CHAPTER- V
Fortification and Siegecraft

The ruler of a state surrounded by ambitious kings, has to take both defensive and offensive measures. While fortification safeguards a state from the outside invasions, siegecraft makes a king stronger and flourishing. In early periods, kings generally attached much importance to fortresses, for they served as the main base to defend the kingdom against the outside invasions.

History furnishes many instances where the fall of a capital has been responsible for the fall of a kingdom. It has therefore been desirable that the capital city should be so protected that the enemy can not conquer it with ease.

Hence the capital city of every ruling chief, was surrounded by fortifications, either natural or artificial. The authorities on statecraft considered the fort as one of the seven constituent elements or limbs of the state. These seven constituent elements are : the king, the minister(s), the country, the fortified city, the treasury, the army and the ally.\(^1\) In the scheme of things, the fortified royal city is given more importance in preference among the four

\(^1\) svāmy amātyajana\_padadurgakośadaṇḍamitrāṇi prakṛtayāḥ (As. VI.1.1).
later elements, *viz.*, the royal residence, the treasury, the army and the ally, since the city or the fort houses the royal residence, i.e. the king who is compared to the head of the human body, and at whose safety depend the other elements.

Fortification are both natural and artificial. Generally, water fortifications, mountain fortifications, desert fortifications and forest fortifications are known as natural ones (*daivakṛtam*). Out of these forms again, the water and mountain fortifications are considered the best, because these are impassable and unsurmountable barriers to the invading enemy, and thus can afford ampler protection to the people.

On the other hand, fortifications which were specially constructed with a view to defending the capital from an invading enemy, are known as artificial fortifications. Kauṭilya stated that in all four quarters, on the frontiers of the country, the king should cause a nature-made fortress, equipped for fight to be made: a water fort (either) an island in the midst of water or high land shut in by water, (or) a mountain fort (either) consisting of rocks or a cave, (or) a desert fort (either) one without water and shrubs or a salty

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2. Bhoja in his *yuktikalpataru* classifies forts under two heads, *viz.*, *akṛtrima* (natural) and *kṛtrima* (artificial). So far as the artificial fortresses is concerned the name of *Agnigada* of Bānāśura, king of Sonitpura may be mentioned.
Among the above mentioned forts, a river fort and a mountain fort are place for the protectors of the country; a desert fort and a jungle fort are place for foresters or places of retreat in times of calamity.

Manu however, speaks of six kinds of fortresses and says : a king should build a town making a fortress (for his safety) protected by a desert, or a fortress built of (stone and) earth or one protected by water or trees, or one (formed by an encampment of armed) men or a hill-fort. cf.

\[
\text{dhana}vadurgaṁ \text{mahādurgaṁ ab}durgaṁ \text{vārksameva vā} / \\
\text{nṛdurgaṁ giridurgaṁ vā samāśriteya vaset puram} / \\
\]

Manu describes the utility of forts well in the following verse:

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\text{‘ekah śatāṁ yodhayati prakāraṣṭho dhanurdharaḥ} / \\
\text{śatāṁ daśa sahasrāṇi tasmād durgāṁ vidhiyate’} / \\
\]

"one bowman, placed on a rampart, is a match in battle for

3. caturdiśaṁ janapadānte sāṁparāyikam daivakṛtam durgāṁ kārayet, antardvīpani sthalāṁ vā nimmāvaruddhamaudakāṁ, prāṣṭaraṁ guhāṁ vā pārvatāṁ, nirukkastambamāriṇāṁ vā dhāvānaṁ, khanjanodakāṁ stambagahanaṁ vā vanadurgaṁ. -As. II.3.1.

4. tesāṁ nadiparvatadurgaṁ janapadāraṇkṣasthānaṁ, dhāvānaṇavandaurgam-

5. cf. MS. VII. 70.

6. ibid. 74.
one hundred; hence it is prescribed (in the sāstra) that a king shall possess a fortress.”

Among the six kinds of Durgas Manu prefers giridurga (hill fort).\(^7\) Mahābhārata also speaks of these six kinds of fortresses in its Sāntiparvan chapter 86.5.

Kauṭilya while describing (As. II) the duties of the various executive officers of the state, it includes a wide range of discussion on building of forts alongwith questions on unoccupied land, laying out the capital etc. it has been found that every fort town was surrounded by a deep and wide ditch closely touching the lofty rampart walls thrown around. Here in these ramparts usually poisonous and thorny plants were allowed to grow.

