

MAPS OF SINDH

(EAST INDIA COMPANY AND BRITISH OFFICERS 1780-1964)

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Pithawalla published his Album of “Historical Maps of Sindh” in 1938. This consisted of 52 maps only. I have come across more than 500 maps of Sindh and some of them very valuable. Below are listed some important ones.

Historical Maps:

- (i) Earliest map of Sindh is Ptolemy’s map (150 AD), reproduced by McCrindle in Ptolemy’s Geography of India (1883).
- (ii) Schaff in illustration of Periplus of Erythraean Sea (60-70 AD), gives coast line of Sindh (1912).
- (iii) Elliot in Vol-I has given Ibn Haukal’s (951 AD) map of Sindh (Elliot and Dowson – 1868).
- (iv) There are a number of maps of Istakhari (10 century) and other Arab travelers reproduced by Pithawalla in Historical Atlas of Sindh – 1938.
- (v) Idrisi’s map of world gives outline of Sindh. This was published in Jour. Geographia. Pithawalla has also reproduced Idrisi’s (10th century) map from different sources in his Atlas.
- (vi) 600 years after Arab travelers. We come across European maps, some of which are reproduced by Pithawalla and Shedai (like Mercator Welt Karle’s map 1569). Portuguese had considerable knowledge of Sindh and most of the earlier European maps of Sindh are forming Portuguese sources, as they were established in Sindh a century earlier than others.
- (vii) Water Payton’s (16th century) map appeared in Purchas and His Pilgrims.
- (viii) Based on Sir Thomas Roe’s Journal, William Baffin built map of Sindh and adjoining areas in 1619. Roe had not visited Sindh. Most of Information he got was from Portuguese maps and other sources.
- (ix) Sindhi Adabi Board has copies of maps of Sindh and adjoining areas copied from British Museum maps. These are maps of early travelers, navigators and adventures of 17th and 18th century.
- (x) European travelers like Sir Thomas Herber, Mandeslo (1720 edition), Harris-I (1705 AD), Pietro Della Valle, Hamilton (1744 edition) and Rennel (Memoir: 1793) give maps showing Sindh coast and Indus.
- (xi) Father Vincent in ‘Voyage of Nearchus’ (1797 AD) has given four maps of Sindh and adjoining areas.

- (xii) Todd 1815 gives two maps of Sindh with distances and routes in Annals of Rajistan 1829.
- (xiii) Malcolm (history of Persian) has given a map which is remarkably better than all maps printed up to his times (i.e., 1815).
- (xiv) Careless surveyed Indus delta in 1817 and again 1837. His maps appear in selection from Records of Government of Bombay, Vol. XVII (1855) and also in royal Geographical Society's Journal. (1837).
- (xv) By this time British had penetrated Sindh and we find much improved version of maps, the first was James-Burnes' map of delta area of lower Sindh (1827-28) giving details of mouths of river and later on his brother Alexander Burnes' maps in Travels in Bokara – 1831, and 3 more maps in Journal of Royal Geographical society (1833 and 1837). Alexander Burnes' map were considered very important for many years.
- (xvi) In 1843 immediately after conquest of Sindh Longman and Co., published a map of Sindh based on various sources for official use.
- (xvii) Quarter master general of Bombay army re-surveyed the Indus delta and published latest map in 1850.
- (xviii) Canal maps of Sindh appear in reports of Burton, Scott and Fife, in eighteen fifties.
- (xix) Raikes published 2 maps of Thur and Parkar districts in 1856.
- (xx) Sindh directory (1862) gives a map of Sindh and another map of lower Sindh in which delta is well defined. Even by this time accurate map of Sindh was not available.
- (xxi) Tremenheer's map (1867) gives details of coast line and lower portions of Indus with old channels in details (J. Royal Geog. S.).
- (xxii) In early eighteen seventies great trigonometrically survey of India carried out detailed survey of Sindh and published maps to scale $\frac{1}{4}$ ", $\frac{1}{2}$ ", and 1" equal to 1 mile these have continuously been improved by survey of India and now being further improved by survey of Pakistan. These are most accurate maps and are used by Government Departments. There are still 4" to mile contour maps mainly for irrigation and drainage layout.
- (xxiii) Based on these surveys Hughes published map of Sindh in 1874. The left bank of Indus that time was less developed than right bank. Since this time accurate map of Sindh became available.
- (xxiv) Aitchison in Treaties etc., gives map of Sindh 1876.
- (xxv) Map of Sindh also appeared in Bunter's Gazetteer of India in early 1884.
- (xxvi) Murrays Hand Book (1884) of Punjab, Northern Sindh and Rajputana gives two maps of portions of Sindh.
- (xxvii) Aitkins Sindh Gazetteer (1907) gives a 1/16! To a mile detailed map of Sindh. Huntings have reproduced canal system of Sindh from this map.
- (xxviii) Imperial Gazetteer of India (1906) also gives a map of Sindh in Vol. – 26.
- (xxix) Smythe gives maps of various districts in different Gazetteer.

