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# The Khadira Wedges and Architectural Lore: Re-Examining the Materials Used in the Making of the Vajrakīla in India, 6–8th Century AD

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**Abstract:** This research examines the Vajra-kīla made from khadira wood from a technological history perspective, focusing on the use of the kīla in Indian rituals and its contrasts with Indrakīla and other deified forms in various practices. The Indian prototype of the pronged instrument can be traced back to architectural tools. During Indian rituals, monks incorporated architectural customs into maṇḍala construction, including striking wedges made of khadira wood, tying five-colored strings, driving the kīla into the ground no more than four fingers deep, and never retrieving the wedges. Consequently, the majority of these disappeared without a trace. By exploring its early forms and materials, we can also understand the causes of the geographical imbalance in the remaining quantities of kīla.

**Keywords:** Vajra-kīla; khadira wood; maṇḍala; architectural folklore; India

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## 1. Introduction: The Problematic Variables of the Legacy of the Vajra-KīLa

In existing tantric rituals and documents, the Tibetan word Phur-pa (Sanskrit: kīla or vajra kīla) usually refers to a type of magical tool with a three-sided blade, knots, and a square-based handle. In collections of prong-shaped artifacts, the overwhelming majority of them were unearthed north of the Himalayas. Regrettably, no pertinent Indic text survived from this period, and we know very little of the masters who were responsible for the transmission of the kila doctrines during that far-off epoch.[1]

John C. Huntington conducted research on the types of prong-shaped artifacts in museum collections and private collections across various countries.[2] Based on relics and artifact types, Huntington finds there to be no strong evidence for the Phur-pa Indian origin theory. However, this idea has since been proven incomplete. Notably, several extant examples unearthed in West Bengal[3] and in Yogyakarta have clarified the origins of the vajra-kīla, addressing the question of its origin. As Cathy Cantwell and Robert Mayer noted, "Since then, Huntington and other art historians have catalogued surviving Buddhist Heruka Vajrakīlas, perhaps based on the Guhyasamājatantra, found as far afield as Hugli, in West Bengal, and Yogyakarta, in Java".[4]

As the research on discovered prong-shaped artifacts developed, the question of their origin has been solidified. Robert Mayer believes that the Himalayan region was influenced by Indian culture very early, and the Tibetan kīla is the result of the evolution of the Indian style over the past three thousand years; therefore, he argues that we should not distinguish between Indian and Tibetan traditions.[5] Martin J. Boord's *A Bolt of Lightning from the Blue* is seminal, clearly documenting the origins of the cult of the Vajrakīla.[6] This book currently offers the most comprehensive analysis of the Vajrakīla and its related ritual practices, based on meticulous analysis of both Indic and Tibetan texts.

One Tibetan tradition imagines the Phur-pa as a sacred mountain, akin to the legends of India's Sumeru mountain and the myths of stirring the Milk Sea. These legends and myths also involve the deity Vajrakīla rolling the Meru kīla with both hands, and both

originated from the sacred mountain myths of Indra-kīla. The popularity of the Phur-pa in Tibet, which is well represented at Dunhuang, stands in stark contrast to its modest profile in other Buddhist cultures.[7] A similar tradition occurs in Theravāda Buddhism, where the evidence for kīlas throughout South Asian civilizations, including the Theravāda tradition, is not rare, typically using a post called the Indra-kīla to tie the seat. In this surviving tradition, the kīla resembles a sacrificial stake or post (yūpa) which can be as tall as 15–20 cubits.[8] Concerning this, Mayer pointed out "We are not sure when this happened, but it was certainly very early: Pāli scholars have reported that at least by the time of the appearance of the Pali canon, the yūpa and indrakīla had become conflated as a single item (de Silva 1978, pp. 244–46). As elaborated in those ancient Vedic texts called Brāhmanas, the yūpa, as a central implement of Vedic religion, was itself deified, and thus continued to have a manifold ritual life down the centuries".[9] Martin J. Boord echoes similar views in his book *The Cult of the Deity Vajrakīla*: "Thus we should not be surprised to witness the eventual rise of the kīla as a deity, despite the absence of firm indications in the early Pali sources".[10] This investigation convincingly reveals the Indra-kīla tradition rooted in Indian history.

If we delve deeper into a comparison between the traditions of the vajrakīla and Indrakīla, the variations in their applications are already conspicuous. The name Indrakīla (Pāli: Inda-khīla), which symbolizes a sacrificial stake or yūpa placed at the very center, often relates to the myth of Indra's suppression of Vṛtra, or to some extent, represents the axis mundi. Indrakīla is also mentioned as a sacred mountain in various epics and chronicles. During the process of Buddhist assimilation of the kīla, various aspects of Indian folklore were incorporated into ritual meanings. While there has been ample discussion about why the Vajrakīla tradition has become so complex and varied, the images of the wedge, peg, column, pile, and axis mundi are often discussed collectively due to their physical similarities. This approach likely results in the issue becoming unfocused and discursive within the limited space of the article.

In this article, I attempt to control variables, not increase them. The first variable controlled is size, which allows me to avoid discussing deified and post-like kīla. In Varahamihira's *Bṛhatsaṃhitā* (composed around the 6th century AD), section 46.73[11] mentions the Indrakīla:

"śakradhvaja^indrakīla^stambhadvāra^prapāta^bhaṅgeṣu//

tadvat kapāṭa^toraṇa^ketūnāṃ narapater maraṇam//".

