

THE ART OF MAP-MAKING AND SOME RARE MAPS OF THE SOUTH ASIA AND SINDH 140 AD TO 1808 AD

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The art of map making must have started as instructions for travelers and sailors for routes and places. First known geographical treatise is that of Anaximander a Greek philosopher (610-546 BC), who considered sky as a complete sphere rotating about the polar star. He also visualized that earth's surface must be curved, to account for a position of stars as one traveled. He considered earth as a cylinder about its east west axis and height about one third its diameter. Pythagoras (582-479 BC) and his followers developed the notion of spherical earth. Hecataeus, Skylax, Ktesia, Nearchus, Magasthenes, Eratosthenes, Eudoxus, Hippalus, Strabo, anonymous writer of Periplus and Pliny the Elder were a few geographers, who preceded Ptolemy and described the South Asia. Claudius Ptolemy writing around 150 AD had access to most of writings of his above predecessors and he was able to produce the first map of the world known in his time. His map was first published in 1475 AD and during next two and half centuries his maps were reprinted more than a few scores of times. The true Arab geographers were al-Idrisi (born 1100 AD) and Hamdullah Mustaufi. The later produced his maps for Tarikhi Guzida (1229/30) and Nughatu-I-Qulb (1339/40 AD), the first of Iran and the last of the Eastern Hemisphere, which included the South Asia. Mustaufi shows the southern part of South Asia as peninsula, a great improvement over the past. It is certain that cartographers were at work long before the Portuguese arrival in the South Asia. Within a few decades of their arrival, the Portuguese produced the maps of the South Asia reasonably good for the age, showing that they had local maps to work with. No local maps have survived in the South Asia but it is reasonable to assume that Arab mariners and seamen who did most of shipping to the South Asia from the Persian Gulf and the Red Sea, where from goods were exchanged with Mediterranean countries, had the maps of the South Asia. Similar maps of the Mediterranean, drawn and used by Turkish Admiral Sidi-Ali have been discovered and their remarkable similarities with the present maps studied. These and the maps of the African coast fell in the hands of the Portuguese who produced series of maps of the South Asia included.

Early printed maps used wood cut blocks, the letters were cut in separate blocks and fitted in. Copper plate engraving developed in Italy, where from it traveled to Netherlands, France and England. Coloring of maps until the nineteenth century was done by hand, when separate late came to be used for color. To

construct a new map, latest geographical knowledge as well latest techniques in cartography become involved. It has become an arduous and specialized task in the last half of twentieth century. Under developed countries lack facilities and adequate equipment.

The Early Arab geographers did contribute to the knowledge of the South Asia and in particular Sindh by describing its towns, routes, local products, trade, trade articles, customs, mode of travel etc., but produced no scientific map. Idrisi used Ptolemy's co-ordinates plus information gathered by above Arab sources. But like Ptolemy he still considered Indian oceans as land-locked sea. It is thought that this fallacy was maintained by Arab merchants as long as possible to ensure monopoly of trade with South Africa. Marco Polo visited South India and Persia and wrote of his travels in 1295 AD. He did not touch Lahri Bander. His journey was followed by Jordanus a French Monk (Bishop of Columbum or Quilon). In the beginning of 15th century the magnetic compass had been improved. In 1488 AD, King John sent Bartolomer Dais, who succeeded in a rounding the Cape, but did not get as far as the South Asia. His successor Vaso da Gama reached Calicut in 1499 AD.

The discoveries of Portuguese quickly reproduced manuscript maps, which were closely guarded property of the King, and preserved in the royal library. Before each voyage the Captain was allowed to draw a map from royal library and was to return it, as soon as he returned home. One such chart was stolen from Lisbon by Alberto Cantino an agent of Duke Erole d'Este of Ferrara in 1502 AD, now preserved in Bibileca Eslenca at Modena. Thus though the secret of Portuguese discoveries leaked out to Europe, the map was not printed. In 1515 AD Tome Pires published Suma Oriental, which gave details of all the known places of South Asia, with their relative positions. This information had traveled to Europe through the Portuguese. The map is unique in its description of places on the coast but not inland. It is doubtful if the Portuguese could draw such a map within a few years, unless they had Arab sea-men's maps (now totally lost) available to them. The British made 40 different surveys between 1808 and 1843 AD to produce first map of Sindh in 1846 AD. The Portuguese could not have produced a reasonably good map of the South Asia in a decade. The British museum has an Atlas forming part of an encyclopedia in Persian, completed by Sadiq Isfhani at Jaunpur in 1647 AD (Egerton 1016, and Atlas of 335 a to 351 a in all 16 sheet covering northern hemisphere of which 6 sheets covering the South Asia). It is more accurate than contemporary European maps specially regarding places in the interior and the course of Ganges and Jamuna. Since map making was quite unknown in the South Asia this may have been a compilation of Arabs and Persians of the pre-Portuguese era.

Chinese also produced maps. To illustrate Hiun Tsang's book Si Yu Ki, maps were made in China. India (of 7th century) was divided into five parts; hence maps refer to five Indies or Goldenjiku Zu. The oldest extent map was copied by a Buddhist priest in 1364 AD. It shows a pear shaped continent called Jambudvipa lying to the south of Mount Sumeru. In its center is Lake Anavatapta (Manasarovar) from which flow four rivers the Ganges, the Indus the Oxus and the Trim. The places visited by Hieun Tswang and routes are marked, the latter are in red. From study of this distorted map nothing much can be said of Sindh. It was only after pioneering work of Alexander Gunningham in 1871 AD that Hieun Tswang's itinerario could be understood and places visited by him identified.

The Portuguese kept their maps secret but soon Dutch, Italians, Germans and other Europeans started making the maps. I have examined many such maps and have selected 55 maps for the present study. These 55 maps were produced between 150 and 1808 AD, with many version, sizes and colors. I have limited myself to only one map of each category. The list of these maps is appended at the end of this article. Some important maps out of this list are discussed briefly in the following paragraphs. It must be understood that Europeans had difficulty in pronouncing, reproducing in their own alphabet and spelling, the Indian names, so the names reproduced in the maps are misleading, unintelligible and have invariably lead to disputes between various authorities.

I had the chance to examine 55 maps listed below in Royal Geographical Society London, India Office Library, British Museum and Admiralty Museum Greenwich.

Waldesmuller's map of India for his edition of Claudius Ptolemy 1535 AD shows the Indus, its two mouths which form a large island. Nothing more can be understood from this map.

Giacomo Gastaldi's map for an edition of Ptolemy, 1564 AD, shows only Sindh coast. Duilcinda (Debal-Sindh or Lahri) is shown as a sea port. The sea along the Sindh coast is named as Mare de India and the Lower Sindh is called Duil-Cinda country. It is an improvement over the previous maps that the Indian peninsula and coast lines and coastal of towns of south India are shown in some details, but it lacks information on Sindh. He also had produced a separate map of South Asia in 1548 AD, which was reprinted in 1565 AD.

Next we have Ramusio's map for his book of travels 1565 AD. It lacks Gastaldi's details for south India. The map shows Diul as port and Dulcinde as a country. Indus (Indo) river is shown to discharge into the Gulf of Cambay.

