

KĀmandakanītisĀra: Decoding Ancient Indian Army Formations

Ms Manashi Ghosh®

Abstract

The Kāmandakānītisāra, written during the Gupta period, explores statecraft, diplomacy, and warfare by combining dharma (righteousness) with practical military strategy. It looks at how armies were organised, how battles were fought, and the tactics used, all while reflecting the politics of its time. Unlike the Arthasāstra, this text gives us a different viewpoint and is still an important source for understanding ancient Indian military ideas.

Introduction

Kāmandaka, an influential ancient Indian political thinker, classified military forces into six categories—the standing army, mercenary forces, guilds, allied forces, territorial forces, and tribal warriors.¹ He emphasised the strategic integration of these troop types to create a cohesive fighting force and posited that each category was vital to the army's overall strength. The core standing army and skilled mercenaries were considered the most critical.²

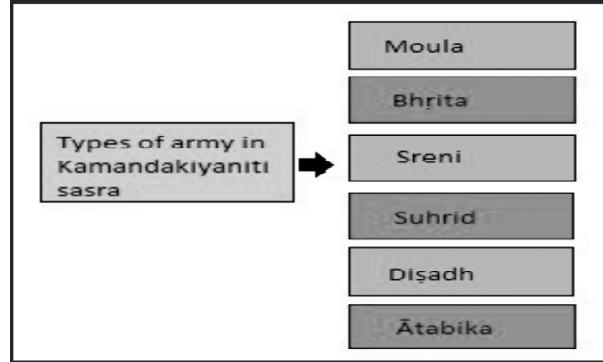


Figure 1: Types of armies in *Kamandakanīti*

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Due to their unwavering loyalty and dedication to the king, their willingness to eliminate any potential threats to his safety, and their shared values and beliefs, the Moula troops were considered more dependable force than the mercenary or Bhita troops.³ On the other hand, the mercenary troops have been observed to be more dependable, as compared to the Sreni troops. This is because the former relies on the king for their livelihoods.⁴ The reliability of Sreni troops is higher when compared to the troops of the allies. The allies do not share in the king's victory, whereas the Sreni troops participate in the king's joy and grief. Additionally, they live in the same country as the king does.⁵ The reliability of allied troops is often considered higher than that of enemy troops due to the former's shared objective with the king, known country of origin, and predictable time of action. In contrast, enemy troops may have differing opinions and lack a clear, predictable plan of action.⁶ The tribes residing in the low forest areas are often perceived as untrustworthy, materialistic, and prone to immoral behaviour. As a result, the enemy's trained and experienced troops are considered superior to them, especially when compared to the undisciplined and wild nature of the former.⁷ The forest tribes and the enemy troops are observed to be following the king, with the intention of causing harm to him and waiting for the right moment to accomplish their actions. Victory is assured only after all chances of causing any difficulty are eliminated.⁸

To ensure efficient management, control, and strategic placement, the military was structured into units. After setting up a secure camp at a distance of 500 bows, the infantry should be positioned with a gap of one *sama* (equal to 14 angulas or finger-widths) between two soldiers, while cavalry should maintain three *samas*, chariots at four *samas*, and elephants at twice or thrice the distance. With such spacing between sections of the army, one can engage in combat without any confusion.⁹

There should be three soldiers in front of a horse army. Behind the horses, there should be three-foot soldiers who can provide support.¹⁰

According to the stated military strategy, there should be a total of 15 companies of soldiers in front of the chariot and elephant army, accompanied by five companies of horse army. Additionally, fifteen companies of foot army should be stationed at the back side of the chariot and elephant.¹¹

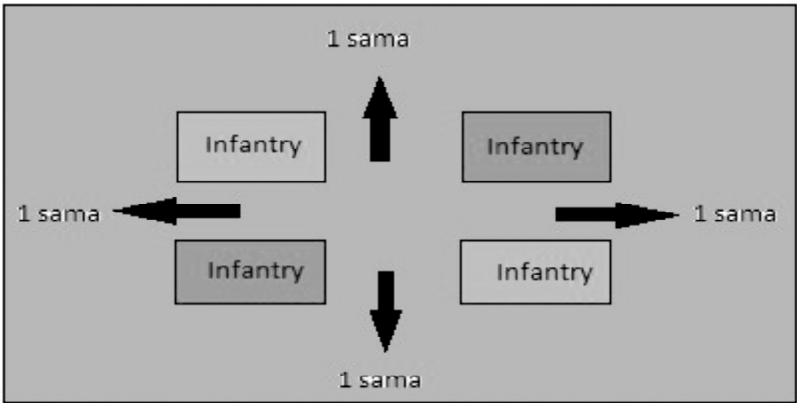


Figure 2: Positions of Infantry

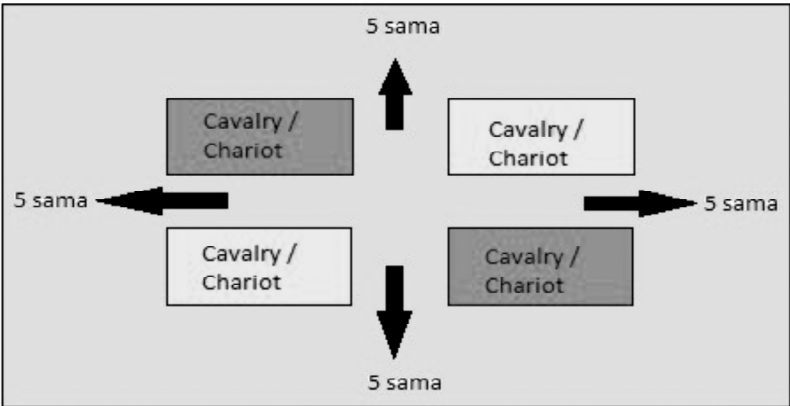


Figure 3: Positions of Cavalry

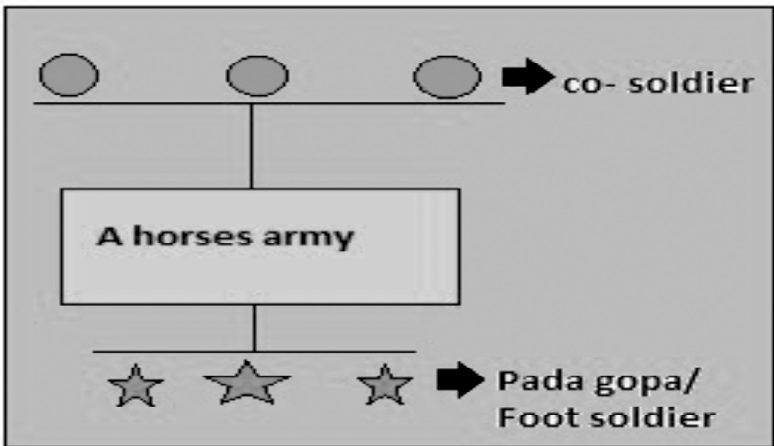


Figure 4: Positions of Foot Soldiers

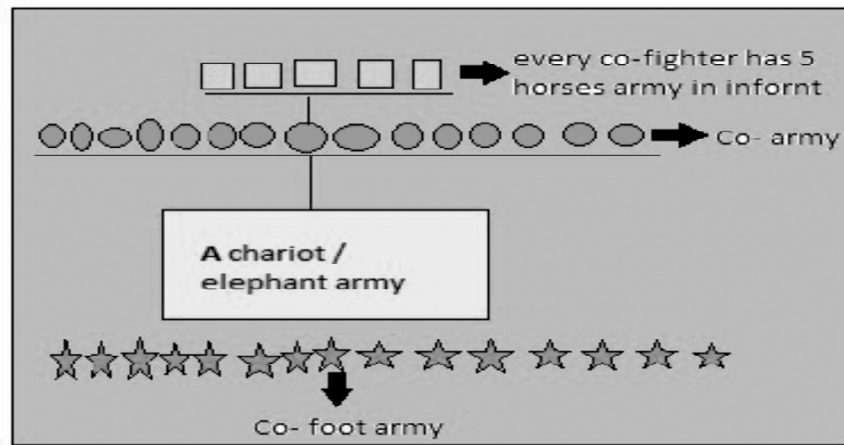


Figure 5: Positions of Foot Army

The *Arthasāstra* offers a close look at how ancient Indian armies were organised. A basic unit had a chariot or elephant, five horses, 15 soldiers, and 15 guards. A single-row formation with one chariot included five chariots, 25 horses, 75 soldiers, and 75 guards. A three-row formation had 45 chariots, 225 horses, 675 soldiers, and 675 guards. Armies could grow by adding two-chariot units, up to 21 in total. The largest formation described had 315 chariots, 1,925 horses, 4,725 infantry, and 4,725 guards. The one, three, and 21-chariot units are similar to today's company, battalion, and division. The *Sukranīti* suggests a more varied army, with infantry, cavalry, elephants, chariots, bullocks, camels, and *brhannālika* (machines). Infantry should be four times the cavalry, bullocks one-fifth, camels one-eighth, elephants one-fourth of camels, and chariots half the elephants. Machines should be twice the number of chariots. For example, if an army had 20,000 cavalries, it would have 80,000 infantry, 4,000 bullocks, 2,500 camels, 625 elephants, 312 chariots, and 625 machines. These sources show how carefully ancient Indian armies were planned, with clear hierarchies and careful use of numbers to manage the battlefield.¹² As per Kamandaka, it is recommended to position archers or a bow army at a distance of one *dhanu*, measuring five *aratnis* (equivalent to 120 *angulas*). Horses should be stationed at a distance of three *dhanus*, which is 15 *aratnis* each, while elephants or chariots should be placed at a distance of 5 *dhanus*, measuring 25 *aratnis*.¹³