*Bṛhatsaṃhitā* Chapter 46, "Portentous Phenomena" (utpātādhyāyaḥ), offers the portent connected with Indra's Banner and a king's destiny. M. Ramakrishna Bhat translated it as follows: "The falling down or breaking of Indra's standard, door-bolt, pillar, door, door-leaves, arch or flag indicates King's death". Translated as 'door-bolt,' this term does not fit the context. Clearly, the Indrakīla must be a sacrificial post erected in the court. Indra's banner (Indra-dhvaja)[12] is taller and thicker than the subsequent Indrakīla, which in turn is taller than a stambha (pillar). Early Buddhist scriptures also used the Indrakīla metaphorically, as found in the Pali Canon's '*Sutta Pitaka Khuddaka Nikāya*,' which states: "Like the Indrakīla driven into the ground, it cannot be moved by winds from any direction".[13] From my understanding, the Indrakīla and its associated practice differs from those of the wedge in smaller size, and the process of the Indrakīla's deification in secular contexts likely occurred well before the 6th century AD. Resembling the ritual of king's dhvaja, the raising of the Indrakīla should be considered auspicious when it is neither too slow nor too fast; not shaky; and when its garlands, decorations, and ornaments are not spoiled. Otherwise, it forebodes evil, and the preceptor should mitigate it through expiatory ceremonies. Once erected, it is typically worshipped by the king or gṛhapati, who is in charge of the site for a few days. Similar to the dome-nail stūpi-kīla mentioned in the *Mānasāra* (section 18.190–191)[14], the installation of the Indrakīla is unique and the only one of its kind in this context. For instances found in Hugli and Yogyakarta, they might actually be defined as the unique Indrakīla, which is beyond the scope of wedges I am focusing on in this paper.

The second variable is the scope of time. By narrowing the scope of time (mainly concentrating on sources prior to the 8th century AD), this article attempts to contribute the study from the following two perspectives. There is a paucity of studies on the early definition of kīlas used in architectural contexts and their affinity with the dominant material, khadira. The rare glimpse of the material and the way of practice to be discussed might help to understand how an extremely disproportionate amount of material remains incurred across areas south and north of the Himalayas.

I posit that the Indian prototype of the pronged instrument, to a large degree, can be derived from architectural tools, and this paper will concentrate on that usage, rather than its mythological deified connotations. Of great importance to my discussion are the usage and development of the khadira kīla, which is emphasized by multiple texts, including early Buddhist texts, later *Śilpa-śāstras*, and Sanskrit tantric scriptures.

## 2. Wedges Used in a Secular Way: The Use of the Khadira Kīla Originating from Architectural Customs

It is easy to presume that the disappearance of Indic vajrakīlas is attributed to environmental factors. This phenomenon is closely linked to the material of the kīla and the manner in which Buddhist monks used it. What was its earliest form when used to take control of a plot of land, and what specific material was preferred by the monks? There is a logical connection between these questions.

When it comes to architecture in early secular texts, the connotation of the kīla seldom refers to a post or column. The *Arthaśāstra* (Kauṭilya's Treatise on Statecraft), which was composed between 100 BCE–300 CE,[15] clearly differentiates kīlas from other column-like architectural objects. The peg or post used to leash elephants while armies marched is called hasti-stambha in the *Arthaśāstra* (Chapter 2.32.2, 7.10.32, 10.2.14). The *Arthaśāstra* (2.3.26) mentioned the Indra-kīla as going beneath the door to support the threshold. A kīla made of karṇa wood as a boundary mark of residence is described in the *Arthaśāstra* (3.8.3): "On Immovable Property". Given this, kīla definitely refers to a small sized peg or a wedge, deeply rooted in the ground. This comprehensive secular text even incorporates elements of witchcraft. Criminals who were crucified on a sharp stake provided bones, which were best suited to make a small magic wedge, kīlaka. The *Mayamata śilpaśāstra*, a Sanskrit architectural text, discusses the importance of placing an Indra-kīla made of khadira wood in the foundation deposit ceremony. "Above is a perfectly circular stake in khadira wood which should be laid in place on top of the casket by those who know the rules relating to foundation deposits".[16] Throughout my exploration of these texts, as well as the following Chinese sources, the kīla (normally 12 aṅgula long) was never referred to as a post or column; therefore, this paper suggests some possible hypotheses that a religious wedge used to take control of the land should be a prong-shaped object of small size.

Chinese translations of multiple Buddhist scriptures over 6–8 centuries have clearly showcased the pervasiveness of the Indian kīla tradition in the early medieval ages. This usage derives from architectural practices, because when it comes to the material, "Khadira wood," an indigenous south Asian wood, was prioritized. The Tang dynasty (唐朝) Buddhist monk Seng Yi Xing (僧一行, 683–727) translated a tantric scripture, DaPiLuZheNaFoYanXiuXingYiGui (《大毗盧遮那佛眼修行儀軌》; its corresponding Sanskrit name is perhaps assumed to be Mahāvairocana Buddha Cakṣus Vidhi). This scripture says:

> For the sake of the vajra-kīla's perfect skillfulness to ease rain and wind, khadira wood is necessary. If not available, it should be replaced by Melia azedarach wood; even wrought iron is acceptable. While using it for a variety of events, the deity Vajra-sattva confers power on it. Once this occurs, the user views their bodies as vajra (as powerful as a diamond). The users should then nail the barrier into the ground and establish the direction and wall, thus empowering every part of the site as vajra.[17]

Another Chinese translation of tantra translated by the Sri Lanka Buddhist monk Amoghavajra (不空), RenWangHuGuoBoReBoLuoMiDuoLuoJing TuoLuoNiNianSong

YiGui (《仁王護國般若波羅蜜多經陀羅尼念誦儀軌》) described the same preference regarding the kīla's material:

> Draw the doors on four sides, corresponding with the four outermost roads. Nail the khadira wood wedge in the four corners of the altar. Provided that no khadira wood is available, wedges made of red sandalwood or iron would be acceptable. The wedge should be twelve fingers long, its four fingers rooted in the ground. Recite the third vajra-mantra 21 times, conferring power on the wedge, and then nail it. Form a rope as thick as a little finger with five colored strings woven by virgins, and then encircle the altar with the rope by tying the four wedges' heads.[18]

Why was it compulsory to use a material named "khadira wood" for a wedge in a large corpus of Buddhist canons? The Sanskrit word Khadira or Khadiraka has corresponding historic Chinese translations: 佉底羅, 佉達羅, 竭地羅, etc. Its Latin scientific name is Acacia catechu. In Indian languages, the most common name of this tree is khair.[19] It is a rapidly growing deciduous tree with shallow roots.

