

Delhi: Climate, Fauna and Flora, A Historical Observation

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This topic will not only unearth the hidden facts about historical Delhi but will also establish a strong cord between the Indraprastha and the present Delhi. Abul Fazl wrote in 1600, Delhi is one of the greatest cities of antiquity. It was first called Indrapat and is situated in longitude [north 114 38 and east 28 15] 76 50 to 79 25, and latitude 28° 20 to 28 55... Humayun restored the citadel of Indrapat and named it Dinpanah .

B.P. Sahu in his book, From Hunters to Breeders has highlighted the importance of the study of nature in the following words – As an indicator of environment, ecology and climate, faunal remains and their study assume importance because history may be regarded as the history of mankind and the history of nature. But these two sides of history are inseparable. While the human race exists, the history of humans and the history of nature mutually influence one another. Soil, rainfall, vegetation, climate and environment exercise considerable influence on the evolution of human cultures.

According to Y.D. Sharma, Delhi and its Neighbourhood, published by Archaeological Survey of India, 2001, Habitation appears to have begun at or around the site of Delhi about three thousand years ago. Underneath the Purana Qila, raised in 16th century, excavation in 1955 revealed the occurrence of a fine grey earthenware, usually painted with simple designs in black, famously known as the Painted Grey Ware pottery dated c.1000 B.C. This site was systematically excavated during 1969-73, but a regular Painted Grey horizon could not be located. It is significant that the Painted Grey Ware occurs at several places associated with the story of the great epic Mahabharata, and one of these places, Indraprastha, capital of Pandavas, is traditionally identified with Delhi. Significantly enough, a village by the name of Indrapat, which is obviously derived from the word Indraprastha, lay in the Purana Qila itself. According to

Epigraphia Indica, I [1892], PP.93-95, The village of Saravala [modern Sarban] in Delhi, from where a Sanskrit inscription of 1328 now lying in the Red Fort Museum was recovered, is mentioned in the inscription itself as situated in the district [pratigana] of Indraprastha.

According to Mahabharata, the capital of the Kuru- country lay at Hastinapura on the banks of the Ganga, but when the relations between the Pandavas and Kauravas became strained, Dhritarashtra gave away the region of Khandavaprastha on the bank of the Yamuna to the Pandavas. There they carved out a city known as Indraprastha. At the end of their victory over the Kauravas, the Pandavas are said to have returned to Hastinapura, and eventually to have handed over Indraprastha to a scion of the Yadava clan, to which Krishna belonged. There exists a tradition that the Pandavas had demanded from the Kauravas five villages, the names of which end in pat, the Hindi equivalent of Sanskrit prastha. These are said to be Indrapat, Baghatpat, Tilpat, Sonapat and Panipat. But in Mahabharata, names of four villages are different and the fifth one is left unnamed. Nevertheless, all the places named above, including Tilpat, which lies about 22 km south of Delhi on the eastern bank of the Okhla canal, have yielded the Painted Grey Ware.

The first medieval city of Delhi, believed to have been founded by the Tomars, was called Dhilli or Dhillika, although among the known records the name Dhillika occurs for the first time in the inscription of 1170 from Bijolia, district Udaipur, Rajasthan which mentions the capture of Delhi by the Chahamanas. The Palam Baoli inscription of 1276, written in the reign of Balban, also calls the town Dhilli and the country in which it lies as Hariyanaka. Another inscription dated in 1328 in the reign of Muhammad Tughlaq [1324-51], now in the Red Fort Museum also refers to the city of Dhillika in the Haryana-country. A less-known inscription dated in 1316, found in Ladnu in District Didwana, also mentions the city of Dhilli in Haritana country. The modern name Delhi is derived from Dihli or Dilli, the Hindi equivalent of Dhilli of the inscriptions. To read in it Dehali, the Hindi word for threshold, and to assert that Delhi signifies the threshold of the country, is only fanciful. Another name, Yoginipura, occurs as an alternative of Dhilli in the Palam Baoli inscription, which also mentions the village of Palamba, the modern Palam. Both Dhilli and Yoginipura occur frequently in Jain Pattavalis. The name Yoginipura is believed to owe its origin to a temple of yoginis [female semi-divine] beings, which exists no longer but the memory of which is preserved in the present Jogmaya temple [

built in the reign of Akbar II [1806-37] at the site reputed to be that of an ancient temple of the yoginis.] near Mehrauli, which itself is derivable from Mihirapuri, and suggests that a sun-temple may have also existed there.

Upinder Singh in her book *Ancient Delhi* makes the following observation, Delhi gets its strategic importance from its peculiar geographical position. It lies in the corridor between the Himalayas in the north and the Aravalli hills and Thar Desert of Rajasthan to the south and south-west. Delhi is also located in one of the important watershed zones of north India – that which divides the two great river systems of the Indus and the Ganga. It is the gateway to the vast alluvial plain created by the Ganga and its tributaries. Singh further quotes the 1883-4 Gazetteer of the Delhi District which introduces Delhi area as possessing a considerable diversity of physical feature, and not wanting in picturesqueness. She further says that the original vegetation of Delhi can be reconstructed by looking to the Aravallis of Rajasthan which support a variety of dry, tropical forest species some of which are now very rare on the Delhi Ridge [locally known as Kohi or Pahari].

