

THE DEVELOPMENT IN THE STUDY OF HISTORY AND ARCHAEOLOGY OF SINDH

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THE SITUATION BEFORE INDEPENDENCE: - THE HISTORY.

Scientific studies into the history and archaeology of the South Asia started with the European colonization of some areas in the mid-eighteenth century and occasionally Sindh too was reflected in these writings. Some important contributors were:

- a) 1733 AD Renaudot A French historical-geographer, in his writing discusses some ancient towns of Sindh as described by the Arab travelers and merchants of 9th and 10th centuries AD.
- b) 1782-1785 AD. Rennel the first official cartographer of the British, produced maps of the Sindh coast, the Indus and its tributaries and some towns of its interior, based on various historical sources. He had been working on this subject since 1778 AD. (2)
- c) 1783 AD. Sir William Jones a judge of the Calcutta High Court with the help of Warren Hastings, the first Governor General of India, established. The Asiatic Society of Bengal, to study Indian and Oriental texts of all kinds, with a purpose of understanding the historical cultural, economic and religious back grounds of Asian people. They issued a 24 volume journal, Asiatic Researchers between 1830. These journals have reference to many ancient cities and towns, rulers and tribes of Sindh. (3)

1797 AD. Father Vincent translated Nearchus' Journal or diary of travels, i.e., voyage from Patala in 325 BC, to the delta of the Euphrates. A substantial portion of this work, as well as three maps describes Sindh (4). Again in 1798 he published accounts of some towns and the trade of Sindh (5). One of these maps was based on Rennel (Ref: 2 above), other on d'Anville J.E.B Geographical Illustration of the map of India, London 1759, and the third on Dalrymple. All three maps were based on study of historical records. The three maps are designated as: (a) coast of Sindh Indus river, Patala and Alexander's Heaven (b) Routes of Punjab and Sindh as Alexander saw coast of Sindh and Kakran and Nearchus' route.

From 1799 to 1843 AD there were various British missions to Sindh and some of the delegates of these missions in addition to mapping of their routes in Sindh, also investigated its history. The important works on history of Sindh were; Crowe (6) Pottinger (7) and Burnes Brothers (8). There were

also a number of less important reports of Seton (1808), Smith (1808), Dalhousie (1831), Carless (1817) and (1837), Campbell (1838), Margary (1839), P.I.C Mesuer (1840) and others.

1844 AD Malet, translated Tarikhi Masumi, and published it in 1846 (9).

1845 Postans translated extracts from Chach-Namah and Tuhfatul-Kiram, in an attempt to produce a concise history of Sindh in about 80 pages. This work lost its importance within less than a year after publication of a complete free translation of Masumi by Malet in 1846 (10).

1846 McMurdo published 'History of Kalhoras'. It is an important document that has gone un-noticed. (11)

1851. Burton produced a sort of glimpses of Sindh's history in Sindh and the races that inhabit the valley of Indus: London 1851.

1853. All above works were over-shadowed, superseded and hardly worth referring to, after Elliot published his History of India as told by its own historians Vol. I, from Cape Town. The same work was reprinted along with seven subsequent volumes by his co-author Dowson, between 1867-1869. The first volume pertains to Sindh and has extracts from works of Arab geographers, travellers and seamen Chach-Namah, Masumi, Tahiri, Tarkhan-Namah, Baglar-Namah and Tuhfatul-Kiram. Elaborate notes on historical geography of Sindh, though now partly superseded, have made it invaluable to scholars even after a century and half. Raverty and the set has been reprinted both in India and Pakistan after independence. He has made full use of Asiatic Researches mentioned in [c] above. The other seven volumes too have material on Sindh.

1894 AD. Haig, published a short history of Sindh based on a number of sources and personal observations into historical geography, specially the position of the river Indus, in different centuries and advancement of the delta of the Indus. (12).

1900 AD. Mirza Kaleech Beg wrote a history of Sindh in two volumes, the first one being complete translation of Chach-Namah and the second being subsequent chapters from Masumi, Tuhfatul-Kiram, Fateh-Namah and Frere-Namah (13). This became a much referred source of many European and local scholars.

1901 AD. Lab Tarikh-i-Sindh, a Persian history of Sindh was the first work, which gave history of the British rule of 57 years. It was based on the personal information; being a Munshi in the office of the Commissioners of Sindh (14), for more than 40 years and having the first hand information.

1930-1933 Arab Wa Hinke Taalugat, essentially based on Elliot's Arab geographers, Nadvi analyzed the Arab Commercial and Cultural relations

with India and specially with Sindh (15). It is based on information of Arab and Persian travelers of 9th and 10th centuries.

1938-1940 AD. A complete Persian text of Chach-Namah and Masumi, was published in 1938 and 1940 respectively, from Hyderabad (Andhra Pradesh) and Bombay. In his notes, editor Dr. Daudpotta brought to light many new sources of information on the Arab governors, Habari dynasty, Samma-Delhi conflict, Muhammad Tughlaq's death at Sonda and subsequent events. The two text and the notes have become the guidelines for the future historians.

1947 AD. 'Tarik-i-Sindh by Syed Abu Zafar Nadvi'. In spite of a large number of errors it gave history of Arab governors of Sindh and Habari dynasty derived from the two above mentioned sources of Dr. Daudpotta. His maps are totally inaccurate and interpretations are also not acceptable, but yet it has extensively been utilized by Dr. Abdul Majeed Memon and Abdul Qudus.

THE SITUATION BEFORE INDEPENDENCE ARCHAEOLOGY.

Amateur archaeologists have always been at work and they create basis for future investigations. Here under we are concerned only with the therefore minor works have been overlooked.

- a) 1854 AD. Bellasis, the collector of Hyderabad along with Richardson explored, the present site of Brahmanabad-Mansura, called Banbhra-ka Thul and unearthed objects and buildings of the Hindu period, concluding thereby that it was the site of ruined city of Brahmanabad (16). His was unique work valid even after one hundred and fifty years.
- b) 1817 AD. Archaeological survey of India, was established in 1861 and its Director Alexander Cunningham toured most of the South Asia some times even on a horse back, in search of Ancient monuments. His classical work the 'Ancient Geography of India' besides giving general information also gives Heun Tswang's travels in Sindh with a map. His other maps according to Sanskrit classics are equally a good contribution. During this early period, history supplemented archaeology, and the latter was completely based on the former.
- c) Alexander Cunningham established the archaeological circle of Western India with first Burgess and then Henry Cousens as its Superintendent. The latter's tenure could be defined as classical monumental archaeological period of Sindh, as he explored most of known Buddhist monuments and also photographed a number of Muslim monuments. With Cousens' approach archaeology started supplementing the history of Sindh, a unique process. Although his work is summarized in 'Antiquities of Sindh' (1925), but the various issues of annual reports of Archaeological Survey of India, give details of his annual explorations and etc., from 1890-1909. All these with a number of fine photographs are published in the Annual Reports of Archaeological Survey of India, of the

respective years. Henry Cousens "Antiquities of Sindh" is a summary of all this work done on Sindh's archaeology prior to 1922 and it does not include either the details or the total material produced in the above reports. To these may be added annual bibliography of Indian archaeology (in progress) issued by Kern Institute, Leiden, and 'Archaeological remains in Karachi Hyderabad and Shikarpur collectorate in Sindh by Burgess, Bombay Government Press 1879.

- d) Mohenjo Daro. In 1922-23 Bannerjee explored the Buddhist stupa at Mohenjo Daro and found remains of a much earlier period, but it was Marshall who explored and produced first report on Mohenjo-Daro excavations in 1925-26. His articles with photographs in 'The Illustrated London news', was to attract the attention of the leading archaeologists of the world. A large number of archaeologists worked on the finds of this new culture called "The Indus Civilization". Hargreaves (17) and Stein (18) explored Baluchistan, Vats (19) Punjab, Mujamdar (20) Sindh and Stein Bikanir. With the finding of 'Indus culture', Archaeologists started building of the 'Ancient History of Sindh and also of South Asia' a unique innovation. With the help of archaeology man was able to know his past, and call it 'The Pre-History'.
- e) Henry Cousens: His efforts too seen to have been encouraged by appointment in 1903 of Sir John Marshall as Director of Indian Archaeology. The latter having had worked on the Greek monuments, arrived in India and started investigations, principally into the classical monuments of 200 BC - 500 AD, the Graco-Indian Buddhist art and architecture. In this period were explored; Mir Rukhan (1905-06) Mirpurkhas stupa (1909-10), Sudheranjo Daro (1914-15), Kahu Daro (1922-23), Dhamraho Daro (1925-26), Sassui-jo-Takar (1929-30) and tower at Khamaraho (1920 and 1921) by Cousens and others.

A number of Muslim monuments too were explored; Khudabad mosque (1912-13) Isakhan Tarkhan-II's Zenana and Jamia Masjid Thatta (1914-15 and 1918-19). Mirza Isa Tarkhan's Tomb (1918-19), Ghullam Shah Kalhora's Tomb and Necropolis and ruins on Makli Hills (1919-22), Jamia Masjid Khudabad (1920-21), Satbainjo Than, Rohri (1921-22), Harem of Talpur Mir's at Hyderabad (1922-23), tombs of Talpur Mir's at Hyderabad (1926-27). Fort at Naukot and Mir Shahdad's tomb at Shahdadpur (1928-29) and Sasui-Jo Takar near Banbhore (1929-30), Ghullam Nabi's tomb at Hyderabad (1930-34), and 50 graves of Sammas between Gundto Hills and Bhawani village in Lasbella (1937).

- f) 1925-1947. Marshall (23) Mackay (24) and Piggot (25), were main workers on the Mohenjo Daro, until coming of Wheeler (26) as Director General of Indian Archaeological Survey. Mujamdar's explorations (Ref: 20), had proved the existence of a period of archaeology, earlier to the Indus Culture but it was not fully visualized. The earlier hypothetical studies by Vedic scholars had put the coming in of Aryans in India around 3500 BC. Findings at Mohenjo Daro showed that the Indus religion was

completely alien to the Vedic religion. The Aryan therefore could not have come earlier than the end of the Indus Culture. It was therefore theorist the Indus cities were destroyed by the Aryan invaders, who were represent by three groups of people Cemetery-H, Jhukar and Jhangar. The date of Indus Civilization was unsettled, but Wheeler reached the correct conclusion by putting it at 2300 BC. Cemetery-H and Jhukar were placed around 1750 and 1850 BC, respectively and Jhangar later on. These three groups were categorized as Aryan tribes, who sacked the 'Indus'.

