

# Technological Development in Medieval India

Presentation by

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# Content:

- 1. Introduction
- 2. Agricultural Technology
  - A-Ploughing
  - B-Harvesting
  - C- Hoeing
  - D- Persian Wheel
  - E- Araghatta
  - F- Shadoof
  - G- Charasa
- 3. Textile Technology:-
  - A- Charkhi
  - B- Spinning Wheel

## Introduction:

We know that the world and people have a history of where they stand today. This trend of the evolution has been going on since Palaeolithic time. During the Medieval period technology in India was influenced by two scenarios: first is the earlier ancient tradition and second is by the Islamic and European tradition . In this seminar topic I mainly discussed on the different types of technologies developed than ancient Indian's tools and techniques in Medieval India.

## Agricultural technology:

- **Ploughing:** The plough is called Takht-i-Istarash in the Persian lexicon and Hal in the local dialect . Irfan Habib writes about plough was found in Tamara, a village in Rajasthan in 1666, which showed that out of thirty-eight peasants, twenty-six had only one plough each . Only two had three ploughs each and another two as many as five .Those who had more than one plough had like Akbar 's master-dyer Ramdas above 8 hectares of land in a village near Agra in 1562 as 'Self-cultivated holding'.

## Harvesting:

- Crops were normally harvested with the aid of sickles, hooks and scythes. One Mughal painting displays a man cutting the crop with a semi circular sickle. The Persian dictionary , Miftahu-i- Fuzala also mention the iron sickle (das) used to cut the crops. Barbosa described the use of iron sickle (Das) in India.

# Hoeing

- A Persian dictionary , the Miftahu-i-Fuzala , described the wooden hoe or digging stick (Ramba, Kuraz)as used in Medieval India.

# Persian Wheel

- Another and far more important addition was the Persian Wheel. This device , which in the form a wooden machine , represented a notable example of pin-drum gearing was probably an importation of the thirteenth and fourteenth Century.

# Araghatta:

- Kalhana(1149-50) refers to the use of araghatta in Kashmir. The gear less device with the chain of pots(Araghatta) was present in India as early as the seventh century.



# Shadoof

- Another system used was called by different names, such as Dhenkli or Shadoof /Tula /Lat/Latha. The Dhenkli is illustrated in the manuscript Mrigavat, found in Uttar Pradesh around 1525 to 1570. The Dhenkli, which was based on the lever principle and was used wherever the water level was close to surface.

# Charasa

- About Charasa (a water lifting device) Babar in his memories Tuzuk-i-Baburi writes , “ At the well edge they set up a fork of wood, having a roller Aadjusted between the forks, tie a rope over the toller and tie its other end to the bullock. One person must drive the bullock, another empty the bucket. Every time the bullock turns after having drawn the bucket out of the well, that rope lies on the bullock tract in pollution of urine and dung before it descends again again into the well.

# Charkhi

- There is evidence that the two importance instruments for ginning and cleaning cotton, namely, the wooden-worm-worked roller use Charkhi and the bow-scutch(kaman) had come into use much before the Mughol period.

# Spinning Wheel

- The first textile reference to the spinning wheel is found in the metrical history of the Delhi Sultanate by Isami, who wrote his work in 1350. It was an ancient Chinese invention , which seems ti have made its way showly to India.

# Looms

- The Indian weaver's loom , with its horizontal frame , and foot-treadles(levers operated by foot) to control to the shedding mechanism , is illustrated in seventeenth century paintings of the saint Kabir at work.

# Handguns

- Indian handguns began to be equipped with flint-lock during the latter half of the seventeenth century. Bernier says that Indians sometime imitated perfectly articles of manufacture.

# Cannons

- In the manufacture of cannon , two trends were noticeable in the Mughol period. The first was to make very large pieces. This was possible as long as they were cast of bronze. And the second was to make very lighter cannon made with iron .

# Conclusions

- It is cleared that , agricultural and industrial technology during the Medieval period more developed than the ancient Indian Technology. The main changes in the use of iron specially in plough and Persian Wheel and also other devices.



Thank You