In Chinese translated versions of early Buddhist scriptures, khadira wood was frequently applied to daily instruments, not only referring to the wedge but also the pestle. Why is khadira wood highly praised, even more frequently than metal and the expensive sandal wood? There are two underlying reasons its merits outweigh metal and other hardwood species.

The first reason is that khadira wood was thought to have magical powers in Southern Asia. In the earliest South Asian poem *Ṛgveda*, khadira wood is worn by Indra: "Engird yourself in the hardwood of the acacia tree.[20] In *Atharvaveda* Chapter 8.8.3, killing an enemy through witchcraft by using two kinds of trees is mentioned. The first is the aśvattha tree, which is able to crush the enemy, and the second is khadira tree, which is able to quickly swallow up the enemy: "Crush yonder men out, O aśvattha; devour them speedily, O khadira; let them be suddenly broken like hemp".[21] Perhaps in the late Vedic period, multiple tools such as plows and staffs were made from khadira wood, as it was easily available and practical. In *Rāmayāna* Chapter 1.13.17, it is said that khadira is one of the best timbers for sacrificial posts. Some Buddhist texts even elevate it to the status of a sacred tree that covers one of the seven golden hills of the Sumeru mountain.

Secondly, the khadira wood's heavy and tough quality, while also being easily available and cheap, contributes to its frequent usage in daily life and construction work. The Bali Canon *Jātaka* story No. 210, "Kandagalaka Jātaka", attests to the quality of this wood from another angle.[22] In the story, the bird in the forest tried to peck the khadira tree, but its beak was broken and its head was torn. In the *Arthaśāstra* (2.17.4), when classifying wood, khadira is classified as hardwood. The *Mahābharata* (12.37.33) says that if someone tried to swim across the sea with a branch of Khadira tree, he would definitely sink with the wood due to its weight. Furthermore, khadira wood was used for city defense, sharpened and placed in moat paths, which were used as invisible posts. The *Mahābharata* (3.268.3) says the moats of demon king Ravana's city were bolstered with stakes made out of khadira.[23] Beyond construction and city defenses, a club of khadira wood was used to administer physical punishment (*Manusmṛti* 8.314–315). By virtue of its corrosion resistance and wear resistance, Acacia catechu is highly valued for furniture and tools.

*Jātaka* No. 156, "Alīnacitta Jātaka", clearly showcases khadira wood as the primary timber used for construction work. The story depicts that when carpenters were shaping timbers, an elephant passing by trod upon a splinter of khadira wood. In other less religious scriptures like the earlier *Pañcatantra* (composed around 300 CE) and the later *Ocean of Stories*, the "The Monkey that Pulled the Wedge" story is included. The story shares, "It so happened that a carpenter had split a log of Arjuna wood half-way and driven a wedge of acacia wood into it with a machine…When they left for lunch, he left that half-split log there held apart by the wedge".[24] Khadira wood is harder than other woods, including Arjuna, which used to be used for temple construction.[25] In the *śilpśāstras*, it is indicated that a sundial's central post should be made of khadira wood (*Mayamata Śilpaśāstra* 6.16).

Therefore, the quality and strength of khadira wood are so good and economic that it can replace common iron. To some extent, the destructive effects of using iron wedges in sacred sites or maṇḍalas[26] contribute to the traditional preference for wooden wedges in the construction of maṇḍalas. This preference not only aligns with ancient beliefs in the harmony and integrity of construction materials with the natural and spiritual world but also highlights the significance of wood in maintaining the sanctity of a living house.

## 3. How the Wooden Wedge's Architectural Connotations Integrate with the Maṇḍala Structure

Technically speaking, the application of the khadira kīla is contextualized within the construction of a house-like maṇḍala. Essentially, the way of envisaging a complete maṇḍala is a process of building virtual walls, fences, and gates, all of which actually function as protective structures encircling the central gods. Therefore, a solid foundation is a prerequisite for a maṇḍala house. As Ananda K. Coomaraswamy pointed out, "The prototypes of temple architecture, then, are identical with simple building forms that may have been in use from time immemorial and have survived to the present day".[27] The maṇḍala laid on the ground cannot be limited to traditions within Buddhism. By inserting wedges, the corresponding step of laying a solid foundation is fulfilled virtually. In the *Mūla-sarvāstivāda-vinaya* (《根本說一切有部毗奈耶》, GenBenShuoYiQieYouBu PiNaiYe) translated by Yi Jing (义净 635–713) in the Tang dynasty, it is said:

> When it comes to the construction work of laying a foundation, a day with auspicious stars and date has to been selected. If there is no kalpikāraka (lay steward), the monk should nail the ground with wedges on his own. To mark the boundary, digging four fingers deep is required to not violate (the precepts).[28]

