CHAPTER- VIII

[The Combat: Army on the March, Battle Formation (vyūha) and Other Strategems, the Codes to be followed, Musical Instruments used in War].

A. Army on the March:

Ancient Indian authorities on statecraft appear to have attached great importance to the placement of the army to the position in the theatre of war, as well as to the military strategy, time for marching, order of march etc. It was universally recognised that the four different divisions of the army, i.e., the infantry, the cavalry, the chariots and the elephantry required different grounds for the proper discharge of their functions during the time of war. Kautilya appears to have given much stress on these aspects. He holds that the primary consideration which should weigh with a general in selecting a position must be the character and composition of his forces. In the Arthaśāstra, he states: “Favourable positions for the infantry, the cavalry, the chariots and the elephantry are desirable both for the war and the camp. For men who are trained to fight in desert tracts, forests, valleys or plains, and for those who are trained to fight from ditches or heights during the day or
night, and for elephants which are bred in countries with rivers, mountains, marshy lands, or lakes as well as for horses, such battle-fields as they should find suitable are to be selected.”

As regards the preferring of the time for the operation of war, autumn and spring are said to be well-suited, and all the authorities on statecraft seem to agree on this point. This period is the time of harvest and of plentiful water supply. Moreover, these seasons are neither very hot nor very cold. One may find support to this view in the Śāntiparvan of the *Mahābhārata.* However, military operation do not seem to have been restricted to these seasons alone. Manu also holds such a view in this respect.

According to Kauṭilya, the time for a military expedition should depend primarily on the nature of one’s own forces. “That in which the season is suitable for the operations of one’s own army, unsuitable for those of the enemy, is the best time, the opposite kind is the worst, alike to both is middling,” observed Kauṭilya. However, under special circumstances and for the achievement of special objectives, expedition might be undertaken during other seasons of the year also.

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1. *Aś. X. 4. 1-2.*
2. *Mbh. XII. 100.11.*
3. *mārgaśīrṣe śubbe māsi yāyād yāśāṁ mahiṣāṭih / phālguṇaṁ vāthu caitrāṁ vā māsau prati yathābalaṁ // -MS. VII. 182.*
4. *Aś. IX. 1. 25.*
Regarding the march of the army from one’s own capital to that of the enemy’s, certain conditions are laid down by the ancient authorities. Certain forms of orders are to be followed by the troops while on march. Details of such orders may be noticed in the authorities like the *Arthaśāstra*, the *Nītisāra* (of Kāmandaka), the *Manusamhitā*, etc. Kautilya suggests that the instructor (*praśāstā*) with his retinue, carpenters and free labourers should carefully march in front of the road, and should take protective measures and dig wells of water for those coming behind.5

This order of march is approved in the *Kāmandakiya* also, but with a slight variation. “The Nāyaka”, states Kāmandaka, “should proceed in front accompanied by picked men of the host. The king should be stationed in the centre along with the harem, the treasure chests as well as the weaker troops and so on and so forth.”6

The marching army should proceed forming a perfect battle order so that it can prevent any kind of danger. Kautilya, Kāmandaka, Manu and also the *Agnipurāṇa* give detailed descriptions about arrays to be formed while on march. Manu opines that a *vijigīṣu* (king) should proceed against enemy’s capital in the manner prescribed for warfare having cleared the three kinds

5. *ibid.*, X. 1. 17.
of roads and having made his six-fold army efficient. cf.

*samsodhya trividham mārgatān śaḍvidhaṇca balaṁ svakam / sāmparāyikakalpena yāyādaripuratān śanaṁ /*

He also suggests that the king should march along with his retinue, on the road arraying his troops like a staff (*danda-vyūha*, i.e., in a long line) or like a waggon (*śakaṭa-vyūha*, i.e., a cart-shaped), or like a boar (*varāha-vyūha*, i.e., in the body-shape a boar), or like a *makara* (i.e. in form of a crocodile, like two triangles with the epices joined from two ends), or like a needle (i.e., *sucya-vyūha*, filed in a single column with the point narrowed gradually as in a needle), or like the shape of the Garuḍa(-bird) (i.e. in a rhomboid, with the wings extended outward). cf.

