Sacrificially Important Trees Revealed in the *Kṛṣṇa Yajurveda Saṃhitā* – Their Description and Uses

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Abstract

The <u>rsis</u> in <u>Krsna Yajurveda</u> (KYV) <u>Taittirīya Samhitā</u> (TS) have offered respects and prostrations to the trees (1-3-5; 1-3-6; 1-8-13; 4-5-2, 4-5-8) saying that it is not possible to imagine life without trees. The <u>Śukla Yajurveda</u> (SYV) <u>Vājasaneyī Samhitā</u> (VS) (16-20-20) also show respect towards the trees and say one should have reverence and devotion towards all eatables, grains, forests, medicinal herbs, trees and vegetation.

All *mantrās* of *KYV-TS* describe a detailed account of how to perform various *yajñas* or sacrifices. To perform any *yajña* flawlessly, only specific implements made from the wood of distinctive trees and vessels should be used, which are collectively called '*yajñāyudha*' (meaning, 'the weapons used in *yajña*'). The entire 7th *anuvāka* of the 5th *prapāthaka* of the 3rd *kānda* of the *KYV-TS* clearly reveals the names of different trees. There is no detailed published information available as to which tree wood is applicable for making a specific *yajña* implement. The 8th *anuvāka* of the 4th *prapāthaka* of the 3rd *kānda* of the *KYV-TS* clearly *reveals* the names of the *KYV-TS* provides the names of different trees that should be used as *samidhas* (faggots) in the *yajña / homa*. This paper lists and explains about the woody trees used to make these *yajñāyudha* and the *samidhas*.

Key words: Aśvattha, Audumbara, Faggots, Kindling wood, Khādira, Kṛṣṇa Yajur Veda, Māndhuka, Naiyagrōdha, Parṇa, Plākṣa, Śami, Samidha, Taittirīya Samhitā, Vikangkata, Yajña, Yajñāyudha, Yajña implements

1. INTRODUCTION

The vedas are sacred texts that originated in ancient India. They were the beginning of our spiritual knowledge. These *Śruti vedas* were codified and classified into writing by the great sage, Vedavyāsa, as: *Rgveda* - wisdom verses; *Yajurveda* – wisdom of sacrificial formula; *Sāmaveda* – wisdom chanting and *Atharvaveda* – wisdom of Atharvan *rṣis*. Initially, the *Śrutivedas* consisted of four collections of *mantras* called *samhitās*, each associated with a particular *rṣi/s* or aspect of ritual. Over centuries, three kinds of additional literature were attached to each of the *samhitās*: the *brāhmaņas* (discussions of the ritual), the *āranyakas* (manuscripts recited in the forests) and the *upanisads* (the philosophical writings) (Bloomfield, 1908, Witzel, 2003, pp. 68-101).

The *Rgveda*, the earliest of the *vedas*, describes in detail the natural law or order called *rta* as the governing principle of the universe and its events. Even the vedic gods were not exempt from this law (Ramachandra Rao, 1991, p.3). The *Yajurveda (YV* – a *tatpuruṣa* compound of *yajus* 'sacrificial formula' and *veda* 'knowledge', i.e. 'the knowledge of sacrifice') is the next of the four canonical texts of the *vedas*. It contains the knowledge of principles and methods of performing *yajña* and *yāgas* as spiritual and scientific experiments for global welfare.

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Estimated to have been mostly composed prior to 1000 BC, the YV Samhita contains the liturgy (mantras) needed to perform the Vedic. The best known and best preserved of these recessions is the Taittirīya Samhita (TS), named after Tittiri (partridges or birds), a pupil of Yaksa (first teacher of the Taittirīya School of the KYV) and an authority according to Pānini (John, 1879, p.228). The KYV-TS consists of seven (07) kāndas, subdivided into chapters or *prapāthakas*, and each chapter is further sub-divided into individual sections or anuvākas. Some individual hymns in the TS that have gained particular importance are the Rudra Namakam (TS 4-5) and Rudra Camakam (TS 4-7) which constitute the Śatarudrīvam or the Śrī Rudram, while the Mahā Mrtyunjaya mantra is preserved in the TS 1-8-6.1.

The vrksam (tree) is the symbol of life and growth. It stands for eternity and selfless wellbeing. Trees are considered as devatās (deities). Devatā means one who keeps giving incessantly. Trees have always been beneficial to us and they possess the divine qualities that qualify them to be addressed as devatās. Trees in Indian mythology and folklore are widely considered as sacred and worshipped across the country for their benevolence. Indians believed that certain trees are the abode of gods and goddesses. The worship of trees in India can be traced to the Indus Valley Civilization, as clearly indicated in the Indus Valley seals. The hymns of the Vedas also contain references to such sacred trees and plants on account of their being associated with certain deities and also because of their potent medicinal properties (Dymock, Warden and Hooper, 1893, pp. 5-6). Trees and plants on land (sthala vrksas) are the direct object of invocation in both RV and YV. RV extols trees and says that trees blossom and bear fruit because of usmā, urjā and megha (Kashyap and Sadagopan, 2005). They offer all that they have for others and for the environment. It is said in the RV 7-4-5 that medicinal herbs, trees and earth possess an infinite treasure-house

of energy that never diminishes – '*Tamoşadhīśca* vaninaśca garbham bhūmişca viśvadhayasam bibharti'.

All mantrās of KYV-TS describe a detailed account of how to perform various yajñas or sacrifices. Yajña is the subject matter of the entire Veda. Usage of proper *vajña* implements is the important factor of yajña / homa. The KYV-TS 3-5-7 clearly reveals the names of different trees and further, it instructs that only the wood from the specified trees should be used for the sole purpose of making the *vajña* implements and vessels (Krishnamurthi Sastry, 1989). Also, the KYV-TS 3-4-8 provide the names of different trees that should be used as samidhās (faggots) in the vajña / homa. There is no detailed published information available as to which tree wood is applicable for making a specific *vajña* implement and for the samidhas. Hence, in this article, the authors list and explain about these woody trees that are used to make these *vajñāvudha* and the *samidhas*.