In Linscholten's map of India and Arabia 1598 AD. Diul (Lahri Bander) is shown on the western branch of river, which is called River de Diul. Rann of Kutch and Kutch are shown as marshy lands. Indus is shown to have five mouths and two islands between the two eastern most branches are named as Giagar (Kakrala?) Though map itself is in-accurate but the above brief information is correct. Jan Huyghen Van Linscholen was a Dutch, sent by the Spanish in India. He became Assistant to Archbishop in Goa and stayed in South Asia for several years. The map published in his book itinerario was translated in German, English, Latin and French between 1592 and 1610 AD.

Baffin's map accompanying Thomas Roe's map of Mughal Empire 1619 AD, gives some details of Sindh. Since Baffin or Sir Thomas Roe did not visit Sindh, the information is based on hearsay but effort put in to develop such a map cannot be denied. The river Indus takes off from Kashmir hills and is joined by other river from the east, north Lahor (Lahore). Another river also from the east joins it near Lahor. Lahor is near confluence of the river. At the same place it is joined on its right bank by two rivers from north-west, one Bhiat which runs east of Cabull (Kabul) and the other Nilat starting near Candahor (Qandhar). The province with confluence of the rivers as centre and embracing the tail courses of above five rivers is called Peniab (Panjab). To the west of it is Multan Parguna. South of Multan on the left bank of Indus, right up to Tatta (Thatta) Sarkar, is province of Hajacan. The Buckor province is to the south east of Hajacan and having Thatta Sarkar to its south. Between Peniab and Bukor (Bukkur) is shown Attock, lying to the south of the former and the north of the latter. Soret is shown as a small district south-east of Tatta Parguna. The desert districts to the east of Sindh are Jeselmeer with its main towns of Jeselmeer. Tatta is shown as an island and Diul is located on eastern mouth of Indus. Sir Thomas Roe or Baffin committed these mistakes as they mixed up Bhakar (in Miawali district) with Bukhur in Sindh, so placed Attock north of Bukkur. They also did not know of Sehwan and Sibi Pargunas so gave that area to Hajcan. In place of Chachkhan Parguna, they put Soreth. They seemed to have no knowledge of Kutch and allocated that whole area to an un-named Parguna of Gujarat. Jamnagar is shown as capital of Soret. Nagar Parkar Taluka is shown as part of Gujarat. Tatta's location between two branches of Indus is correct. Location of Sukkur and Bakhar towns in interchanged, i.e., Sucour is shown on left bank and Bucker on the right bank. Indus is shown to have five mouths and Tatta at the apex of delta head. Surprisingly Sindh's border with Rann of Kutch looks remarkably accurate. With all its inaccuracies it is a great improvement on previous maps and is the first European attempt to show, Sarkars and Pargunas of Mughal Empire. The direction of river Indus in Sindh also tallies with the normal.

Thomas Roe's map drawn by William Baffin was a standard map for a century. Most of the European cartographers copied it. In true sense it was superceded

only when Noll the geographer, published his map in 1717 AD. Many efforts must have gone to collect the information leading to the map. By his time they had information from John Mildenhall who traveled to England via Lahore, Thomas Coryat who had walked from India to Europe via Jerusalem, Fitch and William Hawkins, all of them English, and had a number of other European traveler's and cartographer's books and maps before them.

Roe gives surprising correct shape of the Indus River in Sindh as well as its mouth. His successors Hondius, Blaeu, Banson, As Da Wit and Jansson discussed below have all given incorrect shape of the Indus. As who copied Thomas Roe's map in 1729 AD gives its correct shape.

Roe presented a copy of his map to Jehangir but it was returned after four days, as Mughals and no use for such thing and they had not seen maps before. This further confirms that Sadiq Isaphani's Atlas of 1647 AD, though produced in Jaunpur had non-Indian cartographers and it probably was never used in the South Asia.

Seventeenth century opened up most of the South Asia to European travelers, who published their accounts. These became guide-lines for the map makers. Some important of such works were:

Sir Thomas Roe Ambassador to the court of Jehangir. Journal and map published 1625 AD (already described).

- Samuel Purchas and his pilgrim (1626).
- Mandelos (1677).
- Jan Bapliate Tavernier (1677).
- Pietro della Valle (1625).
- Bernier (1659-1667).
- Father Manrique (1629-1643).
- Manucci (1656-1712).

Since the travelers were not map makers and the map making and printing was a costly job, the maps were not revised but old maps reproduced in new works.

Hondiu's map of Mughal Empire 1629 AD was much copied or followed by his successors, especially as far as north-western South Asia is concerned. The river Indus is made to start in the hills of Chismere (Kashmir) having westernly direction till it reaches Attock, where it follows south-westernly direction until some 40 miles east of Tatta (Thatta) when it makes a sharp westernly turn. Except for this last part, the direction of Indus from Multan down streams is normal. Lahore is shown on a river (Ravi). This river and another river from east

meet together some 60 miles south of Multan and traversing another 60 miles meet the Indus above Backor (Bukhar). There is still another river running parallel to these two rivers joining Indus above Bakhar. In this scheme of things Jhelum and Chenab are missing; Ravi and Beas are one river and Sutlej the other. The last un-accounted river was considered to be Sarswati-Hakra by Raverty. Two rivers from Cabull (Kabul) join Indus above Multan. Bukhar is correctly shown on the left bank and Sucour on the right bank. Town of Sindo is approximately at Karachat.

Two rivers starting west of Cabull meet Indus north of Multan. All areas to the west of Indus are shown as Regani Persici (Persian territories). Through mistake parts of Sindh, West of Indus which includes Thatta and Bakhar are also included in Persian territories. From the map at the best Tatta (Thatta) and Diul (Debal-Sind or Lahri) could be considered border towns.

Soret and Nagar Parkar are shown as parts of Gujarat. Camel is shown as important animal of areas south of Bukkur. Hab River is shown but not named.

Mendes Pinto's travels published in various languages between 1614 and 1653 AD, describe lake Signa (Mansarowar) from which four rivers take off one east (Brahmpura) one southern East (Ganges), one south (Sutlej) and (fourth possibly Indus). The maps of the seventeenth and the eighteenth centuries ignore this discovery, which though not correct, is better pictographically than what other maps disclose.

Blaeu's Map 'Mangi Mogolis Imperium' or map of Mongol Empire – 1638 had lot of similarities with Hondius, map of 1635 AD and courses of river Indus and its tributaries in the Punjab and Sindh seem to have been duplicated. Hab River is marked clearly. The Persian owned territories are similarly marked as in Honduis'. But Blaeu has added many towns of Sindh in his map. Rouree (Rohri) is correctly marked. The sea along Sindh coast is marked as Mare Arabicus.

Sanson's map L'Empire due Grand Mogol-1652' is considerable improvement to previous maps as far as Sindh is concerned. The Panjab river are similarly shown as in Blaeu and Honduis, but course of Indus in Sindh is somewhat improved. Position of Debal, Thatta and Lahri Bander shown is similar to that in Bernier's map of 1675 AD. Sucour Roure and Buckor are correctly shown. It appears to be source map of Bernier, though Bernier has given less detail. Thatta is shown too much north of its correct location. Radunpure (Radhanpur) is shown north of Nagar Parkar. Creek of Kutch is named as Golfe Del Inde. Kutch is shown attached to Sindh. Soret Parguna is shown west of Nagar Parkar.