Firstly, there is no doubt that these practices of selecting a lucky date, using the wedge as a boundary mark, and encircling wedges with ropes comply with the content in the previously mentioned secular texts. In early personal esoteric practice, it was mandatory to distinguish directions, even when drawing a simple maṇḍala. For this, tools such as chalk and measuring ropes were necessary.[29] Likewise, when a building component involves worship, the direction must be marked meticulously.[30] The clockwise drawing or wedge placing sequence recorded in those texts was deeply contemporaneous with folk architectural customs. The texts describe how the monk, when striking the wedges, held the wedge with his left hand and continuously struck it downward with his right, embedding the wedge into the soil. The only visible parts of the wedges were their heads, which were tied with five-colored ropes. The basic procedure for laying the foundation started from the four corners of the site, where four wedges symbolized the pegs inserted underground, completing the maṇḍala's foundation. The meanings of the kīla, which include determining boundaries, are deeply and irreversibly rooted both metaphysically and physically in the ground. For personal practice, subjugating site spirits, and building temples, the structure of a delicate maṇḍala resembles an imaginary tiny city with a defensive function. Later in China's Tancheng (坛城) tradition, the architectural connotation is fully preserved. A 15th century inscription—found on the gate of the first Buddhist temple within one hundred thousand pagodas in Jiangzi (江孜)—reads: "In the fundamental Tancheng's central site and its four side courts, phur-pa must be installed".[31] Here, the phur-pa's meaning is equivalent to the original kīla.

Secondly, it is noteworthy that the established rule mentioned across various scriptures stipulates a depth of four fingers for the wedge. This contextual information—a taboo against 'harming the spirit of the ground or violating precepts'—seems to reflect a tradition at the intersection of woodwork admiration and respect for the earth. This admiration for woodwork is intrinsically linked to the belief that wood products possess 'life spirituality'—all plants are considered dwelling places for spirits and gods. Wooden structures are often viewed as living entities. When ancestors constructed wooden buildings, they consciously treated the house as a unified living body.[32]

It was imperative that the direction of the root and crown in temple wooden pillars was not inverted. The tree's top and bottom orientations should be clearly marked to ensure that the idol could use the top eastern part of the timber for its face. As stated in the *Bṛhatsaṃhitā* (59.7), "An emblem of Śiva or any image should be installed according to the directions of the tree". The reversal of the wood's natural grain can disrupt its life energy, a principle that is well-understood in carpentry worldwide. The texture of the wooden peg aligns with the wood's natural growth direction, which, in contemporary scientific terminology, is referred to as the longitudinal direction. The tensile and compressive strengths of wood are greatest along the grain and smallest across the grain. Although there is no direct evidence detailing the specific preparation process for a wooden wedge, it is implied that its orientation relative to the wood grain is a crucial consideration. That is why the denser wooden root side of a pillar or peg must be placed at the bottom.

Burying bones and metal in the ground was believed to obstruct the vitality of the land and the houses. Influenced by architectural folklore, maṇḍalas favored wooden instruments over metal ones; a maṇḍala city is envisioned as a wooden structure integrated with wooden pegs buried in the ground. This perception aligns with the concept of vāstupuruṣa, which embodies the idea that the integrity and vitality of a house are paramount. The deity, regarded as influencing the well-being of the landlord through its presence, is envisioned as lying prone in a square shape on the ground. This tradition emphasizes the house's holistic life and underscores a deep respect for the spirit of the earth.

In addition to my preceding analysis of the reasons for using wooden wedges in maṇḍalas, I argue that the sound produced by striking must also be considered. Evidence suggests that as early as the Vedic period, the sound of a wood peg striking stone was believed to have effects similar to incantations. The wooden wedge (śamyā), a stick of khadira wood usually 6 or 8 inches long, appears in the *Atharvaveda*, *Gṛhyasūtra*, and *Śrautasūtra*. It was used to adjust the lower grindstone on the north side to make it incline towards the east. By striking the millstone, the sound of the wedge was believed to have a foe-killing effect, as described in the *Śatapatha Brāhmaṇa*:

> It entered into the sacrifice itself, into the sacrificial vessels; and thence those two (Asura priests) were unable to expel it. This same Asura killing, foe-killing voice sounds forth (from the mill-stones when they are beaten with the wedge. And for whomsoever that knows this, they produce this discordant noise on the present occasion, his enemies are rendered very miserable. (*Śatapatha Brāhmaṇa* (I.1.4.17))[33]

> This one, as it were, represents the sky; (or) the two mill-stones are, as it were, the two jaws, and the wedge is the tongue: that is why he beats (the mill-stones) with the wedge for it is with the tongue that one speaks. (*Śatapatha Brāhmaṇa* (I. 2.1.17))

Agnīdhra, whilst seated north of the expansion of the fires, strikes the wedge of khadira wood, usually some six or eight inches long (*Śatapatha Brāhmaṇa* (I. 1.4.13, School on Kātyāyana Śrauta sūtra II.4.15)).[34] This act of striking pegs, imagined as a tongue that can speak, and the resulting sound were believed to subdue demons or expel malicious spirits from underground. Similarly, during the construction of a maṇḍala, the sound of striking wedges, coupled with the recitation of mantras (typically 108 times), synergistically worked to consecrate the site, rendering it as invincible as a diamond.

In summary, the exceptional quality and economic viability of khadira wood make it a superior alternative to iron, especially in the context of spiritual and architectural practices. Tracing the historical background of these kīla practices allows for further exploration of variations in the late medieval period and highlights differences between them.

## 4. The Variation and Disappearance of the Kīla from the 6th Century Onwards

### *4.1. The Usage of the kīla Gradually Transforms from a "Practical Tool" into a Complex and Precious "Ritual Vessel"*

In the early Middle Ages, the khadira kīla was mainly used in quasi-construction practices. Driving the wedges into the ground was prevalent, which often caused damage to the hilts and abrasion at their bases. From the 8th century onwards, deeply inserting wooden pegs into the ground—to a point where they could not be moved or pulled out—ensured the foundation's stability. Similarly, in the process of creating a maṇḍala, once the wedges were placed into the ground, they were not meant to be removed, effectively securing control over the entire site. Removing the wedges would cause the intended effects, particularly those related to witchcraft, to fail. Thus, the underlying logic of these practices are fundamentally architectural.