1.1 Yajña

The word Yajña, is derived from the root word 'yaja', meaning 'worship or sacrifice' which is key to understand the Yajur Veda. In SYV Samhitā (18-1, 18-2 and 18-6) there is a detailed account of the various benefits that result from the performance of a sacrifice (vajñena kalpantām). Among such benefits are abundance of food (vāja), wealth (prasava), efficiency in work (prayati), mental acuity (dhiti), enlightenment (jyoti), physical vigour (ojas), longevity (dirghāyu), health (anāmaya), tranquility (*sarma*), fearlessness (abhaya), friendship (anamitram), and sound sleep (sukham *śayanam*). The sacrificer prays that his life may become fulfilled by the sacrifice that he performs (Personal communication with Sri Pandit Ram Sivan, New South Wales, Australia).

Yāga means a sacrificial rite where offerings are made (*'ijyate havir dīyate atra'*).

1.2 Yajña Agni

The agni (fire) for the vajña is produced by churning (agni-manthana - the kindling of the sacred Fire), using the fire sticks (aranī) made from trees like *sami* and *asvattha* (peepal) tree (Taittirīya Brāhmaņa, 1;1;9;1.) (Fig. 1). Veda states that agni, assuming the form of horse, once left the devas and went and stayed in the aśvattha tree. That is why the tree itself is named as aśvattha. 'aśva' means horse; the tree in which the horse (agni) stayed. Here, an ordinary asvattha tree will not suffice. It should be the asvattha tree growing out of a *sami* tree. Sami tree is known for being *śāntayoni* and its womb has a pacifying nature. Therefore, it is called *sami* as it pacifies the destructive nature of agni. Hence, an aśvattha tree growing out of the womb of a *sami* tree should be chosen for making arani, the pair of wood used to churn Agni¹. One arani is placed above the other and churned by using a rope (*rasanā*). The lower aranī (ādhāra-arani) is called Urvaśī (a nymph) and the stick which is on top (uttara-aranī) is

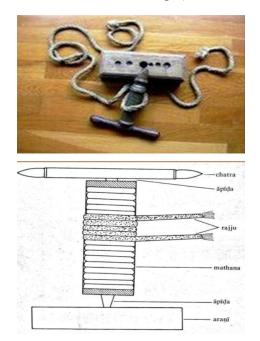


Fig. 1. Instrument used for production of yajña agni

called *Purūravas* (Indra) (Personal communication with Sri Pandit Ram Sivan, New South Wales, Australia).

2. DISCUSSION

2.1 Important Trees for making Yajñāyudha

To perform any *yajña* flawlessly, only specific implements and vessels should be used, which are collectively called '*yajñāyudha*' (meaning, 'the weapons used in *yajña*'). These are made from the wood of distinctive trees. In the *KYV-TS* 3-5-7, the names of the important trees and their qualities are clearly revealed and described (Kashyap, and Sadagopan, 2005). These trees are exclusively used for the sole purpose of manufacturing the *yajña* implements and vessels.

2.1.1 Yajñāyudha Trees

1- वषट्कारो वै गायत्रियै शिरो अच्छिनत तस्यै रसः परा अपतत् स पृथिवीम् प्राविसत स खदिरो अभवद यस्य खादिरः स्रुवो भवति छन्दसां एव रसेनाव द्यति सरसा अस्य आहृतयो भवन्ति

KYV-TS 3.5.7

vasatkārō vai gāyatriyai sira acchinat tasyai rasah parā apatat sa pṛthivīm prāvisat sa khadiro abhavad yasya khādirah sruvō bhavati chandasāmeva rasenāva dyati sarasā asya āhutayo bhavanti

The Vasatkār devatā due to enmity with Goddess $G\bar{a}yatr\bar{i}$ decapitated Her. Then the sap that oozed out of the beheaded part fell on the earth and gave birth to the *Khādira* tree. If the host performing the yajña (yajamāna) uses the sruva made of *khādira* wood, it is equivalent to an oblation with sap of meters. These oblations by the performer of yajña would become cheerful. Hence, it is mandatory for the sruva to be made out of only *khādira* wood.

2 तृतियस्यं इतो दिवि सोम असित तं गायत्र्यं अहरत्त् तस्य पर्णं अच्छिदसत तत् पर्णो अभवत तत् पर्णस्य

Aśvattha is also used in a different context during war. Here, the *aśvattha* tree used is born out of (sprouting from) a *Khādira* tree (known to be a male plant because of the sap). *Khādira* enhances the valour of *Agni* (Personal communication with Sri Ramaswamy Sastry and Sri Vighnesh Ghanapadi, Mumbai, India).

पर्णत्वं यस्य पर्णमयी जुहूर् भवति सौम्या अस्य आहुतयो भवन्ति जुषन्ते अस्य देवा अहुतिर्देवा वै ब्रह्मन अवदन्त तत् पर्ण उपासृणोत सुश्रवा वै नाम यस्य पर्णमयी जुहूर् भवति न पापग्ग् शलोकगुम श्रुणोति ब्रह्म वै पर्णः

trtīyasyām itō divi sōma āsīt tam gāyatryā aharat tasya parņam acchidyata tat parņō abhavat tat parņasya parņatvam yasya parņamayī juhūr bhavati saumyā asyā āhutayō bhavanti jucante asya devā āhutīrdevā vai brahman avadanta tat parņa upāśrņōta suśravā vai nāma yasya parņamayī juhūr bhavanti na pāpagg ślōkam śruņōti brahma vai parņaņ

The soma creeper was present in the third world from the earth, called the dyuloka. Once, when Goddess Gāyatrī was bringing the soma creeper, a leaf from that creeper fell on the earth and became the Parna tree. Parna in Sanskrit means 'leaf' and hence the tree is named so. The oblations of the performer of the yajña, when performed with the ladle (*juhu*) made from the *parna* wood, are delightfully accepted with love by the Gods.Once when devatās were having a secret discussion regarding the holy power (brahma) under the parna tree, the *devatā* in the *parna* tree overheard it. Hence, the parna tree is also called as 'Suśravas' (meaning 'one who heard the good'). Therefore, he who performs vajña using a ladle (juhu) made of parna wood neither hears any evil nor faces any accusations. Thus the *parna* tree is praised here.