One important feature of map is that only Sindh and Lasbella district are shown as the part of Mughal Empire but not Makran, which was the correct situation.

Hajacan or Land of Bulloques (Baloachis) with towns of Dunki (Duki), Chaizan, Kachi-Sibi, D.G. Khan, Laralai (Loralai) and Bolan Pass, are shown part of Mughal Empire, but not Kandhar, which is considered part of Empire of Safivids of Persia (Partie Del Empire Da Dophi de Perses). This again was true picture. Richard Blomer for his 'Geographical description of world', 1670 AD, copied Sanson.

Map accompanying Bernier's Travels into Mughal India London, 1675 AD shows Sindh, but like other European maps is inaccurate in general representation and details. Lahri bander was also known as Diul Sindh in the 16th and 17th centuries. Diul is shown near the coast line. Tatta is shown upstream of Diul and Loure bander is shown further upstream. The river Indus is shown to have five mouths. Kutch is shown connected with Sindh. Nagar Parkar is shown further east. A town marked as Sindo stands in relative position of Karachat. Soret is the territory in Sindh coinciding with Talukas west of Nagar Parkar, but lying north of Kutch (Katche) and its main town Jamnagar. Radhanpur (Radunpores) actually in Gujarat, south of Nagar Parkar is shown to the north of the latter. Caul River joins Indus just above Rauree (Rohri). Bucker is on the Indus exactly at Ravey (Ravi) and Filipore (?) River's confluence with the Indus. Sucour is shown correctly opposite to Buckor (Bukkur). Multan lies just above Chengo's (Chenab) confluence with Indus and to the left bank of the former. Jhelum (name not mentioned) joined the Indus at Attock. The Indus also has tow western tributaries which join together and then meet it at Multan. They are named as Behat and Naib rivers. Between two mouths of Indus is an island named as Gragal (Kakrela (?) hab river is also shown. The Gulf of Kutch is named as Golfe Del Inde. This map resembles Hondius' map of 1625 AD, but with considerable improvement over it.

De Wit's map of Mogol Empireer titled 'Mangi Mogolis Imperium', 1709, AD again has resemblance to Sanson's map of 1625 AD, Bernier's map of 1675 AD, and Blaeu's map of same title produced in 1638 AD. All these have five mouths to Indus at delta, similar locations of Diul, Tatta, Lahri Bander, Nagar Parkar, Soret, Suckor, Buckor, Rouree, and as regards Sindh is concerned De Wit has copied Sanson.

Sanson's another map 'India Vetus' was published in 1701 AD. For Sindh, Indus and its tributaries it is a copy of Ptolemy's map and could not have any utility, even in the age when it was printed.

Another cartographer named as “As” produced a map of India and Arabia, and a second map of Gujarat and Mogol Empire both in 1714 AD, and still another map of Mogol Empire in 1729 AD.

In the first map, the Indus has five mouths, Buckor is only town marked. In the second map river is shown to have same five mouths, of which the eastern appears to the widest and then western most.

Loure Bander (Lahri Bander) is marked the much above the delta head, the Buckor is an island, formed at confluence of the Ravi and the Beas with the Indus. Suckor is on the Indus above this confluence. There is another river (Sutlej?) which, discharged into Indus below the confluence of Ravi and Beas with Indus and Roure (Rohri) is to the south of this second confluence on left bank of the Indus, a few miles eastwards.

The Luni River is shown but another river rising south west of Delhi, joins Luni in the close vicinity of Nagar Parkar. This river is named as Badder in the map.

A third map of Aa, showing the Mogol Empire is copy of Buffin’s map of 1619, with all mistakes repeated. Like the original version, the map shows Succor on left bank, Buckor on the right bank, but Roue is marked some good fifty miles south. Thatta is shown as an island and Louree bander is located on the western branch of the river Indus, a few miles down stream of Tatta. Delta head starts at Tatta. Diul is shown on sea coast, east of the eastern branch of the river Indus, as in Baffin’s map. The divisions of Sindh are also the same. The sea along Sindh coast is named as Mare Arabicus.

Moll geographer’s map of India proper or Empire of great Mogal 1717 is truly a great advancement to all previous maps. The coastal line of South India is much more accurate than the preceding maps and has nineteenth century maps look. He gives the division of Mughal Empire. Sindh is shown divided in two Pargunas, Buckor and Tatta. North of Buckor is Multan Parguna which includes Buckai (Duki). Sibi-Kachhi form part of Buckor. Thatta is shown on the western branch of the Indus and so is Diul. Soret and Cach (Kutch) are shown as another Parguna. But there is confusion regarding Indus and its tributaries. Ravi is correctly shown. Chenab and Ravi meet midway between Lahore and Multan and their confluence with the Indus is below Multan. The Indus takes off in Cachemire (Kashmir), and has a tributary on its right bank coming from northern Kashmir. Jehlum is shown as a small river starting in the Punjab and independently meeting the Indus. Sutlej is shown, meeting Indus below Buckor. But another river starting in East Punjab, traversing the desert discharges into sea independently, though joins the Eastern branch of the Indus, before its final journey into the sea. Bellin’s map ‘Carte de L’ Idoustan’, 1740 AD, made for

French office, gives better course of the river Indus through Sindh, though confusion regarding the Punjab river continues Jehlum and Chenab join together and the combined waters of the two meet Ravi. Biah (Beas) joins them near Multan and combined waters of all of them then join the Indus below Multan. Sutlej is missing but is a short river starting above Jengapour and joins Indus at Buckor (Bukkur). This river is known as Ovind or Caul in lower reaches and also has a tributary in its upper reaches. Over flow of waters from the Punjab Rivers before their confluence with the Indus meet Ovind. Sakur (Sukkur) is shown on right bank and Lohri (Rohri) south of it. On the left bank below Bucker is shown small town of Pecker. Kandabil (Gandava) is marked on L'Araba (Hab) river. Another town, Toker is marked where Larkana would lie. Kalari is a western branch of Indus which takes off near town of Kalri and joins the Indus again near Rahimi above Tatta. On it lies the town of Saruaun (Sehwan). Kalari branch could then be western Nara, but its course as shown is totally inaccurate. Mansur is shown as an island on the river Indus opposite to Sehwan above Kalari branch. To the right bank is shown the town of Asour (Alore?). Debal (Diul-Sind) is shown on the main and western branch of river Indus. Lahir is shown on an eastern branch. Thatta is called Thatta Nagar and lies between the two branches of Indus. The Indus has five mouths. Sindh coast and Creek of Kutch are named as Golphe du Sindhi de L'Inde. His use of old names, Kanabil, Mansura and Kalari shows that he had probably consulted some Arab writing of 10th-20th century.

Bellin's map has distinct lettering and his many maps specially of Indian coasts (Sindh included) are great improvement to the past. All previous maps of the whole century were made after Hodius map of 1625 AD and do not take into account either by Roe (Baffin's) map of 1619 AD or its copy by As in 1692 AD.

All these maps were inaccurate as there was no standard length of measurement, which was calculated in days journey by road or boat. The measure Kos (Sindhi Koh) varies from province to province; Herman Moll's map though slightly better was used for books of geography and school atlases. Copying Mool, Frazer in his history of Nadir Shah produced a map claiming it to be most accurate in 1742 AD.

