he also included views of six Portuguese towns. On the eastern coast of India he marked the draughts all along the coasts. Vincenzo Coronelli also published a large map of south India, to accompany his version of the Moghul empire. Though the importance of Venice as a trading centre had long since declined, and with it the excellence in mapmaking, it is to this Venetian that credit must be given for forming the world's first

India within the Ganges



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Two maps of south India from Baldaeus' *Naauwkeurige Beschryving van Malabar en Choromandel*, as reproduced by A. and J. Churchill for the English editions of 1704-1732.



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geographical society. His maps were elegantly drawn with many flourishes, and show that he had studied many travellers' reports. He gave alternative spellings and names to many of the places to make his maps more comprehensible.

On the whole, however, publishers were content to reprint or copy older maps as long as their public was satisfied. This was cheaper than designing a new map, but resulted in the same mistakes being repeated again and again unless there was very definite evidence that the maps were inaccurate. It was also difficult for the cartographers in Europe to amend their maps, when so few travellers were able to give exact and correct locations of the places they passed through. In addition there was no standard length of measurement for the journeys. In India the measure used for distance was the *cos*, but the *cos* varied in different parts of the country. Alternatively they reported 'so many days journey', which hardly gave an exact measurement or direction for a map of any scientific value. Even in Europe there was no standard length of measurement and cartographers often marked the scale according to the miles of different countries.

In 1710 Herman Moll in London drew a small map which showed the whole of India on one page, the first important one to give prominence to the subcontinent as a separate entity. He had first drawn, in 1701, 'India or the Mogul's Empire' which was extended eastwards to include Cambodia and Cochin-China. His second map he called 'The West Part of India, or the Mogul's Empire' and included only the subcontinent, though the name was still incorrect, since the southern part of India was never part of the Moghul empire. He redrew the map in 1726 and now called it 'India Proper, or the Empire of the Great Mogul', which shows the growing awareness in England of the identity of India, and the confusion caused earlier by the use of the name India for the whole of Asia.

64 During this period, however, progress was being made in one field of cartography. As the frequency of voyages into and across the Indian Ocean increased, a better knowledge of the coasts was required by the ships' captains. In the 1703 edition of *The English Pilot* John Thornton included nine charts of the Indian coasts. They were bound in Book III called Oriental Navigation. Later editions were continually augmented by further charts as they were drawn or obtained by the hydrographers.

It was a perilous journey, fraught with dangers both from natural hazards and from fear of pirates. The science of navigation was still not well developed and captains had to rely more on sailors' tales than correct manuals or charts. As early as 1625 Purchas had published the detailed notes of John Davis of Limehouse, made during his fifth voyage to the Indies. But few sailors were also writers and literary men did not have the scientific and technical knowledge to comprehend the directions of seamen.

Most sea charts of the time were made by Dutch surveyors, though few Dutch charts were published before the middle of the eighteenth century. Many ocean going ships carried Dutch pilots, who took with them copies of

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manuscript charts. At all big harbours there were shops selling manuscript charts, and the more competent of the merchants made sure that their charts were updated with the latest information available. For this reason manuscript charts were preferred long after printed ones became available, since the latter retained incorrect information for a longer period.

Around the Indian coasts it was soon the English who were the strongest sea power, since the Dutch were more interested in their possessions further east. Bombay had been transferred to the English with the dowry of Catherine of Braganza on her marriage to Charles II in 1661, and it soon replaced Surat as the main harbour in western India. The East India Company acquired it in 1668 for an annual payment to the Crown of £10. In 1685 Thornton drew a large map of Bombay and Salsett, the first to show any detail of the harbour, and it was copied by publishers on the continent. Along the Thames there were many skilled hydrographers and their manuscript charts were much in demand. Some coastal charts gave small inset views of the land, as seen from the sea, making it easier for sailors to recognize where



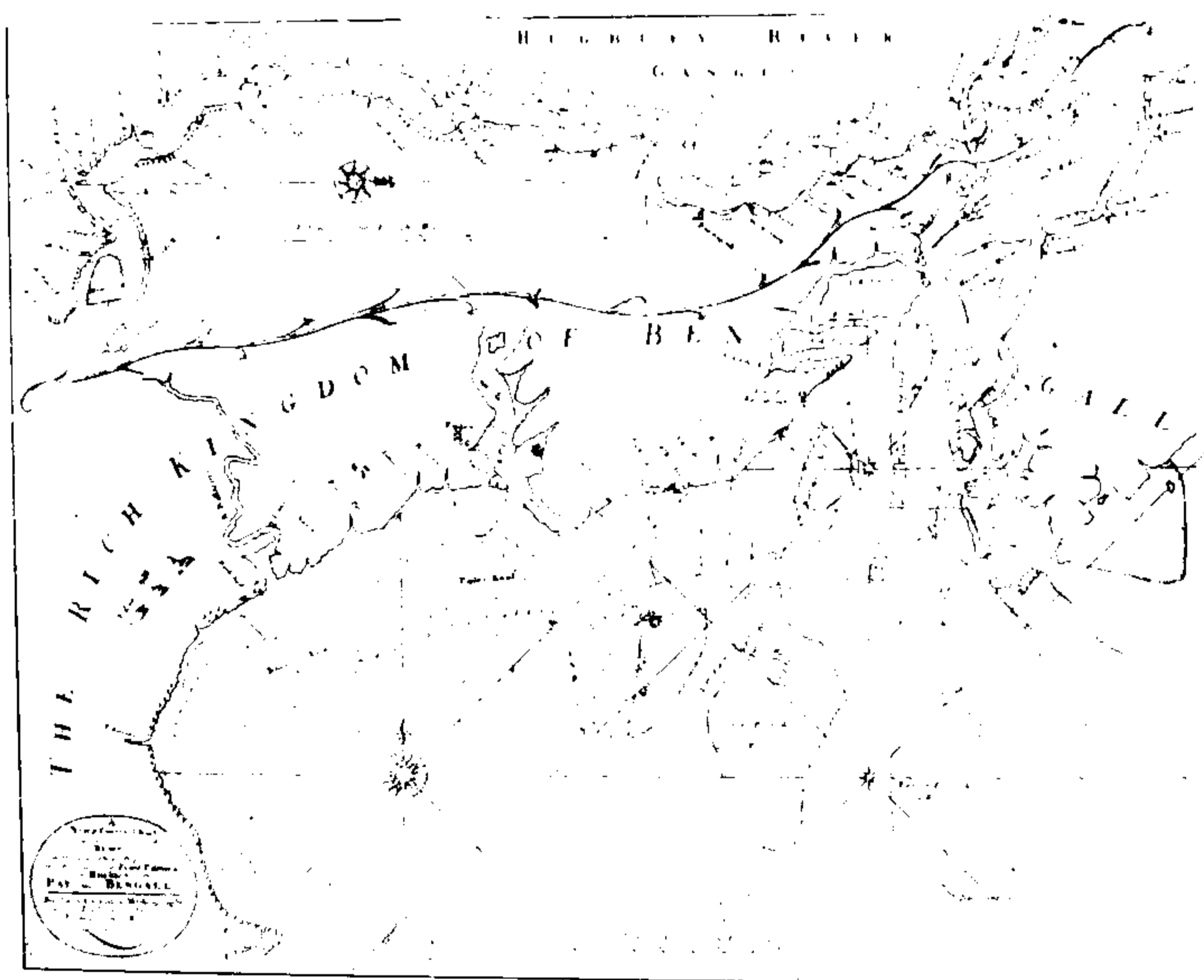
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Moll's map of 1701, granting the Mogul excess of territory.

Finding the Way

they were. They also showed the directions of the trade winds at different seasons of the year. Before the age of steam engines the winds were of primary importance in navigation, as the Egyptians had discovered. This was particularly so in the Indian Ocean with its strong monsoon currents.

The land maps of India were not so easy to update. The different kingdoms, particularly in the south, were in a constant state of change, but this was rarely reflected in the maps drawn from the stories of European travellers. Once a name and a rough location had been established, it was repeated long after the kingdom had disappeared. Thus the kingdom of Narsinga had been reported by the Portuguese in the sixteenth century, when the kings of Vijayanagar were powerful throughout south India. The town was sacked in 1565, yet Narsinga appears in maps, mendaciously called 'new maps', as late as 1720. Similarly, the town of Golconda, founded in 1518, was abandoned in 1589 as it was considered unhealthy. A new capital was built at Bhagnagar and the province was annexed by Aurengzeb in 1687. It formed the centre of the Moghul province of the Deccan until Asaf Jah broke away in 1722 and built his own capital at Hyderabad. The kingdom and town of Golconda were still appearing in maps of India as late as 1780, although the name Bhagnagar was in Catrou's map of 1709.



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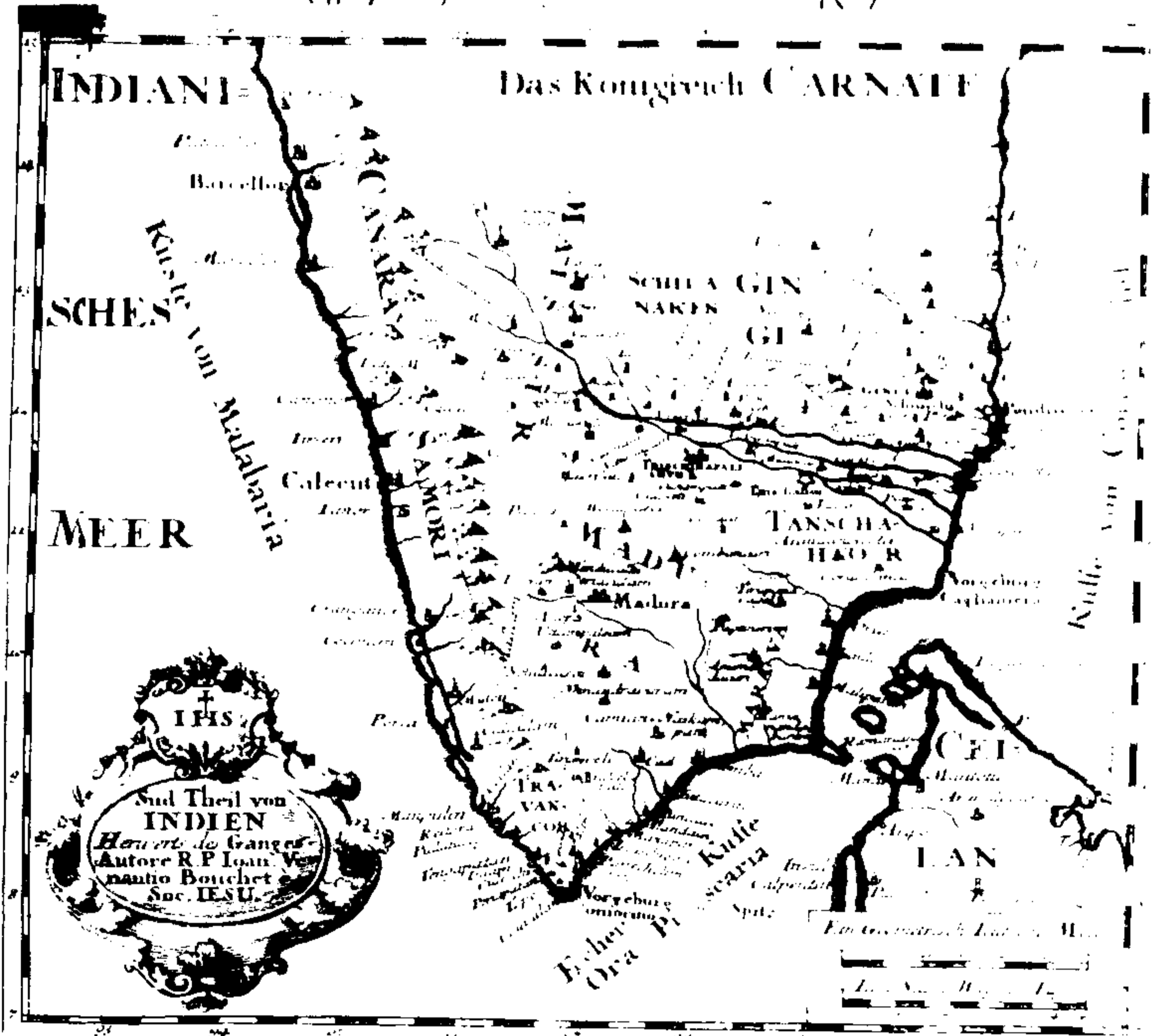
A navigation chart by Samuel Thornton.

European Rivalry

The people in the best position to record the geography of India were the missionaries. They were often resident in India for many years, and some of them acquired the skill necessary for taking accurate astronomical and land measurements. The Jesuits had established their first mission in 1542 and they were soon settled in many parts of the country. Father Monserrat had travelled to the court of Akbar in 1579, and then to Kabul, recording his journey in letters, and a small map, which was unfortunately not made public. As Thomas Jefferys observed, the only people who were in a position to record the geography correctly were the missionaries, and they were inclined to keep their knowledge to themselves. From 1702, however, the Society in Paris arranged the publication of letters from the missions and a few maps drawn by their servants. Two of India were published in 1722, one a very sketchy outline of a route inland, and the other a more comprehensive map of the peninsula. This had been sent home by Father Bouchet in 1719, and was used by de l'Isle in his map of south India. Later, in 1734, Father Boudier was invited to Jaipur by Raja Jai Singh to study the astronomical laboratory he had built there. On his way Boudier took many measurements, which were of value to d'Anville for his large map of India in 1752.

68 The Danes also had missions in India, in the south at Tranquebar and in Bengal at Serampore. Their letters were published from 1718 onwards, and included a map of the area around Tranquebar, and plans of their mission house and school.

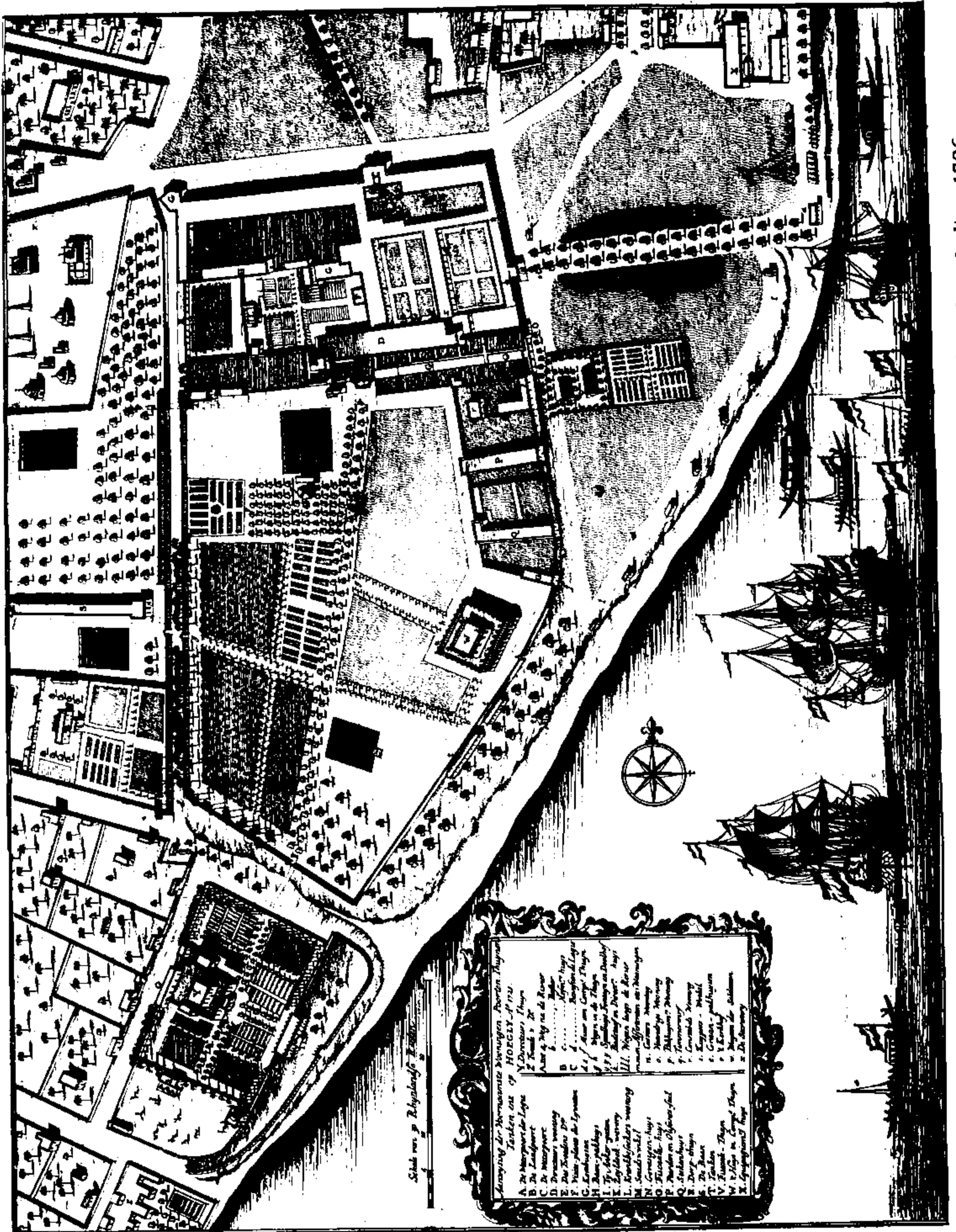
Publishers in Europe were continuing to turn out maps of India which were long out of date. In Leiden van der Aa published maps to show every traveller's route, though the maps hardly differed one from the other. He also re-engraved Baffin's map of the Moghul empire and Linschoten's plan of Goa. Many of his maps were in decorative borders, and his engravings of strange customs in distant lands were very popular. An elaborate map of the Moghul empire was engraved for Matthew Seutter in Germany in 1745, but the geographical detail was that of the early Dutch cartographers, and



The German version of Bouchet's map, 1728, first published by the Jesuits in Paris in 1722.



Detail from de l'Isle's map of south India, 1722.



Valentyn's plan of the Dutch settlement at Hoogly, from *Qoud-en Nieuw Oost-Indien*, 1726.

showed little of the new knowledge that was gradually filtering back.

One traveller who did draw careful maps while he was visiting India was Francois Valentyn. He published five volumes describing his journeys in the old and new East Indies, as he called them, in 1726, and apart from general maps he provided plans of towns which had not before been published. These included Wingurla, St Thomas, Hughly and Barsalore. Some were later copied for the edition of Prevost's travels published in La Haye in 1755 and 1756. By this time several books were appearing which gave a more detailed study of aspects of Indian life and history than had been possible before. The authors required general maps of India, usually as frontispieces, into which their particular field of study could be fitted. They were not skilled enough themselves to draw such maps, but with their personal knowledge gained by some years in the country, they knew the existing maps were often not correct. James Fraser published his history of Nadir Shah in 1742 and used a map based on one of Moll's, adding below the title: 'This map has been copied from one of the most correct of this kind extant, and is pretty exact, excepting a few of the distances. The names of several places, which hitherto were much corrupted, are here properly expressed.' Fraser had lived for ten years in India, and was thus one of the few Europeans to give a recent account of events there. He also made a large collection of Persian and Sanskrit manuscripts, which he listed in the back of his history. Yet his map still shows Udesse (Orissa) east of the Ganges.

During the first half of the eighteenth century excellence in map production had passed from Holland to France. The Sanson family in the previous century had laid the foundations, though their maps of India had not been particularly innovative. In part the new scientific approach to mapmaking was due to the amount of geographical material that was being sent home by the Jesuit missionaries. De l'Isle had used some of this material, and his map of the peninsula was very popular, being reprinted many times, and copied by other cartographers. But it was d'Anville's maps in the middle of the century which were to form the basis of the more accurate maps of the future.

D'Anville may be called the first scientific mapmaker. His maps look rather austere and bare after the decorative maps of the previous century, because he believed in geographical accuracy rather than eye-catching embellishment. For his large two sheet map of India published in 1752, he drew on all the source books he could obtain. He used Ptolemy's lists, a Turkish geography called Kiatib-shalebi, an Indian geography in Tamil he called Puwanasaccarum, as well as the books of later travellers. He was not a traveller himself, but from his Paris home he maintained a wide correspondence and received all new charts that were sent back to France. When he found Bouchet's map of the peninsula was on too small a scale, he requested the missionaries to send larger ones.

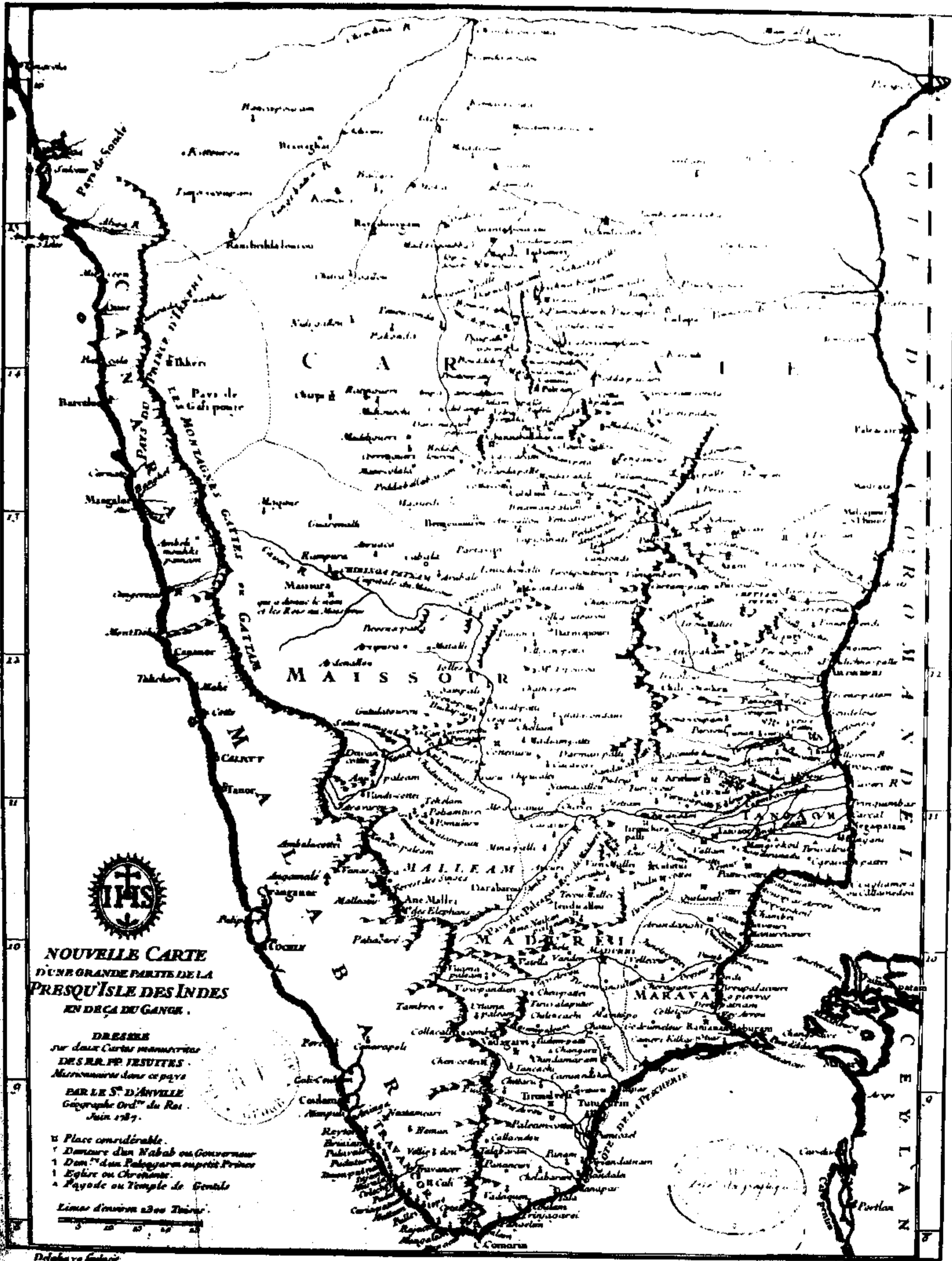
Although d'Anville perpetuated many of the mistakes of the earlier cartographers, he did attempt to verify all his material. Thus, he records, that

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Ms map of south India from d'Anville's collection of maps. Phot. Bibl. nat. Paris.

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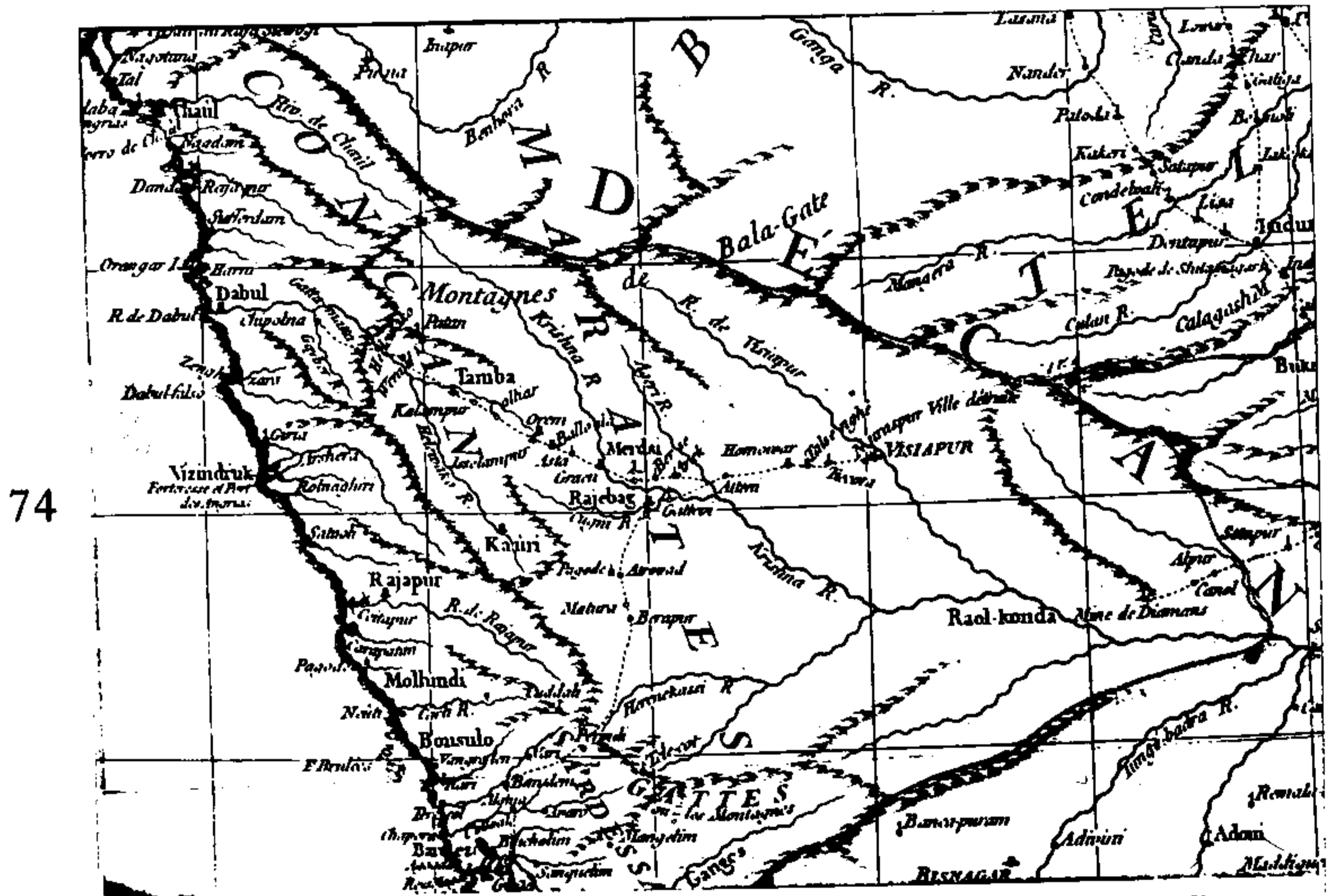


d'Anville's first map of south India, 1737. Phot. Bibl. nat. Paris.

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having heard of Satara, the Maratha capital, he wanted to locate it correctly on his map. At that time the Portuguese were fighting the Marathas so he asked M. le Cerda, ambassador from Portugal to the French court, for the exact location. Le Cerda told him that it was in the *ghats*, eight days journey from Goa and nearly the same from Bombay, at the apex of a triangle formed by these two lines and the coast. D'Anville, however, wrote in his *Eclairissemens*, 'This computation is not exact enough for me to insert Satara in the map.'

D'Anville was the first to publish all his sources for a new map of India. His *Eclairissemens* formed a basis for Rennell some thirty years later, since he could study the reasons for locating a particular place, and refute them if he had better information. The following year d'Anville published a two sheet map of the Carnatic on a larger scale than his map of India. As he wrote: 'This is the part of India, where the settlements that support the trade of the European nations are of the most importance... We might mention different parts of Europe, in which geography is less informed, than of many places in Coromandel.' This map was copied in English by Thomas Jefferys in 1754 with the title 'The Seat of War on the Coast of Choromandel'. In the memoir accompanying it Jefferys claims he had already begun such a map, when d'Anville's was sent to him, and he found it accurate on most points. There was a demand from the public in England to know more about the strange-sounding places in south India whence news of fierce battles was



Detail from d'Anville's Carte de l'Inde, 1752, showing part of western India.

regularly being received.

Until this time few traders had ventured inland. Their business was on the coast, purchasing merchandise brought to them there and despatching it in their own ships. Occasionally a trip would be made to the centre of the province for the granting of new trading rights, or the renewal of existing *firmans*. R.O. Cambridge makes this point in the Preface to his *Account of the War in India between the English and the French*: 'It is sufficient to say that the work before us is not a history of India, but of war on the coast, of war between two European nations, who have not, till very lately, had any connection with the governing people of the country. It has been entirely owing to the war, that any European has been allowed to have any kind of familiar commerce with them, or that the servants of the Company have been admitted to an acquaintance with their courts, the splendour of which has been greatly lessened by the war. The war alone has taught them the geography of the country a hundred miles around their settlements; and, within these few years, those who had been to Madura, which is about that distance, were as eagerly listened to when they returned to Madrass and their accounts were as new to all that heard them, as if they had come from Pekin.'

The foreign traders in India had not only been tolerated but welcomed by the ruling powers for the trade they brought and the customs dues they paid. They had required very small forces for their protection and most of the inhabitants of the foreign stations were businessmen or clerks. The sudden



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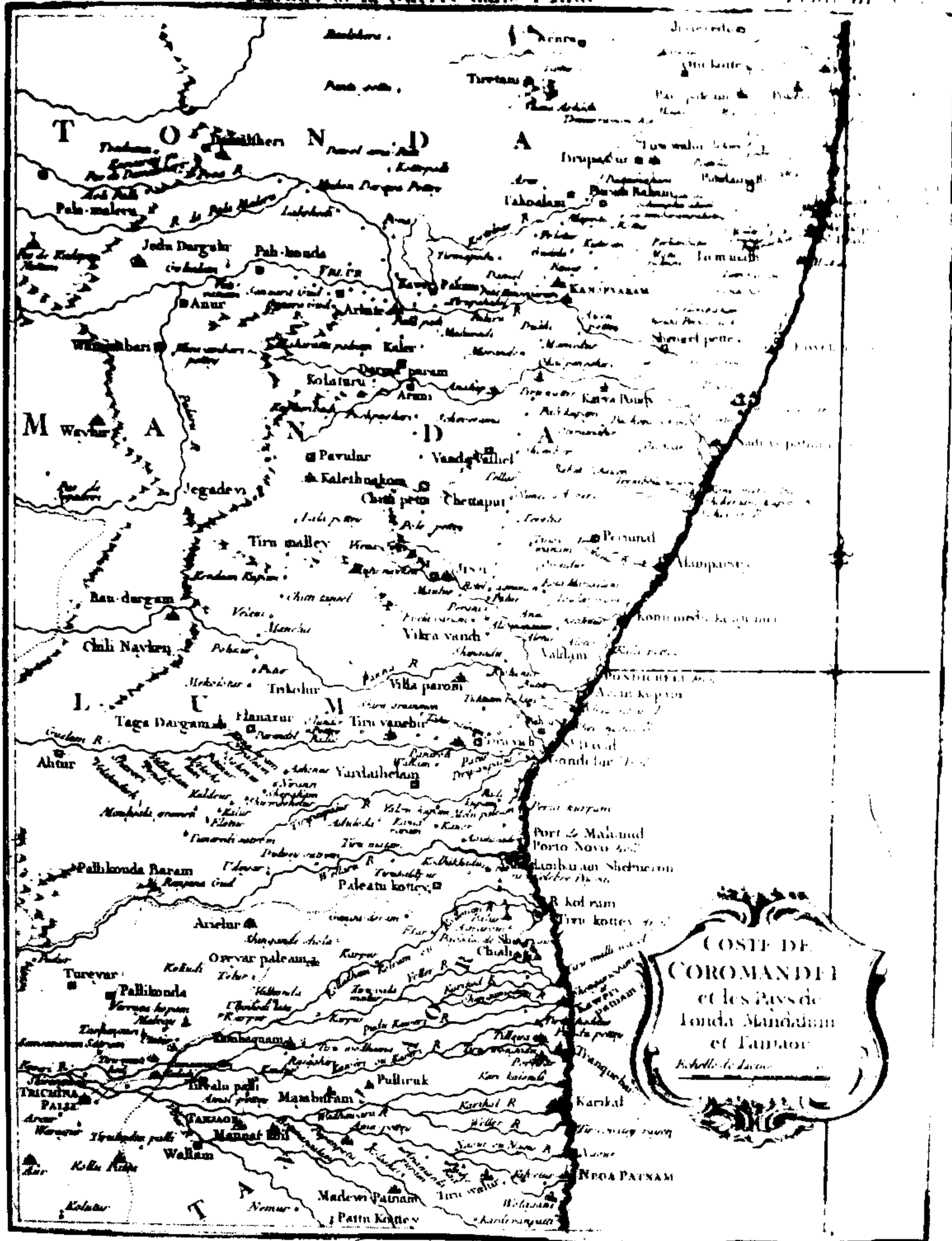
increase in protective walls and military personnel was due to the rivalry between the two European groups. Historians of both countries blame the other for being the first to supply arms and advisers to the local kingdoms.

Certainly south India at that time was in a very unsettled state. The Marathas were making sweeping conquests, levying *chauth*, one fourth of the revenues, and then retiring to conquer elsewhere. The Muslim rulers in the Deccan and further south had lost touch with Delhi and were not strong enough to rule on their own. When the *gadi* of Hyderabad fell vacant the claimants sought help from wherever they could press their claims. The fact that the French and the British had the best artillery in the land naturally made them desirable partners to any side. Thus between 1746 and 1760 there was continuous fighting between the men of the two countries, ostensibly to back claimants to various thrones but in reality to gain supremacy in south India for their own trading enterprises. As reports of the fighting reached back to Europe, there was a demand for correct maps to show the positions of the forts and towns that were being taken and lost. For the first time army engineers were traversing the country, and they had sufficient knowledge to make locations and to draw rough sketch maps.

The English factory at Masulipatnam had been established in 1611 and that at Madraspatnam in 1639. Apart from these two small areas the English had no other territory in the south until the Nāwab of Arcot ceded them the district of Chingleput in 1763. This was in return for the help given him against the French who had been anxious to place a puppet of their own on the throne. However, after the battle of Wandiwash in 1760 the English had no more to fear from the French. The latter still had their station at Pondicherry and they later lent some support to Hyder Ali and Tipu Sultan against the English, but the dominant power was in the hands of the East India Company.

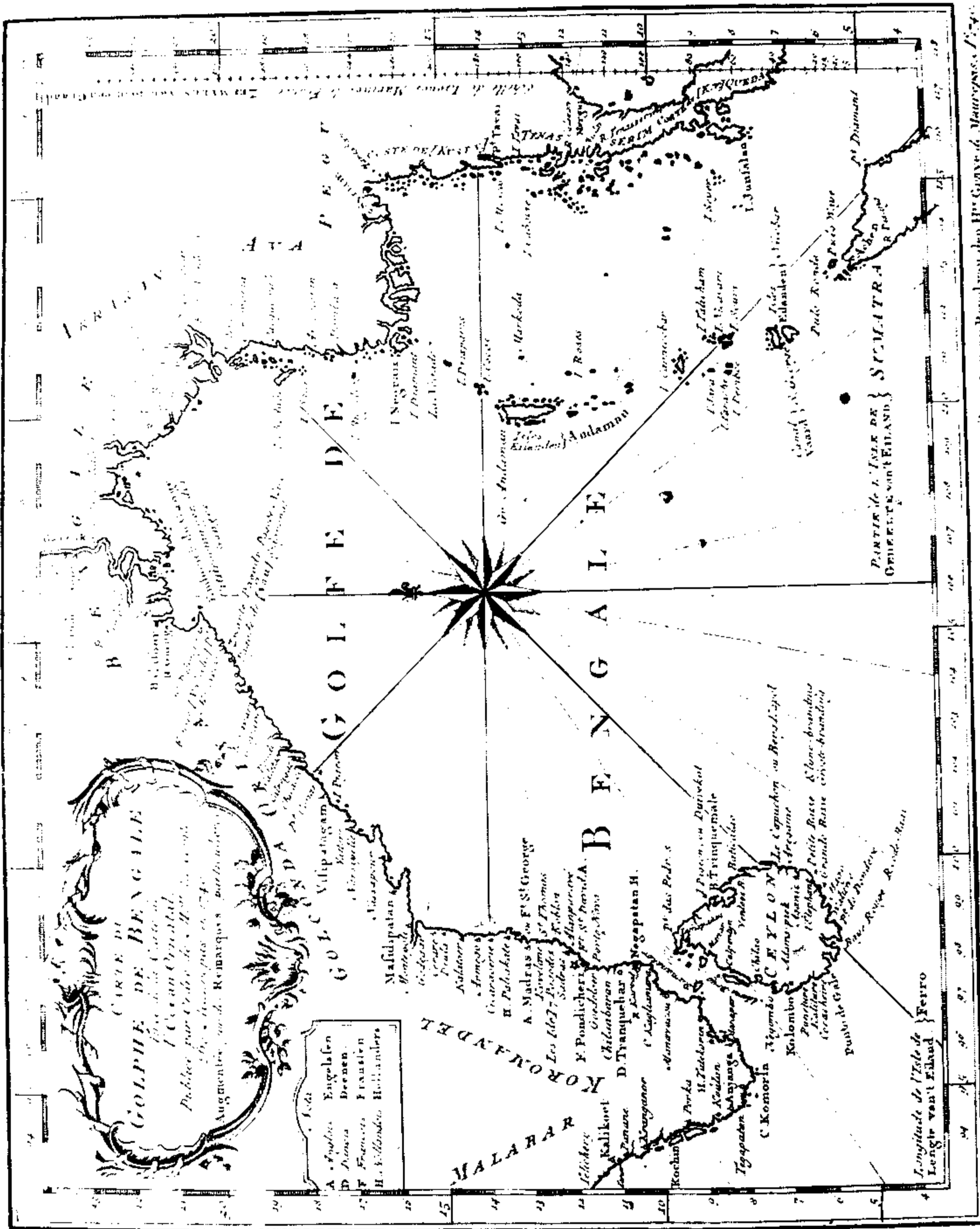
76 Prior to this period, maps of India were largely a matter of guesswork. Very few locations had been fixed by latitude or longitude, and the measurements supplied by travellers were very vague. So cartographers filled in the maps as best they could, mainly using earlier maps as guidelines and adding extra places as they heard about them. But as army engineers traversed the country, they were able to take readings for various points and get a new, correct measurement between them. Distances were often calculated with a perambulator. This was a small wheel attached to a handle which marked up each mile as it was wheeled along. The length thus obtained was then adjusted for twists and turns in the route and a rough estimate of the distance assumed. Sketch maps were drawn in the field and brought back to the office to be fitted into a large map of the whole area.

This was the time that magazines were becoming popular in England. Several of them published maps of parts of India, or town plans, particularly of Madras, so that their readers might be better informed. These were usually reduced copies of maps already available, and often the original cartographer was not acknowledged. The copyright law had come into force for all



Bellin's map of the Franco-British battlefield in south India, from *Le Petit Atlas Maritime*, 1763/1764, copied from a similar one by Jefferys.

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KAART van de GOLF van BENGALIE gemaakt na de Fransche Kaart van den Gester OCKER-CEKJAN uitgegeven op Bevel van den H^o Grave de MAURYNS. 1747.
 Vermeerderd op *gezonder* Aantmerkingen.

Bellin's map of the bay of Bengal, published in the Dutch edition of Prevost's book of travel in 1747.

engravings including maps in 1735, but it protected the originator only for fourteen years, and complaints of infringement had to be made within three months. Prints were only protected if each one bore the name of the proprietor, or another person, and the date of first publication. The penalty for proven infringement was severe; all plates and printed sheets were to be destroyed and the copyist was fined five shillings for every pirated print found in his possession. The law covered any direct copy, in whole or in part, even if it varied, added to or diminished from the original engraving.

The copyright law must have been frequently infringed and publishers rarely bothered to file suit. Till this time few of them had engraved their name on each plate, though Jefferys did so, claiming protection for his copy of d'Anville in 1754. Another Act was passed in 1766 increasing the copyright period to twenty-eight years, and the period in which prosecution must be filed to six months. This law was initiated on behalf of William Hogarth's widow, and was probably more effective than the earlier one, since most sheet maps engraved after this date invoked the security of the Act at the foot of the map. Many smaller maps drawn for books also included it, but possibly some of these were also sold as sheet maps, when they would not be covered by the copyright applicable to books.

Another cartographer in France who drew several maps of India was Jean Nicolas Bellin. He was attached to the French Marine Office and thus in a position to receive new charts brought back by the ships' captains. His major work was the *Petit Atlas Maritime* with 581 maps of most of the coasts of the world. Eighteen of them were of India. Though the Atlas did not appear until 1763, many of the maps were drawn earlier, as they were used by Prevost in his collection of voyages. This was a large work begun in 1746, as a translation of an English series by Thomas Astley. When the English publishers gave up for want of funds, Prevost carried on alone. There were at least three editions from Paris, in different sizes, and a concurrent edition from La Haye. It was translated into German and published from Leipzig, and in Danish from Copenhagen. Bellin drew many of the maps for the earlier volumes, but instead of using the same plates for the La Haye edition, they were re-engraved with the addition of Dutch titles. For the later volumes Prevost used earlier Dutch maps, mainly taken from Valentyn. The maps were also bound in separate atlas volumes.

Two prolific cartographers in England were Thomas Jefferys and Thomas Kitchin. Apart from his version of d'Anville's map of south India, Jefferys drew several maps for R.O. Cambridge's *Account of the War in India*. This was the first major work to give the full history of the Anglo-French war in south India, appearing soon after its cessation, and it included a plan of the battle of Wandiwash which had taken place the previous year. Jefferys also drew a large two sheet map of India in 1768. He obviously relied heavily on d'Anville's map for this, but filled in much more detail, particularly in the northern parts. This was a popular map, a second edition coming out the same year. It was reprinted and then printed in an amended edition even after

Rennell's map of India had made it obsolete.

Jefferys also drew a map of Bengal for William Bolts. Bolts had been deported from India in 1768 as an undesirable character—one of the few civilian employees to be so treated. He had apparently exceeded the limits of private trade, a difficult task in that time of lawless extortion. On his return to England he published at his own expense his *Considerations on Indian Affairs*, using the map as a frontispiece, in which he attacked the Bengal Government. As Bolts had done no surveying himself, and was not in a position to receive the sketch maps of the engineers employed in the field, it is likely that he secretly obtained copies and managed to get them printed in London before the official maps were released. The map itself is very incomplete. The areas for which Bolts had obtained sketch maps are well detailed, but there are large blank spaces with only major towns marked.

The map aroused sufficient interest for Bolts to have it re-engraved the following year and sold as a separate sheet map. This time he dedicated it: 'To the Right Honble Frederick Lord North, First Lord of the Treasury, the Right Honble Thomas Harley, Major General Burgoyne, Sir Wm Meredith, Bart, George Johnstone Esqr and the rest of the Members of the Secret and Select Committees of the Honble the House of Commons on Indian Affairs, whose Names, for their disinterested researches, the Natives and the Oppressed in India, may eventually have reason to venerate, so long as the British maintain their Empire in Asia.' These were the people in London whom Bolts was trying to convince of his innocence and of the mismanagement of Bengal by the East India Company. He eventually lost his case, having spent in his defence all the money he had managed to save.

Thomas Kitchin's earliest maps of India were for the *London Magazine*. He then engraved maps for the first volume of Orme's *History of the Military Transactions of the British Nation in Indostan*, published in 1763. Robert Orme was a personal friend of Clive. He was in India in the employ of a mercantile firm from 1743 until 1758, first in Calcutta and then in Madras. It was his repeated requests to Clive to furnish him with exact maps that initiated Rennell's survey of Bengal. Clive and his successor Vansittart took such a personal interest in the compiling of an accurate survey that they incurred the displeasure of the Board. There were complaints that they were keeping to themselves maps that had been drawn at the expense of the Company and when Rennell came to London he stated that he was not able to make use of all surveys as Orme was unwilling to part with some of them. Orme soon handed them over, however, as he found the expense of compiling and engraving a detailed large-scale map of India was more than he could undertake, when the Company was willing to pay Rennell for the same task. 81

Kitchin also drew maps for magazines and for several books by different authors. These were mainly general maps of the sub-continent, differing very little in their content, and though often called 'new and accurate', they rarely showed any new information. By this time there were many books being written on different aspects of life in India, some recording the exploits of the

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British army or the East India Company, others written for personal vindication, such as those of Bolts and Holwell, and a third type now gaining importance for the first time, books of serious enquiry into the religion and culture of the Indian people. Many of them contained maps, but often the name of the cartographer was not stated.

During this period several maps were drawn showing the stronghold of Angria on the west coast of India. Angria was the admiral for the Maratha fleet, and his main harbour was at Geriah. From there he harried the European ships putting in at Bombay, particularly the English, since they were already the most powerful European nation in India. The other Indian fleet in these waters was that of the Siddi, but he came to terms with the British. Angria was defeated after a fierce battle in 1756, and the same year the *Gentleman's Magazine* printed a large plan of his fortress. More than thirty years earlier Henry Cornwall had given a map of 'Gyria, or Vizendruku' and also the island of 'Calaba, belonging to Angria', along with views of other coastal towns. R.O. Cambridge also included two plans of Geriah in 1761, and a map showing the 'Dominions of Angria'. In Pune there is a map of Geriah which is undated but possibly drawn by an Indian cartographer. Angria was not the only threat to the English ships, since there were many Europeans, including some British, who had turned pirate and fearlessly sailed the Indian Ocean in search of plunder.

Town plans also became more popular as the English established themselves at the three presidencies of Bombay, Madras and Calcutta. John Thornton had drawn a map of Bombay and the island of Salsett in 1703, but at that time there were few buildings apart from the English fort. John Ovington drew a map of the town in 1668, but it was not published until 1696. John Fryer also included a rough sketch in 1698. The first large-scale map of Bombay Harbour was drawn by William Nichelson in 1763. This was in eight sheets on a scale of four inches to a mile, but being a sea chart it showed very few structures on the land. These were drawn in much more detail by John Grose in 1772. By 1785 the English felt secure enough to admire some of the earlier Indian architecture, and Gough drew detailed plans of Elephanta and Kaneri for his large book on the ancient monuments of India.

82 Plans of Madras were drawn by both the French and the English, the earliest appearing in 1698 by John Fryer. John Andrews included a plan of Madras in a book showing the capital cities of Europe in 1771. Plans of other towns in south India were drawn after the French and the English were battling for them in the middle of the eighteenth century, but most of them were drawn to show the European sections only, or the disposition of forces for battle. The French settlement at Pondicherry was first drawn by de Fer in 1705, while a plan of the Danish mission at Tranquebar was drawn in 1709.

In the north-east, Francois, Valentyn published a detailed plan of the Dutch settlement of Hugely in 1726. Robert Orme supplied a map of the territory of Calcutta in 1757 for the second volume of his *Military Transactions* published in 1778, as well as a plan for the attack on the British

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D'Anville drew one such map, and in the memoirs of both d'Anville and Rennell there are frequent references to their reliance on Ptolemy and Pliny for parts for which they had no more recent knowledge. The Greek classical influence was strong in northern Europe at this time, and the early civilization was viewed almost with reverence. Though Ptolemy's depiction of India was known to be incorrect, his coordinates and the descriptions of other Greek writers were eagerly scanned to show how wise the ancients had been. But by the end of the century actual surveys of large parts of the country were being undertaken, and soon fairly accurate maps became available. This was largely due to the work of James Rennell in the north, and the army engineers in the south.

6

British Conquest

James Rennell was born in Devonshire in 1742 and came to India with the navy, having volunteered for service in the East Indies. He had shown an early interest in surveying realizing, perhaps, that this was a field where little work had yet been done, and one where he could distinguish himself. When hostilities between England and France ceased, he left the navy and joined the service of the East India Company arriving in Bengal in 1764. By 1767 the need for accurate maps was felt so strongly that a letter to the Board of Directors reads: 'So much depends on accurate surveys both in military operations and in coming at a true knowledge of the value of your possessions, that we have employed everybody on this service who could be spared and were capable of it. But as the work must ever be imperfect, while it is separate and unconnected plans, we have appointed Captain Rennell, a young man of distinguished merit in this branch, Surveyor General, and directed him to form one general chart from those already made, and such as are now on hand as they can be collected in.'¹ So James Rennell became the first Surveyor General of Bengal, receiving a salary of Rs. 300 per month.

Prior to this period, there was little planning or direction in the few maps that had been drawn from actual measurement on the ground. Mostly they were the work of missionaries or army engineers who happened to take an interest in this line. But with the appointment of Rennell this was to change. He not only went out on survey himself, frequently under difficult circumstances, he also trained enough young men to form a full department. After the Company had been granted the 24 Parganas as a result of the battle of Plassey, and later, by the Nawab of Bengal, the provinces of Chittagong, Burdwan and Midnapore, the local Council, with encouragement from London, wanted to know the extent of the cultivated lands, both for collection of revenue and for communication. In the south the need for maps had been felt by those planning military campaigns, but in Bengal systematic surveying was first undertaken for civil and financial purposes.