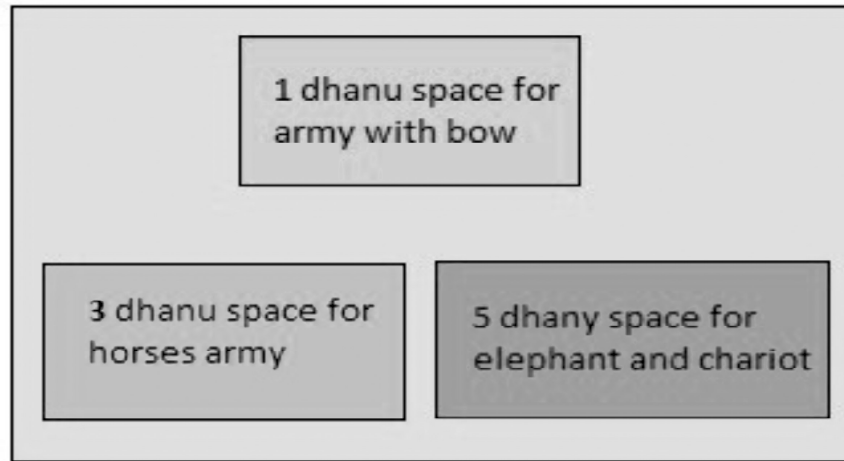


Figure 6: Positions of Archers or Bow Army

According to military experts, it is recommended that foot soldiers maintain a distance of one *sama* (equivalent to 14 *angulas*), while horses should be placed at an interval of three *samas* and elephants and chariots at an interval of five *samas* each. This arrangement ensures that the infantry, cavalry, and elephant force are well organised and avoid clashes or disruptions during movements or exercises, if required.¹⁴ The suggestion is for each section of the group to have its distinctive trumpet call, flags, and banner. These can be used to communicate instructions to the sections, enabling them to split up and reunite as needed.¹⁵

The concept of *Vyûhas* (army formations) played a pivotal role in ancient Indian warfare. These formations were meticulously crafted arrays of soldiers, chariots, elephants, and cavalry, each with a specific strategic purpose. The choice of a particular *vyûha* was influenced by factors such as the terrain, the enemy's nature, and the battle's strategic objectives. The *Kamandakîya Nîtisara* categorises arrays into four fundamental types—*Danda* (Line Formation), *Bhoga* (Mobile Formation), *Mandala* (Circular Formation), and *Asamhata* (Compact Formation).¹⁶ It represents a significant advancement in the evolution of arrays, introducing seven components, including *Ura* (central), *Kaksa* (flanks), *Paksa* (frontal wings), *Madhya* (middle unit, behind the central one), *Prstam* (rear middle), *Pratigraha* (the reserve at the rear, including the royal camp at a distance), and *Kotî* (outer sides of front wings).¹⁷

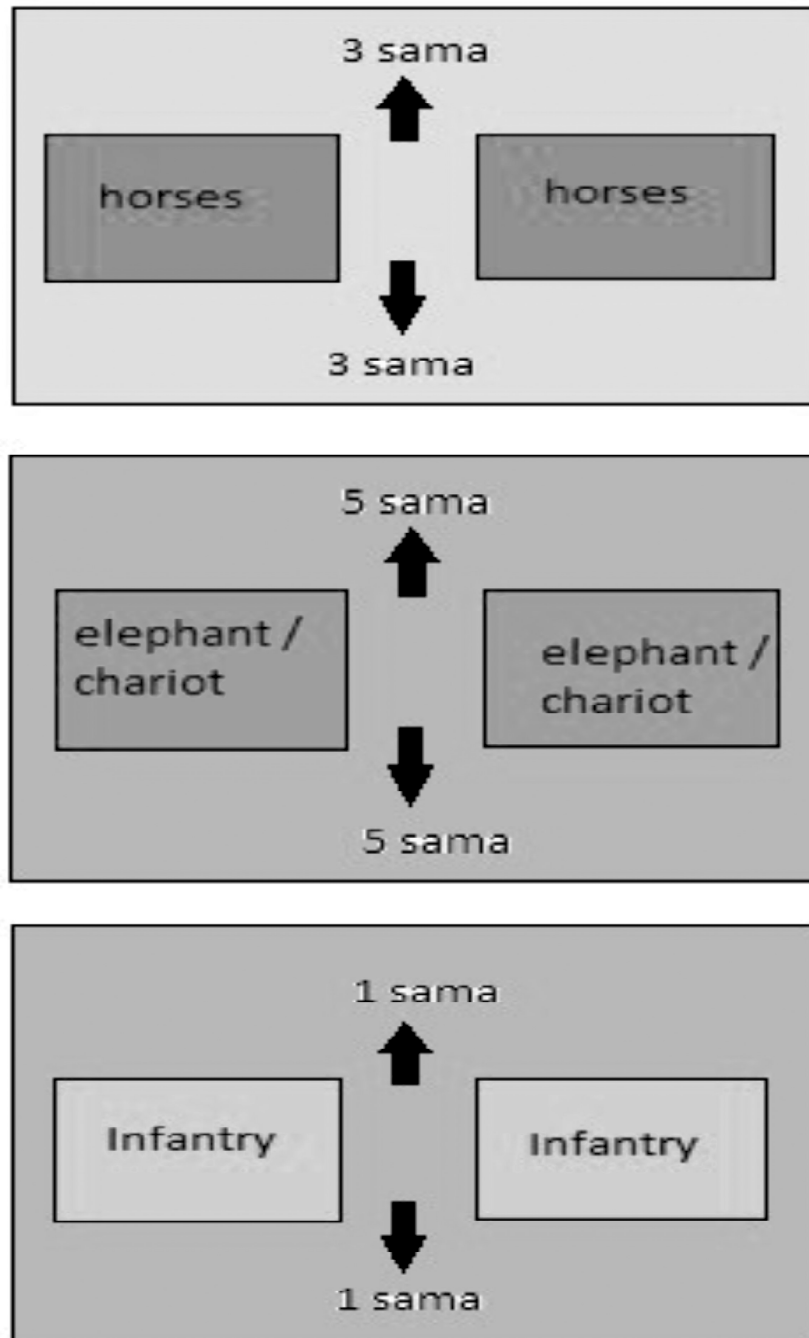


Figure 7: Various Army Formations

The inclusion of *komi* as a component of *vyûha* by Kamandaka may have revolutionised the whole system of warfare. The *Arthashastra* had laid down that after arraying the army on the battlefield, an attack could be made with one or two troops from the wings, flanks, and the centre, while the rest could support the attack.¹⁸ *Kâmandakanîti* suggests starting by attacking the enemy's wings, then surrounding them with *komis*. Once the wings and reserves are secure, the enemy can be outflanked, the rear attacked, and, finally, the centre moves in to win the battle.¹⁹

Types of Vyûhas

- **Achala.** In the *achala vyûha* formation, the soldiers were arranged with infantry in the front, cavalry behind them, charioteers in the middle, and elephants in the rear.²⁰

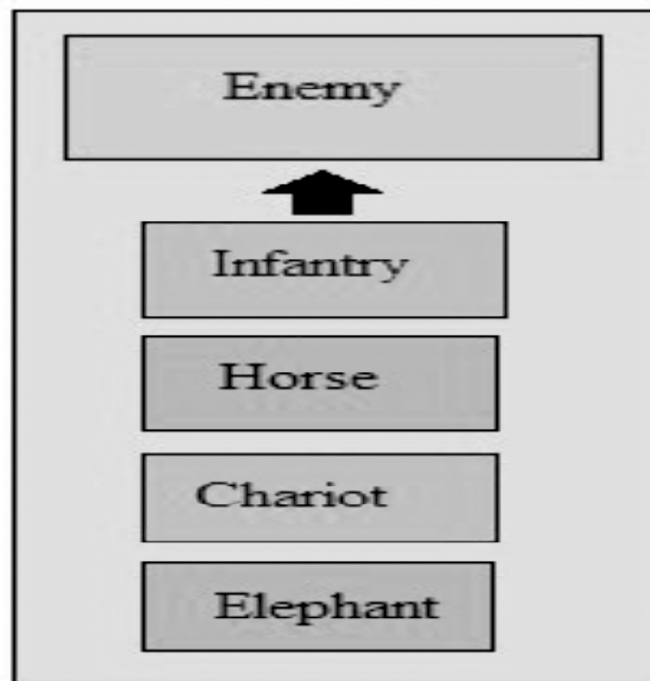


Figure 8: *Achala Vyuha*

- **Apratihata.** The opposite formation of *achala vyûha* is *apratihata vyûha*, where the elephants stand in the first line; the chariot stands behind the horses, followed by the infantry army.²¹