3 विण्मरुतो अन्नं विण्मारुतो अश्वत्थो यस्य पर्णमयी जुहूर भवति आश्वत्थी उपभृद् ब्रह्मण इव अन्नं अवरुन्द्वे अथो ब्रह्मैव विश्यधि ऊहति राष्ट्रं वै पर्णो विद् अश्वत्थो यत् पर्णमयी जुहूर् भवति आश्वत्थी उपभृद् राष्ट्रमेव विश्यधि ऊहति

viņmarutō annam viņmārutō aśvat'thō yasya parņamayī juhūr bhavati āśvat'thī upabhrd brahmaņa iva annam avarund'dhe athō brahmaiva viśyadhi ūhati rāṣṭram vai parņō vi aśvat'thō yat parṇamayī juhūr bhavati āśvat'thī upabhrd rāṣṭrameva viśyadhi ūhati

As the *parna* tree overheard the secret discussions of *devatās*, it is regarded as the holy power (*Brahma* himself). The Maruts are class of people associated with trade. As the food is earned by the hard working traders, the food is also the people. The *parna* tree symbolizes the royalty while the *asyattha* tree symbolizes the people. The performer of *yajña*, who uses the *juhu* (ladle) made out of the *parna* wood, should use the *upabhrt* (another type of ladle) made from the wood of *asvattha* tree. Performing *yajña* in this manner brings royalty to the land and to the people.

4 प्रजापतिर्वा अजुहोत् सा यत्र आहुतिः प्रत्यतिश्ठत ततो विकङ्ग्कत उदतिष्ठत ततः प्रजा असृजत यस्य वैकङ्ग्कती ध्रुवा भवति प्रत्येवास्य आहुतयः तिष्ठन्ति अथो प्रैव जायत एतद्वै सुचागुं रूपम् यस्यैवगुं रूपाः सुचो भवन्ति सर्वाणि एवैनगुं रूपाणि पशूनाम् उप तिष्ठन्ते न अस्य अपरूपम् आत्मन्त्र्जायते

prajāpatirvā ajuhōt sā yatra āhutiḥ pratyatichmhata tatō vikangkata udatiṣṭhata tataḥ prajā asrjata yasya vaikangkatī dhruvā bhavati pratyevāsya āhutayaḥ tiṣṭhanti athō praiva jāyata etadvai sṛcāgum rūpam yasyaivagum rūpāḥ srucō bhavanti sarvāṇi evainagum rūpāṇi pasūnām upa ticṭhante na asya aparūpam ātmanjāyate

When Prajapati ('lord of creatures') performed a sacrifice, from the place where the oblations fell, a *vikangkata* tree emerged. Prajapati created people from this *vikangkata* tree. Therefore, the *yajña* implement *dhruva* made from the wood of *vikangkata* tree, when used by the *yajña* performer, his oblations are eternal and can truly propagated. This *mantra* portrays the relation between the *yajña* implement '*dhruva*' and the '*vikangkata*' tree. The offering spoons (*sruva, sruk, juhu, upabhṛt, dhruva*) have the characteristic features of the *khādira, parṇa, aśvattha* and *vikangkata* trees².

Using these implements to perform *yajña*, the performer can certainly obtain any form of cattle. He will be blessed with hale and healthy off-springs.

2.1.2 Description of Woody Yajña Implements

2.1.2.1 Sruk

Sruk is made of a sacrificial woody tree, parna (Butea monosperma). Sruk is a long ladle, a bāhu (36 angulas), an aratni (24 angulas) or a prādeśa (12 angulas) in length. It has a bowl or depression (puṣkara) on top of it at one end with a beak (shaped like elephant's lips or swan's beak) for the liquid to be poured out (prasecana); the tail portion of the ladle (or handle) will be in the

² Characteristic features are: *Khādira* – oblations of sap of meters, cheerful; *Parņa* – no evil, no accusations; *Aśvattha* – symbolizes the people; *Vikangkata* – eternal oblations

form of crow's tail (*vāyasapuchha*). The Sruk represents the female principle or *Prakṛti* (Fig. 2).



Fig. 2. Sruk

2.1.2.2 Sruva

Sruva is made of a sacrificial woody tree, khādira (Acacia catechu). Sruva is used to collect the ghee, and offer it to fire at different times during the yajña ceremony. It is the most widely used spoon over the homa. Sruva is divided into two parts, one representing the sun is Sūrya, Soma and the other, is the moon. Like Sruk, Sruva spoons are made with very precise measurements. It is an aratni (24 angulas) in length, and the bowl (puṣkara) is a small one, its diameter being not more than the tip of the thumb of the sacrificer's hand. The Sruva represents puruṣa or the male principle (Fig. 3).



2.1.2.3 Juhu

The *juhu* ladle is made from *parna* wood (*Butea monosperma*) (Fig. 4).





2.1.2.4 Upabhrt

The *upabhrt* ladle is made from *aśvattha* wood (*Ficus religiosa*). This is generally held under the *juhu* implement while performing *yajña* (Fig 5).



Fig. 5. Upabhrt

2.1.2.5 Dhruva

The *dhruva* implement is made from *vikańgkata* wood (*Flacourtia sapida*) (Fig. 6).



Fig. 6. Dhruva

2.1.3 Miscellaneous Woody Yajña Implements

2.1.3.1 Vasordhārā

A variety of ladle (which means 'the flow of wealth') used in *agni-chāyana* and is meant for continuous and uninterrupted offering of melted clarified butter ($\bar{a}jya$) into the fire for a specific duration (represented by the chanting of the *mantrās*). It is made from *audumbara* wood (*Ficus racemosa*) (Fig. 7).



Fig. 7. Vasodhārā

2.1.3.2 Sphya

A sword made from *khādira* wood (*Acacia catechu*). It is used for cutting the *darbha*-grass to the required size, for marking the lines in the sacrificial ground and for stirring the boiled oblations, removing the surface soil viz. removing the upper layer of mud, digging the earth and marking the area of the altar (Fig. 8).



Fig. 8. Sphya

2.1.3.3 Śamyā

A wooden peg or stick or staff, shaped like a mace (Fig. 9). It is a measuring device used along with *sphya*.

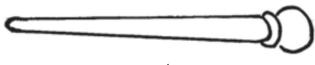


Fig. 9. Śamyā

2.1.3.4 Ulūkhala and Musala

A wooden mortar and pestle used for pounding the grains or crushing soma shoots. The ulūkhala (mortar) and musala (pestle) are to be made of very hard wood, viz. both of varna wood (Crateva magna), or the mortar of palāśa wood (Butea monosperma) and the pestle of khādira wood (Acacia catechu) (Fig 10). The former is to be of the height of the knee and the latter three aratnis (cubits) long (Kashyap, 2003). In KYV-TS 5-2-8, it is mentioned that the agni started without a centre (apanābhi) causes harm to the sacrificer. For this reason, the *ulūkhala* is placed as navel (centre point) for initiating the vajña agni. Here, the ulūkhala (mortar) is made of audumbara (Ficus racemosa) wood (described in section 2.2.1.3).