By 1771 the survey of the Company's possessions was almost complete,

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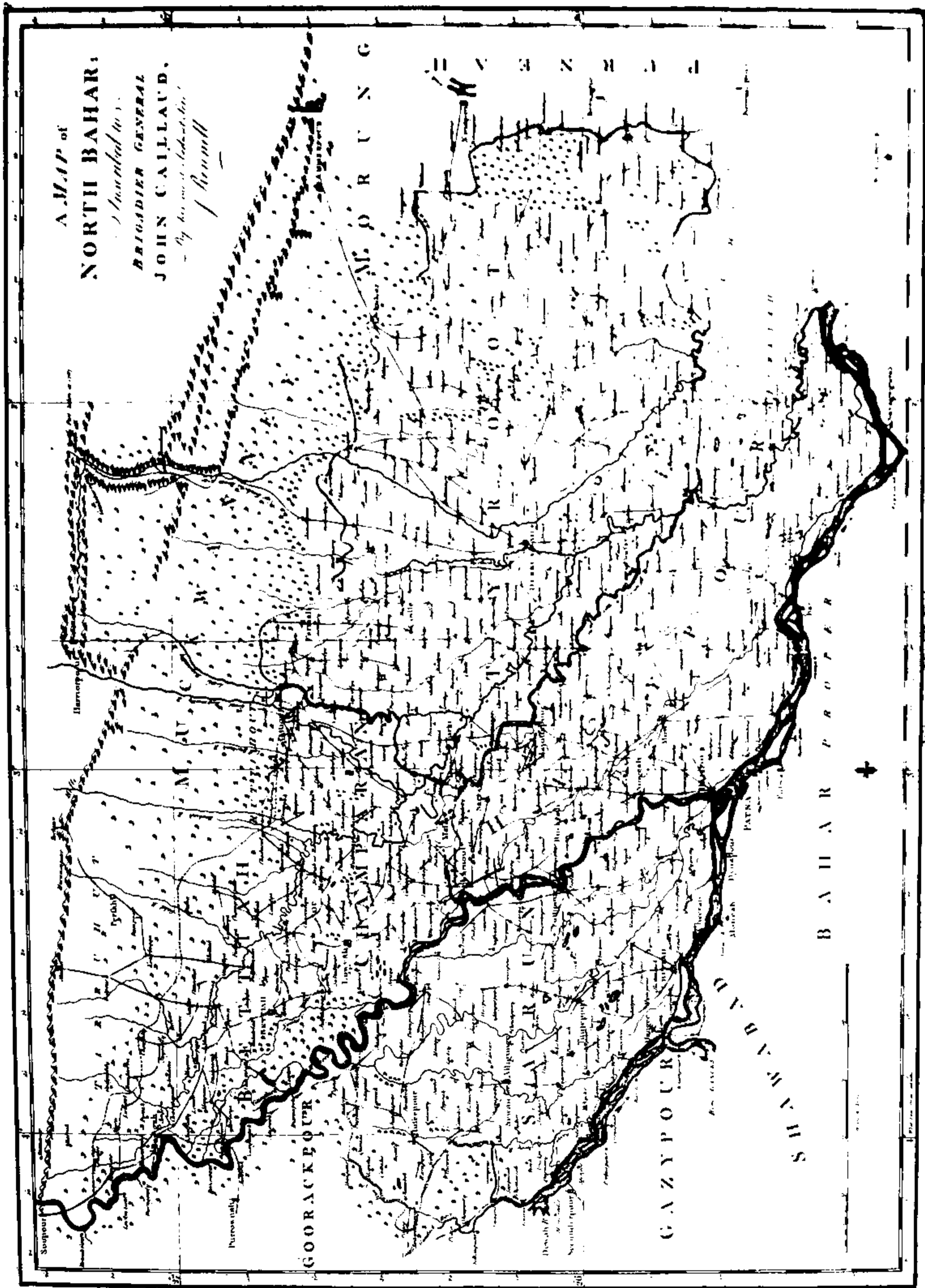
and Rennell was settled in Dacca compiling maps from the thousands of rough sketches drawn in the field. By then his health was no longer able to withstand the rigours of the climate and after some years he was permitted to return to England on a pension; he remained advisor to the Company for the next fifty years.

While Rennell was still in India he had sent home the completed survey of the British possessions in north-east India. This was published by Andrew Dury in London in 1776 with the title 'An Actual Survey on the Provinces of Bengal, Bahar &c.' It was on a scale of twelve miles to an inch, and was the first map to be based entirely on measured distances and survey in the field. The following year Dury published a second map of Rennell's of the country between Bengal and Delhi, on the same scale as the first, but showing less detail, since much of the area had not been accurately surveyed. When Rennell returned to England in 1778 he was disappointed to find that the two maps had not been made from the most recent drawings he had sent over, and thus did not fit well together. He decided to redraw the maps himself, at his own expense, but in a more convenient size, so that they should be useful to 'Gentlemen in the field'. In the meantime he drew a small map to accompany his *Description of the Roads of Bengal and Bahar* in 1778, and a map of the countries east of Delhi for the second volume of Orme's *Military Transactions*.

The first edition of the *Bengal Atlas* contained thirteen maps which were engraved between December 1778 and March 1780. Eight of them were sectional maps on a scale of twelve miles to an inch, and two were larger general maps, similar to the earlier two, but on a reduced scale. There were also three maps on a larger scale, one of two miles to an inch of Dacca, where Rennell had lived so long, the others of Cossimbuzar island and of the Doab, the country between the Ganges and the Jumna. Both folio and quarto editions were published, the latter with folded maps. It is probable that most of the copies of this edition of the *Bengal Atlas* were despatched to India on a Company vessel which was captured by the Portuguese and were thus lost to the English.² Another edition was immediately prepared, using the same thirteen plates and adding seven river surveys, four of them of the Ganges, and a general map of the inland navigation. This edition was dated 1781, and 86 there were reprints up to 1829, the later ones without the map of the inland navigation which was transferred to the *Memoir* written to accompany Rennell's large map of the whole of India.

In January 1780 Rennell read a paper at the Royal Society on the Ganges and Brahmaputra rivers, and drew two small sketches to accompany its publication the following year. He was already at work on his map of India, which required a large amount of study since it included so much land unknown to Europeans. As d'Anville had done before him, he collected material from a wide variety of sources, and attempted to fit it together. He was in a better position to do so however, since he had been in India himself, and by this time there were far more Europeans traversing the country. The

European Rivalry

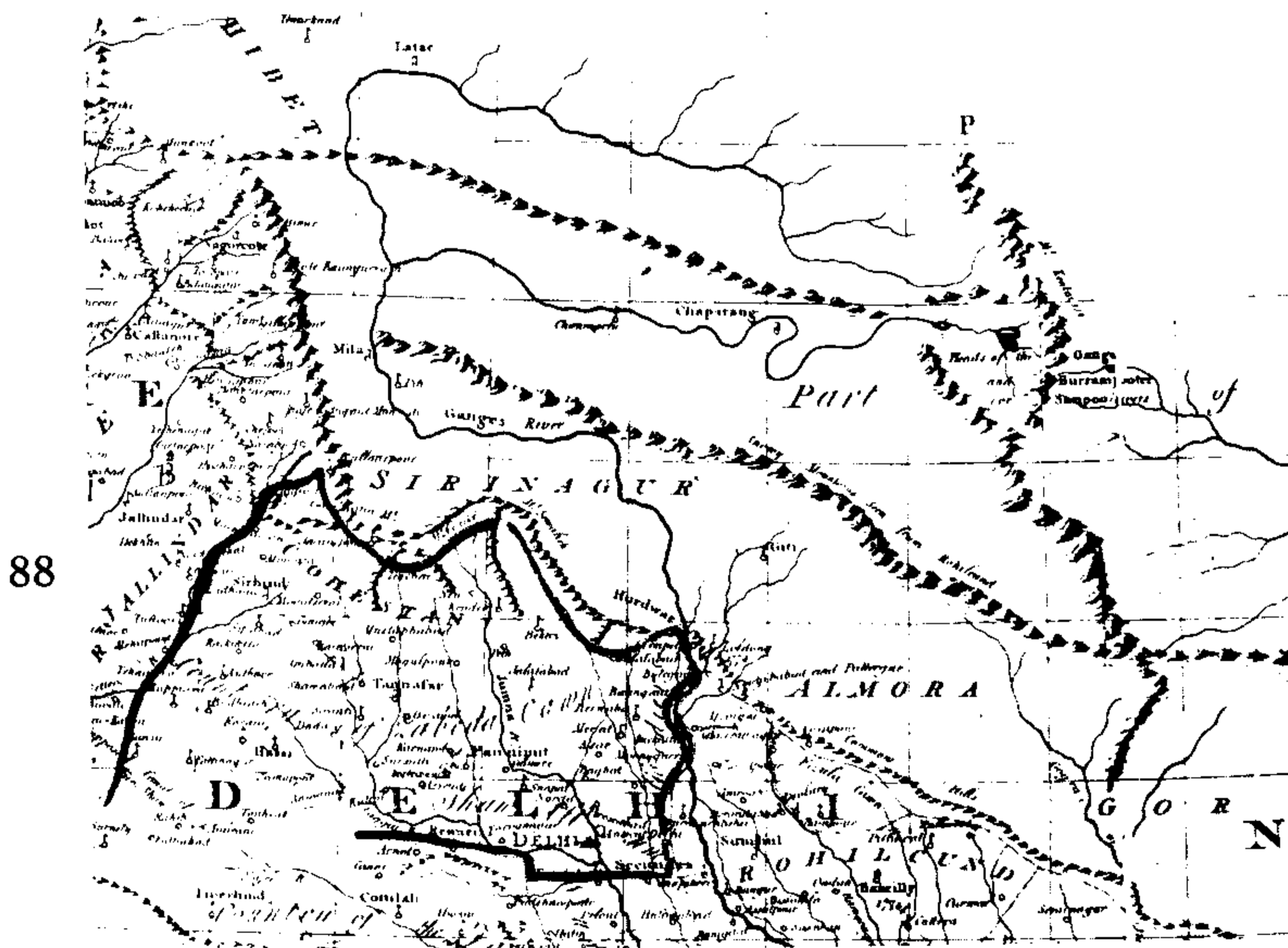


Rennell's map of North Bahar, from the Bengal Atlas, 1780.

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map, published in 1782, was on a smaller scale than d'Anville's, but when Rennell redrew it in 1788 he enlarged it to approximately the same scale. The first edition of the *Memoir* to accompany it, published in 1783, contained no extra maps, but in later editions Rennell added revised or additional maps, as he received more information, or to show areas which he had not included earlier. The *Memoir* thus became more important than the map, with constant revision and addition, and there were five different editions of it within seventeen years.

In the Preface to the first edition of the *Memoir* Rennell wrote that he expected to furnish provincial maps of the whole of India at a later date, as he had already done for Bengal and Oude, thus explaining the relatively small scale of the map. He was, however, unable to carry out this intention. To assist in finding the names of places in the map he added an index at the end of the *Memoir*, listing every place marked on the map and in which square it was to be found, as well as others for which there was no room to inscribe them. His source for the divisions of northern India into soubahs was the *Ayin Acbaree*, which was then being translated into English. For the sea coasts he mostly followed D'Apres de Manneville's *Le Neptune Orientale*, published in Paris in 1745, and revised in 1775. Rennell also gave his thanks to Alexander Dalrymple who 'with a liberality, which justly entitles him to the

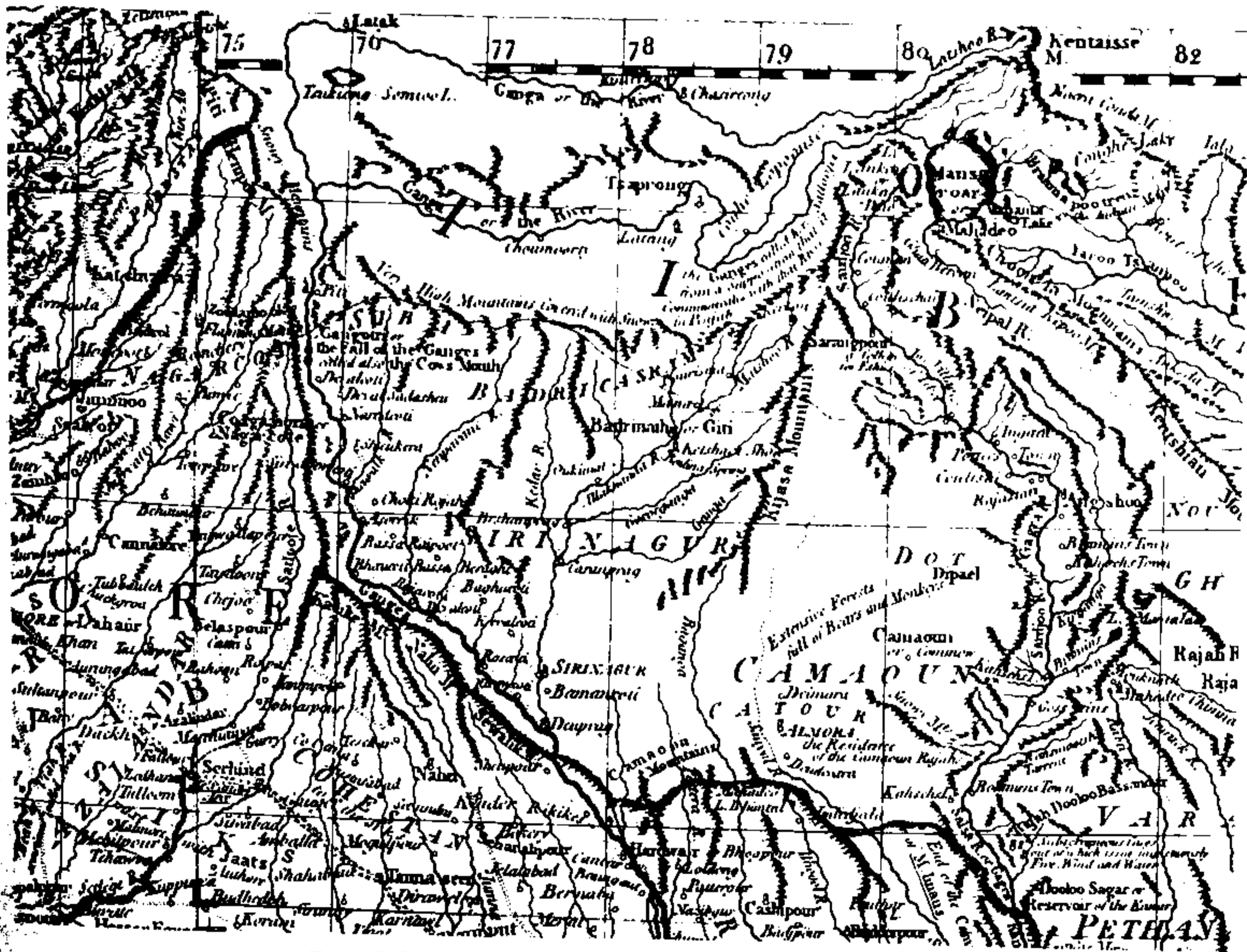


Detail from Rennell's map of Hindoostan, 1782.

thanks of the public. . . has furnished me from his valuable collection, with every material in it that could contribute towards perfecting my plan. And accordingly, the most valuable of all the new matter that respects the sea coasts (the surveys made by the direction of the Bengal Presidency excepted) is taken from his collection; and also a very considerable portion of what respects the inland parts of the peninsula, and the northern circars.

Alexander Dalrymple had gone to Madras as a writer in 1752. There he taught himself French and Spanish and became interested in hydrography. After several voyages he returned to England and published many coastal charts. In 1791, with a grant from the East India Company, he began publishing the *Oriental Repertory*, a miscellany of facts about the Indies, including many letters and treatises which might otherwise have been lost. Some were from his own collection, others were obtained elsewhere. He was the first to hold the office of Hydrographer to the Admiralty, together with the same post at India House. Unlike many others, who were jealous of their knowledge and possessions, he was willing to share, in the interests of enlarging the British experience in India.

Rennell also acknowledged several individuals for 'MS. maps, sketches and various articles of information'. His main problem lay in adjusting often divergent accounts, and deciding which was the most accurate. There were



Detail from de la Rochette's map of India, 1788.

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also many gaps in his knowledge, which he had to fill in from sources he knew to be unreliable. The northwest and the central parts of the country were the least known, since so few people had travelled in these parts, and he had to rely on individual itineraries. The *Memoir*, divided geographically into four sections, gave details of the alternative sources, and his reasons for selecting those he had used in the map.

In the second edition, in 1785, Rennell added an 'Account of the Ganges and Burrampooter Rivers' already published by the Philosophical Society, and an account of the Coimbatore and Nair countries in the south, obtained from two army colonels who had marched through the area in the course of the war against Tipu Sultan. By 1788 he had received so much new material that he felt obliged to redraw the map, and compile an entirely new edition of the *Memoir*. To this was now added a brief history of India, in which he outlined the early Greek and Roman knowledge, but regretted that 'There is no known history of Hindoostan (that rests on the foundation of Hindoo materials or records) extant, before the period of the Mahomedan conquests: for either the Hindoos kept no regular histories; or they were all destroyed, or secluded from the common eyes by the Pundits . . . It is chiefly to Persian pens that we are indebted for that portion of Indian history, which we possess.' Several Persian maps were used by Rennell for the northern part of India, to supplement material taken from the Persian historians. In this edition of the map Rennell revised the upper courses of the Ganges and the Gogra, from information which had been supplied to him by Johan Bernoulli of Berlin.

90 In 1785 Bernoulli published an account of the missionary Joseph Tieffenthaler, with a map of the course of the Ganges made up from several small sketches. Tieffenthaler had sailed to India in 1743 from Portugal and then spent more than thirty years travelling over the country recording the geography and drawing sketch maps. He sent his manuscripts to Anquetil du Perron in Paris, whom he had met in Surat in 1759. Anquetil du Perron was an oriental and linguistic scholar and his researches into the history and chronology of India formed the second volume of Bernoulli's work. Tieffenthaler had not himself travelled to all the places he described, but sent Indians, particularly into the mountainous areas, who were instructed about the necessary information that was required. In the large map compiled from his sketches three of the sections of the Ganges were described as being drawn by Indians. Tieffenthaler was able to list thirty-two places where a correct reading for longitude and latitude had been taken. For a long time, without sufficiently exact timepieces, it had been difficult to fix longitude with any degree of accuracy. But after 1761 the use of the chronometer changed this. Latitude was determined by Hadley's Quadrant, and surveys, when they started, were made by compass and chain.

Bernoulli also published a copy of Rennell's map of Hindoostan, re-engraved in Berlin, but much inferior in workmanship to the original. He also included the small maps from the *Memoir*, along with the full translation of

the 1785 edition. In the section on the geography of India by Anquetil du Perron, several of Rennell's views were disputed, but this frank interchange of ideas added to the fund of knowledge gradually being built up. In Paris the work of the missionaries was more easily accessible, while the material in London was mainly derived from the men of the East India Company. The Company, however, was reluctant to undertake the expense of publication.

After the Jagir lands became part of the Company's territory in 1763, Thomas Barnard had been sent to draw a correct survey of the Company's land around Madras. But he was not given any equipment or money, as the Board of Directors refused to sanction the expense. However, he completed the field work in the next ten years and submitted the maps to Calcutta for approval. They were published in London by Alexander Dalrymple in 1778. In the same year Robert Kelly offered to compile an atlas of south India but again the Board refused to grant him expenses to do so. As he had found it very difficult without proper maps, he proceeded to do the work on his own and in 1782 he took to Calcutta a specimen of the atlas containing sixty-four small sketch maps. Since the Regulating Act of 1772 Bombay and Madras had come under the jurisdiction of Calcutta and Warren Hastings had been made Governor General of the Company's lands in India. Kelly was allotted a small gratuity in acknowledgement of the work he had done and he was commended to the Directors in London. But they did not think it worth while to print his atlas at Company expense.

All the early maps drawn from surveys were printed privately in London. In 1775 Ross had been urging the importance of establishing the post of surveyor for the Madras Presidency. In 1792 William Topping was asked to take the job but without being given the title or extra salary—there was still no provision for it officially. However, there were frequent letters from London demanding accurate surveys so that the Directors could see what territory they owned. Clive had promised Orme that he would send him maps as soon as he could, and after Rennell returned to London there were orders that all rough maps should be sent home for Rennell to fit into his larger maps. When at last the Company sanctioned money for field workers there were complaints that they were wasting time doing beautifully finished maps when the Company wanted only rough but accurate sketches which could be finished in London. Orders were given that as soon as a sketch map was brought into the office, one copy only should be made, for safety, and the sketch itself should be immediately despatched to London. There was always the fear that if many copies were made they would fall into the hands of the Company's enemies. This caused needless delays between the time an area was surveyed and the time when an officer in the field could have use of a map for the territory he was administering. The average sailing time between London and Madras was five to seven months and ships sailed from London only during the winter months. However, Rennell reported in 1776 that letters sent from Marseilles on 3rd June reached Calcutta on 20th August. They had come by the newly opened Suez route which Hastings had

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The first edition of Rennell's map of Hindoostan, 1782.

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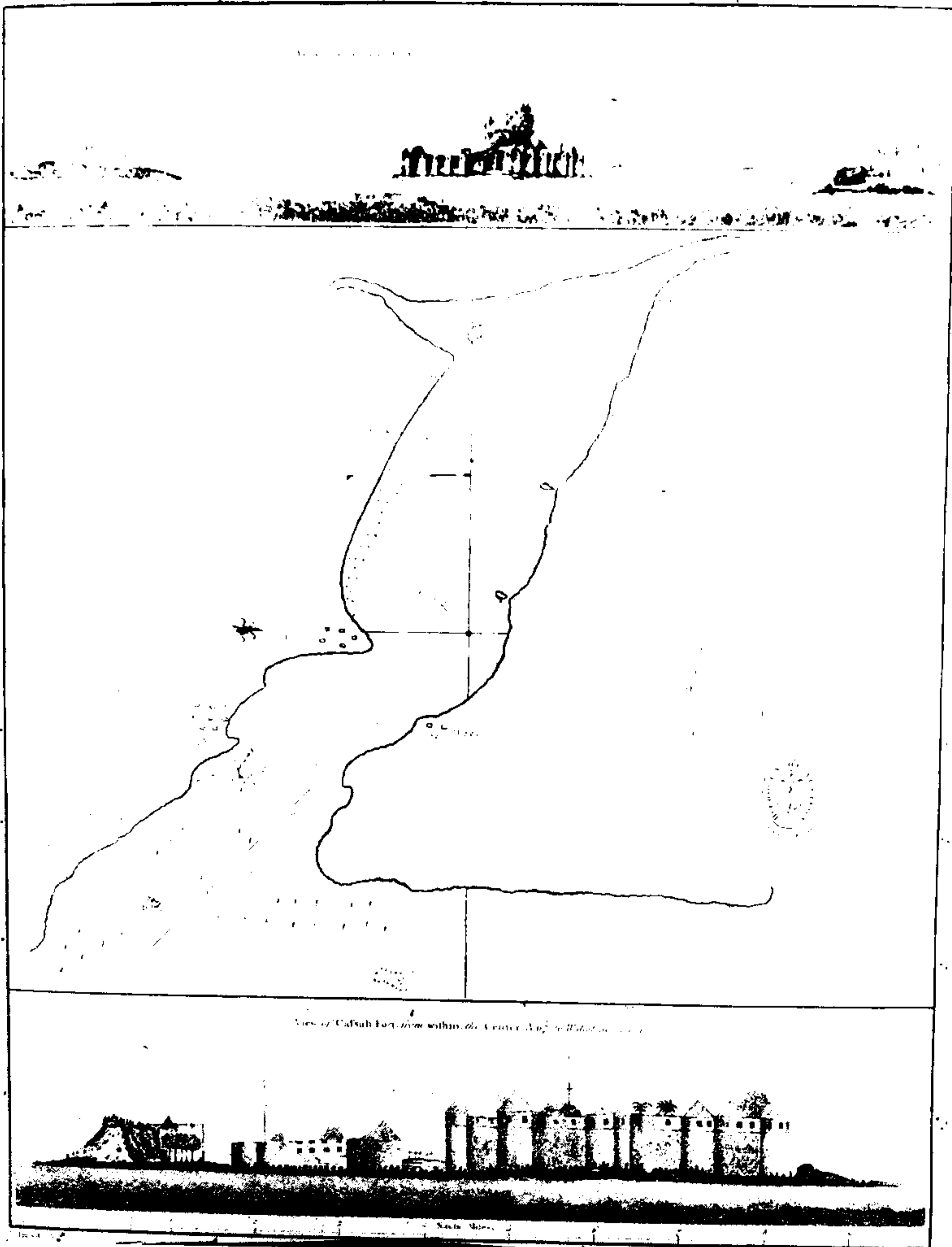
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instituted. Passengers, as well as mail, travelled by land to Marseilles, crossed the Mediterranean by boat, travelled overland to the Red Sea, and then embarked for India. The Suez Canal was not opened until 1869. Despite this shortening of the route, it was usually some years between the time a district was surveyed and a printed map of the area was available.

In his enlarged edition of the *Memoir*, Rennell included a map of the country between the Indus and the Caspian Sea, largely derived from the account of George Forster who had travelled that way, in disguise, on his way to Russia. For his next edition, in 1792, he was able to include a larger map of the countries between Delhi and Candahar, based on a description supplied by a Bengal army captain. Every addition, however, contained short addenda or foot-notes about new information which Rennell had received during the period of production, or since the last map was engraved. People in England were gradually realizing the involvement of the British in India, and there had been a response to Rennell's appeal to come forward with any material which might be lying in private hands with no recognition of its importance. Rennell's earlier maps had done much to encourage this interest. As he wrote in the first Preface: 'Whilst the theatre of the British Wars in Hindoostan was limited to a particular province of it, little curiosity was excited towards the general Geography of the country: but now that we are engaged either in wars, alliances, or negociations, with all the principal powers of the Empire, and have displayed the British Standards from one extreme of it to the other; A Map of Hindoostan, such as will explain the local circumstances of our political connections, and the marches of our Armies, cannot but be highly interesting to every person whose imagination has been struck by the splendor of our victories, or whose attention is roused by the present critical state of our affairs, in that quarter of the globe.'

94 There was still little contact between the three presidencies of Calcutta, Madras and Bengal, and men going from England were appointed directly to a particular presidency. The wars against Tipu Sultan at the end of the century, however, entailed the transfer of army units from Bengal to the south, and army engineers, used to the surveys in Bengal, took a keen interest in surveying territory that was so far little known to the British. Rennell had published a separate map of south India in 1788, acknowledging Dalrymple for supplying the source material. He redrew the map in 1792 for the *Memoir*, and drew also a large one, on a scale of ten miles to an inch, with which he included a short memoir based on documents supplied by Cornwallis, the army commander. William Faden had already published a large map of south India in 1788, which he supplemented with a two sheet map in 1792. This map was very popular and reprinted several times, with the dates when new territory was acquired being added to the plates. Several books were written describing the campaigns in south India, some of them containing detailed plans of the battles. There were also books of views of the beautiful countryside of Mysore, now freely open to British artists.

Rennell was now well established in London as official geographer for



One of the many original surveys preserved by Dalrymple—Radjapore river south of Bombay.

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the East India Company. In this position he was able to advise the Company on which maps were worth financing and which ones were of no import. One casualty of his decisions was a large map by Charles Reynolds. Reynolds had come to India at the age of fourteen and immediately joined the army in Bombay. While taking part in campaigns against the Marathas and Tipu Sultan he became interested in making surveys and in 1783 was appointed surveyor to the army. As the Company owned so little land around Bombay they saw no need to appoint a Surveyor General for the region and it was only after repeated requests that the post was created in 1796 and Reynolds appointed. In the meantime he had devoted himself fully to the task of surveying as large an area as possible. He himself made many trips inland, quietly taking measurements of the Deccan area without letting it be seen that he was making a survey. At this time the British were hoping to detach the Marathas from their alliance with Tipu Sultan, and were against any seemingly suspicious moves that might upset this plan.

Reynolds was the first to make extensive use of Indian employees in his surveys. He had earlier applied to the Company for copies of the surveys that had been made so far, but the reply came that his map was to be drawn entirely from his own knowledge and not to depend on the work of others. He therefore instructed his employees in their duties and sent them far afield to bring back reports of roads and measurements which he then filled in on his map of India. The Company objected to this large expenditure, but they objected even more to Reynolds paying them himself from his own pocket: 'If the native Surveyors are to be so deployed . . . the expence should be regularly paid by the Company, and not defrayed by an Individual at his own expence, who would thereby have a claim on the Company hereafter to an unlimited extent, without any vouchers for the Expenditure.'³

Reynolds worked on his map for fourteen years and a friend wrote: 'In his hall I had the gratification of crawling over a map fourteen feet long and ten feet broad; to do which, without injury to a production intended to be presented to the Court of Directors, he furnished me with silk stockings for hands and feet.'⁴ This major work was unfortunately never published and no copy is known to have survived, although it formed the basis for all maps of western India for many years. A few rough sketch maps are all that remain.

96 Another large map of which no copy is now known to exist was that of Thomas Call. By 1787 Call had nearly completed an Atlas of India in twenty sheets which were to be put together into one general map on a smaller scale. The Council were very pleased with it and ordered a fair copy made to be hung in the Council Room in Calcutta for constant reference. Call returned to England the following year and died shortly after. Nothing is now known of his map on which he had spent so much time and effort.

While all this detailed and painstakingly acquired knowledge was gradually being put together, many publishers were still issuing maps which were long out of date. Thus Bonne in France and Zatta in Italy were still engraving, and presumably selling, maps which bore no evidence of the

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recent surveys, but were copies of those produced in the previous century. Even Ptolemy's name exerted such an influence that Mercator's edition of his atlas was reprinted as late as 1730.

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4. Phillimore, *op cit*, Vol I, p 219.

Survey Maps

The days of maps drawn from route surveys came to an end by the beginning of the nineteenth century, except for distant inaccessible areas. Triangulation was first used on a large scale in France in the middle of the eighteenth century and it took forty-five years of laborious work by the Cassini brothers to complete the geometric map of France. William Lambton was the first in India to make use of this method, and he began work in Madras in 1802. He measured a base line seven and a half miles long between St Thomas' Mount and Perumbauk Hill by the use of specially imported chains and built up triangles across the Mysore plateau. With a second line measured at Bangalore, he was able to carry his triangles right across the peninsula. In this way he discovered that the actual width of the peninsula at this line was 360 miles and not 400 as all earlier maps had shown. This required the adaptation of previous surveys into the narrower width. He was able to complete the triangles for the whole of south India and much of central India, although Rennell in London advised the Board that triangulation was a waste of money and route surveys were quite accurate enough. Lambton's allowance was considerably cut as a result of this advice.

98 The triangulation surveys fixed points accurately throughout the sub-continent and it was then the work of the topographical surveyors to fill in the outline with particulars of rivers, mountains, roads and other details. By now the value of accurate surveys and maps was recognized, and as the British conquered more of the country, so their knowledge of it was transferred to the maps. The next important survey to be undertaken was the Revenue Survey, for purposes of fixing boundaries of estates for taxation and claims of ownership. This was followed by a Geological Survey and later an Archaeological Survey. Once the physical features of the country were laid down, the maps could easily be adapted for different purposes.

For long all surveys were sent back to London to be compiled into sheet maps for engraving. With its usual parsimony the Company employed too few people, either to execute the work swiftly, or to take proper care of the

maps themselves. Aaron Arrowsmith, friend of Rennell and Dalrymple, was entrusted with the production of maps, and he produced two large maps of the sub-continent, incorporating newer material than Rennell had been able to procure. The first of these, published in 1804, was engraved in six sheets, while the second, of 1816, was on a larger scale, 16 miles to an inch, and covered nine sheets. Between publication of these two, Arrowsmith also drew an enlarged map of Malabar in 1809. Soon the sketches of Lambton's surveys were reaching London, and Arrowsmith compiled them, in 1822, into a large Atlas of South India on sixteen sheets to a scale of four miles to an inch, with an index map and a sketch map of the whole country. This was followed by a map of central India in 1823. He then planned an atlas for the whole of India on the same scale, to be made up of 177 sheets and extending from Karachi to Singapore. Unfortunately Arrowsmith died before it could be started, but his plan was put into action by John Walker, a very fine engraver whose father had worked under Dalrymple.

Walker began engraving the plates for the Indian Atlas in 1825, and the first nine sheets were released in 1827. Three of these covered parts of south India while six were of the north, and there was also an index sheet, and eight sheets of the triangulation of south India. Thereafter sheets appeared quite regularly, sometimes six in a year, sometimes none or only one, depending upon the receipt of surveys, until by 1857 56 sheets had been published, and revision of some of the early sheets was in hand.

In the meantime survey work was continuing in India, often under very difficult conditions. There were three branches under the Surveyor General, all working independently of each other. The Great Trigonometrical Survey was measuring triangles northward through the country and also taking astronomical readings to check their accuracy. One of their aims was to measure the arc of the meridian. The topographical surveyors were mapping the physical features of the country, and men of the Revenue survey were gathering minute details of fields and village boundaries for tax purposes. Under the leadership of George Everest, and later Andrew Waugh, new methods were found, and more exact instruments procured. So accurate was the measurement by triangulation, that when the base line was measured at Dehradun, it was found to differ by only 7.2 inches from the measurement computed from the base line at Sironj, about four hundred miles away. In 1830 Everest developed a grid-iron system based on meridional chains one degree apart, and longitudinal ones of Calcutta, Bombay and Madras, about five to six degrees apart, so that there should be less delay caused by inability to survey in troubled or inaccessible areas. By 1861 most of the triangles had been completed, and work was proceeding on the topographical and revenue surveys. The former were usually drawn on a scale of one inch to a mile, but half or quarter inch for difficult terrain, while in the British occupied areas they were sometimes two inches to a mile. The revenue surveys were on a scale of four, sixteen or thirty two inches to a mile, and sometimes even larger.

99

Apart from the sheets for the Indian Atlas, Walker was busy, not only

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engraving maps of India, but of many other parts of the world too. Those of India included:

1820, one sheet, 1" = 64 miles, published by Black, Kingsbury, Parbury and Allen, revised editions 1822, 1825;

1825, one sheet, 1" = 32 miles, published Parbury, Allen & Co. with an index of names, edition in 1831, and by W.H. Allen & Co. in 1836;

1825, two sheets, 1" = 64 miles, for James Horsburgh, Hydrographer to the East India Company, under whose name the early sheets of the Indian Atlas appeared;

1830, four sheets of western India, 1" = 20 miles, published Parbury, Allen & Co., edition also in 1846;

1833, five maps to show 'European Connections with India', to accompany a report to the House of Commons: General and Commercial, Political, Military, Revenue, Judicial;

1841, 1845, 1849, three single sheet maps published by W.H. Allen;

1852, six sheets to show the progress of the trigonometrical surveys, with another edition in 1868;

1853, two sheets, 1" = 65 miles, published W.H. Allen;

1856, an atlas of India printed by E. Stanford for the Society for the Diffusion of Useful Knowledge;

1864, six sheets, 1" = 32 miles to show roads, canals, telegraph lines and dak stations.

Walker also engraved sixtyseven small sheets for an atlas of south India which was published in Madras in 1854 by Pharoah and Company.

Other maps of India were also being engraved during the nineteenth century, most of them taken from the official maps to illustrate books of travel or for general atlases. An atlas by Tallis published about 1850 contained three maps of India with small vignettes of local places of interest in the corners. Between 1815 and 1856 Norie published large scale charts of the Indian Ocean and coastal areas. There were several series of small maps of India, notably those of Baldwin and Craddock in 1831-35 and Chapman and Hall in 1842. About 1860 the *Weekly Despatch* published eight sheets of India, with large maps of Delhi, Lucknow and Calcutta. Specialist maps were also drawn as required, such as a military map for the Bengal army in 1844, and of India at the time of the mutiny in 1857, showing the locations of all military units. Other military maps were drawn in 1863, 1867 and 1876. A map showing the cultivation of cotton was engraved in 1859, and again in 1880, 1887 and 1893. Tea-producing tracts in Assam were depicted on a scale of four miles to an inch in 1878, and indigo in 1882, while one of the rice ports of India was published by Imray on two sheets in 1866. In 1852 a small map was drawn to show the divisions in which various languages prevailed. The first geological map was published in 1853.

Maps were also being published in India, largely under the direction of J.B. Tassin at Calcutta. In 1835 he produced an atlas of the Ganges in seven sheets, and five years later an atlas of the delta. In 1850, also at Calcutta, W.

Rushton published an atlas of Bengal and the western provinces in eighteen maps. By 1869 it was felt that there was sufficient expertise at Calcutta to engrave the sheets for the Indian Atlas there. Complaints had been voiced that there was too long a delay between the time an area was surveyed and the receipt of the printed sheets for use in the field. To speed this up, quarter sheets had been engraved since 1864. The main reason, however, for the transfer to Calcutta, was the old age and infirmity of John Walker, and the lack of a suitable geographer and engraver to take his place. The work had been personally his for so many years, there was difficulty even in completing the sheets for which surveys had already been received in London. From 1876 the entire work of surveying, compiling, engraving and printing was done in India, with copies of every map being sent to London for the records. The invention of photography was a great asset, since survey maps could now be reproduced quickly by photozincography, and supplied to men in the field almost immediately.

In 1905 the old division of sheets for the Indian Atlas was discarded. It was now decided to use sheets showing four degrees of latitude and longitude on a million scale between meridians 44° and 124° , and parallels 4° and 40° , with each sheet being numbered consecutively from the north-west. Each sheet was also subdivided into sixteen degree sheets on a scale of four miles to an inch, and further subdivided to show 15 minutes of latitude and longitude. The original surveys were used for many sheets, but as work progressed they were continually revised and updated as new information was supplied. By 1915 over eleven hundred sheets in the new form had been printed. Cadastral surveys had been begun in 1870.

Thus it came about that India was one of the few countries in the world to be mapped so extensively and so thoroughly. Nowadays maps of all parts of the world are easily available, and drawn to all scales. Rivers may change their course, and landslides may cause a new lake to be formed, or an existing one to disappear, a village may grow into a town, or political boundaries change. These can soon be put right in the maps, either by surveying on the ground or by aerial photography. The magic and the mystery of unknown lands has gone out of our lives. Thus the maps of bygone days can give us some idea of the challenges faced by the intrepid adventurers who travelled to distant places and shared their knowledge with the people at home.

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- 102 Nordenskiöld, A.E.: *Facsimile-Atlas to the Early History of Cartography*, Kraus Reprint Corp., New York, 1961; Dover Publications, New York, 1973.
- Phillimore, R.H.: *Historical Records of the Survey of India*, 5 vols, Dehradun, 1945.
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8

Printed Maps of India 1477—1800

The term 'India' refers to the subcontinent and some adjacent areas, not to present boundaries. In the sixteenth century land from Ethiopia to China was often called India, but in this catalogue only those maps giving prominence to the subcontinent are listed; maps of India Orientalis—the whole of Asia—have been omitted. Versions of Ptolemy's India, the tenth table of Asia, have been listed separately at the beginning.

Cartographers have been numbered chronologically according to the date of their first known map of India. Where the cartographer is not known, maps are listed under the author, or sometimes the publisher, of the work containing the map. All maps under this main heading are then grouped together regardless of their date of issue, with an attempt made to show where maps were drawn for a specific publication, and when they were re-engraved or re-issued. Many maps were also bound in other publications, or other editions of the work stated. Those that are mentioned here have been personally verified.

Under each heading a map of a particular area bears the same number for each engraving or issue. The second number refers to re-engravings of that map by the original cartographer or another. The third number indicates re-issues from the same block or plate, with any changes noted. It has not always been possible to state with confidence that a plate has been re-engraved; those which are doubtful have been listed as 're-issued'. 103

Measurements in millimetres, showing the breadth by the height of the printed surface within the neat lines, follow the title of the map. Where the breadth is not constant, the different measurements have been shown from top to bottom. The position of the title within or outside the map is given in brackets.

Any other matter engraved on the face of the map is reproduced, and its approximate position noted.

The scale of each map has been shown in its original form, with the approximate equivalent of one inch. Latitude has been quoted as given, from

India within the Ganges

top to bottom of the left hand edge, and longitude from left to right. Where different longitudes are shown, that on the top of the map is given first.

The author will be very glad to receive details of any maps which have not been listed here, or of other issues or editions. She may be contacted through the publishers and will gratefully acknowledge all correspondence.

Tabula Asiae X in Ptolemy Geographia

No.	Place	Date	Kind	Back text	Printer/Publisher	
1	Bologna	1477	cpl	X	Bono & Manfredi	i
2	Rome	1478	cpl	X	Arnoldus Buckinck	i
	"	1490	"	X	Petrus de Turre	ii
	"	1507	"	X	Bernadinus Venetus de Vitalibus	iii
	"	1508	"	X	"	iv
3	Florence	1480	cpl	X	Nicolo Todescho	i
	"	1500	"	X	"	ii
4	Ulm	1482	wdct	Latin	Leonardus Hol	i
	"	1486	"	Latin reset	Johann Reger	ii
5	Venice	1511	wdct	Maps	Jacobus Pentius de Leucho	i
6a	Strassburg	1513	wdct	X	Joannes Schott	i
	"	1520	"	X	"	ii
6b	"	1522	"	Latin	Joannes Gruninger	iii
	"	1525	"	"	"	iv
	Lyons	1535	"	"	Melchior & Gaspar Treschel	v
	Vienne	1541	"	"	Gaspar Treschel	vi

Cartographer	Size in mm	Remarks
i Crivelli ?	385→500 × 370	State I sea plain; State II sea shaded, some names added
i Conrad Sweynheym	360→495 × 340	Maps from same plates for all four editions
ii ”		
iii ”		
iv ”		
i ?	475 × 345	Italian verse text by Francesco Berlinghieri. Mountains in bordered circles
ii ?		
i Nicolaus Germanus	380→510 × 350	Text on back within borders
ii ”		Text reset without borders
i Bernardo Sylvani	455→510 × 355	Names of provinces and seas in red
i Martin Waldseemüller	380→520 × 355	
ii ”		
iii Laurentius Frisius	370→475 × 290	On back 3 pillars, text begins D around globe
iv ”		On back 1 pillar, (p) 24, text beg. A over globe
v ”		On back 3 pillars left, decoration right
vi ”		On back single line border

India within the Ganges

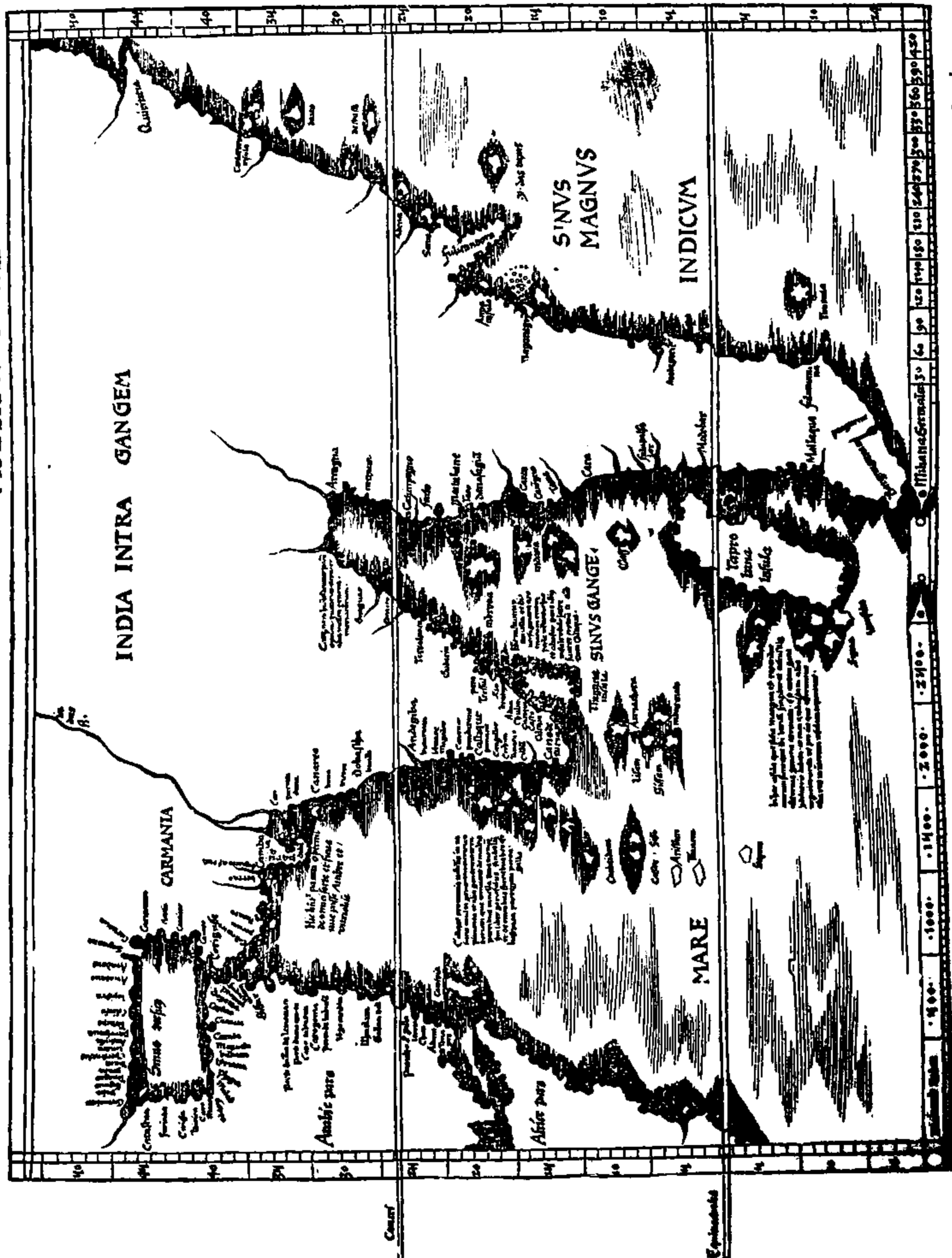
7	Basle	1540	wdct	Latin	Henricus Petri	i	
	"	1542	"	"	"	ii	
	"	1545	"	"	"	iii	
	"	1552	"	"	"	iv	
	"	1571	"	"	"	v	
8a	Venice	1548	cpl	Italian	Pr. Nicolo Bascarini Publ. Gioa Baptista Pedrezano	i	
8b	"	1561	"	"	Vincenzo Valgrisi	ii	
	"	1562	"	Latin	"	iii	
	"	1564	"	"	"	iv	
	"	1564	"	Italian	Giordano Ziletti	v	
	"	1574	"	"	"	vi	
8c	"	1598	"	Italian	Heirs of Melchior Sessa	vii	
	"	1599	"	"	"	viii	
9	Cologne	1578	cpl	Latin	Godefridus Kempen	i	
	"	1584	"	"	"	ii	
	Amsterdam & Frankfurt	1605	"	Gr. & Latin	Cornelius & Jodocus Hondius	iii	
	Leyden	1618-19	"	Gr. & Lat	Jodocus Hondius	iv	
	Franeker & Utrecht	1695	"	X	Franciscus Halma	v	
	"	1698	"	X	"	vi	
	Amsterdam & Utrecht	1704	"	X	"	vii	
	Amsterdam	1730	"	X	R. & J. Wetstenios & G. Smith	viii	
106	10a	Venice	1596	cpl	Latin	Heirs to Simone Galignani	i
	"	"	1598	"	Italian	Galignani Fratelli	ii
	Padua	1621	"	Italian	Paolo & Francesco Galignani Fratelli	iii	
	10b	Cologne	1597	cpl	Latin	Petrus Keschedt	iv
	"	"	1608	"	"	"	v
	Arnhem	1617	"	"	Joannes Jansson	vi	

i	Sebastian Münster	310→340 × 250	On back side decoration blocks outside top block
ii	"		On back wide top block with fanlight window
iii	"		On back top decoration blocks outside side blocks
iv	"		On black leaf on both sides of title
v	"		To illustrate Strabo's <i>Geography</i> , (p) 790 and 791, sig. BBa
<hr/>			
i	Jacobo Gastaldi	125→165 × 125	
ii		175→235 × 175	On back (p) 25, sig. B ₂
iii			On back (p) 54
iv			
v			On back (p) 25, sig. B ₂
vi			On back (p) 25, sig. Bb
vii			On back (p) 163, sig. Hhh
viii			"
<hr/>			
i	Gerard Mercator	460 × 340	On back sig. Aa
ii	"		On back sig. Zz itals
iii	"		
iv	"		On back Zz
v	"		Title re-engraved in ornate decoration 'Tab. X Asiae,/Compectens/Indiam/Intra/Gangem.'
vi	"		
vii	"		"
viii	"		"
<hr/>			
i	Hieronymus Porro	125→165 × 120	On back (p) 25
ii	"		Map and text on same page 17
iii	"		" "
iv	?		On back (p) 25 D TABU, names in text in caps
v			On back (p) 25 D TABU, names in caps and small caps
vi			On back D TABU, names in text in caps

India within the Ganges

MODERNA INDIAE

TABVLA



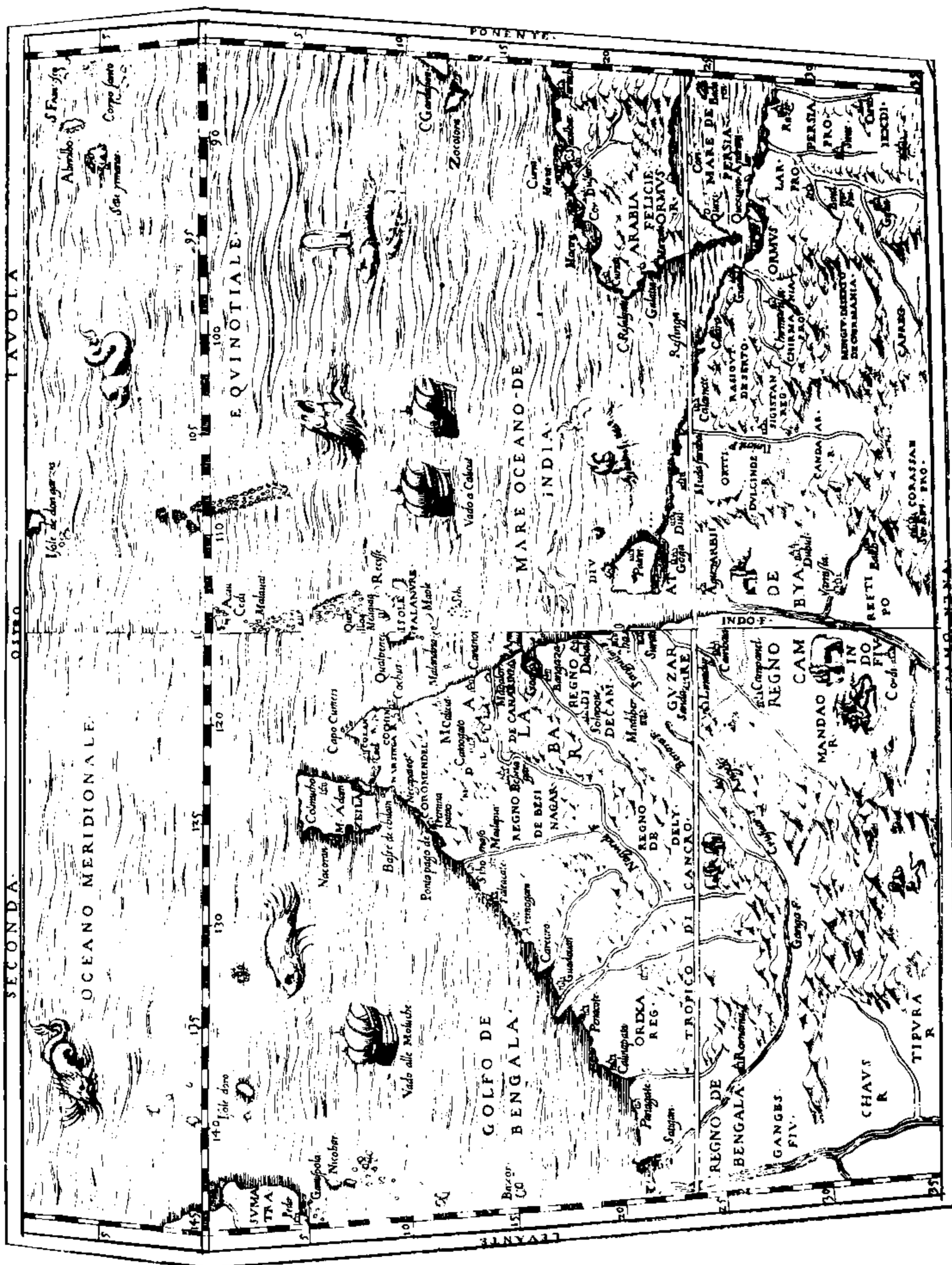
The new map of India and south-east Asia from Waldseemüller's edition of Ptolemy, 1513/1520. From A.E. Nordenskiöld, Facsimile-Atlas.

