



A Study of *Śilpilakṣaṇa* (Technicians) in *Vāstuśāstra*: Definitions and Classification with Emphasis on the *Mayamata*.

Sri Ripan Ghosh

Assistant Professor

Department of Sanskrit

A.C. College, Jalpaiguri (W.B)

Abstract:

Mayamata is a famous Sanskrit treatise in *vāstuvidyā*, the ancient and medieval Indian tradition of architectural science. Its content is arranged into three segments- dwelling sites (chapters 1–10), core building techniques (11–30), and the construction of vehicles, seats, and iconography (31–36). In the first section, *Mayamata* highlights four essential technician roles: *Sthapati* (master architect), *Sūtragrahin* (surveyor/draftsman), *Takṣaka* (wood-/stone-cutter), and *Vardhaki* (joiner), each with specific duties and divine origin myths. The *Sthapati* must possess extensive knowledge-across mathematics, geography, instruments-and moral virtues, while the others execute measurement, cutting, and assembly tasks under his guidance. Ultimately, the text underscores that enduring architecture depends on both the technical expertise and ethical caliber of these technicians.

1.1. In genre of technical literature, flourished in the ancient and medieval India, *vāstuvidyā* occupies a significant place. A long tradition of *vāstuvidyā* or architectural knowledge is developed with the help of different Sanskrit texts. Among them one of the most prominent texts is *Mayamata*.

1.2. The entire topics of *Mayamata* can be categorized into three sections. The first section, encompassing chapters 1-10, deals with dwelling sites. The second section, mainly associated with the core construction of buildings, includes chapters 11-30. The last section, comprising the remaining six chapters, addresses the construction of vehicles, seats, and iconography. In the

first section, *Mayamata* provides detailed information about the technicians involved in architectural practice.

Technicians play a very significant role in construction. Since, without proper technical knowledge or guidance, it is hardly possible to build a construction successfully. It is evident that lack of proper technical knowledge or qualified technicians several constructions have been demolished. Therefore, our ancient preceptors made aware of the qualities of technicians.

Bruno Dagens, Prominent editor and translator of *Mayamata* text, decodes the Sanskrit term *śilpin* by the word ‘technicians’. The word *śilpin* derived from *śilpa* with the suffix *ini*, indicates one who properly know the mechanical, technical and instrumental activities. In this regard, it is noticeable that by the word *śilpin* refer to the labors, but the text indicates the technicians.

1.3. Foremost, Maya classifies the technicians into four categories on the basis of their duties, to be performed in a particular sequential order. They are-*Sthapati*, *Sūtragrāhin*, *Vardhaki* and *Takṣaka*. *Mānasāra* illustrates a mythological story about these four technicians. *Mānasāra* mentions them as four persons born from divine sons. The story tells us – *Viśvakarman* is known as *Sthapati*. Father of *Sūtragrāhin*, *Vardhaki* and *Takṣaka* are known as *Maya*, *Tvaṣṭāra* and *Manu* respectively.

*viśvakarmākhyānāmnosya putraḥ sthapatirūcyate ।
mayasya tanayaḥ sūtragrāhīti parikīrtitaḥ ॥
tvaṣṭurdeva-ṛṣeḥ putro vardhakīti prakathyate ।
manoḥ putrastakṣakaḥ syadsthyāpatyādi catuṣṭyamet॥*
(*Mānasāra*.2.9-10)

[The son of Viśvakarman is called the architect (*Sthapati*). The son of *Maya* is renowned as the rope-holder (*Sūtragrāhī*). The son of the divine sage *Tvaṣṭā* is known as the carpenter (*Vardhakī*). The son of Manu is the carpenter (*Takṣaka*). These are the four kinds of progeny of the great creators.]ⁱ

Let us have a brief account of all these kinds of technicians, as describes by *Maya*.

2.1. *Sthapati*:

Sthapati or architect, the main technicians of the entire construction, should be the master of all technical, mechanical and instrumental activities in this field. The word *Sthapati* derived from the root *stha* with a suffix *kaḥ*, *tasya patiḥ* = *Sthapati*. Maya enlisted a number of qualifications, required to be a *Sthapati*. He says that the architect should be come from a renewed land (*prasidhadeśa*) and should belong to mixed caste. Here an obvious question may come that what is the 'mixed caste'? To explain it we can take the help of *Manusamhitā*, one of the most famous texts of Hindu *Dharmaśāstra*. In the context of ancient India, there we find the four castes. They are popularly known as *brāhmaṇa*, *kṣatriya*, *vaiśya* and *śūdra*. The term mixed caste refers to the concept of *Varna-saṅkara*, which is mentioned in various Hindu texts such as the *Manusamhitā*, the *Mahābhārata* etc. *Varṇa-saṅkara* is a term used to describe the mixing of different *varṇa*-s (social classes) through the system of inter-caste marriages. The *Manusamhitā* and other *Dharmaśāstra* texts often list the different mixed castes with specific names and describe the duties or occupations considered for them. For instance, children born to a *brāhmin* father and a *śūdra* mother were called *Niṣāda* or *Caṇḍāla*, and their societal role was defined in the text.