*danda-vyūhena tanmārgatāṁ yāyātu śakaṭena vā /
varāhamakarābhyaṁ vā sucyā vā garuḍena vā /*

Kauṭilya suggests that “when there is a threat of attack in front’ he should march in the crocodile array, in the rear, in the cart array, on the two flanks, in the thunderbolt array, on all sides ‘in the excellent-on-all-sides array in a region where march in a single file alone is possible, in the needle array” cf.

*purastādabhyāghāte makareṇa yāyāt, paścācchakatena,*

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7. *MS. VII. 185.*
8. *ibid., 187.*
pārśvayorvajreṇa, samantataḥ sarvatobhadreṇa, ekāyane sūcyā / 9

In the Kāmandakiya also come across similar views. 10

B. Encampment:

Similarly, so far as the encampment of the army is concerned, the ancient authorities attached great importance to the selection of a suitable site. The Arthaśāstra recommends that the site for encampment should be selected and measured by experts in vastuvidyā, the nāyaka (commander), the vārdhaki (the chief artificer) and the astrologer. cf.

vāstukapraśaste vāstuni nāyakavardhamahuhūrtikāḥ
skandhāvarāṁ... / 11

Some principles laid down in the Arthaśāstra are: person(s) well conversant with the art of architecture should at first select the site; then the commandant, carpenters and astrologers should establish the camp. The camp should normally be circular, rectangular or square, or in conformity with the nature of the ground. Each camp should have four gates and six roads, and nine

9. As. X. 2. 9.
11. As. X. 1. 1.

The skandhāvāra means the sīvira i.e., camp. Other terms for sīvira are kaṭaka, upakārikā (in the Barrackpur Copperplate Inscription of Vijayasena, Inscriptions of Bengal, III, 57 ff), upakārya (Raghuvaṁśa. XVI, 55). Again, the epithet skandhāvāra stands for the capital city in Kāmarūpa Inscriptions.
divisions endowed with a moat. A rampart should be constructed at the perimetre if the camp should stay at the same site for a long period.\textsuperscript{12} Kautilya also states that the king's place should be located to the north of the centre of the camp, and it should be south facing; one hundred \textit{dhanus} in length and half that in width, with the royal harem in the western half of that; the palace guards should be stationed on the borders; in front, the audience-hall should be erected; to the right of the king's quarter, the treasury and offices for issuing orders and carrying out works should be erected; the place for elephants, horses and chariots intended for the kings's use should be to the left of the king's quarter; the royal core of the camp should be encircled by four tiers of soldiers; the traders and prostitutes should be accommodated on the sides of the main road; on the perimeter would remain the trumpeters, some signallers and the fire throwing guards; drinking, gambling, quarrelling etc. should be strictly prohibited in the camp area; to ensure security, patrolling should be done during day as well as night, and on the possible approach routes of the enemy, open wells, wells camouflaged with grassy covers, and similar traps should be dug.

However, most recorded instances show that the neighbourhood

\textsuperscript{12} \textit{ibid.} X. 1. 1.
of a river was generally preferred. The Pāṇḍu camp in the Mahābhārata war was found to be laid close to the river Hiraṇvatī. In the Harṣacarita also, it is stated that the imperial camp, where Bāṇa met the emperor, was pitched near Maṇitāra along the Ajiravatī river. This preference for river-banks might have been due to two causes, — first, the desire to secure an adequate supply of fresh water for the army, and second, the need of filling the moat round the camp from the stream.

In the Arthaśāstra, Kauṭilya has not specifically shown any preference for the river-bank for laying the camps. In the Śiśupālavadha, also, Māghapāṇḍita has not referred to such camps on the banks of river. On the other hand, following Kauṭilya, the great poet makes observations regarding the shape of the camps. Referring to a camp, Māgha says that, “the residences of chiefs were circular like the moon, (candrākṛtāni), made of white cloth, and kept in their position by means of ropes.” But occasionally, a camp was also made up of wooden huts. In fact, the camps appear to have retained the character of a miniature town. Māgha’s account of a typical eight century camp confirms it.

13. Mbh. Udyogaparvan. 60. 2.
14. Harṣacarita tr. by Cowel and Thomas, p. 56.
15. Śiśu. V. 52.
16. ibid. V. 21.
The order of march from the camp to the battle ground, according to Kautilya, should be: the commander in front, the king and women fold in the middle, horses and bodyguards on the flanks, elephants and reinforcements at the end and finally the Chief of Defence. The same should be the order of encampment. Moreover, he selected a site which was flat, cool, grassy and had plenty of fuel, i.e., wood; and the place was beautiful, too.