2.1.3.5 Droņa-Kalaśa

This is a large vessel made of strong and hard wood like *vikangkata* (*Flacourtia sapida*) or *varna* (*Crateva magna*) for storing the soma juice; it is a trough (*drona*), square or circular in shape, with a handle (*dana-yuta*). It may alternately be shaped like a boat (*naukākāra*).

2.1.3.6 Prāśitraharaņa

It is a special set of spoons of the *brahma* priest, made from the *khādira* wood (*Acacia catechu*) (Fig. 11). They are made shaped as a cow's ear, a peepal leaf, a lotus bud and a square. The *purodaśas* offered to *agni* and soma are cut to remove a small piece that is placed on these spoons and brought to the brahmā (covered by a wooden lid) eats from these spoons.



Fig. 11. Prāśitraharaņa

2.1.3.7 Mekşana

This is a rice-stirring spatula also used for offering oblations to the manes. It is made of *aśvattha* wood (*Ficus religiosa*) (Fig. 12).



Fig. 12. Meksaņa

2.1.3.8 Pistodpapanī

This is made from *varna* wood (*Crateva magna*) or clay. The length is 20 *angulas*, depth 6 *angulas* and breadth $6\frac{1}{2}$ *angulas*. Vaikhanasas alone specify their vessel to have a circular rim at the end away from the handle. Used to offer *pista*



Fig. 10. Ulūkhala and Musala

or mix the flour with water to make the *purodaśa* dough.

2.1.3.9 Praņīta

The *pranīta* is a vessel made from *aśvattha* wood (*Ficus religiosa*) in which consecrated water is kept. While making *puroḍāśas*, water from this vessel is mixed with the flour. The vessel is also meant to store *soma*-juice. The vessel is square in shape (Fig. 13).



Fig. 13. Praņīta

2.1.3.10 Upaveśa

The sacrificial fire is stoked by a wooden stick, one *prādeśa* (viz. 12 *angulas*) or one *aratni* (24 *angulas*) long, and the head of which is shaped like an extended palm (*hastākṛti*). It is called *upaveśa* or *dhrṣți*. This is made from *parṇa* wood (*Butea monosperma*) (Fig. 14).



Fig 14. Upaveśa

2.1.4 Descriptions of woody trees used for making Yajña Implements

Here below is the description of woody trees that are used in making *yajña* implements. These trees are the *Khādira*, *Parṇa*, *Aśvattha* and *Vikaṅgkata*.

2.1.4.1 *Khādira* (Sanskrit) –*Acacia catechu* (L. f.) Willd.

Family: Fabaceae (Mimosoideae) – Other common names: *khair*, *supari*, *sundra*, *cachu*, *koir*, *tallatuma* (Hindi); betel-nut palm, black cutch, catechu tree, cutch tree, heartwood (English); Sandra (Telugu); karungali, kamugu, paku, baga (Tamil); sha (Burmese); khair, khaira (Nepali); acacie au cachou (French); pinang (Malay); sache, seesiat, seesiat nua, sisiat-nua (Thai); khersal, katha, kath, cutch tree, pegu cutch (Trade name) (Fig. 15).



Fig. 15. *Khādira* tree: a. Mature tree b. Tree wood c. Flowering stage d. Fruiting stage

The generic name, '*Acacia*', comes from the Greek word '*akis*', meaning a point or a barb. The species name comes from 'cutch', a tanning extract isolated from its heartwood.

Documented Species Distribution: Native range India, Myanmar, Nepal, Pakistan, Thailand while Exotic to Indonesia, Kenya, Mozambique

Botanical Description: *Acacia catechu* (L. f.) Willd. is a small or medium-sized, thorny tree, grows up to 15 m tall. Wood is dark grey or greyish-brown, peeling off in long strips, or sometimes in narrow rectangular plates, brown or red inside. Branches are slender, with 2 curved, 8-mm prickles at the base of each petiole. Leaves are bipinnately compound, leaflets 16-50 pairs, oblong-linear, 2-6 mm long, glabrous or pubescent. Flowers in axillary spikes, white to pale yellow, with a campanulate calyx, and corolla 2.5-3.0 mm long; stamens are numerous, with white or yellowish-white filaments. Fruit a strap-shaped pod, flat, tapering at both ends, shiny, brown, dehiscent, 3-10 seeded. Seeds are broadly ovoid.

Medicinal Properties: Khersal, a crystalline form of cutch sometimes found deposited in cavities of the wood are used medicinally for the treatment of coughs and sore throat. The bark is said to be effective against dysentery, diarrhoea and in healing of wounds. The seeds have been reported to have an antibacterial action.

2.1.4.2 Parna (Sanskrit) – Butea monosperma (Lam.) Kuntze (Syn. Butea frondosa)

Family: Fabaceae (Papilionoideae) –Other common names: *Brahmopādapa*, *Lakṣataru* (Sanskrit); Flame of the Forest, Parrot Tree (English); *Palāś* (Hindi); *Moduga*, *Palasamu* (Telugu); *Muttuga* (Kannada); *Porasum*, *Parasu* (Tamil); *Palasin Samat*, *plash* (Malayalam); *Palāsh* (Marathi); *Palashpapra* (Urdu); *Kinshuk*, *Polash*, *Polashi* (Bengali): *Palash* (Oriya); *Pauk* (Burmese); *Polash* (Assamese); *Khakda* (Gujrathi); *Kela* (Sinhalese); *Ploso* (Javanese) (Fig. 16).

Parṇa, the flame of the forest, is considered sacred, because it has fulfilled the needs of mankind since ancient time. It is said that the tree is a form of *Agni deva*, the God of Fire. It was a punishment given to Him by Goddess Pārvati for disturbing Her and Lord Śiva's privacy.