- (xxx) Government of Sindh published 1/8" to a mile map in 1932. This is so far the best map of Sindh in its size. Recent maps of Sindh issued by Government Department are copied from this map.
- (xxxi) A map of Sukkur Barrage giving details of old Canal System of whole Sindh appeared in the book Loyd Barrage and its canals, opening address – 1932. This was being reproduced in Annual reports of irrigation Department.
- (xxxii) Survey of Pakistan published latest map of Sindh on 1/16" to a mile scale in 1950, which has been reprinted in 1973.

Map of some historical events produced recently.

1. Maps of Alexander's Route.

- i) Carter G.E.L., in 'Notes on Sindh' gives map showing various places. He also has reproduced Ptolemy's map of Sindh in another article. (Indian Antiquity 1917 and Jour. Anthropological Society Bombay 1922).
- ii) McCrindle also gives a map in Arrian's translation.
- iii) Haig in Indus delta (1894) gives maps of route of Alexander and Nearchus identifying various places.
- iv) Sir Aurel Stein gives map of route of Alexander through Karachi to Lasbela (Geographical Journal 1943).
- v) Tarn (in Greeks in India – 1939) gives map of Northern India, at the time of Greek conquest, showing Abhiras, Patalene and Sakvivas.
- vi) Lambrick's two maps in History of Sindh Vol. I (1964) are the latest of these serious and are supposed to be most reliable maps on the subject.

2. Demetrius in Sindh.

Woodcock gives probable route of Demetrius' campaign to Patiala from Kabul and Kandhar.

3. Arab conquest of Sindh and Muhammad Qasims Route.

Lambrick has produced a map of Sindh based on Chach-Nama is better than Henry Cousen's map in Antiquities of Sindh (1905).

4. Yuanchawang in Sindh.

Yuan Chawang's route in Sindh and adjoining areas is given by Lambrick in History of Sindh Vol. I (1964). It is great improvement of Cunningham's map in Ancient Geography of India (1871).

5. Ibn Battuta in Sindh and South Asia.

Gib gives his route in 1333 AD.

- 6. Akbar's Conquest of Sindh.**
Pithawalla in his Album gives a map of route of conquest of Sindh by Imperial forces of Akbar in 1592 AD.
- 7. Humayun's – Flight through Sindh.**
Ishwari Parshad (Hamayoon Padshah) gives map of Humayoons flight, but as far as Sindh is concerned it is inaccurate.
- 8. Sindh in 17th Century.**
Based on Mazhar Shah Jehani I have prepared a map of Sindh in 2nd quarter of 17th century. It reflects some inaccuracies in earlier maps and give name of large number of villages existent then.
- 9. Muhammad Tughlaq in Sindh.**
Mahdi Hussain in Tughlaq Dynasty (1663) gives two maps of Muhammad Tughlaqs route while chasing Taghi in Gujarat and Sindh.
- 10. Sindh Battles.**
Lambrick in Journals of Sindh Historical Society (1943) gives maps of Meanee and Dubbar battle in 1843 AD.
- 11. Sindh in 1839-1858 AD.**
Lambrick in 'John Jacob' gives a map of Sindh and North Western approaches to India as in 1856 and another map of upper Sindh. Lambrick in 'Charles Napier' gives a map of Upper Sindh and Karachi in 1839, showing territories of Rustom and Ali Murad. In another map he shows territories of Mir Sher Muhammad and that of Mir Ali Murad as they stood in 1845 and also boundaries of 3 collectorates. The enquiry report on Mir Ali Murad also gives map of upper Sindh and latter's territories (1851).
- 12. Route of 86th Regiment in 1846 AD.**
Col. Keith Young gives route of his regiment to Bahawalpur from Karachi. It is interesting to note that later on this route from Karachi. It is interesting to note that later on this route was converted in to present road from Bahawalpur to Karachi via Ghotiki, Rohri, Khairpur, Naushero, Daulatpur, Sakrand etc., Hyderabad, Kotri, Jhirak, Thatta, Gharo, Landhi, Karachi (Selection Sindh Government Records 1932).
- 13. Abu Zafar Nadvi's maps.**
In Tarikh-i-Sindh he has produced 10 maps, 2 physical and 8 historical showing Sindh in Pre-Islamic, Muhammad Qasims, Masandi's, Istakhari's,

Ibn Haukal's, and Bishari Muqaddsi's periods, but all these maps are inaccurate and same is the case with a number of maps of Shedai.