- g) Indus Culture People'. The latter were considered Dravadians. It was further theorized that on fall of Mohenjo Daro they moved to Kalat, where they are still settled as Brohi people.

SITUATION BEFORE INDEPENDENCE. HISTORICAL GEOGRAPHY.

Historical geography of Sindh is merely a reflection of consequences of the changes in the courses of the river Indus, which has periodically changed the face of the alluvial plains, destroying irrigation system, agriculture, settlements, towns, cities, routes of communications, and natural plant population. That the river was changing its courses was known very early to the researchers, but the work was intensified due to controversies between C.F. Oldham (27) and a psydonomous author Nearchus (28), to which R.D. Oldham (29) of the Geological Survey of India opinioned. This infuriated Raverty (30), whose 350 page work based on historical theories lead to further investigations, not only of courses of the river Indus but also of the causes of dryingup of the Hakra or Sarsuti river. Haig (31), Burnes (32) and Minchin (33), Whitehead (34), Pithawalla (35), and Stein (36), were other contributors. This issue remained confused until up to the Independence, although Stein' explorations had almost resolved the issue. Though no writings had appeared, yet at least Pithawalla and Lambrick had developed full picture of it.

WHAT WAS THE POSITION OF OUR KNOWLEDGE OF SINDH'S PAST AT THE TIME OF INDEPENDENCE IN 1947.

- a) We had very little ideas of Sindh's history before 2300 BC. Mujamdars explorations in the Western Hills of Sindh had shown existence of some Pre-Indus Cultural sites, but it was thought that these were settlements of people, on migration from Iran and these movements ultimately had resulted into development and establishment of Mohenjo-Dar, Harappa and other urban centers. Their antiquity in relation to Mohenjo Daro was considered a few centuries earlier at the maximum.

- b) The Indus civilization was known pretty well but its boundaries were limited to the Southern Punjab, Sindh and the Makran division. They every day life in towns, living conditions, economics, types of crops grown, means of communication and transport, religions, beliefs etc., were understood. The advancement in town planning housing, sanitation, water supply and drainage system was well known and appreciated.
- c) Aryans were considered as pastoral nomadic and less cultured than the Indus People. They were said to have sacked the Indus cities with the help of (imaginary) chariots and superior weapons.
- d) Mythical legends of Mahabhartha were considered as sobre history of Jarath the ruler of Sindh, was considered as genuine.
- e) Conquest of Sindh by Achaemenians was known due to excavations at Naqsh-i-Rustam, and Herodotus. The conquest of Sindh by Achaemenians and Alexander in 519 and 325 BC was known.
- f) Mauryan rule of Sindh was known but period of Sindh's history from about 200 BC to 500 AD was not known with any amount of certainty.
- g) Based on Chach-Namah and Bilazuri, Rai and Brahman Dynasties were known and so was the Arab conquest of Sindh, although all these sources were not used exhaustively and analyzed properly and thus the information on Umayyad and Abbasid Governors was canty.
- h) The Habari rule of Sindh and their chronology was worked out by Dr. Daudpotta, but detailed study was lacking.
- i) Nothing beyond fragmentary information from the now lost Tarikh-i-Bahadur Shahi, was available on the Samma and Soomra dynasties. Dr. Daudpotta's efforts had thrown some light on Muhammad Tughlaq and Feroz-Shah's invasions of Sindh. The folk-lore referred to Soomra and Samma period was actually written in the 15th century and is copy of similar ballads composed in Rajasthan, Gujarat and Kutch in 15th and 16th centuries. It was not sober history, but all the same was believed to be so (37).
- j) The knowledge of Arghoon, Tarkhan and Mughal period, was based on, Masumi and Tuhfatul-Kiram. Tarkhan Namah, Beglar Namah and Tarikh-i-Tahiri had remained in manuscript forms, and unavailable to people in general. Extracts from them were not valuable enough.
- k) Although Sorley (38) had studied economic and political and social conditions in Sindh in the 17th and 18th centuries, basing it on the accounts of European travelers, who actually visited Sindh and the British factory records, but this work reflected very little on the provincial administration of the Mughal in Sindh. The Mughal period of history had

not been analyzed and therefore the phrase 'Golden Age' as applied to it, was distortion of actual situation in Sindh.

- l) No history of Kalhora and Talpur period was available. The Sindh Historical Society established in 1934, in 28 issues of their journals had taken pains to collect all types of documents and information on the British-Talpur relations from 1799-1843, but no one had compiled these articles of Advani, Mariwalla, Duarte and Mirchandani to produce a systematic work on the period.
- m) Writing history of the British administration of Sindh was considered collaboration with the government of the time and no such work had been produced by any local writer. The Gazetteers of Sindh were the best Material on the British Administration and so were series of reports, annual administration reports of Bombay Presidency and Sindh Province and so were departmental reports. This is in brief the position of our knowledge of the past of Sindh up to the time of independence.

RESEARCH WORK ON HISTORY OF SINDH SINCE INDEPENDENCE.

- a) The major work in this field has been done by the Sindhi Adabi Board followed by the Institute of Sindhology. The former was established in 1950, after re-naming Sindhi Central Advisory Board. It started editing, translating and printing of new material on Sindh's past. The standards followed were those of international organizations of repute, like; royal Asiatic Society and Asiatic Society of Bengal, i.e., the texts were edited by comparing a number of manuscripts, the biographical sketch of authors and their other works were mentioned and discussed, foot notes on biographies of persons involved, location of some important historical places brought forth and photographs of archaeological places and inscriptions published. A number of important writers like Syed Hassamuddin Rashdi, Dr. N.A. Baloch, and others worked on the Persian texts, while translations were done by Makhdoom Amir Muhammad, Niaz Hamayuni and others. Even poetical works of historical importance or containing historical material were printed. The introductions to Persian texts were encouraged to be written in Sindhi and English for non-Persian-knowing readers. In addition a few Arabic and English works like 'Persian Poets of Sindh', Economic and Physical history and geography of Sindh too were printed. Biographies of contemporary important people by Mr. G.M. Syed and Ali Muhammad Rashdi formed part of the project work. A historical series of Sindh was started, with Lambrick's history of Sindh Vol. I and II, Pathan's History of Arab Rule and Mahar's History of Kalhoras'. The work on other periods is also in progress.
- b) Institute of Sindhology came out on with a number of monographs on history of Sindhi literature, source materials on literature and history,

some reprints of history and historical geography and lately Chronological Dictionary of Sindh.

- c) Three journals 'Mehran' of Sindhi Adabi Board since 1955, Nai Zindagi of Government of Pakistan since 1950 and Sindhological Studies since 1975 have published a large number of articles of historical importance which have brought out new material on Sindh's past. Most remarkable also are the individual efforts of Syed Ghulam Mustafa Shah whose journal Sindh Quarterly has also contributed considerable new material on Sindh's past in last twenty five years.

Contributions on Sindh's Archaeology since Independence.

- a) The Late Mujamdar's explorations in the Western hills had established existence of settlements earlier than Mohenjo-Daro. He had also done excavations at Amri. It was in his foot-steps that Calsal started excavation at Amri in early fifties. The results were published in 1964 (39). Amri preceded Mohenjo Daro by about 1200-1400 years and continued to survive up to about 1000 BC.
- b) In mid fifties Dr. F.A. Khan stepped on another site at Kot Dijji, preceding Mohenjo Daro by some 500 years. The Indus civilization was therefore pushed back to 3500 BC (40).
- c) In late fifties Dr. Khan excavated the Bhanbhore site and it turned out to be Debal, the first important city of Dahar, that fell to Arab invasion in the 8th century AD (41).
- d) Explorations by Archaeological Survey of India and Department of Archaeology in Pakistan for Indus cultural sites resulted into unearthing a large number of sites. These spread over to the most of present Pakistan (except Azad Kashmir, and northern hills) East Punjab Bikanir, Kutch, Kathiawar, Gujarat and Northern Maharashtra (Daimabad east of Bombay by about 50 miles).
- e) Analysis of sites in (d) above showed special grouping of these settlement in different periods occurring both in India and Pakistan. These groups of sites are categorized as; Amrian, Kot Dijjian or Sethian, Harappan, Cemetery-H and Jhukar and Jhangar cultures (43).
- f) Archaeological Department of Pakistan carried out exploratory survey of sites in to the Lower Sindh in 1960s and published a list of more than 100 towns and villages, majority of whom were Samma-Soomra and a few of them Arghoon, Tarkhan, Mughal and Kalhora period towns. Most of these were located on old branches of the Indus and decayed due to changes in the courses of the river Indus (44) from 12th to 18th centuries.
- g) Dr. Mughal reinvestigated the pottery ware and other objects from the 5 groups in (d) and (e) above and concluded that the Amrian-Kot Dijjian

sites occupy less area on the Indus Culture map, i.e., there is complete absence of such sites in Kathiawar, Gujarat, Maharashtra and Eastern parts of Eastern Punjab and also western Uttar Pradesh. The Harappas appear to have expanded all over and occupied vast area.

- h) He also noted that there was slow evolution of pottery forms motifs and their quality from Amrian to Harappan times, when designs and motifs of them had reached their maturity. The post-Harappan pottery of Cemetery-H, Jhukar and Jhangar, although similar to mature Harappan, was inferior, as if the culture had decayed (45).
- i) The Brahmanabad-Mansura site was excavated after mid 1970s and in 1979 Department of Archaeology came out with a statement in the Daily DAWN that Mansura occupied the same site as Brahmanabad. The towns seems to be renamed as such, and was destroyed by burning it at the end of first quarter of eleventh century (1025-26 AD), by Mahmud of Gazni. The fire also burnt the Jamia Mosque. Charred copies of the fragments of the Holy Quran were also recovered by the excavator (46) Mr. Halim.
- j) Mehrgarh site on the Bolan Nai South of Sibi was examined and explored by Jarridge (47), and he was able to find settlements starting from 7000 BC right to about 2300 BC an occupation of over 3500 years and continuous evolution of culture from Hunter-food-gatherers to pastorals and from pastorals to the early rise of agriculture i.e., beginning of the Neolithic and again from the Neolithic to the Bronze age of the Mature Indus Culture, thus pushing back the history of settlements of man in Sindh to 9000 years ago.