Documented Species Distribution: Exotic range: India, Cambodia, Indonesia, Japan, Laos, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam; Native range: China, Papua New Guinea

Botanical Description: *Butea monosperma* (*Lam.*) Kuntze is a small to medium-sized deciduous tree, 15- 20 m tall. Trunk is usually crooked and tortuous, with rough grayish-brown,



Fig. 16. *Parna* tree: a. Mature tree, b. Tree wood, c. Flowering stage, d. Fruiting stage

fibrous bark showing a reddish exudates; branchlets densely pubescent. Leaves are trifoliate; long petioles with small stipules; leaflets more or less leathery, lateral ones obliquely ovate, terminal one rhomboid-obovate. Flowers are in racemes, near the top on usually leafless branch-lets; calyx with campanulate tube and 4 short lobes; corolla 5-7 cm long, standard, wings and keel re-curved, bright orange-red, very densely pubescent. Fruit is an indehiscent pod, stalked, covered with short brown hairs, pale yellowish-brown or grey when ripe, in the lower part flat, with a single seed near the apex. Seeds are ellipsoid and flattened.

Medicinal Properties: The flowers are useful in the treatment of liver disorders and seeds act as an anthelmintic. An astringent gum oozing from the cut stem has medicinal properties as a powerful astringent and is applied in cases of diarrhoea.

2.1.4.3 Aśvattha (Sanskrit) – Ficus religiosa Linn.

Family: Moraceae – Other common names: *Asvattha* (Bengali); Wisdom tree, Sacred Ficus, Sacred tree, Peepal, Bodhi tree (English); Pipal (Hindi); *Raavi chettu* (Telugu); *Drasi, Avasi* (Tamil); *Arali mara* (Kannada); *Arayal* (Malayalam); *Pimpal* (Marathi); *Pipal* (Nepali); *Easthu* (Sinhalese); *Peepal* (Urdu) (Fig. 17).



Fig. 17. *Asvattha* tree. a. Mature tree, b. Tree wood, c. Flowering stage, d. Fruiting stage

The specific epithet '*religiosa*' alludes to the religious significance attached to this tree. Prince Siddhārtha is said to have sat and meditated under this tree and there found enlightenment from which time he became 'The Buddha'. The tree is therefore sacred to Buddhists and is planted beside temples.

Documented Species Distribution: Exotic range: India, Chad, Nepal, Thailand; Native range: Israel, United States of America (USA)

Botanical Description: *Ficus religiosa* L. is an evergreen or deciduous tree, 20 m tall, irregularlyshaped, with wide-spreading branches and without aerial roots from the branches. The trunk is regularly shaped, often with low buttresses. Bark is grey with brownish specks, smooth, exfoliating in irregular rounded flakes. Leaves are alternate, spirally arranged and broadly ovate, glossy, coriaceous (leathery), dark green leaves. Petioles are slender. Galls are found on leaves. Flowers are axillary sessile and unisexual. Figs are in pairs, rounded, flat-topped green, axillary, sessile, smooth, ripen to purple with red dots. Seeds when are dropped on other trees, they germinate. The seedlings rely on the host plant only for anchorage as *F. religiosa* does not parasitize on other plants. They derive their nutrition from the air and rainfall, until the roots reach the ground.

Medicinal Properties: The ripe fruit is cooling and relieves foul taste, thirst, biliousness, diseases of blood and heart; it is a laxative and helps digestion. It is used for medicinal purposes, such as toothaches. Dried fruit cure asthma; seeds are useful in urinary discharge; young bark is an astringent.

2.1.4.4 Vikangkata (Sanskrit) – Flacourtia sapida Roxb. (Syn. Flacourtia remontchi (L) Herit., Flacourtia indica (Burm. f.) Merr.)

Family: Flacourtiaceae – Other common names: bilangra, kakein, katai, kukai (Hindi); tambat, benchi, katai, baichi (Bengali); Madagascar plum, batoka plum, flacourtia, governor's plum, Indian plum, Mauritius plum (English); kakoa, kandie, kangu (Punjabi); kankot (Gujrathi); boniso, potnaboniso (Orissa); bonta kandregu, kanaregu, putikatada (Telugu); malukkarai, mulanninchil, sottaikala, kutukali (Tamil) – (Fig. 18).

Documented Species Distribution: Native range: Botswana, Burundi, Cameroon, Democratic Republic of Congo, Eritrea, Ethiopia, India, Kenya, Malawi, Namibia, Nigeria, Rwanda, Sierra Leone, South Africa, Tanzania, Uganda, Zambia, Zanzibar, Zimbabwe: Exotic range: Antigua and Barbuda, Barbados, China, Cuba, Dominica, Dominican Republic, Grenada, Indonesia, Jamaica, Madagascar, Malaysia, Puerto Rico, Seychelles, Sri Lanka, St. Kitts.

Botanical Description: *Flacourtia sapida* Roxb. is a tree or shrub usually 3-5 m tall, sometimes



Fig. 18. *Vikangkata* tree: a. Mature tree, b. Tree wood, c. Flowering stage, d. Fruiting stage

10 m. Bark is usually pale, grey, powdery, may become brown to dark grey and flaking, revealing pale orange patches. Vegetative parts vary from glabrous to densely pubescent. Leaves are red or pink when young, variable in size, oval to round, edge toothed, becoming leathery; stalk to 2 cm. Flowers are unisexual or occasionally bisexual. Male and female flowers are separate. Fruits are globular, reddish to reddish-black or purple when ripe, fleshy, with persistent styles, up to 10-seeded. Seeds are 5-8 in number, testa rugose and pale brown.

Medicinal Properties: The fruits of *Flacourtia sapida* Roxb. are appetizing and digestive. They are given in jaundice and enlarged spleen. Seeds are ground to powder with turmeric and rubbed all over the mother's body to prevent rheumatic pains owing to exposure after the birth of a child. The bark is applied to the body, along with the bark of *Albizzia*, intervals of a day or so during intermittent fevers. The leaf is carminative, astringent and used as a tonic, an expectorant and for asthma, pain relief and gynaecological complaints.

2.2 Samidhās (Faggots or Kindling wood)

A bundle of sticks bound together to be used as fuel is samidhā. It used to be a matter of course for the *rsis* of yore to kindle the sacrificial fire while reciting the vedic mantras. They fed it with fuel called samidhā. It was for this purpose that a preceptor of learning and practice was approached by disciples with loads of faggots in their hands to gain knowledge of self. Samidhā is therefore symbolic of gaining knowledge of self. The KYV-TS 3-4-8 discusses about (i) obtaining of kingdom; (ii) rāstrabhrt; (iii) oblations of him whose realm is not in order; (iv) varieties of kindling wood and (v) the effect of harshness of speech and reveals the names of different trees that should be used as samidhās (Kashyap, 2003; Kashyap and Sadagopan, 2005).