Maps on courses of river Indus and Hydrological charges.

Europeans had impression that Indus always flowed where it was flowing in early 19th century. Subsequently they were convinced that Indus had kept changing its courses century by century and then search for its old courses started in earnest.

1. Earliest map published by Longman in 1843 AD considers Eastern Nara as branch of Indus. This is based on Alexander Burnes' views, whose maps also suffer from same boulder.

Among very early maps is that of Thomas Pennant in 'Views of Hindustan' (1798), where in, Hakra rising from Himalayas East of Stulej falls into Rann of Kutch passing town of Ammercot on way.

2. Cunningham (1871) produced a map of bed Rains and Eastern Nara considering former as its tributary and later as old bed of Indus.
3. Calcutta Review published two maps in 1874 and 1875 by C.F., Oldham and Nearchus showing old bed of Sarsuti the lost river of Indian desert flowing through bed of Eastern Nara.
4. R.D. Oldham published a map of probable changes in geography and courses of rivers in Sindh and Punjab in Journal Asiatic Society Bengal in 1887.
5. Raverty in Mehran of Sindh gives 9 maps of different courses of Indus and tributaries. The maps are controversial and not acceptable, but still they contributed a great deal to future thinking.
6. Haig in Indus Delta country in 1894 gives 3 maps of old courses of Indus and ancient geography of Sindh. He has limited himself mostly to central and lower Sindh.
7. Vincent Smith (1908) was first to give map of ancient sea coast line as north as Badin during Alexander's times.
8. Henry Cousens (1905 - published 1929) made further improvement in the courses of river Indus.
9. Arden in Scottish Geographical Magazine (1924) by a map illustrates the westering tendency of Indus and its tributaries.
10. Whitehead's map (Indian Antiquity - 1932) though covers Bahawalpur district but still gives important information on still water of Sutlej flowing in Hakra or eastern nara. This has been verified by me with help of aerial photographs.

11. Bur Sir Aurel Stein (1934) in Geographical Journal ends the controversy by giving reasons of drying up of Hakra after mapping old Sarsuti and ancient settlements along it.
12. Based on above sources Pithawalla produced a map of ancient settlements, old river beds and advances of Indus delta in Physical Geography of Sindh (1959).
13. Utilizing these sources and maps of Claude Inglis (1949) produced maps of possible depression, and later Lambrick has produced maps of courses of river Indus, starting from Ptolemy, scars left by Indus prehistoric and Buddhist sites, Indus in 326-325 BC. Alexander and Nearchus' route along Indus in Sindh, Indus in 7th century. Indus + time of Arab conquest (710-714 AD); possible courses of Indus near Alore, Bukhar, Bahmanabad and Mansura, Indus in lower Sindh (1500-1750 AD). Lost river of Indian desert the Ghaghar-Hakra system; in his history of Sindh Vol. I (1964).
14. I produced a map of courses of Indus in 'Ground Water' in 1964.
15. Snelgrove has given map of courses of Indus based primarily on Pithawalla and other less important works in 'HYDROLOGY OF INDUS' (1967) and in transaction. AIME – Society of Mining Engineers in March 1969. The map of Steath is in foresting.
16. Based on Mazahar Shah Jehani, I produced map of Indus and Sindh 2nd quarter of 17th century.
17. My investigation of occurrence of Ground Water was based on course of river Indus and this work involved detailed study of air-photographs. Based on these I have produced a map of possible courses of Indus in last 5000 years. This map is on Scale ¼" to a mile and is 4" by 7". This map supercedes all other maps on courses of Indus so far produced, and also discards some theories advocated earlier.

Archaeological maps.

All maps connected with hydrology of river Indus and coast line of Arabian Sea contribute towards study of archaeology, ancient history and old settlement. The maps on hydrological changes of river Indus may be studied along with following additional maps.

- (i) Cunningham's map 1871 AD.
- (ii) Cousens gives first detailed map of ancient cities and settlement of Sindh known up to 1905.
- (iii) Mujamdar gives map of additional sites explored up to 1935.
- (iv) Bilimoria published map of ancient places in Sindh Historical Society in 1935.