According to Kauṭilya, in the construction of rampart one must see that on the outer portions there should be no space, whatsoever, for movement of any sort, and the few openings allowed should be covered with invisible obstructions; on the inner side of these ramparts, there must be two platforms on opposite sides, a big halt, two upper stories provided with an ascending and a descending stairecase, iron bolts, massive beams, and turrets being thrown over the huge gates; on the top of the rampart, king should cause

\(^7\) sarveṇa tu prayatnena giridurgam samāśrayet / eṣāṁ hi vāhugunyena giridurgam viśiyate // -ibid. 71.
a parapet to be built; having fixed an opening equal to the width of the parapet, king should also cause the *gopura-*(gate) to be made, with one-third shaped like a lizard’s mouth. Having made a well in the middle of the parapet, he should erect the *puskarini* gate; with four halls at a distance of one *danā* and a half from each other and with holes, the *kundāri-pura gate*; a bare house with two stories, as the *mudaka-gate*; or he should erect gates in accordance with the (availability of) land and materials.  

Kautilya speaks of the construction of the royal palace inside the fort. In the ninth part to the north of the heart of the residential area king should cause the royal palace to be built in accordance with the procedure laid down, facing the east or the north. To the north-east of the palace lived the priests, ministers and other higher officials, while to the south east there are the kitchen, elephant stables and the magazine. Beyond that, dealers in perfumes, flowers and liquids, makers of articles of toilet and Kṣatriyas lived in the eastern quarter. Workers in wool, yarn, bamboo, leather, armours, weapons and shields and Śūdras lived in the western quarter. Grain-dealers of the city, factory officers and army officers, dealers in cooked food, wine and meat, courtesans, dancers and Vaiśyas lived

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8. *Aś. II.* 3.31-32.
in the southern quarter. The tutelary deities of the city and the king, and workers in metals and jewels and Brähmins lived in the northern quarter. In the heart of the city there should be a number of temples devoted to different cults. In the northern and eastern directions were situated burial grounds for the lower castes and in the south those for higher castes. Heretics and the Caṇḍāla community had their quarters beyond these grounds. A well with good drinking water should be dug at a distance of every ten houses. All the essential articles of daily use, such as food-staffs, oil and salt, should be stored inside the fort so as to suffice for long periods of siege. Thus it appears that forts were systematically designed.

Inside the fort canals (kulya) should be constructed for storing weapons. “In them should be stored stones, spades, axes, arrows and choppers, clubs and hammers, sticks, discusses, machines and hundred killers (Śataghnī), together with spears, tridents, bamboo sticks with pointed edges made of iron and explosives (agni-samyogas).”

Mahākavi Māgha in his Śiśupālavadha mentioned about Dvārakāpuri which was situated in the midst of sea. It was the

11. As. II. Ch. 3-4.
12. As. II. 3. 34-35.
capital city of the ruling chief of yādavas, and it was surrounded by natural water fortifications. Giving a beautiful description of the city, Māgha states that just as the world, which is full of thousands of hills and mountains, are found to be surrounded by sea-water, Dvārakāpurī, created by Brahmā is also a city where thousands of kings live and well protected by sea-water. It can also be understood from śloka. 66-67 of third canto that there were stables for horses and elephants. In śloka 69 of the same canto indicates the number of gateways with passage, open and secret both through land and water which is treated as most essential for the fortresses by Kayṭilya in his Arthaśāstra.

As a source of great defence, fortifications were a valuable feature of ancient states. But it is also true that the existence of mere fortresses would not produce the intended effect. So, these should be garrisoned with a large well-equipped soldiers, engines

13. kṛtaspadā bhūmibhratāṁ sahasairudanvadambhaḥ parivitamūrtiḥ / anirvida ya vidadhē vidhātra prthvī prthivyāḥ pratīyātaneva // -Śiśu. III. 34.

also,
balormibhistatkaṇahiyamānārathyābhujāyā valayairivasyāḥ / prāyeṇa niśkrāmāti cakrapāṇau neṣṭāṁ puro dvāravatītvamāsit // -ibid. 69.
and water-supply. Without sufficient provision of these any amount of defence would be neither adequate nor efficient. It was the most important duty of a king to see that a fortress is properly maintained to stand an effective siege. Manu opines that “the fort should be well supplied with weapons, money, grain and beasts of burden, with brāhmaṇas, with artisans, with engines, with fodder and with water.”

On the reasons for entrenching oneself in a fort after making war with a strong king Kautilya states that, “in the absence of help-mates, a weak king should find shelter in a fort where the enemy, even with a large army, would not cut off his food, fodder, fuel and water, and would himself meet losses and expenses. Among forts equally impregnable, superiority comes from stores and refuge.”