The khadira wedge is associated with stories of subduement in early Indian literature. Subduing snakes was also considered a part of primitive witchcraft aimed at controlling the weather and water. Yi Jing (义净)'s translation of the "*Mūlasarvāstivāda Vinayapiṭaka Bhaiṣajyavastu*" (*GenBenShuoYiQieYouBu PiNaiYeYaoShi*《根本說一切有部毗奈耶藥事》) mentions a story about a sorcerer who uses a khadira wedge to create a protective boundary and capture a "rain-bringing dragon child":

> There is a dragon (nāga) child named Miao Sheng, who brings rain on time, ensuring a bountiful harvest, making the people of that country happy. The king then said to his ministers, "What plan can we devise to make this Dragon Child stay here?" The ministers replied, "If there is someone who can recite spells, he can be brought here." …
>
> After being stuck by the maṇḍala, the nāga said to a hunter, "I am the Nāga child, Miao Sheng. Currently, a sorcerer named Zhoushe from the country of Banzheluo in the south wants to take me away, and now he is performing sacrificial rites and setting up barriers (around me). Seven days from now, when he comes here, he will drive a khadira wedge into the ground and wrap various colored threads around the pond on four sides. Through his rituals, he will surely take me away.

有龍子名曰妙生，依時降雨，令得豐熟，為斯彼國人民快樂。其王複告群臣曰："作何方計，令彼龍子來此居止？"臣曰："若有持咒之人，即可來至。"……

"我是妙生龍子，今為南方般遮羅國師名曰咒蛇，欲來取我將去，今作祭祀結界之法。卻後七日來此之時，釘竭地羅木橛，種種色線繞池四邊，作法必將我去。"[35]

The *Āryavipulamaṇiratnasupratiṣṭhitakūṭaāgāra Paramarahasyakalparājanāmadhāraṇī* (*DaBaoGuangBoLuoGeShanZhuMimi TuoLuoNiJing*, 《大寶廣博樓閣善住秘密陀羅尼經》) translated by Amoghavajra (705–774 ACE), also describes the use of the Khadira kīla for subduing snakes.

> If there is a severe drought, first smear the ground with cow's excrement. Construct a square altar 4 cubits (hasta) in length, with a central water blue pond two cubits in length. In the pond, take cow's excrement, mix with soil to make mud, and shape it into a dragon... Insert 4 arrows at the four corners of the altar, winding them with five-colored thread. Then use the thread to surround the altar, and hang five-colored small flags on the thread… (After the completion of this maṇḍala) The dragon will then bring rain, and all dragons will be subdued. If one wishes to stop the rain, recite a mantra over white mustard seeds 108 times. Throw them into the dragon pond, and the rain will stop. If there are evil winds and hail, take a wedge made out of khadira wood, nail it beside the dragon pond, and it will be effective in ceasing hail, frost, and evil winds.[36]

This rain-controlling secret method clearly derives from the same origin as the examples found in the *Mūlasarvāstivāda Vinayapiṭaka Bhaiṣajyavastu* (Gilgit Mss, pp. 122–59), with both practices involving the winding of five-colored thread around the altar and utilizing the same material for the wooden wedge.[37] It is interesting and noteworthy that the way

to save the nāga from the rain-controlling maṇḍala is to unplug the four wedges at the corners, which implies the collapse of the structure.

Rotting is not the primary reason for their disappearance. The directive '事畢壇毀' (once fulfilled, the maṇḍala should be destroyed and disposed of) establishes a direct causal relationship. This highlights the disposable and non-recyclable nature of the wedges applied in maṇḍalas. According to existing literature, although a large number of wedges were used in rituals in the past, they were not consecrated in the early periods, and no attention was paid to the maintenance of these wedges. In the Tang dynasty, a Buddhist monk, Atikuta (阿地瞿多), came from central India and translated *TuoLuoNi JiJing* (《陀羅尼集經》 *Dharini Saṃhitā sutra*) in 652–654 ACE. It is said in the text to "get four wedges made out of khadira wood, each 8 fingers long. Nail them on four corners. Recite mantra to each wedge 108 times and then nail them to the four corners. Once the wedge is nailed down, never pull it up".[38]

As time went by, ritual wedges became more commonly used in exorcism rituals across tantric Buddhism.[39] These rituals, capable of destroying and liberating enemies and demonic obstacles, are called "sgrol ba" in Tibetan, translated as "liberative killing" in English. Cathy Cantwell and Robert Mayer note significant descriptions of rituals with prong-like instruments in the Dunhuang manuscripts.[40] When used in rituals for establishing a boundary or subduing the land, they are often symbolically nailed into the ground to pin down earth spirits (Tibetan: sa-bdag, often imagined as serpentine in form). Due to this practice, even though some vajrakīlas were made of perishable materials that could be preserved in the ground, their blades and heads were not damaged during striking.

Until the late medieval ages, wedges were extensively used in temple construction. The Buddhist ritual text, written in Sankrit during the 11th and 12th centuries, *Kriyāsaṃgrahapañjikā*—which was influential in Nepal—describes a tantric method for subjugating the selected site prior to temple construction. In the homa rite, the teacher ignites a fire with the khadira wood to appease bad misfortunes.[41] It is said that khadira wedges need to be used to nail the Vāstu-nāga, preventing it from moving.[42] Khadira wood was still prioritized:

> The teacher summons the secret maṇḍala in order to eliminate all the obstructive forces. Once this is done, he prepares four kīlas made from the khadira wood, or from certain other kinds of hardwood, or from bones…after executing a dance with the vajra-steps of the chief deity, they fix eight kīlas towards the cardinal and intermediate directions…[43]

It is particularly noteworthy that not only the ways of using kīlas (like wielding) but also their shapes have become more diverse. "In the centre of the ground and inside a circle of specified size, he inserts a pointed khadira stake marked with a fierce diagram (Rudrarekha)".[44] Based on the text, it can be assumed that from at least the 11th century onwards, the ornament of ritual wedges rapidly developed. Once the ornament and symbols of the wedge developed, it shifted from a practical instrument to a ceremonial one. It adumbrates that well-designed wedges used in maṇḍalas are less likely to be struck on their heads, let alone be nailed into the ground.