- (v) Gordon's 3 maps give distribution of copper and bronze implements, Microlithic industries in the South Asia, Sindh included (Pre-historic back ground of Indian culture – 1958).
- (vi) Wheeler in Early India and Pakistan gives two maps of archaeological sites, and their co-relation (1959).
- (vii) F.A. Khan in Iran and Indus Valley shows routes between Sindh and Iran and ancient sites of Sindh and Baluchistan (1964).
- (viii) American Anthropologist Vol-66 No. 2 1964, gives Indus cities, their out side contacts and routes.
- (ix) Ancient India No. 1 (1964) gives map of general distribution of Buff and Red wares from Iraq to Indus valley.
- (x) Pakistan archaeology No.1 gives 2 maps of sites discovered in 1947 and 1957 and location of Bhambhore.
- (xi) Pakistan Archaeology No. 3 gives map of sites in southern Baluchistan and Sindh.
- (xii) Pakistan Archaeology No. 4 gives latest map of sites in West Pakistan.
- (xiii) UNESCO's "Preservation of Mohenjo Daro" gives Mohenjo Daro and surrounding mapped from aerial photographs.
- (xiv) Pakistan Archaeology No. 3 gives a map of sites in lower Sindh classified as ancient, medieval, and forts. A total of 104 sites are shown.
- (xv) Rafique Mogal (1973) has produced Indus site map covering Pakistan, Kutch and Bikanir. A number of Sindh sites and some sites in Ranny Kutch are shown in another map he has shown boundary of Indus sites.

Physical maps of Sindh.

- (i) Raverty printed physical map of Sindh based on trigonometrically survey maps in 1892.
- (ii) Pithawalla (1959) further improved it and gives ground contours, drainage lines, springs etc.
- (iii) Lambrick's map (1964) is latest of these series.
- (iv) Lambrick in History of Sindh (1964) gives a contour map of Sindh.
- (v) Land forms, soil and land use by Government of Canada gives maps of this region of Pakistan showing climate land forms, present land use and detailed ¼" maps of whole area, but they are restricted to official use only.
- (vi) Pithawalla gives 41 maps of climate, soils, crops, roads, ancient settlements etc., in introduction to Sindh and Physical Geography of Sindh.
- (vii) Pithawalla also gives a map of Khairpur district (state) in his introduction to Sindh.

- (viii) Pithawalla's 'Album' gives 51 historical maps some of them from rare books.
- (ix) Hunting Albums of maps gives 28 maps of climate topography, ground water, crops, irrigation system etc., and is great contribution to geography of region. In addition their main and supplementary reports have very large number of maps.

Geological Maps.

- (i) Sir Bartle Frere produced a map of Southern part of Indus and Rann of Kutch in Journal of Geographical society Vol. 40 1870.
- (ii) Blanford produced first map of Geology of Western Sindh in 1879
- (iii) Geological survey of Pakistan published a map of Geology of West Pakistan in 60 colors in 1964.
- (iv) Geological survey of Pakistan in collaboration with Canadian Government produced, thirty two colored sheets on ¼" to a mile scale in 1964, but these are restricted.
- (v) Snelgrove gives earthquake seismic map of Sindh adopted from Pithawalla and meteorological Departments maps.
- (vi) I have produced a geological map of Kohistan are on 1:40,000 scale.

Ground water maps.

- (i) Pithawalla gives two maps of contours of Ground Water in Physical Geographical supplied by irrigation Department of Sindh.
- (ii) Chief Engineer, Irrigation, Sukkur, produces two ground water table maps annually, for April and October.
- (iii) Ground Water map of Ran-Petani Jhimpir areas was prepared by Abul Farah.
- (iv) I have produced 12 maps of ground water of Sindh, various districts and Nagar Parkar and indicated quality and depth of water (1964).
- (v) M/s. Hunting Technical Services Ltd have produced a map Album which gives two maps one of ground water, and other of vertical salinity of ground water, another two maps give ground water table and contours.
- (vi) Ground Water map of Kohistan was produced by me in 1971 on scale 1:40,000.

Administrative and Economical maps.

1. Besides the administrative and political maps in Sindh directory of 1862 and Gazetteers of 1874, 1876, 1884, 1905 (Imperial Gazetteer of India), 1907, 1919 and 1927, following maps have been published:

45 Taluka maps with Dehs in selections from records of Bombay Government No. 467, 468, 498, 499, 500, 525, 536, 537, 538, 541, 649, 650, 651, 652, 653, 654, 655 and 656.

2. Census reports from 1872-1961 give maps of Sindh, specially the reports of British period give political and other maps showing
3. The planning commission's reports, especially out lines of 5 years plans give some maps.
4. Report Royal commission 1928 as well as Food and Agriculture commission of 1960 give maps of agricultural maps. Huntings have given agricultural maps which supercede previous works of Pithawalla and others.
5. Annual reports of Bombay presidency and annual reports of irrigation department from 1861 to 1941 usually included a nice up to date irrigation map of the province.
6. Director survey and settlement has published district maps Taluka map and Deh maps, for whole province.

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