Contribution to the Historical Geography of Sindh since Independence.

- a) The first major contribution on the subject was that of Pithawalla (1959), who examined all available material on the courses of the river Indus and came out with his interpretations of the courses of the river Indus through various centuries (46).
- b) In 1964 Lambrick (49) described historical geography of Sindh in various periods i.e., Alexander (325-324 BC), Ptolemy (150 AD), Buddhist sites (1st to 7th centuries), Indus in the 7th century the routes of Arab conquest, possible courses of river near Alore, Bakhar, Brahmanabad and Mansura, location of the river Indus (1500-1700 AD) and also the course, of the Lost river of the Indian desert, the Ghaghar Hakra System. Although Lambrick and Pithawalla use the same sources, Lambrick has not quoted Pithawallas work published 5 years earlier. He also had not knowledge of Pithawallas, historical geography of Sindh (Ref: 35).

- c) Panhwar (1964). In addition to all above source of Pithawalla and Lamrbicks geohydrology is used for investigation of courses of the river Indus and vice-versa (50).
- d) Panhwar (1969). Course of the river Indus in the 17th century based on Mazahar-Shah Jehani is mentioned (51).
- e) M.H. Panhwar, A map of courses of the river Indus, based on aerial photographs, on a scale 1 inches to 4 miles with modern towns, railways, roads and canals super-imposed, to make it an easy reference material (52).
- f) Holmes who has worked with M/s. Huntings Technical Services on the Lower Indus Project, produced courses of the river Indus in different periods from aerial photographs, supplemented by all previous sources including (a)to (c) above (53).
- g) Herbert Wilhelmy. A German Scholar published his papers on the courses of the river Indus in 1967-69 (54). His findings though controvertible were used by Eggermont (55).
- h) M.H. Panhwar, based on courses of river Indus, possible areas under irrigated and sailabi agriculture, worked out population, areas under cultivation and economic conditions in Sindh, dynasty-wise and concluded that with each major change in the course of the river Indus a major castrophy occurred, bringing down fall of dynasties, migration of population and etc (56).

The Status of Knowledge of Sindh's past based on history archaeology, anthropology, historical geography and other disciplines as it stood on January 1, 1984.

- a) Ramapithecus and Sivapithecus (14-7 million years ago). In 1930, 14 million year old set of human teeth was found at Siwalik hills. It has small canines, evenly proportioned premolar arched plate curving out-wards, proving similarity with man-like species. The teeth belong to a predecessor of human being and its skull was named as of Ramapithecus (57). In 1981-82 a human like 5-7 million years old skull was found at Potwar by an English team. It also belongs to man-like species and is called Sivapithecus. Rampithecus means purely man-like and Sivapithecus means living man-like (58). This was a period when Gaj series of hills were being formed and they are contemporary of the Siwalik and Potwar

hills. There is possibility that Ramapithecus and Sivapithecus lived in the Western hill and eat eggs of various reptiles like Crocodiles and tortoise and etc. A new finding of 3 million years old Skeleton from Ethiopia started changing the concepts and some scientists put Ramapithecus and Sivapithecus as ancestors of ape and man, but not exclusively man. This new find called 'Lucy' was considered a true human. However DNA tests have shown that Ramapithecus and Sivapethacus were orangutan, modern man appeared in South Africa about 200,000 years ago and by about 10,000 years ago entered Jordan, Israel and Syria. In South Asia he reached 70,000 years ago and in Europe 35,000 years ago. DNA tests show that he did not cross breed with the earlier, so called human being.

- b) Middle and Paleolithci tools in Sindh. Man definitely lived in Sindh, at least 500,000 years ago. BC. Allchin (60) was able to find and date three stone-age factories near Rohri (32 acre area), Ubhan Shah, and Unar farms near Kot Dijji. The stones-tools belong to at least three different ages, namely; Middle Paleolithic period i.e., 500,000 - 35,000 years ago, Late Palaeolithic period i.e., 35,000 - 10,000 year sago and Microlithic tools 10,000 -5,500 years ago. The last one are also called Mesolithic or EPI Paleolithic. The Rohri tools may belong even to the Upper Paleolithic period i.e., 1 million to 500,000 years ago, but further investigation is necessary, Rohri hill tools served the man in Sindh, through at least 500,000 years. There is an evidence of the export of tools from Rohri to the Thar and the Indian Desert much before rise of Mohenjo-Daro and Amri and starting probably in 5th millennium BC (61). They may also have supplied tools to Mehrgarh, when it rose before 6000 BC, but this matter requires further investigation.
- c) Sindh got submerged into sea (100,000 years ago to 5000 years ago).

Although man lived in Sindh since 500,000 years ago, but sea level rose and most of Sindh was submerged into sea for some mililani. The advancement of sea into the in-land was as under: -

- i) 100,000 years ago, same level was as present near Karachi.
- ii) 90,000 years ago, near Thatta and Sandha.
- iii) 80,000 years ago, near Amri.
- iv) 70,000 years ago, near Larkana.
- v) 60,000 years ago, near Rahim Yar Khan.
- vi) 50,000 years ago, near Multan.

This is tentative and may change after further investigations.

The sea then started receding temporarily touching Amri about 30,000 years ago, but again rising to Panjnad 20,000 years ago, when finally it started receding 10,000 years back it was near Dadu and then fall in its level was quick. Around 5000 years ago the sea level was near Badin and Sakro (62).

d) Rise of Mehrgarh (6000 BC). With Sindh reemerging from the sea and happened. Sindh's borders extended to Sibi until 1740 AD, when Sib-i-Kachi districts were transferred to the Khan of Kalat. These areas are also called the Indus Plains. Thus for all cultural purposes the area is to be considered a part of Sindh. Mehrgarh excavations have pushed our history back to 3700 to 4700 years before Mohenjo Daro, which in it self existed 4300-3650 years ago. Thus Mehrgarh is 8,000-9,000 years old. Discovery of Mehrgarh has completely changed the old concept of the rise of the Indus Civilization and its lagging behind the Mesopotamian and Egyptian civilization. Previously it was thought that ideas in the Indus Cultural Development were borrowed from the west through Iran. Now it is proved that the Mature as well as the Early Indus Culture had its roots in Mehrgarh Culture. A few note worthy findings of the historical importance from Mehrgarh are: -

- i. Domestication of cattle (*Bos indicus*) started around 6000 to 7000 BC. The most important domesticated animal was cattle and not sheep or goat which were domesticated later on.
- ii. The dead were buried both in flexed (with Knees drawn up) and extended positions.
- iii. They used ornaments like necklaces, anklets, belts and beads made of shell, bones, local stones and imported turquoise and lapis lazuli from Badkhashan in Afghanistan.
- iv. Reed baskets were made and coated with bitumen.
- v. Polished stone-axes, blades, bladelets of flint and stone vessels were in use.
- vi. Different varieties of wheat and barley have been unearthed and so is the cotton. The latter may have been cultivated for fiber and oil. The previous thinking that cotton was grown by the Indus people after 2400 BC stands superseded.
- vii. By phase-III, or 4000 BC with introduction of pottery wheel, mass production pottery had started, pottery was decorated with geometrical patterns and motifs of birds and goats. Bow drill for working on carnelian turquoise and lapis lazuli were in use at Chanhu-Daro 1700 years later.
- viii. Copper was known, molten and used in phase-III.

- ix. By 4000 BC large scale cultivation of cereals, mixed farming (various types of wheat and barely), and domestication of cattle, goats and sheep was practiced
- x. By 3500 BC goat and bird motifs on pottery disappeared and were replaced by geometrical and intricate polychrome patterns on pottery.
- xi. By 3000 BC wine grapes (vines also appeared).
- xii. Potters kiln used 5000 years back were similar in operation as today, i.e., they spread straw on the ground laid 500 to 100 unfired pots above it, put more straw on the top and finally selected it by roof of clay. Then straw ignited, fire burns for 24 hours. Cooling time of about 7 days was allowed and pots were taken out.

Mehrgarh shows step by step development of complex cultural patterns that manifested themselves in the great cities of the Indus Civilization.

e) Cultural developments in the Thar as well as the Indian desert (9000 BC - 1500 BC).

The studies into climate of Thar desert have been based on the level of water in 4 inland salt water lakes namely: Sambhar (27°N-75°E); Didwana (27°-20'N-74°-35'E); Lunkaranasar (28°-30'N, 75°-45'E) and Pushkar (26°-29'N-74°-33'E); the first two in the present semi-arid belt (rainfall between 25 to 50 mm, the third in the arid zone (Less than 25mm rainfall) and the last in semi-humid belt (rainfall, 50-60mm). The studies showed that (64).

- i. Before 9000 BC there was very dry climate.
- ii. 9000-8500 BC the climate moved from very dry to beginning of low wet period.
- iii. 8,500 - 7,500 BC climate changed to medium wet.
- iv. 7,500 BC - 3,000 BC medium wet climate.
- v. 3,000 BC 1,750 BC high wet climate.
- vi. 1,750 BC - 1,000 BC low wet climate.
- vii. 1,000 BC - 500 AD dry climate.
- viii. 500 AD to-date low dry climate.