- 1 **Martin Waldseemüller** 1470–1522
 Map drawn for *Claudii Ptolemy... Geographiae*, publ. Johannes Schott, Strassburg, 1513, as one of twenty modern maps
- 1.1 **Tabula Moderna Indiae** 510 × 403 mm (outside top centre)
Scale: Miliaria Italia 1" = 350; Miliaria Germanica 1" = 70; lat. N50°–S15°
- 1.1.2 Re-issued in 2nd ed. Strassburg, 1520
 Redrawn in reduced size and decorated by Laurentius Frisius for *Claudii Ptolemy... Geographiae*, publ. Johannes Gruninger, Strassburg, 1522
- 1.2 **Indiae Tabula Moderna** 440 × 292 mm (outside top centre)
Scale: Miliaria Germanica 1" = 48; lat. N45°–S15°
- 1.2.2 Re-issued in 4th ed., publ. Johannes Gruninger, Strassburg, 1525, without title
- 1.2.3 Re-issued in 5th ed., publ. Melchior and Gaspar Treschel, Lyons, 1535, with title 'Tabu Moder Indiae'
- 1.2.4 Re-issued in 6th ed., publ. Gaspar Treschel, Vienne, 1541, with title 'Tabula nova utriusque Indiae'

See also Ptolemy 6a

- 2 **Jacobo Gastaldi** 1500–1566
 Map drawn for *La Geografia di Claudio Ptolemeo*, publ. Nicolo Bascarini, Venice, 1548
- 1.1 **Calecut Nova Tabula** 171 × 126 mm (outside top centre)
No scale; lat 24°–7°, long. 99°–124°; Italian text on verso, page '50'
 Redrawn in enlarged size, with stippled sea instead of waves and circles for towns instead of turrets, for *La geografia di Claudio Tolemo*, publ. Vincenzo Valgrisi, Venice, 1561
- 1.2 **Calecut Nuova Tavola** 240 × 180 mm; Italian text on verso, sig. 'XXVII Dd'
- 1.2.2 Re-issued in Latin ed., Venice, 1562, page no. on verso '55 in ordine'
- 1.2.3 Re-issued in Latin ed., Venice, 1564
- 1.2.4 Re-issued in Italian ed., publ. Giordano Ziletti, Venice, 1564, on verso sig. 'XXVII Dd'
- 1.2.5 Re-issued in Italian ed., Venice, 1574, on verso sig. '29 Ff'
- 1.3 Another edition in Italian ed., publ. Heirs of Melchior Sessa, Venice, 1598, with addition of two fish, on verso page '120'
- 1.3.2 Re-issued in Italian ed. Venice, 1599, on verso page '120'

India within the Ganges



The second of three maps in Ramusio's *Delle navigationi et viaggi*, 2nd ed., 1565–1613.

Map drawn for *Delle Navigationi et Viaggi*, Gio. Battiste Ramusio, in the 2nd ed. of Vol. I, Venice, 1554, as one of three maps drawn from Gastaldi's large map of the world (as stated in the 'Discorso' of Vol. III dated June 1553), all three bound together after index and before main text

- 2.1 **Seconda Tavola** 185→190→175×274 mm and 185→190→175×274 mm (outside top centre); map in two parts with neat line around each part
No scale; lat. S10°—N35°; south at top of page
- 2.1.2 Variant with 'Fer Bertoli exc.' (bottom left)
- 2.2 Re-engraved (a fire in the printing press in Nov. 1557 probably destroyed the blocks) for 2nd ed. of Vol. III, 1565; also found in some editions of Vol. I, 1563
- 2.2.2 Re-issued in 4th ed. of Vol. I, 1588
- 2.2.3 Re-issued in 5th ed., of Vol. I, 1606
- 2.2.4 Re-issued in 6th ed. of Vol. I, 1613

Map copied from 'Il disegno della terza parte dell'Asia', 1561 which includes eastern Asia, to show India only

- 3.1 **Il Disegno dell Ter-/za Parte dell'Asia./Di Giacopo di Gastaldi piemontese Cosmographo/ Girolamo Olgiato F.** 375×419 mm (bottom centre)
No scale; lat. 55°—10°

See also Ptolemy 8a

3 Johann Honter 1498—1549

Map bound in *Procli de Sphaera... una cum Iannis Honteri Coronensis De Cosmographiae rudimentis*, publ. Henricus Petri, Basel, [1561]; similar to Gastaldi's Calcut

- 1.1 [Indiae Intra/ Gangem/ Tabula.] 154×121 mm (title on verso with 'Iavae minoris/ insulae')
 922, 923 (outside top left and right); Yy 2 (outside bottom right) 111
No scale; lat. 26°—5°, long. 103°—130°
- 1.1.2 Re-issued in *Procli de Sphaera...*, publ. Sebastianus Henricpetri, Basel, [1589], with page nos 674 and 675, and sig. Cc2

Map bound in *Pomponii Melae Philosophi celeberrimi de Orbis Situ libri tres...*, publ. Henricus Petri, Basel, 1564; also sometimes bound with *Rudimentorum cosmographicorum Ioan Honteri Coronensis libri III*, Basel, 1558

- 2.1 **India** 116→158×122 mm (outside top centre)
 85 16 (outside top right)
No scale; lat. 40°—10°, long. 114°--146°

India within the Ganges

- 2.1.2 Re-issued in *Pomponii Melae de Orbis Situ, Libri III, ... et C. Publi Solini, Polyhistor*, publ. Henricpetrina, Basel, April 1576, with 'fol. 89 16' (outside top right)

4 Georg Braun 1551–1622 and Frans Hogenburg 1535–1590

- Plans drawn for *Civitates Orbis Terrarum*, Bk 1, publ. Filipe Galle, Antwerp, and Authors, Cologne, 1572. In prefatory notes Braun acknowledged Hansé merchant Constantin von Lyskirchen for supplying views of the towns of India, Asia, Africa and Persia, never portrayed before, with their descriptions written by hand
- 1.1 Calechut celeberrimum Indiae Emporium 476 × 186 mm (top centre)
- 2.1 Cananor 153 × 136 mm (top centre)
Both on page 54 with views of 'Ormus' and 'Mina'
- 3.1 Diu 472 × 92 mm (top centre)
- 4.1 Goa fortissima Indiae urbs in Christianorum potestatem anno Salutis 1509 devenit 472 × 132 mm (top centre)
Both on page 57 with views of 'Anfa, quibusdam Afa' and 'Azaamurum'

Re-issued in Latin editions of *Civitates Orbis Terrarum* (title changed to *De Praecipuis Totius Universii Urbibus* from 1575) up to 1624; German editions 1574 and 1582; French editions 1575, 1576 and 1579

Re-issued in *Theatrum in quo visuntur Illustriores Hispaniae Urbes*, Jan Jansson, 1657 (the plates had been bought from Abraham Hogenburg)

See also Valegio and Rossa, 1595

112

5 Francesco Valegio and Martinus Rossa

- Plans copied from Braun and Hogenburg in reduced size for *Raccolta di le piu illustri et famose citta di tutto il mondo*, Venice, 1595
- 1.1 Calechut 130 × 80 mm (top centre); frasco valeso f.
- 2.1 Cananor 130 × 85 mm (top centre)
- Re-issued in *Teatro delle piu illustri et famose citta del mondo*, Venice, [1600] with
- 3.1 Goa 130 × 84 mm (top centre)
- 4.1 Diu 130 × 84 mm (top centre)

- 1.1.2- Re-issued from the same blocks in *Universus terrarum orbis*, Vol. I,
 4.1.2 Raffaello Savonarola (pseud. Lasor a Varea), Padua, 1713, on pages
 219, 226, 452, 334

6 Jan Huygen van Linschoten 1563–1611

Map and plan drawn for *Itinerario, voyage ofte Schipvaert*, J.H. van Linschoten, publ. Cornelis Claesz, Amsterdam, 1596, possibly by Petrus Plancius; many editions up to 1644: in Dutch; in German from 1598; in English in 1598; in Latin from 1599; in French from 1610

- 1.1 Deliniantur in hac tabula, Orae maritimae Abexiae . . . Maris Arabicae . . . Persiae . . . Indiae Malabaris . . . Choromandeliae & Orixae . . . Regni Bengale . . . 530 × 380 mm (upper right); title repeated in Dutch below

Henricus F. ab Langren/ Sculpsit (bottom centre)

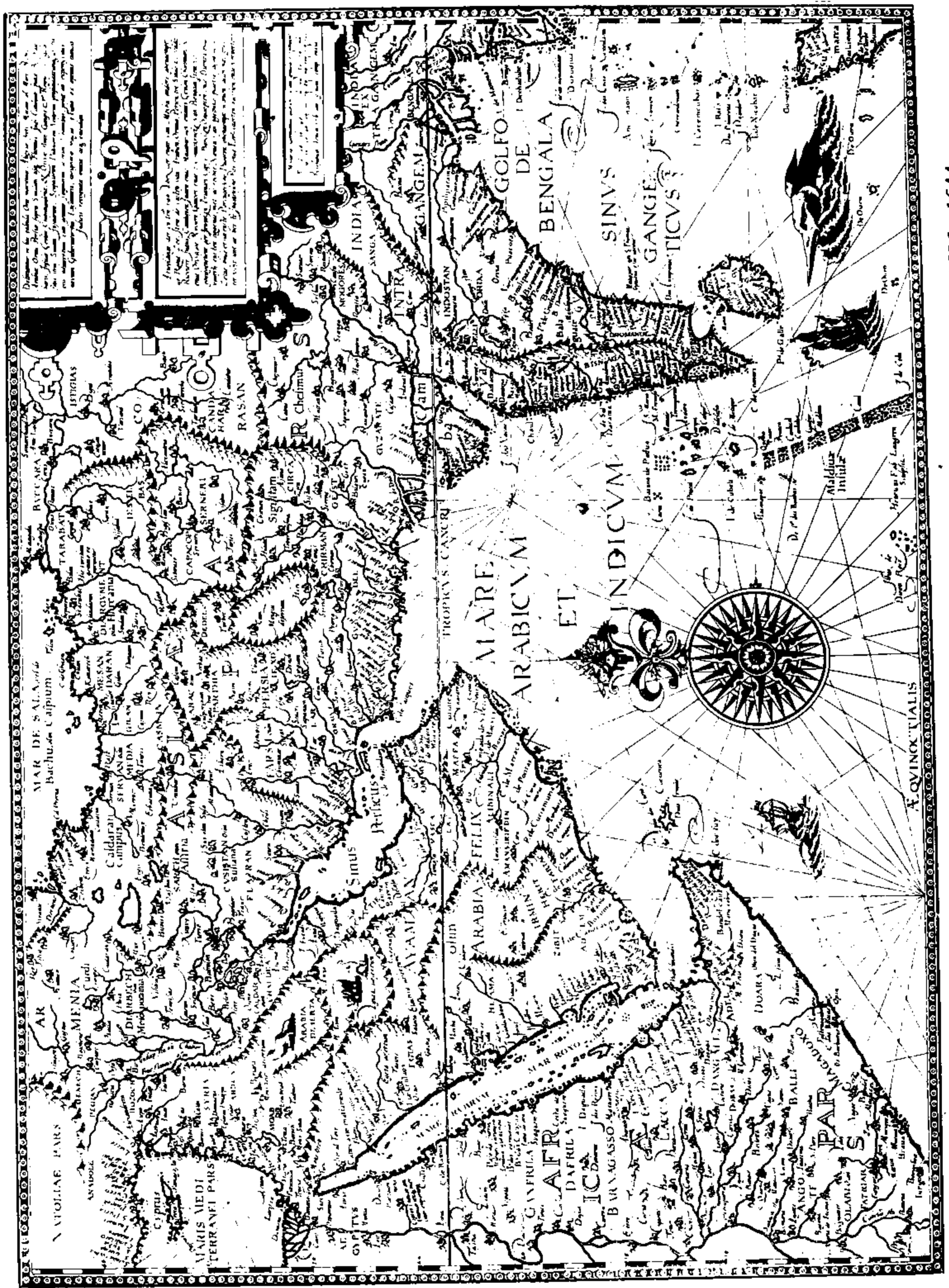
Scale: Miliaria Germanica, quorum 15. uni gradui respondent 1" = 44; Hispanicae leucae 17½. uni gradui competentia 1" = 52; lat. 43°–0°

- 1.2 Re-engraved for Eng. translation, *John Huighen Van Linschoten, his Discours of Voyages into ye Easte & West Indies*, London, [1598], with title repeated in English 'The description of the coast of Abex, The straights of Meca, otherwise called/ the Red Sea, the coastes of Arabia, Ormus, and Persia, to the River of Sinde,/ or the River Indus, of Cambaia, India, and Malabar, The islands of Ceilon, Chor/ ramandel, and Orixia, The River Ganges, and the kingdom of Bengala, As/ allso the Situation of the Creekes, Cliffes, Banckes, Shallowes, and deptthes/ upon or along by the said coastes, with the right name of every place, as they/ are called by the Portingale Pilots, all/ truly described.'; 'imprinted at London by/ John Wolfe/ Graven by Robert Becket' (in box lower centre); omission of 'Henricus . . . Sculpsit'

- 2.1 A Ilha de Cidade de Goa Metropolitana de Indiae Partes Orentais que este en 15 graos da Banda do Norte 792 × 562 mm (top centre) 113

Goa Indiae Orientalis Metro-/ polis & Emporii longe ditissi/ pro rege Archiepiscopo &/ supremo Senalocupletis/ exacta descriptio/ Auctore Ioannes Hugonius A/ Linschoten, 1595 (additional title lower left); Baptista a Doetechum Sculp.; 42 en 43; dedicated to 'Serenisso Principi Alberto ab Austria . . .'

India within the Ganges



The map drawn to illustrate Linschoten's book *Itinerario, Voyage, ofte Schippvaert, 1596—1644*.

- Re-engraved showing central portion only for *India Orientalis*, Part 3, Io Theodor and Io Israel de Bry, publ. Mathew Becker, Frankfurt, 1599
- 2.2 A Ilhae Cidade de Goa Metropolitana da India Partes Orientais que esta en 15 graos da Banda do Norte 430 × 390 mm (top centre); unfinished, with blank spaces for additional title and verse lines, no dedication
- 2.2.2 Re-issued in *India Orientalis*, Part 3, Frankfurt, 1601 with completed additional title top left and German translation of title
- Re-engraved for *Theatrum in quo visuntur Illustriores Hispaniae Urbes*, Jan Jansson, Amsterdam, 1657
- 2.3 Goa Indiae Orientalis Metropolis 450 × 320 mm (top centre)
On verso 'Haec de Goa: primaria Indiae urbe ex navigatione Indica Joannis Hugonis, cum variis figuris, & ectypis edita Hagae Comitum Anno 1599'
- 2.3.2 Re-issued in *Theatrum Praecipuarum Totius Europae Urbium tam ichnographice quam conspicue*, Frederick de Wit, Amsterdam, after 1693
- 2.3.3 Re-issued in *La Galerie Agreeable du Monde*, Pieter van der Aa, Leiden, 1729 with 'Se vend a Leide, Chez Pierre vander Aa, / Avec Privilege' under title

7 Pieter van den Keere (Petrus Kaerius) 1571–c. 1646

Maps drawn from Linschoten for *Caart Thresoor*, publ. Barent Langenes, Middleburg, 1598; re-issued by Cornelis Claesz, Amsterdam, 1599

- 1.1 Bengala 125 × 85 mm (bottom centre)
- 2.1 Maldivae Insulae 125 × 85 mm
- 3.1 Malabar 125 × 85 mm (bottom right); east at top of page
- 4.1 Narsinga et Ceylon 125 × 85 mm (top right)
- Petrus Kaerius caelavit
- 5.1 Cambaia 125 × 85 mm (bottom left)

115

Re-issued by Cornelis Claesz, Amsterdam, 1600 with new Latin text by Petrus Bertius, and at La Haye, Corneille Nicolas (Claesz) with French translation of Bertius' text; 3.1 Malabar replaced by [Malabar] 116 × 85 mm; north at top of page; similar to 4.1

- 6.1 Re-issued in Latin and French editions, Amsterdam and Leiden, 1602/03, with Malabar 6.1 in place of 3.1; later editions contained Malabar 3.1 only
- 1.2 Maps redrawn by Jodocus Hondius, Amsterdam, 1616
Bengala 131 × 94 mm (bottom centre)

India within the Ganges

Scale: Milliarum Germanica 1" = (not marked); lat. 26°–14°, long. 120°–138°

- 2.2 I. Mald 57 × 86 mm [and] Ceylon I. 62 × 86 mm
 3.2 Malabar 131 × 95 mm. (bottom left); east at top of page
 Scale: Milliarum Germanica 1" = 40; lat. 19°–0°, long. 110°–120°
 4.2 Narsinga 131 × 95 mm (top right); east at top of page
 Scale: Milliarum Germanica 1" = 25; lat. 24°–6°, long. 114°–129°
 5.2 Cambaia 133 × 93 mm (bottom left)
 Scale: Milliarum Germanica 1" = 40; lat. 29°–19°, long. 105°–121°

Re-issued with French, Latin and German texts up to 1650. Pagination and sigs of some editions examined with dated title page are given:

	Bengala	Maldives	Malabar	Narsinga	Cambaia
Dutch	1598 69 Ee2	71 Ee4	75	79	83 Ff2
	1599				
	1609	621	625	627	633 635
French	1600				
	602/3			77	
	1609	621	625	627	633 635
	1618	732	742	724 Zz2	730 Zz5 722 Zz
Latin	1600	539	541	544	538 540
	602/3				
	1606	592	602	586	590 584
	1618				
(Blaeu)	1637				
(Visscher)	1649				
German	1612	726	737	717	723 714
(Jansson)	1650	726	737	717	723 714

8 Joao de Barros 1496–1570

116 Maps drawn for *Quarta Decada da Asia*, João de Barros, ed. J.B. Lavanha, Madrid, 1615

- 1.1 Descripcao/ do Reino/ de/ Guzarate 190 × 285 mm (centre left)

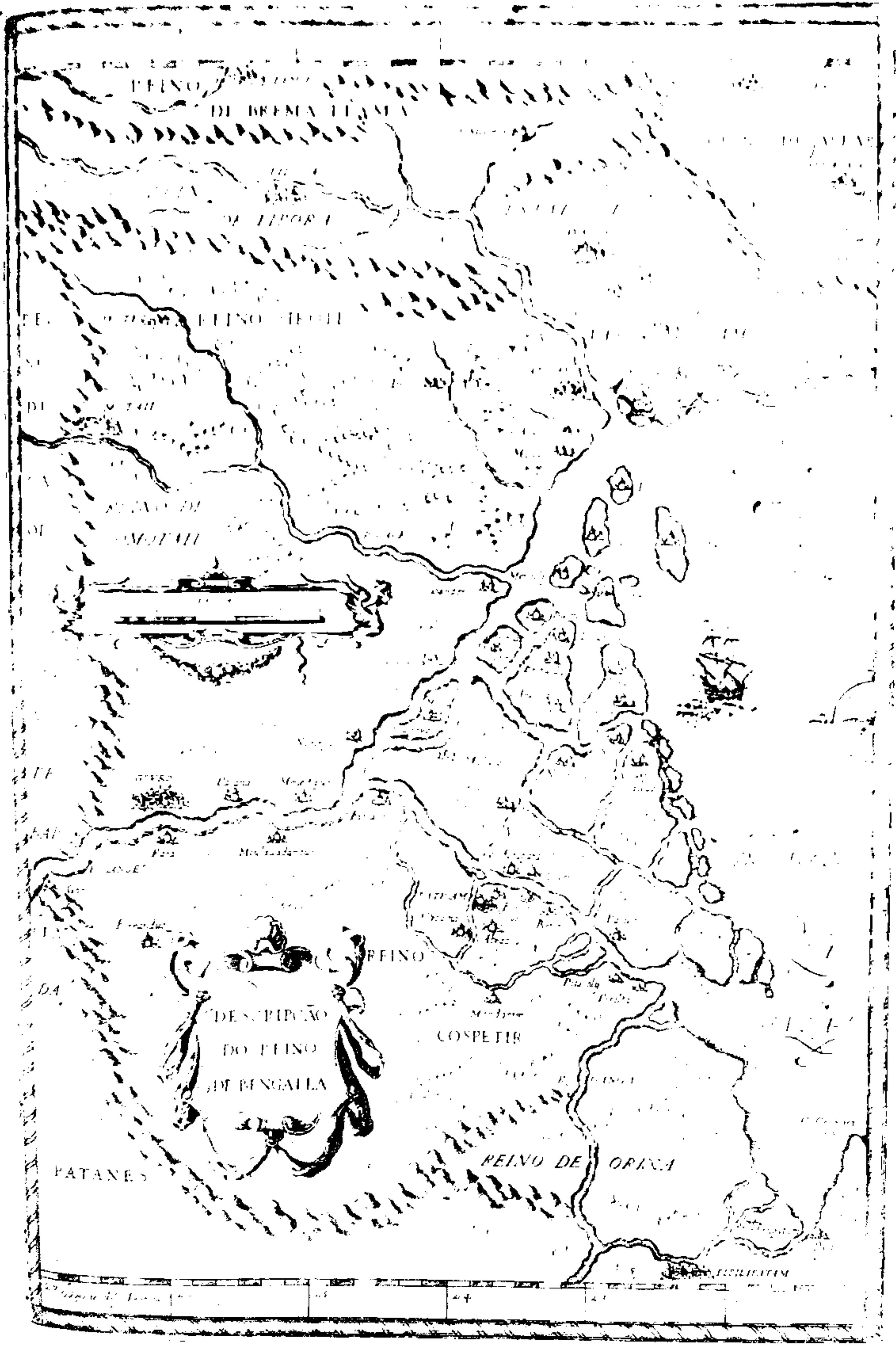
273 (top right); Diego de Astor Fecit (between neat lines bottom right)

Scale: Legoas 1" = 6; lat. 23°–19°, no long.; east at top of page

- 2.1 Descripcao/ do Reino/ de Bengalla 190 × 290 mm (bottom left)

555 (top right); Diego de Astor Fecit (between neat lines bottom left)

Scale: Legoas 1" = 15; lat. 27°–21°, no long.; east at top of page



Map of Bengal from Barros' *Quarta Decada da Asia*, edited by Lavanha in 1615. By permission of the British Library.

India within the Ganges

9 William Baffin d. 1622

1.1 A Description/ of East India, con/ teyninge th'Empire/ of the Great/ Mogoll 485 × 385 mm (top centre)
Indolstani/ Imperii Totius Asiae ditissimi/ Ex indigatione Illust: Dom: Tho:/ Roe Equitis Aurati in Regia/ Mogollanica Legatum agentis/ Illustrata: Anno Sal:/ 1619./ Vera quae visa: qua non veriora. (bottom left); Are to be sold in Pauls Church yarde:/ by Thomas Sterne Globemaker. (bottom left); William Baffin delin- iavit et excudebat. Renold. Elstrack Sculp. (bottom centre)
Scale: English Leagues 1" = 40; lat. 44°–16°

1.1.2 Re-issued [1632] with 'Printed for Henery Toombes and Benjamin ffisher and are to be souide at the Talbut without/ aldergate' in place of 'Are to be sold . . . Globemaker'

Re-engraved for *Purchas his pilgrimes*, Vol. I, Samuel Purchas, London, 1625

1.2 A Description/ of East India/ Conteyning th'Em-/ pire of the Great Mogoll 364 × 275 mm (top centre)
578, 579 (between neat lines top left and right); R. Elstracke Sculpsit (bottom left)

Re-engraved from 1.2 for *Orientalische Indien*, Part 12, (de Bry heirs), publ. Wilhelm Fizzler, Frankfurt, 1628

1.3 Description Chorographica Indiae Orientalis, Delineationem, sive Regni Magni Mogol Exhibens 350 × 285 mm (between top neat lines)
Scale: miliarium anglicorum 1" = 50; names on Mogol's seal in Arabic taken from Purchas p. 591, instead of English as in original map

Re-engraved for *A Voyage to the East Indies*, Edward Terry, London, 1655

1.4 A/ Description/ of East India/ Conteyning the/ Empire of the/ Great/ Mogoll 310 × 270 mm (top right in place of seals)
Scale: English Leagues 1" = 40

118 1.4.2 Re-issued in *The Travels of Sig. Pietro della Valle*, [tr. G. Havers], publ. John Place, London, 1655

Re-engraved for *Asia*, John Ogilby, London, 1673

1.5 Magni/ Mogolis/ Imperium 348 × 288 mm (top right)
Scale: Milliarum Anglica 1" = 50; lat. 46°–15°

Re-engraved from 1.3 for *Relations de divers voyages Curieux*, Melchizedech Thevenot, Vol. I, Paris, 1663; re-issued 1681, 1696

1.6 Description de la par-tie des Indes orientales/ qui est sous la domina/ tion du grand Mogol 360 × 272 mm (top centre)
J. de Bis sculp. (bottom left); avec privilege du Roy (between neat lines bottom right)

Re-engraved for *La Galerie agreable du Monde*, Pieter van der Aa, Leiden, 1729

1.7 **Royaume/ du/ Grand Mogol,/ avec tous les Pays qui en depen/ dent suivant les Relations des/ plus fideles Voyageurs,/ nouvelle- ment donne au Public/ par/ Pierre vander Aa/ Marchant Libraire/ a Leide** 350 × 290 mm (top right)

Scale: Lieues d'Allemagne de 15 au degre 1" = 40; Lieus de France de 20 au degre 1" = 55; Lieues d'Espagne de 17½ au degre 1" = 50; lat. 45°–16°, long. 83°–114°; without seals

Re-engraved from 1.4 for new edition of *A Voyage to the East Indies*, E. Terry, London, 1777

1.8 **A/ Description/ of East India/ Containing the/ Empire of the/ Great/ Mogol** 308 × 270 mm (top right)

Scale: English Leagues 1" = 40

10 **Henricum Hondius** 1597–1651

1.1 **Magni Mogolis/ Imperium** 490 × 369 mm (top left)
Amstelodami Apud Henricum Hondium (bottom left)

Scale: Milliaria Germanica Communia 1" = 27; lat. 43°–18°, long. 101°–136°

In *Atlantis Novi*, Part 3, Henricum Hondius from Mercator, Amsterdam, 1636

1.1.2 Re-issued in editions of *Gerardi Mercatoris Atlantis Novi*, with new imprint 'Amstelodami Apud Ioannem Ianssonium' from French ed. of 1639

Signatures of some editions are given:

	Latin	Dutch	French	German	Spanish	
Hondius	1636 Eeee		1639 rrrr			
	1638		1641 rrrr			
Jansson	1641	1644 sss	1639	1642	1653	
	1644	1644	1640 rrrr	1644	1656	
	1647 L	1645 m	1641 rrrr	1647	1666	119
	1649 L	1647 m	(3 eds)			
	1656 L	1652 m	1642 rrrr	1649 8L		
	1658 L	1653 m	1647 rrrr	(2 eds)		
		1658	1649 O			
		(3 eds)	1652 O			
			1653 O			
			1656 O			
			1658 O			

(Extracted from Koeman)

India within the Ganges

- 1.1.3 Re-issued with imprint changed to 'Amstelodami sumptibus P. Schenk et G. Valk, cum Privilegio' in *Nieuwe Atlas*, Vol. III, J. Covens and C. Mortier, Amsterdam, 1707-41
- 11 Thomas Herbert 1597-1642
 Map drawn for *Some Yeares Travels into Divers Parts of Asia and Afrique*, Thomas Herbert, publ. Iacob Blome and Richard Bishop, 2nd ed., London, 1638 (not in 1st ed. of 1634); re-issued 1639
 India on this side/ Ganges 140 × 172 mm (top right)
 No scale; lat. 39°-5°
 On page 300, running head 'A Map of India intra Gangem. Lib. 3'; text above and below
- 1.1.2 Re-issued in 3rd ed., London, 1665, publ. Andrew Crook
 On page 353, running head 'The Samoreen'; text below only
- 1.1.3 Re-issued in 4th ed., London, 1677, publ. R. Scot, T. Basset
 F. Wright, R. Chiswell
 On page 336, running head 'The Coast of Mallabar. The Samoreen'; text above and below



India from Herbert's *Some Yeares Travels* . . . , 1638/1665.

12 Joan 1596–1673 and Cornelis d. 1642 Blaeu

- 1.1 Magni/ Mogolis/ Imperium 520 × 417 mm (top left)
 Nob.mo Spectat.moque viro/ D. Iohanni Hvydekoper/ Equiti,
 Domino in Thamen, Blocland, etc./ Urbis Amsterdamensis
 Senatori/ et Scabino, nec non Concilii Socie/ tas Indicae Asses-
 sori, Tabulam/ hanc D.D. Ioh. et Corn. Blaeu. (bottom left)
Scale: Millaria Germanica communia 1" = 23; lat. 41°–18°, long.
 97°–130°

Taken from Hondius 1.1 for *Appendix dela I & II Parties du Theatre du Monde ou Nouvel Atlas*, Guillaume and Jean Bleau, Amsterdam, 1640

Re-issued in editions of *Appendix* and *Novus Atlas* up to 1658, and in *Atlas Maior* with altered dedication: '... D. Iohanni Hvydekoper, Equiti, Domino in Marsenveen, Neerdyck, etc...'; bound in various atlases including *Atlas Maior*, Vol. III, Carolus Allard, Amsterdam, [1710]. Some editions and signatures are given:

	French	Latin	Dutch	German
<i>Appendix</i>	1640 Cc	1640 D	1642 Cc	
<i>Novus Atlas/</i>	1640 Cc	1640 D	1642 D	1642 C
<i>Theatre du Monde</i>	1640 E			
	1644 E			
	1645 E	1645 D		1647 C
	1650 E		1650 D	
	1658 E		1658 D	
<i>Atlas Maior</i>	1663 Qqq	1662 Z	1664 D	
	1667			

(Extracted from Koeman)

13 Robert Dudley 1574–1649

Map drawn for *Arcano del Mare*, R. Dudley, Florence, 1646; re-issued 1661

- 1.1 Questa carta contiene la casta dell'India Ori/ entale con la costa de
 Coromandell e l'Isola di Zei/ lan e finisce con la parte Tramontona
 di Sumatra./ le longitudine comincia da l'Isola di Pico di Asores./
 d'Asia Carta II./ L°.6° 745 × 475 mm (centre)

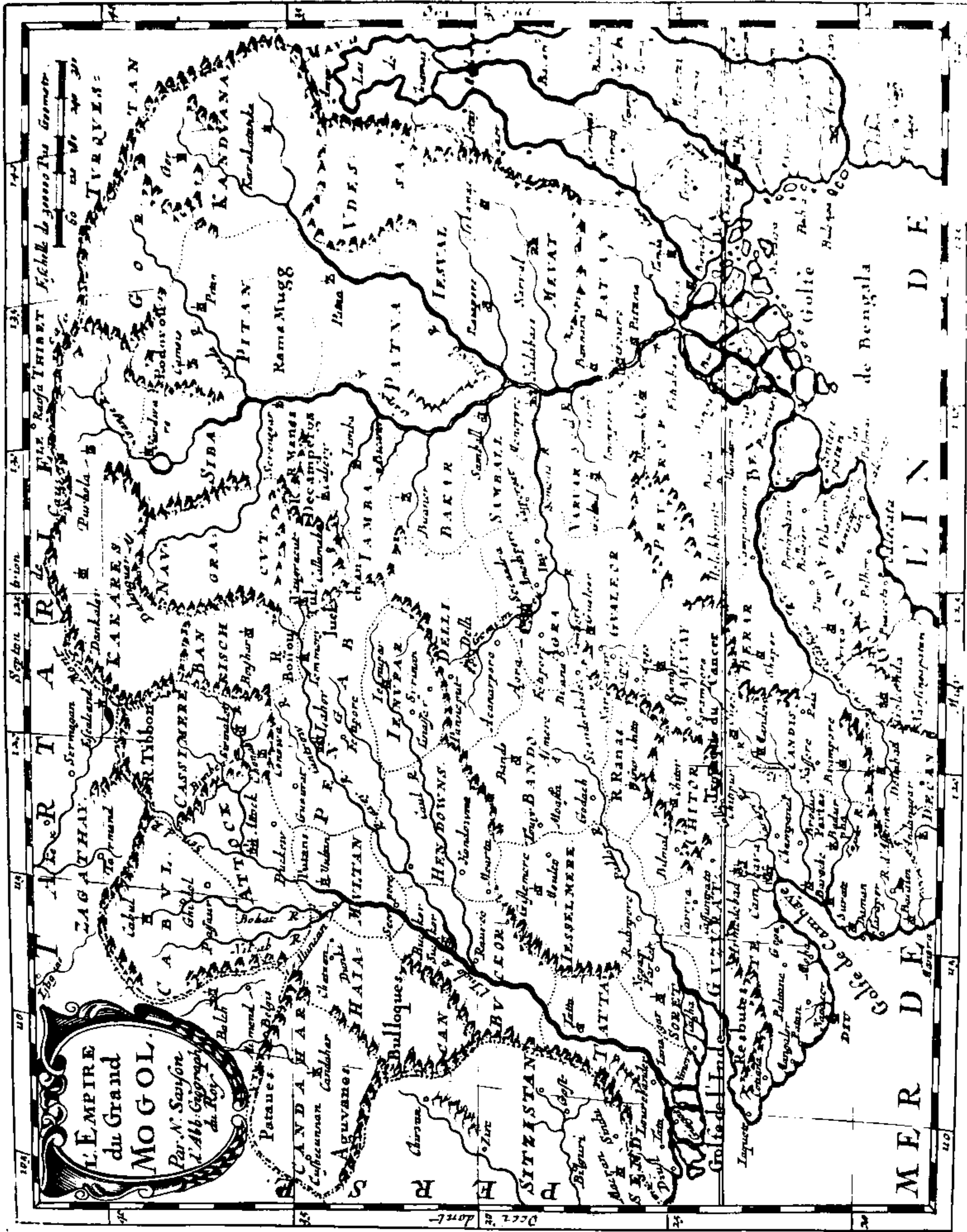
AF Lucini Fece (bottom left)

No scale; lat. 18°–3°, long. 105°–129°

The sheets on either side of this one contain parts of the Indian coast

India within the Ganges

- 14 Joannes Jansson 1596–1664
See Braun and Hogenburg, 1657; Linschoten 2.3; Pieter van den Keere 1.2–5.2; Hondius 1.2
- 1.1 Sinus Gangeticus,/ Vulgo/ Golfo de Bengala/ Nova descriptio.
543 × 470 mm (bottom right)
Scale: Milliarum germanica Communia 1" = 15; Milliarum Gallica Communia 1" = 20; lat. 5°–25°, long. 108°–125°; west at top of page
Bound in *Atlantis Maioris*, Part 5, J. Jansson, Amsterdam, 1650; and in *Atlas Maior*, Vol. III, Carolus Allard, Amsterdam, [1710]; and various atlases and collections of charts
- 1.1.2 Re-issued with added imprint: 'Amstelodami/ Typis G. Valk et P. Schenk' in *Nieuwe Atlas*, Vol. III, J. Covens and C. Mortier, Amsterdam, 1707–41
- 15 Nicolas Sanson 1600–1667 and sons Nicolas d. 1648, Guillaume d. 1703 and Adrien d. 1708
Maps engraved for *L'Asie*, N. Sanson, Paris, 1652; re-issued in 1653, 1658, 1662, 1683
- 1.1 L'Empire/ du Grand/ Mogol./ Par N. Sanson/ d'Abb. Geographe/ du Roy 246 × 190 mm (top left)
Scale: Eschelle de 300000 Pas Geometr. 1" = 210; lat. 42°–18°, long. 108°–140°
- 1.1.2 Re-issued (re-engraved?) for *Die ganze Erd-Kugel . . . Sanson d'Abbeville*, publ. Johann David Zunners, Frankfurt, 1679, with new title: 'Magni/ Mogolis/ Imperium/ Per N. Sanson.' (top left)
- 1.1.3 Re-issued in *Geographische en Historische Beschryving . . . door Heer Sanson d'Abbeville* publ. Johannes Ribbius, Utrecht, 1683
- 1.1.4 Re-issued in *Algemeene Weereldbeschryving*, publ. A. Ph. de la Croix, Amsterdam, 1705, with Dutch title: Tryk van/ den Grooten Mogol./ Door N. Sanson/ d'Abb: Geograph/ du Roy
- 122 1.2 Re-engraved for *Description de tout l'Univers . . . Par Mrs Sanson Pere & Fils*, publ. Francois Halma, Amsterdam, 1709
- 1.3 Re-engraved for *Atlas Portatif*, publ. Henri de Sauzet, Amsterdam, 1734; re-issued 1738
- 2.1 Presqu'Isle/ de l'Inde/ deca le Gange,/ ou sont les Royaumes, de/ Decan, de Golconde,/ de Bisnagar, et le/ Malabar./ Par le Sr Sanson d'Abbevil-/ le Geographe du Roy/ Avec Pripour 20 ans/ 1652 244 × 199 mm (lower left)
Petrounin Sculp. (bottom left)



Sanson's map of the Mogol Empire, from *L'Asie*, 1655-85

India within the Ganges

Inset: Le Malabar/ Avec tous les Royaumes, qui sont sur/ sa Coste, dans la Terre, et dans les Montagnes

No scale; lat. 23°—7°, long. 110°—131°

Re-issued or re-engraved together with 1.1:

- 2.1.2 In *Die ganze Erd-Kugel*, 1679, with title: 'India/ Extra Gangem/ ubi sunt Regna/ Decam, Golcon-/ da, Bisnagar/ &/ Malabar'
- 2.1.3 In *Geographische en Historische Beschryving*, 1683
- 2.1.4 In *Algemeene Weereldbeschryving*, 1705, with Dutch title
- 2.2.1 Re-engraved for edition of *L'Asie*, 1683, with title '... Par N. Sanson d'Abbeville/ le Geographe du Roy' and 'A d'Winter Scu:' (bottom left)
- 2.3.1 For *Description de tout l' Univers*, 1709
- 2.4.1 For *Atlas Portatif*, 1734, with title '... Par N. Sanson d'Abbe./ Geographer du Roy' and at bottom left centre 'A. d'Winter scu.'; addition of 'Presq Isle de l'Inde de cale Gange' along western coast; re-issued 1738

Map drawn for *Atlas Antiquus sacer, ecclesiasticus et profanus*, Nicolas Sanson & Sons, publ. Pierre Mortier, Amsterdam, 1705; re-issued 1725 by J. Covensand C., Mortier

- 3.1 *India Vetus/ intra, et extra Gagem;/ ad hodiernam locorum positionem respondens/ Auctore N. Sanson Abbavilleo/ Amstelo-dami/Apud P. Mortier 280 × 182 mm (top right)*

Map drawn for *Cartes Generales de toutes les Parties du Monde*, publ. Pierre Mariette, Paris, 1657; re-issued by Mariette, Paris, 1664; re-issued 1670, re-issued Guillaume and Adrien Sanson, 1677

- 4.1 *L'Inde/ deca et dela le Gange,/ ou est l'Empire du/ Grand Mogol et Pays circonvoisins./ Tiree de Purchas,/ et de diverses/ Relations les plus nouvelles/ Par le S. Sanson d'Abbeville/ Geographe Ordinaire du Roy/ A Paris/ Chez Pierre Mariette, Rue St Jacques/ a l'Esperance, avec Privilege du Roy,/ pour vingt ans/ 1654. 539 × 340 mm (top right)*

Somer Sculp. (bottom right)

No scale; lat. 42°—16°, long. 108°—151°

See also Blome, 1670, and Cantelli da Vignola, 1688

16 Philip Cluver 1580–1622

Map drawn for *Introductionis in Universam Geographiam*, publ. Elzevier, Amsterdam, 1659; re-issued 1661

1.1 India Vetus 123 × 118 mm (bottom left)

No scale; lat. N40°–S20°, long. 107°–188°

1.1.2 Re-issued in *Introductionis in Universam Geographiam*, publ. Henry Wetstenium, Amsterdam, 1686

Re-engraved for ed. of *Introductionis in Universam Geographiam*, Vol VI, publ. Jansson Waesberg, Amsterdam, 1682

1.2 India Vetus 190 × 143 mm (bottom centre)

No scale; lat. N40°–S10°, long. 104°–186°

17 Hendrick Doncker 1626–1699

1.1 De Golf van Bengala 520 × 432 mm

t'Amsterdam by Hendrick Doncker

In *Atlas del Mundo o el Mundo Aquado*, Amsterdam, 1669; re-issued up to 1712

18 Richard Blome fl. 1660–1705

Map copied from Sanson for *A Geographical Description of the Four Parts of the World*, R. Blome, London, 1670

1.1 A General Mapp of the East-/ Indies, comprehending the Estats/ or Kingdoms of the Great Mogol,/ the Kingdoms & Estats of Decan, Gol-/ conde, Bisnagar, Malabar &c in the/ Peninsula of India with out the Ganges./ & the Kingdoms Isles of Pegu, Sian,/ Malacca, Cochinchina &c in the Peninsula/ of India within the Ganges, with the Isles/ of Maldives./ By Mounsr Sanson Geographer to the French King,/ & Rendred into English. & Illustrated by Ric. Blome,/ By the Kings Especiall Command/ Printed for Ric. Blome 1667. 335 × 346 mm (top right)

Francis Lamb Sculp (bottom centre); To the Honourable the Governor Deputy/ and Court of Committees of the Company of/ Merchants tradeing in to the East Indies/ This Mapp is humbly dedicated by Ric. Blome. (outside bottom)

No scale; lat. N42°–S3°, long. 109°–152°

India within the Ganges

- 19 **Francois Bernier** d. 1688
Map drawn for *Historie de la derniere Revolution des Etats du Grand Mogol*, F. Bernier, publ. Claude Barbier, Paris, 1670
- 1.1 L'Empire/ du/ Grand Mogol 257 × 186 mm (top right)
Scale: de 300000 pas Geometr. 1" = 210; lat. 42°–18°, long. 104°–145°
Copied from Sanson's map of the same title, 1652
- 1.2 Re-engraved for English translation, *The History of the Late Revolution of the Empire of the Great Mogol*, F. Bernier, publ. Moses Pitt, London, 1671; 'Cross Sculp:' (bottom right)
- 1.2.2 Re-issued in 2nd ed., published M. Pitt and S. Miller, London, 1676
- 1.2.3 Re-issued in *Collection of Travels through Turkey into Persia and the East-Indies... being the Travels of Monsieur Tavirnier Bernier, and other Great Men*, publ. Moses Pitt, London, 1684
- 1.3 Re-engraved for *Voyage de Francois Bernier*, Vol I publ. Paul Marret, Amsterdam, 1699; 'Tom. I. pag. 15' (between neat lines top right)
- 1.3.2 Re-issued in 2nd ed., publ. Paul Marret, Amsterdam, 1710; 'Tom. 1. pag. 1'
- 1.3.3 Re-issued in 3rd ed., publ. Paul Marret, Amsterdam, 1724; 'Tom. 1. pag. 1.'
- Map drawn for *Voyage du Francois Bernier*, Vol. II, publ. Paul Marret, Amsterdam, 1699
- 2.1 Carte nouvelle/ du/ Royaume/ de/ Kachemire 200 × 138 mm (bottom left)
Tom 2. pag. 269 (outside top right)
Scale: Milles communes d'Allemagne 1" = 9; lat. 37°–34°, long. 104°–109°
- 2.1.2 Re-issued in 2nd ed. of Vol II, Amsterdam, 1709
- 2.1.3 Re-issued in 3rd ed., Amsterdam, 1724, with page number 'Tom. 2. pag. 269'

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- 20 **Pierre Du Val** 1618–1683
Maps drawn for *L'ABC du Monde*, Paris, 1670; re-issued 1676, 1682
- 1.1 Empire du/ Mogol 120 × 101 mm (top left)
No scale; lat. 42°–18°, long. 110°–147°
- 2.1 Presqu'Isle/ de/ l'Inde/ de ca le/ Gange 125 × 99 mm (bottom right)
No scale; lat. 24°–5°, long. 109°–134°

Maps drawn for *Diverses Cartes et Tables pour la Geographie Ancienne, pour la Chronologie et pour les Itinéraires et Voyages Modernes*, 2nd ed., P. du Val, Paris, 1680

- 3.1 Route/ ou Itineraire/ de/ Goa a Visapour/ et de/ Visapour a Dabul/ tire de la Relation du Voyage/ de Mandeslo, fait en l'annee, 1638./ Par P. Du Val/ Geographe du Roy 228 × 160 mm (centre left)

Scale: Lieues 1" = 12

- 4.1 Route/ de Surate a Mazulpatan,/ par/ Orengebat et Golconde;/ tenue par l'Evesque d'Helliopolis./ l'an 1663, et dressee/ Par P. du Val,/ Geographe du Roy. 228 × 160 mm (centre left)

Scales: Surate-Orengebat—Gauts ou Lieues de Golconde, chacune de six mille Pas 1" = 5; Orengebat—Golconde—Cosses, chacune d'un mille et demi 1" = 24

Maps in *Geographia Universalis*, Vol. I, P. du Val, publ. Johann Christoph Beer, Nurnberg, 1694

- 5.1 Impery Magni/ Mogolis 124 × 100 mm (top left)
510 (outside top right)

No scale; lat. 42°—18°, long. 110°—148°

- 6.1 Insulae/ Maldivae 100 × 123 mm (top right)
524 (outside top right)

No scale; lat. N6°—S2°, long. 110°—120°

- 7.1 India/ Intra Gan-/ gem 127 × 98 mm (bottom right)
525 (between neat lines top right)

No scale; lat. 23°—5°, long. 107°—134°

21 Johann Baptista Nicolosius

- 1.1 Asia/Ex Conatibus Geographicus/ Ioannis/ Baptista Nicolosii/ S.T.D. 430 → 450 × 385 mm (upper left)

No scale; lat. N20°—S12°, long. 85°—130°; part of a four sheet map of Asia, [1670], each part within its own neat line

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22 Phillipus Baldaeus 1632—1672

Maps and plans drawn for *Naauwkeurige Beschryvinge van Malabar en Choromandel*, P. Baldaeus, publ. J.J. van Waasberge & J. van Someren, Amsterdam, 1672; German ed., 1672

- 1.1 Descriptio Nova/ Imperii/ Malabar/ Canara, Decan;/ et Aliarum/ Provinciarum. 360 × 292 mm (bottom left)

Scale: Duytsche mylen 1" = 16; Spaensche mylen 1" = 20; Eng. en Fransche mylen 1" = 22; lat. 22°—7°, long. 96°—108°; east at top of page

India within the Ganges

- 2.1 De Stad Diu 165 × 125 mm
 3.1 Goa 350 × 280 mm
 4.1 Die Stadt Couchin 350 × 270 mm
Scale: Rhylandse Roeden 1" = 30
 5.1 Die Stadt Coulang 350 × 280 mm
Scale: Rhylandse Roeden 1" = 11
 6.1 Tutecoryn 350 × 280 mm
 7.1 Regionum/ Choromandel, Golconda/ et/ Orixa./ Nova et accurata
 descriptio. 360 × 290 mm (bottom left)
*Scale: Duytsche mylen 1" = 16; Spaensche mylen 1" = 20; Eng. en
 Fransche mylen 1" = 22; lat. 23°—8°, long. 105°—117°; west at top
 of page*
 8.1 Negapatam 350 × 285 mm
 9.1 Paliacatta of Gesdria 355 × 270 mm

Re-issued in *A Collection of Voyages and Travels*, Vol III, publ. A.
 and J. Churchill, London, 1704, 1732, 1747 and 1752 with the
 following volume and page numbers added between neat lines top
 right:

	1704	1732	1747 and 1752
1.2	Vol.3. p.565	Vol.3.p.505	Vol.3.p.513
2.2	Vol.3. p.585	Vol.3.p.513	Vol.3.p.530
3.2	Vol.3. p.574	[524]	Vol.3.p.521
4.2	Vol.3. p.633	Vol.3.p.571	Vol.3.p.573
5.2	Vol.3. p.643	Vol.3.p.578	Vol.3.p.581
6.2	Vol.3. p.648	Vol.3.p.582	Vol.3.p.585
7.2	Vol.3. p.650	Vol.3.p.585	Vol.3.p.587
8.2	Vol.3. p.651	Vol.3.p.585	Vol.3.p.587
9.2	Vol.3. p.653	Vol.3.p.587	Vol.3.p.589

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- 23 John Seller c. 1627—1697
 Maps drawn for *Atlas Minimus, or a Book of Geography*, John
 Seller, London, 1679
 1.1 The Empire/ of the Great Mogul. 54 × 92 mm (top)
 2.1 The Peninsula of/ India without ye Ganges. 55 × 93 mm (top)
 Enlarged for *Atlas Terrestris*, John Seller, London, 1689
 1.2 Empire of/ Mogol 150 × 120 mm (top left centre)
Scale: Eng. Miles 1" = 240; lat. 39°—20°, long. 106°—134°
 2.2 India/ on this side/ Ganges 148 × 121 mm (top right centre)
Scale: Eng. Miles 1" = 240; lat. 26°—5°, long. 103°—129°

24 Robert Morden d. 1705

Maps drawn for *Geography Rectified*, publ. R. Morden and Thomas Cockerill, London, 1680; maps on separate pages without text

- 1.1 Empire/ de/ Mogol by/ Robt Morden 126 × 107 mm (top left centre)
No scale; lat. 41°–17°, long. 70°–110°, 128°–88° (as stated in the introduction: the former from London, the latter from Tenerif)
- 2.1 India/ on this Side/ Ganges/ by R. Morden 133 × 111 mm (top right)
No scale; lat. 26°–5°, long. 72°–99°, 90°–116°
- 3.1 The Maldives/ and/ Ceylon Islands/ by/ Robt Morden 105 × 125 mm (centre right)
No scale; lat. N24°–S3°, long. 71°–85°, 88°–102°



South India from the 2nd ed. of Morden's *Geography Rectified*, 1686/1688.

