

URBANISATION IN KAUTILYA'S ARTHASAstra : ARCHAEOLOGICAL EVIDENCE

Sukriti Khanna

Research Scholar, Dept of AIHC & Archaeology
Panjab University, Chandigarh
Email: sukriti259@gmail.com

Abstract: *The Arthasastra is a treatise on statecraft and economics ascribed to Kautilya. The Arthasastra contains 15 adhikarans or books with 150 chapters and 6000 shlokas. The Arthasastra deals with the different aspects of politics and economics. The text throws ample light on the town planning regarding Vastu, drainage system, forts, paths, roads etc. The city Planning is discussed in the Arthasastra in the great details. The excavations carried out at the places such as Taxila (Bhir Mound) reveals a coherent plan and at Sirsukh (near Taxila) suggest a fortified urban complex which was distinctively Parallelogrammatic in shape. The detailed guidelines for laying out of city was not an utopian idea, but it seems that by the time of the composition of the Arthasastra, the city was planned quite carefully taking into consideration several factors. The text provides a fairly good picture of the urban milieu and constitutes an important source for knowing the life and conditions of the people inhabiting towns and cities during those times.*

Key Words: *Urbanisation, Mauryan Period, the Arthasastra, cities, town planning.*

1. INTRODUCTION:

The existence of towns and cities in India can be traced from the period of the Indus valley civilization dating back to 2350 B.C. Then after the break of thousand years from around 600B.C. we again come across towns and cities associated with two major civilizations namely Aryan civilization of the north and the Dravidian civilization of the south. During Mauryan and post Mauryan periods from 300B.C.-A.D.600 the cities grew in number and in size in northern as well in southern India. With the discovery of the manuscript of the *Arthasastra* in 1905, began the zealous study of its problems. It was welcomed by nationalist and imperialist historians alike, for both found an excellent opportunity to use this great manual of statecraft for their respective aspirations. None questioned the traditional date of the third century B.C. assigned to the text in the initial stages. But slowly the date and authorship became the focal point of debate for the scholars working on Indian history. The range of suggested dates lie between the Mauryan and the Gupta period of Indian history. The *Arthasastra* as we know was apparently compiled during the Mauryan period. It belongs to a literary genre and like the *Dharmasastras* is a narrative of a century old tradition going back to the pre-Mauryan epoch.

2. OBJECTIVES:

The present paper seeks to study the urbanization during the Mauryan period viz. different types of cities, forts and town planning with its evidences from excavation reports.

3. METHODOLOGY:

Historical and analytical method is used in the present study. The entire study is mainly based on primary sources. Secondary data is also used to supplement the information from the primary sources.

4. DISCUSSION:

A city, as a concrete expression of the motive forces and ideas regulating the life of the citizens, is the noblest monument of human art and conception. To make a city more disciplined, planning of its roads, markets and *Arthasastra* classification of city into different settlements is really important.

To study the town-planning of the Mauryan period, the of Kautilya is the main literary source. The accounts of the Greek ambassador Megasthenes, the *Mudraraksasa* of Visakhadatta and some of the Buddhist text are also helpful. From the archaeological point of view, we have the inscriptions of Asoka, coins of the period and the excavation reports of the different cities of the period. However, the inscriptions provide a limited information of the towns and town-planning of the period. In Kautilya's *Arthasastra* the urban settlements are classified into different categories. *Nagara* was a settlement which was surrounded by a wall and a moat and was marked by the prevalence of the laws and customs of the guilds of artisans and merchants. *Sthaniya* was located at the centre of 800 villages. It served as a capital and the main administrative town of a janapada and the treasury of the kingdom. *Dronamukha* was

a town located at the centre of 400 villages. *Dronamukha* was located at the mouth of a river and served as a port city. *Karvatika* was another administrative town, located at the centre of 200 villages. *Panya-Pattan* was a commercial town, where all commercial activities and dealings were performed. *Pattan* was a port town, where superintendent of ships strictly observed the customs prevalent in commercial and port towns. It was a large commercial port, situated on the bank of a river or sea. It was frequented by traders from distant lands coming on commercial missions.

The *Arthashastra* deals with forts in detail. According to the text a fort should be circular (*vrtam*), rectangular (*dirgham*) or square (*catursram*) in shape. The fort should be surrounded with an artificial canal. Around the fort three ditches should be constructed. The intermediate space of the ditches should be fourteen, twelve and ten *dandas* each and the depth of the ditch should be one half of the width, it should be square at the bottom and one third as wide as at the top. *Arthashastra* There should be defensive fortification against the enemy. This could be a water fortification (*audaka*), a mountainous fortification (*parvata*), a desert (*dhanvana*) or a forest fortification (*vanadurga*). Among these, water and mountainous fortifications are best to defend populous centres. The text provides details about capital city (*sthaniya*), its planning and measures to be taken for its protection against the enemy. The text also talks about the *raja-margas*, *vastu* and gives information about the encroachments and the punishments to the defaulters.

Many scholars have said that the town-planning in the *Arthashastra* was a normative one. But the study of the contemporary literary sources, accounts of Megasthenes and above all the archaeological reports of the contemporary Mauryan cities proved that whatever is stipulated in the *Arthashastra*, regarding the town-planning was actually adhered to while laying the foundation.