The British started with scientific maps by actual surveys. John Thoronton was appointed East India Co.'s first Hydrographer in 1685 AD. He produced coastal maps and that of Ganges in 1703 AD, but accurate mapping was still half a century far off. The wars between the English and the French in the mid eighteenth century brought about new interest in geography of the inland and therefore maps of interior were drawn showing the routes, river crossings, forts, sources of food, grass and water supplies etc. This was not done for Sindh which was closed to all foreigners, though the East India Company's factory existed in

Sindh between 1758 and 1773 AD. The British also did not need this information and when they needed it badly at least 39 different surveys were carried out between 1808 and 1843 to construct an accurate map of Sindh. Refer my article '473 Maps of Sindh in Great Britain and India', Jour. Grass Roots, summer, 1979 for these 39 Survey.

Due to ill health James Rennell the official surveyor General of Bengal since 1765 the East India Company at Calcutta (Kolkata) left for England in 1773 AD and from rough sketches sent from India, he drew maps in London. He published an Atlas of Bengal and subsequently a map of the Eastern part of Hindustan containing Bengal, Behar, Awd (Oudh) and Ellahabad (Allahabad). Between 1776 and 1779 he published a number of maps of India but his information on Sindh is drawn from earlier maps and therefore is inaccurate. He seems to have made use of D'Anville too. In 1782 Rennell published a large map of Hindustan, based on rough sketches drawn by engineers at site and also on earlier maps. With it he released a memoir. Three years later a revised edition of the same map was published. Another revised edition came out in 1792 AD, with over 600 page memoir. This memoir was considered a classical work for next fifty years.

Scientific work on mapping started after Clive's acquisition of Bengal and with appointment of James Rennell. The purpose of surveys was to know:

- (a) Extent of East India Company's possessions.
- (b) To work out extent of cultivated lands for revenue collection.
- (c) To know of the communication routes.
- (d) Use of maps in case of military campaigns.

After 1760, perambulator was used for measuring distances. This instrument consisted of a wheel with a handle and some sort of revolution counter attached to it for marking up the distances in miles. Up to 1761 AD, the measurement of longitude was a guess work but introduction of accurate chronometer in this year changed the position.

D'Anville published a map of India in 1752.

Thomas Jeffery a geographer and cartographer produced a map of Mughal Empire and divided into principal governments in 1761. The north western South Asia in this map is similar to D'Anville's map.

Jean Bernoulli published his geography of India in 1776/88 AD, from Paris and Berlin. He used manuscripts of Tieffenthaler in the first volume. Latter had spent more than 30 years in traveling over the South Asia and drawing maps.

Vincent's maps in voyage of Nearchus are interesting in a way that he combines different maps to produce his own maps.

His first map is combination of the Punjab and Sindh from D'Anville, and Mekran (Makran) coast and Persian Gulf from Robinson, to show Alexander and Nearchus' routes. The five rivers of the Punjab, Chelum or Hydraspes, Tehenab (Akesines), Ravee (Hyderaotes), Biah (Hypasia) and Setlege (Zardrus) or Saranga have better shape than in all the previous maps. The course of the Indus is almost north to south up to Sewee (Sehwan), when it make's Socurve to join the sea.

Bekhar (Bukkur), is considered capital of Sogdi and Sewee that of Muskianus. Sumbus country is to the west and north-west of Sewee. Patalene is the district between the eastern and the western branches of the Indus and Patala is the delta head. Rhambaca is shown on Ringol River and Hour Ora on the Porali River. The latter's location approximates Bela's position. Hab is considered an Arabita river.

His second map is based on Rennell and others and shows the Punjab and Sindh. This map is definite improvement over D'Anville's map. Here Chelum Dindana (Jehlum River) and Tchen-ab (Chenab) have confluence before being joined by Ravee and water of three meet the Indus at Outche (Uch) in Oxydrakae's country. Moulton (Multan) is to the east of this confluence. Lahor is considered as Lalpore second city of Porus. Indus is shown to rise in hills north of Indoo Koo (Hindu-Kush). Biah joins Satudj (Sutlej) and the two meet the Indus at Ossadii. Indus is called Mehran between Ossadii and Thatta. Behker (Bukkur) is considered as Mansoura the Sogdi of Arrians. Buckor, Seikier, Sunker are said to have been derived from Sodrae or Sogda. Takier is a town south of Sukkur. Siwan or Sewee (Sehwan) the capital of Mus Kanus is on left bank. Patala is at delta head. That is at the second delta head between two branches of Indus. South-west of Thatta are ruins (Kalan-Kot) of Bramin-abad. Oksikanus' country is opposite to Siwan on the other bank of the river Indus and Sambus' country is further west of Orsikanus'. The hills to the west of Sindh, and parallel to the Indus from Sukkur to Thatta are called Beloches Kulmenies and the country between the hills and the Indus as Sethians, or Indo sethia (Indo-Scythia) or Hendian. The desert to the east is called sandy Mountains of Ashambety. The Indus has two tributaries from the west one Attock river or Curaeus (Cabul River) meeting it at Attock and Nagaz or Kophenes, starting in hills around Kandhar and joining the Indus below Attock. This map is definitely better than his first map.

Vincent's third map is based on coastal maps of Sindh and Makran by Dalrymple. Historical geography apart, the map shows the efforts put is by the surveyors, Henry Pretty, Swithin and John Ringrose to survey, the Kutch, Sindh and Makran coasts and conveying the information to Dalrymple. The map is

meant to show the return route of Nearchus. Vincent's maps have a great historical significance in establishing historical geography of Alexander on better lines. Though the work stands superseded, for two centuries it was referred to, by most authorities writing on Alexander in Sindh.

The map attached shows Sindh and adjoining area as shown in some of important maps of the period 1500-1800 AD. After study of this article it is concluded that these maps have no value at present. At the best they have historical significance. Most of maps were drawn without actual surveys or visits to Sindh. Only at the end of eighteenth century Dalrymple used the charts to construct maps of Kutch Sindh and Makran Coasts and they may therefore have true historical value. Other maps were built from travelers tales and do not reflect on the historical geography of the period.

List of 55 Maps of the South Asia which show Sindh too, and exclusively of Sindh drawn between 150 AD – 1808 AD.

1. 150 AD Ptolemy's map of the world.
2. 951 AD Istakhris map of Sindh.
3. 796 AD Ibn Haudal's map of Sindh.
4. 1150 AD Idrisi's map of the world.
5. 1339 AD/40 AD Hamdullah Mustaufi's map in Nughatu-l Qulb.
6. Kazwini's map.
7. 1364 AD Jukai's map of India and countries to the north, to accompany Hieun Tswang's book Si-Yu-Ki, showing places visited by him and routes.
8. 1475-1730 AD. Ptolemy's map of the world; having many scores of different versions. Of these Strasbury edition of 1513 is the splendid and contains 47 maps. The first edition came out in 1475 from Vicenza, the other from Bologna and then it was printed from different countries of Europe. New maps were issued from time to time adding new findings, yet using Ptolemy's name.

Some notes worthy of these are:

- (a) 1513 AD Waldseemuller, Tabula Moderna Indiae. In Strassburg edition of Ptolemy size 50.5 x 40 cm. Other five editions of Waldeseemuller were issued in 1520, 1522, 1525, 1535 and 1541.
- (b) 1548 AD Giacomo Gastaldi's edition of Ptolemy, issued from Venice for book titled: Caleuct Nuova Tabula, Size 17.5 x 13 cm. Four other editions of this were issued in 1561, 1562, 1564, and 1576.

