

Discovery of a Rust Free Iron Window

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The rust free Delhi iron pillar is indeed a great contribution of India in iron technology (Fig.1). According to the inscription carved on the pillar, it was commissioned by a king known as Candra, almost certainly the Gupta king, Candragupta II (c. 380-413 CE). What



Fig.2

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was a
burning
question

until my recent investigation. My research indicates that even in the 17th century the technology had not been completely forgotten. It was still available to curious-minded intellectuals like the Malla king, Pratapa Malla (c. 1641-1674 CE), who was responsible for building most parts of the royal palace of Kathmandu. It is here that I found another rust free iron work, this time not a pillar, but a latticed window (Fig.2).



Fig.1

My study of the palace began almost four decades ago when I wrote a monograph on this medieval palace.¹ The palace was called Guna Po before the 17th century. It became known as Hanumān Dhokā after King Pratāpa Malla, following the prescription found in a Sanskrit text *Narapati-jaya-caryā*, placed a statue of Hanumān on a stone pillar near the golden gate of the palace.² The iron window is located behind the statue (Fig.3) on the outer wall of the ground floor of the palace, and due to the multiple renovations of the palace in later periods, the wall does not seem to be in original condition.



Fig.3

My work was not exactly an architectural study, but a historical or cultural study of the palace and various festivals closely associated with the palace. In order to understand the significance of the palace, I studied all available documents related to the palace and compiled epigraphic sources which I presented as an appendix to the text. Despite such efforts, the above mentioned inscribed iron window had escaped my attention. Only when Neil Gutschow, the well-known German scholar who has written multiple volumes on Nepalese and Indian cities and architecture, asked me to decipher the inscription found on the window, did I begin to understand the great significance of the window. Certainly, this is one of the two rust free iron works discovered in South Asia. Chronologically, Candragupta's Delhi iron pillar is a much earlier piece. Although the time difference between these two works is more than a thousand years, to my knowledge there is no other rust free iron work that has survived in this region. Due to the damp climate iron gets rusted

here very quickly. Thus, I decided to write this short article. I will present here a description and purpose of the window, which will be followed by my reading and translation of the inscription and a brief comment regarding the Malla king's extraordinary activities guided by his love for antiquities and desire for acquiring ancient knowledge.

Description and Purpose of the Window

The rectangular window (Fig.2) is 57 inches long and 33 inches wide. Its intricate design incorporates panels of an octagonal elephant foot motif connected by small square hinges arranged horizontally. Immediately below this arrangement, the space created by the next panel of the elephant foot motif is filled with diamond shaped square motif consisting of a small circle surrounded by petals. The result resembles stylized flowers. Both of these motifs are used repeatedly in the thirteen consecutive panels.

A main purpose of such a latticed window is to catch the light permitted by the empty spaces or holes within the patterns and designs described above. However, the real purpose of the window is privacy, because such windows serve as screens. It allows the resident of the house to see outside the window, but one cannot see him or her from the outside. In ancient India, windows such as these were designated as *gavākṣa*, or cow's eye. The famous Sanskrit poet, Kālidāsa, in his work *Raghuvamśa* (7.5-11) describes women running toward these types of windows to watch the wedding procession of a prince on the street. Because the elephant foot motif originated from the Persian artistic tradition, and became popular in India during the Mughal period, we can surmise that the motif that we see in Pratāpa Malla's window is different from the Sanskrit cow's eye motif of the classical period in India. Their function, however, was the same.

Inscription

The one line inscription (Fig.4-5) in 17th century Newari script reads as follows:

śubha// śrī śrī jaya pratāpa mallana thva na jhyāla dayakā saṁvat 770
māgha vaddhi aṣṭamī//