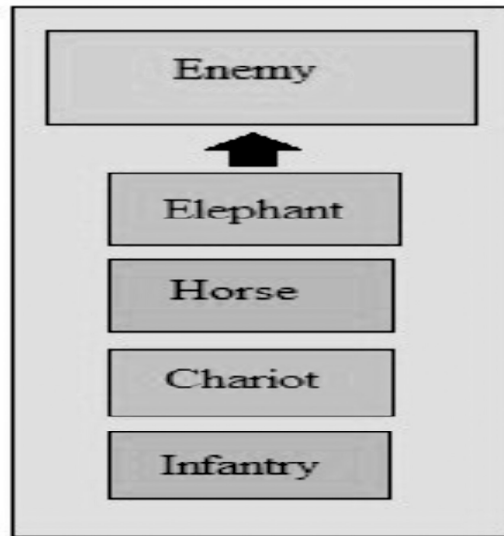


Figure 9: *Apratihata Vyūha*

- ***Madhyabhedhi***. *Madhyabhedhi vyūha* is a battle formation with elephants at the center, chariots on the wings, and cavalry at the front, which is capable of penetrating the enemy's array.²²

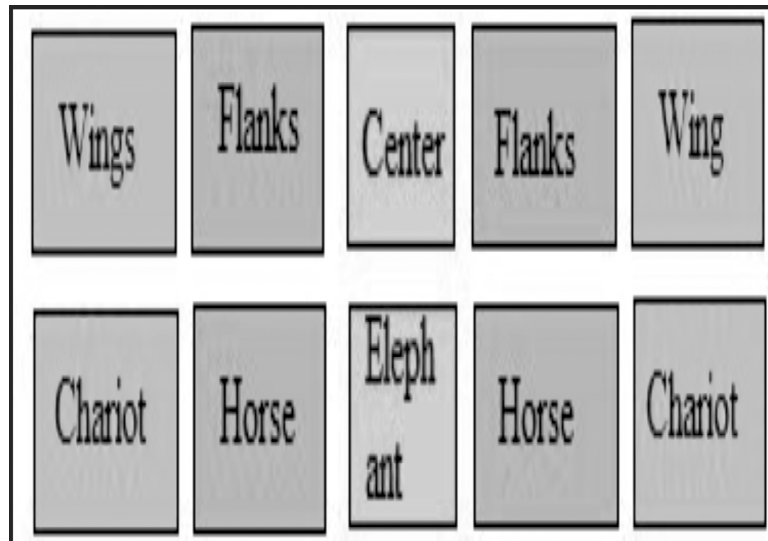


Figure 10: *Madhyabhedhi Vyūha*

- **Antabhid.** When the cavalry forms the centre, chariots on the flanks, and elephants on the wings, it is known as the *antabhid vyûha*. This formation can be used to destroy the enemy's flanks.²³

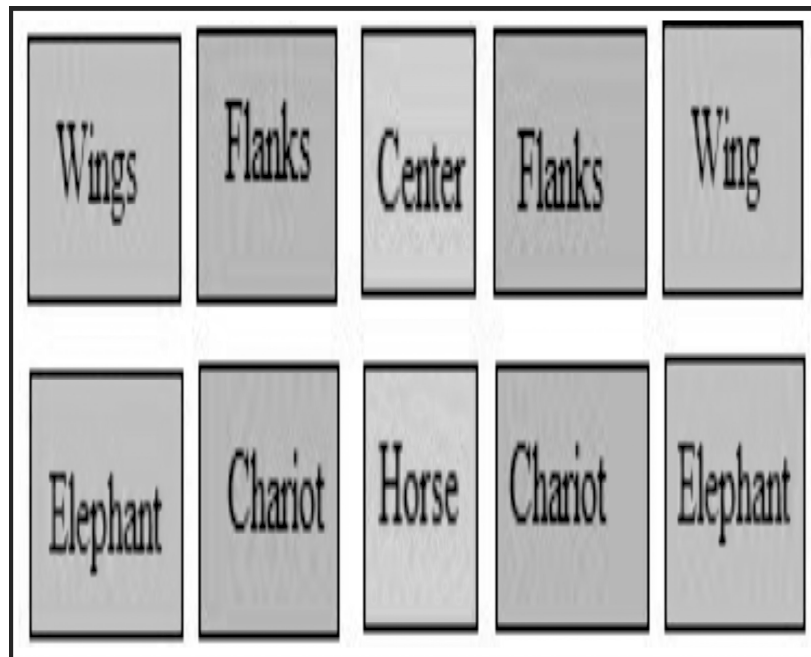


Figure 11: *Antabhid Vyûha*

Types of Arrays

- **Danda.** In the *Danda Vyûha* formation, the centre, flanks, and wings operate in a straight line. There are 17 ways to form the formation.²⁴
- **Pradara.** When an array is formed in a straight line like a *danda* with two lines—a front line and a back line—and the centre is in the middle, this formation is called *pradara vyûha*.²⁵

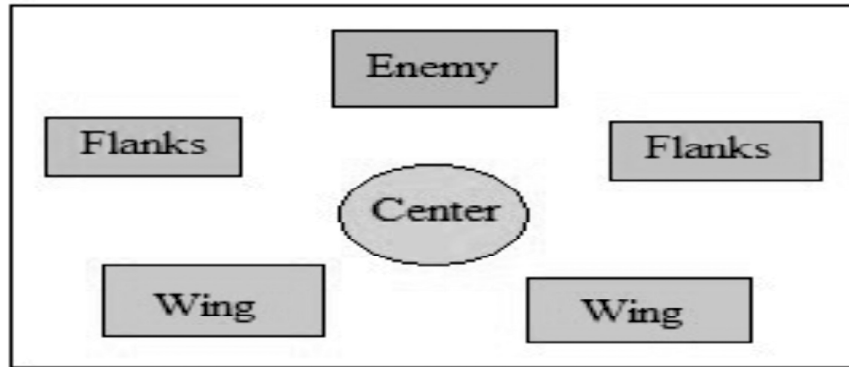


Figure 12: Pradara Vyūha

- **Drdhaka.** Drdhaka is another variation of danda vyūha. The centre is formed in a line with wings and flanks formed at the end of the line. This formation or array is called drdhaka vyūha.²⁶

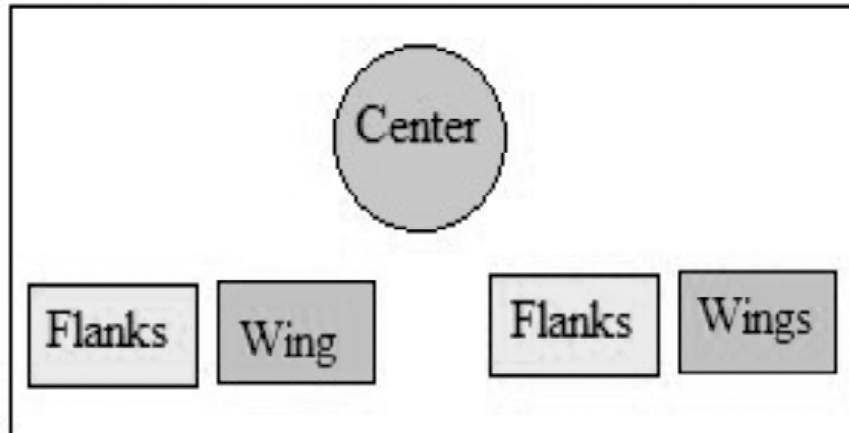


Figure 13: Drdhaka Vyūha

- **Asahya.** When the army marched out, they formed a formation called asahya vyūha, with a centre and two wings in the front line and two flanks in the end line.²⁷