9. 1565 AD Gastaldi also issued an independent map of India for Rasmusio's book *Delli Navigazione Seconda Tavola* size 34 x 27.5 cms.
10. 1596 AD Linschelen, J.H. van. Map of India Arabia and part of Africa. Size 53.5 x 38.5 cms.
11. 1619 AD Baffin, William. A description of East India conteyings (Containing) th' (the) Empire of Great Mogoll (Mughal). The map is also called Thomas Roe's map as it accompanied his book. Size 48.5 cm. This map in its full, as well as reduced sizes was re-issued.
 - (a) 1630 AD, by Henery Toombes and Beniamin ffisher.
 - (b) 1635 AD, in Samuel Purchas his *Pilgrimes*.
 - (c) 1663 AD. In AD Thevenot's *Relations de divers voyages Curieux*.
 - (d) 1665 AD. In supplement of Havers Translation of Delta Valles letters.
 - (e) 1677 AD, in Terry's travels.
12. 1625 AD Hondius; Hericus, issued a map of Mughal Empire under the title, *Mangi Mongolis Impreium* from Amster lodami (Amsterdam) in Mercators *Atlantis Novi Parts Tertia*. Size 49 x 37 cms. Two editions of same map in Latin were issued in 1638. 1644 and two other editions in French in 1639 and 1641 AD.
13. 1638 AD Ioan Blaeu and Corn Blaeu issued a map of Mogal Empire called 'Magni Mogolis Imperium' Size 52 x 41.5 cm. A number of editions of this map were issued during next 35 years. It closely resembles Hondius map.
14. 1639 AD Janson; Ioan, Issued a map of Mughal Empire entitled 'Mangi Ma=gni Mogolis Imperium' Size 49 x 37 cms. It appears to have been copied from Latin edition of Hondlus' map of 1638 AD. It was reprinted a number of times in next 27 years.
15. 1652 AD Sanson; d'Abbeville, issued a map of Empire of Great Mughal, (*L'Empire du Grand Mughal*). Size 24 x 19 cm. Many editions of this map were issued.
16. 1652 AD Sanson; d'Abbelville. 'Presqu' Isle de Inde deca le Grange on sont les reyaumes de Decan Golconde de Bisnagar el le Malabar'. Size 24.5 x 19 cm. Many editions of this map were issued.
17. 1654 AD Sanson; d' Abbeliville. 'L'Inde deca et dela le Gange'. Size 54 x 34. Many editions of this map were also issued.
18. 1670 AD Blome, Richard, A general map of the East Indies comprehending the Estats or kingdoms of Great Mogol, the Kingdoms and Estals of Decan, Golconde, Bisnagar, Malbar etc in the Peninsula of Indi, without Ganges. In his book *Geographical description of the world*'. Size 37 x 40.5 cms.

19. 1676 AD Bernier Dr. Francois. Map of Mughal Empire titled as Imperil Magni Mogolis. First French edition 1676. Size as in the book 16 x 26 cm.
20. 1698 AD Fryer John, A map of Parts of India mentioned in Dr. Fryer's travels, in his book "A new account of East India and Persia". Size 18 x 28 cm.
21. 1701 AD Moll, Herman geographer, India or the Mughal Empire published in 'A system of Geography'. Size 19 x 17 cms.
22. 1708 AD. With Frederick de, Map of Moghal Empire, titled, 'Magni Mogolis Imperium de Novo correctum et Divisum', in David Mortier's Atlas Novum. Size 51 x 41.5 cms.

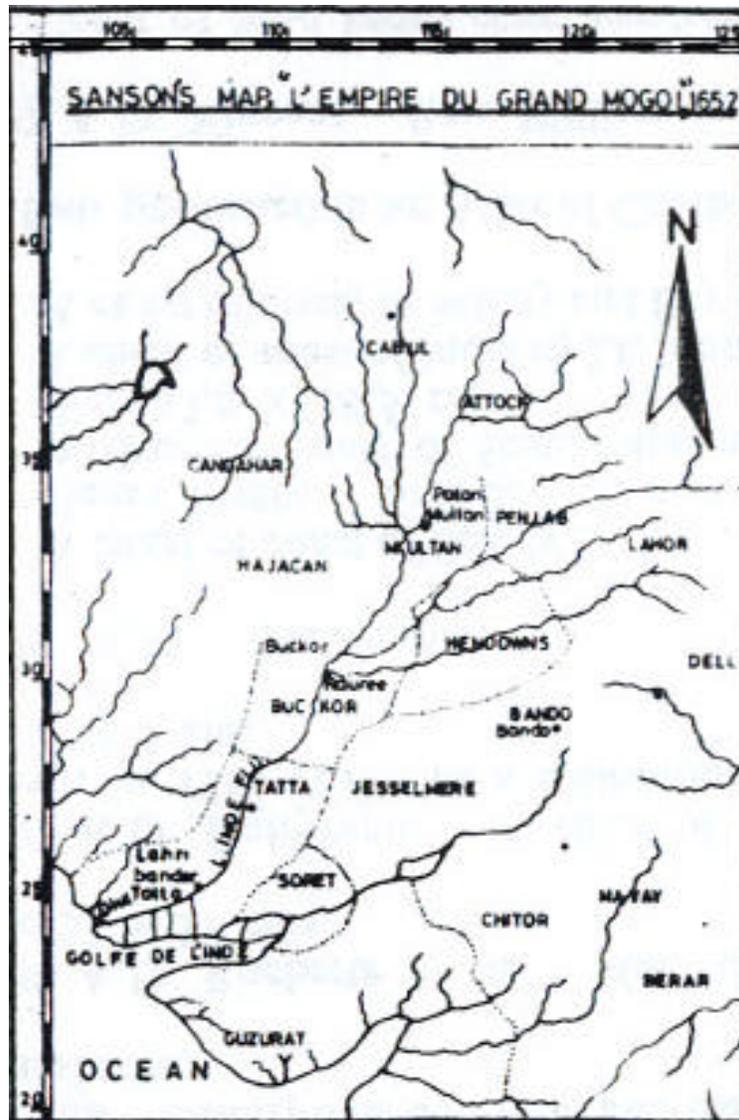
This map was reproduced in:

- (a) Schenk's Atlas contractus, 1713 AD.
 - (b) Otten's Atlas 'sive geographia compendiosa in its two editions 1855 and 1775 AD.
23. 1709 AD. Map of Empire of the Mogol from Memoirs of Mr. Manouchi (Manucci) by I. Harris Sculp Published in General History of Mogol Empire. Size 32 x 24.5 cm.
 24. 1710 Sanson. 'India Vetus intra et extra Ganges'. Size 27.5 x 20.5 cm. In this map the north Western parts of the South Asia and Sindh resemble the map of Ptolemy.
 25. 1714 AD. As; Pierre Vander. A map of India and Arabia.
 26. 1714 AD. As; Pierre Vander, A map of Gujarat and Mughal Empire, titled. 'Royaumede Grand Mogol'.
 27. 1717 AD. Moll; herman, The western part of India or the empire of Great Mogul published in Atlas Geographer. Size 18 x 25.5 cm. It is also reprinted in Salmon's India or the Empire of Great Mogul.
 28. 1719 AD. Chatelain; Henry Abraham. 'Carte de l' Empire du Mogul and Carte nouvelle Royaume de Cashemire'. In Tome V. Size; both maps, 15.5 x 12 cms.
 29. 1729 AD. Hamilton Alexander. 'A General map of India instra Ganges' in a new account of East Indies. Size 19.5 x 31.5 cm.
 30. 1729 AD. As; Pierre Vander.' Royaume du Grand Mogol'. Size 35 x 29 cms. (It is copy of Baffin's [Sir Thomas Roe's] map of 1619 AD).
 31. 1740 AD Seutter, Methius. M. Map of Mughal Empire titled as 'Imperii Mogni Mogolis siver Indiei Padschach' in Atlas Novus. Size 57 x 39.5 cm.
 32. 1740 AD. Bellin, Jaques Nicholas, Carle de L' Industan le Feuille No. 21; From Le Peti Maritime in Tome III. Size 31 x 22 cm.