In the context of this paper, we deal with only the different types of kindling wood or *samidhās* (faggots) that are extensively used in the *yajña* / *homa*. The names of different trees that are used as the *samidhās* are listed and explained.

1- आहुतयो वा एतस्य अक्लुप्ता यस्य राष्ट्रं न कल्पते स्वरथस्य दक्षिणं चक्रम् प्रवृह्य नाडीमभि जुहुयाद् आहुतीर् एवास्य कल्पयति ता अस्य कल्पमाना राष्ट्रं अनु कल्पते संग्रामे सम्यत्ते होतव्या राष्ट्रं वै राष्ट्रभृतो राष्ट्रे खलु वा एते व्यायच्छन्ते ये सङ्ग्रामगुम् संयन्ति यस्य पूर्वस्य जुहवति स एव भवति जयति तगुम् संग्रामं मान्धुक इध्मः

KYV-TS - 3-4-8.3

āhutayō vā etasya aklṛptā yasya rāṣṭram na kalpate svarathasya dakṣiṇam cakram pravṛhya nādīmabhi juhuyād āhutīr evāsya kalpayati tā asya kalpamānā rāṣṭram anu kalpate sangrāme samyatte hōtavyā rāṣṭram vai rāṣṭrabhṛtō rāṣṭre khalu vā ete vy āyacchante ye sangrāmamgum samyanti yasya pūrvasya juhvati sa eva bhavati jayati tangum sangrāmam māndhuka idhmah

The oblations of the king, whose kingdom is not in order, are disordered. He should take off the right wheel of his chariot and hover it over the sacrificial fire. The *homa* should be performed through the axle of the wheel. Then his oblations will become ordered. The kingdom too comes into order, in accordance with the oblations. When the battle starts, *homa* should be performed by chanting the *Rāṣṭrābhṛt* hymns, as the rāṣṭrābhṛts go into the battle and fight for the kingdom. He, who offers his oblations first in the *homa*, prospers and wins the battle. It is of utmost importance to stroke the sacrificial fire using the wood of the *Māndhuka* tree as a *samidha* for this *homa*.

भवति अङ्गारा एव प्रतिवेष्टमाना अमित्राणामस्य सेनां प्रति वेष्टयन्ति य उन्माद्येत तस्मै होतव्या गन्धर्वाप्सरसो वा एतं उन्मादयन्ति य उन्माद्यति एते खलु वै गन्धर्वाप्सरसों यद्राष्ट्रभृतह तस्मै स्वाहा ताभ्यः स्वाहेति जुहोति तेन एव एनान् छमयति नैयग्रोध औदुम्बर आशवत्तः प्लाक्ष इतीध्मो भवति एते वै गन्धर्वाप्सरसां ग्रहाः स्व एवैनं आयतने शमयति

KYV-TS - 3-4-8.4

bhavati angārā eva prativesiamānā amitrāņāmasya senām prati vecmayanti ya unmādyeta tasmai hōtavyā gandharvāpsarasō vā enan unamādayanti ya unmādyati ete khalu vai gandharvāpsarasō yadrāsirabhrtah tasmai svāhā tābhyah svāheti juhōti tena eva etān samayati naiyagrōdha audumbara āsvat thah plākca itīdhmō bhavati ete vai gandharvāpsarasām grhāh sva evainam āyatane samayati

The coals from the fire alter rise-up and engulf the performer's foe. Then the foe will either be affected due to the fire or will suffer from fever. For the purpose of the curing a person with madness, homa should be performed by chanting the *Rāstrabhrt* hymns. The reason for the madness is the gandharvās and apsarās. The Rāstrbhrts are none other than the forms of gandharvas and apsarasas. Hence, the homa should be performed by invoking those gandharvās and apsarās. By doing this, he appeases them. The samidhas that are to be used in this homa are mandated here. Any one of the 'naiyagrōdha samidhas' – namely, naiyagrōdha, audumbara, aśvattha or $pl\bar{a}ksa$ – can be used to kindle the sacrificial fire and perform homa. The above mentioned *naiyagrodha* family of trees are abode of the gandharvās and apsarās. Therefore, the usage of the 'naiyagro-dhasamidhas' symbolizes the appeasing of the gandharvas and apsarasas in their own dwellings.

There are many other instances in the *KYV*-*TS* where the use of specific woods as a *samidhā* in various *yajnas* is mentioned. They are the *audumbara* (5-1-10, 5-4-6 and 5-4-7); the *vikangkata* (5-1-9, 5-1-10 and 5-4-7); the *sami* (5-1-9, 5-1-10 and 5-4-7); the *krumuka* (5-1-9) and the *asvattha* (5-1-10).

2.2.1 Descriptions of woody trees used as *Samidhā* in *Yajña / Homa*

Here below is the description of woody trees that are used as *samidhā* in various *yajña* / *homa*. These trees are the *Māndhuka*, *Naiyagrōdha*, *Audumbara*, *Aśvattha* and *Plākṣa*.

2.2.1.1 *Māndhuka (Sanskrit) – Madhuca longifolia* (J. Konig ex L.) Macbr. (Syn. Madhuca indica J. F. Gmel.; Bassia latifolia Roxb. Madhuca latifolia (Roxb.) J. F. Macbr.):

Family: Sapotaceae – Other common names: Honey tree, Butter tree (English); *Mahva*, *Mohva* (Hindi); *Ippa* (Telugu); *Hippe mara*, *Ippi*, *Erappe* (Kannada); *Iluppa* (Malayalam); *Moha*, *Mahuwa* (Marathi); *Iluppai*, *Natu Iluppai* (Tamil) – (Fig. 19).



Fig. 19. *Māndhuka* tree. a. Mature tree, b. Tree wood, c. Flowering stage, d. Fruiting stage

Documented Species Distribution: Native: India (warmer parts and tropical Himalayas); Exotic: Peninsular India and Sri Lanka.

Botanical Description: Madhuca latifolia is a large, much branched deciduous tree up to 18 m high. Bark is about 1 cm thick, rough, brownishgrey with many vertical furrows, pealing-off into about 5 mm thick flakes, exuding white sticky thick latex. Blaze is reddish pink, wood red and close-grained. Bole short, crown rounded, bark grey to black with vertical cracks, exfoliating in thin scales. Leaves oblong-shaped, rigid, clustered at the end of branches, thick and firm, exuding a milky sap when broken. Young leaves pinkish and wooly underneath. Flowers are bisexual, axillary and solitary, with prominent stalk; corolla sub-fleshy, with 2 rows of petals, cream-coloured and fragrant. Fruits are ovoid, fleshy, greenish, 3-5 cm long, 1-4 seeded. Fleshy fruits resemble sapota and they are often eaten by bats. Seeds are large, 3-4 cm long, elliptical, flattened on one side.