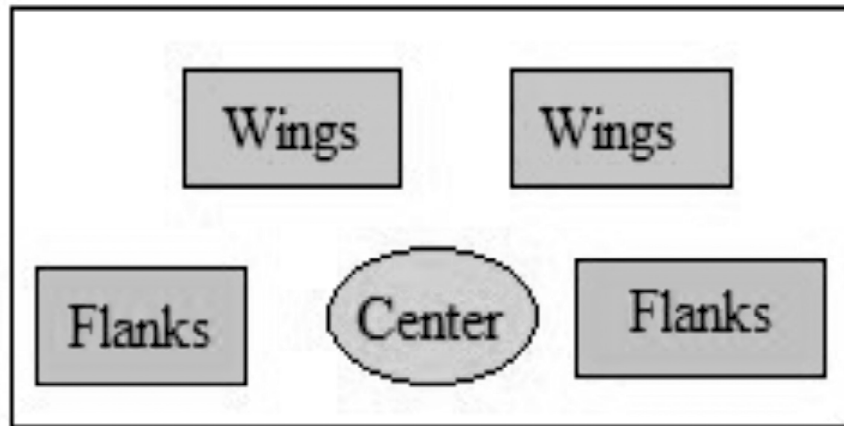


Figure 14: Asahya Vyûha

- **Capa.** When arranged in a *capa vyûha* formation, wings, and flanks are formed in the front line while the centre is formed in the end line.²⁸

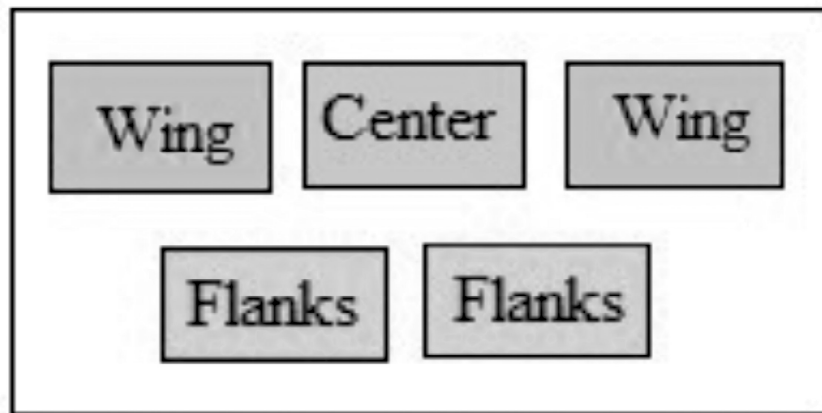


Figure 15: Capa Vyûha

- **Capakuksi.** *Drdhaka vyûha* in reverse formation is *capakuksi vyûha*. The first line forms the wings and flanks, and the centre is in the last line.²⁹

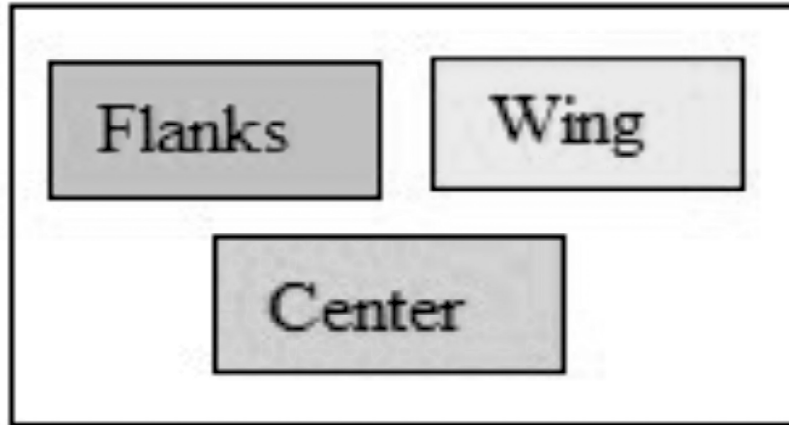


Figure 16: *Capakukci Vyûha*

- **Praticmha.** When wings and flanks are formed in the first line, and the centre is arranged in the last line, the formation is called praticmha.³⁰

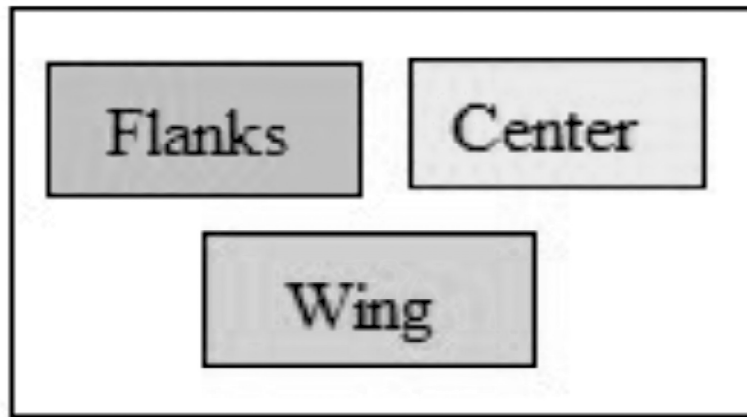


Figure 17: *Praticmha Vyûha*

- **Supratitha.** This *vyûha* has three lines. In the first line, the army keeps two wings; in the middle line, flank; and at the end, the line will keep the centre. This formation of the array is called Supratitha *vyûha*.³¹

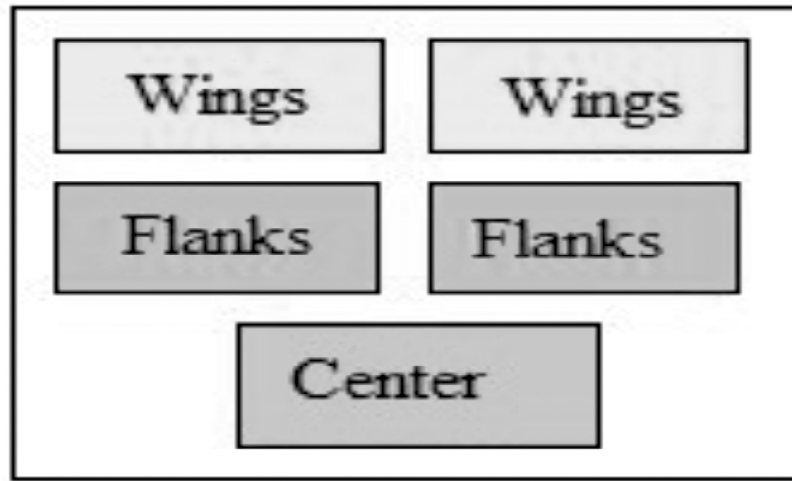


Figure 18: *Supratitha Vyûha*

- **Syena.** The opposite formation of *supratitha vyûha* is *Syena vyûha*. The first line is cantered, the second line has wings and the third line is arranged with flanks. This arrangement of the array is called *Syena vyûha*.³²

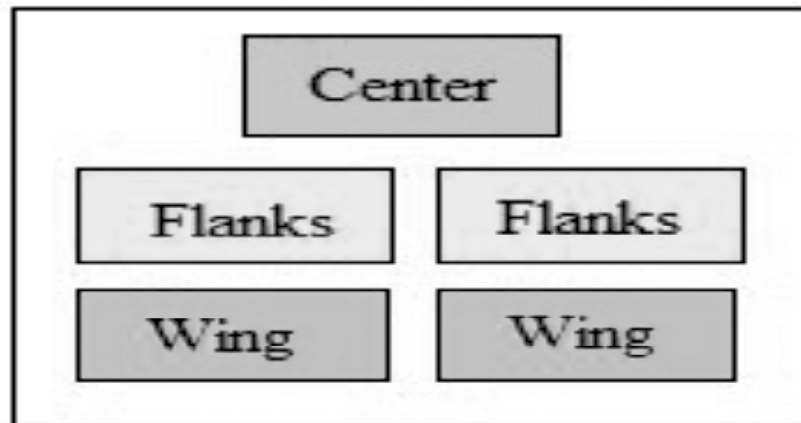
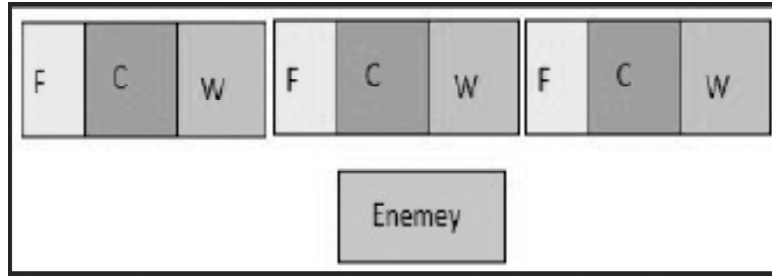
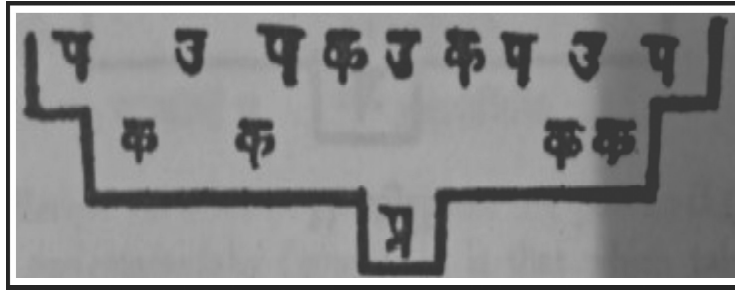