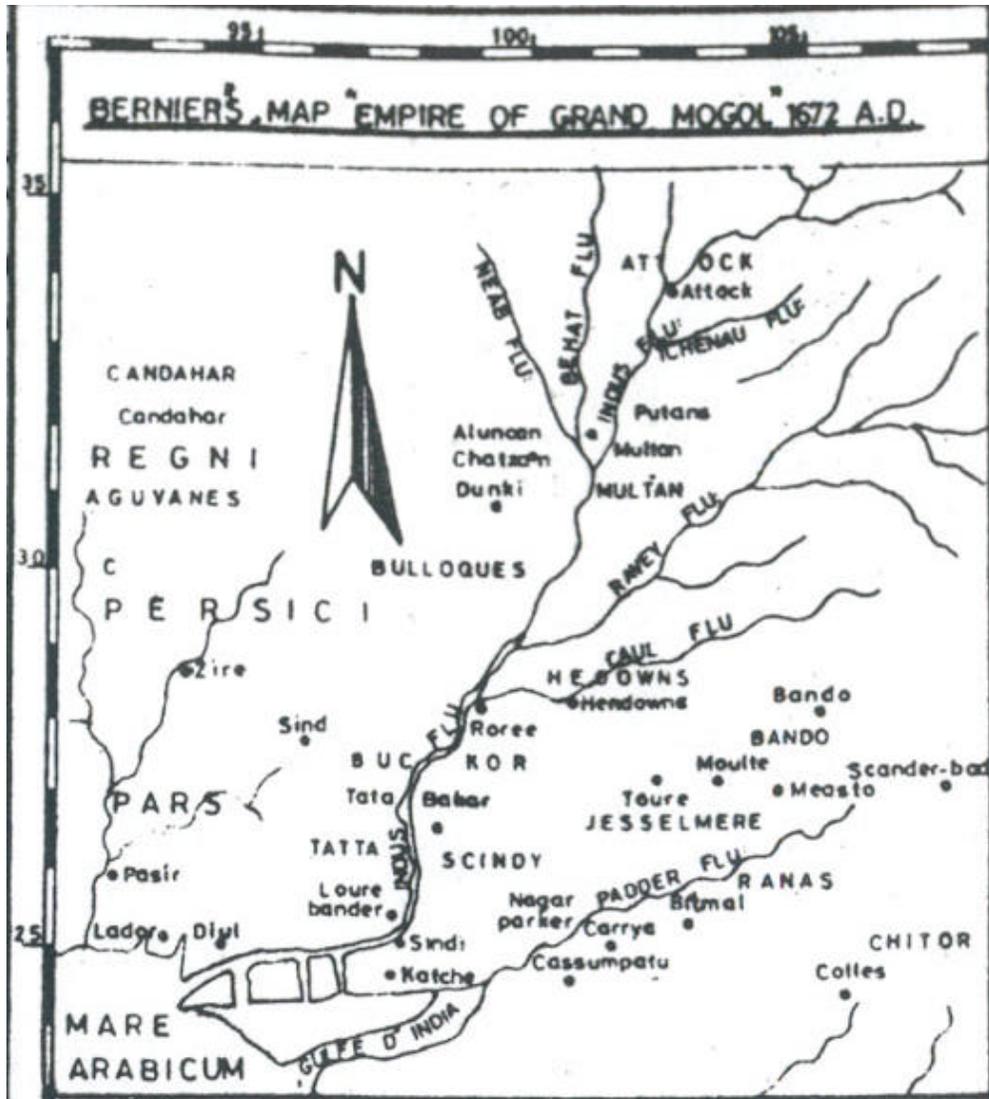
33. 1442 AD. Frazer, James. Map of Mogul Empire and Part of Tartary published in History of Nadir Shah size 20 x 27 cms.
34. 1752 AD D'Anville, J.B. Bourignon' Carte de T'Inde', in 2 sheets. Size 103 x 39 and 105 x 48 cms.
35. 1761 AD. Jeffreys; Thomas. A map of Mogul's Empire divided into principal Governments in R.O. Cambridge's An Account of War in India between the English and French.
36. 1764 Harris; John, 'India as described by all authors before the 5^h century in 'Navigantium atque Itinerarium'; Vol. i. Size 31.5 x 22 cms.
37. 1775 AD. Dalrymple. View plan of Sinderoo in Plan of Ports in East Indies drawn by John Watson.
38. 1782 AD. Rennell James. A map of Hindoostan published with a memoir. Size 79.5 x 79 cms.
39. 1786 AD. Kitchin; Thomas. An accurate map of Hindustan or India from the best Authorities published in Guthrie's. 'A new system of Geography'. Size 41.5 x 39.5 cms.
40. 1785 AD. Rennell; James. General map of India in Bernoulli, Johann 'Discription de l'Inde and map'. Copied in Berlin by Benj Glassbach.
41. 1788 AD. Rochette de la. Map of Hind, Hindoostan or India. Size 53 x 37 cms.
42. 1792 AD. Dalrymple. A chart of Coast of Guzarat and Scindy, drawn in 1783 AD, in a collection of charts and plans. Size 61 x 46.5 cms.
43. 1729 AD Dalrymple:
 - (a) A chart of coast of Scindy Communicated by Henry Prety. Size 22 x 28 cms.
 - (b) A chart of coast of Scindy drawn in 1760 AD, by Mr. Sithin. Size 43.5 x 28.5 cms.
 - (c) A chart of coast of India by Lt. John Ringrose. Size 48 x 28.5 cms.
 - (d) A chart of coast of Scindy and Bay of Kutch. Size 28.5 x 29 cms.