On the eve of the Kurukṣetra war, the Pāṇḍavas started for Kurukṣetra from Matsya, which was located at the south-western side of Kurukṣetra. Reaching the battle area the soldiers were halted for rest. While selecting the site for rest, Yudhiṣṭhira carefully avoided burning ghāts, temples, places of yajña, hermitages and pilgrimages.

Similarly, the Kauravas arrived from the south-eastern side, and they also selected a wide area and took pains to ensure that the entire area remained normally impenetrable to the enemy.

In the Śāntiparvan of the Mahābhārata (XII.100), Bhīṣma advised Yudhiṣṭhira that the region near a forest to be the best site for camping where the foot-soldiers should be kept concealed. Before laying any camp, the area should be surveyed thoroughly.

17. As. X. 2. 4.
He also said that the soldiers should be taken to the camping
ground through the path well known to the king.

C. Battle Formations (*vyūha*):

The ancient authorities on statecraft give detailed instructions
which are to be followed by the *vijigisu* in the battlefield also. It
is advised that the armies should form battle-arrays.

The term for battle array or order in Sanskrit is ‘*vyūha*’. Accordingly, the soldiers are to be organised in several battle
formations or *vyūha*, according to the plans and orders of the
Senapatis concerned. These *vyūha* are to be formed with the purpose
to coordinate action of all arms, units and sub-units in the battle
field, flung over a wide area, and to actuate them for a common
cause. In fact, the ranging of an army in battle-array was one of
the essential qualifications of the Commander-in-Chief. In the
*Mahābhārata* itself, the story of Abhimanyu fighting alone with
the *saptarathīs* within a *cakra-vyūha* very much well known. The
*Manusāṁhitā* provides description of a number different types of
*vyūha*. 19

Kauṭilya in his *Arthaśāstra* gives an exhaustive description
about how to arrange the forces (for a set-piece battle) starting
with positioning of reinforcements made up of the best forces at

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about a kilometre behind the battle ground. Following Kautilya, Māghapāṇḍita in his Śīṣupālavadha mentioned about various vyūha formed during the war between Kṛṣṇa and Śiśupāla depending on the prevailing circumstances.

It may be noted here that the Manusāṁhitā was composed, most probably, earlier than the Mahābhārata, while Kautilya composed his Arthaśāstra later than Mahābhārata (around c. 300 B.C). It may, therefore, be construed that the Manusāṁhitā being written earlier might have influenced the kings and Senapatis assembled at Kurukṣetra; but Kautilya, on the other hand, might have carried on the development of the war-science to more precision and elaboration. We find that the number of vyūha described in the Manusāṁhitā is much less than that of Kautilya, and the Mahābhārata. Kautilya’s description of the vyūha is more elaborate and well-developed in comparison to those of the other two. Kāmandaka also describes various kinds of vyūha in his Nītisāra, Chapter XIX.

So far as the battle formation is concerned, the Śīṣupālavadha, contains mere mention of it in a literary way, and hence details are lacking. It appears to be quite natural that Śīṣupālavadha is a

21. Śīṣu. XIX. 41, 46, 72, 120.
22. Nītisāra. XIX. 42. 46, 50-51.
court epic and not a military manual. However, as Māgha has accepted the *Mahābhārata* as the source of his *kāvya*, he has the tendency to highlight in his poem the war policies and war tactics depicted in the great epic. In fact, in the *Mahābhārata* also, *vyūha* formations are found in a literary way.

A brief description of the *vyūha* mentioned in the *Manusamhitā*, the *Arthasastra* and the *Śiśupālavadha* is given below.

The types of arrays formed depending on the prevailing circumstances, as described by *Manu*, are:23

*danda-vyūha*, (stuff-like, i.e., when the warriors march in a long single file array appearing like a long stuff)

*sakatā-vyūha*, (waggon-like, i.e. when the warriors march in the shape appearing like a cart )

*varāha-vyūha*, (Boar-like, i.e. in a rhombas, when the warriors march in rows, flattened in the middle and tappering towards the ends, taking the of the fat body of a boar.)