For this study; the dry and wet climate has been divided in to six groups, namely: - Very dry, dry, low dry, low wet, medium wet and high wet periods, by the present writer. The authors of reference (64) have assumed that the

present arid, semi-arid, semi-humid zones of Thar desert were one step higher, is semi-arid, semi-humid and humid zones respectively. This way the whole of desert zone called Pat (desert of Sukkur and Khairpur district and Khipro Taluka) had climate like the present, Thar desert of Tharparkar district and the later had climate like that of the present Nagar Parkar, which in turn had rainfall of 50-60 cms, against 30-35 cms at present. This in turn would mean that Pat could support animal husbandry to the scale of present Thar, which supports 400,000 cattle and equal number of goats and sheep even to to-day. The Thar and Nagar Parkar would also have supported more than twice as much cattle as to-day. The Kohistan of Sindh from Karachi to Ghari Khairo would also have supported twice as many animals as the present Thar and Pat combined. (64)

f) Mesolithic period in Sindh (10,000 BC 6,000 BC). The discussion in (e) above show that Sindh desert and hilly tracts were capable of supporting large cattle wealth between 8,500 BC to 1,000 BC. Already around 10,000 BC, to 8,000 BC, the man had started domestication of animals in the Middle East and around 7,500 BC domestication had started at Mehrgarh. The Thar and Kohistan climatic conditions gave rise to Mesolithic man's raising cattle there. Further proof is furnished by B. Allchins' discovery of Mesolithic age tools made at Rohri and Kot Dijji hills and transported to Mesolithic man of not only Sindh desert but also of Indian desert up to Marwar. (65)

g) Neolithic period in Sindh (6,000-3,700 BC). The exact date of beginning of Neolithic period in Sindh was not known, but excavations at Mehrgarh have shown the beginnings of pre-pottery Neolithic settlements in the period before 6,000 BC. It could well be 7,00 BC. It was an independent development (66). Neolithic period of Catal Hyyuk (Turkey) is 6,500 BC, and for Iraq and Egypt in the river flood plains, it is 4,500 BC. From Mehrgarh the Neolithic spread along the Bolan rivers drainage system, through Sindh Hollow (Garhi Khairo, Shadadkot, Hamal lake and Gaj river alignment) to Manchar. From there it may have spread to the lower Kirthar range or Kohistan of Dadu, Thatta and Karachi districts; represented by the Early Indus sites of Wahi Pandhi, Ali Murad, Gorandi, Ghazi Shah, Damb-Bothi, Arab-jo-Thano, Shah-jo-Kotrio, Othaman-Bothi, Diso, Jhangri, Gharo Biro, Karchat, Toung, Dhal, Goth hasan Ali, Nil Bazar and Orangi. From Mehrgarh it may also have expended towards Mundigak (Afghanistan), Kile Gul Muhammad and Damb Sadat (near Quetta), Ranno Gurandi (Loralai) and large number of sites along the Nal and the Kej rivers in Makran, (68), Studies in to this process of expansion of Neolithic from Mehrgarh have not been under-taken. The spread of Neolithic in the Indus valley needs further research of at least 10-15 years and things may not crystallize until the end of first quarter of this century.

h) Early Indus Culture (3700-2300 BC), Mujamdar N.G., had explored Amri and other sites in the Sindh Kohistan in early thirties. Dikshit had done further explorations (Ref: 68), but situation was made crystal clear only

after explorations of Amri by Casal (69). A large number of sites in Baluchistan too were excavated by different archaeologists after independence. Fairweather excavated Kile Gul Muhammad (70). Kot Dijji was excavated by Dr. F.A. Khan (71) and Indian archaeologists at work in the East Punjab, Kutch, Gujarat and Bikanir and Maharashtra had excavated a number of sites. Rafique Mughal made an extraordinary analysis of the sites and has put the sites of the Western hills of Sindh, Kot Dijji, a few sites in Kutch, some in Baluchistan and the East Punjab, (near West Punjab) as the "Early Indus Culture". The sequence follows as under: - Mundgik (4300 BC), Kile Gul Muhammad (36,712+500 BC i.e., about 4200 BC), Sindh-Kohistan sites and Amri. From the excavation of these sites it is now known that: -

- i. The Mehrgarh culture led to the development of the Early Indus Culture. The pottery from Mehrgarh period VII (3000 BC) also shows affinities with those of the Early Indus Culture.
- ii. Hussain figurines developed at Mehrgarh in the fifth millennium BC (5000-4000 BC), show affinities with subsequent figurines developed there in the VIIth phase (3000 BC) and these in turn show similarities with the Early Indus Culture female figurines (Zhab mother goddess) from which evolved the mother goddess of the Mature Indus Culture found at Mohenjo Daro.
- iii. There is remarkable similarity between polychrome vessel of Mehrgarh period-IV (3500 BC), and the Mature Indus Culture (post 2300 BC) pottery.
- iv. The site also proves the evolution from Mesolithic culture to Neolithic and beyond in the manner that:
 - a) In stage-I, there was pastoralism with limited cultivation. There were permanent villages of cultivators and there were other villages which were occupied by pastoralists seasonally. Tools were made of flint as well as antlers. Grain was ground in bowl shaped (mortar) grinding stone first by crushing and then by rolling action of pestle. Microlithic tools of various shapes for arrows knives and sickles were fabricated. Mud brick or mud rubble masonry stone houses were made for living purposes and thatched roof was common. Matting from reeds was made the same way as in hilly areas of Sindh today (73).
 - b) In Stage-II, agriculture was further developed, pastoralism was reduced considerably, villages were permanently occupied except special areas of Thar and Kohistan, where although permanent villages had arisen but still some seasonally occupied scattered settlements existed for

pastorals. Copper was introduced from the Middle-East, dead were buried in flexed position, pottery had designs, of animals, fishes, trees etc., as motifs. Houses were not laid on any grid, but were scattered. Gabar-bands were put across rain-fed rivers for the sailabi cultivation. Brick houses had stone foundations. Some times boulder and bricks (33) were used for foundations and upper walls respectively. Potters marks shows swastikas, crosses and vees, both vertical and inverted. More and more pastorals left for villages to take to agriculture. Clay balls were made to be used in stone throwers. Copper was used for knives, spears and arrow-heads. Pottery designs were advanced and so were motifs on them (74).

c) Stage-II from Kot Dijji to Mohenjo Daro (3000-2550 BC). The tools were developed further. Copper ware with hole for wooden handle was developed. Pottery became more complex in shapes as well as designs on them, consisting of birds in flying postures, and with more details of wings, reptiles, plant leaves, pipal leaves, bulls, cobras, fishes and animals in motion; more elaborate female ornaments as compared to Mehrgarh and Amrian times ware worn. There was a beginning of houses according to gird system. Copper and stone tools were more developed. Farmers who had started moving towards the Indus plains since beginning of Amrian times moved on larger scale to cultivate winter crops on the preserved moisture left by the river Indus when it receded after in full spate in summer. Some summer irrigation too may have been practiced, but evidence is lacking. Villages not only became larger in size but also more in numbers. Large areas came under cultivation in the flood plains of the Indus and its tributaries and also on the Sarsuti river plains. Existence of villages out-side the river flood plains explains some rudimentary system of irrigation. Human and cattle figures in terra-cotta were more common. Open pit bread ovens became more common. Gabarbands increased in number in the Southern Baluchistan and the south-western Sindh, for Sailabi cultivation on rain water (75).

i) Mature Indus Culture (2350-1650 BC). Between 2500 and 2000 BC the Amrians and Kot-Dijjian reached a higher level of culture depicted by four towns of major size. Mohenjo Daro (Sindh) and Harappa (West Punjab) known before independence and Kalibangan (Bikanir) and Lothal (Gujarat), excavated after independence. The main ingredients of this culture were: -

Bronze largely replaced copper for tools, intricate castings of figurine in bronze and polished copper mirrors were developed. Bull probably was elevated to the position of god. Besides development of advanced type of bullock-cart, which has survived till this day, (Mohenjo-Daro population more than 35,000), binary and metric weights, development of bureaucratic government, taxation of the means of production in the rural areas, surplus agricultural production to support urban population, pottery reaching highest development higher to unachieved in terms of variety, size, utility and forms, art of making statues from stone reaching a fair amount of precision (The human male torso found at Harappa, shows body curves achieved only by the Greek sculpturists some 1800 years later), terra-cotta figurines showing better curves of human body and so the mother goddess, artistic and geometrical patterns on the pottery-ware, intricate and precision designs on seals, development of boat for deep waters, to travel from the mouth of the Indus river to the mouth of the Tigris in Mesopotamia, seals depicting the religious doctrines and beliefs, which were to be incorporated into the Hindu religion by the Aryans 1600 years latter in forms of teachings of Upanishads, human burials from folded leg position to fully extended position, population movement from small settlements to small and large villages, from villages to urban centers took place and pastoralism got limited. Instructures in the urban centers; like: drainage, sanitation, granaries, towns built on the grid pattern, house plans like present days apartments, wide streets, fortifications, religious centers in form of the Great bath (36), possible development of irrigated agriculture and cultivation of wheat, barley, peas and etc., on preserved moisture left by inundation of the river Indus and winter rains and cotton on some kind of summer water management's, were other developments.

The area under Mature Indus Culture embraced most of present Pakistan (except hilly tracts in Northern NWF Province, Azard Kashmir), East Punjab, Western U.P. Haryana, Kutch, Kathiawar, Gujarat, Northern Maharashtra (Daimabad 50 miles east of Bombay), and Mundigak in Afghanistan approachable through Gomal Pass (75). There is conjecture that this mighty Civilization of ancient world was controlled from different urban centers at Kalibangan (Eastern Punjab), Harappa, (Western Punjab), Ganwer-Walla (Bahawalpur), Mohenjo-Daro (Sindh) and Lothal (Kutch, Kathiawar, Gujarat and northern Maharashtra). Gedrosia (South Baluchistan) may have been controlled from Sindh. (77)

The Mature Indus Civilization decayed between 1800-1650 BC, due to reduction in the waters of the river Sarsuti in East Punjab and Bahawalpur after 200 BC. Major changes in the course of the river Indus took place thereby destroying the rudimentary irrigation system, reduction in rainfall in Thar, Kohistan and Baluchistan and for unknown causes in Gujarat and at Harappa.