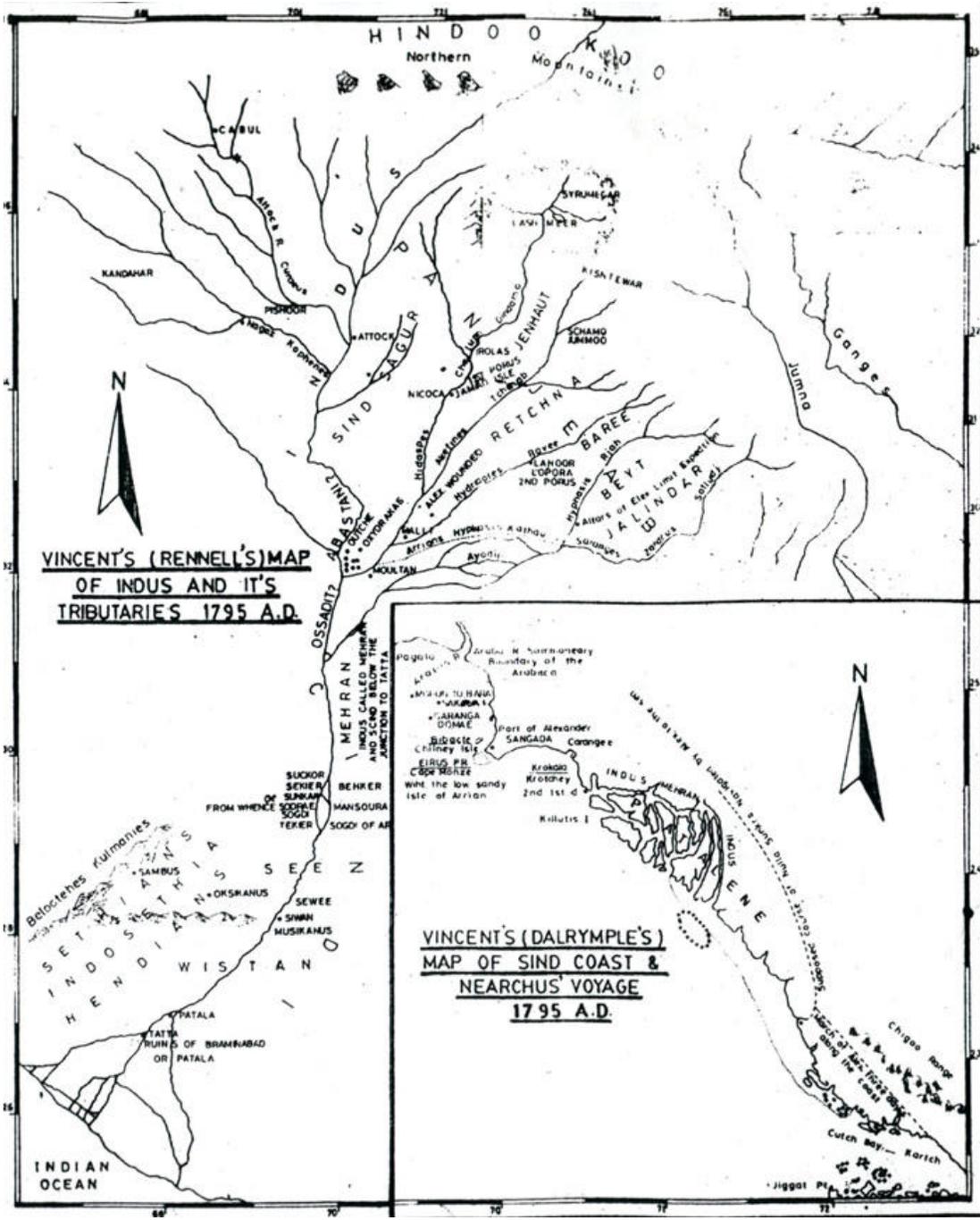
All four published in an Atlas of Charts of Plans.

44. 1897 AD. Vincent. Rev. William in Vovage of Nearchus.