*makara-vyūha* (Makara (crocodile)-like i.e. when the warriors march in long file slightly flattend in the middle appearing like the shape of a crocodile)

*garuḍa-vyūha* (Garuḍa-like, i.e. when the array shaped like an open-winged bird)

23. *daṇḍavyūhena tanmārgaṁ yāyāt tu sakaṭena vā /
varāhamakarābhyaṁ vā śūcyā vā garuḍena vā //* -MS. VII. 187.
padma-vyūha (Lotus-like, i.e., when the array is shaped like a blooming lotus)\textsuperscript{24}

śūcyā-vyūha (Needle-like, i.e., when the warriors march in a long single-file array appearing like a long pointed needle)

vajra-vyūha (Thunderbolt-shaped array)\textsuperscript{25}

In the Kāmandakīya Nītisāra, there is mention of the following vyūhas: makara-vyūha, śāci-vyūha, vajra-vyūha, maṃḍala-vyūha, sarvatobhadra-vyūha,\textsuperscript{26} dhanus-vyūha, daṇḍa-vyūha, makaradhvaja-vyūha, prakṛti-vyūha,\textsuperscript{27} gomūtrikā-vyūha,\textsuperscript{30} ardhacandraka-vyūha, uddhāro-vyūha, vajro-vyūha, kukkutaśrīgī-vyūha, kākopādi-vyūha, godhikā-vyūha,\textsuperscript{31} etc.

It has already been stated that Kauṭilya gives an exhaustive description of how to arrange the forces for a set-piece battle,
starting with positioning of reinforcements made up of the best forces at about a kilometre behind the battle ground. According to him battle formations of different kinds should be arranged according to rules, so that the strength of the four constituents of the forces could be used appropriately.\textsuperscript{32}

Ušanas, an authority earlier to Kauṭilya have described a form battle array consisting of two wings, one at centre and the other reserves; but according to Bṛhaspati, it has two wings, two flanks, a centre and reserves. Kauṭilya seems to have agreed with both dispositions.\textsuperscript{33} and accordingly classifies the arrays into four basic groups. These are :

Staff array (\textit{dapḍa-vyūha} ) : The staff-array is defined as that operating evenly with wings, flanks and centre. (X. 6. 8)

Snake array (\textit{sarpa-vyūha} ) : It is one that operates unevenly with wings, flanks and centre. (X.6.24)

Circle array (\textit{cakra-vyūha} ) : When the wings, flanks and centre become one like a circle, it is the circle-array. (X. 6. 30)

Diffuse-array (\textit{asahanata-vyūha} ) : Because of the disjoined nature of the wings, flanks and centre, it is called the diffuse array. (X.6.34)

\textsuperscript{32} \textit{ṣtena vidhina vyūhānojān yugmāṁśca kārayet / vībhavo yāvadāṅgānāṁ caturpāṁ sadṛśo bhavet} // -Āś. X. 5. 57.

\textsuperscript{33} \textit{pakṣvāurasyaṁ pratigraha ityauśanaso vyūhavibhāgaḥ / pakṣau kakṣāvurasyaṁ pratigraha iti bṛhaspatyaḥ} // -Āś. X. 6.1-2.
Thus, the armies formed in different arrays could attack the enemy forces in a variety of ways. Kautilya gives a list of the sub-types of the basic four. There are eighteen sub-types under the ‘staff-array’ including the basic type; four under ‘the snake’; three under ‘the circle’ type and seven under ‘the diffuse’ type, thus a total of thirty-two types. Kautilya mentions the arrays, if an attack is anticipated, in the following way:

In the front - the makara, i.e., the crocodile type array.

In the rear - the šakaṭa, i.e., the cart-type array.

On the two flanks - the vajra, i.e., the thunderbolt-type array.

On all sides - the sarvatobhadra, i.e., the uniformly square-type array.

If the path is narrow permitting only single file, then the süci i.e., the needle-type (X.2.9) vyūha be formed.

In the Śīṣupālavadha, we may find that Māgha mentioned various battle formations or vyūha, like the makaravyūha, sarvatobhadra, murajabandhaḥ, gomūtrakābandhaḥ, ardhabhramakaḥ, cakrabandhaḥ. Māgha used the word bandhaḥ instead of vyūha.