- j) The Declining Indus Culture (1750-900 BC). Although some of the towns of the Indus or Harappan culture were not occupied for long time after their decline, the others continued to be occupied. The central organization of the civilization based on the irrigated agricultural economy and efficient bureaucratic administration, was destroyed totally due to reasons mentioned above. Pre-Independence archaeologists had thought that the Indus civilization was destroyed by invaders namely Cemetery-H people at Harappa, and Jhukar People at Mohenjo-Daro. Who were these invaders? They theorized that they were Aryans, a pastoral people. Dr. Mughal's investigations shows that the Cemetery-H and Jhukar people too were Indus Culture People and the culture decayed due to certain causes, (79). These causes have further been examined and discussed under (I) above. In brief due to lessening of rainfall and climate becoming drier, the following incidents happened in sequences;
- i. Water in the Sarsuti catchment reduced and this river started drying. Winter rains also reduced. The area was not able to support agricultural population and people migrated to become pastorals, much earlier than other areas of the Indus Culture.
 - ii. Gujarat cities and villages too depended on rain water, as they do today. Reduction of rainfall in those areas, (as per findings of climate of Rajasthan which is adjoining to Sindh and Gujarat) dwindled agriculture and thereby the urban centers and the people took to pastoralism.
 - iii. During the earlier period due to more rainfall, the Punjab rivers must have carried 50-100% more water and thereby may have overflowed their banks, irrigating on flooding areas, which were to help in rise of urban centers like Harappa. The agriculture was affected due to reduction in levels of the rivers and therefore Harappa and other urban centers of the Punjab also declined.
 - iv. Baluchistan met the same fate due to lack of rainfall.
 - v. The Sindh cities survived up to 1650 BC. The reason being that ground levels in Sindh are such that even if discharge of the river Indus reduced to same as levels as of 1920's, the river would still supply water in summer and also leave vast areas flooded for Sailabi cultivation in the following winter.
 - vi. However around the mid 17th century BC, the river Indus swung too far east or west, from its central course, destroying irrigation system in totality and thereby the agricultural economy. It led to deterioration of the Indus Cities around 1650 BC, and people reverted to pastoral life (60).

Some small cities and villages continued to be occupied but the great metropolis Mohenjo-Daro was soon abandoned. The people lost the rudimentary art of reading and writing, as practiced on the Indus seals. The designs on pottery and their variety deteriorated. Trade, whether inter-regional or international came an end and the local trade became limited. Deterioration continued from 1650 BC, and people reverted to pastoral life (80).

Some small cities and villages continued to be occupied but the great metropolis Mohenjo Daro was soon abandoned. The people lost the rudimentary art of reading and writing, as practiced on the Indus seals. The designs on pottery and their variety deteriorated. Trade, whether inter-regional or international came and end and the local trade became limited. Deterioration continued from 1650 BC to 900 BC. This declining period is erroneously divided into two groups (81).

1. Jhukar culture 1650-1300 BC.
2. Jhangar culture 1200-900 BC.

It was infect continuation of the Indus Culture in its decaying form. Thus ended the Glorious Indus Civilization, which began at Mehrgarh ground 7000 BC and came to an end in 900 BC (82).

- k. Aryans and their influence in Sindh (850-519 BC). The myth of Aryan migration to India 5500 years ago and their language becoming mother of all the Northern Indian languages, first advocated by Max Muller (83) in 1864, went undisputed for next 60 years, when excavations of Mohenjo Daro proved that the people responsible for the Indus Civilization had a religion with the least akinness to that of Vedic religion. A theory was therefore developed that the Mohenjo-Daro people were Dravadians and were sacked by Aryans with the help of new weapons and horse drawn chariots (84). Another 50 years were to pass before Rafique Mughal (85), proved that the Indus civilization declined due to natural causes and decline was to continue up to beginning of first millennium BC (900 BC is more realistic figure). Aryans brought iron and gray-ware to the South Asia. By Radio carbon dating Agarwal and Kusumgar (85), were to date the Aryan's entry in various parts of South Asia as under: -

■ Swat.	1050	BC
■ Pirakh (near Sibi)	900-800	BC
■ Rajasthan.	800	BC
■ Madhya Pradesh.	500-400	BC
■ Uttar Pradesh.	200- 50	BC

For Sindh and the Punjab 800-700 BC, can be accepted as the most probable date. On the basis of these findings the earlier Hymns of Rig-Veda have been assigned a date of 1000 BC and the latter Hymns 900 BC (86). The other 3 vedas have been assigned a date of 900-800 BC. The other Aryan religious texts have been given new dates as under: (87).

- Early Brahmans. 800-600 BC
- Late Brahmans. 700 BC
- Sutras. 600-200 BC
- Earlier Upanishads. 600-500 BC
- Later Upanishads. 500 BC

Mahabhartha stories are no historical events and the Jarah the King of Sindh's participating in the Great Pandva-Kauriva War, to help the latter is simply a fable and not a historical fact. Mahabhartha and Ramayana have been written between 500 BC 200 AD. The Aryan religion of Vedas is different from that of Upanishads. It has now been argued by a number of scholars (88) that, religions of Upanishads from which arose the present Hindu religion, was borrowed from the religion of the Indus people. Of these scholars Kosambi thinks that religions of Upanishads, Buddhism, and Puranas had their roots in the Indus Culture, as is proved by Buddha or Yoga like postures, bull, incarnation of Vishnu in form of man lion, three horned god in pipal leaves and many other Hindu deities depicted on the Indus and Mesopotamian seals. The Aryans had no direct access to Mesopotamian seals and borrowing of these ideas must have been through the Indus People. Even Ganesh, the Hindu deity may have been borrowed from the Mohenjo Daro composite animal, consisting of a bull with elephant's trunk and rams horns etc, and head missing.

Around 600-500 BC the Aryans seem to have established 16 principalities or Mahajanpadas in the Northern South Asia. Sindh is not mentioned as one of the Mahajanpadas (Republics), though Kamboja (Swat area) Gandhara (Texila) Avanti (Northern Gurat) and Matsya and Surasena (Rajasthan), which are the areas surrounding Sindh are mentioned (89). Sindh seems to have had very little influence of Aryans, during these early centuries. From this, it seems that although Aryans had no direct influence on Sindh, yet their religion as preached by Upanishads was accepted in Sindh, because essentially it was the Indus religion, which had lingered on in Sindh.

Among recent workers on Aryan period in Sindh is Lambrick, but, he had done no detailed work and has repeated stories in the Aryan classics (90), considering them true.

DEVELOPMENTS IN THE HISTORY AND ARCHAEOLOGY OF SINDH AFTER INDEPENDENCE IN 1947.

Achaemenians in Sindh (516-400 BC).

Before Independence, the Achaemenian conquest and rule of Sindh was known from Herodotus (91), as well as Persepolis Naqash-i-Rustams inscriptions, (92). The Voyage of Skylax from Peshawar via the Indus to the Red Sea to connect Sindh and Egypt, the two granaries of his empire at orders of Darius-I also comes from Herodotus. Olmstead (93), is the first authority on Achaemenians, who has gone into details of their provincial administration, taxation and benevolent rule. He thinks they were not despots but rather king in Council. Under them the Provincial governments had autonomy and they were the first to connect the remote provincial cities to each other and the Imperial capital. They adopted Aramaic (northern Mesopotamian language) as official language and not Avasti (the Ancient Persian). Ghoshman is another authority on the subject. Basing on Herodotus and Hecataeus, he describes Darius-I's successor Xerxes's war with Greeks, in which the Medes of Sindh and the Punjab under Persian generals took part (94). Lambrick too has briefly described Achaemenian rule of Sindh. Sindh became independent of Achaemenian rule some where between 450-400 BC. In the latter year Egypt too became independent.

Alexander in Sindh (325-324 BC).

For nearly 250 years European colonizers of Asia, took keen interest in Alexander and his exploits. His historians run into many hundreds. Prof. Robin Fox-Lane (95) in Alexander the Great has used more than 1370 sources written in past 200 years. Although each one of his original historians i.e., Ptolemy Soter, Aristobolus, Clitarchus, Justin, Arrian, Diodorus, Strabo and Plutarch (96) had mentioned Alexander's military operations in Sindh and translations were available, no attempt was ever made to write detailed history of Alexander in Sindh. The first such attempt had been done by Lambrick in History of Sindh, Vol. II, with a map on Alexander's route and courses of the Indus in Sindh around 325 BC. Holmes and Witherby (97) in their maps have increased our knowledge of historical-geography of the period. Eggermont (98) is the only author, who has written a complete volume on Alexander in Sindh and Baluchistan, though the learned professor has done a few basic blunders in his investigations. In presence of all these new sources, it is a ripe time, to write on Alexander's operations in Sindh. M.H. Panhwar's 'Chronological Dictionary of Sindh' has a map of Alexander's conquest and retreat based on these new and old sources.

Mauryans in Sindh (324-187 BC).

Smith (99) and Rapson (100) were the best sources of Mauryans, before Independence. No work of note has been done on Mauryans since Independence. Mookerjee (101) is the only authority who had done some additional work on Mauryans. Even this work is more than 45 years old. Mookerjee thinks that Chandragupta started the War of Independence in 323 BC. There is a thinking that Moeris-I and II rulers of the Lower Sindh (Patalene) were Mauryans related to Chandragupta and it was with their help that anti-Greek movement started in Sindh, while Alexander was still at Patala. Based on above 3 sources and also Eggermont (102), it is possible to reconstruct Mauryan rule in Sindh. Lambrick's work is based on Smith and Rapson (103), but routes in Sindh are his own which have been copied by Robin Fox Lane in on Alexander's tracks, above cited.

Bactrian Greeks (187-80 BC); Scythians (80 BC - 46 AD), Parthians (46 - 78 AD) and Kushans (65-176 AD) in Sindh.

There has been very little work done on this period of Sindh's history since Independence. Lambricks (104) work is too sketchy. Three works by Tran (105) Narian (106) and Woodcock (107) produced in fifties are the only authorities making use of numismatics. Mujamdar and Munshi (108) by making use of pre-independence sources have reconstructed the chronology of kings of various dynasties. A recent article of Dr. Dani (109) is another source based on numismatics.

Post-independence archaeological explorations are limited to Banbhore, where the bottom layers go to first century BC. A number of objects (110) of this period and coins were unearthed. Dr. F.A. Khan states that because of high water table he could not dig deeper. In his opinion this settlement may well have been Alexander's Heaven, the port through which the fleet of Nearchus entered the sea. Lambrick's map of Buddhist sites, the first to seventh centuries AD, is based on pre-independence sources especially Henry Cousens (111).

While this article was being sent to press, the daily DAWN on May 18th 1985, reported a new settlement opposite to Banbhore and of the same age on an island. Present writer is of the opinion that there is gorge of the river Indus between Banbhore and this island. The gorge seems to have trapped a branch of the Indus and held there probably between 4th century BC, and 13th century AD.

The present writer (112) used all these sources, except ref. No. (109) to buildup the history of the period and has covered the material in 18 pages. The various rulers of Sindh and the period of their rule was as under:

Bactrian Greeks.