India within the Ganges

- Re-issued in revised ed., 1688 with maps and text together
- 1.1.2 on page 393; sig. Kkk2
 - 2.1.2 on page 403; sig. Lll2
 - 3.1.2 on page 428

- Re-issued in 3rd ed., 1693, and again 1700
- 1.1.3 on page 415; engraved top right 'Pag. 37'
 - 2.1.3 on page 423; engraved top left 'Pa 38'
 - 3.1.3 on page 448; engraved top right 'Pag. 43'

25 Johan Nieuhoff 1618–1672

- Maps drawn for *Gedenkweerdige zee-en Lant Reize . . . West en Oost Indien*, publ. Jacob van Meurs, Amsterdam, 1682
- 1.1 Landt caert/ vande/ Cust van/ Malabar,/ Madura/ en/ Cormendel./ J.N. 345 × 283 mm (bottom left)
pag. 107 (top right)

- Scale*: Duytsche mylen 15 in een graadt 1" = 1³/₄; Eng. en Fran. mylen 20 in een graadt 1" = 1¹/₂; lat., 17°–8°, long. 100°–114°
- 2.1 De Stadt Pellacata met het/ Casteel 360 × 280 mm (top centre)
Pag. 112 (top right)
No scale

- Re-engraved for *A Collection of Voyages and Travels*, Vol II, A. and J. Churchill, London, 1704; re-issued 1732, 1744, 1752
- 1.2 A Map of the/ Coast of/ Malabar/ Madura/ and/ Cormendel
 - 2.2 The City of Pellacata with its/ Castle

Vol. and page nos. of the editions:

- 1.2 1704 Betwixt p. 245, 246. (No 2) (top left)
- 1732 Betwixt p. 208, 209—No 2 (top left)
- 1744 & 1752 p. 198 No 2 (top left); V. II (between neat lines top right)
- 2.2 1704 Betwixt Pag. 250, 252./ (No I.) (top right)
- 1732 Betwixt p. 213, 214 (top right); V. II (outside top right); 10 (outside bottom right)
- 1744 & 1752 Pag. 202 (top right); V. II (outside top right); 10. (outside bottom right)

- 26 Alain Manesson Mallet 1630–1706**
 Maps drawn for *Description de l'Univers*, Paris, 1683; re-issued with German text 1686
- 1.1 Inde/ Ancienne/ a l'Occident/ du Gange 102 × 148 mm (top left)
 Figure XXXVII; on page 87; lat. 40°–7°, long. 99°–124°
- 2.1 Partie de la/ Terre Ferme/ de l'Inde ou/ l'Empire du/ Mogol
 99 × 143 mm (top centre)
 Figure XLII; on page 97; lat. 45°–14°, long. 99°–121°
- 3.1 Presqu-Isle/ de l'Inde/ decale Golfe/ de Bengala 99 × 141 mm
 (lower right)
 Figure XLVI; on page 105; lat. 25°–5°, long. 102°–117°
- 4.1 Goa 100 × 140 mm (top centre)
 Figure XLVIII; on page 109

- 27 Giacomo Cantelli da Vignola 1643–1695**
 Maps drawn for *Mercurio Geografico . . . del Sanson*, Baudraud E Cantelli, publ. G.G. de Rossi, Rome, 1688; 2nd ed., 1692
- 1.1 L'India/ di qua e di la dal Gange/ oue sono li Stati del G. Mogole parte del Impero/ del fu prete Ianni/ et aliri Regni di nova scopeta comfinanti ad esse/ descritta da Giacomo Cantelli da Vignola/ su l'esemplare delle carte piu esatte e su/ le nototie che si leggono ne viaggi di alcuni/ padri della Comp. di Gesu, e carmelitani scalzi/ di monsu Tavernier Mandeslo/ et altri diligentismi Autori./ e data in luce da Giacomo de Rossi nella sua stamperia in Roma alla Pace/ con Priv del S. Pont./1680. 525 × 418 mm (top right)
 Francis Donia MESSIS Sculp. (within neat line bottom centre)
No scale; lat. 40°–15°, long. 108°–102°
- 2.1 Penisola dell India/ di qua dal Gange/ et Isole intorno ad essa adiacenti/ Descritta, et accresiuta di nuove, e varie Notizie/ da Giacomo Cantelli da Vignola/ conforme le Relazioni che si cavano da Viaggi/ D'alami Padri Carmelitani Scalzi di Monsu Tavernier/ Mandeslo, Pietro dalla Valle et altri Moderni Autori/ Data in Luce de Gio. Giac. de Rossi in Roma/ alla Pace con priv. del S. Pont Anno/ 1683. 418 × 530 mm (bottom right)
No scale; lat. N26°–S2°, long. 109°–131°

India within the Ganges

28 Daniel Havart b. 1656

Map drawn for *Op-en Ondergang van Cormandel*, Daniel Havart, publ. Jan ten Hoorn, Amsterdam, 1693

- 1.1 Caart/ van de Landen/ van Arioer, / en Oedear Palium/ voor Paliacatte. 285 × 178 mm (top right)
Eerste Deel fol. 86 (outside top right)
Scale: (not mentioned) 1" = 2³/₄

29 Vincenzo Maria Coronelli 1650–1718

Maps drawn for *Corso geografico universale*, Venice, 1694 (not in first ed., 1689–92); re-issued 1694–97; re-issued in *Isolario*, Vol. II of *Atlante Veneto*, Venice, 1697, with Italian text on verso

- 1.1 Impero/ del/ Gran/ Mogol 603 × 452 mm (top left)
Dedicated to Girolamo Correr . . . dal P. Cosmografo Coronelli
Scale: Miglia D'Italia 1" = 12; Lege di Francia 1" = 6; lat. 40°–20°, long. 106°–144° from the centre of Italy
- 2.1 Penisola dell'Indo di qua del Gange e l'Isola di Ceilan nell'Indie Orientali 603 × 453 mm (outside top)
Dedicated to Ottavio Manin 'dal P. Coronelli'
Insets: Isola di Ceilan; Isoletta del Sole, ou del Soleil; Gran Baia di Cotiari
No scale; lat. 24°–7°, long. 106°–130°

30 John Ovington 1653–1731

Map drawn for *A Voyage to Surat, in the Year, 1689*, J. Ovington, publ. Jacob Tonson, London, 1696

- 1.1 The Deliniation of His Ma. ties/ Citadel and Fort of Bombay/ April the 2nd Anno Domini: 1668 . 260 × 335 mm (top right)
Pag. 147 (outside top left)
No scale

31 Francisco de Afferden 1653–1709

Maps drawn for *El atlas abreviado, o compendiosa geographia del Mundo antiguo y nuevo*, 2nd ed., publ. Juan Dure, Amberes, 1697; re-issued with Spanish titles 1711

1.1 **Presqu Isle de l'Indedeca le Golfe du Gange** 78 × 135 mm

On page with 'Presqu Isle de l'Indedela le Golfe du Gange'

2.1 **Mogol** 153 × 133 mm

32 John Fryer d. 1733

Maps drawn for *A New Account of East-India and Persia*, John Fryer, publ. R. Chiswell, London, 1698

1.1 [Madirass & Fort St George] 265 × 167 mm

P. 37 (outside top right)

No scale; west at top of page

2.1 **A Map/ of the/ Parts of India/ mentioned in/ Dr Fryar's Travells.**
180 × 280 mm (top left centre)

P. 50 (top left)

Inset: [Routes of Chaul to Raire and Bacein to Ieneapur]

No scale; lat. 30°–50°

3.1 [Bombay] 143 × 210 mm

P. 60 (top left)

4.1 **Chetore** 330 × 253 mm (top centre)

P. 417 (top right)

Re-engraved for Dutch translation, *Negenjarige Reyse door Oost-indien en Persien*, Johann Freyer, 'Scravenhage, 1700

1.2 on page 49

2.2 on page 69

3.2 on page 82; 'H. Hutsberg Fecit'

4.2 on page 554

133

33 Philip Lea d. 1700

Maps drawn for *Hydrographie Universalis*, Philip Lea, London, 1700

1.1 **India from ye Golfe of Persia to Bengal** 158 × 133 mm (top)

Scale: Leagues 1" = 100; lat. N27°–S1°

2.1 **Bum-bay, Surat &c** 157 × 131 mm (top)

Scale: English Leagues 1" = 45

3.1 **The River Ganges** 153 × 126 mm (top)

Scale: Miles 1" = 130

India within the Ganges

Map advertised in *A Catalogue of Globes, Spheres, Maps . . .*, London, Printed for, and sold by Philip Lea, at the Sign of the Atlas and Hercules in Cheapside, near the corner of Friday-Street, under the heading 'Maps of One Sheet by Philip Lea'

4.1 Mogul

34 Herman Moll d. 1732

1.1 East/ India 163 × 208 mm (centre left)

No scale; lat. 42°–4°; long. 110°–150°

In [*An Atlas of Modern Geography*, H. Moll, London, 1700]

Map drawn for *A System of Geography*, Part 2, H. Moll, publ. Timothy Childe, London, 1701

2.1 India or the/ Mogol's Empire./ H. Moll Fecit. 190 × 170 mm (top right)

No scale; lat. 41°–4°, long. 84°–129°

On page 74 with chapter heading and text

2.1.2 Re-issued on separate page without text or page number in *Atlas Manuale*, H. Moll, publ. A. and J. Churchill and T. Child, London, 1709

2.1.3 Re-issued in *The Compleat Geographer*, Part 2, H. Moll, publ. A. and J. Churchill, London, 1709; on page 89 with chapter heading and text

2.1.4 Re-issued in *The Compleat Geographer*, 4th ed., 1723

Map drawn for *Atlas Geographus*, Vol. III, H. Moll, printed by John Nutt, London, 1712

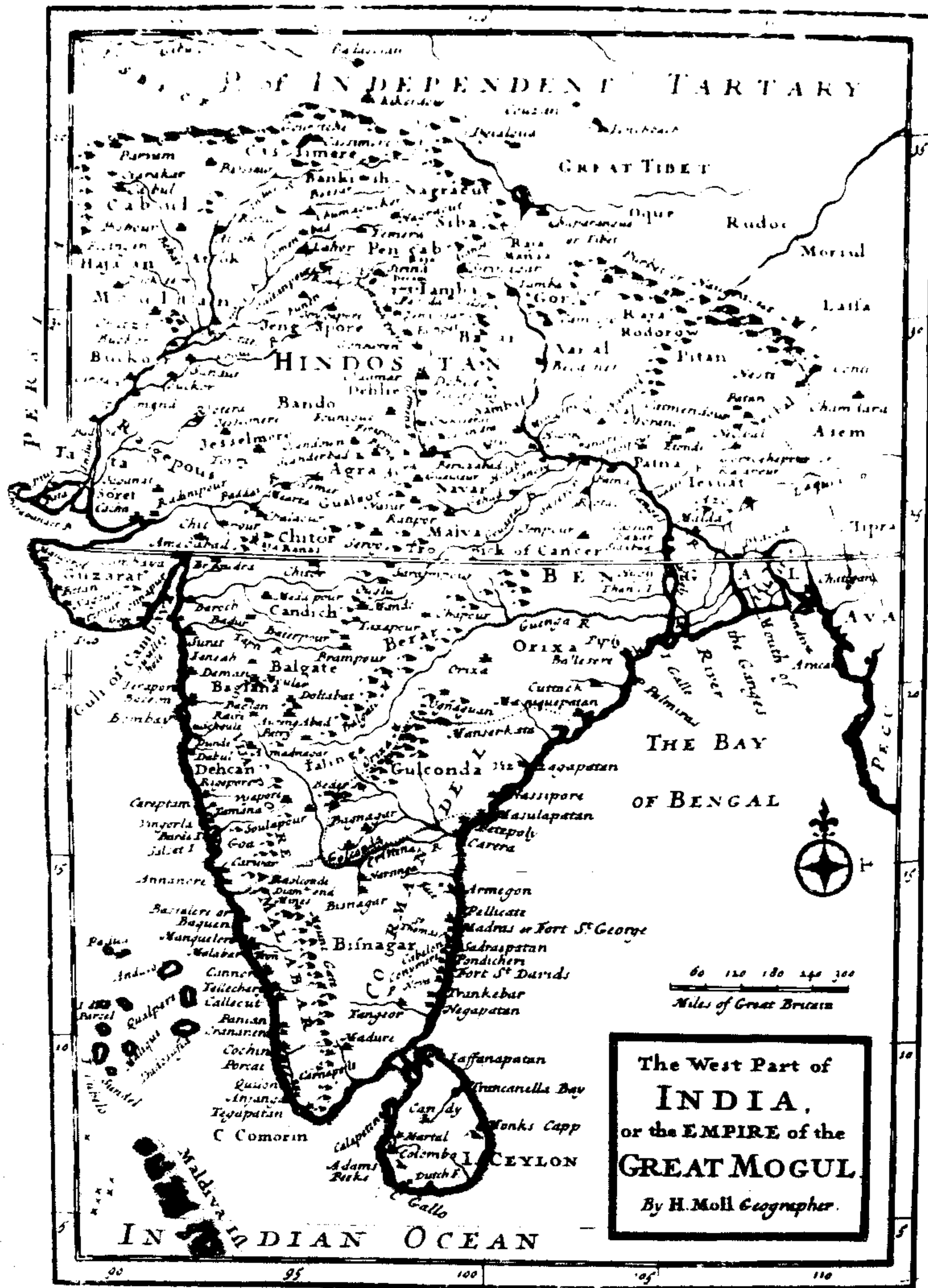
3.1 The West Part of/ India,/ or the Empire of the/ Great Mogul./ By H. Moll Geographer. 178 × 258 mm

Scale: Miles of Great Britain 1" = 210; lat. 37°–4°, long. 89°–111°; neat line at centre left broken to extend map

134 3.1.2 Re-issued in *Modern History*, T. Salmon, 2nd ed., London, 1744, with altered title: 'India Proper,/ or the Empire of the/ Great Mogul/ By H. Moll Geographer.', and addition of 'Deg. East from Lond.' (between neat lines bottom left); long. changed to 69°–91°; '193' (outside top right)

3.1.3 Re-issued in *A Collection of Voyages and Travels*, Vol. II, publ. Thomas Osborne, London, 1745, with altered page number: 'Page 101, Vol. 2' (outside top right)

3.2 Re-engraved for *Modern History*, Vol. II, T. Salmon, London, 1726, with title 'India Proper/ or the Empire of the/ Great Mogul./ Agreeable to Modern History./ By/ H. Moll Geographer' 202 × 253 mm (bottom left)



135

The first edition of Moll's map of India, 1712.

India within the Ganges

- (Pag. 331) (between neat lines top right)
Scale: English Miles 1" = 210; lat. 37°–4°, long. 67°–93°
- 3.2.2 Re-issued in *A New Survey of the Globe*, Thomas Templeman, London, [1731]; same page number (Pag. 331), but addition of legends in sea from edition of *Atlas Minor* 1729
- 3.2.3 An issue with 'A' and 'NN' (outside bottom centre and right); legends in sea; page no 331 scraped out and '37' added (outside top right); 'By-/ H. Moll Geographer' in title
- 3.3 Re-engraved for *Atlas Minor*, H. Moll, London, 1729 with title as in 3.1 but 'by/ H. Moll. . .'; legends in sea giving size of empire and situation of Agra; '36' (outside top right)
- 3.3.2 Re-issued in *Atlas Minor*, publ. T. and J. Bowles, London, 1740
- 4.1 A Plan of Fort St George/ and the City of Madras. 195 × 200 mm (top left)
Scale: Yards 1" = 300
In *Modern History*, T. Salmon, London 1726
- 4.1.2 Re-issued in *Modern History*, 2nd ed. London 1744, with V.I outside top left) and P 231 (outside top right)
- 35 **Heinrich Scherer** 1628–1704
Map drawn for *Geographia Politica*, Vol. IV, Part 2, H. Scherer, publ. Johannis Caspar Bencard, Dilinganae, 1703
- 1.1 **Genius ac Mores/ Indorum/ sub Magni Mogolis/ Imperium**
188 × 235 mm (top left)
Johannis Degler del. (outside bottom left); Joseph, a Monteleagro sculpsit, Norimbergae. (outside bottom right)
No scale; no lat. and long.
- 36 **John Thornton** d. 1706
- 136 Charts engraved for *English Pilot*, Bk III, *Oriental Navigation*, J. Thornton, printed by J. How, London, 1703. The following charts appeared in various editions, later signed by Samuel Thornton
- 1.1 A New Mapp of the Island of Bombay and Sallset
- 2.1 A Large Draught of Part of the Coast of India from Bombay to Bassalore
- 3.1 A Large Draught of the Mallabar Coast from Bassalore to Cape Comaroone
- 4.1 A New and Correct Chart . . . from Point Palmiras to Hughley in the Bay of Bengall
- 5.1 A Mapp of the Greate River Ganges As it emptieth it Selfe into the Bay of Bengala

- 6.1 A Large Chart of Part of the Coast of Guzeratt and India from Diu Head to Bombay
- 7.1 A New Chart of Part of the Coast of Choremandell from Armegon to Bimlepatam
- 8.1 A New Chart of the Coast of Orixia and Galconda
- 9.1 A Large Chart of Part of the Coast of Coremandell from Point Pedro to Armegon
All approx. 530 × 435 mm; other editions: 1711, 1716, 1723, 1734, 1743, 1748, 1750, 1761

Other marine atlases with charts of the Indian coast have not been listed in this catalogue; they include:

English

William Herbert, *A New Directory for the East Indies*, 1758, editions in 1767, 1780, 1787
Robert Sayer and John Bennett, *East India Pilot or Oriental Navigator*, 2 vols, 1775–81; *Oriental Pilot*, 1784
Samuel Dunn, *A New Directory for the East Indies*, 1787, maps by H. Gregory
Laurie and Whittle, *Complete East India Pilor or Oriental Navigator*, 2 vols, 1798, 1800, 1803

Dutch

Joannes van Keulen, *De Groote see-atlas of water-werelt*, 2 vols, 1682–86; *Zee Fakkel*, 1753

French

D'Après de Mannevillette, *Le Neptune Oriental*, 1745, 1775

37 Nicolas de Fer 1646–1720

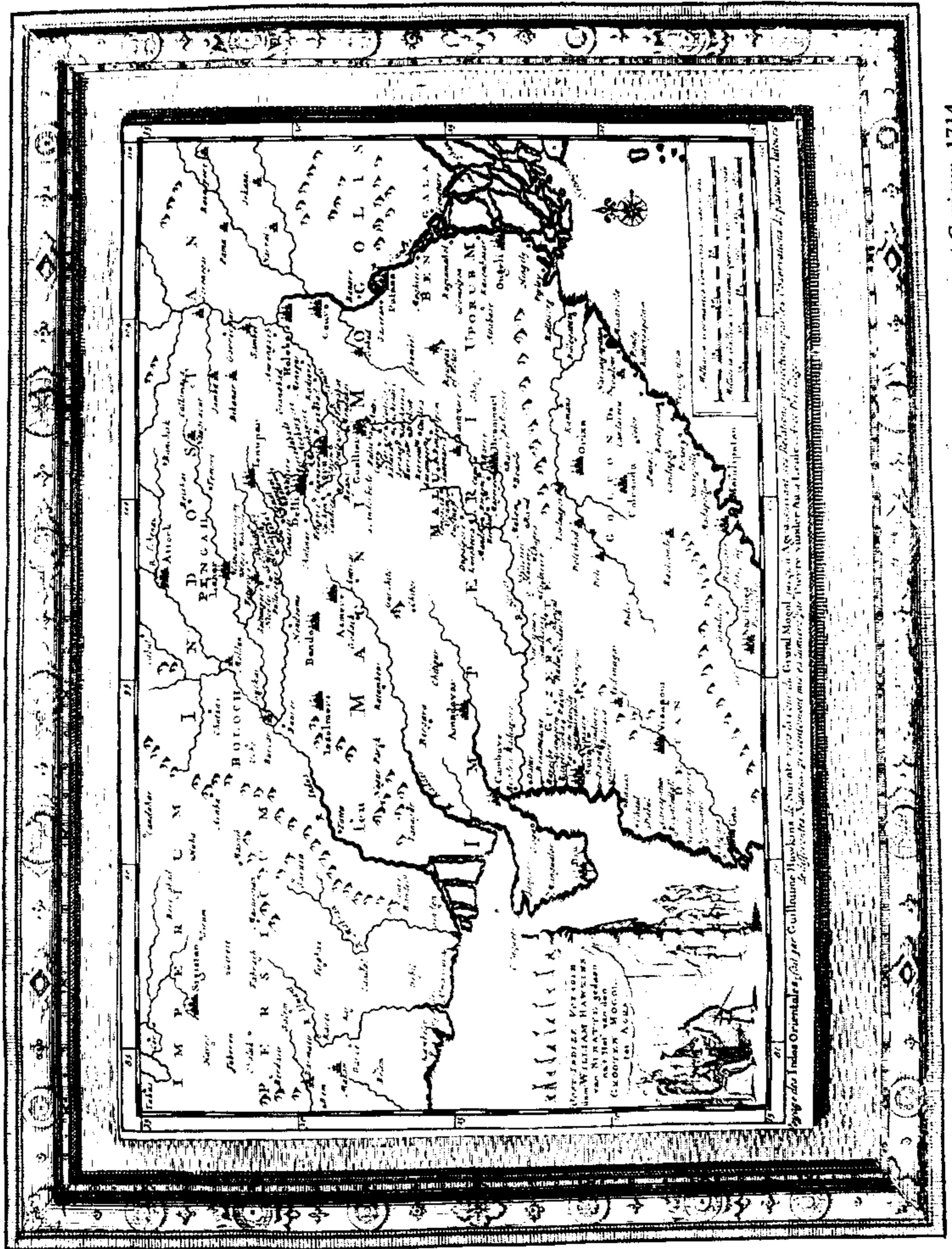
- Maps drawn for *L'Atlas curieux*, Vol. II, Paris, 1705
- 1.1 Les Vrays Indes/ dits/ Grands Indes/ ou Indes Orientales/ Par N. de Fer./ Geographe de sa Majeste Catolique/ et de Monsiegnur le Dauphin 315 × 224 mm (top right)
A Paris/ Chez l'Auteur dans l'Isle du/ Palais a la Sphere Royale/ avec privil, du Roy 1705. (bottom right); C. Inselin Sculpt. (bottom right) 137
- 2.1 *Scale*: lieues d'une heure de Chemin Chacune 1" = 75
Plan de Pondichery/ a la cote de Coromandel/ Occupe par la Compagnie Royale/ des Indes Orientales./ Mis au jour/ Par N. de Fer. 353 × 239 mm (top right)
A Paris/ Chez le Sr de Fer dans l'Isle du/ Palais a la Sphere Royale avec privilege du Roy 1705. (bottom right); A. Coquart Sculp. (outside bottom left)
A. Coquart Sculp. (outside bottom left)
Scale: de 500 Toises a 2853 le Lieue et a 20 Lieues au Degre 1" = 150; lat. (given in text) 11°30', long. 98°30'

India within the Ganges

- 3.1 Map of which origin has not been traced
Presqu'Isle/ de l'Inde deca/ le Golfe du/ Gange. Par N. de Fer
80 × 135 mm (bottom right)
On page with 'Isle de l'Inde de la le Golfe du Gange'
Liebaux sculp (bottom left)
Scale: Lieues d'une heure de chemin 1" = 80; lat. N 20°—S 2°, long.
109°—120°
- 38 F. Catrou 1659—1737
Map drawn for *Histoire générale de l'empire du Mogol . . . sur les
memoires portugais de M. Manouchi venetien*, F. Catrou, publ.
Jean de Nully, Paris, 1705
- 1.1 L'Empire/ du/ Mogol/ sur les Memoires de/ Mr Manouchi./ Grave
par P. Ganiere 1705. 359 × 256 mm (bottom left)
No scale; lat. 41°—16°, long. 98°—142°
Re-issued in editions at Paris, 1705 and 1715, and Le Haye, 1708
Re-engraved for English translation, *General History of the Mogol
Empire* by F.F. Catrou, publ. J. Bowyer, London, 1709
- 1.2 The Empire/ of the/ Mogol from the Memoirs of/ Mr Manouchi/
Printed for Jonah Bowyer/ at the Rose in Ludgate Street/ London,/
I. Harris Sculp. 322 × 245 mm (bottom left)
Scale: English Miles 1" = 170; same lat. and long.
- 39 Pieter van der Aa 1659—1733
Maps engraved for *Naauwkeurige versamling der gedenk-waar-
digste zee en landreysen na Oost en West Indien*, Leiden, 1707;
maps in simple neat lines, sometimes two on a page, with
'Uytgevoerd te Leyden door Pieter vander Aa met Privilegie.'
beneath each at left, and the name of the traveller at right; page nos
engraved in or outside neat line (top right)
- 138 1.1 Babylonie/ en Balsara/ van/ Aleppo/ tot in Pegu/ Beryst
230 × 155 mm (bottom centre)
Scale: Milliarum Germanicorum Communia 15 in uno Gradu 1" = 105;
Milliarum Gallicarum Communia quorum 20 in uno Gradu 1" = 150; lat.
40°—0°, long. 56°—121°
- 2.1 Oost-Indize schoepstogt, door Edward Terry, uyt England gedaan,
na Zuratte, Mogol, en Bengale 225 × 160 mm

- 3.1 'T Ryk/ van den Grooten/ Mogol/ met de Grenzen/ van/ Cambaya/ en't/ Koninkryk/ Deli,/ etc. 225 × 155 mm (top left)
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 50; Milliarum Hispanica Communia 17½ in uno Gradu 1" = 60; lat. 20°–10°, long. 85°–115°
- 4.1 Oost-Indize Voyagie/ door William Hawkins/ van Suratte gedaan/ na't Hof van den/ Grooten Mogol,/ tot Agra 235 × 155 mm (bottom left)
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 55; Milliarum Gallica Communia quorum 20 in uno Gradu 1" = 72; lat. 35°–15°, long. 83°–110°
- 5.1 De/ Koninkryken/ van/ Guzaratte/ Cambaya/ en/ Mogol/ Tot aan/ Bengale en Pegu/ Volgens d'Wedendaagze Kundschap 225 × 155 mm (top right)
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 50; Milliarum Hispanica Communia 17½ in uno Gradu 1" = 60; lat. 33°–15°, long. 85°–115°
- 6.1 Het Koninkryk van/ Guzaratte/ Met d'Engte van/ Cambaya/ en der selver Vloeden, volgens de/ Kundschap der Portugysen, door/ den Hr I.B. de Lavanha/ Beschreven. 225 × 150 mm (bottom left)
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 12; Milliarum Hispanica Communia 17½ in uno Gradu 1" = 15; lat. 23°–19°, long. 88°–94°
- 7.1 Het Koninkryk van/ Bengale/ en de Vloeden die/ zig inde/ Ganges/ ontlasten/ Volgens de Kundschap/ der Portugysen/ Door den Hr/ I.B. de Lavanha/ in't Ligt gebragt. 220 × 150 mm (top left)
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 17; Milliarum Hispanica Communia 17½ in uno Gradu 1" = 20; lat. 17°–11°, long. 103°–112°
- 8.1 'T Koninkryk/ van/ Bengale/ En Landschappen Aande/ Ganges Vloed, tussen Mogol/ En Pegu Gelegen. 220 × 155 mm (top right) 139
Scale: Milliarum Germanica Communia 15 in uno Gradu 1" = 42; Milliarum Hispanica Communia 17½ in uno Gradu 1" = 46; lat. 32°–17°, long. 97°–121°
- 9.1 Indien binnen de Ganges vert oonende de Koninkryken van Golconde, Bisnagar en grenzen van Mogol 230 × 160 mm
- 10.1 De Koninkryken van Golconda, Tanassari, Pegu en Aracan aan de Golf am Bengale 235 × 160 mm
- 1.1.2— Maps re-issued in *Cartes des itinéraires et voyages modernes*,
 10.1.2 Leiden, 1707, without page nos

India within the Ganges



Map to illustrate the journey of William Hawkins, from van der Aa's Atlas Nouveau et Curieux, 1714.

- 1.1.3— Maps re-issued in *Atlas Nouveau et Curieux*, Leiden, 1714, each
 10.1.3 on a separate page within elaborate borders enclosing French titles
 below

Maps drawn for *L'Atlas soulage de son gros et pesant fardeau*

- 11.1 Les Indes Orientales
 12.1 Royaume de Bengale 200 × 140 mm

- 13.1 Map drawn for *Le Nouveau Theatre du Monde*, Leiden, 1713
 L'Inde/ de ca le Gange,/ Suivant les/ Nouvelles Observations/ de/
 Messrs de l'Academie Royale/ des Sciences, etc./ Augmentees de
 Nouveau./ A Leide,/ Chez Pierre vander Aa,/ Avec Privilege
 300 × 225 mm (bottom right)

Scale: Lieues d'Allemagne de 15 au Degre 1" = 48; Lieues de
 France de 20 au Degre 1"50; lat. 27°—7°, long. 85°—110°

- 13.1.3 Re-issued in *La Geographe Moderne*, Abraham du Bois, Leiden,
 1729
 13.1.4 Re-issued in *Nouvel Atlas*, Covens and Mortier, Amsterdam, 1735
 without van der Aa's name: . . . de Nouveau/ 'A Amsterdam/ Chez
 Covens et Mortier'. '91' (outside bottom right)

Maps in *Atlas Nouvel*, Leiden, 1714

- 14.1 Carte du Golfe de Bengale,/ Mer des Indes, et Riviere du Gange,/
 Avec les Pais et Iles d'alentour,/ Savoir les Cotes de Malabar,
 Cormandel,/ Ile de Ceylon, les Maldives, les Royaumes/ de Visi-
 apour, Golconda, Guzaratte, etc./ Ou sont Exactlyment marquees
 les Bancs de Sables, Ancrages,/ Rochers et Brasses d'Eau./ Le tout
 fait sur les nouvelles Observations des plus/ habiles Geographes./
 A Leide, Chez Pierre vander Aa. 356 × 283 (bottom right)
Scale: Duytsche mylen 1" = 50; Spaensche mylen 1" = 35; Eng.
 en Frensche mylen 1" = 40; lat. 25°—0°, long. 96°—121°

- 15.1 L'Empire du Grand Mogol
 16.1 La Rade de Gamron
 17.1 Le Golfe de/ Cambaye/ et la Rade de/ Suratte,/ tres exactement
 representez sur/les meilleurs Cartes modernes./ A Leide/ Chez
 Pierre vander Aa. 155 × 190 mm (top left)

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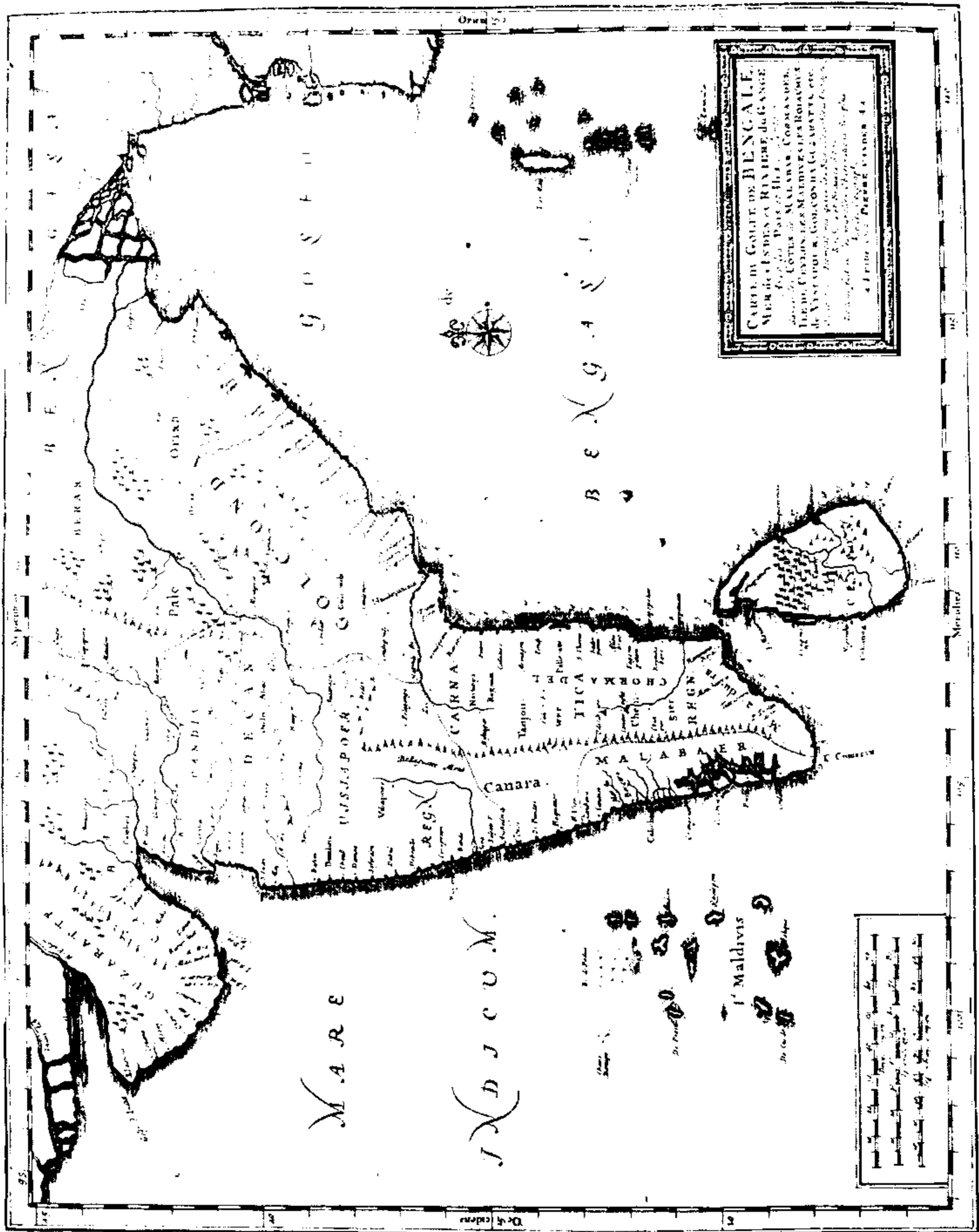
- 18.1 *Scale*: Duytsche mylen 15 een graed 1" = 6; lat. 22°60'—20°; no long.
 Les Indes Orientales au deca du Gange

Maps in *Le Galerie Agreeable du Monde*, Leiden, 1729

In Vol. LVII

- 13.1.2 L'Inde de ca le Gange
 14.1.2 Carte du Golfe de Bengale
 Linschoten 2.3.3 Goa Indiae Orientalis Metropolis 450 × 320
 mm; with added imprint under title 'Se vend a Leide, Chez Pierre
 vander Aa,/ Avec Privilege.'

India within the Ganges



The Bay of Bengal from van der Aa's Atlas Nouvel, 1714.

In Vol. LVIII

- 4.1.4 Oost-Indize voyagie door William Hawkins
 6.1.4 Le Royaume de Guzarate avec le Golfe de Cambaye
 7.1.4 Het Koninkryk van Bengale
 17.1.2 Le Golfe de Cambaye et la Rade de Suratte
 19.1 (Baffin 1.6) Royaume/ du/ Grand Mogol,/ avec tous les Pays qui en
 depen/ dent suivant les Relations des/ plus fideles Voyageurs,/
 nouvellement donnee au Public/ par/ Pierre vander Aa,/ Marchant
 Libraire/ A Leide. 350 × 290 mm (top right)

(Maps without details are cited by Koeman)

- 40 Frederick de Wit (the younger) d. 1710
- 1.1 Magni/ Mogolis/ Imperium/ de novo Correctum et Divisum/ Per
 F. de Wit Amstelodami 516 × 414 mm (top left)
Scale: Mill. Germanica Sive Geometrica 15 in uno Gradu 1" = 27;
 Mill. Gallica Magna Sive Horae Itineris 20 in uno Gradu 1" = 32;
 lat. 42°–18°, long. 96°–130°
 In *Atlas Novum*, David Mortier, Amsterdam, 1708
 Also in *Atlas Contractus*, Schenk, 1713, *Atlas sive Geographia
 compendiosa*, Ottens, 1755 and 1775, and *Atlas novus . . . opera
 Iohannis Baptistae Homanni Norimbergae*, [1705–73]
- 1.1.2 Re-issued with added imprint: 'ex officina I. Covens & C. Mortier'
 in *Nieuwe Atlas*, Vol. V, Covens and Mortier, Amsterdam,
 [1705–59]
- 1.1.3 Issue without 'Per F. de Wit Amstelodami'
- 41 Bartholomaeus Ziegenbalg 1683–1719
- Map drawn for *Merckwurdige Nachricht aus Ost-Indien*, publ.
 Joh. Christoph Papen, Leipzig and Frankfurt, 1709
- 1.1 Tranquebar in Ostindien 298 × 175 mm (top right) 143
Scale: Ruten [?] 1" = 60

India within the Ganges

42 Henri Abraham Chatelain 1684–1743

Map drawn for *La Science des Personnes de la Cour, de l'Epee et de la Robe*, Vol. II, Sieur de Chevigni, publ. l'Honore & Chatelain, Amsterdam, 1717 (first publ. 1706, 1713?)

1.1 Mogol. 170 × 133 mm (between neat lines top centre)

Tome 2 Pag: 35 (between neat lines top right)

Scale: Lieux de France 1" = 110; lat. 35°–9°, long. 81°–120°

1.1.2 Re-issued with 'Tome 1 Pag: 183' (between neat lines top right)

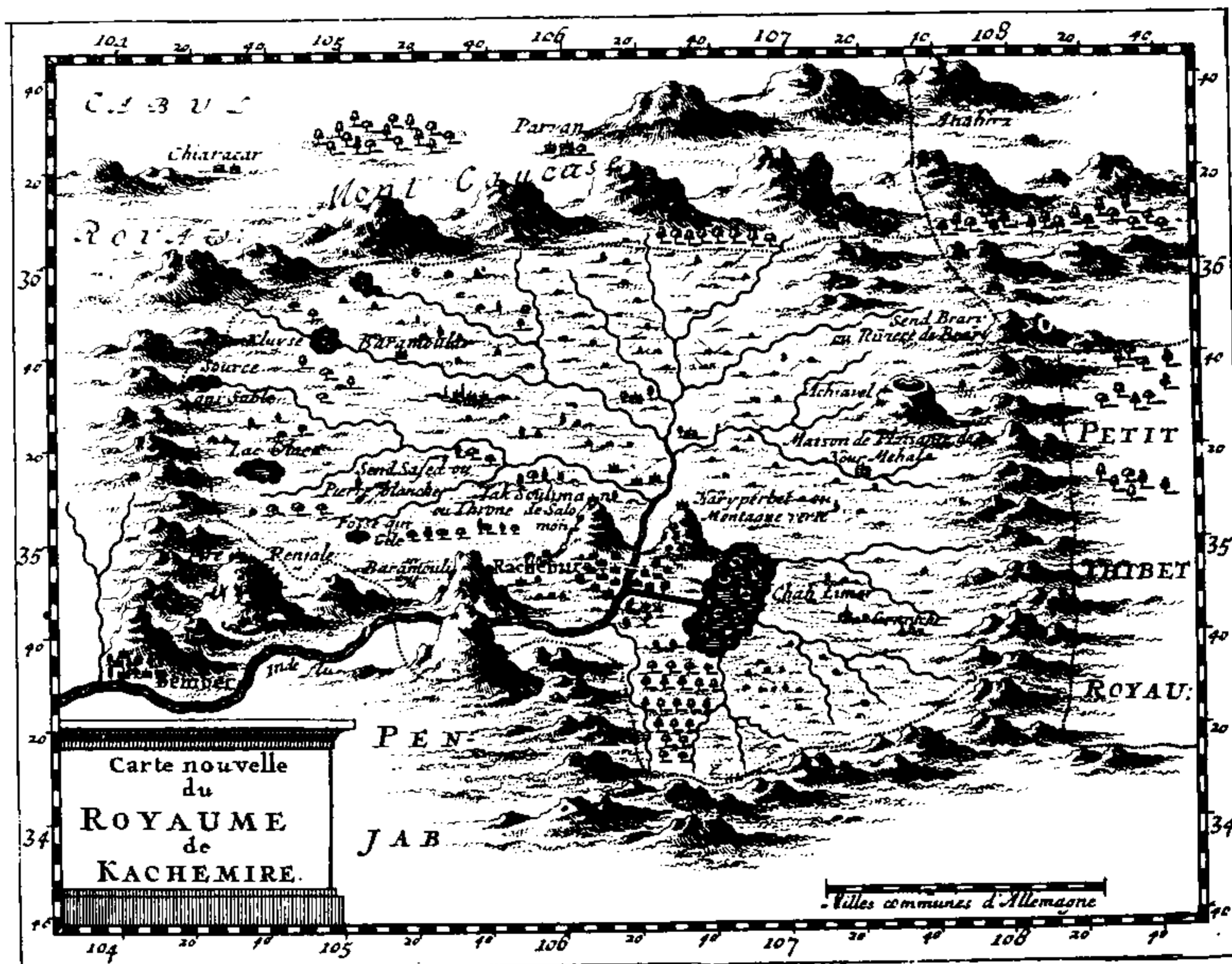
1.1.3 Re-issued in ed. of *La Science . . .*, rev. Pierre Massuet, publ. Z. Chatelain & Fils, Amsterdam, 1752, with 'Tom:1. Pag 439' (between neat lines top right).

1.2 Re-engraved for *Atlas Historique*, H.A. Chatelain, Amsterdam, 1719, re-issued 1732, with title 'Carte/ de l'Empire/ du/ Grand Mogol' 166 × 129 mm (bottom left)

Scale: Lieux de France 1" = 120; lat. 36°–8°, long. 81°–120°

On page with

2.1 Carte nouvelle/ du/ Royaume/ de/ Kachemire 165 × 129 mm (bottom left)



Chatelain's map of Kashmir, 1719/1732, taken from Bernier, 1699.

No scale; lat. 36°–33°, long. 104°–109°

See Bernier, 1699

Maps 1.2 and 2.1 on page of 'Genealogie des Empereurs Mogols depuis Tamberlan ou Tamerlain/ jusques a present. Tom. V, No 35, Pag. 110'

- 3.1 Carte Nouvelle des Terres de Cucan, de Canara, de Malabar, et de Coromandel: Avec/ des Remarques & une Table tant des Principales Villes du Pays que des Comptoirs que les Hollandais y Possedent. Tome V, No 49, Pag. 129. 434 × 367 mm (outside top)

Insets: Remarques Historiques; Tables des Terres, Royaumes & Provinces

Scale: Lieues d'Allemagne ou Danoise de 15 dans un degre 1" = 9; Lieues de France ou une heure de Chemin de 20 dans un degre 1" = 12; lat. 15°–7°, long. 95°–105°

In *Atlas Historique*, H.A. Chatelain, Amsterdam, 1719; re-issued 1732

43 C. Weigelius 1654–1725

Map drawn for *Schul- und Reisen Atlas*, Johann David Kohler, Nuremberg, 1718

- 1.1 India intra et extra Gangem/ Excudit C. Weigelius. Norimbergae. C.T.S.C.M. 393 × 313 mm (top right)
No scale; lat. 40°–7°; no long.