Figure 19: *Syena Vyûha*

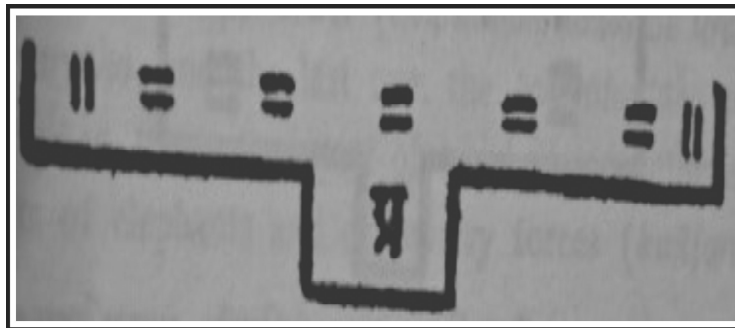
- **Vijoy.** When the second line is formed with two flanks and one centre and the wings are formed with two *sthunakarna vyûha*, it is known as *vijoy vyûha*.³³

Figure 20: *Vijoy Vyûha*

- **Sanjaya.** In the *sanjaya vyûha*, the formation of the array looks like a bow. The second line is arranged with a centre and two wings, and two capa arrays are kept in two flanks.³⁴

Figure 21: *Sanjaya Vyûha*

- **Visala Vijaya.** When the wings are made twice, *sthûnakarna vyûha* is called *visala vijaya vyûha*.³⁵

Figure 22: *Visala Vijaya Vyûha*

- **Sûcî.** In *sûcî vyûha*, the army troops are arrayed in a single column with wings, the flanks, the centre, and then again flanks, and end with flanks.³⁶

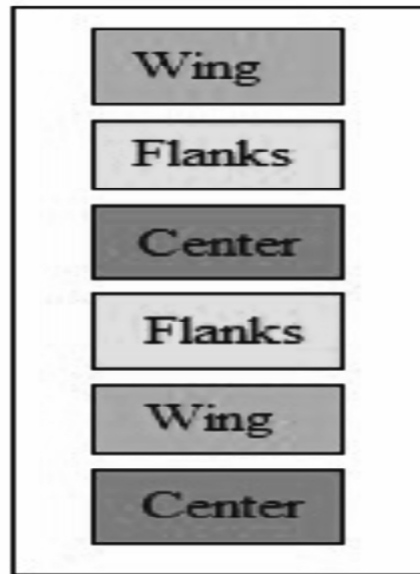


Figure 23: *Sûcî Vyûha*

- **Sthûnakarna.** When the first line of an array is formed with four flanks and a centre, and the second line is formed with two wings, the array formation is called *sthûnakarna vvûha*.³⁷

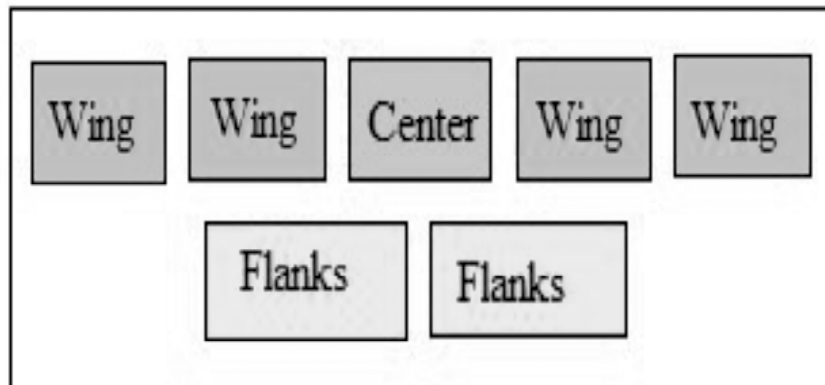


Figure 24: *Sthûnakarna Vyûha*

- **Camûkha.** Camûkha vyûha has eight flanks. Six flanks and two wings are kept in the first line, and the rest and centre are kept in the second line.³⁸

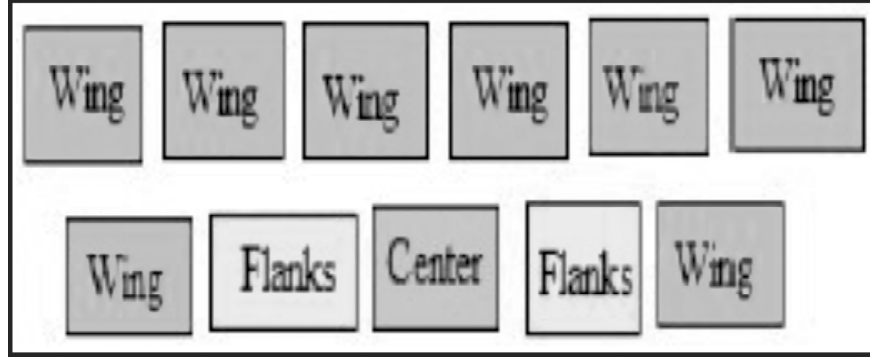


Figure 25: *Camûkha Vyûha*

- **Risasya.** The opposite formation of *camûmukha vyûha* is called *risasya vyûha*.³⁹

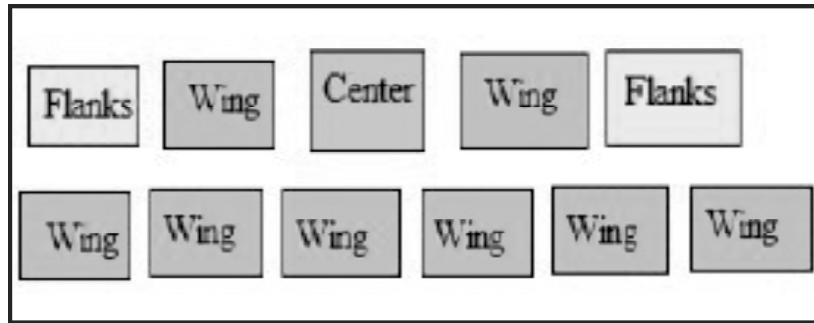


Figure 26: *Risasya Vyûha*

- **Balaya.** When the army troops are formed in two straight columns, it is known as *balaya vyûha*. The formation includes two wings in the first line, a second line formed with a centre, and two wings kept on both sides.⁴⁰

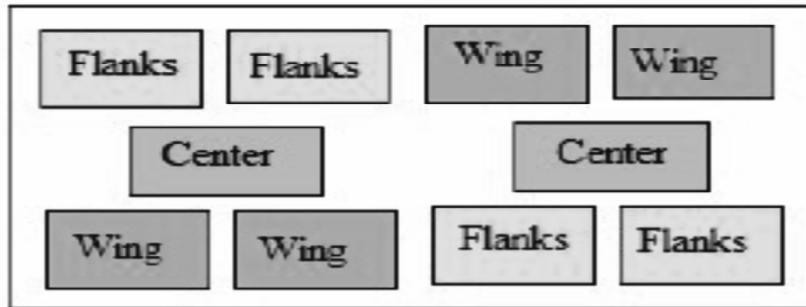


Figure 27: *Balaya Vyûha*

- **Sudurjaya.** The *sudurjaya vyûha* is formed with four *danda vyûha*.⁴¹

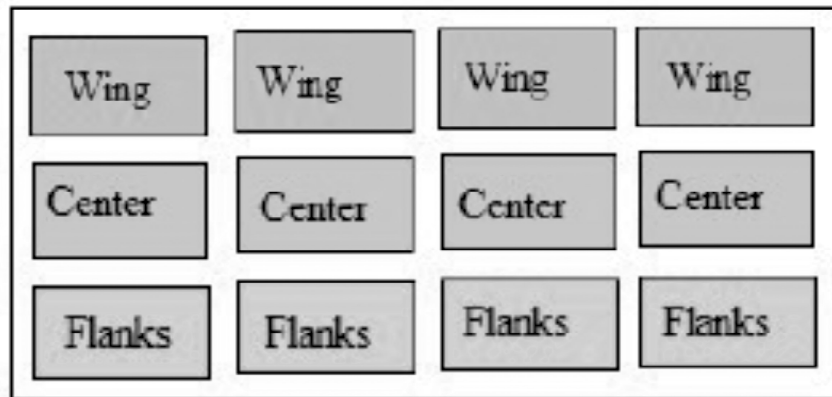


Figure 28: *Sudurjaya Vyûha*

- **Bhoga Vyûha.** Bhoga vyûha has five types of formation. Those are *gomûtrika*, *ahisancharî*, *sakata*, *makara*, and *paripantaka*.⁴²
- **Gomûtrika.** *Gomûtrika vyûha* formation takes a similar shape to the flowing urine of cows. *Kamandaka* did not mention what is the array position.