Thus, compared to the previous dominant practice of disposing of it after the completion of maṇḍala ceremonies, the survival of the vajrakīla became possible. Once some kīlas turned into ritual items, which did not need to be struck on their heads or have actual contact with the tough ground, they were no longer disposable instruments, and thus they could survive in the northern Himalayan area.

The kīla from the 6–8th century AD mentioned in the context of this article has nothing to do with a weapon, nor is it intended to be used as one to kill or subjugate enemies or malicious spirits. The prevalent use of the phur-pa, which resembles wielding or dancing with a magic weapon, hardly involves inserting it into the ground to the point of causing damage. It is understandable that wood is not best suited for forging a magic weapon. If the ritual had high hopes for the wedge functioning as a weapon or a dagger that could kill or subjugate remote enemies, it is inevitable that the material and practice of the vajrakīla

changed north of Himalayas in the early medieval ages, due to the geographical limitations of the "Khadira" tree's habitat. The material and design of the wedges used in maṇḍalas varied beyond the central area of India from the 6th century onwards.

Khadira wedges are still promoted in Tibetan documents such as the "Phur pa bcu gnyis" (《十二橛密續》) and other scriptures.[45] Dunhuang Tibetan document ITJ331 also mentions using a Khadira (seng ldeng) wedge (phur-pa) to stab the heart of a human figure.[46] ITJ401 records a method to treat severe seizures: "Mix iron powder, gold powder, and brass powder with ordinary powder, have four people hold the limbs of the person with seizures, roast over a fire, shake (the person) above the large fire, and put the (above-mentioned) powder into the fire below his body… After three days in the evening, nail five small wedges, tie the limbs and head to the wedges, and fasten five colored strings on top of wedges…"[47] This example of "wedges fastened with five-colored threads" follows the same principle as the previous examples recorded in Sanskrit texts, even though they are used to overcome aversion.

The phur-pa's blades, made of meteoric iron, are also considered to have special ritual efficacy. Furthermore, wooden phur-pas are often made of sandalwood and are also commonly made with metal composites.[48] Therefore, due to the diversity of durable materials that also add artistic value, coupled with a suitable climate, a large number of wedges have been preserved.

### *4.2. The Two Traditions Exhibit Significant Differences in Their Treatment of the Wedge as a Deity*

Cultural integration would happen early once the Tibetan Buddhists accepted the kīla maṇḍala ceremony. There are two major characteristics. One is the deification of wedge; the other is the integration of the myth of the kīla with the legend of Padmasambhava.

In early esoteric texts like the *Āryamañjuśrīmūlakalpa,* the word Vajra-kīla seldom appears, and there is no such god as Vajra or a Vajra-kīla deity.[49] It is emphasized that the khadira wedge blessed by the vajra mantra hundred times deserves the name vajra-kīla. Dunhuang Tibetan scripture ITJ.745 describes the production of wedges and esoteric practice. When it comes to the recitation of the vajra-kīla-related mantra used to bless the wedge, the text uses Sankrit–Tibetan hybrid words reciting the deity ba-dzra kīlaya (ba-bzra equals vajra); most of the time, kīlaya directly means wedge.[50] Dunhuang Tibetan scripture ITJ331 is the same case as well.[51] Dunhuang Tibetan scriptures Pt.349 and ITJ.173 use "Rdo rje phur-pa" as a deity.[52] In the *Kriyāsaṃgrahapañjikā*, the master should envisage the four kīlas, respectively, as Akṣobhya at the eastern portal, Ratnasambhava at the southern portal, Amitābha at the western portal, and Amoghasiddhi at the northern portal.[53] Those deities are gratified with offerings. The position of various deities residing on the wedge is explained by Robert Mayer: "It is only in this upper part, says the *Phur.pa.bcu.gnyis*, a Vajrakīla root tantra, that the enlightened deities dwell, while the lower three-bladed part is only to subjugate. This is entirely appropriate, since the Indian gods live on the upper realms of Meru, not under the waters, where the nāgas dwell".[54]

According to Jacob Dalton, there was little connection between the Vajrakīla and Padmasambhava at first. Until the beginning of the 10th century, Tibet had begun to deify the kīla. The Tibetan word Phur-pa or Phur-bu can refer to Vajrakīlya as well. Based on Dalton's comparative study of Dunhuang Tibetan documents ITJ.644 and Pt.307 and Pt.44, he pointed out that the themes described in the three documents are all about the deeds of Padmasambhava passing through the Asura Cave in Yang-le shod Canyon in Kathmandu. The earlier ITJ.644 and the "*Dba' bzhed*韋協"[55] only mention his worship of Vajrapāṇi. The tradition of phur-pa worship in Tibet and the practice of associating it with the legend of Padmasambhava were formed around the 9th to 10th centuries.[56] No doubt, classifying the phur-pa a representative ritual instrument of Padmasambhava is based both on considerations of orthodoxy and on elevating the esteemed Vajrakīla tantra of their own sect. In Tibetan historical documents, legends and scriptures about the phur-pa brought from India gradually merge with the "Life of Padmasambhava" and the Indrakīla. Once it became