J. K. Maheswari in his book, *The Flora of Delhi*, 1963, gives a list of trees located in Ridge area such as the babul, phulahi, katha and the shrubs such as bansa, heens, jangali karaunda besides exotic species such as kabuli or vilayati kikar, native to Mexico and Central America. Oswald Wood who prepared a Final report on the settlement of land revenue in the Delhi District in 1872-77, says that the hills of Delhi though not attractive in themselves give a pleasant view across the Jamna. Their surface is generally bare, supporting little or no vegetation save a stunted kikar [*Acacia Arabica*] or karil [*Capparis aphyllia*] or the small bush of beri which with its prickly thorn is so inhospitable to the foot traveler.

G. F. Abbott in his book, *Through India with prince*, 1906, refers to two uncommon trees which are so common in Delhi such as the banyan and the peepul. He says, of the two trees, the banyan is the hugest and the peepul the holiest as Brahma, Vishnu, and Siva all live within it, accompanied by their families. The roots are Brahma, the bark Vishnu, the branches the Mahadeos. In the bark lives the Ganges, the leaves are the minor deities. Hail to thee, the King of trees.

Francois Bernier in his work, *Travels in the Mogul Empire*, AD 1656-1668, refers to the following fruits in Delhi – dry fruits from Persia, Balk, Bokara and Samarqand, such as almonds,

pistachios, and walnuts, raisins, prunes, and apricots; and in winter grapes, pears, apples, in summer, melons, mangoes. The alluvial plain of the river Yamuna supports a variety of agricultural and horticultural activity. The Yamuna alluvium is divided into two parts – khaddar [the new alluvium, bordering the present course of the river] and the bangar [the old alluvium, representing the alluvial soil accumulated by the river in its earlier courses] is higher, and by nature, dryer. The dabar is the low-lying, rain-fed area lying to the west of the hills and subject to floods. During the monsoon rains the Yamuna swells into a fierce torrent, prone to floods.

Upinder Singh takes recourse to 1883-4 Gazetteer of the Delhi District and the 1976 Delhi Gazetteer to highlight the flora and fauna of Delhi. The 1883-4 Gazetteer refers to extensive tree cover, pigs, foxes, and hares along the banks of the Yamuna, chinkara in the north-eastern parts of the district especially on the Ridge, nilgai, wolves roaming around the cantonment area, monkeys making a nuisance in villages bordering the Western Yamuna canal, and leopards prowling about in the outlying villages. Black buck, mongoose and snakes were in abundance everywhere. The Gazetteer also lists the various types of fish found in the river Yamuna and talks of the entire river being infested with crocodiles.

Recently, environmentalist Iqbal Malik referred to large scale pollution of the river Yamuna. According to him, the river Yamuna has a flow of just 5 [five] cusecs whereas the minimum requirement is 353 cusecs. Therefore, today what we have in this nearly stagnant water of Yamuna are catfish which are found only in sewers, red worms which inhabit only in filthy water and disease causing bacteria. Apart from this, the floating population of the river also consists of the fly-ash, plastic, hospital waste and parts of half-burnt bodies from cremation grounds.

Writing in between 1872-80, Oswald Wood refers to many wild animals in the following words – the wild animals of Delhi are wolves and foxes, jackals, hares, and deer [hiran and chikara]. In the khaddar [rugged ground] also the pig is found, and para [hog-deer]. The mongoose is not uncommon, while monkeys in some of the villages bordering on the shady avenues of the Western Jamna Canal are quite a nuisance.

The nilgai is occasionally found in the wilder parts of the uncultivated jungle. Snakes are there but not in great abundance. Ducks of various kinds are found in the ponds in the cold weather, snipe in several places in marshes, quail are not uncommon in the fields, partridges both

black and grey are abundant, and kulan are fond of the fields of gram when the grain has not yet hardened.

Mark Twain wrote in 1896 that the monkeys invade the house whenever they get a chance, and carry off everything they do not want. Two monkeys came into my room in the early morning, through a window whose shutters I had left open, and when I woke one of them was before the glass brushing his hair, and the other one had my note-book, and was reading a page of humorous notes and crying. I did not mind the one with the hair-brush, but the conduct of the other one hurt me, it hurts me yet. I threw something at him, and that was wrong, for my host had told me that the monkeys were best left alone. They threw everything at me that they could lift, and then went into the bathroom to get some more things, and I shut the door on them.

In 2001, The Sidney Morning Herald wrote monkeys have plagued Delhi's government offices and private houses for several years raiding fridges, snapping power lines, scattering defense files and taking free bus rides.