- Demetrius Governors. 184-165 BC.
- Agathocles' Governors. 165-160 BC.
- Menander's Governors: including Appollodotus BC. 160-145

(the last Governor)

- Appollodotus' and his governors including Strato-I. 100-90 BC.
- Zoilus, Dinysius and Appollophones. 90-80 BC.
- Strato-I and Strato-II. 80-70 BC.

Scythians.

- Mauses. 70-58 BC.
- Azes-I as governor of his father and joint ruler with him. 58-15 BC.
- Azilises. 15-10/5 BC.
- Spalyrises. 10/5 BC 10 AD.
- Azes-II. 10-46 AD.

Parthians.

- Gondophares (in Sindh). 46-50 AD.
- Pacores (Parthians in Gujarat). 65-78 AD.

Kushans.

- Governors of - Kanishka-I. AD. 78-101/102
- Governors - Vasiskha-II. AD. 106-138
- Governors of Kanishka-II. AD. 138-145

During this period Kushans held the northern Sindh only. The lower Sindh was ruled by Parthians 78-135 AD; Scythians 135-145 AD and Parthians 145-176 AD.

Small independent principalities ruled Sindh from 176-283 AD. (113)

Sassanians (283-167) AD.

Hitherto it was thought that Sassanians ruled Sindh from 283-632 AD and Rai Dynasty of Sindh were their governors. Close examination of the available and scattered sources mostly of Pre-independence period has revealed otherwise. The present writer, has collected this material and presented in 6 pages. Sindh was ruled by an independent principality of Vahlukas from 376-415 AD and again by some other principality independently up to 499 AD, when Rai Dynasty established themselves. Most of the known Buddhist stupas (in ruins) in Sindh were constructed between 200-700 AD.

Rai Dynasty 499-641 AD.

The basic information on this dynasty still comes from Chach-Namah. The first Arab Naval expedition was sent against the South Asia in 637 AD. Chronology of Chach-Namah is defective. Hieun Tsang, who visited Sindh saw a Sudra king (Rai Sehasi-II) ruling it between 630-641 AD. Chach therefore could not have come to power until 641 AD. That Sindh was independent in 617 AD is known from Sindh's king sending his ambassadors with a congratulatory message to Roman Emperor Heraclius on his defeating Khusro Parwez at Naina. The present writer has collected all scattered pre-Independence sources for supplementing the information and has revised the chronology of Rai and Brahman dynasties (114). Lambrick has also done full justice to this chapter of Sindh's history (116) Chach-Namah Sindhi translation has useful notes by Dr. N.A. Baloach (117), based on Daudpotta's Chach Namah (Persian text), Haig (Ref. 12), Raverty (Ref. 30), Cousens (Ref. 2), Elliot and others.

Brahman Dynasty 641-712 AD and 715-725 AD the Eastern Sindh only.

Chach-Namah's Sindhi translation with notes (118) gives basic information on this dynasty, however Mujamdars (118) gives basic information on this dynasty, however Mujamdars (119) 'Arab Conquest of Sindh', has lot new information. He had used a number of original Arab sources. Lambrick (120) had analyzed causes of the down-fall of Brahman dynasty. He has also produced a good map of the routes of Arab conquest.

The present writer has used all these sources as well as the original sources to reconstruct Brahman rule and Arab conquest of Sindh in 711-714 AD. (121) Williams has revealed that Kutch formed part of Rai and Brahman Sindh from about 500 AD to about 685 or 696 when it was lost to Chawras (122). The river Indus changed its course around 685-700 AD, deserting the Lower Sindh. Kathias, a local tribe from Sindh, moved to Kutch and from thence to Kathiawar around 700 AD. Since the lower Sindh was depopulated, it made the Arab conquest of the Lower South-Western Sindh easy and without any resistance (123).

In view of all this new and systematic material it is now possible to rewrite a complete history of Rai and Brahman dynasties and circumstances leading to Arab conquest of Sindh, when it happened after failures of first fourteen invasions over a period of more than 50 years.

Arab rule of Sindh, Umayyad (714-749 AD) and Abbasid (751-785 AD) Governors.

The work on this subject was initiated by Dr. Daudpotta in the Persian texts of Chach Namah and Masumi in 1938 and 1940 as already mentioned. These sources were used by Syed Abu Zafar Nadvi to write history of Sindh. It was the first attempt to write history of the Arab governors of Sindh and with analysis of events. The author has done many blunders and distortions and his historical maps are totally inaccurate and unintelligible (124). Memon Abdul Majid has probably used this as the only source for his Sindh and Multan's Arab governors and has repeated the same chronological mistakes (125), but it formed a definite information for Sindhi scholars as Nadvi's book was not readily available. Dr. Mumtaz Pathan is the first scholar, who used all scattered material on Arab rule of Sindh. His work so far is the best document on this subject (126) Dr. N.A. Baloach in his various articles as well as notes on Masumi has referred to Arab governors' rule of Sindh, but this material is scattered and requires recompilation (127). R.C. Mujamdar has given references to many new Indian sources on Arab rule of Sindh specially the raids on Indian territories by Junaid and his successors. This new information collected from inscriptions and some contemporary Sanskrit and Gujarati works, has merit of its own (128). There is also some material in the Archaeological Survey of India's reports, Bombay Gazetteers Annals and Histories of Gujarat and finally writings of Arab travelers and merchants.

The present writer made use of all available material, had Arab sources revived with the original texts and put all the events in a chronological order

(129). In view of this new material, it is possible to rewrite this chapter of Sindh's history.

Archaeological Department of Pakistan has carried out examination at Banbhore and Brahmanabad-Mansura site. On the first site final report has been issued, work on second site is in progress (103), although in 1979 the department issued an official statement that Brahmanabad/Mansura is same site.

Habari Rule of Sindh (854-1011 AD).

Dr. Daudpotta had worked out chronological rule of Habaris in notes on Masumi in 1938. This material was utilized by Nadvi to write history of Habaris (131), but the latter work is far from satisfactory and same is case of Memon Abdul Majid (123). Dr. Mumtaz Pathan's Arab kingdom of Mansura is up to date work on the subject. Habaris with the active help of local tribes ruled successfully for 171 years and had maintained good relations with Gujarat, Pratihars (of Rajasthan, Uttar Pradesh, Bihar and Northern Madhya Pradesh), Rashkuttas of Maharashtra and Hyderabad (Dn). They managed to have good relations with Hindu Shahi rulers of the Punjab; Sammas of Multan and Hindu Sammas and Chawra rulers of Kutch. The political and economic conditions of the period for other areas of the South-Asia are also well known. Present writer was able to locate the courses of the river Indus in the 9th century and from it worked out possible areas under cultivation, as well as the population (133). A large number of travelers, geographers and merchants, mostly of Persian origin (but popularly called Arab geographers) visited Sindh as well as the South-Asia and wrote accounts specially pertaining to local produce industry, exportable commodities and etc. these accounts await a full analysis by historical economists. The present writer has covered their chronology in 24 pages and has also given chronology of above mentioned travelers and their work for the guidance of future writers (134).

Soomra Dynasty (1011-1351 AD).

As already mentioned, the source of original information on Soomra dynasty was Tarikh-i-Bahadur Shahi, which is now lost. This work was used by Firshta, Abul Fazal, Khan-e-Khana, Nizamuddin, Masumi and many other Persian historians of late 16th and early 17th century to write Samma-Soomra history of Sindh. The information is too scanty to build an authentic history. The Archaeological Department of Pakistan, had undertaken a survey of Soomra-Samma ruined towns and settlement in Sindh at my request in sixties and large number of sites have been located (135), but no exploration have been done. Dr. N.A. Baloch had made serious efforts to build Soomra history from the folk-lore (136), but as mentioned earlier in reference (137) that, the folk-lore, was written in 15th and 16th centuries and is not a sober history. Besides, Marvi, Laila and Mumal etc., are fictional beings having no

real existence. Certain incidents are however too well known and present writer used this material to reconstruct Soomra history: -

A few note worthy points are:

- i. Soomras were Ismailis, was already known, but Abbas H. Hamadani has collected all possible information (136).
- ii. Upto 1417 AD, Soomras practiced lot of Hindu customs (137).
- iii. Daulat-i-Alviya a history of soomras is a forged and unreliable source on Soomras.
- iv. That Mahmud of Gaznavi sacked Mansura in 1026 AD was already known from works under-taken by Nazim and Habib. Dr. Mumtaz has used same sources to prove this point, but department of archaeology's statement in "DAWN" should be considered as the last word that Mahmud sacked and burnt Mansura.
- v. Mahmud's army being looted by jatts of northern Sindh and his avenging on them in 1027/28 is no longer being doubted. Earlier version that jatts belonged to northern Punjab is no longer valid.
- vi. That Sindh remained part of Gaznavid Empire up to 1281 AD, is disproved. Sindh became independent soon after Mahmud's death in 1030 AD.
- vii. A 16th century history of Soomras called Muntakhab-ul-Tawarikh by Muhammad Yousif belonging to maulana Qasmi was reprinted in his foot notes on Tuhafatul-Kiram by Hassamuddin, is a new source and has been helpful in writing Soomra geneology and adding to our knowledge of Soomra period.
- viii. Ismaili sources and biographers of their preachers have also added to our knowledge of Soomra period.
- ix. Historians of Gujarat and Rajasthan have also given some information on relations of those States with Sindh, but this information is not yet fully explored (138).
- x. The Persian Historians of Delhi and Mongols, too have given some references to Sindh. These have been tapped to connect a chain of incidents. Such historians are: Tabqat-i-Nasiri,, Mubarak-Shahi, Mirat-i-Sikandri, Mirati-Ahmedi, Zainful-Akbar, Ibn Asir, Tarikh-i-Utbi, Diwani-Farrukhi, Tarikhi-Behaqi, Al-Abab Saghani's Taj ul-Masasir (Arabic), Aini-Haqiqat Namah, Jahan-Gushai-Juwaini, Rehala of Ibn Battuta, Tarikhi-Feroz Shahi of Barani, Tughlaq Namah of Amir Khusru, Jami-ul-

Tawarikh of Hamadani, and Masalikul Absar of Abu-Safa-Sirajuddin Umar.