Medicinal Properties: Bark is used for treatment of rheumatic disease, fever, itching, diarrhea, haemorrhage, ulcers and boils. A poultice of this plant is used for treatment of eczema, ulcers and swellings. Hot poultice of leaves is used to relieve sprains and fractures. Flowers are used to quench thirst and prevent cough. Baked flowers and sesamum seeds are used to treat cough and cold. Seed oil is used in the treatment of skin diseases.

2.2.1.2 Naiyagrōdha (Sanskrit) – Ficus benghalensis L. (synonym - Ficus indica L.)

Family: Moraceae – Other common names: Banyan tree (English); *Bargad*, *Barh* (Hindi); *Bar* (Bengali); *Vad* (Gujarati); *Ala* (Kannada); *Ala*, *Vatam* (Malyalam); *Vada* (Marathi); *Al* (Tamil); *Peddamarri* (Telugu); *Var*, *bar* (Nepali); *Bodha* (Punjabi) (Fig. 20).

Ficus bengalensis is the National tree of the Republic of India. Notable specimens include the Great Banyan tree located in Acharya Jagadish Chandra Bose Indian Botanic Garden, Howrah, Kolkata, India, and the Big Banyan Tree (Dodda *Alada Mara*) is a 400 year old giant tree, located in the village of Kettohalli in the Bangalore Urban district of Karnataka, India.

Documented Species Distribution: Native: Native to a wide area of Asia, from India through Myanmar (Burma), Thailand, Southeast Asia, southern China, and Malaysia; Exotic: The tree is cultivated in parks and botanical gardens throughout the tropical regions of the world.

Botanical Description: *Ficus benghalensis* is a large, evergreen to deciduous tree, up to 20 m tall, with wide leafy crown and branches spreading up to 100 m or more with pillar-like prop roots and accessory trunks. Trunk massive, fluted, bark grey, smooth, young softly white puberulous. Leaves are simple, with 2-6 cm long, stout, hairy petiole; lamina coriaceous, ovate, glabrous above, finely pubescent beneath, with coriaceous stipules. Hypanthodia sessile, in axillary pairs on young



Fig. 20. Naiyagrōdha tree: a. Mature tree, b. Tree wood, c. Fruiting stage

depressed-globose, Flowers lie inside its fruits and are enveloped by a thick layer of fruit flesh. So they cannot be seen from outside. When cutting open a banyan fruit, many pink bits can be seen that are its flowers. Male flowers are numerous ostiolar, shortly pedicellate; sepals 2-3; stamen solitary, with shortly mucronate anther. Female flowers are sessile, mixed with gall flowers; sepals 34, small; ovary with an elongated style. Gall flowers numerous, pedicellate; sepal as in female ovary with a short style. Figs are globose to depressed-globose, 15-2.5 cm in diameter, pinkish-red, hairy.

Medicinal Properties: According to Ayurveda, it is astringent to bowels; useful in treatment of biliousness, ulcers, erysipelas, vomiting, vaginal complains, fever, inflammations, leprosy. According to Unani system of medicine, its latex is aphrodisiac, tonic, vulernary, maturant, lessens inflammations; useful in piles, nose-diseases, gonorrhea etc. The aerial root is styptic, useful in syphilis, biliousness, dysentery, inflammation of liver etc.

2.2.1.3 Audumbara (Sanskrit) – Ficus racemosa Linn. (syn. Ficus glomerata Roxb.)

Family: Moraceae – Other common names: Cluster fig, Goolar fig (English); *Gular* (Hindi); *Jagna Dimaru* (Assamese); *atti* (Kannada); *Medi Pandu* (Telugu); *Attikka* (Sinhala); *Malaiyin munivan*; *Aththi* (Tamil); *Aththi* (Malayalam); *Umbar*, *Audumbar* (Marathi); *Jogdumur* (Bengali); *Dumri* (Nepal) (Fig. 21). **Documented Species Distribution:** Native: Australia, India, South East Asia and Malaysia; Exotic: Few countries an ornamental tree.

Botanical Description: Ficus racemosa Linn. is a tree and up to 18m high. The tree is without aerial roots unlike its many family members. Leaves are ovate, apex acute, base obtuse, margin smooth or crenate, upper surface glabrous, oil dots very small, and stipules sheathing the terminal bud. Petioles and twigs produce a milky exudate. Flowers are cauliflorous, tepals are glabrous, lobed or lacinate-denticulate in the female flowers, entire in the male. Male flowers produced around the ostiole. Bracts are at the base of the fig, three, persistent in ripe fruits. Lateral bracts not present on the outside of the fig body. Fruits are figs and produced on special shoots from the trunk and main branches. Figs are born in large clusters, on short, leafless branches emerging from the trunk and the main branches (pedunculate). Figs are sub-globose or depressed pyriform. Orifice closed by interlocking and inflexed bracts, red when ripe.

Medicinal Properties: The bark of *Audumbar / udumbar* tree is said to have healing power. In India, the bark is rubbed on a stone with water to make a paste and the paste is applied over the skin which is afflicted by boils or mosquito bites. Allow the paste to dry on the skin and reapply after a few hours. This is a very simple home remedy for people whose skin is especially sensitive to insect bites.

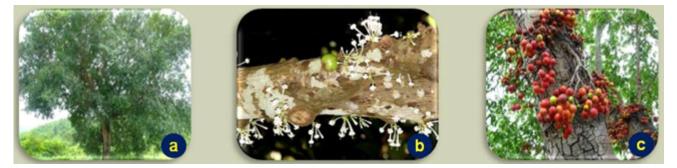


Fig. 21. Audumbara tree: a. Mature tree b. Tree wood c. Fruiting stage

2.2.1.4 Aśvattha (Sanskrit) – Ficus religiosa Linn.

Family: Moraceae and the species is described in section 2.1.4.iii and also see (Fig. 22).