As the authorities on statecraft discuss about the defensive and offensive measures to be taken by a king, fortification is greatly recommended as defensive measure, whereas siegecraft is for offensive one. Kautilya discusses about the sedition of enemy’s fort through secret agents. He then suggests of destroying the crops or sowings of one entranced in an inaccessible fort, also his

16. *Aṣ. VII. 15. 9-11.*
supplies because, according to him, the work of ‘laying siege’ to a fort should be preceded by weakening the enemy\textsuperscript{17} cf. \textit{karśanapūrvarm paryupāsanakarma}. He speaks of besieging a fort by means of entering through underground passage storming by troops and elephant-armour.\textsuperscript{18} Elephant-armour is regarded as town breaker (pura-bhettārāḥ) in the \textit{Mahābhārata} also.\textsuperscript{19} A besieging king also may assail the rampart by making use of underground tunnels and rods.\textsuperscript{20}

Now it is to be seen how the siege operations were conducted and what devices and tactics were adopted to get possession of the adversary's fortresses. When an enemy defeated in battle takes shelter in a fort, his overthrow has to be achieved by besieging and capturing it. The siege was actually a costly exercise; in Kauṭilya’s words, it entailed losses of men, heavy expenditure and long absence from home. The absence from home of a king may arise the possibility in his own kingdom of internal rebellion, palace coups, intrigue and treachery. It was, therefore, essential for the aggressor to capture the fort in the shortest possible time at

\begin{itemize}
\item \textsuperscript{17} \textit{ibid.} XIII. 4.1.
\item \textsuperscript{18} \textit{ibid.} 9-10.
\item \textsuperscript{19} \textit{sarve ca purabhettāro navameghanibhā gajāḥ / etad rājan mama dhanam tena divyāmyaham tvaya} // \textit{-Mbh. Sabhā, 61. 17.}
\item \textsuperscript{20} \textit{surāṅgābalakatikābhyāṁ - vapraprākāran hārayet. -Aś. XIII. 4.9.}
\end{itemize}
minimum cost to himself. Kautilya describes a variety of methods in logical order. According to him the five means of taking a fort are secret instigation, secret agents, drawing out (of the fort), laying siege and storming.²¹

Before laying the siege, the aggressor may wage psychological war (upajāpa)²² with the aim of frightening the people inside the fort and boosting the morale of his own people, subverting the enemy’s high officials or depopulating the territory of the enemy.

If this does not succeed, the aggressor shall try to draw out the enemy from the protection of the fort by various clandestine methods and kill him (yogavamana).²³

If the attempts at killing the enemy prove to be impracticable or if they fail, the conqueror shall set about weakening the enemy (apasarpa).²⁴ The methods suggested include a trusted subordinate of the conqueror gaining the enemy’s confidence and then betraying him and using allies or the enemy’s enemy. The next possibility is for the aggressor to infiltrate his own forces into the fort, so that it can be taken from inside.

Laying seige (paryupāsana) and taking the fort by direct assault

²¹ upajā'popasarpaśca vāmanam paryupāsanaṁ / abamardascā pañcaite durgalambhāsyā hetavah // -Aś. 13.4.63.
²² Aś. 13.1.
²³ ibid. 2.
²⁴ ibid. 3.
(avamarda) is the last resort. However, there are still some steps which could be taken to weaken the enemy before the siege is actually laid. Removing the civilian population from around the siege and fort area is one; Kautilya, however, is of the opinion that there shall be no permanent loss of population from the area which will, after victory, become that of the conqueror. For, 'there cannot be a country without people and there is no kingdom without a country.' Reducing the supplies available to the enemy for withstanding the siege is another precaution.

The aggressor shall then strengthen his own siege camp and lay the siege at right time. While carrying out activities like undermining ramparts and breaching the walls, the besieger shall try to avoid further bloodshed and get the enemy to surrender by using the four methods of conciliation, gifts, sowing, dissensions and force.

Even when the enemy’s strength is depleted, there are alternatives to direct assault. The enemy can be tricked into coming out of the fort by pretending to withdraw the siege and convincing him using different types of people that it is safe for him to come out.

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He shall then be killed.

When all else fails, there is no option but to take the fort by storming it. The rules for the assault also specify that those inside the fort who surrender or do not take part in its defence shall be spared.

When the fort is taken, it should be cleared of all supporters of the enemy and suitable precautions taken to eliminate the possibility of secret attacks.

Having thus captured the enemy’s fortress, the invader should show mercy to the weak and the wounded. He must remove all his enemy’s soldiers and warriors and replace them with his own men, lest the former should do any mischief. Then he should make a triumphal entry into the palace with all the paraphernalia of a victor.

Modern military experts however, of the views that as conditions exist at present, fortresses are not necessary and the men garrisoning them might be better employed in other places. They entail enormous and wasteful expenditure for their building, maintenance, and garrisoning with troops. In fine, fortresses are seldom anything but an incubus according to modern war experts and authority.