- xi. Jalaluddin Khawarizm Shah after having been defeated by Chengiz Khan was chased by him right up to Attock. The former came to Sindh, sacked Sehwan and burnt Debal, Pari nagar and some towns in Kathiawar to collect wealth, to reconquer the lost territories. Chanesar was ruler then.
- xii. Ibn Battuta visited Sindh in 1333 AD and saw Samma's rebellion against Delhi government. He uses word sammara for the rulers. Haig (31) considers them Sammas, but Burni; clearly states that Soomras gave protection to Taghi at Thatta in 1351 AD. Battutta confirms Unar as leader of rebellion at Sehwan. May be Sammas had been in power in northern Sindh under Soomras and Janani was Samma town. Tribes living around Janani are of Samma origin.
- xiii. Mohammad Bin Tughlaq took an expedition against Soomras but probably was poisoned and died at Sondha. The imperial troops were chased and looted by Soomras.

The present wirtter has collected all above material and has reconstructed a history of Soomras over 104 pages (139) discarding folk-lore altogether.

It is possible to collect material on the same lines specially from areas around Sindh to add to our knowlege of Soomras of Sindh. Archaeological explorations can throw light on arts, crafts, economics and day-to-day life of this period.

Samma Dynasty (1351-1424 AD).

The situation on Samma period is exactly the same as Soomra period. Its original source being Tarikh-i-Bahadur Shahi, now lost, from which same histories were copies as mentioned in first paragraph of (v) above. The material being scanty the present writer has made efforts to co-relate various incidents chronoloically, to make a continuous chain of events with encouraging results. Luckily for us there are some outside sources of information, for example: -

- i. Battuta's visit to Sindh in 1333 AD and seeing Sammas under Unar, rebellion (140).
- ii. Mohammad Bin Tughlaq's expedition on Sindh in 1351 AD and death at Sondha is better known from various sources including Mahdi-Hussain Agha (141) and 14th century historian Ziauddin Barani's Tarikh-i-Feroz Shahi. That he was poisoned to death, is elaborated by Mahdi Hussain. His temporary burial at Sehwan for the first time discovered by Professor Muhammad Shafi in 1935

(142), was brought to the notice of Sindhis by Dr. Daudpotta's Masumi in 1938. It has been reproduced by many scholars in various journals including Alwahid's "Sindh Azad Number" 1936.

- iii. The Sammas overthrew Soomras soon after 1335 AD and the last Soomra ruler took shelter with Feroz Shah's governor of Multan is known from "Insha-e-Mahru, a collection of 101 letters of Mahru, the governor of Multan and a crafty master mind of his age (143). Mahru managed that Feroze-Shah may take expedition against Sindh to restore Hamir Dodo. Preparation started in 1364 AD and in 1365 having lost the battle with Sammas and 5000 boats destroyed by Kutch seamen, the sultan left for Gujarat via Kutch, where Kutchi guerrillas attacked and destroyed his whose army (144). With new reinforcements he marched on Sindh, via the desert in September 1366 AD and lost battle after one year in October 1367 AD, but with new reinforcements from Delhi and putting Makhdoom Jehania of Uch as mediator, he made Banbhiniyo to surrender (145). That this Makhdoom came to the rescue of Feroz Shah three or four times bringing compromise between Delhi and Sammas to the advantage of Sultan, is brilliantly described by Dr. Riazul-Islam (146). This work of Riazul-Islam covers Sammas period up to 1388 AD.
- iv. On Feroz Shah's death, Delhi Sultanate disintegrated and Sammas became independent. The chronology of Sammas first worked out by Hodiwala (147) in 1939 was correct by Dr. Baloach (148). The present writer reverified the original sources and has revised the above two version (149). Hassamuddin in Tarkhan-Namah and Tuhfatul Kiram has used Dr. Baloach's chronology with acknowledgements (150).
- v. Information on Sammas from 1386-1508 AD is very scanty and scattered sources like Tarikh-i-Feroz Shahi by Afif, Frishta, Masumi, Mubarak-Shahi, Tabqat-i-Akbari, Tahiri, Mazahar Shah Jehani, Tarkhan Namah, History and Culture of Indian People, Vol.IV, Tarikh-i-Shahi, Maraat-i-Sikandri, Maraat-i-Ahmedi, Tuhfatul-Kiram, Todd's Rajasthan, Ain-i-Akbari, Maathir-i-Rahimi and Hadiqatul-Aulia have all been tapped by the present writer to cover this period in 128 pages (151). Three other sources little known in Sindh on this period are Zafarul Walih (152) Bahawalpur District Gazetteer (153) and Subuh-al-Asha (154).
- vi. On Sindh-Gujarat and Sindh-Kutch relations, Miraat-i-Ahmedi (155), Miraat-i-Sikandri (156) and Williams Black Hills throw new light, which shows that due to interference of Jam Feroz into a dispute between two ruling cousins of Kutch, the aggrieved party Rao Khenghar helped Jam Salahuddin twice, first time to overthrow Feroz and next time to fight Shah Hassan and Shah Beg,

who had restored Feroz. Later he helped Feroz to fight Arghoons. Cambridge History of India (157) and Gazetteer of Bombay Presidency (158) give information about Jam Nizamuddin's period.

- vii. On Samma's down-fall (1508-1524), besides Williams and other sources, are mentioned in (iv) and (v) above, Tuzuk-Babari, or Babur Namah (159) is another important document.
- viii. The same sources have been used by the present author to study Samma struggle to regain Sindh between 1524-1536 AD (160).
- ix. Chronology of the period from 1508 to 1524 AD as given by Masumi is defective. This has been corrected by Dr. M.H. Siddiqi (161). He also describes Balochi migration to Sindh during the same period in one appendix. Dr. Siddiqi also describes Mehdi Jaunpur's mission to Sindh in 1501-1503 AD (162). The failure of this mission and sinking of his boats by Hyder Shah of San at the instruction of Makhdoom Bilawal is described by G.M. Syed in various writings.

Pakistan's Archaeological Department has done virtually no work on this period, except a single seasons survey mentioned in Ref. (44). Ghafur wrote on Calligraphers of Thatta, a work of minor importance and two monographs on Thatta by Shamsuddin (163) and Siddiqi Idris (164), were published by the Department of Archaeology. The Department helped Hassamuddin with a large number of photographs for his Makli Namah and Tuhfatul-Kiram. Dr. Dani's Thatta (165), is based on Hassamuddin's work. Hassamuddin used Khan Khudadad Khan Persian manuscript 'Biaz' for Makli-Namah. Biaz (166) has sketches of graves with sketches of inscriptions and also inscriptions re-written in plain Persian alphabet for convenience. The post-independence archaeological work on the Samma period of Sindh, therefore may be considered as almost nil and we have to revert back to Cousens 'Antiquities of Sindh', actually written in 1908-09, but printed in 1925.

Arghoon (1524-1554) Tarkhans 1554-1591 and Mughals (1587-1736 AD).

Information on this period before the independence was scanty. All credit for work on this period goes to Sindhi Adabi Board, who published a large number of Persian history texts, poetical works giving references on Sindh and a number of articles in Jour. Mehran. Of the prominent scholars who did this work the out-standing were Hassamuddin Rashdi and Dr. N.A. Baloch. The former had specialised in the Mughal peirod of History of Sindh and more than 90% of his work on Sindh was on this period i.e., 1500-1750 AD.

In various books hassamuddin has given elaborate footnotes from contemporary historians mostly of the Mughal court. His urdu and Persian works published by other organizations do not pertain to Sindh, but all the same belong mostly to the Mughal period. He has almost exhausted all

known material on Sindh in Persian, written on the period 1500-1700 AD. But same can not be said about him for 1700-1750 AD, as most of material available pertains to Kalhora period and he has not specialised in it.

Dr. N.A. Baloch, essentially a scholar of Sindhi language and Sindhi folk lore, has been writing on arts and crafts of Sindh and some biographical Sketches. He edited two Persian historical works for Sindhi Adabi Board and wrote exhaustive notes on Chach-Namah and Masumi. He also wrote on some archaeological sites, but limiting himself to history of the place rather than archaeology (168). These two scholars have remained on the fore-front in research on history of Sindh. Although Hassamuddin exhausted almost all Persian sources of this period, he did not touch English and European sources. Plentiful work has been done in English on Mughal administration, economic conditions foreign trade, foreign relations European travellers' accounts and provincial administration of the Mughals, but as the specialist on Persian sources of Sindh's History, he has eliminated them altogether, except occasional references to Haig and a few others. In this notes on the Persian texts most of which are in Sindhi, he has given quotations from Persian texts but these quotations have not been translated. Makli Namah which has 90 pages of Persian text and more than 700 pages of the notes in Sindhi, is a monumental work. The Persian text is un-translated, and is still in original from Sindhi Adabi Board published Mazhar-Shah-Jehani, translated into Sindhi and book soon went out of stock. Unless this vast material on this period of Sindh's past is translated, the young historians ignorant of Persian, can not make any use of it. For the analysis of Mughal rule in Sindh, European sources also have to be re-examined (169).

Dr. Baloch's two Persian texts also belong to this period of Sindh's history and thus we are fully equipped to write an authentic history of Arghoon, Tarkhans and Mughal governors of Sindh.

On the examination of histories of the period specially Mazhar Shah Jehani and Beglar Namah, British factory records (1635-1662) and European traveler's accounts, one finds that this was the period of great turmoil. Sindhis from the Urban areas, specially Ulama and business men had migrated to Kutch, Gujarat, Burhanpur and Arabia. The Arghoon had deliberately forced the population to quit the Urban areas to create place for their own people, who under pressures of Bahur had to leave their own settlements in Central Asia and Afghanistan. During the Tarkhan period Sindhis started a kind of civil war, which continued through, up to Kalhora take over. Present writer has published detailed article on this civil war (170). This could also be looked from the other angle of ruling class of the period and every action may be justified on the basis of local's rebellion against the government. Dr. Zahid Ahmed Khan has approached the Subject from that angle (171).

These two views need critical examination by a third party, but the fact was that there was no peace during the period and the economy had dwindled, making it easy for Kalhoras take over in the very life time of Aurangzeb.

Dr. Raizul Islam's three volumes "Indo-Persian Relation" has lot of new material not yet tapped by Sindh's historians.