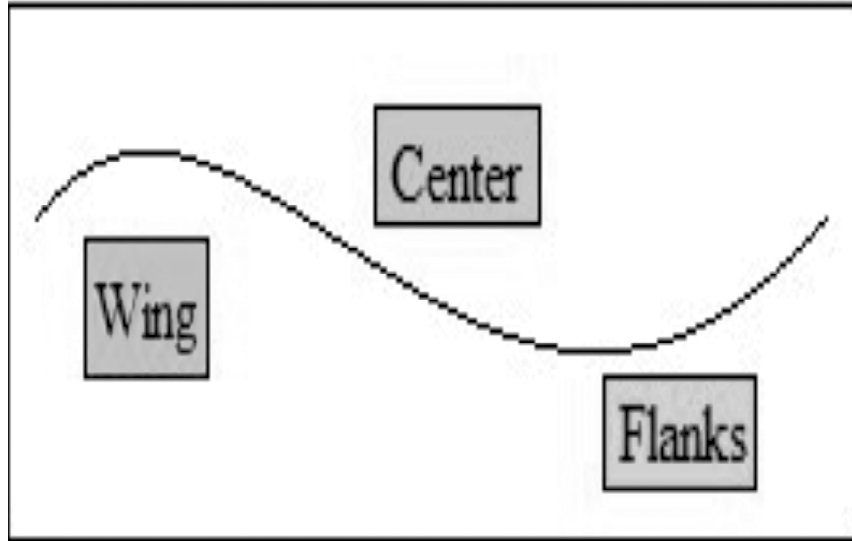


Figure 29: *Gomûtrika Vyûha*

- **Ahisari.** It is similar to the movement of a snake. The first line formed with two centres, two wings, and in the last line, two flanks. This snake formation of the array is known as *ahisari*.

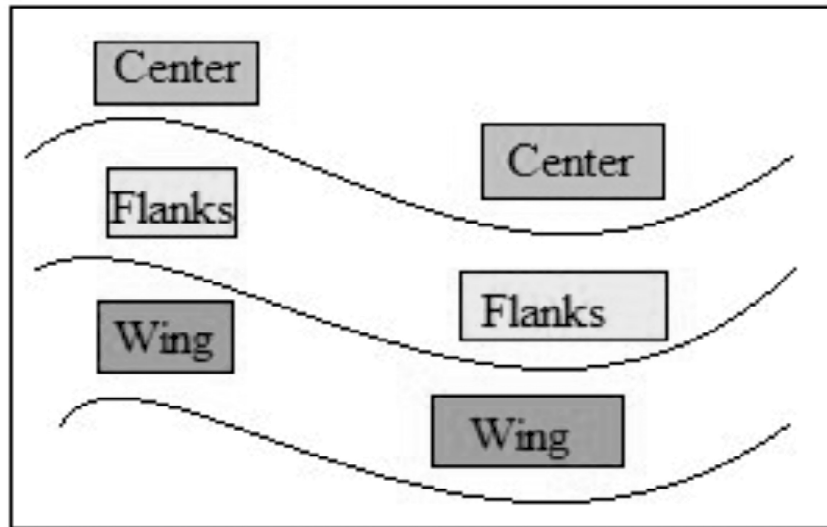


Figure 30: *Ahisari Vyûha*

- **Sakata.** This *vyûha* looks like a cart. The opposite formation of *ahisarî* is *sakata vyûha*. When the wings are arranged like *dandas* with double units of center, it is known as *sakata vyûha*.

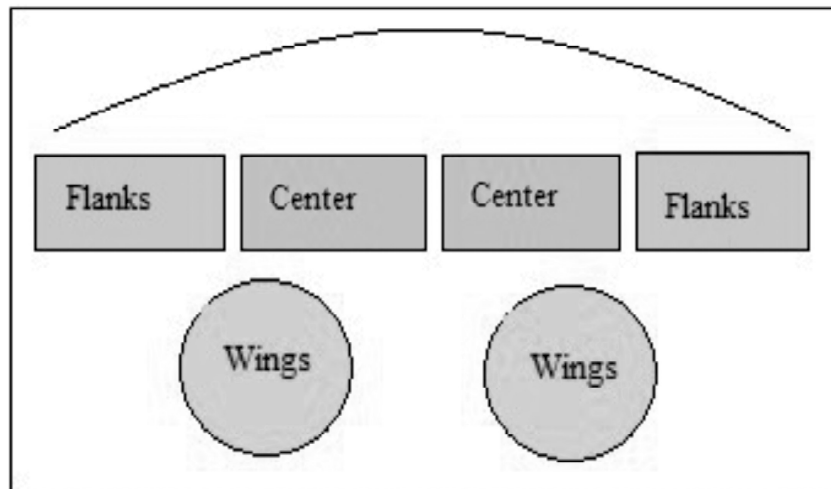


Figure 31: *Sakata Vyûha*

- **Makara.** When the formation of an array looks like capricorn, it is called *makara vyûha*. *Kamandaka* did not mention how to form this *vyûha*.

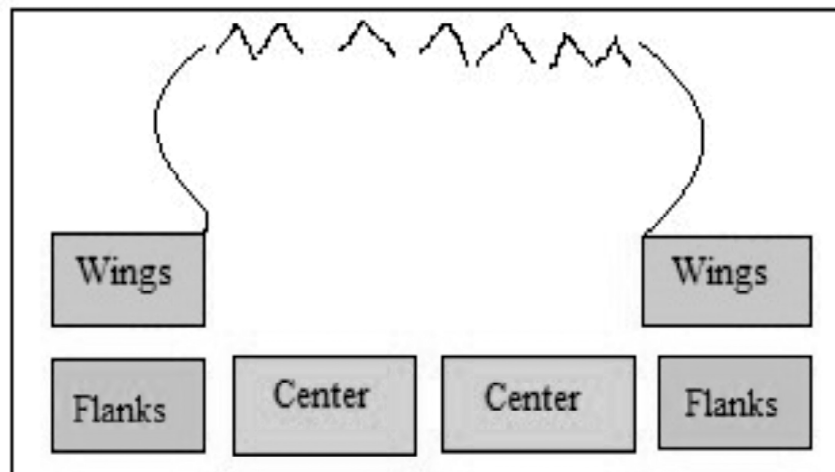


Figure 32: *Makara Vyûha*

- **Paripantaka.** The following formation of array troops is known as *paripantaka vyûha*.

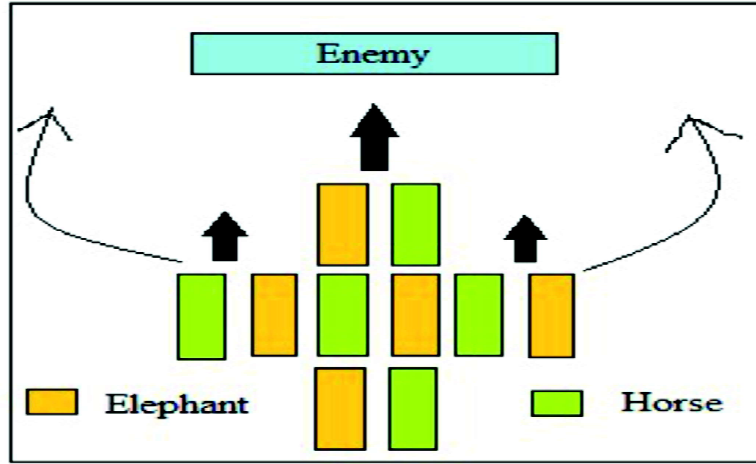


Figure 33: *Paripantaka Vyûha*

- **Mandala.** *Mandal vyûha* has two types of formation—*sarvatobhadra* and *durjaya*.⁴³
- **Sarvatobhadra.** It is a circular array formation. When troops are formed with *astanîka saînya* and the *astanîka saînya* is divided into eight different positions, it is called *sarvatobhadra vyûha*.⁴⁴

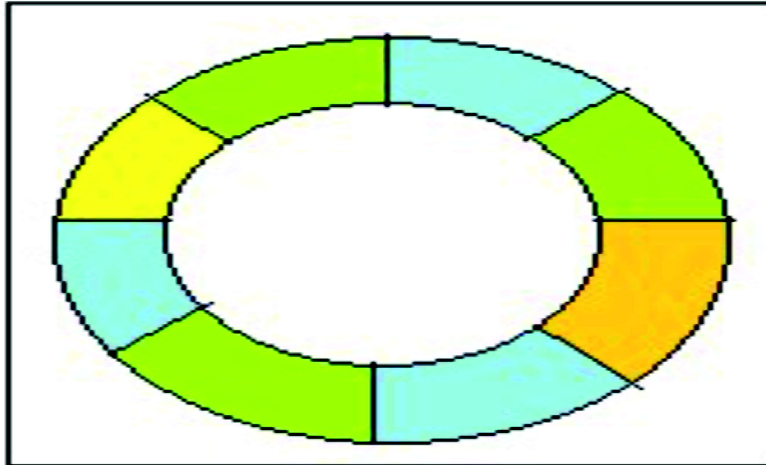


Figure 34: *Sarvatobhadra Vyûha*

- **Durjaya.** When any emergency is created in *sarvatobhadra vyûha* and a double army is needed to make it, such robust array is known as *durjaya*.⁴⁵