44 Danish Missions

Maps published in *Der Konigl. Danischen Missionarien aus Ost-Indien*, Vols I-III, Halle, 1718–

- 1.1 Tranquebar in Ostindien 295 × 173 mm (top right)

In Vol I, publ. 1718, 3rd Continuation dt 1713

- 2.1 Verzeichness der Derter/ auf der Kuste Coromandel/ welche in den gedruckten Mala-/ barischen Nachrichten gemel-/ det werden. 155 × 197 mm (top left)

Pag. 608 (between neat lines top left)

No scale; lat. 14°–10°, long. 95°–98°40'

In Vol II, publ. 1729, 21st Continuation dt 1725

- 3.1 Abriss/ von/ Der Compagnie/ Grund 160 × 168 mm (top right)

Pag. 609 (outside top right)

In Vol II, publ. 1729, 21st Continuation dt 1725

India within the Ganges

- 4.1 Carte/ zu dem/ Itinerario/ von Anno 1728./ in gleichen/ zu der Majaburamischen/ Dioeces. 150 × 200 mm (top left)
Liebe sculpsit Halae (outside bottom left)
In Vol III, publ. 1735, 26th Continuation dt 1730
- 5.1 Trankenbar 305 × 287 mm (outside top centre)
Liebe Sc. Halae (outside bottom left)
In Vol III, publ. 1735, 29th Continuation dt 1732
- 6.1 Das Konigl. Danische Castel Dans/ burg und die Stadt Tranquenbar/ auf der Custe Coromandel/ in Ost-Indien. 395 × 320 mm (top centre)
In Vol III, publ. 1735; 29th Continuation dt 1732

45 Henry Cornwall

Plans drawn for *Observations upon Several Voyages to India Out and Home*, H. Cornwall, London, 1720; the book contains other elevations/ prospects of the coast

- 1.1 A Prospect of Tellechery. 400 × 240 mm (no neat line)
- 2.1 The Port and Prospect in and near the River of Mangalore. 420 × 180 mm (no neat line)
- 3.1 A Prospect of Carwar. 390 × 250 mm (no neat line)
- 4.1 A Prospect of the Bay of Goa taken at Anchor of the Allguardo. 280 × 420 mm (no neat line)
- 5.1 A Draught of Gyria, or Vizendruke. 520 × 410 mm (no neat line)
- 6.1 A Draught of the Isleand of Calaba. Belonging to Angria. 530 × 420 mm (no neat line)

46 Gerard van Keulen 1678–1728

- 1.1 Nova Tabula Terrarum Cucan, Canara, Malabaria,/ Madura, Coromandelia, Cum parte Septentrional/ Insulae Ceylon, in mari Indico Orientali, Edente Hadriano Relando. 586 × 490 mm (top centre)
tot Amsterdam by Gerard van Keulen met Privilegie (bottom centre)
Scale: Duytsche en Deenske Mylen 15 in een graed 1" = 6; Engelse en France Mylen en Vuire gaens 20 in een graed 1" = 9; lat. 15°–7°, long. 95°–105°
In editions of *Zee Atlas* 1720, 1728, 1738, 1744, and in *Zee Fakkel*, 1753

- 47 Ioan Venantio Bouchet 1655–1732**
 Maps drawn for *Lettres edifiantes et curieuses*, publ. Nicolas le Clerc, Paris, 1722
- 1.1 Iter/ R. Patris Manduit Galli e S.I. ab Ora Coromandeli per/ Regnum Carnate a 3 Sept. 1701 200 × 115 mm (outside top) Zu Num 76 in dem Theil. (outside bottom right); [in Rec. VI] Scale: Milliarum Germanica 1" = 7; lat. 16°–14°, long. 105°–109°
- 2.1 Carte/ des Missions/ des P.P. de la Compagnie/ de Jesua/ dans le Madure/et les Royaumes/ Circonvoisins. 225 × 204 mm (bottom left) XV Rec. Pag. 1 (top left) Scale: Lieues a vingt en degre 1" = 21; Lieues d'une heure de chemin 1" = 23; lat. 15°–7°, long. 92°–100°
- 2.2 Re-engraved for German translation, *Allerhand So Lehr-als Geistreiche Brief Schrifften und Reis-Beschreibungen*, tr. Joseph Stocklein, 2nd ed., Vol. I, publ. Phillip Martin and Johann Beith, Augsburg and Gratz, 1728 with title 'Sud-Theil von/ Indien/ Herverts der Ganges/ Autore R.P. Ioan Ve-/ nantio Bouchet e/ Soc. Iesu' (bottom left) and 'Zum VII. Theil. Pagina 112. oder zu der vorrede des IX. Theils' (outside top centre)
- 2.3 Re-engraved with French title 220 × 189 mm 'Tome 7' (outside top right) Scale: Lieues de vingt au degre 1" = 22½; Lieues d'une heure de Chemin 1" = 25; lat. 15°–7°, long. 92°–102°
- 2.3.2 Another issue with 'Tom. 13 Pag. 72/ Canu fecit' (outside bottom left)
- 48 Guillaume de l'Isle 1675–1726**
- 1.1 Carte/ des Cotes de/ Malabar/ et de Coromandel/ Presentee au Roy/ Par sön tres humble/ tres obeissant/ et tres fidele sujet/ G. Delisle 561 × 434 mm (bottom right) 147
 A Paris chez l'Auteur G. Deslisle Premier/ Geographe de Sa Majeste, de l'Academie/ Rle de Sciences, Sur le Quay de l'Horloge. Av. Pr. 1722 (bottom right below title) Scale: Lieues communes de France de 25 au degre 1" = 23; Lieues marines de France de 20 au degre 1" = 17½; Milles ou Lieues d'Allamagne de 15 au degre 1" = 14; Cosses ou Lieues communes des Indes de 40 au degre 1" = 38; Gos ou Lieues de Malabar et Coromandel de 10 au degre 1" = 9; lat. 23°–8°, long. 87°–106°
- 1.1.2 Issue as 1.1 but date changed to '1723' and addition of 'Marin Sculpsit' (between neat lines bottom right)

India within the Ganges

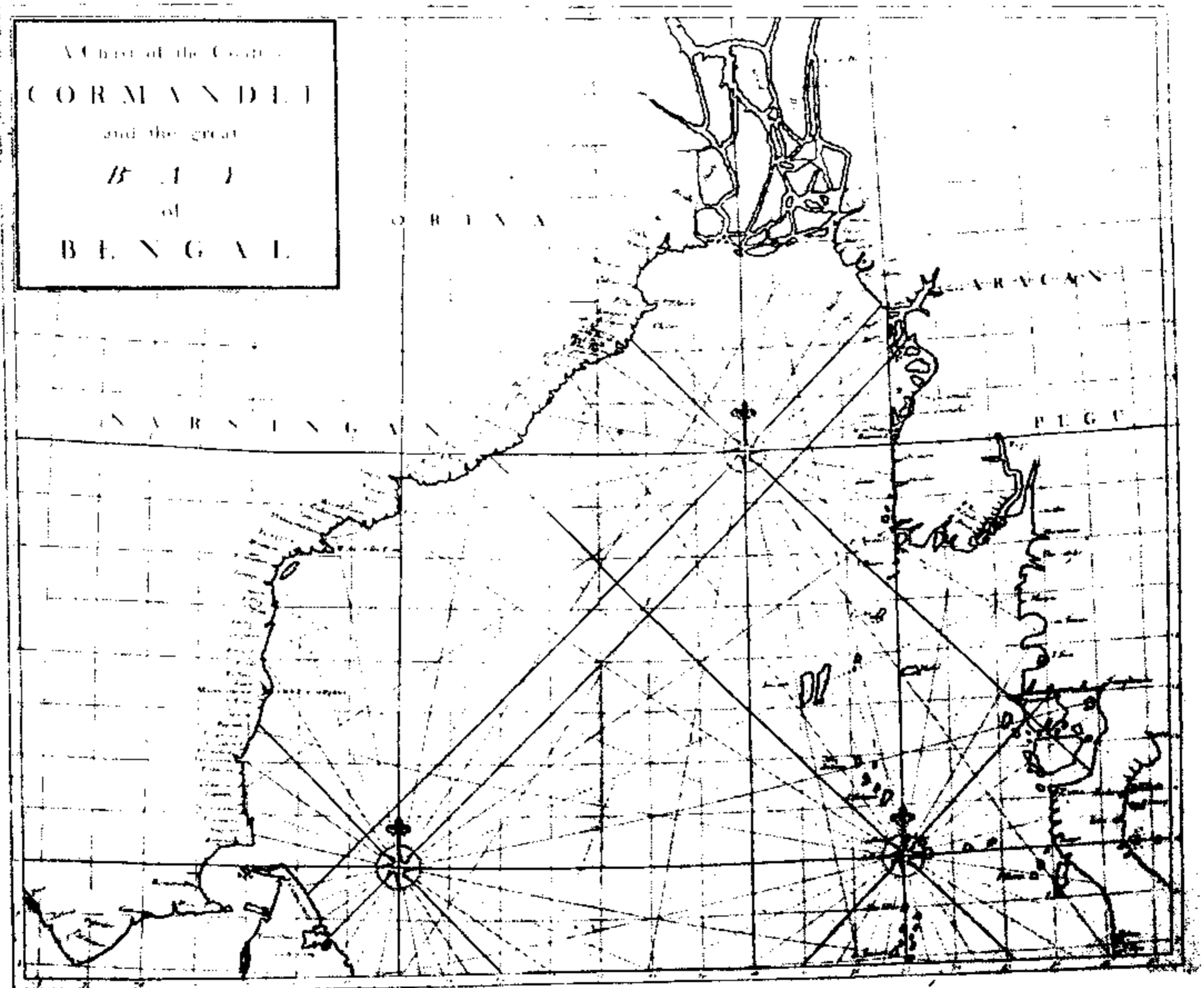
- 1.1.3 Issue without 'Marin Sculpsit', and changed title '... Presentee au Roy/ par son tres humble tres obeissant/ et tres fidele Sujet/ G. Delisle/ a Amsterdam chez/ Pierre Schenk./ l'Entree du Warmoers Straat'
- 1.1.4 Issue with additional title (outside top) 'Orarum Malabariae, Coromandelae, &c. Tabula Accuratissima' and without 'Marin Sculpsit'; imprint changed to '... Presentee au Roy/ Par Guillaume de l'Isle/ A Amsterdam/ Chez I. Covens et C: Mortier/ Geographes.'
Bound in *Atlas Nouveau*, Covens and Mortier, Amsterdam, 1730, 1733, 1741, 1745, 1757 and 1774
- 1.1.5 Issue as 1.2 with addition of 'Ph. Buache P.G.d.R. d. l'A. R. de S. Gendre de l'Auteur Avec Priv./ du 30 Av. 1748.' (outside bottom right)
- 1.2 Re-issued with title '... fidele Sujet/ Guill. Delisle./ Revue et Augmentee en 1780,/ A Paris Chez Dezuache Successor'/ des Srs Delisle et Buache, Rue des/ Noyers pres celle des Anglois./ A.P. D.R.'
A Paris chez l'Auteur G. Delisle Premier/ Geographe de Sa Majeste, de l'Academie/ Rle de Sciences au milieu de la Rue des Noyers. (under title); A Paris Chez Dezauche Graveur, Successeur des Srs De l'Isle et Buache, premiers Geographes du Roi, Rue des Noyers. (outside bottom left); Ph. Buache P.G.d.R.d.l'A.R.d.S. Gendre de l'Auteur Avec Privilege du Roi 1780, (outside bottom right); Marin Sculpsit (between neat lines bottom right)
- 49 Francois Valentyn 1656—1727
Maps drawn for *Ooud-en Nieuw Oost-Indien*, publ. Joannes van Braam, Dordrecht and Gerard onder de Linden, Amsterdam, 1726; 1—4 in Vol. IV, 5—12 in Vol. V
- 148 1.1 Nieuwe Kaart/ van/ Choromandel/ ende/ Malabar/ opgesteld door/ Francois Valentyn,/ J. van Braam en G. onder de Linden/ exc. Cum Privil. 580 × 504 mm (centre right)
A. Vde deel Pag. 2 (top left)
Scale: Duytsche Mylen 15 in een graad 1" = 8; lat. 18°—8°, long. 95°—107°
- 2.1 Nieuwe Kaarte/ Van't Koninkryk/ Bengale,/ door last van den Ed Heer/ Mattheus van den Broucke zalr/ in zyn Ed Leven Directeur/ in Bengale en Raad/ Ordinaris van/ Nederlands India/ Opgesteld/ door Joh. van Leenen./ J. van Braam et G. onder de Linden/ Excut. cum Privil. 540 × 440 mm (top right)

- No B (between neat lines top left)
Scale: Duytsche Mylen 15 voor een Graad 1" = 8; lat. 29°–20°, long. 114°–120°
- 2.2 Same title as 2.1, but placed centre left and 'Cum Privilegio.' in full; same scale, lat., long. No B, but very different map, with more mountains drawn
- 3.1 De Rievier van Suratta 378 × 294 mm (top left)
 No 9 (outside top left)
Scale: Duytsche Mylen met haer gedeelte tot 15 in Een graet 1" = 3/4
- 4.1 Grond Teekening van's Comps Logie op Wingurla/ in het Ryck van Visiapour . . . 177 × 234 mm (outside bottom centre)
 No XI D (top left)
Scale: Rhylandse Roeden 1" = 3 1/2
- 5.1 De Stad St Thome 162 × 125 mm (outside bottom centre)
 A.L: (top left)
Scale: Rhylandse Roeden 1" = 85
- 6.1 [Hoegly. Ao 1721] 365 × 280 (in references bottom left)
 No 7F (outside top left)
Scale: van 30 Rhylandse Roeden 1" = 11
- 7.1 [Coast of Malabar] 376 × 295 mm
 No 15 (outside top left)
Scale: Fransche Mylen 20 in een Graad 1" = 5; Spaansche Mylen 17 1/2 in een Graad 1" = 4 1/2; Duytsche Mylen 15 in een Graad 1" = 4; lat. 10°40'–7°50', long. 91°–95°30'
- 8.1 Grond Teykeninge van's Comps. Logie op Barsaloor,/ in het Coninkryk van Canara 176 × 246 mm (outside bottom)
 No 16 (top left)
Scale: Rhylandse Roeden 1" = 1 3/4
- 9.1 Cananoor 370 × 292 mm (top left)
 No 17A (top left)
Scale: Rhylandse Roeden 1" = 10
- 10.1 De Stad Coetsjien Gelegen op de Cust van Malabar 362 × 266 mm (outside bottom centre)
 No 20 (outside top left) 149
No scale
- 11.1 De Grond Tekening/ van der Fortresse/ de/ Coylan 372 × 288 mm (top centre)
Scale: Rhylandse Roeden 1" = 12
- 12.1 Grond Teekening van de Fortresse/ Cranganore 373 × 292 mm (top centre)
 No 18 (top left)
Scale: Rhylandse Roeden 1" = 12

See also Prevost and others

India within the Ganges

- 50 Alexander Hamilton d. 1732
Map drawn for *A New Account of the East Indies*, A. Hamilton, publ. John Mosman, Edinburgh, 1727; re-issued London 1744
- 1.1 A General Map of India Intra Ganges 195×315 mm (top left)
Chapter 13th (top right); Rot. Mylne fe. (bottom right)
No scale; lat. 25°–0°, no long.
- 51 Edmund Halley 1656–1742
Charts drawn for *Atlas Maritimus et Commercialis*, publ. J. and J. Knapton et al., London, 1728
- 1.1 A Chart of the/ East Indian/ Ocean/ from Cape Guardefoy/ to Cochin/ on the Coast of Malabar 600×500 mm (top right)
34 (between neat lines bottom right)
Scale: Leagues 1" = 15; lat. 34°–9°, long. 44°–76°
- 2.1 A Chart of the Coast of/ Cormandel/ and the great/ Bay/ of/ Bengal 570×480 mm (top left)
No scale; lat. 26°–8°, long. 76°–98° ,



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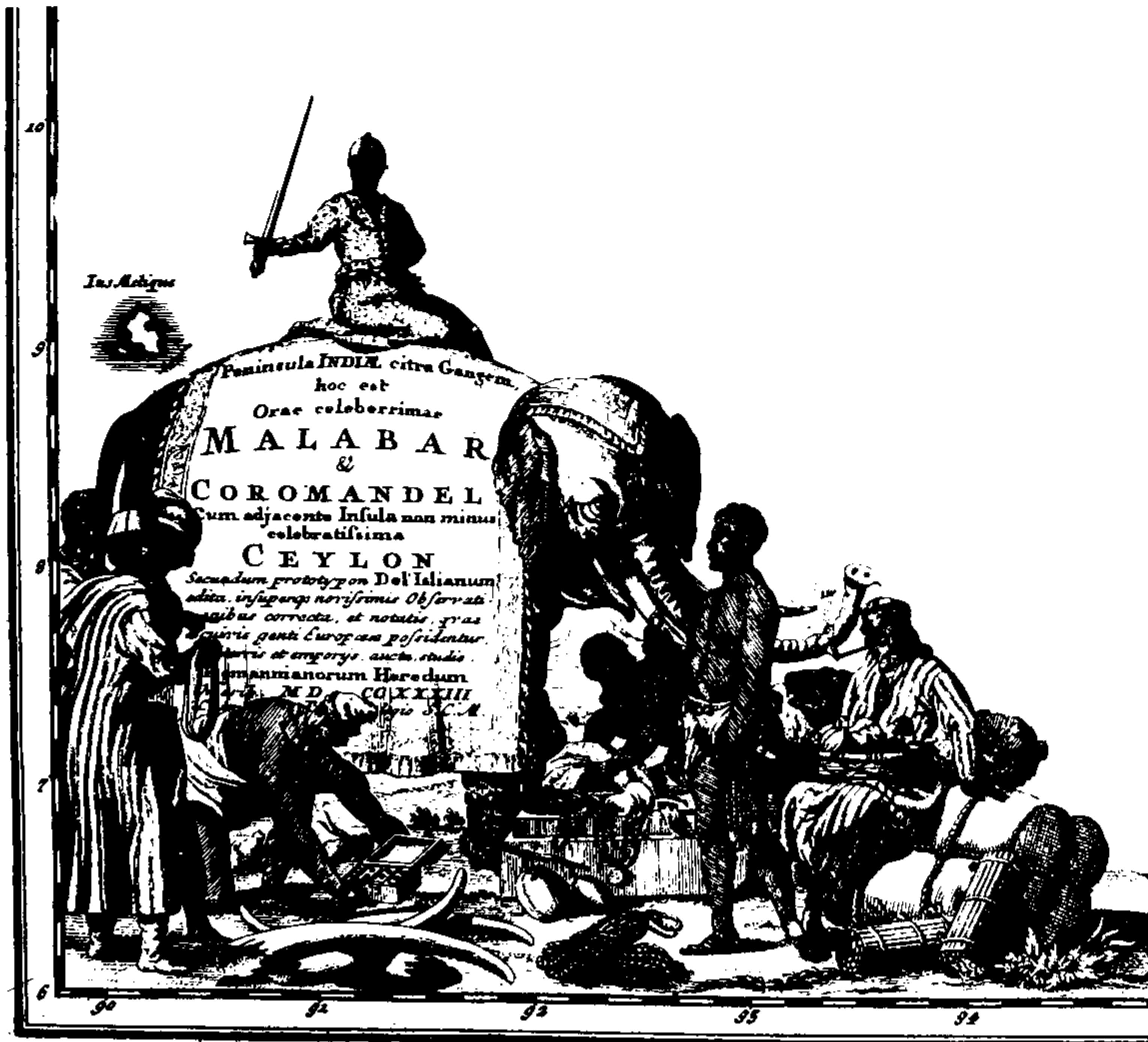
Halley's chart of the Bay of Bengal.

52 Homann Heirs, Johann Michael Franz 1700–1761 and J.B. Epersberger

1.1 Peninsula Indiae citra Gangem/ hoc est/ Orae celeberrimae/ Malabar/ &/ Coromandel/ Cum adjacente Insula non minus/ celebratissima/ Ceylon/ Secundum prototypum Del'Islianum/ edita, insuperq notissimis Observati- onibus correcta... Homannianorum Heredum/ Norib. MDCCXXXIII/ Cum Privi- legio S.C.M. 481 × 546 mm (bottom left)

Scale: Milliarum Gallica marina 20 unum Gr. resp. 1" = 13; Milliarum Germanica 15 unum Gr. respic. 1" = 10; Milliarum Indica communis Kosses dicta 40 unum Gr. 1" = 26; Mill. Malabarica & Coromand. 10 pro uno Gr. 1" = 7; lat. 20°–6°, long. 90°–102°

In *Grosser Atlas*, Homann Heirs, 1737, *Atlas Maior*, 1780 and *Atlas Novus*, Homann Heirs, 1705–73, and *Atlas Novus*, Seutter, 1740



Cartouche from the map of south India by Homann Heirs, 1733.

India within the Ganges

- 53 Jean Baptiste Bourguignon d'Anville 1697–1782
- 1.1 Nouvelle Carte/ d'une Grande Partie de la/ Presqu'Isle des Indes/ en deca du Gange,/ Dressee sur deux Cartes manuscrites/ des RR PP Jesuits/ Missionnaires dans ce Pays./ Par le Sr D'Anville/ Geographe Ord.re du Roi,/ Juin 1737. 260 × 350 mm (bottom left)
DelaHaye Sculpsit. (outside bottom left)
Scale: Lieues d'environ 2300 Toises 1" = 16; lat. 16°30'–8°, no long.
- 2.1 Carte de l'Inde/ Dressee pour la Compagnie des Indes/ Par le Sr d'Anville/ Secretaire de S.A.S. Mgr. le Duc d'Orleans/ Novembre 1752 1040 × 880 mm (in two sheets, title top centre north sheet)
North sheet: 1040 × 400 mm; lat. 30°–19°, long. 86°–120°
Insets: Negrais; Riviere d'Aracan; Riv. de Sirian; Archipel de Mørghi; Environs de Junk Selon
Scale: Lieues Francoises, de 3000 Pas Geometriques ou de 2500 Toises 1" = 18; Lieues Marines, de 20 au Degre 1" = 15; Coss, mesure Indienne, fixes par les Colohnes, entre Agra et Delhi, et qui s'evalue 1335 Toises 1" = 30; Grands Coss, sur le pied d'environ 33 au Degre 1" = 24; Coss Communs, sur le pied de 37 au Degre 1" = 28; Gos, ou Gau, mesure de Marine sur la Coste de Malabar et de Coromandel, qui se compare a 4 Coss 1" = 7
South sheet: 1040 × 480 mm; lat. 19°–5°, long. 87°–118°
Guill' de la Haye (bottom left)
Insets: Environs de Goa; Entree du Gange; Environs d'Ashem
Published with a Memoir: *Eclairissemens geographiques sur la carte de l'Inde*, Paris, 1753
Bound in many atlases including *Nieuwe Atlas*, Covens and Mortier, Amsterdam, [1705–59]
- 2.1.2 Re-issued in English translation of the *Eclairissemens: A Geographical Illustration of the Map of India*, William Herbert, London, 1759, without two half sheets on the right, making total size 706 × 860 mm, only one inset; 'Entree du Gange', and no neat line on right
- 152
- 3.1 Coromandel/ Par le Sr d'Anville/ Secretaire de S.A.S. Mgr. le Duc d'Orleans./ Janvier 1753 500 × 960 mm (in two sheets, title bottom right south sheet)
North sheet: 500 × 480 mm; lat. 17°15'–13°50'
South sheet: 500 × 480 mm; lat. 13°50'–10°30'
Scale: Lieues Francoises de 3000 Pas Geometriques ou 2500 Toises 1" = 4; Lieues Marines, de 20 au Degre 1" = 3½; Coss communs de l'Inde, sur le pied de 37 au Degre 1" = 7; Grands Coss, sur le

ped d'environ 33 au Degre 1" = 6; Lieues d'usage chez les Malabars, evaluees 4 grands Coss 1" = 1½

Bound in many atlases including *Nieuwe Atlas*, Covens and Mortier, Amsterdam, [1705–59]

- 4.1 Partie de l'Inde entre Dehli et Patna./ D'apres la grande Carte de l'Inde dressee par Mr D'Anville en 1752./ Avec des additions qui lui ont ete fournies par Mr Law de Lauriston, Colonel et Chevalier de S. Louis,/ 1763. 380 → 395 × 200 mm (top centre) De-la-Haye (outside bottom right)
Scale: Cosses communs de l'Inde d'environ 37 au Degre 1" = 25; Grands Cosses sur le pied d'environ 33 au D. 1" = 22; Lieues Francoises de 2500 Toises 1" = 16; lat. 29°–24°, no long.

Map drawn for *Antiquite geographique de l'Inde*, J.B.B. d'Anville, Paris, 1775

- 5.1 Ad Antiquam Indiae Geographiam/ Tabula./ Auctor d'Anville, Geogr, Regis primarius,/ et in Regius Humaniorum-Litterarum et Scientiarum Academiis,/ necnon et Metropolitana, Socius,/ Serenissimoque Aurelianorum Duci a Secretis. 375 × 415 mm (top left; irregular edge)
 Guill' De la Haye (outside bottom)
Inset: Ptolémaice Tabula,/ (in parte maritima)/ brevis imago.
Scale: Stadia mensurae Aristotelicae, 1100 circiter in Gradu magni Circuti 1" = 3000; Stadia mensurae Nauticae, sive navigationibus, 750 in Gradu 1" = 350; Spatia hodierna mensurae Indicae, Coss dictae, 42 circiter in Gradu 1" = 110; Leucaee Francicae, Hexapedarum 2500 1" = 58; lat. 35°–0°, long. 83°–121°

See also Haywood 1791

54 Isaac Tirion c. 1717–1765

- 1.1 Nieuwe Kaart van t Keyzerryk van den Grooten Mogol. Uitgegeven te Amsterdam door Izaak Tirion 360 × 285 mm (bottom left) 153
 J. Keyser fecit. 1730 (described in Koeman)
 In *Nieuwe Hand-Atlas... de l'Isle...*, Amsterdam, [before 1740]; re-issued 1744, 1769, 1784

India within the Ganges

- 1.2 Re-engraved for Italian edition, Venice, 1740, with title 'Nuoua Carta/ dell'Impero/ del/ Gran Mogol/ fatta in Amsterdam/ per Isac Tirion 360 × 285 mm (bottom right)
To. 4 pag. 1 (outside top right)
Scale: Leghe Allemane 15 in un Grado 1" = 42; Leghe Inglesi 1" = 170; Leghe Francesi o un ora di Camino 1" = 58; lat. 36°–5°, long. 75°–114°
- 1.1.2 Re-issue of Dutch edition in *Nieuwe Kleine Hand-Atlas*, publ. J. de Groot, G. Warnars, Amsterdam and P. Schonten, Leiden, 1789

55 Johann Lucas Niekamp

- Map drawn for *Kurtzgefasste Missions Geschichte*, Vol. I, Halle, 1740
- 1.1 Special-Carte/ von der/ Halb-Insel Indiens/ dieserts/ dem Ganges 448 × 454 mm (bottom right)
Liebe sc: Halae (between neat lines bottom right)
Scale: Teutsche Meilen, 15 einem Grad 1" = 8; Malabarische Meilen, 10 einem Grad 1" = 5½; Indische Meilen, 40 einen Grad 1" = 22; Frankol Zee Meilen 20 einen Grad 1" = 11; no lat. or long. Stated in Foreword that map improved from De l'Isle's map based on Jesuit reports; this one drawn from reports of Danish evangelical missionaries; not included in French translation, Geneva, 1740 or Latin translation, Halle, 1747

56 Reinier (1698–1750) and Joshua (1704–1765) Ottens

- Map published by R. and J. Ottens about 1740, of which the cartographer is not traced
- 1.1 1 Partie de la Nouvelle Grande Carte des Indes Orientales, contenant les Terres du Mogol, Surate, Malabar, Cormandel, Bengale, Aracan, Pegu, / Siam, Camboje, Tonquin, & une Partie de la Chine, Dressee avec soin, sur plusieurs Cartes Manuscrites/ par un habile Connoisseur; & publiee/ a Amsterdam par R. & J. Ottens, Geographes. 600 × 499 mm (outside top)
Scale: Lieues d'Allemagne 1" = 28; Lieues d'Espagne 1" = 32; Lieues de France 1" = 35; Lieues de Malabar et Cormandel 1" = 18; lat. 40°–7°, long. 81°–125°
- 1.1.2 Re-issued in *Atlas*, J.B. Elwe, Amsterdam, 1792, with altered imprint: '... a Amsterdam par Ian Bt Elwe MDCCXCII'

57 James Fraser fl. 1742

Map drawn for *The History of Nadir Shah*, J. Fraser, London, 1742; 2nd ed. publ. A. Millar, London, 1742

1.1 A map of the Mogul Empire and Part of Tartary 200 × 270 mm (outside top)

This Map has been copied from one of the most Correct of this kind extant, and is pretty exact, excepting a few of the/ distances. The names of several places which hitherto were much corrupted, are here properly expressed. (outside top under title)

Scale: Cosses of Hindustan 1" = 80; lat. 40°–15°, long. 58°–89°

Dutch translation, 1744, with a different map by G. Tielenburg

58 Emmanuel Bowen 1720–1767

Map drawn for *Travels of the Jesuits*, Vol I, J. Lockman, publ. John Noon, London, 1743; re-issued 1762

1.1 A/ Map/ of the/ Malabar/ and/ Cormandel/ Coasts. 280 × 300 mm (bottom left)

E. Bowen Sculp. (under title); Vol. I. pag. 1. (outside top right)

Scale: Cos or Malabar & Cormandel Leagues of 10 to a Degree 1" = 9; Cosses or common Leagues of India of 40 to a Degree 1" = 37; Miles or Leagues of Germany of 15 to a Degree 1" = 14

Map drawn for *A Complete System of Geography*, E. Bowen, London 1747; re-issued 1752

2.1 A New and/ Accurate Map/ of/ the Empire of the/ Great Mogul, together with India/ on both sides the Ganges,/ and the adjacent Countries,/ Drawn from/ the most approved/ modern Maps and Charts:/ The whole/ being regulated by/ Astronl: Observations,/ By Eman. Bowen 426 × 346 mm (top right)

Scale: Leagues of Indostan 1" = 100; English Miles 1" = 160; lat. 33°–1°, long. East from London 68°–111°

Copied by Bachienne, 1774

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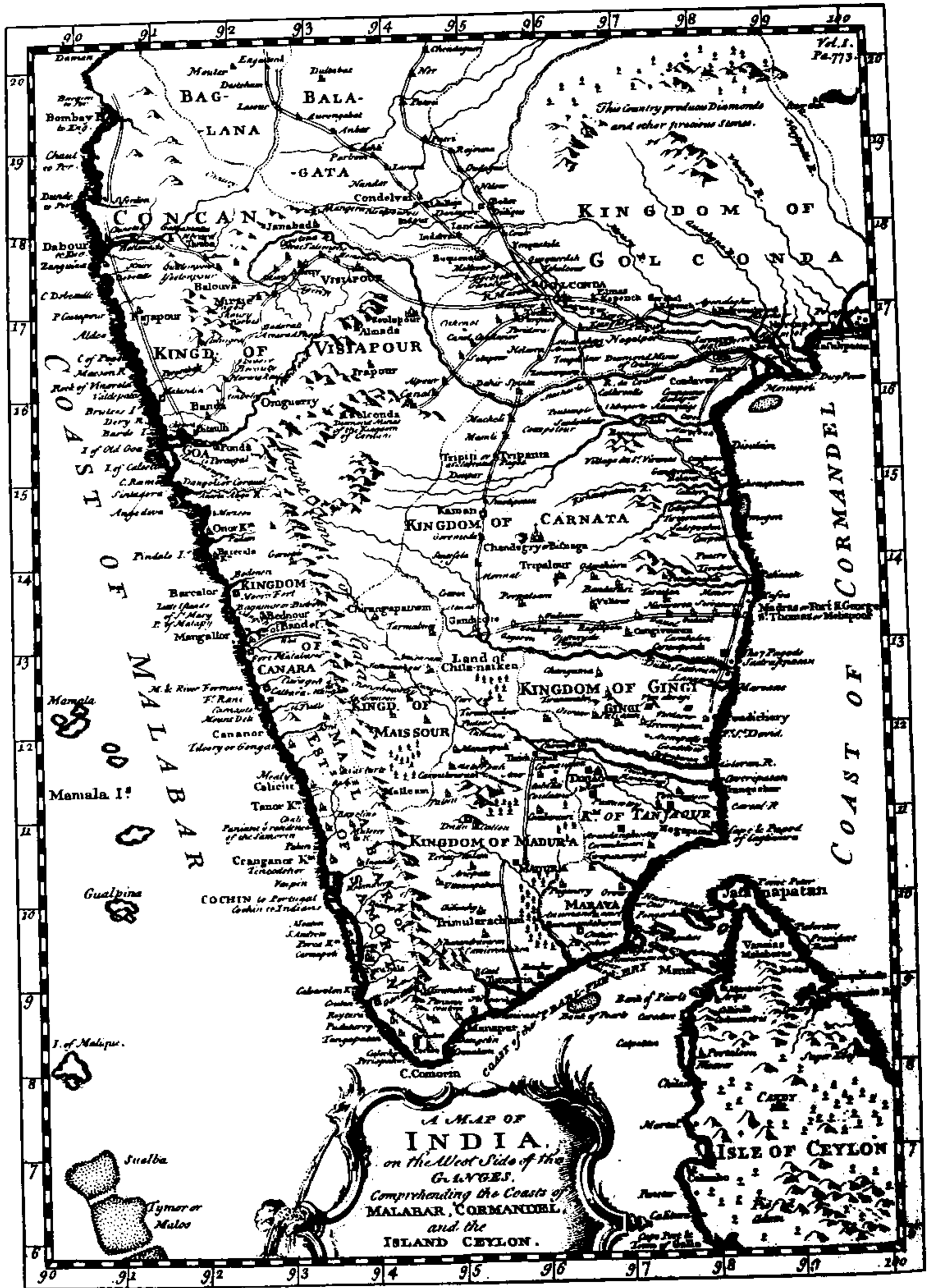
Maps drawn for rev. and enl. ed. of John Harris, *Navigantium atque Itinerantium Bibliotheca*, (1st ed. 1705), rev. J. Campbell, London, 1748

3.1 A Map of/ India,/ on the West Side of the/ Ganges,/ comprehending the Coasts of/ Malabar, Coromandel,/ and the/ Island Ceylon. 227 × 323 mm (bottom centre)

Vol. I, pa 773 (top right)

No scale; lat. 20°–6°, long. 90°–100°

India within the Ganges



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South India by Bowen from the revised edition of Harris' book of travel, 1748.

- 4.1 **India, / as described by all / Authors / before the / fifth Century**
 315 × 221 mm (bottom left)
 Vol. I, Pag. 369 (outside top right)
Scale: Grecian Stadia 600 to a Degree 1" = 1200; English Miles
 60 to a Degree 1" = 120; lat. 39°–23°, long. 72°–98°

59 **Gerrit Tielenburg**

Map drawn for *Histori van Schach Nadir*, J. Fraser, publ. G. Tielenburg, Amsterdam, 1744

- 1.1 **Nieuwe Kaart / van het Ryk / van Persie, / en van een / groot gedeelte / van t'Indie. / Uytgegeven door / Gerrit Tielenburg / te Amsterdam.** 438 × 284 mm (bottom left)
Inset: Gedeelte van Hindostan of Indie
Scale: Duitsche Mylen 15 in een Graad 1" = 32; Frensche Mylen of Uuren gaans 1" = 42; lat. 47°–24°, long. 81°–101°

60 **Mathew Seutter** 1678–1757

- 1.1 **Imperii / Magni / Mogolis / sive / Indici / Padschah, / juxta recen-**
tissimas Navi- / gationes accurata delineatio / Geographica / studio
et sumtibus / Matth. Seutteri, / S. Caes. et Reg. Cathol. / Maj.
Geogr. et Chal. corr. Aug. V. 572 × 498 mm (bottom left)
 Albrecht Carl Seutter Sculps (bottom left)
Scale: Mill. Germanica sive Geometrica 15 in uno Gradu 1" = 25;
 Mill. Gallica Magna s. Horae Itineris 20 in uno Gr. 1" = 32; lat.
 45°–12°, long. 89°–138°
 In *Atlas Novus*, Vol. I, M. Seutter, Augustae Vindelicorum, 1745
- 2.1 **Accurater Geographische Entwurf / Der Koniglichen Danischen /**
Auf der Kuste Choromandel in Ost-Indien / belegen Stadt und
Vestung / Trankenbar oder Tarangenbadi u: Dansburg / nebst
denen dazu gehorigen Flecken und Dorfern, / auch etlichen
angranzenden Orten u: Gegenden des Konigl: Tanschaurschen
Gebiets / aus denen eingesandte Berichten der Konig: Danisch
Evangel Missionarie in Ost-Indien / mit besondern Fleisse
geometrisch verfertiget, / und dar auf in gegenwartiger Carte ans
Licht gestellet von / I.E.R. / in Kupfer gestochen und verlegt von /
Mattheus Seutter, / Sr Kayser: Maj: Geographo in Augsburg.
 570 × 495 mm (top left)

India within the Ganges

Cum Priv. S. Vicar in Part Rhen: Suev. et Franc Jur. (bottom centre)
Scale: Gang-Schritten (Latein gressus) 1" = 400

- 3.1 Grund-Riss und Prospect/ der/ Koniglichen Danischen/ auf der/
Kuste Choromandel in Ost-Indien/ belegenden/ Vestung und
Stadt/ Dansburg u: Trankenbar/ nach dem geometrischen
Entwurf/ derer/ Konig: Danischen Evangelischen/ Herren
Missionarien alda/ in gegenwartiger Carte/ vorgestellet/ von/
I.E.R./ in Kupfer gestocken u verlegt/ von/ Mattheus Seutter/
Sr Kayser: Maj: Geographo in/ Augsburg. 565 × 495 mm (top
left; Latin title top right)
Cum Priv. S. Vicar: in part: Rhen: Suev: et Franc: Juris (bottom
centre)

61 Antoine Francois Prevost 1697–1763 and others

Maps engraved for, or copied in, the following publications. Distinguishing features, e.g. page no., are given in the table.

- a) *A New General Collection of Voyages and Travels*, publ. Thomas Astley, Vol I, London, 1745
- b) *Histoire generale des Voyages*, ed. Antoine Francois Prevost, publ. Didot, Paris, 1746–70
Maps are included in the following volumes: Vol I, 1746; Vol II, 1747; Vol IX, 1751; Vol X, 1752; Vol XVII, 1761 (including a Supplement to Vol IX)
- c) *Histoire generale des Voyages*, ed. A.F. Prevost, publ. Pierre de Hondt, La Haye: 1747–80
Parallel publication of an edition from La Haye; the maps were re-engraved by J. van der Schley and carry Dutch titles in addition to the French, mostly outside bottom
Maps are included in the following volumes: Vol I, 1747; Vol II, 1747; Vol X, 1753; Vol XIII, 1755; Vol XIV, 1756
- d) An *Atlas* with 73 folded maps in one volume, 1747–70 and an *Atlas* with 74 maps, part double part folded in one volume, maps with French titles, and Vol and Page nos for 8 vo and 4 to editions bottom left and right
- e) *Algemeine Historie der Reisen*, publ. J.J. Schwabe, Leipzig, 1747–74
Parallel publication of German translation of Prevost.
Maps are included in the following volumes: Vol I, 1747; Vol VII, 1751; Vol X, 1752; Vol XI, 1753; Vol XVIII, 1764
- f) *The Universal Traveller*, Vol I, Thomas Salmon, London, 1752
Maps re-engraved by G. Child
- g) *Le Petit Atlas Maritime*, J.N. Bellin, Paris, 1763, 1764

- h) *Atlas Portatif pour servir a l'Intelligence de l'Histoire philosophique et politique des Etablissements et de Commerce des Europeens dans les deux Indes*, G.T.F.Raynal, publ. Evan Harrevelt and D.J. Changuion, Amsterdam, 1773
- i) *Atlas... dressee pour l'Histoire Philosophique et Politique... dans les deux Indes*, Geneva, 1780; re-issued 1781
Maps redrawn by Rigobert Bonne
- j) Danish edition *Almindelig Historie over Reise til Lands og Vande, eller Samlung af alle Reisebeskrivelser oversat af Engelsk*, 5 vols., Copenhagen, 1750; titles within the cartouche in Danish

Maps probably by Bellin, with titles and measurements as they appear in the Paris edition of Prevost

- 1 Carte/ des Costes/ de Perse/ Gusarat et Malabar/ Tiree de la Carte Francoise/ de l'Ocean Oriental/ Publiee/ Par Ordre de Mgr le/ Comte de Maurepas/ en 1740 200 × 243 mm (centre left)
No scale; lat. 28°–0°, long. from Isle de Fer 73°–97°
- 2 Ville de Diu 235 × 193 mm (top left)
- 3 Carte du/ Golphe de Bengale/ Tiree de la Carte de/ l'Ocean Oriental/ Publiee par Ordre de Mgr Le Comte/ de Maurepas/ en 1740. 270 × 218 mm (top left)
- 4 Plan/ de Bombay/ Et de ses Environs/ Tire de Thornton Hyd Ang. 262 × 194 mm (bottom right)
Scale: Lieues marines de France et d'Angleterre 1" = 7/8
- 5 Fort Hollandois de Paliacate nomme le Fort de Gueldre 130 × 185 mm (outside top)
- 6 Palais et Jardins de Cha Sousa Prince de Ragi Mohol [and] Plan de la Ville de Mongher 138 × 190 mm (outside top and bottom)
- 7 Plan de Pondicheri en 1741 155 × 190 mm (top centre)
Scale: Toises 1" = 180
- 8 Nouvelle/ Carte/ du/ Royaume de/ Bengale. 344 × 280 mm (top right)
No scale; lat. 29°–20°, long. 114°–126°
- 9 Plan de la Ville de Cochin 265 × 175 mm (outside bottom centre)
- 10 Theatre/ de la Guerre/ Sur la Coste/ de/ Coromandel. 246 × 318 mm (centre left)
Scale: Lieues Marines d'Angl. de 20 au Degre 1" = 7; Miles d'Angleterre de 69½ au Degre 1" = 27; lat. 14°–10°, long. from Paris 75°35'–79°, from London 78°–81°20'
- 11 Plan de Madras/ et du Fort St Georges/ Pris par les Francois le 21 Septembre 1746. 405 × 190 mm (top right)
Scale: Toises 1" = 100
- 12 Carte du District de Tranquebar. 308 × 294 mm (outside top centre)
Scale: Pas communes 1" = 750

India within the Ganges

- 13 Carte de/l'Indoustan/ Suivant les Cartes les plus recentes,/ Conci-
liees avec les Relations et les Details/ Geographiques inseres dans
l'Histoire/ Generale des Voyages/ Ie Feuille/ Par M. Bellin Ingr de
la Marine/ 1752. 347 × 230 mm (top right)
Scale: Lieues Communes de France de 25 au Degre 1" = 50; Cosses
usitee dans l'Indoustan 1" = 70; lat. 36°–20°, long. from Isle de
Fer 77°–109°, from Paris 59°–87°
- 14 Suite de la Carte de/ l'Indoustan/ Iie Feuille, Comprenant/ La
Presqu'Isle de l'Inde/ Pour servir a l'Histoire Generale des
Voyages 246 × 220 mm (bottom left)
Scale: as in 13; lat. 20°–4°, long. from Paris 66°–86°, from Isle de
Fer 87°–105°
- 15 Carte/ des Isles/ Maldives/ Pour servir a l'Histoire/ Generale des
Voyages/ 1750. 152 × 213 mm (top right)
Scale: Lieues Marines 1" = 33
- Map taken from van der Aa, with title and measurements as they
appear in La Haye edition of Prevost
- 16 Plan de Goa 340 × 200 mm (outside top)

Identifying marks engraved on the face of the map, and volume it was bound
in

No	Brief title	a) Astley	b) Paris	c) La Haye	d)
1	Costes	Chart VIII No 5 Vol I No XXVIII	[Vol I]	[Vol I]	Tome 1 in 4°, No 5. Tome 1 ^{er} in 8°, page 78.
2	Diu	Vol I p 69	To. 1. 156	[Vol I]	
3	G de Beng		Tom. II No 1	Tom. II No 1	
160	4	Bombay		Tome IX No 1	
5	Paliacate		T. IX No. XIII	[Vol XIII]	
6	Palais		T. IX. No. XI	[Vol XIII]	

Maps and plans taken from Valentyn, with titles and measurements as they appear in La Haye edition of Prevost

- 17 **Cananor** 270 × 182 mm (top centre)
Scale: Verges, Mesure de Rhymland 1" = 14
- 18 **Plan/ de la/ Forteresse/ de/ Cranganore/ Avec les Ouvrages
exterieures/ & le Projet d'un nouveau Fort/ Fait en 1709.**
270 × 178 mm (top centre)
Scale: Verges, Mesure de Rhymland 1" = 9
- 19 **Plan de la Forteresse/ de Coylan** 272 × 180 mm (outside
bottom left)
Scale: Verges, Mesure de Rhymland 1" = 19
- 20 **St Thome** 137 × 180 mm (outside bottom centre)
Scale: Verges de Rhymland 1" = 95
- 21 **Plan/ de la/ Loge Hollonais/ d'Ougly/ Ao 1721** 272 × 183
mm
Scale: Verges de Rhymland 1" = 18
- 22 **Ville de Tranquebar, et Fort/ Danois de Dansbourg** 275 × 185
mm
No scale

	e) Schwabe	f) Salmon	g) P.A.M.	h) A. Portatif	i) Bonne	j) Danish
1	No 5 [Vol I]	Plate 93 No 34 Page 149		16		
2	No II [Vol I]	Plate 89 No 32 Page 150				
3	No 28 [Vol I]		No 34			No 4
4	No 2 Tom. 10. H		No 25			No 21 A. Haas Sc XII D
5	No. 22 [Vol X]					
6	No. 24 Tom. XB					

India within the Ganges

No.	Brief title	a) Astely	b) Paris	c) La Haye	d)
7	Pondicheri		T. IX. No. 7	[Vol XIV]	
8	R de Beng		Suppl. au Tome IX. No. 8	[Vol XIII]	
9	Cochin		Suppl. au Tome IX. No. 13.	[Vol XIII]	
10	Theatre		Suppl. au Tome IX. No. 14.	[Vol XIV]	
11	Madras		Suppl. au Tome IX. No. 15.	[Vol XIV]	
12	Dist. Tranqu		Suppl. au Tome IX. No. 16.	[Vol XIV]	
13	l'Indoustan		No. 1. Tome X Page 2.	[Vol XIII]	No. 1 Tome X, in 4°, Page 1. Tome 5. in 8° Page 116 No 1
14	Suite de l'Ind		No. 1. Tome X Page 1	[Vol XIII]	
15	Maldives			[Vol XIII]	
16	Goa			[Vol X]	
17	Cananoor			[Vol XIII]	
18	Cranganore		Premier Volume des Supplemens No II Chae Haussard Sculp.	[Vol XIII]	
19	Coylan		Premier Volume des Supplemens No I. Chae Haussard Sculp.	[Vol XIII]	
20	St Thome			[Vol XIV]	
21	Ougly			[Vol XIV]	
22	Ville Tranqu			[Vol XIV]	

	e) Schwabe	f) Salmon	g) P.A.M.	h) A.Portatif	i) Bonne	j) Danish
7	No. 25 J. Punt Sc		No 35			
8	No. 20 T. XVIII Q		No 40	18		
9	No. 23 T. XVIII H	Plate 88 No 32				
10	No. 13 T. XVIII C		Tome III No 38			
11	No. 12 T. XVIII P		Tome III No 37			
12	No. 14 T. XVIII K		Tome III No 36			
13	No. 1 Tom XI J		Tome III No 21	4a	No 12	
14	No. 2 [Vol XI]		Tome III No 22	4b	No 13	No 4 XIV D
15	T. 8 No. 5		Tome III No 23	17		
16	No. 7 [Vol VIII]					No 12 A. Haas Sc ZLD
17						
18	No. 18 T. XVIII N					
19	No. 19 [Vol XVIII]					
20						
21						
22			Tome III No 36			

India within the Ganges

- 62 Jean Nicolas Bellin 1703–1772
Maps drawn for *Le Petit Atlas Maritime*, Paris, 1763, 1764; many of them had already appeared in editions of Prevost
- 1.1 Carte de/ l'Indoustan le Feuille 310 × 218 mm (top right)
Tome III. No 21. (outside top right)
Scale: Lieues Comunes de France 1" = 50; lat. 36°–20°, long. from Paris 60°–87°
- 2.1 Suite de la Carte de/ l'Indoustan./ Iie Feuille, Comprenant/ la Presqu'Isle de l'Inde. 170 × 212 mm (bottom left)
Tome III. No 22. (outside top right)
Scale: Lieues communes 1" = 50; lat. 31°–4°, long. from Paris 70°–83°
- 3.1 Carte/ des Isles/ Maldives 153 × 212 mm (top right)
Tome III. No 23. (outside top right)
Scale: Lieues Communes 1" = 40; lat. N11°–S2°
- 4.1 Carte/ du Golphe de/ Cambaye. 174 × 216 mm (top left)
Tome III. No 24. (outside top right); Croisey (outside bottom left)
Scale: Lieues Communes 1" = 8
- 5.1 Plan de/ Bombay/ et ses Environs. 168 × 212 mm (bottom left)
Tome III. No 25. (outside top right)
Scale: Lieues Comunes 1" = 1¼
- 6.1 Carte des Costes de/ Concan et Decan/ Depuis Goa jusqu'au Cap S. Jean. 177 × 213 mm (in two vertical sections, title top right)
Tome III. No 26. (outside top right); Croisey S. (outside bottom left)
Scale: Lieues Comunes 1" = 8
- 7.1 Coste/ de Canara/ depuis Mangalore/ jusqu'a Goa : Suite de la Coste/ de Malabar/ Depuis Cranganore jusqu'a Mangalor : Coste de Malabar/ Depuis le Cap Comorin/ jusqu'a Cranganor 358 × 215 mm (in three vertical sections, titles top right in each)
Tome III. No 27. (outside top right)
Scale: Lieues Communes 1" = 8
- 164 8.1 Baye Ville et Forts/ d'Andarajapour/ a la Coste de Malabar. 170 × 207 mm (bottom left)
Tome III. No 28. (outside top right)
Scale: Lieue Commune 1" = ½
- 9.1 Carte du/ Port de Goa/et ses Environs 174 × 215 mm (bottom left)
Tome III. No 29 (outside top right)
Scale: Lieue Commune 1" = ¾
- 10.1 Plan de Maye/ a la Coste de Malabar 170 × 210 mm (top right)
Tome III. No 30. (outside top right)
Scale: Toises 1" = 80

- 11.1 **Carte/ du Golphe/ de Bengale** 264 × 215 mm (top left)
Tome III. No 34 (outside top right); Croisey. (outside bottom left)
Scale: Lieues communes 1" = 68; lat. 24°—4°, long. from Isle de Fer 93°—118°
- 12.1 **Plan de la Ville de Pondicheri** 160 × 212 mm (top centre)
Tome III. No 35. (outside top right); Croisey (outside bottom left)
Scale: Toises 1" = 180
- 13.1 **Carte/du District/ de Tranquebar** 172 × 220 mm (top left)
Tome III. No 36. (outside top right)
Scale: Toises 1" = 700
- 14.1 **Plan de Madras/ a la Coste de Coromandel** 176 × 214 mm
(bottom left)
Tome III. No 37. (outside top right); Croisey (outside bottom left)
Scale: Toises 1" = 95
- 15.1 **Coste de/ Coromandel/ et les Pays de/ Tonda Mandalum/ et Tanjaor** 176 × 230 mm (bottom right)
Theatre de la Guerre dans l'Inde (outside top centre); Tome III. No 38 (outside top right)
Scale: Lieues comunes 1" = 9
- 16.1 **Coste de Coromandel/ depuis Gondamas jusqu'a Narzapour** 330 × 215 mm (bottom left)
Tome III. No 39 (outside top right)
Inset: Mazulipatam
Scale: Lieues Communes 1" = 3½
- 17.1 **Nouvelle/ Carte/ du Royaume/ de/ Bengale.** 332 × 272 mm
(top right)
Tome III. No 40. (outside top right); Croisey S. (outside bottom left)
Scale: Lieues 1" = 23; lat. 29°—20°, long. from Isle de Fer 114°—126°
- 18.1 **Carte de l'Entree/ du Gange/ et son Cours jusqu'a Ugli** 172 × 214 mm (bottom left)
Tome III. No. 41 (outside top right)
Inset: Carte de l'Entree/ de la/ Riviere d'Aracan
Scale: Lieues communes 1" = 4½

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Map bound in *Hydrographie Francaise*, Paris, with maps of various dates 1737—76

- 19.1 **Carte reduite/ de la Presqu'Isle de l'Inde./ Contenant les Costes depuis Cambaye jusqu'aux Bouches du Gange/ Dressee au Depost des Cartes Plans et Journaux de la Marine./ Pour le Service des Vaisseaux du Roy./ Par Ordre de M. Le Duc de Praslin Ministre de la Marine en 1766./ Par le S. Bellin Ingenieur de la Marine./ Il y a un Memoire qui rend compte de la construction de cette Carte et des Auteurs qu'on a suivis.** 840 × 600 mm (bottom right)

India within the Ganges

Croisey Sculp. (outside bottom left)

Scale: Lieues Marines de France et d'Angleterre de Vingt au Degre
1" = 15; lat: 22°–6°, long. from Paris 66°–91°

- 19.1.2 Another edition with stamp of 'Depot de la Marine' (top centre),
'No 96' (outside top right), 'Prix. trente Sols' (outside bottom right)
and omitting a wind face from top right corner

63 Jan de Lat fl. 1734–1750

Maps drawn for *Atlas portatif tres exact ou Livre de Cartes geographiques*, J. de Lat, Deventer, 1747; re-issued in *Atlas van Oost Indien*, [after 1783]

- 1.1 Kaartje van de/ Groote Mogol,/ of het Ryk van/ Indostan/ gelegen
na de Stelling/ van de Heer Guil. del Isle/ en Uitgegeven tot/
Almelo by Jacob Keizer en/ te Deventer by Jan de Lat 242 ×
172 mm (top right)
Scale: Duytsche Mylen 15 in een Grad 1" = 37; lat. 36°–20°,
long. 85°–110°
- 2.1 Kaartje van/ Malabar/ en Cormandel/ Na de Stelling van den/
Heer Guil de l'Isle/ en Uitgegeven tot/ Almelo by Jacob Keizer
en/ tot Deventer by Ian de Lat 243 × 172 mm (bottom left)
Scale: Duitsche Mylen van 15 in een Gradt 1" = 30; Fransche
Mylen van 20 in een Gradt 1" = 32; lat. 21°–8°, long. 88°–105°

64 The London Magazine

Maps engraved for *The London Magazine: or, Gentleman's monthly intelligencer*, London, April 1732–June 1783, 52 vols; continued as *The London Magazine*, enlarged and improved, July 1783–June 1785

- 166 1.1 A Plan of/ Fort St George/ and the City of/ Madras 175 × 92
mm (top left above references which continue on the right of the
map)
Scale: yards 1" = 1000
In Vol. XIV April 1747
- 2.1 A Map of/ Coromandel/ Shewing/ the Seat of/ War/ on that/
Coast. 167 × 230 mm (bottom right)
Scale: British Statute Miles 1" = 35; lat. 14°–10°, long. from
London 78°–81°