It is to be noted here that there are similarities in respect of the battle formations mentioned by both Kautilya and Māgha with

34. Śiśu. XIX. 27, 29, 41, 46, 72, 120; XVI. 67.
those of the *Mahābhārata*. In the battle of Kurukṣetra, there is mention of the following formations:


These *vyūhas* were formed by Bhīma, Arjuna, Dronācāryya, Karṇa, Śalya, Yudhiṣṭhira, Dhṛstadyumna for different purposes on different occasions on different days of the Kurukṣetra war.

The *vyūha* described by Kauṭilya and mentioned in the *Mahābhārata*:

**Makara-vyūha**:

According to Manu, this formation should be adopted while the enemy attacks are apprehended from one flank or on both the flanks at a time; but Kauṭilya says that this formation should be adopted to fight the frontal attack of the enemy.

In ancient Indian scriptures, the *makara* is described as a whale-like sea-animal having the snout and the forelimbs like those of a deer.

In the *Mahābhārata* we find that the Kaurava army was deployed in this formation on the 5th day by Bhīṣma, and on the 16th day by Karṇa. The Pāṇḍavas used this formation on the 6th day by Kauṭilya and mentioned in the *Mahābhārata*.
day as ordered by Dhṛstadyumna against the krauñca-vyūha of the Kauravas.

Śakaṭa-vyūha :

This is a ‘T’ shaped formation consisted mainly of two wings-the right and the left, and two columns at right angles to the wings forming the central axis.

On the eleventh day of the Kurukṣetra war, Droṇācāryya, the then Kaurava Senāpati, organised the Kaurava army in this formation.

According to Kauṭilya, in case of an attack in the rear, one should march in the cart array. (X. 2. 9)

Vajra-vyūha :

This vyūha was like a ‘vajra’ in outline. Originally this vyūha was designed by Indra, the king of the gods. This formation allowed clear visibility and consolidation of strength. Flanks were less extended. The rear was kept ready with the columns of elephantry.

To fight the sarbatonukha-vyūha of Bhīṣma, Arjuna formed this vyūha, and Yudhiṣṭhīra employed this vyūha on the 7th day to fight against the maṇḍala-vyūha of Bhīṣma in the Kurukṣetra war.

Sarvatobhadra-vyūha :

Sarvatobhadra-vyūha is a type of the maṇḍala-vyūha found in the Mahābhārata. It was a circular formation adopted to encircle
the enemy. This type was adopted by Bhīṣma on the 9th day and by Śalya on the 18th day of the Kurukṣetra war. It is also called ‘mahā-vyūha’, meaning a great and dangerous formation.

Śūcī-vyūha:

The śūcī-vyūha is needle-shaped. The śūcī-vyūha is made of an elongated column and a small pointed head.

The purpose of the śūcī-vyūha and the single-file formation also appears to be similar. Both these formations consolidate one’s own soldiers, make smaller targets to the enemy, facilitate movement through defiles, jungles, mountains and passes.

Māgha in his Śiśupālavadha compares these vyūha with the complicated kāvya-bandhas, like muraja-bandha, gomutrikabandha, Ardhabhrāmakah-bandha and cakra-bandha, besides sarvatobhadra.

In addition to the above mentioned formations there were other arrays to which no specific name had been attributed by the epic writters. These have been called ocean like vyūha in the narrative. From the description it appears that these were solid masses of soldiers arranged in parallel rows under the command of noteworthy leaders. In the Śiśupālavadha, Māgha describes the army formations of Krṣṇa and Śiśupāla as ambudhisama, similar to ocean and regards
it as *mahāyuddha* (*Mahāhave*).\textsuperscript{37}

Śiśupāla formed his armies into circle array, perhaps *cakravyūha* (*maṇḍalikṛta*). When Kṛṣṇa was shooting arrows and pulling his bowstring constantly, people noticed only the circle array of Śiśupāla’s army.\textsuperscript{38}

Besides forming *vyūha*, armies on the battlefield can be placed in the following manner. The *Arthaśāstra* suggests that the foot soldiers should be so arrayed that the space between two men might be equivalent to one *śama* (i.e. measuring fourteen *aṅgula* from the next), a horseman at a distance of three *śama*, a chariot or an elephant at a distance of five *śama*.\textsuperscript{39}

In ordinary cases, says Kautilya, placing the best troops in front, the *nāyaka* should place the next best at the ends, the third best in the rear and weak troops in the centre.\textsuperscript{40}

*Caturāṅgabala* of Śiśupāla and Kṛṣṇa fought with each other keeping norms of war, i.e. foot-soldiers with foot-soldiers and so on and so forth.\textsuperscript{41}

\textsuperscript{37} bhīmatāmāparo’mbhodhisame’dhita mahāhave / dākṣe kopaḥ śivasyeva samedhitamahā have / -Śiśu. 19. 54.

