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**EARLY HISTORIC
PERIOD
OR
BUDDHIST PERIOD
(500 BCE to 100 BCE)**



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The early historic period is more particularly known as Buddhist period (dating between c. 500 BCE. to 100 BCE). Historically, the roots of Buddhism lie in the religious thought of **Iron Age India** around the middle of the first millennium BCE. That was a period of great intellectual ferment, when the *Upanishads* were composed marking a change in the Vedic religion, as well as the emergence of great **Sramanic** traditions.

The early historic period was not only a period of intellectual ferment but also **political and socio-cultural change** quite distinct from the Vedic period.



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- ❑ Politically, the emergence of Sixteen Great Territories or the '*Sodasha Malianjanapada*' was observed extending over the land from the Kabul Valley to the banks of the river Godavari. There were several other smaller states.
- ❑ The **use of iron** spread into northern India and iron tools were much more effective for clearing land than were the old stone and wooden tools.
- ❑ Farming populations previously established around the fringes of the densely forested Ganges plain now moved in to colonize the heart of the river plain and become the heartland of ancient Indian civilization. Villages grew; some became small towns, then larger towns, and then cities, as large as the contemporary foreign countries like Greece and China.



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Description of Agriculture and status of the farmers in the society during the period are available from some books like:

- ❖ Arthasastra: Chanakya/ Kautilya
- ❖ Ashtadhyayi: Panini
- ❖ Indica: Megasthenes



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Land and soil

Natural classification based on geographic distribution includes two divisions:

- ❑ *Jangala* (desert or arid tract) and
- ❑ *Anupa* (wet or marshy land, or riverine fertile tract).

The *Arthashastra* referred division of land was also found on the basis of irrigation:

- ❑ by rain water (*desavapa*) and
- ❑ by river water (*kulyavapa*).



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Enumeration of different lands for different crops was also noted in *Arthashastra*.

Banks of rivers: pumpkin and other gourds;

Lands frequently overflowed with water: long pepper, grapes and sugarcane;

The vicinity of wells: for vegetable and root crops;

Low grounds (moist bed of lake): green crops;

Marginal furrows between any two rows of crops: plantation of fragrant plants, medicinal herbs and *pindalaka* (lac fostering trees)



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Land proprietorship

- ❖ A Stable land system
- ❖ Land proprietorship ascribed to individual, community and the king
- ❖ Land tenures were associated with types of proprietorships.

Two general divisions of land were there:
(1) rent-paying and (2) rent-free lands.

Tenure on contact was given by payment of king's dues in usual rate even the tenants failed to cultivate land.

The share tenants were also there who used to share half of the produce.



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Nutrient management

The early historic period is distinguished by the introduction of the practices of **conservation of top soil** and fertilization of different parts of plant before plantation for propagation.

Crop rotation was followed. **Three sowings** in a field were found to have been prescribed for this **(crop rotations)**. In this system the sowing of leguminosae crops formed the middle sowing.



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- ❑ Fertilizing with various animal products comprised of cow-bone, dry cow-dung, pig's fat, and honey and clarified butter.
- ❑ A detailed procedure for pre-cultivation manuring of seeds and planting materials with substances stated above was laid down in the *Arthasastra*.
- ❑ Particular treatment of sapling (of mango) in which digging of a pit around the tree, burning the inside soil and filling it with bone and farmyard manure, was recommended.
- ❑ The *Jatakas* recommended irrigation of milk to mango plant for better growth of fruits.



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Crops cultivated

Cereals

Rice: introduction of two new varieties, viz. sali and sashtika (ripening in sixty days);

Millets: Introduction of *jowar* (*Sorghum vulgare*) and *bajra* (*Pennisatum typhoides*);

Wheat: *Triticum spaerococcum*,

Barley: hulled type;

Fruits and Spices

Culture of different varieties of fruit crops and spices for the manufacture of spirituous liquor and for other purposes was carried under state control. The study of the crops showed presence of both indigenous and alien plants.



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Legumes

Chick-pea (*Cicer arietinum*), lentils (*Lens esculanta*), grass pea (*Lathyrus sativus*), pigeon-pea (*Cajanus cajan*);

Oil-seeds

Castor (*Ricinus communis*);

Green Vegetables

Green vegetables classified into two categories, viz. roots and fruits with a combination of indigenous and alien plants.

Dye Crops

Cultivation of dye-crops, viz. indigo, safflower (*kusumbha*), are specifically mentioned in literatures.



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Water management

The period evinced large scale irrigational practices. These comprised of the following:

- ❑ Flood-water letting into lake excavated to hold water for the purpose of irrigation.
- ❑ The lake *Sudarsana* was excavated by Asoka to facilitate irrigation. It was connected with two rivers of western India.
- ❑ In case of canal irrigation in which the main canal is stated to have been provided with two sub-canals, one serving as feeder and the other as supplier.
- ❑ Control of water by construction of sluices threw light on proper distribution of canal water for irrigation.