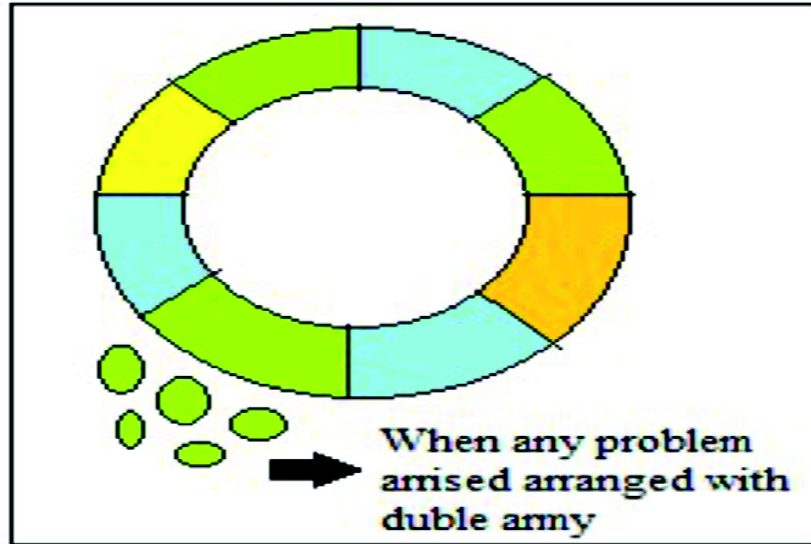


Figure 35: *Durjaya Vyûha*

- **Asamhata.** The variety of shapes of *asamhata vyûha* depends on whether it is three-pronged or four-pronged, or five-pronged. Five types of different formations could be formed.⁴⁶
- **Ardhacandraka.** This array could be arranged with three, four, or five *aniksainya*, according to their size. When the army formed with the *tinanika* army and placed on two sides and another army troop placed in the centre, this kind of arrangement looked like a half moon. So, it is known as *Ardhacandraka*.

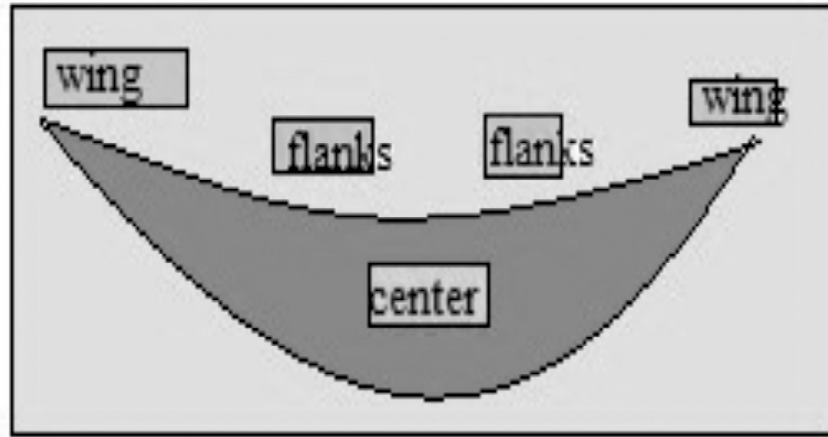


Figure 36: *Ardha-candraka Vyūha*

- **Uddhar.** When an army troop is formed with three army groups, it looks like a cooking oven, and is called *uddhar vyūha*.

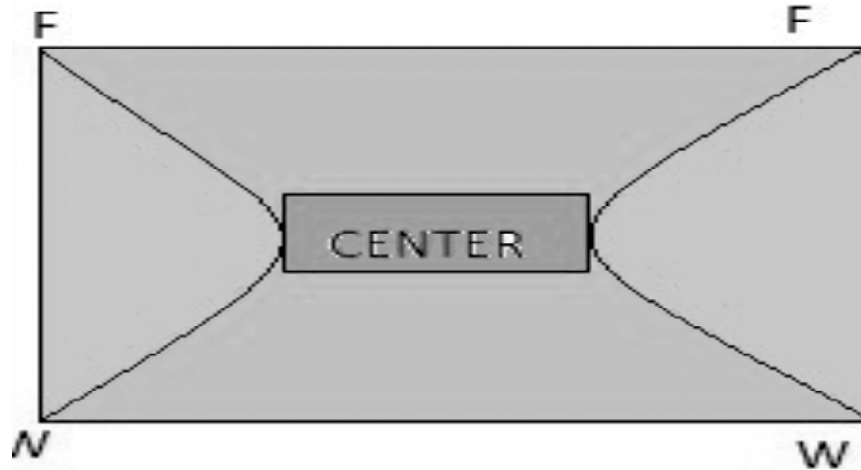


Figure 37: *Uddhar Vyūha*

- **Vajra.** When the army is formed with *charanî* troops, it looked like *varjra*.

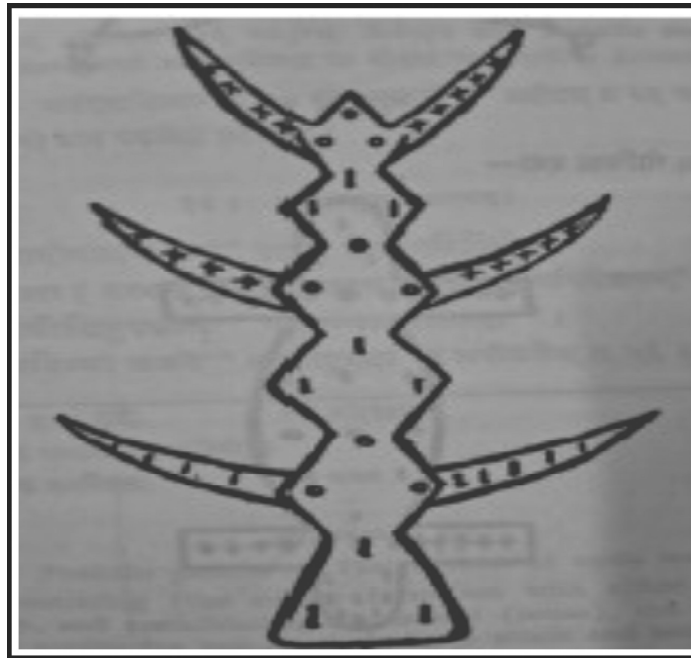


Figure 38: *Vajra Vyûha*

- ***Karkatsringak***. When the army troops look like the crab, it is called *karkatasringi*.

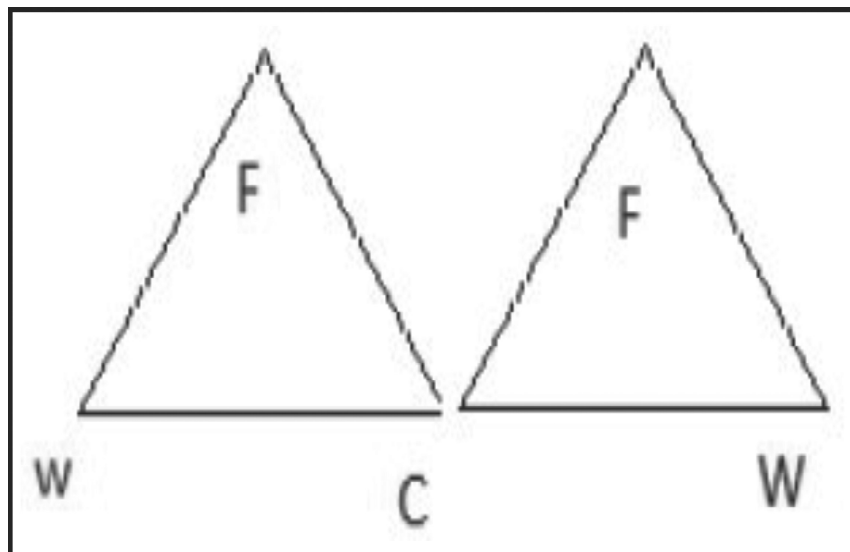


Figure 39: *Karkatsringak Vyûha*

- **Kakapadī.** This array is formed with five *anika* troops, and it looks like a crow bird.