- 3.1 A New and/ Accurate Map/ of the Northern Coast of/ Choramandel/ in the/ East Indies;/ Drawn from the/ Best Authorities/ By T. Kitchin, Geogr. 174 × 243 mm (top right)
Scale. British Statute Miles 1" = 32; lat. 18°–13°, long. from London 78°–81°
In Vol. XXIII 1754
- 4.1 A Plan of the/ Battle of Plassey/ fought 23rd June, 1757./ by Col. Robt Clive,/ against the Nabob/ of Bengal 237 × 176 mm (top left)
Scale: Fathoms 1" = 200
- 5.1 A Map of the/ Countries Round/ Surat and Bombay/ in the/ East Indies,/ with the adjacent/ Provinces & Settlements, &c./ By T. Kitchin Geogr. 237 × 184 mm (bottom left)
Scale: British Statute Miles 1" = 50; lat. 23°–18°, long. from London 68°–75°
In Vol. XXVIII 1759
- 6.1 A New/ and Accurate Map of/ Bengal/ Drawn from the best/ Authorities,/ By Thos. Kitchin Geogr. 250 × 181 mm (centre left)
Scale: British Statute Miles 1" = 50; lat. 26°–21°, long. from London 83°–91°
- 7.1 A Map of/ Indostan/ or the/ Great Mogol's Empire/ By Thos Kitchin/ Geographer. 339 × 285 mm (bottom right)
Scale: British Statute Miles 1" = 150; lat. 29°–5°, long. from Ferro 82°–114°, from London 66°–94°
In Vol. XXXVIII 1769
- 8.1 Chart of the Coast of/ Persia, Malabar &c/ from the French Chart/ Publish'd by Order of the/ Count de Maurepas,/ regulated by/ Astronomical Observations 180 × 228 mm (bottom left)
Thos Kitchin Sculp. (outside bottom right)
No scale; lat. 28°–0°, long. from Ferro 74°–96°, from London 56°–78°
In Vol. XXXIX 1770; see also Bellin
- 9.1 A Map of the/ East Indies/ or/ Indostan./ By Thos Kitchin Senr/ Hydrogr to his Majesty. 186 × 240 mm (bottom right)
London Mag. July 1781. (outside top right); Published by R. Baldwin at the Rose in Pater Noster Row. (outside bottom centre)
Scale: English Miles 1" = 200; lat. 31°–5°, long. from Ferro 88°–108°
In Vol. L 1781

India within the Ganges

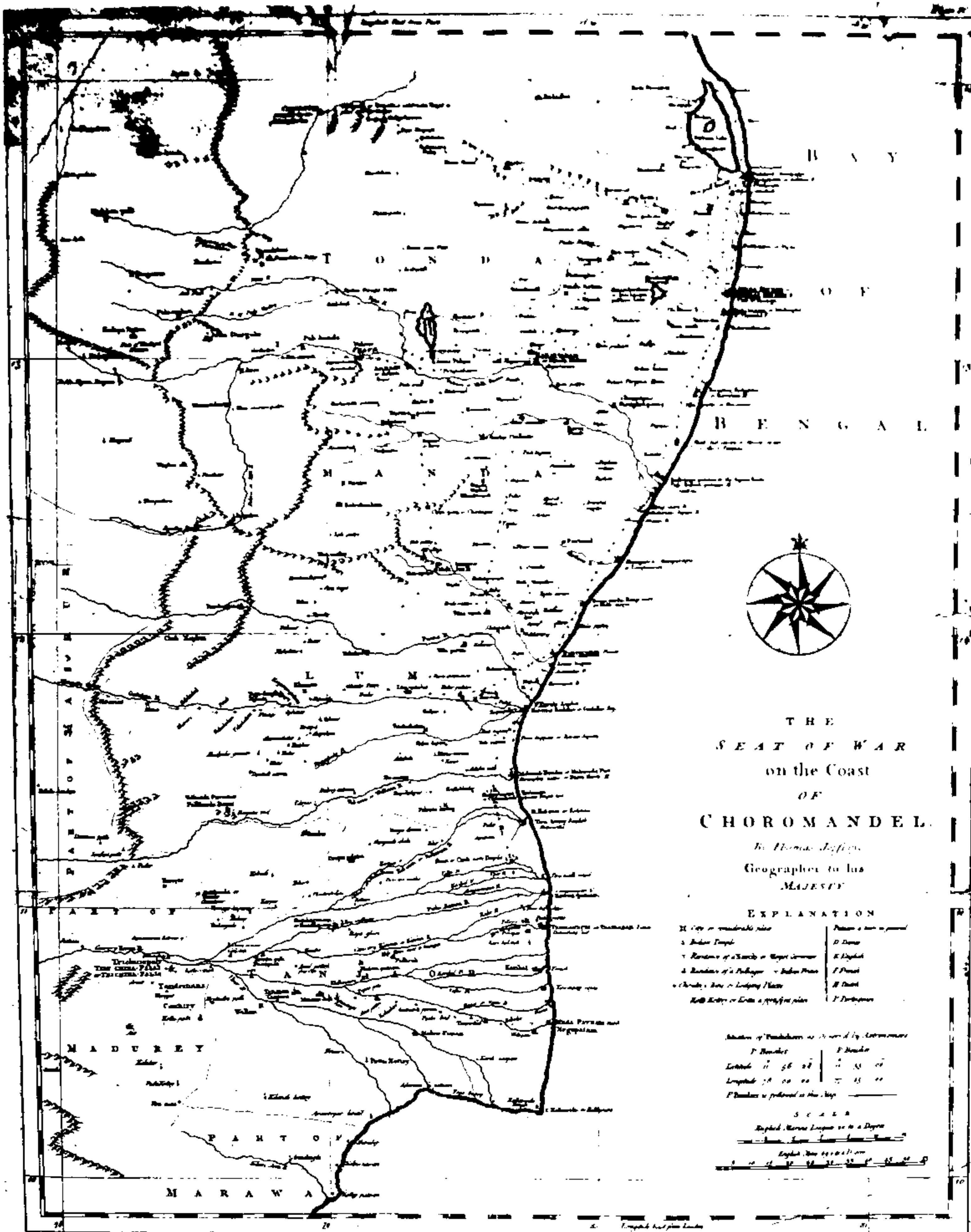
- 65 Orgeval
- 1.1 Planta/ da/ Ilha de Goa/ na India/ e suas Terras confinantes/ f. por d'Orgeval 1747 584 × 262 mm (left centre, east at top of page)
Scale: Legua 1" = 2¼
- 66 Gilles Robert de Vaugondy 1688–1766 and son Didier 1723–1786
- 1.1 Indoustan/ ou/ Etats'du Mogol/ Par le Sr Robert de Vaugondy/ fils de Mr Robert Geog. ord. du Roi./ Avec Privilege./ 1749
161 × 204 mm (bottom right)
Scale: Lieues Marines et d'une heure 1" = 80; lat. 35°–5°, long. 85°–108°
In *Atlas portatif* [Supplement], Robert de Vaugondy, Paris, 1748[49]
- 2.1 Les Indes Orientales,/ ou sont distingues/ les Empires et Royaumes/ qu'elles contiennent,/ tires du Neptune Oriental,/ Par le S. Robert/ Geographe ordinaire du Roy/ Avec Privilege. 1751
563 × 482 mm (top right)
Guill. Delahaye Sculp. (bottom left)
Scale: Mille pas geometriques de 60 au Degre 1" = 120; Lieues Marines Angloises et Francoises de 20 au Degre 1" = 42; Lieues Marines d'Espagne de 17½ au Degre 1" = 34; lat. 35°–0°, long. 85°–127°
- 2.1.2 Re-issued in Supplement to *Atlas Universal*, Robert de Vaugondy, publ. De la Marche, Paris, 1758; re-issued 1786, 1792; no date in title
- 2.1.3 Re-issued with imprint added 'A Venise Par P. Santini 1779. Chez Mr Remoudin'
- 168 3.1 Presqu'Isle/ des Indes/ Orientales,/ Comprenant/ l'Indostan ou Empire du Mogol,/ Differens Royaumes ou Etats,/ Les Vastes Possessions des Anglais,/ et les autres Etablissements Europeens, avec les Grandes Routes./ Supplement a l'Atlas de M. Robert de Vaugondi,/ A Paris/ Chez le Cen Lamarche Geogr./ Rue de Foin Jacques. 629 × 476 mm (top right)
Inset: Entree du Gange/ et son Cours/ En remontant Jusqu'a Ugli
Scale: Lieues d'une heure de 20 au Degre 1" = 32; lat. 35°–5°, long. from Isle de Fer 75°–124°, from Paris 59°–100
In Supplement to *Atlas Universal*, Paris, 1758; re-issued 1786, 1792



South India by Robert de Vaugondy, 1762.

India within the Ganges

- 4.1 Les Indes Orientales/en-deca du Gange/ pour Servir a l'Histoire/
Universelle d'une Societe/ de Gens de Lettres/ Par le S. Robert/
1762 303 × 374 mm (centre right)
Tom. V pag. 1 (outside top right)
Scale: Mille's pas geometriques de 60 au Degre 1" = 180; Lieues
Marines Angloises et Francoises de 20 au Degre 1" = 40; Lieues
d'Espagne de 17½ au Degre 1" = 35; lat. 27°—0°, long. 85°—108°
- 67 Bernard-Francois Mahe de la Bourdonnais 1699—1755
Map drawn for *Memoire pour le Sieur de la Bourdonnais*, publ.
Delaguette, Paris, 1750, 1751
- 1.1 Madraz/ et le/ Fort St Georges/ Pris par les Francois commandes/
par Mr Mahe/ de la Bourdonnais/ le 21 Septembre 1746,/ La Ville
est gravee sur le Plan du/ Sr Paradis, Les Environs sont de
memoire 550 × 362 mm (bottom right)
Scale: Toises 1" = 90
- 68 Johannes Covens 1697—1774 and Cornelis Mortier
1699—1783
- 1.1 Carte d'une partie des Indes Orientales, Etats du Mogol, les Cotes
de Malabar et de Coromandel &c./ dressee sur les Relations les
plus nouvelles A Amsterdam par Covens et Mortier 497 × 547
mm (outside top)
Scale: Cosses de l'Inde, dont la mesure moyenne entre les plus
fortes et les plus foibles est de 37 au degre 1" = 75; Gos, mesure de
Marine sur la Cote de Malabar et de Coromandel, qui se compare
a 4 Cosses 1" = 20; Heures de Chemin pour les marches de
Caravane, evalues 1900 Toises, et quelquefois plus courtes 1" = 63;
lat. N34°—S10°, long. 72°—114°
- 170
- 69 Thomas Jefferys d. 1771
- 1.1 The/ Seat of War/ on the Coast/ of/ Choramandel./ accommo-
dated with a Memoir July 1754. 364 × 472 mm (centre right)
Publish'd according to Act of Parliament August 1st 1754 by
T. Jefferys at the corner of St Martin's Lane Charing Cross London.
(outside bottom centre)
Scale: English Marine Leagues 20 to a Degree 1" = 4¾; English
Miles 69½ to a Degree 1" = 7½; lat. 14°10'—9°50', long. from Paris
75°30'—78°55', from London 77°55'—81°15'



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Jefferys' version of d'Anville's map of Choromandel, re-issued for Cambridge's *An Account of the War in India*, 1761/1762.

India within the Ganges

Published with *Explanation of the Map of the Seat of War on the Coast of Choramandel with An Account of the War*, T. Jefferys, London, 1754

1.1.2 Re-issued in *An Account of the War in India*, R.O. Cambridge, 1761, 1762, with the words 'accommodated with a Memoir July 1754' replaced by 'By Thomas Jefferys, Geographer, to his Majesty.'

1.2 Re-engraved for French translation, *Memoirs du Colonel Lawrence*, R.O. Cambridge, Amsterdam, 1766 with title: 'Theatre/ de la Guerre/ sur la Cote de/ Coromandel/ par Thomas Jefferys/ geographe de S.M./ Britannique.'
Grave par Touzer

See also editions of *Histoire Generale*, A.F. Prevost; *Royal Magazine*, 1761; Entick, 1763

Maps drawn for *An Account of the War in India*, Richard Owen Cambridge, publ. Thomas Jefferys, London, 1761; 2nd ed., 1762

2.1 The/ Mogul's Empire/ divided/ into its principal/ Governments,/ design'd for this History./ By T. Jefferys Geographer/ to his Majesty. 220 × 237 mm (bottom right)

Plate I.

Scale: English & French Leagues 1" = 60; lat. 35°–18°, long. 80°–110°

1.1.2 The/ Seat of War/ on the Coast/ of/ Choramandel./ By Thomas Jefferys / Geographer, to his/ Majesty 364 × 472 mm (centre right)

Plate IV.

3.1 The Country round/ Trichinopoly/ with the/ Camps and Marches/ of the/ English and French Troops/ in 1753 and 1754. Engraved/ By Thomas Jefferys./ Geographer to his/ Majesty. 502 × 197 mm (bottom left)

Inset: [Fort of Trichinopoly]

Plate V.

Scale: Miles 1" = 1½

4.1 A Map of the/ Kingdom of Madura/ with the South Coast of/ Malabar/ and the/ Countries of Marava, Travancore, &c Exhibiting the/ March of the British Troops/ into the/ Tinnevelly Country./ By Thomas Jefferys, Geographer/ to His/ Majesty. 530 × 430 mm (bottom right)

Scale: English & French Leagues 1" = 3½; English Miles 1" = 12½; lat. 11°–8°, long. 93°–96°48'

5.1 A Map of/ the/ Country Inhabited/ by the/ Marattas,/ with/ the Dominions of/ Angria./ By Thos. Jefferys Geographer/ to his Majesty. 156 × 222 mm (bottom left)

Plate VIII.

Scale: English & French Leagues 1" = 14; lat. 21°20'—15°20', long. 88°10'—92°40'

- 6.1 The Attack made/ on/ Geriah Fort/ By/ Rear Admiral Watson/ 13th Feb. 1756. 225 × 195 (bottom right)

Plate X.

On page with 'A Plan of/ Geriah Fort/ when it surrendered to/ the/ British Fleet/ 13th Feb, 1756; 240 × 195 mm (bottom centre)

Scale: Fathoms 1" = 42

- 7.1 Plan of Madura. 260 × 220 mm (top right)
Thos. Jefferys sculp. (outside bottom right); Plate VII.

Scale: Yards 1" = 600; south at top of page

- 8.1 A Plan of Fort St George, part of the Black Town and the Country adjacent/ as it was when besieged by the French, 12 December 1758. 430 × 220 mm (outside bottom)

Plate XII; T. Jefferys Sculp (outside bottom right)

Scale: Yards 1" = 180

- 9.1 Masulipatam/ taken by Storm/ By Colonel Forde/ 7th April 1759. 270 × 200 mm (top right centre)

Plate XIV; Thos. Jefferys sculp. (outside bottom right)

Scale: Toises 1" = 25

- 10.1 Plan/ of the/ Castle of Surat. 280 × 210 mm (top right)
Plate XV; west at top of page

- 11.1 Plan/ of/ the Battle of/ Wandewash/ gained over the French/ By Col: Coote/ 22 Jan: 1760 380 × 195 mm (bottom right)

Plate XVII; Thos Jefferys sculp (outside bottom right); Drawn by I. Call, Chief Engineer (outside bottom left)

- 12.1 [Chengalput] 330 × 215 mm

Plate XVIII; T. Jefferys sculp. (outside bottom right)

Scale: Feet 1" = 220

- 13.1 The/ East Indies,/ with the Roads,/ By/ Thomas Jefferys,/ Geographer to the King./ MDCCLXVIII./ To the Directors/ of the Honble East India Company,/ Thos. Jefferys humbly Dedicates this Map. 1370 × 1065 mm (in two sheets, title centre left southern sheet) 173

London. Published according to Act of Parliament 30th Apr. 1768 by Robt Sayer, No 53 in Fleet Street & Thos Jefferys, at Charing Cross. (outside centre bottom south sheet)

North sheet: lat. 30°—18°, long. 77°—112°

South sheet: Scale: British Statute Miles 69½ to a Degree 1" = 40; Computed Travelling Leagues 30 to a Degree 1" = 17½; Marine Leagues 20 to a Degree 1" = 16; Jeribi, the Great or Measured Coss 33 to a Degree 1" = 20; Rismi, the Small or Computed Coss 37 to a Degree 1" = 22; lat. 18°—6°, long. from London 96°—130°, from Ferro 78°—112°

India within the Ganges

- 13.1.2 Re-issued the same year with addition of 'The Second Edition' between title and dedication, and deletion of '& Thos. Jefferys, at Charing Cross'
Bound in *General Atlas*, Robert Sayer, London, 1773
- 13.1.3 Re-issued by Laurie and Whittle, 1794, with imprint at bottom 'Published 12th May, 1794 by Laurie & Whittle, 53 Fleet Street, London'
- 13.2 Re-engraved by Robert Sayer, 1789, with title 'A New Map/ of/ Hindoostan/ from the latest Authorities,/ Chiefly from the Actual Surveys/ Made by Major James Rennell,/ Surveyor General to the Hble East India Company,/ of the Bengal Provinces, and of the/ Countries lying between them and Dehly:/ the whole exhibiting/ all the Military Roads and Passes,/ as well as the most accurate Division/ of the/ British Possessions in the East Indies./ London/ Published by Robert Sayer Map & Printseller No 53, Fleet Street,/ as the Act directs 1st of May 1789.'
- 13.2.2. Re-issued with changed imprint 'Published by Laurie & Whittle 53 Fleet Street,/ 12th May 1794.'
- 13.2.3 Re-issued with addition of '2nd Editn Correct 1804' under imprint
- 13.3 Issued by Laurie & Whittle with title 'A New General Map/ of the/ East Indies,/ exhibiting/ in the Peninsula on this side of the Ganges or Hindoostan/ The Several Partitions of the Mogul's Empire:/ and the Dominions/ of the English East India Company/ in the Provinces of Bengal, Bahar and Orixia,/ as well as upon the Coasts of Malabar and Coromandel;/ with the French and Dutch Possessions according to the Peace of 1783/ By Thomas Jefferys Geographer to the King/ with additions and Emendations from the Actual Surveys made/ By Major James Rennell F.R.S./ Surveyor General to the Honourable East India Company/ London./ Published 12th May 1794, by Laurie & Whittle, 53 Fleet Street.'

See also Bolts, 1772, 1773; 'Gentleman's Magazine, 1757

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70 Francisco Giustiniani

- Maps drawn for *El nuevo Atlas Universal*, Vol. II, F. Giustiniani, publ. Jaime Certá, Leon de Francia, 1755
- 1.1 Mogol 153 × 133 (bottom right)
Scale: Cosses du Mogol 1" = 120; Lieues d'une heure de chemin 1" = 95; lat. 37°—16°, long. 107°—136°
- 2.1 Presqu'Isle/ de l'Inde/ deca/ le Golfe/ du Gange 80 × 135 mm (bottom right)
Scale: Lieues d'une heure du chemin 1" = 80; lat. N20°—S2°, long. 109°—120°

71 Universal Magazine

Maps engraved for *Universal Magazine of Knowledge and Pleasure*, London, 1747–1803, 113 vols; new series 1804–14, 21 vols

1.1 Bombay on the Malabar Coast, belonging to the East India Company of England

In Vol. XVI June 1755

2.1 A/ New and accurate Map of/ Coromandel,/ Malabar,/ Bengal &c,/ exhibiting the/ Principal European Settlements/ in the/ East Indies. 350 × 270 mm (bottom right)

Universal Mag. J. Hinton, Newgate Street. (bottom right); R.W. Seale sculp. (outside bottom right)

No scale; lat. 24°–7°, long. from London 74°–98°

In Vol. XIX August 1756

72 The Gentleman's Magazine

Maps engraved for *The Gentleman's Magazine*, 1731–1833, 103 vols, London; continued in new series

1.1 A Plan of the Town & Fortress of Gariah belonging to Angria the Admiral to the Sahou Rajah on the Coast of Malabar. 440 × 250 mm (outside top)

Scale: English Miles 1" = 1¾

In Vol XXVI Supplement for 1756

2.1 A Map of the/ Mouths of the Ganges/ in the/ Bay of Bengal/ shewing the/ English Settlements/ lately/ Destroy'd by the Nabob/ of that Province. 120 × 190 mm (bottom right)

T. Jefferys Sculp. (outside bottom right)

Scale: English Miles 69½ in a Degree 1" = 50; English & French Leagues 20 to a Deg. 1" = 14; lat. 25°–20°, long. from London 87°–90°30'

In Vol XXVII, July 1757

3.1 The/ Mogul's Empire/ divided/ into its principal/ Governments. 175
197 × 236 mm (bottom right)

Gent: Mag: (outside top right)

Scale: English & French Leagues 1" = 60; lat. 35°–8°, long. 89°–112°

In Vol XXXVII, March 1767

India within the Ganges

73 The Royal Magazine

- Map engraved for *The Royal Magazine; or Gentleman's Monthly Companion*, London, July 1759—December 1771, 21 vols
- 1.1 An/ Accurate Map/ of the Seat of War in/ India: shewing the late/ Acquisitions/ on the Coasts of/ Malabar and Coromandel
225 × 180 mm (centre right)
G. Rollas sculp. (outside bottom right)
Scale: British Statute Miles 69 to a Degree 1" = 180; lat. 22°—0°, long. 69°—92°
In Vol. V August 1761

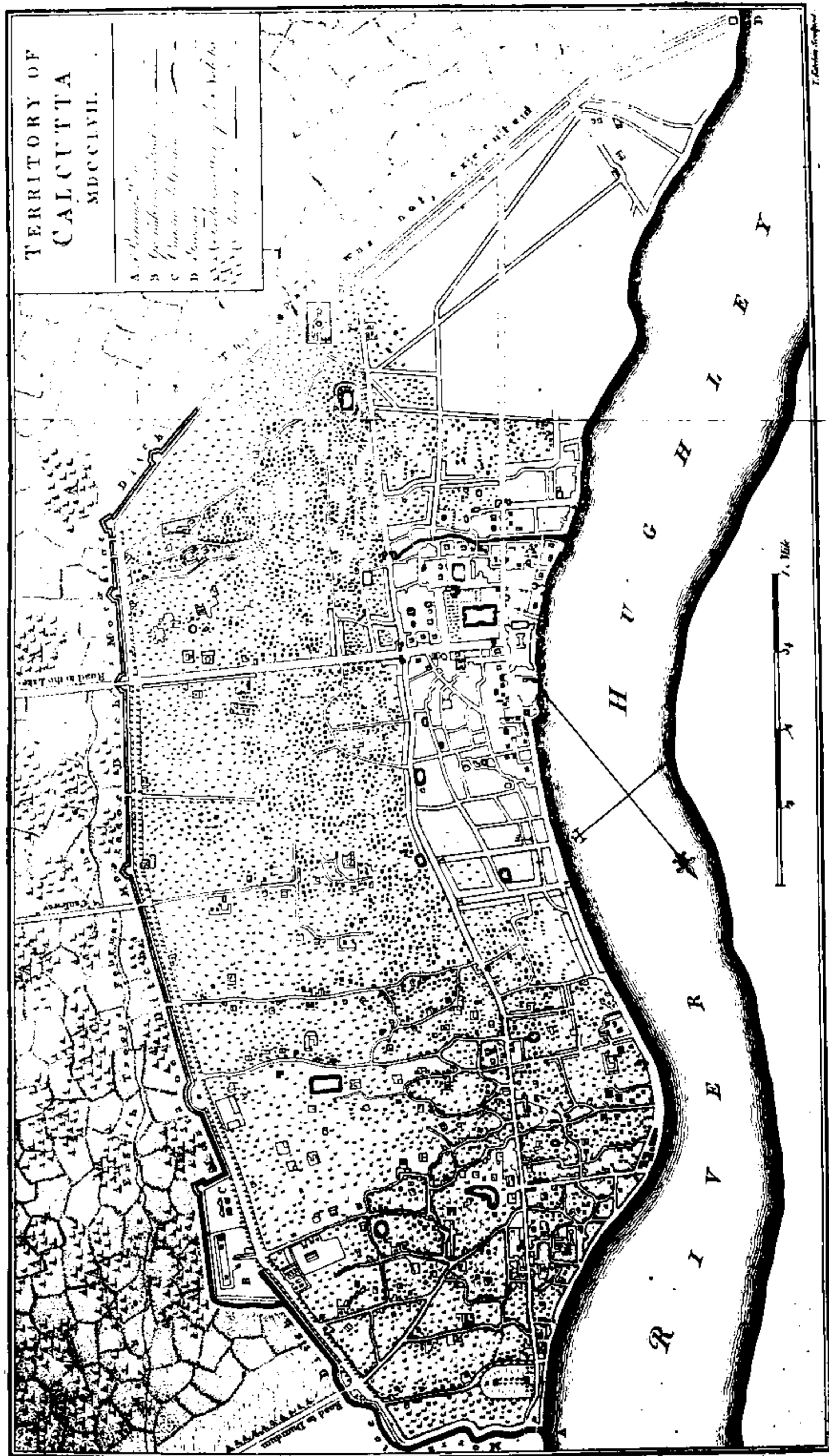
74 William Nichelson

- 1.1 A large Draught/ of/ Bombay—Harbour/ on the Coast of Mallabar in the/ East Indies/ Including Part of Bombay Island, with all the other Islands,/ and Part of the Coast adjacent,/ Shewing the Exact Situation, of all the, Rocks, Sands, & dangerous Shoals/ with the Marks for them, & how to avoid them; Also the true Setting of the Tides;/ the Times of High Water with the Depths at High and Low Water; Likewise the/ Marks for the Best Anchoring Places, & all Necessary Directions; together with/ Perspective Views of the most remarkable Lands Survey'd & Drawn with great/ Accuracy by William Nichelson Master of his Majesty's Ship Elizabeth, and Examin'd and Approv'd by George England Esqr. Superintendent,/ of the Honble East India Company's Marine there, in September 1763./ This Draught of Bombay Harbour, the Islands, and Parts of the Coast adjacent/ is most humbly Dedicated to the President & Council of Bombay/ By their most obedient &/ most humble Servt./ William Nichelson. (in eight sheets, each approx. 710 × 520 mm; title in fifth sheet, top left)
J. Spilsbury Sculp. Russel Court (bottom left fifth sheet)
Scale: English Miles 1" = 1/4
- 176 1.2 Re-engraved 1764 in reduced size 315 × 220 mm for William Herbert, *A New Directory of the East Indies*; also bound in later editions

75 Thomas Kitchin d. 1783

Maps drawn for *A History of the Military Transactions of the British Nation in Indostan*, Vol I, Robert Orme, publ. John Nourse, London, 1763; re-issued 1775, 1780, 1799, 1803; Vol II with maps by others published 1778; re-issued 1803

- 1.1 A General Map/ of/ Indostan/ or the/ Great Mogol's Empire/ with the/ Adjacent Countries. 360 × 367 mm (bottom right)
Thos. Kitchin Sculpsit (outside bottom right)
No scale; lat. 39°–5°, long. from Ferro 71°–116°, from London 78°–92°
- 1.1.2 Issue without 'Thos. Kitchin Sculpsit'.
- 2.1 A Map of the Coast/ of/ Coromandel,/ from the/ River Gadevari, to Cape Comorin. 386 × 1000 mm (bottom left)
Thos. Kitchin Sculpsit (bottom right)
No scale; lat. 18°–6°, no long.
Acknowledgement to d'Anville, with additions: from Trichinapoly to Tinevelly by the march of English Troops in 1755, and the route from Nelloor to Ude-gheri and Conjeveram by Lt. Col. Caillaud in 1758
- 3.1 [Plan of Gingee] 390 × 282 mm
Thos. Kitchin Sculpsit (bottom right)
Scale: Yards 1" = 250
- 4.1 [Plan of Trichinapoly] (no neat line, approx. 386 × 235 mm)
Thos. Kitchin Sculpsit (bottom right)
Scale: Yards 1" = 120
- 5.1 A Plan of the Country/ near Trichinapoly/ for the Explanation of the Principal Operations/ during the War. 378 × 482 mm (top right)
Thos. Kitchin Sculpsit (bottom right)
Scale: Miles 1" = 1/2
- 6.1 [Plan of Chinglapet] 164 × 212 mm
Thos. Kitchin Sculpsit (bottom right)
Scale: Yards 1" = 95
- 7.1 A Map/ of the/ Country/ extending Ten Miles to the West/ and Eighteen to the East/ of Trichinapoly. 485 × 243 mm 177
(top left)
Thos. Kitchin Sculpsit (outside bottom right)
Scale: Miles 1" = 1 1/2
- 8.1 Territory of/ Calcutta/ MDCCLVII. 403 × 230 mm (top right);
in Vol II, publ. 1778
T. Kitchin Sculpsit (outside bottom right)
Scale: Miles 1" = 1/4
- 9.1 Plan of the Attempt of the French Troops to take Trichinapoly by Escalade November 28 1753. 343 × 195 mm (outside top)
Thos. Kitchin Sculpsit. (outside bottom right)
No scale



Calcutta from Vol II of Orme's History of the Military Transactions, 1778/1803.

- 10.1 [Coast of Choromandel] 385 × 490 mm
Thos. Kitchin Sculpsit. (outside bottom right)
No scale; lat. 18°–12°, no long.; no neat line at bottom

Map drawn for *A Voyage from England to India in the Year MDCCLIV*, Edward Ives, publ. E. and C. Dilly, London, 1773

- 11.1 A/ Map of India,/ together with a/ Chart of the Indian Seas,/ to which the Operations of/ Admiral Watson's Squadron/ were principally confined;/ and shewing the Passages made by/ Commodore James from Madrass to Bombay/ in the Years 1754 & 1755,/ against the Contrary Monsoons./ By Thos. Kitchin/ Hydrographer to his Majesty. 514 × 435 mm (centre left)
To face the Title Page. (outside top right)
Inset: The River Ganges is inserted here/ on a large Scale to prevent a/ contraction of the General Map.
No scale; lat. N36°–S36°, long. from London 15°–109°

Map drawn for untraced publication

- 12.1 A/ General Map of/ India,/ including the Empire of/ Hindostan,/ with the Kingdom of Bengal,/ & its other dependencies;/ 1779/ Engrav'd by T. Kitchin 382 × 338 mm (top right)
Scale: British Statute Miles 1" = 205; British Marine Leagues 1" = 58; lat. 37°–0°, long. from London 65°–108°

Map drawn for *The History and Management of the East-India Company*, [James Macpherson], publ. T. Cadell, London, 1779

- 13.1 A General Map/ of/ India/ within the/ Ganges. 340 × 335 mm (bottom right)
T. Kitchin Senr Sculpt (bottom right); Published by T. Cadell according to Act of Parliament Jany 1779 (outside bottom centre)
No scale; lat. 26°–5°, long. from London 83°–107°

Map drawn for *New Complete & Universal System of Geography*, G.H. Millar, publ. A. Hogg, London, 1782

- 14.1 New Map of/ Indostan/ or/ East Indies/ agreeable to the latest/ Authorities/ By T. Kitchin Geogr./ Hydrographer to his/ Majesty 380 × 337 mm (bottom left)
Scale: British Statute Miles 69½ to a Degree 1" = 148; Marine Leagues 20 to a Degree 1" = 42; Jeribi, the Great or Measured Coss 33 to a Degree 1" = 70; lat. 30°–5°, long. from Ferro 80°–115°, from London 64°–94°

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India within the Ganges

- 15.1 Map drawn for untraced publication
Map/ of the/ European Settlements/ in the/ East Indies./ By Thos
Kitchin Senr./ Hydrogr to his Majesty. 349 × 340 mm (bottom
right)
Published by T. Cadell according to the Act of Parliament May
1st 1783 (outside bottom centre)
Scale: British Miles 69 to a Degree 1" = 148; Leagues 20 to a
Degree 1" = 42; lat. 30°–5°, long. from Ferro 84°35'–110°20'
- 76 John Entick 1703–1773
Map drawn for *The General History of the Late War*, Vol. I,
J. Entick, publ. Edward Dilly and John Millan, London, 1763
1.1 A New & Accurate/ Map of the Seat/ of the Late War/ on the
Coast of/ Choromandel,/ in the East Indies./ 1763 197 × 235
mm (centre right)
Scale: Eng. Marine Leag. 20 to a Degree 1" = 10; English Miles 69½
to a Degree 1" = 35; lat. 14°–10°, long. from London 78°–81°
- 77 John Zephaniah Holwell 1711–1798
Maps drawn for *Interesting Historical Events, Relative to the
Provinces of Bengal and the Empire of Indostan*, J.Z. Holwell,
publ. T. Becket and P.A. De Hondt, London, 1764; re-issued
1766–71; French ed. 1768, publ. Arkstee & Merkus, Amsterdam.
1.1 [Patna-Delhi] 236 × 270 mm
No 1 (outside top right)
2.1 [Sud-abad-Patna] 200 × 238 mm
No 2 (outside top right)
Scale: Coss 1" = 13
3.1 [Fulta-Binaras] 300 × 240 mm
No 3 (outside top right)
No scale; lat. 27°–22'

78 Marchand

- 1.1 **Plan/ des Attaques de la Ville/ du Madure,/ Dedie/ A son A.S. Monseigneur le Prince/ de Conde,/ Par son tres humble et tres obeissant Serviteur/ le Ch.er Marchand. 590 × 310 mm (top left)**

grave par Croisey (outside bottom left)

Scale: Pour la distance des Camps et forts de la place, Toises 1" = 450; Pour la place, les Travaux du Siege, et la ligne de Contrevallatin 1" = 135

79 John Blair d. 1782

- 1.1 **Map drawn for *The Chronology and History of the World*, 3rd ed., J. Blair, London, 1768; earlier ed. 1754 without this map
A Map/ of the/ East Indies/ from the latest/ Authorities and Observations/ By/ John Blair LLD. FRS/ as a Supplement to His Tables of Chronology. 562 × 423 mm (bottom centre)**

No 50 & No 51 (outside bottom left)

No scale; lat. N30°–S5°, long. from London 68°–115°

- 1.1.2 **Re-issued in ed. of 1770**

Map drawn for revised ed., 1779, sometimes found in ed. with title page dated 1768

- 2.1 **The/ East Indies/ including more particularly/ The British Dominions on the Continent of India/ by the Rev'd John Blair, L.L.D. & F.R.S./ as a Supplement to his Tables of Chronology. 566 × 423 mm (centre left)**

After No. 56 (outside bottom left); Publish'd according to Act of Parliament, July 1st, 1773 (outside bottom centre); T. Kitchin snr Sculpsit, Hydrographer to his Majesty (outside bottom right)

Scale: British Statute Miles 69½ to a Degree 1" = 82; Marine Leagues 20 to a Degree 1" = 32; Computed Travelling Leagues about 30 to a Degree 1" = 50; Jeribi, the Great or Measured Coss about 33 to a Degree 1" = 52; Rismi, Small or Computed Coss about 37 to a Degree 1" = 60; lat. 30°–5°, long. from Ferro 79°28'–110°36'

- 2.1.2 **Re-issued 1788**

India within the Ganges

80 Alexander Dow d. 1779

Map drawn for *The History of Hindostan*, Vol I, 2nd ed., A Dow, publ. T. Becket and P.A. De Hondt, London, 1770

1.1 A/ General Map/ of Hindostan,/ with the/ Adjacent Countries
360 × 425 mm (bottom left)

No scale; lat. 45°–5°, long. from London 59°–92°

81 M.B.C.T.

1.1 Theatre/ de la Guerre dans L'Inde/ sur la Coste de Coromandel/
Par M.B.C.T. 1770 925 × 570 mm (bottom centre)

Insets (from top left, across bottom, to top right): Port de Bombay/
a la coste de Malabar aux Anglais; Baye de Tringmalet/ Isle de
Ceilan; Negapatan/ aux Hollandais; Tranquebar/ aux Danois;
Goudelour/ aux Anglais; Trichnapaly/ au Nabob du Carnate;
Divicote de Chalenbron; Pondicheri/ 1769; Madras/ ou Fort St
George; Fort d'Arcate/ au Nabob; Schinglepet/ aux Anglais;
Carangouli/ au Nabob; Vandavachi; Pondamalai; Giny/ au
Nabob; Mazulipatam aux Anglais/ avec les nouvelles Fortifica-
tions et la Coste d'Orixia; Visigapatam aux Anglais/ a
la Coste d'Orixia; Fort de Calicuta/ aux Anglais/ a Bengale
Grave par Croisey (outside bottom left)

Scale: Lieues Francoises de Toises 1" = 5½; Lieues Marines de
20 au Degre 1" = 5; Coss communes de l'Inde 1" = 8; Nary ou 16
heures de chemin 1" = 12½; lat. 14°–8°, long. from Paris 75°–79°

82 John Andrews 1736–1809

Map drawn for *A Collection of Plans of the Capital Cities of
Europe . . .*, J. Andrews, London, 1771

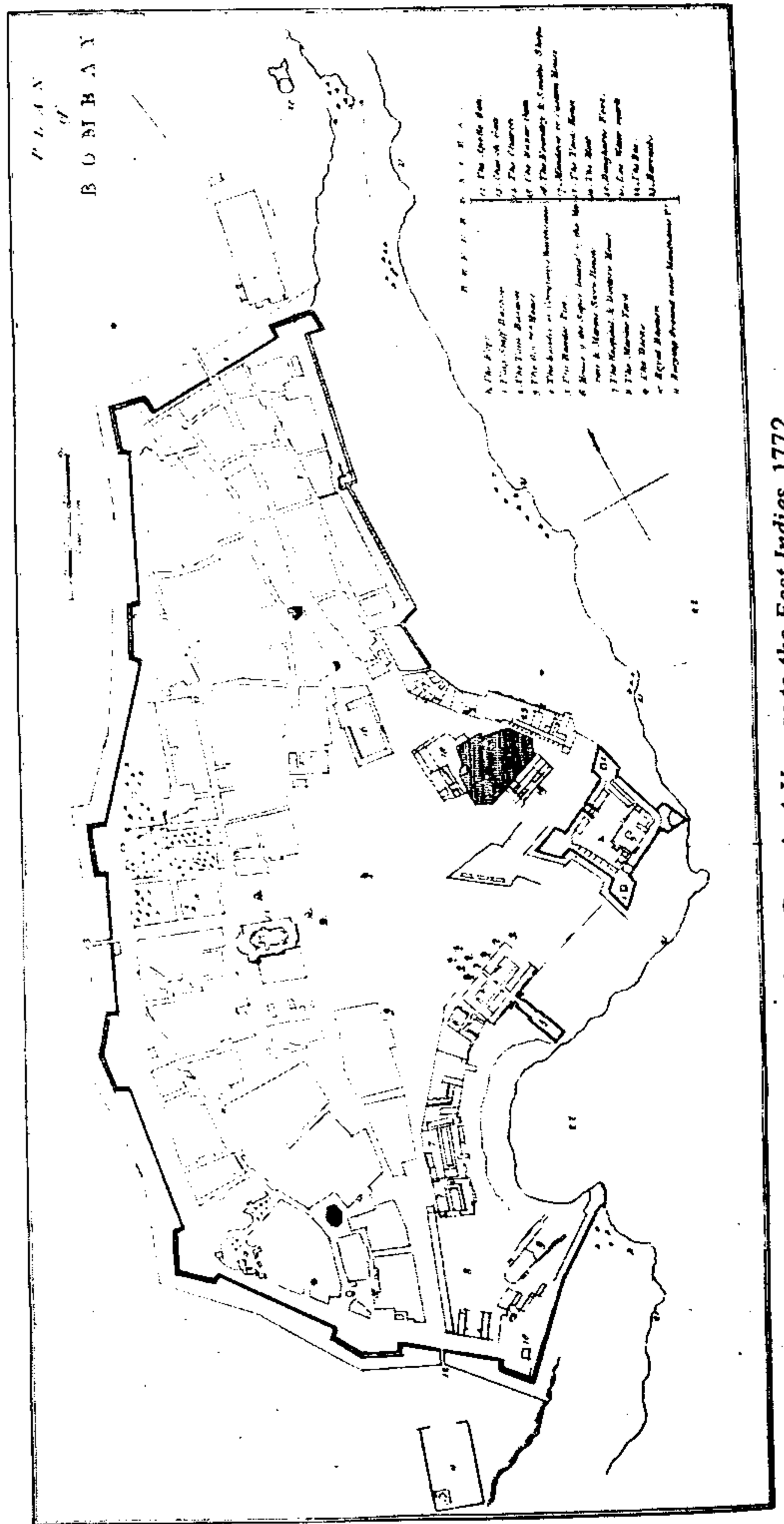
1.1 A Plan of/ Madras/ and/ Fort St George 230 × 157 mm (top
left centre)

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XXXIII (outside top right); I. Andrews Sculp. (outside bottom
right)

Scale: Feet 1" = 1000

- 83 Rigobert Bonne 1727–1794**
- 1.1 Indes Iere Feuille 413 × 295 mm (outside bottom centre)**
 XXIV (outside top left); A26 (outside top right)
Scale: Lieues Marines de 20 au degre 1" = 45; lat. 37°–14°, long. from Isle de Fer 81°–117°, from Paris 61°–97°
- 2.1 Indes Iie Feuille 413 × 295 mm (outside top centre)**
 XXV (outside top left); B26 (outside top right)
Scale: Lieues Marines de 20 au degre 1" = 45; lat. N14°–S11°, long. from Isle de Fer 81°–117°, from Paris 61°–97°
 Both maps bound in *Atlas Moderne... Par plusieurs Auteurs.* publ. Lattre and Delalain, Paris, 1771
- Maps re-engraved for *Atlas... dressee pour l'histoire philosophique et politique des etablissements et du commerce des europeens dans les deux Indes*, G.T.F. Raynal, Paris, 1780; Geneva, 1780–1781, 1783–84
- 1.2 Carte/ de la Partie Superieure/ de l'Inde en deca du Gange,/ Comprise entre la Cote du Concan et celle/ d'Orixa, avec l'Empire du Mogol, le Bengale,/ le Re d'Asham, partie de ceux d'Ava et de Pegu./ Par M. Bonne, Ingenr Hydrographe de la Marine.**
 325 × 214 mm (top centre)
 Liv. I, II, III, IV, V (outside top left); No 12 (outside top right)
Inset: Bouches du Gange
Scale: Coss de 44⁴/₉ au Degre 1" = 100; Lieues communes de 25 au Degre 1" = 58; Lieues Marines 1" = 42; lat. 35°–17°, long. from Isle de Fer 83°–115°, from Paris 65°–93°
- 2.2 Carte/ de la Partie Inferieure/ de l'Inde en deca du Gange,/ contenant/ l'Isle de Ceylon, les Cotes de/ Malabar et de Coromandel,/ avec le Pays compris entre ces Cotes./ Par M. Bonne, Ingr Hydrographe de la Marine.** 325 × 214 mm
 No 13 (outside top right)
Scale: as 1.2; lat. 17°–0°, long. as 1.2
- 2.3** Re-engraved for Geneva ed., 1781 with '... Contenant...' in title and 'No 13.' (outside top right)
- 1.3, 2.4** Re-engraved for Geneva ed. 1783–84 omitting name of Bonne 183
- 3.1** Map drawn for *Atlas Methodique*, R. Bonne, Paris, 1787
 Imperia Antiqua/ Pars Orientalis,/ a R. Bonne/ Primario Hydrographo/ Navali. 234 × 346 mm (top right)
 Andre sculp. (outside bottom left); 7 (outside top right)
Inset: Schema duodecim Ventorum,/ apud Aristotelem et Plinium
Scale: Stadia Aristotelis quorum 1111 in Gdu; Stadia Olympica quorum 600 in Gdu; Cos seu Coru, mensura Indiae, 44⁴/₉ in G.; Parasangae Persicae quarum 37 in G.; Leucae Francicae quarum 25 in Gra.; Parasangae Persicae quarum 22²/₅ in G; Gos seu Gau, mensura Indiae 11¹/₂ in G



Bombay, from Grose's A Voyage to the East Indies, 1772.

84 John Henry Grose fl. 1750–1783

Plans drawn for *A Voyage to the East Indies*, 3rd ed., J.H. Grose, publ. S. Hooper, London, 1772; not in earlier editions of 1756, 1766

- 1.1 Plan/ of/ Bombay 354 × 175 mm (top right)
Scale: Feet 1" = 450
- 2.1 Plan/ of/ Surat Castle 216 × 190 mm (top right)
No scale
- 3.1 Plan of Madura (no neat line, approx. 280 × 280 mm (bottom centre))
No scale

85 William Bolts 1740–1808

Map drawn for *Considerations of Indian Affairs*, W. Bolts, London, 1772

- 1.1 A Map/ of/ Bengal/ and its Dependencies/ Collected chiefly from actual surveys/ and now first Publish'd/ according to Act of Parliament/ the 1st Jan. 1772 by/ W. Bolts. 560 × 395 mm (bottom left)
Engraved by T. Jefferys Geographer to the King (bottom left)
Scale: Miles 1" = 33; lat. 27°–21°, long. from London 84°–94°, from Calcutta W5°–E5°
- 1.2 Re-engraved for French translation, *Etat civil, politique et commercant de Bengale . . .*, tr. J.N. Demeunier, Maestricht, 1778, with title 'Carte/ du Bengale/ et ses dependences,/ dressees/ d'apres des Plans pris sur les lieux/ Par W. Bolts.' 542 × 379 mm

See also *Political Magazine*, 1785

- 2.1 The Kingdoms of/ Bengal, Bahar,/ and parts of/ Orissa,/ which are now under the Dominion/ of the Honble Society of English Merchants trading to the East Indies;/ together with the Conquered Provinces of/ Illahabad, Owd & Banares,/ which by the Servants of the said Society, in 1765,/ were conferred on/ The Mogol Emperor, Shah Allum and the/ Nabob Sujah-al-Dowlah:/ as Survey'd by Order of the Company:/ Engraved by Faden and Jefferys Geographer to/ His Majesty. 1000 × 592 mm (bottom left) 185
- To the Right Honble Frederick Lord North,/ First Lord of the Treasury;/ The Right Honble Thomas Harley,/ Major General John Burgoyne, Sir Wm Meredith Bart,/ George Johnstone Esqr

India within the Ganges

and the rest of the Members/ of the Secret Select Committees of the Honble the House of Commons,/ on India-affairs; whose Names for their disinterested researches,/ the Natives & the Oppressed in India, may eventually have/ reason, gratefully to venerate, so long as the British/ maintain their Empire in Asia:/ This Map is humbly dedicated,/ by,/ their most obedient Servt William Bolts. (top right); London. Published according to the Act of Parliament, May 20th 1773, by Jefferys & Faden, the Corner of St Martins Lane, Charing Cross. (outside bottom)

Scale: British Statute Miles $69\frac{1}{2}$ to a Degree $1'' = 24$; lat. $28^{\circ} - 20^{\circ}30'$, long. from Calcutta $W10^{\circ} - E5^{\circ}$, 6 Hours of Time East from London $79^{\circ}20' - 93^{\circ}30'$

2.1.2 Re-issued with altered imprint in title: '... Engraved by Jefferys and Faden'

86 Charles Caraccioli fl.1766

Map drawn for *The Life of Robert Lord Clive, Baron Plassey*, C. Caraccioli, publ. T. Bell, London, 1775; re-issued 1786

1.1 An/ Accurate/ Map/ of/ India. 325×266 mm (top right)
No scale; lat. $35^{\circ} - 0^{\circ}$, long. from London $64^{\circ} - 113^{\circ}$

87 James Rennell 1742-1830

1.1 An Actual Survey,/ of the/ Provinces of Bengal, Bahar &c./ By Major James Rennell, Engineer,/ Surveyor General,/ To the Honorable the East India Company,/ Published by Permission of the Court of Directors,/ from a Drawing in their Possession;/ By A. Dury./ Wm Haydon Sculpt 1500×980 mm (in two sheets, title bottom left south sheet)

North sheet: 1500×535 mm; lat. $27^{\circ}25' - 23^{\circ}55'$, long. from Calcutta $W5^{\circ}30' - E5^{\circ}15'$

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Dedication to John Harrison Esq: Chairman/ John Roberts Esq: Deputy Chairman [and twenty-two Directors by name]/ Gentlemen/ As the General Good of the Honorable Company whose affairs/ you have so successfully directed, was the Motive that prevailed upon you to allow this/ Valuable Map of those rich and extensive Provinces of Bengal Bahar &c to be/ published to the World, I am happy in this Opportunity of testifying to the Public, to whom they owe this great addition of Geographical knowledge,

and at the same time of Subscribing myself,/ Gentlemen,/ Your most Obediant/ and much obliged/ Humble Servant/ Andrew Dury/ 1776.

Scale: Common Coss of Bengall 1" = 7; British Miles 69½ to a Degree 1" = 12; Geographical Miles 60 to a Degree 1" = 10

South sheet: 1500 × 445 mm; lat. 23°55'–21°, long. from Calcutta W5°30'–E5°15'

Scales repeated in reverse order with changed spelling of 'Bengal'

1.1.2 Re-issued with addition of 'London. Republished by R. Sayer, No 53 Fleet Street, 1786' under title

1.1.3 Re-issued 1794 with imprint bottom left south sheet 'Published 12th May, 1794, by Laurie & Whittle, 53 Fleet Street, London.' and without additional imprint of 1786

2.1 A Map/ of the Provinces of/ Delhi, Agrah, Oude, and Ellahabad,/ comprehending the Countries lying between/ Delhi, and the Bengal-Provinces,/ Surveyed by Major James Rennell,/ Surveyor General to the Honorable East-India Company, and/ Published by Order of the Court of Directors/ of the said Company./ By Andrew Dury, 1060 × 1075 mm (in two sheets, title in south sheet bottom left)

North sheet: 1060 × 535 mm; lat. 30°–26°30', long. from Greenwich 77°–85°

Dedication to John Roberts Esq Chairman, William James Esq Deputy Chairman and twenty-two Directors . . . by Andrew Dury, 20th March, 1777

South sheet: 1060 × 540 mm; 26°30'–23°, long. from Calcutta 11°15'–3°40'

Willm Haydon Sculpt (bottom left)

Scale: British Miles 69½ to a Degree 1" = 12; Common Coss of Bengal 1" = 7

2.1.2 Re-issued 1786 with addition below title . . . By Andrew Dury,/ 'MDCCLXXVII./ London. Republished by Robert Sayer, No 53 Fleet Street, 1786' and bottom left 'London. Published as the Act directs, 20th March 1777. By Andrew Dury, Duke's Court, St Martin's Lane.' 187

2.1.3 Re-issued 1794, omitting date below dedication and date below title, with changed imprint below title 'Published 12th May, 1794, by Laurie & Whittle, 53 Fleet Street, London.'