Maya defines *Sthapati* by- means he is *Sthapati* who have enough knowledge to establish building and who is well verse in all kind of science- '*Sthapatiḥ sthāpanarha syat sarvaśāstravisāradaḥ*'. (*Mayamata* 5.15). The word *sarvaśāstravisārada* here stands for all kinds of knowledge, related to building construction. These all *śāstra*-s help the *Sthapati* to build a perfect construction without any complain. For instance, the knowledge of mathematics helps him to make the necessary equations. Geography develops knowledge of places and environment, which is required to execute lot of works, like the proper selection of the constructional site. Maya prescribes that the *Sthapati* must be physically strong and faithful in religious activities. He should be kind and must be free from envy, weakness and disease.

na hīnaṅgo 'tiriktāṅgo dhārmikastu dayaparaḥ ॥

amātsaryo 'nasūyāñcātandritastvabhijātavān ।

(*Mayamata* 5.15-16)

The other necessary qualifications are the ability to draw (*citrajñā*) and knowledge about the whole country (*sarvadeśajñā*). The architect must be free from seven vices or ‘*sapta vyasana-s*’. About *sapta-vyasana-s* *Arthaśāstra* mentions that – ‘*kopajatrivargaḥ kāmajaśturvarga*’. (*Arthaśāstra*, 8.3.1). *Sapta-vyasana-s* or seven vices come from two different way of human behaviour, namely *kāma*(*mṛgayā*, *akṣakrīdā*, *strisaṅgama* and *madhyapāna*) and *krodha* (*vākpāruṣya*, *daṇḍapāruṣya* and *arthaduṣaṇa*).

2.2. Sūtragrāhin: The son or disciple of architect is known as *Sūtragrāhin*. The activities or duties of a *Sūtragrāhin* is comprehensible by his name. One of the major works of building construction is to measurement that the *Sūtragrāhin* execute by the *sūtra* or rope. Maya says – *sūtradaṇḍa prapātajño mānonmānapramāṇavit*||

(*Mayamata* 5.19)

Here the word *unmāna* in neuter gender, means measuring of site and quality. Therefore, *Sūtragrāhin* must be well known about *sūtra* or *daṇḍa* and also able to measure various types of height, length, ratios etc properly.

2.3. Takṣaka: Maya defines *takṣaka* by –

takṣanāt sthūlasūkṣmānaṁ takṣaka sa tu kirtitaḥ /

(*Mayamata*: 5. 20.5)

The verb *Takṣana* denotes cut down, where *sthūlasūkṣmānaṁ* refers to small or big pieces of wood, stone etc. so *Takṣaka* is a particular type of architect who cuts the woods or stones into several pieces according to their requirement in building construction. *Takṣaka* should always work under the supervisor of *Sutragrāhin*.

2.4. Vardhaki: *Vardhaki* is one who joined the small or big pieces of stones, wood etc. Normally the word *Vardhaki* is derived from root *vṛdha* that means to increase. Maya states that – *vṛdhikṛḍ vardhakiḥ proktaḥ sūtragrāhyanugaḥ sadā* (*Mayamata* 5.22a). *Takṣaka* cuts the wood, stone etc

into different pieces and it is *vardhaki* who has the duty to join those pieces for the building work and increase the total shape. *Vardhaki* also work under the guidance of *Sūtragrāhin*.

About the definition and classification of four types of architect's different books of *vāstuvidyā* give similar information. In conclusion Maya mentions the common characteristics of four kinds of architects. They all should be – active, skilful, pure, strong, compassionate, respectful to the masters etc.

ⁱ Traslated by the researcher.

Select Bibliography

Dagens, Bruno, editor and translator. *Mayamata: Mayamata, Treatise of Housing, Architecture and Iconography*. 2 Vols. Delhi: IGNCA, 1997.

Acharya, P. K, Compiler. *A Dictionary of Hindu Architecture*. Delhi: Low Price Publication, 2015.

---. *An Encyclopaedia of Hindu Architecture*. Delhi: Low Price Publication, 2010.

---. editor and Translator. *Architecture of Mānasāra*. Delhi: Low Price Publication, 1995.

Altekar, Rahul Viswas. *Vāstuśāstra: Ancient Indian Architecture and Civil Engineering*. Delhi: D.K. Printworld (p) Ltd, 2004.

Kautilya. *Arthaśāstra*. Editor, Manabendu Benarjee. 2 vols. Kolkata: Sanakrit Pustak Bhandar, 2013.

Kautilya. *Arthaśāstra*. Editor, R. Shamasastri. Mysore: Raghuvver Printing Press, 1951.

Sukthankar, Visnu, editor. *Mahābhārata: The Mahābhārata*. Poone (Pune): BORI, 1943.

Williams, Monier, compiler. *A Sanskrit-English Dictionary*. Delhi: MLBD, 1986.

Buhler, G. *Manusamhitā: The Laws of Manu*. Delhi: MLBD, 1962