\textsuperscript{38} na kevalāṁ janaistasya laghusaṁdhisthāvino dhanuḥ / maṇḍalikṛtam karmaṅtādvamaṅkaśi dviṣāmaṇī // -ibid. 97.

\textsuperscript{39} sāmāntaraṁ pattim sthāpayet, triśamāntaramaṁśvarṁ, paṁcaśaṁmaṁtaram ratharṁ hastināṁ vā. -AŚ. X.5.3.

\textsuperscript{40} sārabalamagraṭaṁ kṛtvā kotiśvanusāaram kuryāt, jaghane tṛtiyaśāram, madhye phalgubalāṁ / -ibid. 46.

\textsuperscript{41} Śiśu. XVIII. 2.
Māgha follows all the codes of war in the battle-field advocated by the authorities on warcraft, like the *Arthasastra*, the *Kāmandakīya*, the *Manusamhita* and others. He also depicts the battle arrarrays formed by the Śiśupāla’s army in a fancifull manner, stating that the army of Śiśupāla became impenetrable with their battle arrays, like *sarvatobhadra, cakra, gomūṭkā* etc., similar to a *kāvya* composed with different *bandhas* (*yamakaśabdālaṃkāras*) like Gomotrka etc.\(^\text{42}\)

Our present study is limited to the theoritical aspects so far as the battle formation and tactics are concerned. What is depicted in the works of this line is summarily presented here.

Kautilya not only formulates battle arrays to be formed for fighting efficiently with the enemy force, he also suggests how to counteract those battle arrays of the enemy. ‘Among these’, says Kautilya, ‘he should counteract the ‘splitter’ with the ‘strengthener’,

\(^{42}\) *ibid*, XIX. 41.
the 'strengthener' with the 'unbearable', the 'felcon' with the 'bow',
the 'established' with the 'well established', the 'conqueror' with the 'victory', the 'pillarcared' with the 'extensive-victory', the 'flying about' with the 'good-on-all-sides'. With the 'invincible', he should counter-arrange against all other arrays (vide As., X.6. 42-43).

He further suggests that if the opposite arrays are equally matched the success will be attained if the time, place and strength are suitably possessed.\textsuperscript{43}

Finally, Kautilya gives stress on the point of one's intelligence. One may not kill even one person if he is devoid of intellect. So, he says, —

\textit{ekarṁ hanyānaṁ va hanyādiśuḥ kṣipto dhanaṃmatā /}

\textit{prājñena tu matiḥ kṣiptā hanyādgarbhatānapi /} \textsuperscript{44}

— “An arrow, discharged by an archer, may kill one person, or may not kill (even one); but intellect operated by a wise man would kill even children in the womb.”

This statement immediately reminds us of the dastardly attempt of Aśvatthāma to destroy the womb of Uttara, wife of Abhimanyu, but was saved by the grace of Kṛṣṇa.

\textsuperscript{43.} same vyuhe desakalasarayogātsidhiḥ / As. X. 6. 47.
\textsuperscript{44.} As. X. 6. 51.
In the context of intellect in managing the army troops and arms, it may be said that a genius can overcome many of the difficulties, but such a case is rare. However, the case of the fight between Alexander and Poros, which took place in c. 326 B.C., may be cited as an example here. The Classical writers give an accurate description of Alexander’s strategic tactics in handling the troops of Poro’s who stationed himself on the east bank of the river Jhelum, at about the middle of May, 326 B.C.

The Jhelum at this point, the writing says, was a very swift stream, fully half a mile in breadth, and the approaching monsoon rain would soon make it impassable. Alexander pondered, surveyed the east bank up and down, and played a master stroke of strategy to steal a passage of seventeen miles upstream unopposed by the enemy. He took five weeks to survey the rout and misguided his enemy by false attempt of crossing the river.