In 2005, BBC news said, Delhi suffers from a serious monkey menace, with scores of animals seen across the city, particularly near top government-offices. In 2007, the Delhi Deputy Mayor, SS Bajwa had succumbed to a fall from the terrace due to monkey attack. Now the question arises –why there is increase in monkey menace? One reason may be the fact that the monkeys have moved into residential areas due to Delhi's shrinking forest. However, there is a plan to increase the green cover of Delhi to 500 sq. kms or 33% through creation of 13 forests by 2012.

The 1976 Delhi Gazetteer mentions a few such as hyena, wolf, fox, jackal, leopard, black buck, gazelle, nilgai etc. Due to the steady expansion of human settlement and activity in the area, Delhi's fauna today presents a rather pathetic picture. Shihab al-Din al-Umari wrote [1348] during the reign of Muhammad Bin Tughlaq, in Delhi the water is supplied from the wells which are not dug very deep. The wells are usually found with Persian wheels. They collect rain water in large reservoirs for drinking purpose. Ibn Batuta wrote in between 1325-1354, Outside Delhi is the large reservoir named after the Sultan Shams al-Din Lalmish [Iltutmish], from which the inhabitants of the city draw their drinking water.

In 2009, Delhi is focusing on waste water reserve and water recharge, especially through the conservation of over 600 water bodies. Many historical reservoirs/baolis[stepped wells] can

be used as small recharge points. Regarding the climate of Delhi, Oswald Wood wrote in between 1872-80, the climate of Delhi is what might be anticipated from its position, as lying between the plains of the Punjab and those of the more tropical parts of Bengal. The cold weather is much like that of the Punjab – and there is a bleak north-west wind which makes the temperature seem lower than it actually is. On the other hand, the hot weather begins sooner. Tents become unpleasant after April 1, when the hot wind [luh] begins. During the succeeding months down to the middle or end of June, the west wind should blow moderately and equally – a violent west wind is hurtful to the crops, while an east wind is unhealthy for men. The four months – Phagun, Chait, Baisakh, and Jeth make up the kharsa i.e. the dry months. Then come the Chaumasa—the four rainy months- Asarh, Sawan, Badon , Asoj or Aswin. In this period plentiful rain is expected and wished for, especially in Bhadon. In Aswin, however, it is getting too late for cotton and til. The air then, if the west wind blows, is fresh and healthy- the east wind is very debilitating and is said to produce boils and fever. Aswin brings us on to October when the nights are beginning to get cool. Then comes the feverish season which is always bad in Delhi, but during the last few years has been so fatal as in some parts to materially diminish the population. Toward the end of November or the beginning of December matters begin to improve, for the jara or cold season has well begun.[Now even in November, 2009, Swine flu is rampant in Delhi due to the winter as it is conducive to the spread of viral infection]. The four months – Kartik, Aghan or Mangsir, Poh or Pus, Magh- bring us round again to the kharsa. Rain is almost unknown in November, but is thought good for husbandry in December; as if there is no rain, there will be heavy work for the oxen in watering the young rabi crops, and in Pus though late it is better than nothing.

Emma Roberts wrote in the book entitled *Scenes and characteristics of Hindostan, 1837*, Delhi is considered to be one of the hottest places in India, owing probably to the arid nature of the country all round it and the immense quantity of buildings. This kind of weather lasts four months. The rains and the cold season are both very agreeable, but there is one plague from which city and its environs are never exempt – that of flies which come in armies. Persons living in tents, in cold weather, are almost driven mad by the torments inflicted by these disgusting assailants.

Talking about the spring of Delhi, James Caird in his book *India: The land and the people*, 1878, says, the weather was beautiful, like a lovely summer morning at home. The country all round is covered with park like trees, and has a rich luxuriant appearance. Lovat Fraser in 1903 wrote in *At Delhi*, I never dreamed of the cold of Delhi, and I cannot stand it. I should think there is nothing in the world like the cold of Delhi. It is not that it is severe; it is the quality of it that knocks you over. Dry cold in other places is invigorating and stimulating. This is a sort of dead cold, and reduces you to a clammy corpse. In 2008, global warming was showing signs of climate change much faster than expected. The Metreological department in Delhi had predicted that 1st February, 2008 would witness a zero-degree temperature and 4th February, 2008 witness a snowy Delhi.

In 2002, Delhi had earned the dubious distinction of being one of the most polluted cities in the world. In 2009, Delhi became the first city in India to chalk out a concrete action plan on climate change to be implemented from 2009 to 2012 – the various projects have been categorized under six heads such as energy efficiency, sustainable habitat, greening, water, solar emissions and strategic knowledge. Among all other adverse effect that climate change can and has been bringing about is lessening work productivity, according to an Oxfam report, July 2009, which says the productivity in Delhi can drop by 30% because of the scanty rainfall due to global warming.

We can conclude in the following words, Delhi is a peculiar city with its peculiar challenges. We witness a new city practically every year with an additional population of about a half million coming into Delhi to settle down. And this changing nature of Delhi will reflect through change in climate, fauna and flora which are also under tremendous pressure due to bourgeoning population and over expanding human settlements.

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