The first and the most-important city of the Mauryan period was Pataliputra, which was the capital city of the Mauryas. Visakhadatta in the *Mudrarakasasa* has given this city, another name, Kusumpura. The excavation reports show that Pataliputra, the capital city of the Mauryas, was planned on a magnificent scale. The city of Pataliputra was the shape of a parallelogram and was girded by a wooden wall pierced with loop holes for discharge of arrows. It had a ditch for defensive and sewerage purposes, as mentioned in the *Arthashastra*. The account of Megasthenes further corroborates the information of the *Arthashastra*. Megasthenes informs us: "The greatest city in India is that which is called Palimbothra, in the dominions of Prasians, where the streams of the Erannobos (this is Greek corruption for Hirannavati, modern Sone) and the Ganges unite. This city stretched in the inhabited quarters to an extreme length on each side of 80 stadia (nearly two miles), and a ditch encompassed it all round, 600 feet in breadth and 30 cubits in depth, and the wall was crowned with 570 towers and four and sixty gates. There were smaller doors between the main gates and there were really three brick lined moats (*parikha*) in quick succession. The royal palace occupied a central position and placed in a fine wooden park laid out with fountains and fish ponds." Asoka, in one of his inscriptions has referred, Pataliputra as his capital city (R.E.V) and the centre place of his domain. The Pali text *Mahaparinnibbana Suttanta* and the *Suttanipatta* also describe "Pataligama" as the greatest city in India under the Mauryas. In the *Mahaparinnibbana Suttanta*, the word *Putabhedana* is used for Pataliputra which means a big commercial centre.

Sisupalgarh is the another excavated city, which fully confirms the town-planning described in the *Arthashastra*. Sisupalgarh was the fortified town, square in shape as mentioned by Kautilya. The site, each side measuring 102km. is protected by a fort wall, encircled by a moat fed by a perennial stream. The defences consist of a massive mud rampart (*vapra*), overbuilt by a *Prakara* (wall of earthen core) with brick facings. Two gateways symmetrically pierce the fort wall on each side, articulating 8 gates, each facing a spinal straight road in a regular grid pattern. Excavation of one of the gates, built of large stone blocks with brick superstructure, revealed an elaborate plan with an ancillary passage, a guard room and lateral stairs for ascent to the upper storey of the gate house and the connected fort wall. A road passed through this gate, bearing track marks of vehicular traffic. The exposed plan of Sisupalgarh answers to the fortified square town plan of Kautilya. The difference is that instead of 3 spinal roads running east-west and three across, as prescribed, the site has 2 roads east-west and 2 across forming a grid with 8 nodal points for gates instead of 12. As the site was continuously occupied from c.300 B.C. to c.A.D.350, this town was probably the capital of the Kalinga kingdom invaded by Asoka.

The planning of Taxila confirms actual application of the principles of town-planning stipulated in the *Arthashastra*. On seeing the planning of Taxila, clear division of town by roads and lanes can be confirmed. Adequate arrangements were made for the cleaning of the roads and streets, as one notices the round refuse bins placed in the open squares and the streets. The streets were regularly cleaned by the town sweepers. The rough stone pillars were found, which were about 3ft. high above the ground acting as the wheelguards, to prevent the corners of the houses from damage by passing carts or chariots. The houses were comprised of open courtyards (*angana*) surrounded by rooms. The well planned drainage system of Taxila is also confirmed by the excavation reports.

The vertical excavation carried out at Hastinapur (NBPW phase) (Period III), reveals that houses were made by the mud bricks as well as burnt bricks and were oriented along cardinal directions. A sense of town-planning is thus evident. The excellent drainage system suggested by the *Arthashastra* is further corroborated by the excavations at the Hastinapur. Among the burnt brick drains, an excavated specimen of 3ft. deep was traced. It also possessed a brick floor and lining, which was traced for 24ft. these were perhaps civic drains. In case of individual houses several vertically placed long jars have been found, which generally served as soakage pits. The excavated terracotta ring

wells were of two types. Some were shallow, with only few rings while those of the second type went much deeper. The first type possibly denoted a soakage pit, whereas the second type denoted a well in the real sense of the term. The period assigned to the settlement is 2nd century B.C. to 3rd century A.D.

Another important city of the period (NBPW phase) (600B.C.-50B.C.) is Atranjikhhera. The first phase of period IV is associated with the age of the sixteen Maha-janapadas and the ultimate rise of Magadha. The second phase is associated with the Mauryas and Sunga ages. The upper phase is marked by the rapid growth of urban life, as the structural activity include a mud defence wall, a granary and an apsidal temple. The settlement seems to have grown into a full- fledged town during this period.

5. CONCLUSION:

The above study shows that the town planning depicted in the *Arthashastra* was not only suggestive but it was actually adhered to by the town planners. The city described by Kautilya was by every standard a strictly regimented one as specified by the excavation reports of the contemporary Mauryan cities. The *Arthashastra* provides a fairly good picture of the Mauryan urban milieu and constitutes an important source for knowing the life and conditions of the people living in towns and cities.

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