Fig. 22. Aśvattha tree. a. Mature tree, b. Tree wood, c. Flowering stage, d. Fruiting stage

2.2.1.5 Plākṣa (Sanskrit) – Ficus microcarpa Linn.f. (Syn. Ficus nitida Thunb.; F. retusa L.; F. benjamina):

Family: Moraceae – Other common names: Indian Laurel, Laurel fig, Laurel rubber, Chinese Banyan, Malayan Banyan, Taiwan Banyan, Curtain fig (English); Chilkan (Hindi) – (Fig. 23).

Documented Species Distribution: Native: Sri Lanka to India, Taiwan, the Malay Archipelago, the Ryukyu Islands, Australia, and New Caledonia; Exotic: The tree is cultivated in parks and botanical gardens throughout the tropical regions of the world.

Botanical Description: *Ficus microcarpa* is an evergreen tree up to 15 m in height, with a rounded dense crown. Bark is smooth, gray, with milky sap. Aerial roots are long, thin and dangling. Leaves are variable, coriaceous, alternate, simple, leathery, oblong, elliptic to broadly elliptic or





Fig. 23. Plākṣa tree a. Mature tree b. Tree wood c. Fruiting stage

obovate, usually 5-8 cm long, 3-5 cm wide, glabrous, with short pointed, ridged tips, margins entire, petioles 0.6-2 cm long. Flowers tiny, unisexual, numerous, hidden within the "fig", a fleshy, specialized receptacle that develops into a multiple fruit (syconium). This is green turning to yellow or dark red when ripe, sessile, in pairs at leaf axils, small, up to 1 cm in diameter. Seeds minute, less than 1 mm in size.

Medicinal Properties: *Ficus Microcarpa* L. is a medicinal plant used for the treatment of various body pains in India traditionally. It is useful in conditions such as diabetes, ulcers, burning sensations, haemorrhages, leprosy, itching, liver disease, and toothache. The extract were reported to have cytotoxic , antifungal, antidiabetic , antibacterial flavonoids, triterpenoids, acyclic compounds and steroids are the main components found in the leaves.

3. CONCLUSION

The study of trees mentioned in the Holy Scriptures of different nations is a fascinating subject. Mythological significance of these trees is certainly not without reason and relevance,

S.No.	Name of the wood/tree	Name of the <i>Yajña</i> implement
1.	Khādira (Acacia catechu)	Sruva Sphya Musla Praśitraharaṇa
2.	Parṇa (Butea monosperma)	Sruk Juhu Ulūkhala Upaveśa
3.	Aśvattha (Ficus religiosa)	Arani Upabhṛt Mekṣaṇa Praṇita
4.	Vikangkata (Flacourtia sapida)	Dhruva Droṇa-Kalaśa
5.	Audumbara (Ficus racemosa)	Vasordhārā Ulūkhala
6.	Varņa (Crateva magna)	Pișțūdpapanī

Table 1. Wood used for making Yajña Implements

though this relevance might have undergone a number of transformations over the centuries. As old civilizations give place to new, many ideas and ideologies change. But in case of tree / plant life and its myriad forms, few have been chosen for prominence in religious observances and they seem to have survived over the centuries and are still looked upon with awe and reverence (Bhatla, Mukherjee and Singh, 1984).

All mantrās of KYV Taittirīya Samhita (TS) describe in detail on how to perform various yajñas or sacrifices. Yajña in itself is to be seen as the very essence of Veda. To perform any yajña flawlessly, implements and vessels which are collectively called 'yajñāyudha' (meaning, 'the weapons used in yajña') are to be specifically used. These are mostly made from the wood of distinctive trees. The names of different trees that are revealed in the KYV-TS 3-5-7 are discussed here. These trees are given importance due to the various special qualities they possess. Therefore, it is instructed that the wood from these specified trees should be used in making of the *yajña* implements and vessels. The woody trees that are used to make the *yajñāyudha* are listed in the Table 01. Similarly, the *KYV-TS* 3-4-8 provide the names of different trees that should be used as *samidhas* (Faggots) in the *yajña / homa*.

Nowadays, *yajñas* are being performed all over the world and the *yajña* implements are available commercially. We are not sure of the authenticity of the wood and make. Therefore, the *yajña* performer must pay attention and check that the implements are made from the respective wood as specified in the *KYV-TS* 3-5-7.

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BIBLIOGRAPHY

- Bhatla N., Mukherjee T. and Singh G., "Plants : Traditional Worshiping", *IJHS* 19 (1984) 37-42.
- Bloomfield M. *The Religion of the Veda: The Ancient Religion of India, from Rig-Veda to Upanishads. (Reprint* 2005). Originally published, Knickerbocker Press, New York, USA, 1908, pp.320
- Dymock W., Warden C.J.H. and Hooper D. Pharmacographia Indica. History of the Principal Drugs of Vegetable Origin, Met within British India. Pages 5 & 6. K. Paul, Trench, Trubner & Company, London, 1893.
- John D. A Classical Dictionary of Hindu Mythology and Religion, Geography, History and Literature. Trübner's Oriental Series IV. Trübner & Company, Ludgate Hill, London, 1879
- Kashyap R.L. and Sadagopan S. *Rig Veda Mantra Samhitā* (Eds.). Complete text in Devanagari with transliteration, English commentary on selected verses). Sri Aurobindo Kapali Sastry Institute of Vedic Culture, Bangalore, 2005. ISBN: 81-7994-021-7.

- Kashyap R.L. . Krsna Yajur Veda Taittiriya Samhitā, Volume 2 (Complete text in Devanagari with transliteration, English translation of Kāndas 3, 4 & 5). Sri Aurobindo Kapali Sastry Institute of Vedic Culture, Bangalore, 2003. ISBN: 81-7994-005-5.
- Krishnamurthi Sastry R. Krsnna Yajurvediya Taittiriya Samhitā, Vedartha Dipika Sahitamu. Edited, Translated and Commented by Siromani Ramavarapu Krishnamurthi Sastry, 1-7 Kandas in Telugu. Tirumala

Tirupati Devasthanams (TTD) Religious Publications Series No: 324. T.T.D. Press, Tirupati 1989.

- Ramachandra Rao S.K. Principles of Yajña-Vidhi (Introduction). Kalpatharu Research Academy Publications, Bangalore, 1991
- Witzel M. *Vedas and Upanişads*. In: The Blackwell Companion to Hinduism (Flood, G. ed. Blackwell, Malden Massachusetts, USA. 2003. pp 68-101.