Padmasambhava's ritual instrument, the esoteric practices associated with the wedge were believed to possess many powers, including commanding spirits and controlling rain. The blades of phur-pas are commonly adorned with serpents and makaras. That could also be viewed as an exhibition of the integration of South Asian myth and local myth.[57]

As Robert Mayer said, "Three blades are clearly designed as a peg…by the ornamentation of the top of the blade with a makara's head, from the mouth of which nāgas pour down the length of the blade. These constitute standard and ubiquitous symbols of the ocean in Indian art".[58] The blade of the phur-pa more likely expresses Tibet's reception of the Indian traditional concept that Makara fish and snakes can control clouds and rain, while the hilt mirrors its indigenous tradition. It is only in this upper part, says the *Phur.pa.bcu.gnyis*, a Vajrakīla root tantra, that the enlightened deities dwell.[59] In contrast to the kahdira kīla tradition, the phur-pa tradition and vajrakīla statues made of stone or metal that survived in South Asia and Southeastern Asia exhibit significant differences in how the wedge is revered as a deity. The intricate and delicate design of prong-shaped ritual items reflects the complex and precious "ritual vessel".

## 5. Conclusions

Of great importance to my discussion are the usage and development of the khadira kīla, as emphasized by multiple texts, including early Buddhist texts and later *Śilpa-śāstra* and Sanskrit tantric scriptures. Among the various ritualistic wedges that once existed across the South Asian subcontinent, the kīla crafted from khadira wood best embodies its Indian origin of architectural lore. It is considered the most supreme in early tantric rituals, with the widest efficacy. By mitigating variables including the scope of time, size, and material, this article thoroughly addresses how the architectural lore was integrated and the contributing factors to the disappearance of kīlas.

The historic secular use of khadira wood, the expectation that it would subdue the site's spirits and rain-controlling nāgas, and the mindset that wood products have "life spirituality" all suggest that wooden wedges and pegs have been preferred over their metal counterparts in architectural history. This preference is evidenced by the use of the khadira kīla in maṇḍala and site subjugation ceremonies, where original architectural beliefs were not only integrated but also evolved. Practices included "事畢壇毀" (once fulfilled, the maṇḍala should be destroyed and disposed of), striking the wedges into the ground, and wrapping the heads of wedges with strings in five colors. According to existing literature, although wedges were frequently used in rituals in the past, they were not consecrated in the early periods, nor was their maintenance during striking considered important. The easily sourced, disposable nature of these wedges actually originated as a tool in Indian architectural customs and was primarily used for laying foundations and defining boundaries. Once absorbed into religious ceremonies, it gained additional applications, such as creating protective maṇḍalas and subduing serpents, in order to gain control over a plot of land.

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## Notes

1 Boord 2002, p. xiv.

2 Huntington 1975.

3 Ashutosh Museum, Kolkata, West Bengal, India. See "The Huntington Archive|The John C. and Susan L. Huntington Photographic Archive of Buddhist and Asian Art". The statue is made of gray stone and is taller than one meter.

4 A heruka Vajrakīla found near Yogyakarta that also closely conforms with the Guhyasmāja iconography, and the sculpture from Hugli. This Javanese kīla dates between the eighth and twelfth centuries. Cf. (Cantwell and Mayer 2008, pp. 16–18).

5 Cf. (Mayer 1990, pp. 4–6; Mayer 1992). Mayer's viewpoint here basically derives from David Snellgrove's research. Cf. (Snellgrove 1987).

6 Boord 2002.

7 Cantwell and Mayer 2008, p. 16.

8 Cantwell and Mayer 2008, p. 16; de Silva 1981.

9 Cantwell and Mayer 2008, p. 19.

10 Boord 1993.

11 Varāhamihira 2010.

12 Cf. Varāhamihira's *Bṛhatsaṃhitā* Charpter 43 Indradhvajasampad.

13 Suttas/Khuddaka Nikāya/Khuddakapāṭha/Khp 6 Ratana Sutta—Treasures.

14 Acharya 2011.

15 McClish and Olivelle 2012.

16 Dagens 1995.

17 "依金剛橛方便以息風雨，當用佉陀羅木。若無者，當用苦楝木乃至鑌鐵為之。用成辦諸事金剛薩埵加持。觀自身即同一切金剛。以釘障起方面，則令道場地分一切皆同金剛。"Taishō shinshū daizōkyō 大正新修大蔵経, 100 vols, Takakusu Junjirō 高楠順次郎, Watanabe Kaigyoku 渡邊海旭, and Ono Genmyō 小野玄妙 eds., Tokyo: Taishō issaikyō kankōkai, 1924–1935; rpt. edn., Taipei: Xinwenfeng chuban gongsi, 1974. Hereafter Taishō shinshū daizōkyō abbreviated as T (T19, no. 981, 411a28-b3).

18 "四面畫門，當外界道。於壇四角釘佉陀羅木橛。如無此木橛，鐵、紫檀木橛亦得。長十二指，入地四指。誦下第三金剛真言，加持橛二十一遍已，然後釘也。以五色縷令童女右合，粗細如小指，以系橛頭周圍壇上。" T19, no. 994, 515c2-7.

19 Cumo 2013.

20 The Sanskrit words of "hardwood of the acacia tree" is "khadirasya sāra". Rigveda 3.53.19. (Jamison and Brereton 2014).

21 Whitney 1905.

22 Cowell et al. 1895.

23 Debroy 2004.

24 Olivelle 1997.

25 For its Sanskrit text, I make reference to http://www.sanskritebooks.org/2009/10/stories-from-panchatantra-sanskrit-english/ (access on 10 October 2022).

26 In this article, a maṇḍala refers to a plot of land controlled by wedges inserted in four corners. The associated kīla maṇḍala ritual involves a series of actions performed in a prescribed order.