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- ❑ **Well-irrigation** was observed which consisted of large scale well-irrigation with two types of well, namely, ring well and soak well.
- ❑ **Panini** also referred to two types of well, *Karkandhu* and *Sakandhu*.
- ❑ **Canal irrigation** was also noted. The canals were kept full either 'by hand' with the aid of water-skins or balance pole, or by water transported, on the backs of animals, or by using a bucket-chain.
- ❑ **Water-lifting devices** were comprised of mechanical lever, wheel and axle, and employment of animal power.
- ❑ Systematic arrangement of channels for inflow and outflow of water from the field was made
- ❑ **Conservation of rainwater** in channels and its distribution in paddy fields were also done.



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Animal husbandry

- ❑ The domesticated animals were Cattle, horse, donkey, camel, buffaloes, goat, sheep and pig.
- ❑ Medical treatment for animals arranged in different places of the country.
- ❑ Herders had the basic knowledge of animal breeding.
- ❑ Castration was practiced and there was specific age of bull for castration.
- ❑ Feeding of livestocks with specific food substances was a redeeming feature during this period. Apart from grass, straw and water feed substances were a number of vegetable substances, animal products, oil and oil-cake, rock-salt and sugar for nourishment of cattle, mule, donkey, camel and horse.



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- ❑ Cattle-grazing was of shifting pastures both in village and in forest areas wherever there was a source of drinking water for cattle.
- ❑ Proper care about breeding-bull and milch animal.
- ❑ Progress in dairy fanning by proper maintenance of cattle with the supply of various nutritious foods, was evident.
- ❑ Apart from milk of bovine species, goat and sheep-milk also used. A new technique of preservation of milk came into practice in which milk was soaked in a piece of dry cloth and was dried up there for future use.



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Fishery

Use of **fish** and some other aquatic species particularly **mollusk, snails, turtle** for human consumption were evident from the prehistoric period.

Human settlements were found to have been developed by the sides of river or any other places of water for fish which formed one of the principal foods.

Apart from dietary value, the shells obtained from the above shelled animals, are found to have been used **for the manufacture of different articles** of luxury and use. Frequent occurrence of these articles is noticed in during ancient period.



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- ❑ Fisheries were controlled by state with the imposition of various taxes and tolls and injunctions against fish-catching on some specific days, as fishery conservation.
- ❑ Fish-culture in irrigation tank is also evident.
- ❑ Name of different fish species were found in ancient texts, of which Gangetic species were shark, eel, skate or ray and species of mountain-lakes were red carp, snake-headed fish, boal sykes.
- ❑ In cultures fishery, flour and oil-cakes were general fed for fish.
- ❑ Fishing equipments were included net, line, basket, trap and spear. The basket trap used to set in pits and holes of river for capturing fish. Fishes were dried and exported to other countries.



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Poultry

Poultry as a regular practice with the use of egg and flesh of fowl, was noticed with the imposition of injunction against killing of cock on some specific days.



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Sericulture

- ❑ The available material shows silk mostly derived from wild or semi-domesticated species. The *Arthasastra* specifically mentions four trees on which the silkworms were found to occur.
- ❑ Magadha (North Bihar), Pundra (Pundravardhana, *i.e.* North Bengal), and Suvarnakudya (identified as Murshidabad and as Assam) were the places famous for silkworm rearing. Silk-worms reared in these regions are the wild types. The places referred to in the *Arthasastra* are still the places of India where wild silk of best quality is found.



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Farm implements

- ❑ Farming involves a number of operations starting from the forest clearance and soil-treatment to the un-husking of corn and transportation of the same from one place to another.
- ❑ Use of iron in the construction of plough-share or cultivator in place of wood in the earlier period, the use of plough-share and trowel for smoothing the surface after ploughing.
- ❑ It also evidenced the use of tools like plough, spade, trowels, sickles and hoe as specifically mentioned in the *Arthasastra* and Panini's text.



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Farm work force

The period was marked by different classes of labourers. Labour in crop and animal husbandry was categorized by the following.

Owner or occupier:

Half-share-cropper:

Hired labourers:

Existence of skilled and unskilled labourers was there in all farming activities including livestock farming.



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- ❑ The Buddhist texts lay down one *masaka* as a wage of hired labour in general.
- ❑ Discussion to a great length is made in the *Arthasastra* in a chapters on Superintendents of agriculture and cattle.
- ❑ The Buddhist texts refer to some labourers who were believed to be temporary. They were the watcher of growing crops and the like.
- ❑ The minimum wages of day labourers ranged from half-a-pana to one and half pana.
- ❑ The *Arthasastra* clearly declared penalties for breach of contract by a labourer in addition to liability for any damage caused by the negligence of duty.



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