"The Mecedonians had their native wives and children with them, and there were scientific men and experts, camp-followers and traders; with the auxiliary services, and the contingents supplied later by Indian princes, there may well have been (as tradition suggests) 1,20,000 souls in the camp on the Hydaspes. The army had become a moving state" —states Professor Tarn, as quoted by J. sarkar in his Military History of India.
With a feat of strategic genius, Alexander was able to cross the Jhelum and attack Poros' army. At the end of the war Poros himself was taken prisoner and made a friend by Alexander's generous policy.\(^{45}\)

The natural consequences of country and race sometimes brings certain peculiarities to the type of warfare. The Maratha system of warfare in Indian context may be cited as an example. The Maratha armies always pursued ingenious tactics intended to harass their enemy and cut off his supplies. Due to the characteristics of extreme mobility with their high speed horses, they could attack their enemy in no time. It was possible because of their way of lifestyle. The Deccan land is dry and broken, being cut up into many compartments by hill-spurs and deep stonny-bedded rivers. This geographical situation made the people hardy and high spirited, and their soldiers are quite different from the armed retainers of rich and luxurious kingdoms. They would not offer a standup fight, nor go forth to a pitched battle. However, these peculiar Marathan tactics would not succeed against walled cities, fully provisioned or camps guarded by artillery.\(^{46}\)

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45. Vide Military History of India, Chap. III - Sarkar Jadunath.
46. Vide Military History of India. 55 ff.
D. Codes to be followed:

Almost all the authorities on statecraft advocate that engagement in war should be avoided as far as possible. They have laid down three *upayās* to be tried before wagging war. *Manu* advocates that a king should try to conquer his foes by conciliation (*sāma*), by well applied gifts (*dāna*) and by creating dissention (*bheda*), used either separately or conjointly, and never by fighting (if it can be avoided)\(^\text{47}\) But when those three expedients fail, then let him exert himself in fight in such a manner that he may completely conquer his enemies.\(^\text{48}\)

Similarly, the *Arthasastra*, the *Kāmandakīya* and other works also advocate of avoiding war. Even when war is resorted to, the *vijigīṣu* should follow certain codes of conduct. Combat is restricted only to the fighting troops; non-combatants are marked out in the *Mahābhārata* itself. They include priests, trumpeteers and band parties, load-carriers, traders, vendors, food-suppliers, doctors with medical outfits, veterinary doctors for the horses and elephants with their technical establishments, field workshop along with its personnel, cooks, water-carriers, bards, panegyrists, paid artists,

\(^{47}\) *samnā dānena bhedena samastairathavā prthak / vijeturī prayatetārīnna yuddhena kadācan //* - *Manu.* VII. 198.

\(^{48}\) *travānāmapyāpyānānā pūrvkāntāmasambhave / tathā yuddhyeta sampanno vijayeta ripūn yathā //* - *Manu.* VII. 200.
dancing girls and prostitutes (Udyogaparvan, chap. 149) It has been found that the Macedonian army also have great similarities with the Kurukṣetra army. The Macedonians had with them their native wives and children, philosophers, doctors, scientific men and experts, camp-followers and traders, engineers, catapult workers and mechanics with necessary equipments for field hospitals and field workshops.

The code of military honour to such non-combatants and combatants included other articles besides victory or death on the battle-field. It was forbidden to slay those above mentioned non-combatants in the battle field.⁴⁹ Wounded and armless opponents were to be considered as exempt from slaughter. It was also regarded as a gross offence to refuse quarter to an armed enemy, who had ceased fighting and asked for mercy. Such a person might be imprisoned, but never wounded or slain.⁵⁰ Prisoners of war required to cared for and should be treated with humanely behaviour. The captured opponents should either be sent to their homes, or if brought to the victor’s quarters, should have their wounds attended to by skilful surgeons, and when cured set at liberty.⁵¹ Manu says, when a king fights with his foes in battle, let

⁴⁹. Manu. VII. 90-94; 
Mbh. Śānti. 100, 27-29.
⁵⁰. ibid. Śānti. 45. 12; 96, 3.
⁵¹. ibid. 95.12-14.
him not strike with weapons concealed (in wood and other materials), nor with (such as are) barbed, poisoned, or those the points of which are blazing with fire.\(^52\) Temples and their property in places under military occupation and the private property of individual citizens were on no account to be seized.\(^53\)