Map drawn for *A Description of the Roads in Bengal and Bahar*, James Rennell, London, 1778

3.1 A/ General Map of the/ Roads/ of Bengal &c/ 1778 230 × 140 mm (top right)

Wm Faden sculp. (outside bottom right)

Scale: British Miles 1" = 70

India within the Ganges

- Map drawn for *A History of the Military Transactions of the British Nation in Indostan*, Vol. II, Robert Orme, publ. J. Nourse, London, 1778 (Vol. I appeared first in 1763); re-issued 1803
- 4.1 The/ Countries of Indostan/ East of Delhi/ by Major James Rennell,/ Late Surveyor General to the East-India Company in Bengal./ Engraved from a drawing made and given by him,/ For the use of this History,/ To whom the Author testifies his acknowledgements. 378 × 295 mm (bottom left)
J. Cheevers Sc. (outside bottom left); Published according to Act of Parliament July 1st 1778 (outside bottom centre); The Writing by W. Harrison (outside bottom right)
Scale: British Miles 1" = 70; lat. 30°–19°, long. from London 77°–94°
- Maps drawn for *A Bengal Atlas*, James Rennell, London, 1780; most signed 'W. Harrison sc' (outside bottom right) with plate number (top right), and 'Published according to Act of Parliament by J. Rennell' with the date (outside bottom centre)
- 5.1 The/ Delta of the Ganges;/ with the/ Adjacent Countries/ on the East:/ Comprehending the southern inland Navigation./ Inscribed to/ Francis Russell Esqr/ By his affecte Friend/ J. Rennell. 600 × 440 mm (top right)
No 1; Published . . . Decr 1st 1778.; no sig. of Harrison
Inset: Samoolagur or Sumookgur Fort near Bankibazar
Scale: British Miles 1" = 12; lat. 24°10'–21°20', long. from Calcutta W0°10'–E4°
- 6.1 The/ Jungleterry/ District:/ with the adjacent Provinces of/ Birboom, Rajemal, Boglipour &c:/ Comprehending the Countries/ Situated between Moorshedabad/ and Bahar. 415 × 355 mm (top right)
No II; Published . . . June 1st 1779; dedication to Brig. Gen. Richard Smith (top left)
Scale: British Miles 1" = 12; lat. 25°50'–23°30'; long. from Calcutta W2°50'–E0°5'
- 188 7.1 A Map of/ South Bahar,/ Including the Course of the Ganges/ to Chunargar:/ Inscribed to/ Sir Hector Munro/ Knight of the Bath,/ By his most obedt Servant,/ J. Rennell. 500 × 260 mm (bottom right)
No III; Published . . . Sepr 20th 1779
Scale: British Miles 1" = 12; lat. 25°50'–24°10', long. from Calcutta 5°25'–2°45'
- 8.1 A Map of/ North Bahar:/ Inscribed to/ Brigadier General/ John Caillaud,/ By his most obedient Servt/ J. Rennell 470 × 335 mm (top right)
No IV; Published . . . Novr 7th 1779

- Scale:** British Miles 1" = 12; lat. 27°20'–19°10', long. from Calcutta 4°20'–1°
- 9.1 The/ Northern Provinces/ of/ Bengal;/ with the/ Bootan, Morung,/ & Assam Frontiers:/ Inscribed to/ Hugh Inglis Esqr:/ By his affectionate Friend/ J. Rennell 597 × 350 mm (bottom right)
No V; Published . . . August 15 1779
Scale: British Miles 1" = 12; lat. 27°–24°45', long. from Calcutta W1°30'–E2°50'
- 10.1 The/ Low Countries/ Beyond the Ganges,/ From the Mauldah River to Sylhet:/ Comprehending the midland and eastern/ Inland Navigation./ Inscribed to/ Thomas Kelsall Esqr/ By his affectionate Friend/ J. Rennell. 615 × 290 mm (bottom right)
No VI; Published . . . July 12, 1779
Scale: British Miles 1" = 12; lat. 25°20'–23°30', long. from Calcutta W0°10'–E4°20'
- 11.1 The Provinces of/ Bengal,/ Situated on the west of the/ Hoogly River:/ With the/ Maharatta Frontier./ Inscribed to Harry Verelst Esqr/ By his obliged humble Servant/ J. Rennell 445 × 370 mm (bottom left)
No VII; Published . . . Oct. 14, 1779
Scale: British Miles 1" = 12; lat. 23°50'–21°30', long. from Calcutta W2°55'–E0°15'
- 12.1 The/ Conquered Provinces/ on the south of/ Bahar;/ Containing/ Ramgur, Palamow, &/ Chuta-Nagpour,/ with their dependencies./ Inscribed to/ Major Jacob Camac,/ By his most obedt Servant/ J. Rennell. 383 × 400 mm (bottom right)
No VIII; Published . . . June 24, 1779
Scale: British Miles 1" = 12; lat. 24°40'–22°, long. from Calcutta 4°45'–2°
- 13.1 To/ The Honorable/ Warren Hastings Esqr/ Governor General/ of the/ British Possessions in Asia;/ This Map of/ Bengal & Bahar,/ (Comprehending a Tract more extensive &/ populous than the British Islands)/ Is respectfully Inscribed:/ In testimony of his Distinguished Abilities;/ And in Gratitude for Favour Received;/ By his obliged he Servant/ J. Rennell. 670 × 465 mm (top right)
Bengal and Bahar (outside top centre); No IX; Published . . . May 25, 1779
Scale: British Miles 1" = 24; lat. 27°20'–21°20', long. from Calcutta W5°5'–E4°25'; meridian of Calcutta 88°28' East Long. from Greenwich
- 14.1 A Map of/ Oude, & Allahabad;/ with part of/ Agra & Delhi:/ Including the Course of the Ganges to Hurdwar;/ and the Maharatta Frontier:/ Inscribed to/ John Cartier Esqr/Late Governor of Fort William, and of the/ British Possessions in

India within the Ganges

- Bengal,/ By his obliged and affectionate Friend/ J.Rennell.
520 × 620 mm (top right)
Oude, & Allahabad, &c (outside top centre); No X; Published . . .
Jany 31st. 1780
Scale: British Miles 1" = 24; lat. 30°–22°, long. from Calcutta
11°–3°45'
- 15.1 Map of the Cossimbuzar Island 286 × 460 mm (outside top
centre)
In/ Testimony of Respect/ To the Memory of that Great Man/ To
whose abilities the British Nation owes/ The Sovereignty of
Bengal,/ This Map is inscribed/ To the Right Honorable/ Edward
Lord Clive/ Baron of Plassey,/ By his Lordship's most devoted
Servt/ J. Rennell (top right); No XI; Published . . . Feb. 29th 1780
Inset: Battle of Plassey,/ Gained by Colonel Clive/ June 23rd, 1757
Scale: British Miles 1" = 5; lat. 24°35'–23°20', long. from Calcutta
W0°20'–E0°30'
- 16.1 Plan/ of the/ Environs/ of the City of/ Dacca. 490 × 380 mm
(top right)
No XII; Published . . . 1st March 1780
Scale: British Miles 1" = 2
- 17.1 The/ Doo-ab,/ from Allahabad to Kalpy;/ Inscribed to/ Brigadier
General/ Sir Robert Barker Knt/ By his most obedt Servant/
J. Rennell 610 × 235 mm (top centre)
No XIII; Published . . . March 20th 1780
Scale: British Miles 1" = 6
- 18.1 Maps drawn for enlarged ed. of *A Bengal Atlas*, London, 1781
Map of the Inland Navigation. 366 × 198 mm (top centre)
Published . . . Jany 1st 1781; W. Harrison sc. No 42 Wych Street
(outside bottom right); bound after page 8 and not numbered
- 19.1 The River Ganges from Allahabad to Patna,/ with Plans of
Allahabad and Chunargur 543 × 254 mm (top centre; map in
two parts horizontally)
Insets: [Allahabad]; [Chunargur]; Transverse Section of
Chunargur
No XIV; Published . . . 22nd June 1780
Scale: British Miles 1" = 5
- 20.1 The River Ganges from Patna to Surdah/ with Plans of Patna and
Monghir 640 × 248 mm (top centre; map in two parts horizon-
tally)
Insets: Plan of the/ Fortifications/ of the/ City of Patna; [Monghir]
No XV; Published . . . 7th July 1780
Scale: British Miles 1" = 5

- 21.1 The Ganges from Surdah to the Calligonga: with the Passage across the Jeels, &c. 585 × 195 mm (outside top centre)
No XVI; Publish'd . . . June 4th 1780
Scale: British Miles 1" = 5
- 22.1 The Ganges from the Calligonga, / to its confluence with the/ Megna or Burrampooter, / and the Megna from thence / to the head of the Luckia River. 600 × 240 mm (top centre)
Inset: Section of the Jellinghy River
No XVII; Published . . . July 20th 1780
Scale: British Miles 1" = 5
- 23.1 The Burrampooter, / from the head of the Luckia or Bannar River / to Assam. 590 × 255 mm (top centre; map in two parts horizontally)
Insets: Southern View of Dellamcotta Fort in Bootan; Plan of Dellamcotta Fort, / By Captain Claude Martin.
No XVIII; Publish'd . . . August 1st 1780
Scale: British Miles 1" = 5
- 24.1 The / Hoogly River / from Nuddeah to the Sea: / with Balasore Road / and / Plan of the Attack / of / Oudanulla. 585 × 260 mm (top centre; map in two parts horizontally)
Inset: Plan of the Attack / of / Oudanulla / by the British Army Commanded by / Major Adams / in the Month of August 1763
No XIX; Published . . . August 25, 1780
Scale: British Miles 1" = 5; Marine Leagues 1" = 3½
- 25.1 A Map of the / Sunderbund and Ballagot / Passages; / With their principal Communications: / Inscribed to / Charles W. Boughton Rouse Esq: / By his obliged humble Servant / J. Rennell. 715 × 305 mm (centre left)
No XX (inside top right); Publish'd . . . Decr 24th 1780
Scale: British Miles 1" = 5

The *Atlas* also contained 'View of Oudanulla . . . ' and 'Chunargur . . . ' as No XXI without engraved number, Published . . . Decr 14th 1780; No XXII 'Plan of Battle of Buxar' listed in contents did not appear in this edition

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Another ed. of *A Bengal Atlas* with the same maps in 1784, and eds without 18.1 Map of the Inland Navigation in 1792, 1808 and 1829

Map drawn for *An Account of the Ganges and Burrampooter Rivers*, paper read at the Royal Society, Jan 25th, 1780, publ. in *Philos. Trans.* Vol. LXXI, London, 1781

- 26.1 Plan of part of the Course of the Ganges, to explain the nature of the steep and / shelving Banks, Islands, &c. [and] Section of a

India within the Ganges

Branch of the Ganges, as a further explanation of the steep, /
and shelving Banks. 340 × 195 mm (in two parts with first title
outside top and second lower top centre)

Basire Sc. (outside bottom right)

Scale: Miles 1" = 1½

- 27.1 Hindoostan/ By J. Rennell F.R.S. 1782 790 × 790 mm (in two
sheets, title bottom right south sheet)
North sheet: 790 × 395 mm; lat. 35°40'–21°, long. from Greenwich
64°–102°

Scale: Geographical Miles 60 to a degree 1" = 60; British Miles
69½ to a degree 1" = 75; Common Coss 24 to a degree 1" = 42;
Pliny's Road Miles reduced to horizontal distance 1" = 110

South sheet: 790 × 395 mm; lat. 21°–5°, long. 68°–99°

The Map engd by J. Phillips. (outside bottom left); Published
according to Act of Parliament by J. Rennell Decr 1st 1782. (out-
side bottom centre); The Writing, by W. Harrison. (outside bottom
right)

First three scales of north sheet repeated

Revised and enlarged ed. 1788

- 27.2 A/ Map/ of/ Hindoostan,/ or the/ Mogul Empire:/ From the latest
Authorities./ Inscribed to/ Sir Joseph Banks Bart/ President of the
Royal Society, &c, &c./ By his much obliged & faithful Friend &
Servant/ J. Rennell./ London/ 1st Jany 1788/. Harmar Sculpt 164
Piccadilly 1205 × 1020 mm (in four sheets, title bottom right
centre south sheet)

North sheets: 1205 × 510 mm; lat. 32°–19°, long. 64–101°

Scale: Geographic Miles 60 to a degree 1" = 40; British Miles 69½
to a degree 1" = 46; Cosses of Hindoostan 42 to a degree 1" = 28;
Pliny's road miles, reduced to a horizontal distance 1" = 65

South sheets: 1205 × 510 mm; lat. 19°–5°, long. 66°–98°

The Map engrav'd by I. Phillips & W. Harrison—The writing by
T. Harmar. (outside bottom left); Publish'd according to Act of
Parliament, by James Rennell January 1st 1788 (outside bottom
centre); large emblem above title of first ed. omitted

Scales of north sheet repeated

Maps drawn for, or included in, *Memoir of a Map of Hindoostan or
the Mogul's Empire*, 2nd ed., James Rennell, London, 1785; 1st ed.
1783 without maps

- 18.1 Map of the Inland Navigation
26.2 Plan of part of the Course of the Ganges . . . [and] Section of a
Branch of the Ganges . . . 170 × 150 mm (in two parts hori-
zontally with titles across top of each part)

Published accord.g to Act of Parl.t by I. Rennell June 30th 1783

Scale: Miles 1" = 3

Reduced from 26.1, 1781

- 28.1 A/ General View/ of the principal/ Roads and Divisions/ of/ Hindoostan/ 1784 240 × 245 mm (top right)
Published as the Act directs by James Rennell, August 25th 1784 (outside bottom centre); Harmar Script, Chandos Str. (outside bottom right)

Scale: British Miles 1" = 200

- 29.1 The Marches of the Colonels/ Fullarton & Humberstone,/ in the Coimbetore & Nair countries,/ in the Year 1783. 320 × 220 mm (top centre)

Publish'd as the Act directs by James Rennell April 18th 1785 (outside bottom centre); Harmar Sc. (outside bottom right)

Scale: British Miles 1" = 24; lat. 12°30'–9°45', long. from Greenwich 76°–80°

- 30.1 Additions to Berar &c.: 250 × 175 mm (outside top centre)
To face page 105 (outside top left)

Scale: British Miles 1" = 70; Cosses 1" = 44; lat. 23°–17°, long. 76°–86°

Maps drawn for, or included in, enl. ed. of *Memoir*, London, 1788

- 18.1 Map of the Inland Navigation

- 26.2 Plan of part of the Ganges . . . [and] Section of a Branch of the Ganges . . .

- 28.1.2 A/ General View/ of the principal/ Roads and Divisions/ of/ Hindoostan/ 1788

Published as the Act directs by James Rennell May 1st 1788. (outside bottom centre); Harmar script. 164 Piccadilly (outside bottom right)

Scale: British Miles 1" = 200

- 31.1 The/ Countries/ Situated between the Source of the/ Ganges and the Caspian Sea/ 1788. 490 × 235 mm (bottom left)

Publish'd according to Act of Parliament by J. Rennell Jany 1st 1788. (outside bottom centre); WH (outside bottom right)

Scale: Geographic Miles 60 to a degree 1" = 80; British Miles 69½ to a degree 1" = 90; Cosses of Hindoostan 42 to a degree 1" = 55; Farsangs of Persia 21¼ to a degree 1" = 30; lat. 40°–29°, long. from Greenwich 52°–80°

Maps drawn for, or included in, enl. ed. of *Memoir*, 2nd ed., 1792

- 18.1 Map of the Inland Navigation

- 26.2 Plan of part of the Ganges . . . [and] Section of a Branch of the Ganges . . .

India within the Ganges

- 28.1.3 A/ General View/ of the principal/ Roads and Divisions/ of/
Hindoostan/ 1792; re-issue of 28.1.2 with changed date
- 31.2 The/ Countries,/ Situated between the Source of the/ Ganges and
the Caspian Sea./ 1792./ 515 × 263 mm (bottom left); a newly
drawn map in place of 31.1, 1788
Publish'd Jan: 1st 1792, by I. Rennell. (outside bottom centre)
Scale: Geographic Miles 1" = 80; British Miles 1" = 95; Cosses of
Hindoostan 42 to a degree 1" = 58; Cosses of Shah Jehan 29³/₄ to
a degree 1" = 42; Cosses of Acbar 31¹/₄ to a degree 1" = 43; Farsangs
of Persia 23³/₄ to a degree 1" = 32; lat. 41°–29°, long. from Green-
wich 50°–80°
- 32.1 The/ Countries/ Situated between Delhi and Candahar:/
Including Cashmere, and the Heads of the Indus./ Drawn chiefly
from Materials, collected by/ Captain William Kirkpatrick,/ of the
Bengal Establishment:/ To whom This Map is Inscribed,/ By his
obliged Friend and Servant/ J. Rennell. 460 × 310 mm (top
right)
The Map by James Phillips (outside bottom left); Published Jany
1st 1792 according to the Act of Parliament by James Rennell,
(outside bottom centre); W. Harrison Senr & Junr sc (outside
bottom right)
Scale: Geographic Miles 1" = 40; British Miles 1" = 48; Cosses of
Hindoostan 42 to a degree 1" = 29; Cosses of Acbar 29³/₄ to a
degree 1" = 20; Cosses of Jehanguire, 31¹/₄ to a degree 1" = 21; lat.
36°–28°, long. from Greenwich 66°–79°
- 33.1 The/ Peninsula of India,/ from the Kistnah River to Cape
Comorin;/ From the latest Authorities:/ Exhibiting its Political
Division,/ according to the Partition Treaty/ made at Seringa-
patam, 1792./ London. December 7th, 1792. By J. Rennell.
432 × 491 mm (bottom left)
Published according to Act of Parliament by James Rennell Dec 7th
1792 & sold by C. Nicol of Pall Mall. (outside bottom centre); The
Writing by W. Harrison (outside bottom right)
Scale: Geographic Miles 60 to a degree 1" = 30; British Miles 69¹/₂
to a degree 1" = 35; Cosses of the Carnatic 37¹/₂ to a degree 1" = 19;
lat. 17°–8°, long. 73°–81°
Overprinting in Germanic script on map of 'Mahrattas', 'Nizam',
'Tippoo Sultan', 'British Possessions & Alliances'
- 33.2 Revised ed. 1800 with changed title '... to Cape Comorin;/
Exhibiting the Partition/ of the Territories of the late/ Tippoo
Sultaun,/ According to the Treaty of 1792, made by the/ Marquis
Cornwallis;/ and that of 1799, made by the/ Marquis Wellesley;
London April 5th 1800. By J. Rennell', addition of 'Remarks', and
at bottom 'Corrected, April 1800'
- 194

- 34.1 **A Map of/Bengal,/ Bahar, Oude & Allahabad/ with Part of/ Agra and Delhi/ Exhibiting/ the Course of the Ganges/ from Hurdwar to the Sea/ By James Rennell, F.R.S./ late Surveyor Genl in Bengal/ London:/ Printed for Wm Faden, Geogr to the King/ Charing Cross Jany 1st 1786. 1060 × 715 mm (top right)
To/ John Stables Esqr/ One of the Supreme Council of Bengal/
This Map, Engraved from the Original Drawing/ on the same Scale in the Possession of/ the Honble East India Company/ (communicated by him to the late Mr Dury) is respectfully Inscribed by His obliged and/ Obedient Servant/ Willm Faden./ Jany 1st 1786.
(below title)
Scale: British Miles 1" = 24; lat. 30°—20°30', long. from Greenwich 77°—93°, from Calcutta W10°—E4°
Rev. ed., 1794**
- 34.2 **A Map of the North Part of Hindoostan/ or a Geographical Survey/ of the Provinces of/ Bengal, Bahar, Awd,/ Ellahabad, Agra and Delhi./ By Major James Rennell F.R.S. Engineer, Surveyor General to the Honourable the East India Company./ Published 12th May 1794 by Laurie & Whittle, 53 Fleet Street, London. 1040 × 685 mm (top centre)
Without dedication or cartouche
Scale: Common Coss of Hindostan 1" = 12; English Statute Miles 1" = 24; lat. 29°20'—20°30', long. from Calcutta W10°—E4°**
- 35.1 **The/ Peninsula of India,/ from the/ Khrishnah River to Cape Comorin:/ Drawn chiefly from Materials in the Collection of/ Alexander Dalrymple Esqr/ To whom This Map is Inscribed,/ By his much obliged & faithful Friend & Servant,/ J. Rennell./ London November 1st 1788. 603 × 755 mm (bottom left)
The Map Engrav'd by J. Phillips & W. Harrison; the Writing also by W. Harrison No 12 Winchester Street, Battle Bridge (outside bottom left); Published by J. Rennell, Novr 1st 1788 & sold by (C. Nicol, Pall Mall (outside bottom centre)
Scale: British Miles 69½ to a degree 1" = 24; Geographic Miles 60 to a degree 1" = 20; Cosses of the Carnatic 37½ to a degree 1" = 13; lat. 17°40'— 8°, long. from Greenwich 73°30'—81°30'**
- 36.1 **The/ Marches/ of/ The British Armies,/ in the/ Peninsula of India/ during the/ Campaigns of 1790, and 1791./ Compiled from the original Maps, drawn by/ Capt. A. Beatson and Capt. A. Allan:/ With some Particulars added in Explanation/ by. J. Rennell. 800 × 530 mm (bottom left)
Plan Work by I. Walker. Writing by T. Harmar (bottom left);
Published by J. Rennell Feb 21st 1792. (outside bottom centre)**

India within the Ganges

Scale: Geographic Miles 1" = 10; British Miles 1" = 12; Common Cosses 37½ to a degree 1" = 7; lat. 13°–10°, long. 75°–80°20'
Published with a memoir *The Marches of the British Armies in the Peninsula of India*, during the Campaigns of 1790 and 1791; Illustrated and explained by reference to a map, compiled from authentic Documents, transmitted by Earl Cornwallis from India, By Major Rennell, London, 1792

Map copied for *Select Views in India*, William Hodges, London, 1786

- 37.1 A Map/ of Part of the River Ganges, Jumna, / Goomty and Gogra, / with the Names of the several places from whence / the Views were taken in this Work. / Copied by permission of Major Rennell / from his most Valuable Map. 463 × 320 mm (top right)
Scale: British Miles 1" = 40; lat. 28°40'–22°40', long. from Greenwich 78°–89°, from Calcutta 10°–1°

See also Bernoulli for maps copied in Berlin, 1785

88 John Cowley

Map drawn for *A New and Easy Introduction to the Study of Geography*, Written originally in High Dutch by Mr Hubner, London, 1777

- 1.1 Part of the/ East Indies/ containing the/ Mogul's Empire/ and the Peninsula on/ this side the Ganges by/ I. Cowley Geor to his Majesty 130 × 110 mm (bottom right)
facing p. 196 (outside top right)
No scale; lat. 35°–5°, long. from London 57°–100°

196 89 Charles Theodore Middleton

Map drawn for *A New and Complete System of Geography*, Vol I, C.T. Middleton, publ. J. Cooke, London, 1777

- 1.1 An Accurate Map/ of the/ East Indies,/ from the latest Improvements/ and Regulated by/ Astronomical Observations. 290 × 200 mm (top right)
Engraved for Middleton's Complete System of Geography (outside top centre)
No scale; lat. 33°–0°, long. from London 63°–115°

90 Robert Orme 1728–1801

Maps drawn for *A History of the Military Transactions of the British Nation in Indostan*, Vol II, R. Orme, publ. John Nourse, London, 1778; maps for Vol I, publ. 1763, by Thomas Kitchin; Vol II re-issued 1803

1.1 The/ Countries of Indostan/ East of Delhi/ by Major James Rennell./ Late Surveyor General to the East-India Company in Bengal./ Engraved from a drawing made and given by him./ For the use of this History./ To whom the Author testifies his acknowledgements. 378 × 295 mm (bottom left)

J. Cheevers Sc. (outside bottom left); Published according to Act of Parliament July 1st 1778 (outside bottom centre); The Writing by W. Harrison (outside bottom right)

Scale: British Miles 1" = 70; lat. 30°–19°, long. from London 77°–94°

2.1 Plan/ for the Intelligence of the Military Operations at/ Calcutta,/ when attacked and taken by/ Seerajah Dowlet/ 1756. 410 × 256 mm (top left)

No scale

3.1 The Countries of/ Coromandel/ from the Colleroon to Cape Comorin./ Madura and Tinivelly from Maps composed for the East-India Company by John Call Esq chief Engineer. 442 × 475 mm (bottom centre)

Published according to Act of Parliament June 5th 1778 (outside bottom centre); The Writing by W. Harrison (outside bottom right)

No scale; lat. 11°15'–8°, long. from London 77°–80°20'

4.1 Bengal/ with its Divisions/ and/ The Adjacent Countries. 525 × 378 mm (bottom left)

No scale; lat. 29°–20°, long. from Calcutta W10°–E5°

5.1 Territory of Calcutta/ MDCCLVII. 403 × 230 mm (top right)
T. Kitchin Sculpsit (outside bottom right)

Scale: Miles 1" = 1/4

6.1 Palam-Cotah/ near/ Tinivelly 498 × 285 mm (top right)
John Call, Chief Engineer fecit (bottom left); J. Cheevers Sculpsit (outside bottom right)

Scale: feet 1" = 300

7.1 Trinomalee. 330 × 310 mm (top right)
John Call, Chief Engineer fecit (bottom left); J. Cheevers Sculpsit (outside bottom right)

Scale: yards 1" = 140

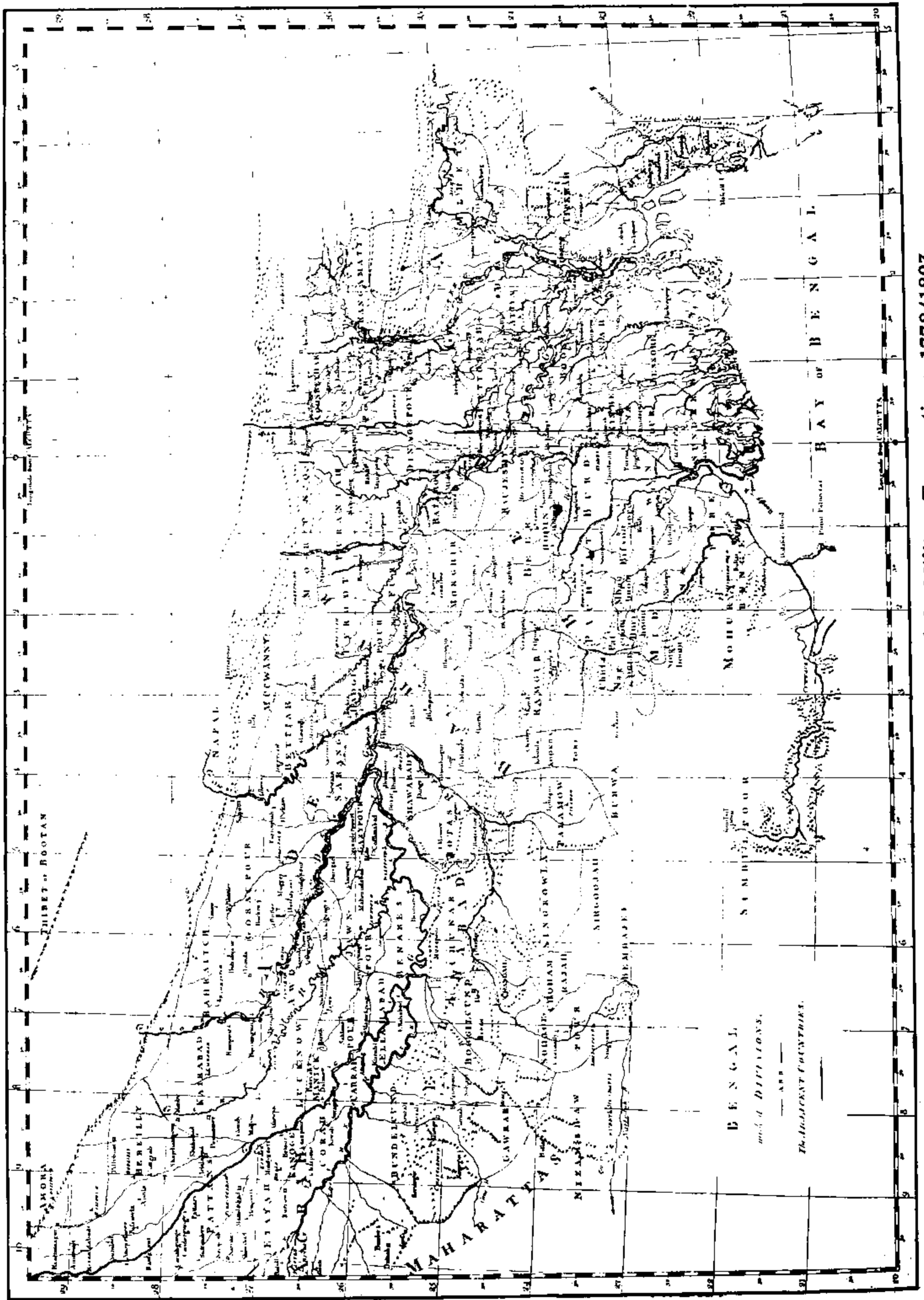
8.1 Vizagapatam in MDCCLVIII. 214 × 122 mm (outside top centre)

T. Miller Sc. (outside bottom right)

No scale

India within the Ganges

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Bengal, from Vol II of Orme's History of the Military Transactions, 1778/1803.

- 9.1 Thiagur. 425 × 275 mm (top left)
John Call Chief Engineer fecit. (outside bottom left); J. Cheevers
Sculpsit (outside bottom right)
Scale: yards 1" = 190
- 10.1 Fort St David/ with the French attack/ May 1758 242 × 356
mm (bottom right)
T. Miller Sculpt.
Scale: yards 1" = 350
- 11.1 Tanjore/ reduced from an exact Survey 340 × 378 mm (bottom
left)
Scale: Yards 1" = 100
- 12.1 The Carnatic/ from the Pennar to the Coleroon,/ with the Western
Mountains/ and part of Mysore. 445 × 476 mm (bottom right)
J. Cheevers Sculpt (outside bottom left); Publish'd as the Act
directs June 5th 1778 (outside bottom centre); The Writing by
W. Harrison (outside bottom right)
No scale; lat. 14°35'—11°15', long. from London 77°—80°30'
- 13.1 Madrass, Part of the Black Town, and the adjacent ground to the
S. and W. with the French Attack from Decr 12; 1758 to Feby 17;
1759. 480 × 316 mm (outside top centre)
Published as the Act directs July 5th 1778 (outside bottom centre);
T. Millar Sculpt (outside bottom right)
Scale: Feet 1" = 500
- 14.1 Plan/ of the Fronts of Fort St George/ attacked by Mr Lally/ from
the 14th December 1758, to the 16th February, 1759,/ with part of
the Black Town. 413 × 356 mm (bottom right)
Published as the Act directs July 5th 1778 (outside bottom centre);
T. Miller Sculpsit (outside bottom right)
Scale: Yards 1" = 85
- 15.1 Masulipatam./ Taken by Storm on the night of 7th April 1759,
by the English Troops under the Command of Lt. Col. Forde.
200 × 150 mm (outside top)
Scale: Yards 1" = 280
- 16.1 Valdore. 160 × 105 mm (top centre)
John Call, chief Engineer fecit (between border bottom left); 199
Scale: yards 1" = 250
Vandiwash 160 × 105 mm (top centre)
John Call, chief Engineer fecit (between border bottom left);
John Cheevers Sculpsit (outside bottom left)
Scale: yards 1" = 115
- 17.1 Carangoly 356 × 278 mm (top right)
John Call Chief Engineer fecit (bottom left); J. Cheevers Sculpsit
(outside bottom right)
Scale: yards 1" = 125

India within the Ganges

- 18.1 Chittapet. 390 × 273 mm (top right)
John Call, Chief Engineer fecit (bottom left); J. Cheevers Sculpsit
(outside bottom right)
Scale: yards 1" = 100
- 19.1 Permacoil. 428 × 265 mm (top right)
John Call, Chief Engineer fecit. (bottom left); J. Cheevers Sculpsit
(outside bottom right)
Scale: Yards 1" = 60
- 20.1 Karical 163 × 205 mm (outside top centre)
John Call chief Engineer fecit (outside bottom left); John Cheevers
Sculpsit (outside bottom right)
Scale: yards 1" = 170
- 21.1 Arcot Fort. 160 × 105 mm (top centre)
John Call, Chief Engineer fecit. (between borders bottom left)
Scale: yards 1" = 300
- Chillambarum 160 × 108 mm (top centre)
John Call, Chief Engineer fecit (between borders bottom left);
John Cheevers sculpsit (outside bottom right)
Scale: feet 1" = 200
- 22.1 Pondicherry. 290 × 127 mm (top right)
Published as the Act directs June 5th 1778 (outside bottom centre)
Scale: yards 1" = 850

Maps drawn for *Historical Fragments of the Mogul Empire, of the
Morattoes, and of the English Concerns in Indostan, M, DC, LIX,*
R. Orme, publ. C. Nourse, London, 1782

- 23.1 [South India] (no neat line, approx. 390 × 280 mm)
I. Andrews Sculp. (bottom left); London. Published as the Act
directs, Nov. 11th 1781 by C. Nourse in the Strand. (bottom
centre)
No scale; lat. 15°–8°, long. from London 70°–81°
- 24.1 [Central India] (no neat line, approx. 380 × 324 mm)
I. Andrews Sculp. (bottom left); London, Published as the Act
directs, Nov 11th 1782 by C. Nourse in the Strand. (bottom centre)
No scale; lat. 23°–15°, long. from London 70°–81°
- 25.1 [Golconda to Aurangabad] According to Mr Bussy's Marches.
(no neat line, approx. 138 × 110 mm)
London. Published as the Act directs Nov. 11th 1782 by C. Nourse
in the Strand (bottom centre)
No scale; lat. 21°–17°, long. 75°–79°

91 Alexander Dalrymple 1737–1808

1.1 To Edward Cotsford Esqr/ This/ Map made by him/ of the/ Itchapour District in the Cicacole Circars/ is inscribed/ by/ His affectionate Friend/ Dalrymple 625 × 640 mm (bottom right)
Published as the Act directs by A. Dalrymple Oct 1st 1778 (outside bottom centre)
Scale: English Miles $69\frac{1}{2}$ = $1^{\circ} 1'$ = $3\frac{1}{2}$; lat. $19^{\circ} 55'$ – $18^{\circ} 50'$, no long.

2.1 A/ Map of the East India Company's Lands on the/ Coast of Choromandel,/ From an actual Survey made at the Company's expence/ by/ Thomas Barnard./ The original of a scale of two Inches to a statute Mile./ Published, with the East India Company's approbation/ by/ Alexander Dalrymple,/ 1778.
1120 × 580 mm (top left)
Reduced from the Original & the Outline & Paddy Fields, executed with the Dry Point by B. Henry. The Hills, Rivers & Tanks Etched & Engraved by P. Begbie. The Writing by W. Harrison. (outside bottom left); Published according to Act of Parliament 1st March 1779 by A. Dalrymple (outside bottom centre); Dedicated to Court of Directors . . . (bottom right)
Scale: $6/10''$ = 1 statute mile; west at top of page
Published with *Explanation of the Map of the East-India Company's Lands on the Coast of Choromandel*, A. Dalrymple, London, 1778

3.1 A Map of the/ Baroche Pargunnahs/ and/ Part of the adjacent Provinces/ Wherein are laid down the different Towns and Villages belonging to each District/ with the Rivers and Roads and the Route of the Army from Brodra in 1775 . . . From a MS communicated by/ Henry Savage Esqr . . . 332 × 387 mm (bottom right)
Published according to Act of Parliament by A. Dalrymple 25th Augt. 1782 (outside bottom centre); Writing by T. Harmar. (outside bottom right)
No scale; lat. $22^{\circ} 25'$ – $21^{\circ} 10'$, no long.

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Maps published in *Oriental Repertory*, A. Dalrymple, Vol I 1793 Vol II 1795, London, Beneath each map 'Published according to Act of Parliament by A Dalrymple' and the date

4.1 A/ Sketch of the Roads/ into the/ Combum and Cudapah Countries/ from/ Ongole and Nellore/ 1783./ by W. Caulfield Lennon. 215 × 290 mm (top left)
J. Walker Sculpt (outside bottom left); W. Harrison sc. (outside bottom right); Published . . . Mach 7th 1791, for the *Oriental Repertory* No 1. (outside bottom centre)
Scale: Geographic Miles $1'' = 12$

India within the Ganges

- 5.1 Map of the Roads/ From Nellore to the Passes of Rampore and Samisseram/ and to/ Ongole/ by/ Colin Mackenzie, Practr. Engineer/ 1788./ Obligingly communicated by Major Maule/ To Whom this Plate is inscribed/ by/ A. Dalrymple 490 × 285 mm (top left)
J. Walker Sculpt (outside bottom left); W. Harrison Sc. (outside bottom right); Publish'd . . . March 15th 1791 for the Oriental Repertory No 1 (outside bottom centre)
Scale: Geographic Miles 1" = 5
- 6.1 Map of the Route/ From Ongole to Innaconda and Bellumconda/ in the/ Guntoor Circar/ in/ September and October 1788/ and/ The Roads to Chintapilly and Mootapilly/ Surveyed by Colin Mackenzie, Practr Engineer 435 × 308 mm (bottom left)
J. Walker Sculpt (outside bottom left); W. Harrison sc. (outside bottom right); Published . . . March 14th, 1791 (outside bottom centre)
- 7.1 Khalinjer Fort/ in/ Bandelcund 200 × 305 mm (centre left)
For the Oriental Repertory No 3. (outside top left); W. Harrison sc. (outside bottom right); Published . . . July 1st 1792. (outside bottom centre)
- 8.1 Map of Colonel Upton's Journey/ From Poonah towards Bengal./ 1776./ Pl. 1st. 460 × 302 mm (top right; map in two parts)
Oriental Repertory No 4 (between neat lines top left); WH sc. (outside bottom right); Published . . . May 30th 1792. (outside bottom centre)
Scale: Miles 1" = 25
- 9.1 Map of Colonel Upton's Journey/ From Poonah to Bengal/1776./ P1.2. 214 × 290 mm (top left; map in two parts)
Oriental Repertory No 4. (outside top right); W. Harrison sc. (outside bottom right); Published . . . June 27th 1792. (outside bottom centre)
Scale: Miles 1" = 25
- 10.1 Plan of Darampury/ with the Attack [and] Plan of Tingherry Cotah/ with the Attack 210 × 305 mm (titles bottom right in each part)
For the Oriental Repertory No 2 (between neat lines top left); J. Walker Sculp. (outside bottom right); Published . . . Novr 17th 1791. (outside bottom centre)
- 11.1 City and Environs/ of/ Sirengampatanne/ or/ Seringapatnam/ Taken at the request of/ Mr Robert Adams Surgeon/ by/ Alexander Cefars le Gou/ 1775. 208 × 290 mm (bottom left)
For the Oriental Repertory No 2. (outside top centre); W. Harrison sc. (outside bottom left); J. Walker sculp. (outside bottom right); Published Octr 27th 1791. (outside bottom centre)
Scale: Feet 1" = 1000

- 12.1 Colar 230 × 150 mm (outside top centre)
For the Oriental Repertory No 2 (outside top right); This Plate, most Obligingly, given by Robert Orme Esqr/ is inscribed to Him, by His affectionate Friend A. Dalrymple (outside top left and right); J. Cheevers Sculpt (outside bottom right); (no date of publication)
Scale: Feet 1" = 900
- 13.1 Plan of Ossour 213 × 274 mm (outside top centre)
For the Oriental Repertory No 3 (outside top right); J. Walker Sculpt. (outside bottom right); Publish'd . . . Jany 25th 1792. (outside bottom centre)
Scale: Feet 1" = 240
- 14.1 Plan of Salem 215 × 308 mm (top right)
For the Oriental Repertory No 3 (outside top left); J. Walker Sculpt. (outside bottom right); Published . . . Feby 1st 1792 (outside bottom centre)
- 15.1 Plan of Cannanore/ 1784. 477 × 305 mm (top left)
Inset: Plan of Cannonore Fort/ Made by Order of Adam Van der Duyn/ Commodore of the Coast of Malabaar/ Canara & Wingurla/ 1709.
For the Oriental Repertory No 3. (outside top left); W. Harrison sc. (outside bottom left); J. Walker Sculpt. (outside bottom right); Published . . . April 5th 1792. (outside bottom centre)
- In Vol. II
- 16.1 Map of Part of the Northern Circars/ to/ explain the Memoir on Watering the Circars,/ laid 'down from various materials/ by/ A. Dalrymple/ 1793. 410 × 310 mm (bottom right)
W. Harrison sculp. (outside bottom right); Published . . . Oct. 17th 1793. (outside bottom centre)
No scale; lat. 17°40'—15°40', long. 80°10'—82°50'
- 17.1 Reduction of Plan/ of the/ Chilka Lake/ from a M.S. in/ Mr Orme's Collection (top left) [and] Map/ from Ganjam to Jaggernaut/ by/ Lieut. Robert Colebrooke. (bottom right) [and] Plan of the Chilka Lake/ From various materials/ by/ A. Dalrymple/ 1794. (top left)
225 × 290 mm (three maps on one page)
For the Oriental Repertory (outside top right); Published . . . April 1st 1795 (outside bottom centre)
- 18.1 Natural Bason/ thro which/ The Golconda River/ passes, in entering the Circars/ by/ Lieut. Alexander Denton/ 1793. 183 × 250 mm (top left)
Oriental Repertory. Vol. 2. p.79. (outside top left); W. Harrison sc. (outside bottom right); Published . . . Jany 8th 1794. (outside bottom centre)
Scale: Nautic Miles 1" = 1¼

India within the Ganges

- 19.1 Plan of the City of/ Ponah or Poonah/ Capital of the Maharatta States/ From a French M.S./ obligingly communicated/ by/ Governor Hornby/ To whom This Plate is inscribed/ by/ A. Dalrymple. 410 × 293 mm (bottom left)
For Oriental Repertory Vol 2. (outside top left); J. Walker Sculpt. (outside bottom right); Published . . . Sepr 14th 1792. (outside bottom centre)
Scale: Toises 1" = 90
- 20.1 Plan of the Fort and outward Wall/ of/ Ourangal or Warangole/ Surveyed by Henry Montessor, Sub-Engineer/ 1767./ This Plate was/ Obligingly presented by Robert Orme Esqr/ to/ Whom It is inscribed/ by/ his affectionate Friend/ A. Dalrymple/ 28th December/ 1793. 313 × 288 mm (bottom right)
Oriental Repertory Vol. 2. (outside top left); J. Cheevers Sculp. (outside bottom right); Published . . . Decr 28th 1793. (outside bottom centre)
Scale: Feet 1" = 2500
- 21.1 Plan of Poonah 425 × 317 mm (top right)
J. Walker Sculpt. (outside bottom right); Publish'd . . . 7th May. 1794 (outside bottom centre)
- 22.1 Plan of Aurungabad 193 × 220 mm (top left)
For Oriental Repertory Vol. II (outside top right); J. Walker Sculpt. (outside bottom right); Published . . . May 24th 1794 (outside bottom centre)
- Various charts and plans bound in different collections; title, size, surveyor and date of survey where stated are given.
In *Plans of Ports in the East Indies*, A. Dalrymple, London, 1775
- 23.1 A Chart of Broach Bar and River 210 × 370 mm Lt. W.A. Skinner, 1773
- 24.1 Plan of Chaul on the Malabar Coast 210 × 380 mm From an English MS, 1750
- 25.1 Plan of Surat River 210 × 280 mm From an English MS, 1750
- 204 26.1 Plan and View of Gingerah 210 × 280 mm A. Werner
- 27.1 Plan of Garriah Harbour 210 × 375 mm Sir W. Hewitt, Bart, 1756
- 28.1 View and Plan of Sinderoo 210 × 280 mm Col. John Watson, 1765
- 29.1 Plan of Goa Harbour 300 × 290 mm Reeves Woodson
- 30.1 Plan of Merjee 210 × 280 mm Elias Bates, 1725
- 31.1 Comptee 210 × 280 mm Elias Bates, 1725
- 32.1 Plan of Onore 210 × 280 mm Elias Bates, 1725
- 33.1 Mud Bank of Cranganore 195 × 280 mm from Van Keulen

- In A Collection of Charts and Plans*, A. Dalrymple, London, 1792
- 34.1 Chart of the Coast of Guzarat and Scindy 610 × 465 mm 1783
- 35.1 Chart of the Coasts of Choromandel and Orixia 490 × 610 mm
- 36.1 Chart of part of the Coasts of India and Guzarat 550 × 675 mm
John McCluer, 1788
- 37.1 Charts of the Malabar Coast . . . from Mangalore to Bombay
620 × 460 mm
- 38.1 Chart of part of the Malabar Coast and Part of the Laccadives
470 × 620 mm John McCluer, 1790
- 39.1 Chart of part of the Malabar Coast 560 × 675 mm John
McCluer
- 40.1 A Trigonometrical Survey of the Bay of Coringa 580 × 345 mm
Michael Topping
- In Atlas of Charts and Plans*, A. Dalrymple, London, 1792
- 41.1 Chart of the Bay of Coche and River Nagor on the Coast of
Guzzaratt 235 × 280 mm Charles Massey
- 42.1 Chart of the Coast of Scindy . . . communicated by Henry Pretty
220 × 280 mm
- 43.1 Chart of the Coast of Scindy 435 × 285 mm Mr Swithin, 1760
- 44.1 Chart of the Coast of Guzarat 155 × 280 mm Mr Swithin, 1760
- 45.1 Plan of Gogo 260 × 290 mm M. Hunter
- 46.1 A Chart of the Coast of India 480 × 285 mm Lt. John Ringrose
- 47.1 Plan of Nunsaree River 175 × 290 mm John Ringrose
- 48.1 Plan of Gundivee River 215 × 370 mm John Ringrose
- 49.1 Plan of Bulsaur River [and] Plan of Omersary River 425 × 285
mm Lt. John Ringrose
- 50.1 Plan of Collack River 180 × 285 mm John Ringrose
- 51.1 Plan of Danno River 215 × 285 mm John Ringrose
- 52.1 Plan of Angassea River 420 × 285 mm Lt. John Ringrose
- 53.1 Plan of Vassava 210 × 290 mm Lt. Edward Harvey, 1777
- 54.1 Plan of Manhora River in the Island Salset 215 × 535 mm
Archibald Blair
- 55.1 Plan of Mayhaur 215 × 535 mm Lt. E. Harvey, 1777
- 56.1 Plan of the Port of Chaul on the Coast of Concan 480 × 285 205
mm
- 57.1 Sketch of Boncout 215 × 290 mm
- 58.1 An Eye-Draught of Dewgur Harbour 260 × 290 mm Archibald
Blair
- 59.1 Plan of Vingoria on the Malabar Coast 440 × 285 mm
- 60.1 Plan of Ramadilly 660 × 285 mm
- 61.1 Plan of the Island Durmapatan 220 × 285 mm
- 62.1 Plan of Tellichery Road 200 × 290 mm Capt. Thomas Lynn
- 63.1 Chart of the Coast of Madura from a Dutch MS 300 × 290 mm
- 64.1 Plan of Tutucoryn from Van Keulen 205 × 290 mm

India within the Ganges

- 65.1 Chart of the Passage between Point Ramen and the Island Ramisseram 210 × 285 mm William Stevens
- 66.1 Plan of that Part of the Calymere Reef 340 × 285 mm J. Rennell
- 67.1 Plan of a shoal between Point Calymere and Negapatam 440 × 285 mm
- 68.1 Plan of the Road and Reef of Paleacate and Tegenopatam Reef 255 × 285 mm from Van Keulen
- 69.1 Plan of Devy Point 185 × 290 mm
- 70.1 Chart of Part of the Coast of Choromandel 450 × 285 mm Capt. J. Ritchie
- 71.1 Plan of Narsipore River 110 × 290 mm Charles Knapton
- 72.1 A Chart of the Bay of Coringah 385 × 280 mm William Stevens
- 73.1 Plan of the Road and Harbour of Coringah 505 × 340 mm William Stevens
- 74.1 Plan of . . . Codgone [and] Bomeeny Harbour 260 × 285 mm William Helman
- 75.1 Plan of Negapatam Road 365 × 285 mm George Trotter
- 76.1 A Correct Chart . . . of Nagore 210 × 485 mm Thomas Dibden
- 77.1 Chart of the Coast of Bengal from Putnay to Ramnabad 375 × 285 mm
- 78.1 Chart of the Mouth of the Megna River 210 × 500 mm
- 79.1 Chart of the Coast of Scindy and Bay of Cutch 285 × 290 mm
- 80.1 Chart of Part of the Malabar Coast 235 × 300 mm Lt. John McCluer
- 81.1 Plan and View of Searbett Island 415 × 305 mm John McCluer
- 82.1 Plan and Views of Jaffrabat 310 × 285 mm John McCluer
- 83.1 Plan of Bancoot River 215 × 515 mm John McCluer
- 84.1 Plan of the Bar and Entrance of Bancoot River 350 × 285 mm John McCluer
- 85.1 Plan and Views of Demaon 225 × 285 mm John McCluer
- 86.1 Plan and Views of Diu 365 × 305 mm John McCluer
- 87.1 Plan and Views of Radjapore River 220 × 285 mm John McCluer
- 206 88.1 General Plan of Malabar Coast 600 × 290 mm James De Funk
Insets: Plan of Tellichery, P. Daser; Survey of Rhandaterra, Charles Turner
- 89.1 Entrance of Salt River Oyster Rocks 215 × 285 mm T. Maswoll
- 90.1 Plan of Part of the Malabar Coast 230 × 285 mm from a French MS
- 91.1 Plan of Billiapatam River 230 × 360 mm George Maule

92 Carsten Niebuhr 1733–1815

Maps drawn for *Reisebeschreibung nach Arabien und andere umliegenden Landern*, C. Niebuhr, publ. Nicolaus Moller, Copenhagen, Vol. II, 1778, (Vol. I dated 1774)