Kalhoras Dynasty (1700-1783 AD).

As stated earlier there was plenty of scattered material on Kalhoras period mostly in the form of manuscripts, but no history based on even on fragmentary material existed. Qani's Tuhfatul Kiram had only a few pages on Kalhoras. Sindhi Adabi Board assigned this job to Ghulam Rasul Mahar and published 'A history of Kalhoras' in 2 volumes. He used a very large number of Persian and English sources to construct the history of Kalhoras. The author has done some justice to the subject, specially looking to the vast material thus collected in historical sequence (172).

Dr. Riazul-Islam has now published two volumes of correspondence on Mughal and Nadir Shah's court. This throws new light on the subject and needs a new thinking. McMurdo Waiqia-i-Sindh or History of Kalhoras has also gone unnoticed by Mahar. Dr. Baloch N.A's 'The last of Kalhora Princes of Sindh' (173), was not known to Mahar. Mahar also has failed to analyse the economic circumstances leading to the disintegration of the Mughal Empire, which led to Kalhoras quick rise to power. Economic conditions have not been properly looked into. The Sufi movements, which rose in 16th and 17th century to counter balance the ritualist religious groups, have been overlooked. The impact of Kalhoras' recruiting army from a few tribes of D.G. Khan, and Sibi has not been depicted. Kalhoras were master canal builders but the new lands so reclaimed were kept at the disposal of Jagirdars. The elite, so evolved, should have occupied more place in the book. It is 43 years, since the book was first published and there is a need for a new version for history of Kalhoras. The sanads and letters of Kalhoras available in manuscript form are another large source of material on this period. Dr. Ghulam Muhammad Iakho for his Ph.D thesis has written 'History of Kalhoras'. He also has listed some more than 100 new Persian sources on history of the period.

In the field of archaeology, no work has been done on this period. The leading Baloch Sardars, who came with Mian Nasir, are all buried near Gharhi at Mian Nasir's grave yard. Their descendents too were being buried there, until the first half of this century. This major grave yard needs an archaeologist eye and reconstruction of the history.

Talpur Rule of Sindh (1783-1843 AD).

Sindhi Adabi Board has published Azim's 'Fateh Nama' a poetical work on the Civil War leading to the down-fall of Kalhoras and rise of Talpurs. The study of

economic conditions of Sindh during the Kalhoras period shows that in 1758 AD, the area under cultivation in Sindh was 2.2 million acres and population 3.0 millions. During this year there was a major change in the course of the river Indus, which abandoned its course near Halla and taking the present course west of Hyderabad. Earlier it was flowing from Halla to Oderolal, Shaikh Bhirkio, Tando Muhammad Khan, Matli and Badin to Koree Creek. This major change put 1 million acres out of cultivation. People were uprooted. Building of new canals would take many years patience. Such changes invariably have brought changes of dynasties in the past. The resulting strife due to this change, was in form of civil-war between Noor Muhammad Kalhora's sons, where Ghulam Shah with support of Balochi Sardars was installed as ruler. Subsequent events were simply strife to hold the cultivable land. It finally ended in change of the government from Kalhoras to Talpurs in 1738 AD.

The new rulers soon got involved into an International political triangle. Since 1783 Russia has started expanding towards India and British from Calcutta had started a move westwards. By 1799 it was clear that the two powers were to have a clash. The British planned to reach the Indus at the earliest and later on planned to meet Russians at Oxus or beyond. Sindh and Punjab had to be subdued. The major part of Talpur history therefore is their relations with the British. Many writers like Advani, Mariwala and Mirchandani wrote on British designs on Sindh. This prepared a way for collection of source material on Sindh. Khera published a small book on the subject from Lahore in 1946, but detailed work was yet to be done. The first work after independence was of Lambrick's (174).

In this scholarly work the learned author unbiasedly has described Talpur-British relations from 1799-1843, leading to conquest of Sindh and details of the Sindh battles: Huttenback (175) was next author to elaborate this work further. He was able to use India office records in London in more details than Lambrick. Truly as the title suggests, it was dissection of Imperial designs. He correctly identified relations in five phases (176).

Dr. Duarte who had also written on the same subject in early fifties, tried desperately to have his book published but its publication was blocked on the basis of being biased and favourable to the British. The book was not published until at orders of the late Mr. Zulfikar Ali Bhutto in 1976 (177). Mean time Kala Therani using mostly records from Archives of India, published yet another book 178. Two other book by Gillard (179) and Khan (180) give yet another version of the necessity of British conquest of Sindh and major factors involved. In terms of material, the studies done are concrete and there seems nothing new to be added to this subject unless new records come to light. The history of Talpur period is still to be written. In an attempt to project inevitability of the British conquest of Sindh and technological gap. M.H. Panhwar published article which forms part of this book. Scattered articles, some of scholarly merit like Duarte's Court of Talpurs (181), Karbalai Mirza Gul Hassan Beg's literary pursuits of Talpurs

(182), Hassamuddin's Seals of Talpurs (183) and Mayer L.A's Islamic armours and their work, Geneva (1963), depicts Talpur swords. These are but a few of many standard articles. Talpur correspondence, letters, Sanads and etc., in manuscript form exist with various families, individuals and institutes.

Many Talpur have family records. The ruling families museum is another collection of arts and crafts of the peirod. History of allienation and history of Jagirs from vast material on the period and so are early British records, bluebooks, reports and travellers documents.

All this scattered material could be collected, translated and published to from source material for study of this period.

British Period (1843-1947 AD).

This is so recent a period and there is so much material available that there should have been a maximum number of publications on it. Unfortunately this is not the case. Since independence, only first 16 years of British rule are covered to some extent by two books of Lambrick 'Charles Napier and Sindh' and 'John Jacob of Jacobabad (184) and Dr. Hamida Khuhro's (185) Making or Modern Sindh', which is dissertation on Sir Bartle Frere's administration of Sindh from 1851-1859. Other works of some merit are on the separation of Sindh from Bombay presidency by G.M. Syed (136) and Ph.D Thesis of Saheb Dino Chana (187). To these may also be aded hamida Khuhro's collection of documents on the same subject in two volumes (188).

The rest of period is a large vacuum. A number of books written by British and Western writers discuss his period of Sindh's history in different context or bio-graphies but these may be considered only the source material. In the same way four biographies by G.M. Syed (189), Ali Muhammad Rashdi (190), Karim Bakash Nizamani (191) and Hassamuddin Rashdi (192) are only source material for use of future historians. The Gazetteers were used as ready reckoners. One such Gazetteer by Sorley was published by the Governrment of West Pakistan, in 1969. It is history of the British administration of Sindh from 1905 to 1947 (1993). The West Pakistan eidtors of this Gazetteer took liberty of changing the text or expurgating portions of it. Thus we no longer have the benefit of knowing some important observations of author on working of provincial administration of Sindh since 1935 and also his own observations on the circumstances leading to formation of Pakistan.

In any case the book is indispensible for the historians of the British period from 1805-1947.

Aitkin's Gazetteer of Sindh, first printed in 1907, has recently been reproduced by Indus Publishers, Karachi, with an Introduction by mazhar

Yousuf, who is also Hony. Editor of the Sindhological Studies, from the very inception of the Journal (193).

During the period there were a number of political, social, and religious movements, for example: -

1. Hur movements, of 1890-1900, 1910-15, 1941-47.
2. Khilafat Movement, 1917-1924.
3. Separation of Sindh movement 1913-1933.
4. Muslim league and Pakistan Movement, 1938-1947.

No complete history of above movements has yet been written. Lambricks, (195) book on Hurs is information as the British officials saw and thought of the movement.

The British period records are well preserved in the India office Library in form of numerous reports. One important series of the reports was "Annual administrative report of the Bombay Presidency from 1861-1933 and thence after there were annual administrative reports of each department of province of Sindh.

Another series of the reports was "Revised Survey and settlement reports of each Taluka of the province" issued every 10th year since 1871 to 1932. The report gave crops, cropped areas, irrigated areas, population of each Taluka. The census reports besides statistics gave important information on language, ethnic groups, castes and tribes. All these reports are rare in Sindh but are preserved in the India Office Library.

In 1982, the Irrigation Department of Sindh invited scholars and engineers to celebrate the golden Jubilee of Sukkur Barrage and to on the history and impact of Sukkur Barrage. These papers are were being printed in two journals of Council for Water Resource. Their circulation being limited they never came to lime light.

The present writer has listed the names of reports of the British period, mostly available with him, in 'Source Material on Sindh' (196) and maps of Sindh in the India Office Library, British Musum, Royal Geographical Soceity and Archives of India.

Debates of Bombay legislature 1923-1935, Sindh Assembly 1937-1947, and Indian Legislative Assembly reports from 1923-1947 is another source and so are the Round Table Conference proceedings. In fact the detailed history of developments in each government department and institute needs to be written. The above information is given as a guide line for scholars interested in writing the history of British Rule in Sindh.

British developed a new type of architecture in Sindh for their offices, schools, public utilities etc. Under them the private owners for their buildings in the towns also adopted a new type of architecture. Some of these buildings are monuments worth preserving but they are being pulled down by the owners as well as governmental agencies. This amounts to destruction of our history as much as destruction of our archaeological sites. No engineer has come forward to write on British architecture in Sindh, its evolution, maturity and special features. This should form top priority for our historians. The daily 'Evening Star' has started a crusade to save Karachi's buildings from destruction. 5000 private and government buildings will form part of this project. The work has not been extended to Sindh, where even in the rural areas Wadera's *autaq* was a copy of either a school or an office building.

It is interesting to note that all government buildings before 1880 AD used wood beams and rafts. After 1880 AD, they switched over to girders, T-irons and brick tiles or wooden planks. Reinforced concrete was not introduced until 1915, but its use on a wide scale came after 1930. It did not reach rural Sindh until after independence.

A large number of books on British officials' life in Sindh, administration of India, military operations and management, their way of living, letters from India back home, paintings and etc., have appeared in England. These too are very rare sources of information on Sindh (197).

Recently in the past five years three books on Karachi by Yasin Lari, Hamida Khuhro and Hanif Raza Siddiqi have thrown light on British Architecture in Karachi but, they are not histories of British architecture in Sindh.

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