27 Meister and Coomaraswamy 1988.

28 "若營作，苾芻欲定基時，得好星候吉辰、無有淨人，應自以橛釘地。欲記疆界，深四指者無犯。" T23, no. 1442, 854b14-15.

29 FoDing ZunSheng TuoLuoNi NianSong YiGuiFa(《佛頂尊勝陀羅尼念誦儀軌法》)："於上取白粉和水，以繩分九位拼之。石上磨白檀香，用塗九位。其九位者：中央安毗盧遮那佛位……"(T19, no. 972, 364b28-c2). It can be translated to "Mix white powder with water, and divide it into nine parts with a rope. Grind white sandalwood on a stone, and use it to mark the nine parts. The nine parts are: the center for Vairocana Buddha's position…".

30 "The four sides of the dome-nail (stūpi-kīla) should be marked with a string, starting with the east". *Mānasāra* (18.185).

31 Giusepee Tucci, *FanTianFoDi*, its original name is Indo-tibetica, translated by Wei Zhengzhong and Sarji, Volume 4, Book 2, 398, 400.

32 In the ancient South Asian world, civilian houses were primarily constructed from wood or grass. Great attention was paid to the materials used in wooden religious objects and temples, especially regarding tree segments and the direction of the texture.

33 Eggeling [1882] 1993.

34 Eggeling [1882] 1993, p. 29.

35 T24, no. 1448, 60a11-18.

36 "若亢旱時先以瞿摩夷塗地。作四肘方壇，中心畫一水池，方二肘作青色。於池中取瞿摩夷，和土為泥捏作一龍……於壇四角插四只箭，以五色線纏繞於箭。周圍其壇，又於線上懸五色小幡……其龍即降雨，一切龍皆降伏。若欲止雨，加持白芥子一百八遍。擲龍池中，其雨即止。若有惡風雹雨，取佉陀羅木作橛，釘龍池邊即得。霜雹不下，惡風即止。" (T19, no. 1005A, 625a7-26).

37 Martin J. Boord, *A Bolt of Lighting from the Blue-The vast commentary on Vajrakīla that clearly defines the essential points*, 2002, 3–4.

38 TuoLuoNi JiJing (《陀羅尼集經》 Dharini Saṃhitā Sūtra):"以佉陀羅木作橛四枚，各長八指。其木各咒一百八遍，釘於四角。此橛畢竟，更莫拔卻。一橛如是，餘三亦然。" (T18, no. 901, 801a5-7).

39 The Phur pa deals with the mind of being able to dispatch one's enemy on vast distances through a dart-shaped implement. In the practices of the Nyingma and Sakya sects, wedges are used in dance, exorcism, and yoga practices. (Kapstein 2000). 顿珠卓玛："萨迦派"多吉普尔羌姆"仪式程式及象征解读——以若尔盖求吉寺为例"，《中国藏学》2017年第4期，第178–182页。

(Dunzhu Zhuoma: "The Ritual Process and Symbolic Interpretation of the 'Dorje Phurba' Ceremony in the Sakya Sect—A Case Study of Ruoergaiqiuji Temple," in "China Tibetology" 2017, No. 4, 178–182).

[40] Cantwell and Mayer 2008, p. 6.

[41] Skorupski 2002, p. 34.

[42] Skorupski 2002, pp. 40–45.

[43] (Skorupski 2002, pp. 101–2). According to existing śilpaśāstra, there are similar customs to nail the Vāstu nāga existing in Indian Odisha State.

[44] Here kīla is translated as "stake". (Skorupski 2002, p. 60).

[45] Mayer 1990, p. 8.

[46] Cantwell and Mayer 2008, p. 114.

[47] This citation is translated by Professor Liu Yinghua from the China Tibetology Research Center中國藏學中心, I am deeply grateful for his help.

[48] Huntington 1975, p. 5.

[49] Shastri [1925] 1989.

[50] Mayer and Cantwell 1993.

[51] Cantwell and Mayer 2008, p. 107.

[52] "The king of the indestructible essence" equals to "vajrāmṛtamahārājaṃ". (Cantwell and Mayer 2008, pp. 161, 162, 173).

[53] Skorupski 2002, p. 102.

[54] Mayer 1990, p. 7.

[55] A copy held in the library of the Fifth Dalai Lama, which retains more of the textual characteristics and historical narrative style of ancient Tibet than the current "sba bzhed" version, with fewer myths about gods and demons. It is closer to the original version, and its original manuscript was likely completed at the end of the 8th century. 巴桑旺堆：《吐蕃歷史文獻研究論文集》(《〈韋協〉譯注》)，上海：上海古籍出版社. (Pasang Wangdu: "Research Papers on Tibetan Historical Documents" ("Translation and Annotation of 'Dba' bzhed'"), Shanghai: Shanghai Ancient Books Publishing House, 2018, 200–202.) The author said he has corrected some minor mistakes in the early English translation version, which was translated by Wangdu and Diemberger (2000).

[56] Dalton 2004.

[57] The myths of Indra using a peg to pin down the serpent demon Vṛtta and Mount Mandara being used to churn the ocean of milk became well-known in Tibet through the exchange of Indian and Tibetan cultures. The fusion of Indra's peg and the Vajra, the Tibetan legend of the "Vajra peg deity using both arms to rotate Mount Meru," and the legend of the pillar of the sky reflect Tibet's familiarity with and adaptation of Indian myths. The custom of subduing the land and the concept of subduing snakes are intertwined; the functions of subduing snakes and controlling rain with pegs in Tibet can primarily be traced back to India. Thus, it resulted in the corresponding artistic form of the phur-pa.

[58] Mayer 1990, pp. 6–7.

[59] See Note 54 above.

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