- 1.1 Die Insel Bombay 160 × 204 mm (outside bottom centre)
Tab. I (outside top right); II Th. (outside bottom left); Pieter Haas Sculp. (outside bottom right)
No scale
- 2.1 Grundriss eines Garten zu Surat (Scale: feet 1" = 200)
Lage der Stadt Surat am Flus Tappi (Scale: deutsche Meilon 1" = ¾) 300 × 200 mm (together with separate title below each)
Tab. XIV (outside top right); II Th. (outside bottom left)

93 Louis Brion de la Tour

- 1.1 Nouvelle Carte de la Partie/ des Indes Orientales,/ qui comprend, entr'autres Etats,/ les vastes Possessions/ des Anglais:/ dressee d'apres/ leurs propres Cartes,/ Par M. Brion de la Tour, Ingenr Geographe du Roi,/ 1780,/ A Paris./ Chez le Sr Desnos, Ingenieur Geographe et Libraire/ de Sa Majeste Danoise, rue Saint Jacques, au Globe. 256 × 229 mm (bottom right); map in elaborate border
Scale: Lieues d'une heure, de 20 au Degre 1" = 50; Jeribi, ou grand Coss de l'Inde 1" = 74; Rismi ou petits Coss 1" = 82; lat. 29°–8°, long. 87°–113°
In *Atlas general*, publ. Desnos. Paris, 1790

94 John Cary c. 1754–1835

- 1.1 Madras/ and/ Fort St. Georges./ Taken by the French under/ the Command of/ M. Mahe de la Bourdonnais,/ the 21st Sept. 1746. J. Cary sculpt. 232 × 174 mm (bottom right) 207
No scale; east at top of page, dated March 10, 1781
In *Field of Mars*, London, 1781 and 1801
- 2.1 A/ Map/ of the/ East Indies. J. Cary sculp. 240 × 194 mm (bottom right centre)
Published by Jas. Macqowan, & Wm. Davies, March 17, 1781 (outside bottom centre)
No scale; lat. 25°–7°, long. from London 70°–100°
- 2.1.2 Issue without print line below map

India within the Ganges

- Map drawn for *Travels in India, during the years 1780–1783*, William Hodges, London, 1793
- 3.1 A/ Map of Part/ of/ Bengal and Bahar/ with the Provinces of/ Benares, Allahabad, Oude/ and/ Agra,/ Engraved by J. Cary
700 × 547 mm (bottom right centre)
Scale: British Miles 1" = 32; Cosses of Hindoostan 1" = 22; lat. 29°–21°, long. from Greenwich 78°–90°
- Map drawn for *A Complete Geographical Dictionary*, Vol II, 2nd ed., John Seally, publ. J. Scatcherd and J. Whitaker, London, 1787
- 4.1 The/ East Indies,/ from the best/ Authorities. 265 × 230 mm
(bottom centre right)
J. Cary sc. (under title); Published June 22, 1782, by L. Fielding, No. 23, Paternoster Row. (outside bottom centre)
No scale; lat. 35°–4°, long. from London 66°–103°
- 95 Political Magazine
- Maps drawn for the *Political Magazine and Parliamentary, Naval, Military and Literary Journal*, 21 vols, 1780–91, London
- 1.1 A Map of the/ Peninsula of India,/ containing the Coasts of Malabar & Coromandel, with the English and French Settlements of/ Madras, Pondicherry &c, &c,/ the Carnatic or Nabob of Arcots Country;/ the Mysore or Hyder Ally's Country;/ the Country of Tanjore; Tondiman's Country;/ the Provinces of Madura, Tinivelly, Great/ and Little Morawar,/ and the Kingdom of Visiapour, with/ the Island of Ceylon. 273 × 375 mm
(bottom left centre)
London. Published as the Act directs, April 30th, 1781, by J. Bew Paternoster Row. (outside bottom centre); Jno. Lodge Sculp. (outside bottom right)
No scale; lat. 17°15'–2°, long. east from London 71°15'–82°30'; east from Paris 70°15'–81°30'
In Vol. II, April 1781
- 208
- 2.1 An Accurate Map/ of the Coast of/ Coromandel,/ from/ Fort St David to Cape Comorin. 243 × 321 mm (bottom centre)
London. Publish' as the Act directs, 31st May, 1782 by J. Bew Pater Noster Row (outside bottom centre); Jno. Lodge Sculp (outside bottom right)
No scale; lat. 11°50'–8°, no long.
In Vol. III May 1782

- 3.1 An/ Accurate Map/ of the Coast of/ Coromandel/ from the River / Pennar to Pondicherri. 283 × 248 mm (bottom right)
London. Published as the Act directs, 31st May, 1782, by J. Bew, Pater Noster Row. (outside bottom centre)
No scale; lat. 14°50'—11°50'
In Vol. III May 1782
- 4.1 A Correct Map/ of/ Bengal, and the/ Adjacent Countries,/ mostly from/ Actual Surveys. 556 × 388 mm (bottom left)
Political Mag. April '85 (outside top right); Jno. Lodge (outside bottom right)
Scale: Miles 1" = 32; lat. 27°20'—20°40', long. from London 83°20'—94°20', from Calcutta W5°20'—E5°
In Vol. VIII April 1785
- 5.1 A Plan/ of/ Bombay 361 × 168 mm (top right)
Supplet. Political Mag. Jan. '86 (outside top right); London
Published as the Act directs, Jan. 16th 1786, by J. Murray No. 32, Fleet Street. (outside bottom centre); Jno Lodge sc. (outside bottom right)
Scale: Feet 1" = 450
In Vol. IX Jan. 1786
- 6.1 A Map of the/ Upper Provinces of/ India,/ taken from Golconda,/ from the best/ Authorities. 410 × 344 mm (top right)
London. Published as the Act directs June 30th, 1786 by J. Murray No 32, Fleet Street. (outside bottom centre); J. Lodge sc. (outside bottom right)
Scale: British Miles 69½ to a Degree 1" = 145; lat. 36°—17°, long. 66°—101°
In Vol. X June 1786

96 Antonio Zatta fl. 1757—1797

Maps drawn for *Atlante Veneto*, Vol. IV, Venice, 1782

- 1.1 Indie Imo Foglio 400 × 289 mm (outside bottom centre) 209
G. Pitteri scr.
No scale; lat. 37°—14°, long. 81°—117°
- 2.1 Indie Ilo Foglio 400 × 285 mm (outside top centre)
No scale; lat. N14°—S11°, long. 81°—117°
- 3.1 Stato/ del/ Mogol/ con l'isole di/ Ceilan/ e Maldive/ Venezia 1785/ Press Antonio Zatta e Figli/ Con Privilegio dell' Eccmo Senato. 310 × 400 mm (bottom right)
No scale; lat. 34°—4°, long. 86°—110°

India within the Ganges

97 M. de la Tour

Map drawn for *The History of Ayder Ali Khan*, M. de la Tour, Vol. I, publ. J. Johnson, London, 1784; re-issued 1786

- 1.1 The Peninsula/ of/ India,/ Design'd for the History/ of Ayder Aly Khan,/ By the Sieur Rouge./ 1783. 185 × 300 mm (bottom left)
T. Conder Sculpsit (outside bottom right)
Scale: Marine Leagues 1" = 25; lat. 21°–7°, long. from Ferro 90°–100°

98 William Guthrie 1708–1770

- 1.1 An/ Accurate Map of/ Hindostan/ or India,/ from the best/ Authorities. 420 × 395 mm
Engraved for Guthrie's *New System of Geography* (outside top centre); Published as the Act directs May 23rd 1785 (outside bottom centre); W. Darton Sc. Tottenham (outside bottom right)
Scale: British Miles 69½ to a Degree 1" = 140; lat. 36°–6°, long. from London 66°–100°
In *A New System of Geography*, W. Guthrie, London, 1785; re-issued 1786, 1792, 1796 and later

Re-engraved for *The General Atlas* for Carey's edition of *Geography Improved*, W. Guthrie, publ. Mathew Carey, Philadelphia, 1795; re-issued 1799

- 1.2 An/ Accurate Map of/ Hindostan/ or/ India,/ from the Best Authorities. 405 × 390 mm
Engraved for Carey's American edition of Guthrie's *Geography Improved*. (outside top); J.T. Scott sculp. (below title)
Scale: Miles 1" = 150

- 2.1 Hindostan/ or/ India/ from the best/ Authorities 210 × 192 mm (bottom right centre)
Scale: British Statute Miles 1" = 300; lat. 36°–6°, long. from London 66°–91°

210

In *A New Geographical, Historical, and Commercial Grammar*, W. Guthrie, publ. Charles Dilly and G.G. and J. Robinson, London, 1795, 15th ed., and later eds

- 3.1 Hindostan/ or/ India./ Drawn from the best Authorities/ By J. Russell. 455 × 395 mm (top right)
Engraved for Guthrie's *New System of Geography* (outside top centre); Published as the Act directs by C. Dilly and G.G. and J. Robinson, April 7, 1799
In *The Atlas to Guthrie's System of Geography*, publ. G.G. and J. Robinson and J. Mawman, London, 1800

99 J.A. Dezauche fl. 1831

- 1.1** Plan/ de la Bataille/ de Goudelour/ donnee le 13 juin 1783,/ Entre l'Armee Francoise, commandee par/ Mr le Marquis de Bussy, Lieu. ant General/ des Armees du Roi et l'Armee Angloise/ sous les ordres du General Stuart 490 × 355 (top right)
A Paris chez Dezauche Geographe, Successeur des Srs de l'Isle et Phil. Buache leres Geographes du Roy, Rue des Noyers. (outside bottom right)
Scale: Toises 1" = 200

See also De l'Isle 1.2

100 R. Gough 1735–1809

Plans drawn for *A Comparative View of the Ancient Monuments of India*, R. Gough, London, 1785

- 1.1** Excavations at Keneri. : Excavations at Djegueseri. : Salset from Bacim. : Excavations at Monpenser. : Caverns at Elephanta. : Inscriptions at Keneri 310 × 210 mm (in six parts with title to each)
Pl. I. p. 11. (outside top right); Cook Sculp. (outside bottom right)
- 2.1** Plan of the temple of Elephanta. 150 × 190 mm (outside bottom centre)
Pl. II p. 16 (outside top right); Cook sc. (outside bottom right)

101 Willem Albert Bachiene 1712–1783

- 1.1** Nieuwe en Naukeurige Kaart van het Ryk des Grooten Mogols en der Indien aan Weerzijden der Ganges, met de aangrenzende Landschappen. 415 × 340 mm
J. van Jagen fec. 1774; Door Eman. Bowen, verbeterd door W.A. Bachiene
In *Atlas*, Matthijs Schalekamp, Amsterdam, 1785.

India within the Ganges

- 102 Johann Bernoulli 1742–1807
Maps drawn for *Des Pater Joseph Tieffenthaler's . . . Beschreibung von Hindustan*, J. Bernoulli, Berlin, Vol I, 1785; Vol II Parts 1 and 2, 1788; Vol III, 1787; French translation, *Description historique et géographique de l'Inde*, J. Bernoulli, Berlin, Vol I, 1786; Vol II Parts 1 and 2, 1787; Vol III Part 1, 1788; Vol III Part 2, 1789
- 1.1 [Ancient India] 220 × 237 mm
Ad Tieffenthaleri Descr Indiae (outside top right); P. Haas Sculp. (outside bottom right)
No scale; lat. 41°–24°, long. 80°–100°
In Vol I (German and French)
- 2.1 Carte Generale/ du Cours/ du Gange et du Gagra,/ dressee sur les Cartes particuliers/ du P. Tieffenthaler,/ J. Missionnaire Apostolique dans l'Inde./ Par M. Anquetil du Perron,/ de l'Acad. Rle des Inscriptions et Belles Lettres, Interprete/ du Roi pour les Langues Orientales,/ A Paris, 1784/ Grave aux frais de l'Auteur. 730 × 590 mm (bottom centre)
Andre sculp. (between neat lines bottom left)
Made up of six parts: Fig. I showing Gangotri—Mouths of the Ganges; other figs: II Seconde Source du Gange—Calque sur l'original du P. Tieffenthaler; III Premier Source du Gagra—Calque sur l'original fait par un Indien; IV Volcan de Doulon Bassabdar—Calque sur l'original fait par un Indien; V Seconde Source de Gagra—Calque sur l'Original fait par un Indien; VI Fausse Source du Gange
In Vol I (German), Vol II Part 2 (French)
- 3.1 Views and Plans of various places on different pages: I Palatium quod in horto arcis Deliensis exstat; II Banghar; III Almora; IV Narvar; V Dik [and] Baratpor; VI Elahabas; VII Banaras [and] Agra; VIII Gasipor [and] Sithacund; IX Corra; X Oppidum Mirsaporense majus; XI Calinzar; XII Datia, Gualiar, Azeghar; XIII Avadi; XIV Goptar Ghalt; XV Lacnoi; XVI Fesabadi [and] Lacnoi; XVII Ichnographia Urbis Gorekporensis; XVIII Nimcar [and] Ray Bareli; XIX Concursus Sarzu et Gagrae, Jan 1768; XX Rantambor; XXI Parnala; XXII Borhanpur; XXIII Arc Bithia [and] Putala . . . du Grand Lama; XXIV Dolaghir; XXV Sultangans [and] Navalrayo; XXVI Ganga; XXVII Razmahal; XXVIII Penti; XXIX Mahinagar [and] Tschinarghar; XXX Motizil; XXXI Casem-basar; XXXII Ganga; XXXIII Hugli Bander [and] Schazahanpor; XXXIV Tshuzura; XXXV Laknao [and] Tschandarnagor; XXXVI Dolatabad; XXXVII Setara; XXXVIII Hederabad et Golconda
In Vol I [German and French]
- 4.1 Portion/ d'une Carte du Sud de la Presqu'ile/ de l'Inde/ Faite par des Brahmes;/ qui comprend/ le Tanjaour, le Marava, et une/ partie considerable de Madurai:/ de la grandeur a peu pres/ de l'original/

- Zend-Avesta T.I 1e Part. p cccxxxviii, 1785** 520 × 405 mm
(bottom right)
P. Haas Sc. (bottom right)
Inset: [Coast of Coromandel taken from Orme]
No scale; no lat., long.
In Vol II Part 1 (German), Vol II Part 2 (French)
- 5.1 **Ten Views of the Ganges at various places on different pages**
In Vol II Part 1 (German), Vol II Part 2 (French)
- 6.1 **Carte du Theatre/ de la Guerre en 1764./ Par le P. Wendel/
Missionnaire Jesuit/ NB Sans egard a la distance exacte des lieux.**
224 × 150 mm (top right)
P. Haas Sculp. (outside bottom right); Descr. Ind. T. III. N. (outside
top right)
No scale
In Vol II Part 2 (German), Vol II Part 2 (French)
- 7.1 **[Chunar]: Transverse Section of Chunargur: [Monghir**
135 × 193 mm (in three parts)
Descr. Ind. Y. III, 0. (outside top right); P. Haas Sc (outside bottom
right)
In Vol II Part 2 (German), Vol III Part 2 (French)
- 8.1 **Plan,/ for the intelligence of the Military Operations at/ Calcutta,/
when attacked and taken by/ Seerajah Dowlet/ 1756.**
410 × 208 mm (top left)
Descr. Ind. Tom III, P (outside top right); P. Haas sculp (outside
bottom right)
In Vol II Part 2 (German), Vol III Part 2 (French)
- 9.1 **Plan/ of the/ Fortifications/ of the/ City of Patna.; [Fort of
Allahabad]; Samoolagur or Sumookgur; Arcis Ehlabadinae Pars**
168 × 218 mm (all on one page)
Descr. Ind. T. III. M. (outside top right); P. Haas Sc (outside
bottom right)
In Vol II Part 2 (German), Vol III Part 2 (French)
- 10.1 **Hindoostan./ By J. Rennell F.R.S. 1782./ Copied at Berlin by Benj.
Glasbach./ 1785.** (top right in sheet No I; No II top right;
No III bottom right)
No I 390 × 383 mm; *Scale:* Geographical Miles 60 to a degree
1" = 60; British Miles, 69½ to a degree 1" = 70; Common Cosses
24 to a degree 1" = 45; lat. 36°—21°, long. 83°—102°
No II 385 × 385 mm; lat. 36°—21°, long. from Greenwich 70°—87°
No III 432 × 405 mm; lat. 21°—5°, long. 70°—87°
In Vol III (German), Vol III Part 1 (French)
- 11.1 **A/ General View/ of the principal/ Roads and Divisions/ of/
Hindoostan./ 1784.** 240 × 240 mm (top right)
Copied, Berlin by F.W. Schmidt jun: 1787 (outside bottom right)
Scale: British Miles 1" = 200; lat. 34°—8°, long. 70°—95°
In Vol III (German), Vol III Part 1 (French)

India within the Ganges

- 12.1 The Ganges from the Calligonga,/ to its confluence with the/
Megna or Burrampooter:/ and the Megna from thence/ to the head
of the Luckia River. 590 × 236 mm (top centre)
Published according to Act of Parliament by J. Rennell July 20th
1780. (outside bottom centre); Copied at Berlin by C.C. Glassbach,
1785 (outside bottom right)
In Vol III (German), Vol III Part 1 (French)
- 13.1 The Burrampooter,/ From the head of the Luckia or Bannar River/
to Assam, 570 × 254 mm (top centre)
Published according to Act of Parliament by J. Rennell August 2nd
1780 (outside bottom centre); Copied at Berlin by C.C. Glassback
1785 (outside bottom right)
In Vol III (German), Vol III Part 1 (French)
- 14.1 Map of the Inland Navigation 370 × 200 mm (top centre)
Descr. Ind. Tom. III. (outside top right)
In Vol III (German), Vol III Part 1 (French)
- 15.1 The Marches of the Colonels/ Fullarton & Humberstone,/ in the
Coimbettoire & Nair Countries,/ in the Year 1783. 318 × 215
mm (top centre)
Copied, Berlin by F.W. Schmidt jun: 1787 (outside bottom right)
In Vol III (German), Vol III Part 1 (French)
- 16.1 Additions to Berar &c 245 × 173 mm (outside top centre)
F. W. Schmidt jun: Sc: (outside bottom right)
In Vol III (German), Vol III Part 1 (French)
- 17.1 Carte/ d'une partie de la/ Cote Malabar 165 × 224 mm
(bottom left)
Descr. de l'Inde, T. III 2me P. p191 (bottom left); F.W. Schmidt
jun Sculp (outside bottom right)
Scale: Grandes Lieues de 20 au degre 1" = 3
In Vol III Part 2 (French)

- 214 103 Matthias Christian Sprengel 1746—1803
Map drawn for *Geschichte der Maratten*, M.C. Sprengel, Halle,
1786; re-issued Frankenthal, 1791
- 1.1 Carte/ uber die/ Staaten/ Maharatten/ entworfen/ von/ Dr I.R.
Forster/ 1786. 300 × 253 mm (bottom right)
No scale; lat. 27°—16°, long. from London 72°—88°

104 William Faden 1750–1836

1.1 An Epitome/ Geographical and Political/ of Hindoostan. London/
Published by William Faden Geographer to the King. 280 ×
330 mm (top right)

April 17th 1788 (under title)

Scale: British Miles 1" = 170; lat. 36°–5°, long. from London
68°–94°

2.1 The/ Southern Countries of India/ from/ Madrass to Cape
Comorin/ describing/ the Routes of the Armies Commanded by/
Colonels Fullerton and Humberston,/ during the Campaigns of
1782, 1783 & 1784./ Surveyed by/ Col Kelly, Capt Wersebe,
and others/ London./ Printed for Wm Faden Geogr to the King
Charing Cross Feby 8 1788. 1025 × 880 mm (top left centre)

Scale: British Statute Miles 69½ to a Degree 1" = 12; Minutes of
Latitude making each a Geometrical or Nautic Mile 1" = 10;
Marching Miles computed at 80 to a Degree 1" = 14; Common
Cosses about 40 to a Degree./ These are Equal to about 60 Malabar
Hours March, called by Europeans, Malabar Miles 1" = 7; lat.
13°30'–8°, long. from London 75°20'–81°40'

2.1.2 Re-issued with date changed to 'Feby 8 1791'

2.1.3 Issue with imprint 'Publ. by Mr Anquetil du Perron' after 'and
others' in title

Map published by Faden, probably drawn under the direction of
James Rennell

3.1 A Map/ of the/ Peninsula of India/ from the 19th Degree North
Latitude to Cape Comorin/ MDCCXCII. (in two sheets, title
bottom left south sheet)

North sheet: 820 × 500 mm

Published June 11th by Wm Faden, Charing Cross (outside bottom
centre); lat. 19°–13°30', long. from Greenwich 72°–82°

South sheet: 820 × 490 mm

London/ Printed for W. Faden Geographer/ to the King and to the
Prince of Wales/ Charing Cross June 11th 1792. (under title and
scales)

Scale: British Miles 69½ to a Degree 1" = 32; Sultany Coss
Established by Sultan Tippoo in the Dominions, about 17½ to a
Degree 1" = 8; Mogully Coss 41 to a Degree 1" = 12½; Carnatik
Coss 37½ to a Degree 1" = 16; Brammy or Punjaby Coss about
56¼ to a Degree 1" = 12; lat. 13°30'–8°, long. from Greenwich
72°–82°

3.1.2 Re-issued 1795 with addition of dates and additions to the map;
date in imprint changed to 'Jany 1st, 1795' and 'Second Edition'
added below imprint

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India within the Ganges

- 3.1.3 Re-issued 1800 with date in imprint changed to 'May 10, 1800' and 'Third Edition'; the north sheet appears to have retained the date of 1795
- 3.1.4 Re-issued 1824 with imprint changed to 'London, Published by/ Jas Wyld./ (successor to Mr Faden)/ Geographer/ to the King & to H.R.H. The Duke of York./ 5 Charing Cross, Jany 1st 1824.'
- 3.1.5 Re-issued without border round title and imprint changed to 'London./ Published, by Jas Wyld./ Geographer to the King./ Charing Cross East, 1835'

105 Louis Stanislas d'Arcy de la Rochette 1731–1802

- 1.1 Hind./ Hindoostan/ or/ India./ by L.S. de la Rochette./ MDCCL-XXXVIII./ London/ Published by William Faden,/ Geographer to the King,/ as the Act directs,/ Jany 1st 1788. 524 × 684 mm (bottom right)
Advertisement/ For the new and interesting particulars with which/ This Map is enriched, especially in the Northern Parts,/ we are chiefly indebted to the Geographical Description/ of Father Joseph Tieffenthaler, Apostolic Missionary in India,/ and the Curious Draft of the Ganges and Gagra by Mons Anquetil du Perron,/ The New Chorographical Map of the Southern Countries of India by Col. Kelly,/ has enabled us to reform in several Districts the Geography hitherto adopted/ for the Southernmost Part of the Peninsula. (lower left); Wm Palmer sculp. (outside bottom right)
Scale: Great Cosses about 32½ to a Degree 1" = 42½, Common Cosses about 42 to a Degree 1" = 54; Geographical or Nautic Miles, or Minutes of a Degree 1" = 77; British Statute Miles about 69½ to a Degree 1" = 87½; lat. 35°–0°, long. from London 68°–94°
- 1.1.2 Re-issued in William Faden, *General Atlas*, London, 1797, with date changed to 1797

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106 Innes Munro d. 1827

- Plans drawn for *A Narrative of the Military Operations on the Coromandel Coast*, I. Munro, London, 1789. Each plan has 'Innes Munro del' and 'Woodman & Mutlow sculp.' (outside bottom left and right), and 'Published as the Act directs March 31st 1789' (outside bottom centre)
- 1.1 Plan of the Attacks made upon Lt. Cl. Baillie/ by Hyder Ally and Tippoo Sahib, on the 6th & 10th Sepr 1780 when upon his way to Join the English Army at Congeveram. 400 × 270 mm (outside top centre)

- Scale:** English Miles 1" = 3/4
- 2.1 Battle of Porto Nova/ Gained by 8,000 British Troops under Lt. Gl. Sir Eyre Coote over 100,000 Misorians under the Nabob Hyder Ally Cawn the 1st July 1781./ The English had 60 Field Pieces. The Enemy 35 heavy Guns & 45 Field Pieces 355 × 240 mm (outside top centre)
- Scale:** English Mile 1" = 1/2
- 3.1 Battle of Pollilore./ Gained by 11,000 British Troops under Lt. Gl. Sir Eyre Coote over 146,000 Misorians, under the Nabob Hyder Ally Cawn, 27th August, 1781 357 × 240 mm (outside top)
- Scale:** English Mile 1" = 1/4
- 4.1 Battle of Sholangur./ Gained by 11,000 British Troops under Lt Gl Sir Eyre Coote over 143,000 Misorians under the Nabob Hyder Ally Cawn on 27th Sepr 1781. 355 × 240 mm (outside top)
- Scale:** English Mile 1" = 1/2
- 5.1 Position of the Detachment under the Lieut. Col.1 Owen when attacked by the Nabob Hyder Ally's whole force at the pass of Veracundaloor on 23 of October 1781 350 × 240 mm (outside top)
- Scale:** English Mile 1" = 1/2
- 6.1 The British Army under Lt Gl Sir Eyre Coote attacked by Hyder's whole force upon its return from Vellore on the 13th Jany 1782. 350 × 237 mm (outside top)
- 7.1 Battle of Arne./ Gained by 10,000 British Troops under Lt Gl. Sir Eyre Coote over 120,000 Misorians under the Nabob Hyder Ally Cawn on 2nd June 1782. 350 × 233 mm (outside top)
- 8.1 [Map of the Forts of Trinquamallee and Osnaburg, taken by Monsr Suffrein the 31st August, 1782 402 × 275 mm]
- 9.1 Battle of Cuddalore/ Gained by 11,000 British Troops under Major Genl Stuart over 11,000 French and Misorians under Monsr Bussy on the 13th June 1783 350 × 240 mm (outside top)
- Scale:** Yards 1" = 500

107 John Haywood

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- Maps drawn for [Atlas], publ. John Harrison, London, 1791
- 1.1 A/ Map of/ India,/ Drawn from D'Anville's two Sheet Map,/ with Improvements and Engraved for J. Harrison, No. 115 Newgate Street,/ as the Act directs Novr 25. 1788 628 × 522 mm (top centre)
- Haywood del (outside bottom left); Sudlar Sculp 191 Strand (outside bottom right); 9 (outside top right)
- Insets:** Environs of Goa; Entrance of the River Ganges/ with its course up to Hughly; Negrais; R. of Aracan; R. of Sirian; Environs

India within the Ganges

of Merghi; Environs of Junk Selon; Environs of Ashem
Scale: English Statute Miles $69\frac{1}{2}$ to a Degree $1'' = 82$; French Leagues of 3000 Geometrical Paces or 2500 Fathoms $1'' = 28$; Marine Leagues 20 to a Degree $1'' = 25$; Coss, India Measure fixed by Post, between Agra and Delhi, equal to 1335 Fathoms $1'' = 50$; Great Coss 33 to a Degree $1'' = 40$; Common Coss 37 to a Degree $1'' = 48$; Coss, or Gau, Sea Measure on the Coast of Malabar or Coromandel, compared to 4 Coss $1'' = 12$; lat. $29^{\circ}-6^{\circ}$, long. $87^{\circ}-118^{\circ}$

- 2.1 Coromandel/ from D'Anville's Atlas,/ Engraved for J. Harrison, No. 115, Newgate Street,/ London May 8, 1788. 334×461 mm (bottom right centre)

Haywood del. (outside bottom left); Bowen scult. (outside bottom right); 10.(outside top right)

Scale: French Leagues consisting of 3000 Geometrical Paces $1'' = 9$; Marine Leagues 20 to a Degree $1'' = 8$; Common India Coss about 37 to a Degree $1'' = 15$; The Longer Coss about 35 to a Degree $1'' = 13$; Malabar Leagues containing 4 to the Longer Coss $1'' = 3\frac{1}{4}$; British Statute Miles $69\frac{1}{2}$ to a Degree $1'' = 28$; lat. $17^{\circ}15' - 10^{\circ}25'$

- 108 William Robertson 1721-1793

Maps drawn for *An Historical Disquisition concerning The Knowledge which the Ancients had of India*, W. Robertson, publ. A. Strahan, T. Cadell and E. Balfour, London, 1791

- 1.1 Map/ of the South East part of/ Asia,/ according to Ptolemy, for illustrating/ Dr Robertson's/ Historical Disquisition &c. 530×310 mm (bottom left centre)

S. Neele sculpt. 352 Strand (under title)

Scale: Olympic Stadia 600 to a Degree $1'' = 3200$; Stadia of Aristotle, 1100 to a Degree $1'' = 6000$; Geographical Miles, 60 to a Degree $1'' = 330$; lat. $N44^{\circ}-S15^{\circ}$, long. $70^{\circ}-180^{\circ}$

- 218 2.1 Map/ of the South East part of/ Asia/ for illustrating/ Dr Robertson's/ Historical Disquisition &c. 540×350 mm (bottom left centre)

London Published as the Act directs, June 1st, 1791, by T. Cadell Strand (outside bottom centre); Neele sculpt 352 Strand. (outside bottom right)

Scale: Olympic Stadia 600 to a Degree $1'' = 2000$; Stadia of Aristotle 1100 to a Degree $1'' = 3600$; Indian Coss 42 to a Degree $1'' = 125$; Geographical Miles 60 to a Degree $1'' = 200$; lat. $40^{\circ}-0^{\circ}$ long. $50^{\circ}-120^{\circ}$

- 1.1.2 Edition with 'H. Klockhoff, Sculp. Amst. 1791.' under title in place of 'S. Neele ...'

- 109 Johan Splinter Stavorinus 1739–1788**
 Map drawn for *Reize van Zeeland . . . naar . . . Bengalen*, J.S. Stavorinus, publ. A. and J. Honkoop, Leyden, 1793; re-issued 1797–98
- 1.1** Kaart van den/ Wester Arm der/ Ganges. 240 × 230 mm (top left)
 IIde Deel tegen over Pag. 3. (outside top left); C. van Barsel sculp. 1793 (outside bottom right)
Scale: Uuren van 20 in een Graad 1" = 5½; lat. 23°30'–21°10'; long. 103°30'–106°
- 1.2** Re-engraved for *Voyages to the East Indies*, Vol I, J.S. Stavorinus, tr. Samuel Hull Wilcocke, publ. G.G. and J. Robinson, London, 1798, with title 'Map/ of the/ Western Arm/ of the/ Ganges/ or Hougly River.' 203 × 196 mm (top left)
 Published as the Act directs October 1st, 1798 by G.G. and J. Robinson, Paternoster Row London. (outside bottom centre); Neele Sculpt Strand (outside bottom right)
Scale: Dutch Miles or Leagues 20 in a Degree 1" = 6½; lat. 23°35'–22°10', long. 103°25'–106°
- 1.3** Re-engraved for *Voyage . . . au Bengale*, J.S. Stavorinus, publ. H.J. Jansen, Paris, 1798, with title 'Carte/ du Bras Occidental du Gange.' 237 × 227 mm (top left)
 Planche II, a la fin du Volume. (outside top right)
Scale: Lieues de 20 au degre 1" = 5½; lat. 23°40'–21°10', long. from Teneriffe 103°25'–106°
- 1.3.2** Re-issued in *Voyage au au [sic] Bengale . . . par Stavorinus*, Charpentier Cossigny, Vol I, Paris, 1799 with 'Planche . . . Volume' erased
- 110 A. Dirom d. 1830**
 Maps drawn for *A Narrative of the Campaign in India . . . in 1792*, A. Dirom, publ. W. Faden, 1793, re-issued 1794
- 1.1** Map/ of the Seat of War/ During the last Campaign/ in/ India/ constructed from a late Survey of that part of the/ Malabar Coast/ By Capt. Montresor;/ and from the Surveys of the other Countries/ By Capts Beatson & Allan/ Published by Major Rennell,/ in 1792. 415 × 260 mm (bottom left)
No scale: lat. 13°50'–10°20', long. 75°–80°
- 2.1** Plan/ of the/ Position of the Confederate Armies/ on arriving before/ Seringapatam/ and of the/ Attack of Tippoo Sultan's Fortified Camp/ by/ Earl Cornwallis/ on the Night of the 6th Feby

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Map of south India probably drawn by Faden for Dirom's account of the wars in Mysore, 1793/1794.

- 1792/ taken chiefly from the Plan drawn by/ Capt. Kyd Surveyor General/ with the Army. 265 × 265 mm (top left)
No 6 (outside top right); Published by W. Faden Feb 14, 1793 (outside bottom centre); J. Walker sculpt. (outside bottom right)
Scale: Yards 1" = 1350
- 3.1 Plan/ of the Siege of/ Seringapatam/ from the 8th to the 24th Feby 1792/ Taken chiefly from the Plan drawn by Capt Kyd Surveyor General/ with the Army. 325 × 240 mm (top left)
No 7 (outside top right); Published by W. Faden Feby 1st 1793 (outside bottom centre); J. Walker Sculp. (outside bottom right)
Scale: Yards 1" = 850
- 4.1 Sketch/ of the/ Peninsula/ of/ India/ shewing the/ Marches of the Armies/ and the Countries ceded/ by Tippoo Sultan 200 × 257 mm (bottom left)
No 8 (outside top right); Published by W. Faden Feby 1st. 1793. (outside bottom centre)
No scale
- 111 A. Upjohn d. 1800
- 1.1 Plan/ of the/ River Hoogly/ from/ Fort William to Sooksaugor/ reduced from/ An Accurate Survey/ taken in August 1792/ by/ A. Upjohn. 195 × 573 mm (top left)
Engrav'd by R. illegible (outside bottom centre)
Scale: British Miles 1" = 1½; Gunter's Scale in Chains 1" = 135; lat. 23°10'—22°30', long. from Calcutta W6°—E6°
- 2.1 Map of/ Calcutta and its Environs./ From an accurate Survey/ Taken in the Years 1792 and 1793./ By A. Upjohn. 775 × 1170 mm (top left)
To/ The British Inhabitants of Bengal/ This Map of Calcutta and its Environs/ is respectfully inscribed/ by their most obedient/ humble Servant/ A. Upjohn./ 2nd April 1794. (top right); Printed and published according to the Act of Parliament by A. Upjohn 2nd April 1794.(outside bottom centre)
Inset: Plan/ of the Territory of Calcutta as/ marked out in the Year 1742; exhi- / biting likewise the Military Opera- / tions at Calcutta when attacked/ and taken by Seraj ud Dowlah/ on the 18th of June, 1756.
Scale: Gunter's Scale 1" = 1000; Feet 1" = 600

India within the Ganges

- 3.1 Map of the/ Post Roads/ through/ Bengal, Bahar, Orixa, Oude, Allahabad, Agra, and Delhi;/ with the/ Rates of Postage from Calcutta./ Compiled from the most correct Surveys and the/ latest Post-Office Regulations./ by A. Upjohn./ 1st May 1795.
410 × 287 mm (top centre)
Scale: British Miles 1" = 58; lat. 30°–20°; long. 78°–93°, from Calcutta W11°–E4°
- 112 **Thomas Maurice** · 1754–1824
Maps drawn for *Indian Antiquities*, Vol I, T. Maurice, London, 1794
- 1.1 India Antiqua,/ autore/ D'Anville,/ Altered and Engraved anew/ for Mr Maurice's History/ of/ Hindostan. 364 × 360 mm (bottom right centre)
T. Foot Sculp/ Penton Street, Pentonville (under title)
Scale: Stadia mensurae Aristotelicae 1100 circiter in Gradu magni Circuiti 1" = 3000; Stadia mensurae Nauticae, sive navigationis 750 in Gradu 1" = 360; Spatia hodierna mensurae Indicae, Coss dictae, 42 circiter in Gradu 1" = 110; Leuciae Francicae Hexapedarum 2,500 1" = 60; lat. 36°–1°, long. 83°–121°
- 2.1 A Map of/ Jambudweepa,/ or the Earth;/ according to the/ Hindoo Geography. 187 × 200 mm (top right)
From the Ayeen Akbery. (outside bottom centre); J. Barlow Sculp. (outside bottom right)
No scale
- 113 **Robert Home** 1750?–1836?
Map and plans drawn for *Select Views in Mysore*, Mr Home, publ. R. Bowyer, London, 1794
- 222 1.1 Plan/ of the/ Carnatic/ and/ Mysore/ June 5th 1791. 305 × 380 mm (centre left)
Engraved by J. Lodge Jnr, Islington (outside bottom left); Published as the Act directs by R. Bowyer, Historic Gallery, Pall Mall, London; and W. Sharp, at Madrass Feby 1 1794 (outside bottom centre). Drawn by M. Armstrong, June 1792 (outside bottom right)
Scale: Miles 1" = 40; lat. 17°40'–7°50', long. 73°30'–81°30'
- 2.1 Plan of Ootradroog taken by the English Army/ under the Command of the Rt Hon.ble Earl Cornwallis K.G. &.&./ December 24th 1792. 292 × 363 mm (outside bottom)

Published as the Act directs by R. Bowyer, Historic Gallery, Pall Mall, London; and W. Sharp, at Madrass Feby 1 1794 (outside bottom centre)

- 3.1 Plan/ of the Positions of the Confederate Armies under/ the Direction of/ Earl Cornwallis,/ before Seringapatam, from the 5th to the 24th February, 1792,/ when the Cessation of Hostilities took place,/ including the Position of/ Tipoo Sultan's Army,/ previous to the Action of the Night of the 6th and the/ Subsequent Operations of the Siege. 603 × 675 mm (top left)

Engraved by J. Cooke Mill Hill Middx (under title); Published by R. Bowyer, London and W. Sharp, Madrass, Feby 1, 1794. (outside bottom right)

Scale: Yards 1" = 480

- 4.1 Plan of/ Bangalore, (with the Attacks,) taken by the English Army./ Under the Command of the/ Rt. Hon.ble Earl Cornwallis, K.C.& &./ March 22nd 1791. 503 × 660 mm (top centre)

Engraved by J. Cooke, Mill Hill Middx (under title); Published by R. Bowyer, London and W. Sharp, Madrass, Feby 1, 1794. (outside bottom right)

Scale: Yards 1" = 133

- 114 Robert Laurie (1755–1836) and James Whittle d. 1818

- 1.1 A New Map/ of the/ Jaghir Lands,/ on the Coast of Coromandel./ or/ The Territory belonging to the East India Company/ round Madras,/ From an Actual Survey/ in the Possession of the Company,/ London,/ Published 12th May 1794 by Laurie & Whittle, 53 Fleet Street, London. 504 × 702 mm (top left)
Scale: English Miles 1" = 4; lat. 13°50'–12°16', long. from London 79°23'–80°31'

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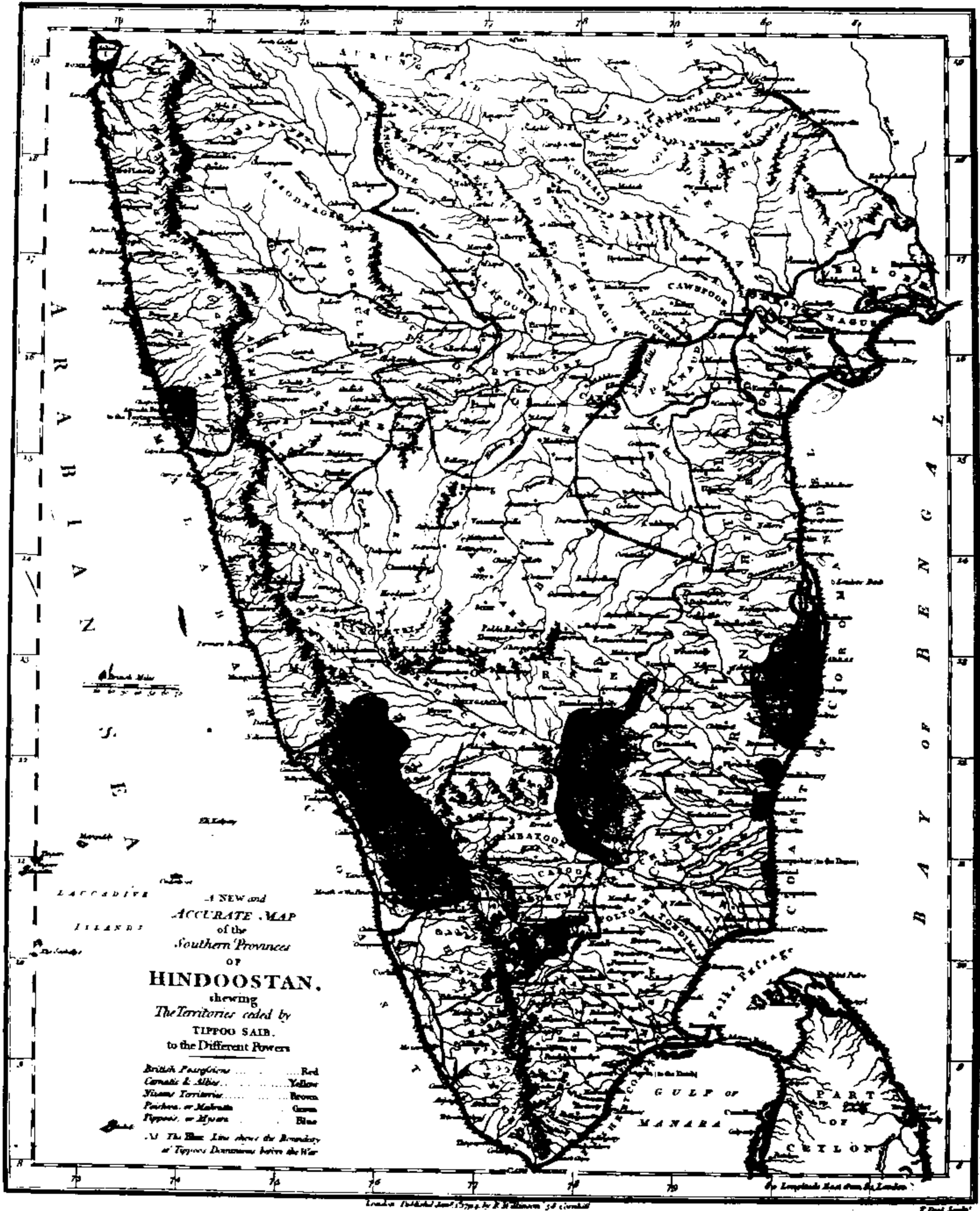
- 115 Robert Wilkinson fl. 1785–1825

Maps drawn for *A General Atlas*, publ. R. Wilkinson, London, 1794

- 1.1 An Accurate Map/ of/ Hindoostan,/ Drawn from the/ Latest Authorities. 230 × 283 mm (bottom right); neat line broken top left to extend map

London, Published Jany 1st 1794, by R. Wilkinson, No 58, Cornhill. (outside bottom centre); T. Conder sculp. (outside bottom right)

Scale: British Statute Miles 1" = 180; lat. 33°–5°, long. from London 68°–93°



The first of several maps published by Wilkinson to show the area of the Mysore wars, 1794.

- 2.1 **A New and/ Accurate Map/ of the/ Southern Provinces/ of/ Hindoostan,/ shewing/ The Territories ceded by/ Tippoo Saib,/ to the Different Powers.** 227 × 280 mm (bottom left)
 London: Published Jany 1st 1794. by R. Wilkinson 58 Cornhill. (outside bottom centre); T. Foot Sculpt. (outside bottom right)
Scale: British Miles 1" = 80; lat. 19°–8°, long. from London 73°–82°

116 **Edward Moor** 1771–1848

Map drawn for *A Narrative of the Operations of Captain Little's Detachment . . .*, E. Moor, London, 1794

- 1.1 **The/ Marches/ of/ Captain Little's Detachment,/ and of/ Purseram Bhow's Army, / During the late Confedarcy in India/ against/ Tippoo Sultan;/ in the Years 1790, 1791 & 1792:/ Elucidatory of the Narrative of their Operations;/ Constructed chiefly from Authentic and Original/ Surveys and Materials,/ in the possession of/ Major Rennell;/ to whom this Map is Inscribed/ By his most obliged and most obedient Servant./ Edard Moor.**
 390 × 455 mm (top right)
 Published as the Act directs by Edward Moor Mar 1st 1794. (outside bottom centre); J. Walker Sculp. (outside bottom right)
Scale: Geographic Miles 60 to a Degree 1" = 32; British Miles 69½ to a Degree 1" = 37; Cosses of the Carnatic 37½ to a Degree 1" = 19; lat. 19°–11°, long. 72°–80°

117 **John Walker** 1759–1830

Map drawn for *The Universal Gazetteer*, J. Walker, London, 1795; re-issued 1797, 1798 and up to 1822

- 1.1 **Hindoostan,/ or/ India.** 210 × 183 mm (top right)
 Engraved for Walker's *Geography &c* (outside top centre)
Scale: British Statute Miles 1" = 300; lat. 35°–6°, long. from London 60°–99°

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118 **Giovanni Maria Cassini**

- 1.1 **Gli/ Stati Del/ Mogol/ e la Penisola/ delle Indie/ di qua dal Gange/ Delineate sulle ultime Osservazioni/ Roma/ Presso la Calcografia Camerale/ 1797** 350 × 475 mm (bottom right)
 Gio. M. Cassini Som. inc. (outside bottom right)
Scale: Leghe Marine Inglesi e Francesi de 20 a Gradu 1" = 38; lat. 35°–0°, long. 85°–110°

India within the Ganges

- 119 **Edme Mentelle** 1730–1815
Maps drawn for *Atlas Universel de geographie physique et politique*, E. Mentelle and P.G. Chanlaire, Paris, [1797–1801]
- 1.1 Inde ancienne
- 2.1 Inde/ Indostan Bengale &c ./ Partie Septentrionale/ de la Presqu' Isle en deca du Gange. 427 × 320 mm (top right)
Grave par P.F. Tardieu (outside bottom left); Ecrit par Dubuisson (outside bottom right); No 47 (outside top left)
Scale: Lieues communes de France de 25 au Degre 1" = 47½; Lieues Marines de France de 37 au Degre 1" = 37½; Grande Coss de 33 au Degre 1" = 48; Coss Communs de 37 au Degre 1" = 55; lat. 36°–19°, long. from l'Isle de Fer 83°–112°, from Paris 65°–90°
- 3.1 Inde, partie meridionale de la Presqu'Isle en deca du Gange
- 120 **William Vincent**
Map drawn for *The Voyage of Nearchus from the Indus to the Euphrates*, W. Vincent, publ. T. Cadoll jun. & W. Davies, London, 1797
- 1.1 Sketch of the River Indus/ with the five Dooabs/ collected from Majr. Rennel & others/ in order to delineate the/ Panje-ad/ & the descent of the Fleet from/ Nicaea to the Sea by WV./ from Book II. 245 × 300 mm (bottom right)
Published according to Act of Parliament Jany 1st 1797 by Dr Vincent. (outside bottom centre)
No scale; lat. 38°–23°, long. 66°–80°
- 121 **Thomas Pennant** 1726–1798
Map drawn for *Outlines of the Globe*, Vol I, T. Pennant, London, 1798
- 1.1 Map/ For Mr Pennant's/ View/ of Hindoostan/ 1798
334 × 425 mm (bottom left)
Paliner Sculp. (outside bottom centre)
No scale; lat. N40°–S2°, long. from London 60°–95°
- 1.1.2 Issue without 'Paliner Sculp.'

122 William Francklin 1763–1839

Map engraved for *The History of the Reign of Shah-Aulum*, W. Francklin, London, 1798

- 1.1 A Map of/ Hindoostan,/ Illustrating the History of the Reign of Shah Aulum,/ Engraved by permission of James Rennell Esqr/ To whom it is Inscribed with much respect,/ by his most obedient & obliged humble Servant/ William Francklin. 472 × 350 mm (top right)

Published according to Act of Parliament by Wm Francklin Febry 1st 1798. (outside bottom centre); J. Walker Sculp. (outside bottom right)

No scale; lat. 36°–19°, long. 67°–93°

123 Clement Cruttwell 1743–1808

Map drawn for *Atlas to Cruttwell's Gazetteer*, London, 1799

- 1.1 Hindoostan 340 × 396 mm (bottom right)

London Published as the Act directs, March 1st 1799 by G.G. & J. Robinson Pater-noster Row. (outside bottom centre); Neele sculp. (outside bottom right)

Scale: British Statute Miles 1" = 140; lat. 33°–6°, long. from London 67°–95°

124 Daniel Robinson Leckie

Map drawn for *Journal of a Route to Nagpore*, D.R. Leckie, publ. John Stockdale, London, 1800

- 1.1 Sketch of Mr Leckie's Route from Calcutta to Benares. 225 × 150 mm (outside top centre)

Published 26th March 1800 by I. Stockdale, Piccadilly. (outside bottom centre)

No scale; lat. 26°–20°, long. from Greenwich 80°–89°

India within the Ganges

- 125 **Alexander Beatson** 1759–1833
Plans and map drawn for *A View of the Origin and Conduct of the War with Tippoo Sultaun*, A. Beatson, London, 1800
- 1.1 Plan of the Attack/ upon the/ North west Angle/ of/ Seringapatam,/ May 1799. William Gent./ Colonel & Chief Engineer. 440 × 264 mm (top right)
Surveyed by Lieutenant Castle of the Engineers. (outside bottom left); Pub'd as the Act directs May 10th 1800 by G. & W. Nicol Pall Mall. (outside bottom centre); Engraved by S.J. Neele, 352 Strand. (outside bottom right)
Scale: Yards 1" = 200
- 2.1 Sketch/ of/ the Environs of/ Seringapatam. 340 × 223 mm (bottom right)
Alex. Beatson fecit (outside bottom left); Pub.d as the Act directs May 10th 1800 by G. & W. Nicol, Pall Mall. (outside bottom centre); Neele sc. 352 Strand. (outside bottom right)
Scale: Yards 1" = 850
- 3.1 Map/ of the/ Dominions of the late/ Tippoo Sultaun,/ exhibiting their Partition among the Allied Powers/ and the/ Rajah of Mysore,/ according to the Partition Treaty of Mysore/ Concluded 22nd June 1799./ by/ Captain Colin Mackenzie/ of the Engineers. 344 × 255 mm (bottom left)
Pub.d as the Act directs May 10th 1800 by G. and W. Nicol Pall Mall. (outside bottom centre); Neele Sculpt. 352 Strand. (outside bottom right)
Scale: Geographical miles 60 to a degree 1" = 40; British miles 69½ to a degree 1" = 48; lat. 17°–10°, long. 73°–82°

INDEX I

Publications containing maps of India (1477–1800). Bold numbers refer to authors/
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