E. War Music and Musical Instruments:

Music is also an important aspect of military affairs. Its history goes back to the early vedic period. The Rgveda mentions about war drum (\textit{rṇadundubhi}) in its sixth Maṇḍala. A hymn in praise of the war drum rums as follows: cf.\(^54\)

“Send forth thy voice loud through earth and heaven, and let the world in all its breadth regard thee, O Drum, accordant with gods and Indra, drive thou afar, Yea, very afar, our foemen. Thunder out strength and fill us full of vigour; Yea, thunder forth and drive away dangers. Drive hence, O War-drum, drive away misfortune; Thou art the First of Indra; show Thy firmness. Drive hither those, and these again bring hither; the war-drum speaks aloud as battle’s signal.”

The \textit{Arthavaveda} also contains a verse in praise of the battle

\(^52\) \textit{na kutair\textbar yudhair\textbar hany\textbar ad yudhyam\~\textbar āno rane ripūn / na karnibhimāpi digdhainnāgni\textbar jvalitejana\textbar i\textbar h} // -\textit{Manu. VII. 90.}
\(^53\) \textit{Ag. p. 226, 22-25.}
\(^54\) \textit{Rg. VI, 47, 29-31.}
drum wherein it is depicted as shrill crying, loud noised, thundering
‘like a lion’, exciting the weapons of the warriors etc.  

In the *Mahābhārata* also, mention is made of instruments used
in producing battle-music of various sorts. Important among those
were the drum, tambourine, trumpet, conch shell, horn and lyre.
But *bheri, tūrya* etc. are not technical terms mentioned there.

In his Rock Edic VI Aśoka speaks of *bherighoṣa* (sound of the
wardrums) as a symbol of war policy. Kautilya calls the drum-
blowers *turya-kara* and assigns them double the wages of ordinary
musicians (*kuśila*). In the Rājatarāṅgini also, *tūryarava* and *tūrya-
ghoṣa* made by night watchers are mentioned. It has been noticed
that in the work of Māgha there is mention of certain musical
instruments used in the war between Śiśupāla and Kṛṣṇa. For
example, *saṅkha* (conches), *raṇa-tūrya* (*raṇa-dundubhī*), *ānakam* (*nagāḍhā*), *dundubhī*, *ghaṭa* (bell), *mṛdaṇgā*, *paṭaha*

56. *kuśilavāstvardhārtiyaśatāḥ, dviguṇavetanāścairāṁ tūryakaraḥ/*
    - *Aś. V. 3.15.*
57. *Rājatarāṅgini; Aś. X. 6.46.*
58. *Śiśu. III. 21.*
59. *ibid. XVII. 34.*
60. *ibid. 20.*
61. *ibid. 32; XVIII. 3.*
62. *ibid. XVII. 35; XVIII. 10; XIX. 36.*
63. *ibid. XVII. 29, 42.*
(nagāḍha)\textsuperscript{64}, dīṇḍimānām\textsuperscript{65}, kamburu (conches)\textsuperscript{66}, bheri\textsuperscript{67} etc. In the work Harṣacarita also Bāṇabhaṭṭa mentions some musical instruments used in war, like pataḥa, krośaṅkhyāvakāḥ, nandannāṇīdike, guṇjatkuṇje, kujatkāhale etc. It has been said that, “at the close of the third watch, when all creatures slept and all wall still, the marching drum was beaten with a boom deep as the gaping roar of the dig-gaja.”\textsuperscript{68}

The musical instruments generally are classified into four groups, viz., (i) tata (stringed instruments); (ii) suśīra (instruments having holes for passage of air); (iii) avanaddha (percussion instruments having mouths covered with hide); and (iv) ghana (metallic instruments).

Thus, it can be said that music and musical instruments occupied a place of pride in the battle-field in ancient India. Presently, of course, it lost its significance. However, thong whistle (artillery type) is still used even by the smallest sub-unit in actual operations of war for signalling as stated by P. Sensarma in his ‘Kurukṣetra War’.

\begin{itemize}
\item \textsuperscript{64} ibid. III. 24; XVII. 43.
\item \textsuperscript{65} ibid. XVIII.10.
\item \textsuperscript{66} ibid. XVII. 54.
\item \textsuperscript{67} ibid. XIX. 66.
\item \textsuperscript{68} Harṣacarita. VIIth Chap.; Śīṣu. XVII. 34.
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