Translation

May it be auspicious! On the eighth day of the dark half of Māgha month

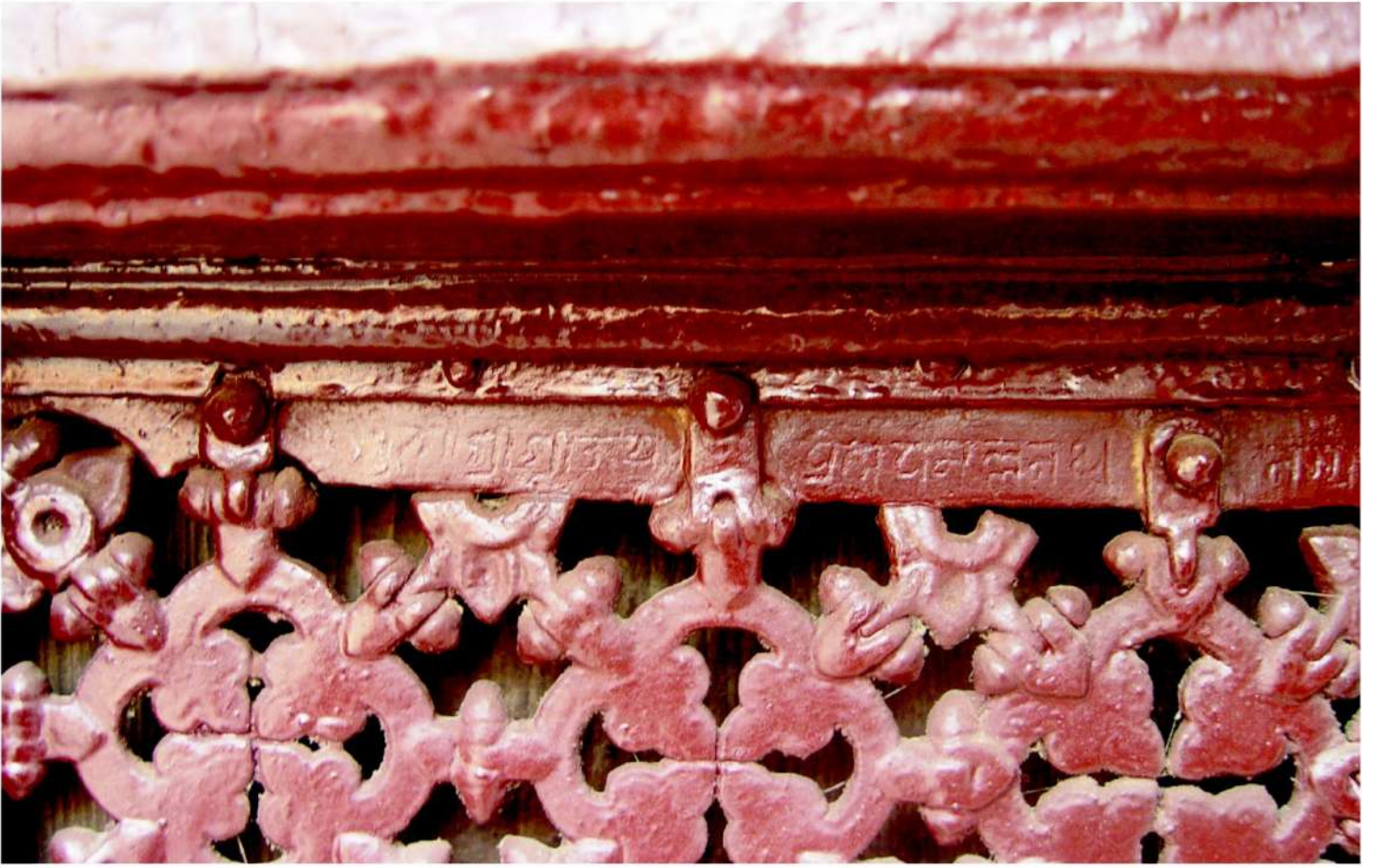


Fig.4



Fig.5

of Nepal Samvat 770 (1650 CE), the victorious King Pratāpa Malla commissioned this iron window.

Comment

Despite the fact that Pratāpa Malla was a ruler of a small kingdom, about one third of the Kathmandu Valley, an area which could be traversed within a one hour's walk, he was a unique person characterized by his versatility. (Most of the time, however, the Nuwakot region was also within the rule of the Malla kings of Kathmandu). The eulogy of various deities and secular verses carved in Pratāpa Malla's stone inscriptions indicate that he was interested in composing Sanskrit poems.

Contemporaneous documents also tell us that he personally participated in the performance of theatrical dance as well. One time he performed a dance as Nṛsimha, the man-lion, fourth incarnation of Viṣṇu. In order to commemorate the performance, he even established a stone statue of the god near the entrance of his palace, which is still in situ (Fig.6). He certainly had an inquisitive mind, as we know from a circular flat disk representing the earth, carried by a boar-headed human figure, placed in the middle of his newly built palace courtyard named Manmohan Cauka. According to the inscription carved on the disk, he studied śāstras, Sanskrit treatises, to figure out what the earth looked like.³ Further, he appreciated the ancient stone sculptures found in the valley and decorated his palace with antiquities that he discovered buried under the ground while digging canals for water fountains. This is indeed a rare example of love for antiquity in the history on Nepalese art and culture. Perhaps more closely related to our discussion are his experiments with lauhalepa or iron coating, often described by modern art historians as Mauryan polish, because the stone works of the



Maurya period (c. 321-185 BCE) were characterized by this shiny polish. The monolithic statue of Nṛsimha (Fig.6), near the entrance of golden gate of the Hanumān Dhokā palace, and the stone inscription found on the right of the entrance of the Kṛṣṇa temple are examples of his lauhalepa experiments.⁴ Unfortunately, he does not mention how he discovered the ancient technique of polishing the stone. Apparently, he found it mentioned in śāstra, as he did when he made the flat disk representing the earth. King Pratāpa Malla was indeed conscious of the significance of his rediscovery of making rust free iron. Although he does not say much about the discovery, his brief inscription referring to the window as na jhyāla or iron window clearly indicates that he was proud of the rediscovery of the ancient technique of rust free iron. There are many other windows in his palace. But they do not bear any inscription because there was no reason to have one. The iron window was special. Thus, the king decided to record his contribution in the inscription briefly describing the window as na jhyāla. Unfortunately, the glory of the iron window, rivaling the famous iron pillar of Delhi, is currently hidden under the thick layers of paint covering the entire structure.

References

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Ibid., p.65, pp.91-9.