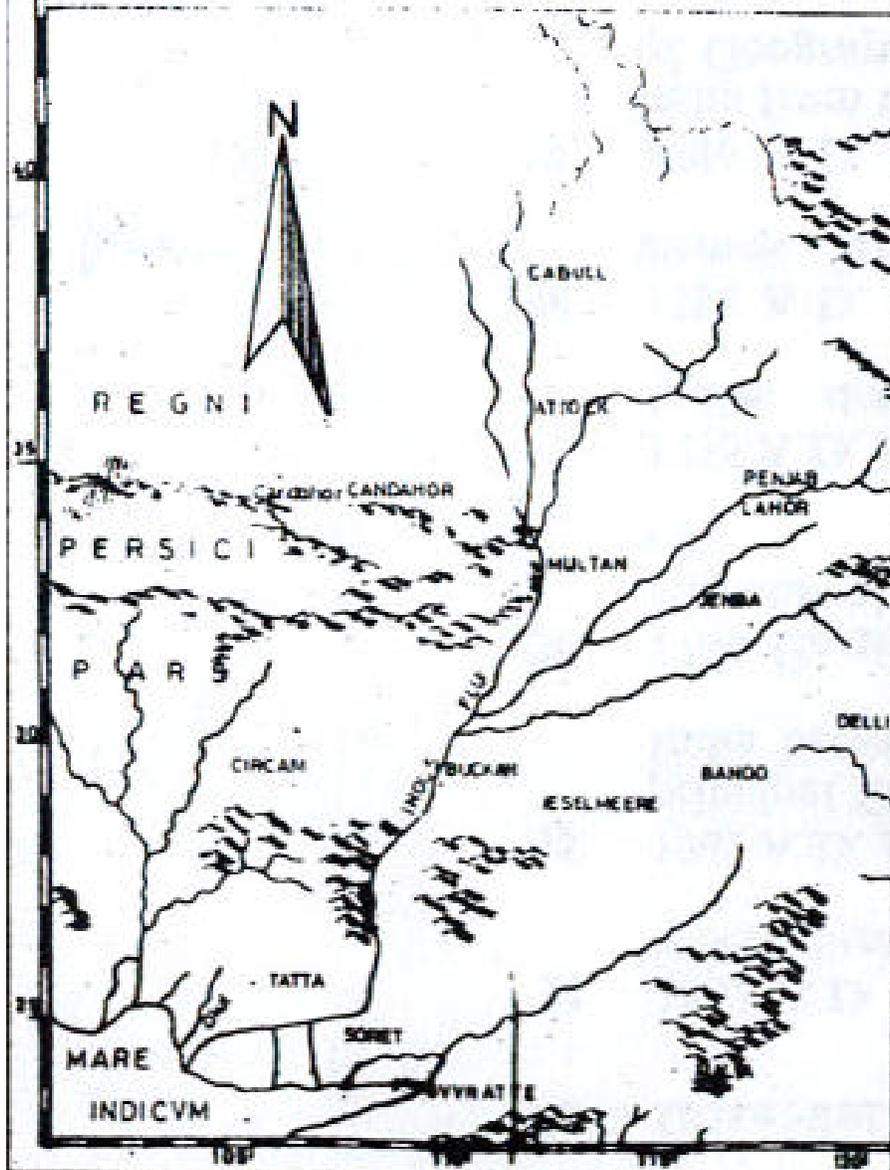


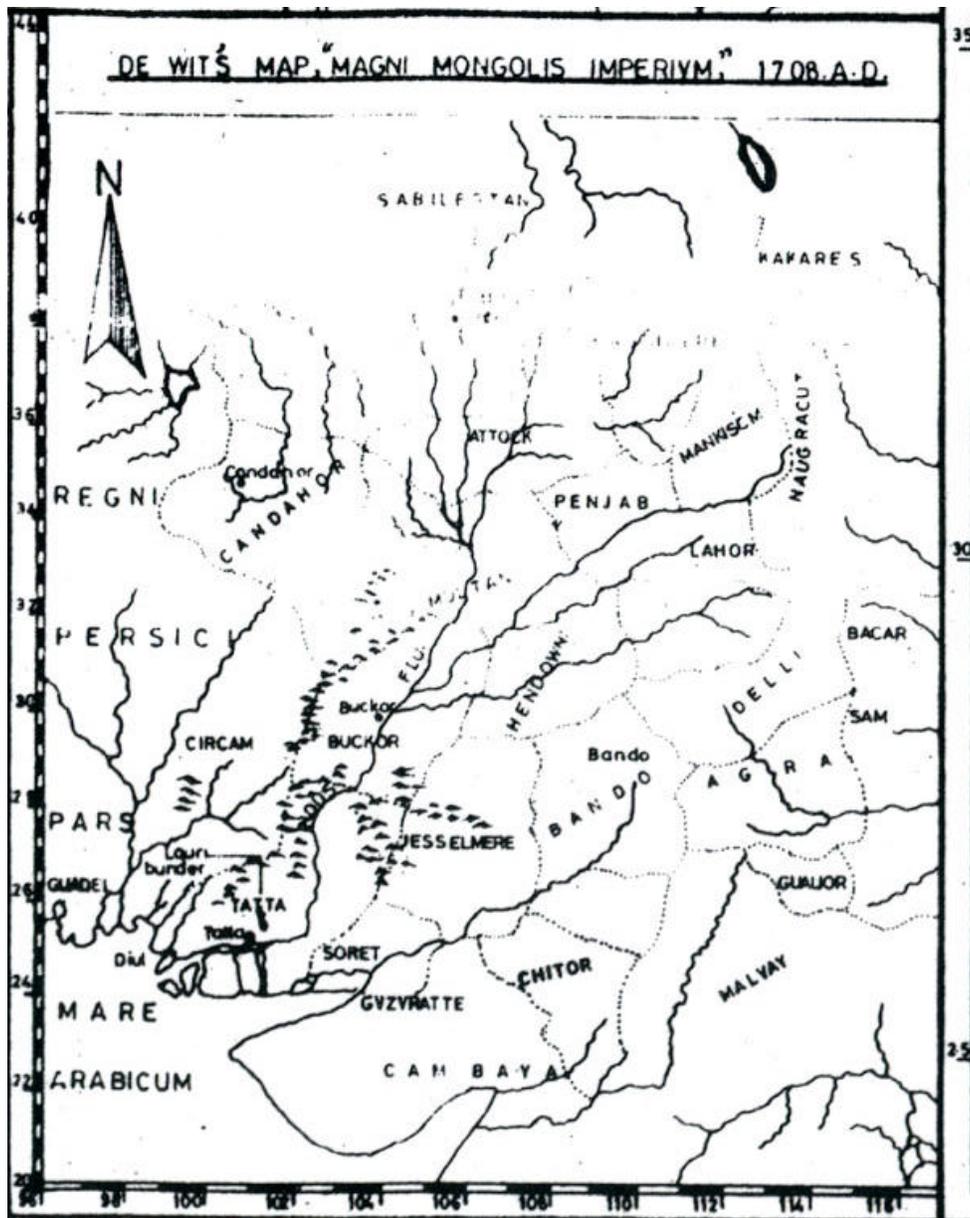


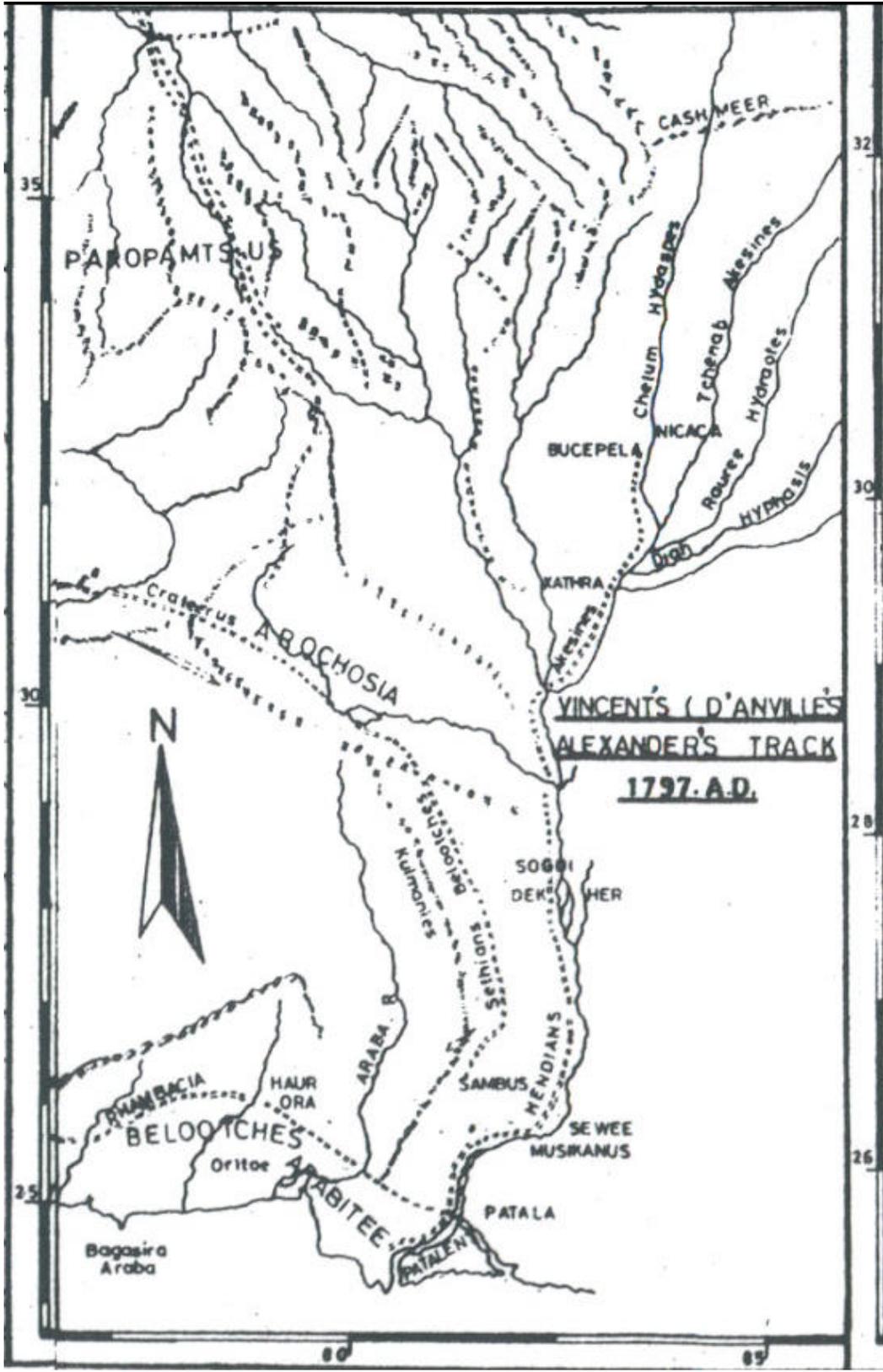




HONDIUS' MAP, MONGOLIS IMPERIUM, 1625. A.D.







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