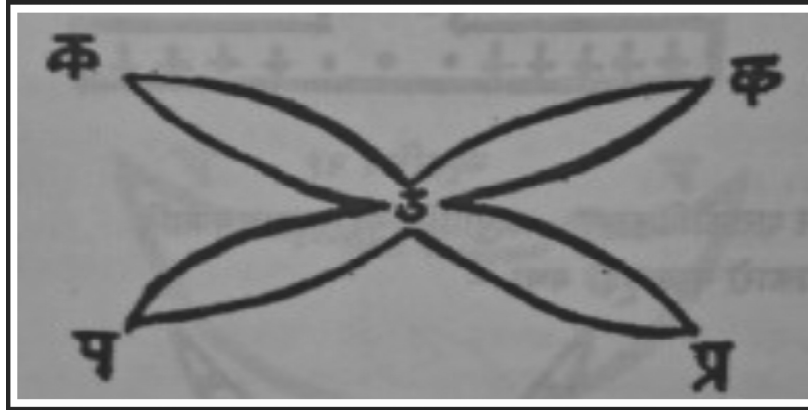


Figure 40: *Kakapadī Vyūha*

- **Godhika.** When the array looks like a water ball snake, it is called *godhika*.⁴⁷

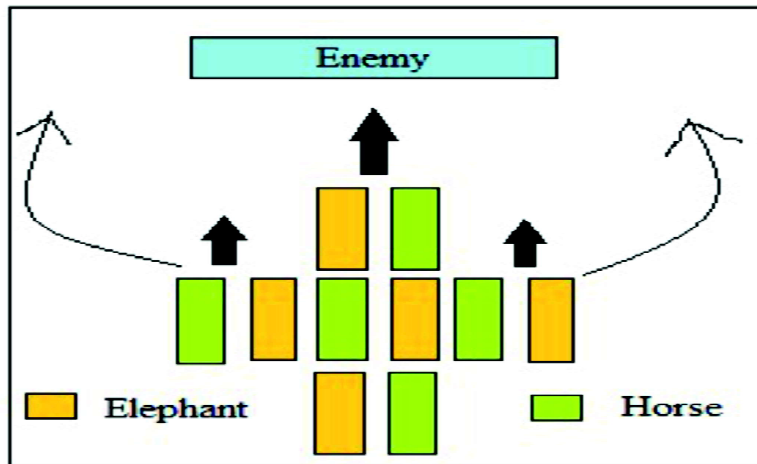


Figure 41: *Godhika Vyūha*

Findings

The *KĀmandakanītiśĀra* presents a detailed look at Gupta-era military organisation, focusing on strategies, troop types, and *vyūhas*. It connects *dharma* (righteousness) with practical governance and reflects the social and political context of its time. The text classifies troops, such as standing armies, mercenaries,

guilds, and tribal warriors, by their loyalty and strategic importance. It describes battlefield formations like *Acala*, *Madhyabhedi*, and *Danda vyûhas*, showing careful tactical planning for different situations. The coordination of infantry, cavalry, elephants, and chariots is also emphasised. Comparing *vyûhas* in works like the *Arthaúâstra* and *Sukranîti* highlights the depth of ancient Indian military traditions.

Critical Analysis

The *vyûhas* of ancient Indian warfare warrant analysis of both their practical and symbolic functions. Examining their relationship to the socio-political and military contexts of their era clarifies whether these formations constituted actionable strategies or theoretical constructs, as described in the *Arthaúâstra* and the *Kāmandakanîtiúâstra*. Comparative analysis with other ancient military traditions demonstrates that, despite differences in formation design, strategic objectives frequently aligned. This situates *vyûhas* within a broader global context of warfare. In addition to their tactical role, *vyûhas* were influenced by philosophical, cultural, and religious concepts, including cosmic order and *dharma*. These formations, therefore, possessed ethical and symbolic significance alongside practical utility. The hierarchical structure of the army, comprising core troops *Moula*, mercenaries, and allies, reflected broader societal organisation. Factors such as caste, loyalty, and alliances influenced the reliability and deployment of these groups, underscoring the interconnection between military, social, and political dynamics. *Vyûhas* also served to reinforce royal authority by addressing both internal and external threats. Interdisciplinary research that incorporates literary, archaeological, and artistic evidence is necessary to address gaps in textual sources and clarify their practical application. This approach reveals the complex interplay among military, cultural, and philosophical dimensions, providing a comprehensive understanding of *vyûhas* as tactical, symbolic, and socially embedded constructs.

Further Research Aspects

The *KāmandakanîtisĀra* provides an intricate perspective on military organisation and strategy, yet significant questions remain that merit further exploration.

- It is necessary to re-examine the applicability of *vyūhas* in the *KĀmandakanītisĀra* in order to ascertain whether they are theoretical creations or useful tactics from the Gupta era. A methodical comparison of written descriptions with historical and archaeological data is required for this evaluation.
- To find out if the *KĀmandakanītisĀra* is from the Gupta era or another historical tradition, its timing and historical accuracy must be critically examined. The *Arthaśāstra* and *Sukranīti* can be compared to them to have a better understanding of their chronology and contextual significance.
- To ascertain their effect on the military formations mentioned in the book, an examination of outside factors such as invasions and imperial relations is required. The evolution of Indian military thought can be better understood with this method.
- To shed light on the moral underpinnings of Indian statecraft and warfare, future studies should examine how *dharma* affects military strategy in the *KĀmandakanītisĀra*. To clarify their strategic roles, formations like *Godhikā* and *Kākapādī*, which are not well documented in the main sources, need in-depth historical, interpretative, and multidisciplinary examination.

Conclusion

The *KĀmandakanītisĀra* is a key source on ancient Indian military thought, detailing troop classifications, formations, and strategy. Though overshadowed by the *Arthaśāstra* and marked by historical uncertainties, it offers distinct perspectives on warfare, statecraft, and philosophy, warranting deeper scholarly attention for its theoretical and cultural significance.

Endnotes

¹ Kamandaka, *Kamandakiyanitisara*, translation by Manabendu Bandyopadhyay, (Kolkata: Sanskrit Pustak Bhander), 1999, Shloka 19.24

² Ibid. Shloka 19.2-3

³ Ibid. Shloka 19.4

⁴ Ibid. Shloka 19.5

⁵ Ibid. Shloka 19.6

⁶ Ibid. Shloka 19.7

⁷ Ibid. Shloka 19.8

⁸ Ibid. Shloka 19.10

⁹ Kautilya, *Arthasatra*, translation by Manabendu Bandyopadhyay, (Kolkata : Sanskrit Pustak Bhander) 2010, Shloka 10.5.1

¹⁰ Ibid. Shloka 10.5.2

¹¹ Ibid. Shloka 10.5.2

¹² Sukrachariya, *Sukraniti*, translation by Benoy Kumar Sarkar, (Delhi: J. P. Publishing House), 2018, Shloka 4.7.19-20

¹³ Kamandaka, *Kamandakiyanitisara*, translation by M Bandyopadhyay, Shloka 20.26

¹⁴ Ibid. Shloka 20.27

¹⁵ Kautilya, *Arthasatra*, translation by M Bandyopadhyay, Shloka 10.6

¹⁶ Kamandaka, *Kamandakiyanitisara*, translation by M Bandyopadhyay, Shloka 20.29

¹⁷ Ibid. Shloka 20.30

¹⁸ Kautilya, *Arthasatra*, translation by M Bandyopadhyay, Shloka 10.5.48

¹⁹ Kamandaka, *Kamandakiyanitisara*, translation by M Bandyopadhyay, Shloka 19.55-6

²⁰ Ibid. Shloka 20.36

²¹ Ibid. Shloka 20.36

²² Ibid. Shloka 20.36A

²³ Ibid. Shloka 20.37

²⁴ Ibid. Shloka 20.49-50

²⁵ Ibid. Shloka 20.43

²⁶ Ibid. Shloka 20.43

²⁷ Ibid. Shloka 20.43

²⁸ Ibid. Shloka 20.43

²⁹ Ibid. p. 432

- ³⁰ Ibid. p. 432
³¹ Ibid. p. 432
³² Ibid. p. 433
³³ Ibid. p. 433
³⁴ Ibid. p. 433
³⁵ Ibid. p. 433
³⁶ Ibid. p. 433
³⁷ Ibid. p. 434
³⁸ Ibid. p. 434
³⁹ Ibid. p. 434
⁴⁰ Ibid. p. 435
⁴¹ Ibid. p. 435
⁴² Ibid. Shloka 20.54-56
⁴³ Ibid. Shloka 20.35.50
⁴⁴ Ibid. Shloka 20.35.50
⁴⁵ Ibid. Shloka 20.35.50
⁴⁶ Ibid. Shloka 20.35.51
⁴⁷ Ibid. Shloka 20.58

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3. M Bandhopadhyaya, *Arthasastra*, Bengali translation, (Kolkata: Sanskrit Pustak Bhander), 2010
4. BK Sarkar, *Sukranīti*, English translation, (Delhi: K. Lal, J.P. Publishing House), 2018
5. J Mishra, *Sukranīti*, (Varanasi: Chaukhambha Surbharti Prakashan), 1998