

VISHWAKARMA CRAFTSMEN IN EARLY MEDIEVAL PENINSULAR INDIA

BY

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Abstract

This article situates Vishwakarma craftsmen in the socio-economic milieu of early medieval Peninsular India. It seeks to analyse the dynamics of social change among craft groups with particular reference to the smiths, masons and carpenters constituting the Vishwakarma community. This is attempted by locating the dynamics of social change within the processes of temple building and urbanism in the Chola-Pallava period. The essay looks afresh at concepts like caste, guild and community in the specific context of technological and economic changes and craft mobility. In so doing the article cuts across conceptual categories in the light of empirical evidence. The study is based on epigraphic evidence, essentially from the Tamil country.

Le présent article situe les artisans Vishwakarma dans le milieu socio-économique au début de la période médiévale de l'Inde péninsulaire. Il cherche à analyser la dynamique du changement social parmi les groupes d'artisans plus particulièrement les forgerons, maçons et menuisiers / ébénistes, bref ceux qui constituent la communauté Vishwakarma. Ce travail est effectué en situant la dynamique de l'évolution sociale au sein des divers processus de la construction des temples durant la période Chola-Pallava. L'article propose un nouveau regard sur les concepts tels que caste, association/corps de métier et communauté dans le contexte des progrès technologiques et économiques ainsi que la mobilité de l'artisanat. Cet essai va à l'encontre des catégories conceptuelles à la lumière des preuves empiriques. L'étude est basée sur des preuves épigraphiques du pays de Tamil Nadu.

Keywords: Vishwakarma, craftsmen, medieval India, social mobility, temple economy

Vishwakarma, Lord of the arts, master of a thousand crafts, carpenter of the gods and builder of their palaces divine, fashioner of every jewel, first of craftsmen by whose art men live, and whom, a great and deathless God, they continuously worship.¹

Mahabharata 1: 2592

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¹ *Mahabharata*, Adi Parva verses: 1.60.27; 1.60.28 and 1.60.29.

‘The Indian craftsman conceives of his art, not as the accumulated skill of ages, but as originating in the divine skill of Visvakarma and revealed by him. Beauty, rhythm, proportion, ideas have an absolute existence on an ideal plane, where all who seek may find. The reality of things exists in the mind, not in the detail of their appearance to the eye. Their inward inspiration, upon which the Indian artist is taught to rely, appearing like the still small voice of God, that God was conceived of as Visvakarma. He may be thought of as that part of divinity which is conditioned by a special relation to artistic expression or in another way, as the sum total of consciousness, the group soul of individual craftsmen of all times and places’ (Coomaraswamy 1989: 47).

Craftsmen known by the generic term of ‘Vishwakarma,’ the divine architect of the Gods, played a crucial role in the early medieval economy of Peninsular India. While the rural landscape continued to dominate the economy, there was at the same time the emergence of urban centres which had as their nucleus the great temples, whose construction went in tandem with the process of state formation in South India, beginning with the Pallavas in Tondaimandalam around the seventh century. The famous Brahadisvara temple of Raja Raja Chola I (tenth century) has the name of the architect proudly engraved on it by the master craftsman himself as ‘Kunjaramallan Raja Raja Perunthachan.’

The Vishvakarma in medieval Peninsular India constituted a group representative of five crafts. The constituent craft persons were—goldsmiths (*tattan*), brass smiths (*kannan*), blacksmiths (*karuman* or *kollan*), carpenters (*tachchan*) and masons (*silpi* or *kal-tachchan*). They were known in the Tamil country as Kammalar, in Karnataka as Panchalar and in Andhra as the Panchanamuvuru. However, in many of the medieval inscriptions they are also collectively referred to as the Rathakarar or the Kammala-Rathakarar, the outstanding example being the twelfth-century inscription from Tiruvarur in Nagapattinam (Tanjavur district). This is a lengthy record dealing with the mixed caste status of the Rathakarar community, concluding with the decisions by the Brahmin elders on where to locate them, in terms of the social hierarchy and in terms of their profession/s.² Today they prefer to use the nomenclature ‘Vishwakarma,’ the divine architect from whom they claim descent. The term ‘Vishwakarma’ began to appear in inscriptions referring to the smiths from the twelfth century onwards.

² *South Indian Inscriptions*, (henceforth *SII*) vol. XVII, no. 603. This remarkable inscription is in Sanskrit and has lengthy passages that are quotes from the Dharma Shastras and the writings of lawgivers like Yajnavalkya. It records an attempt by Brahmins to determine whether the Rathakara belong to the anuloma or pratiloma castes and whether they should be allowed to perform rituals like Vedic sacrifices or the wearing of the sacred thread. This inscription has been analysed at length by J. D. M. Derrett (1971).

The precise nomenclature used is 'Vishwakarma kula' or 'Vishwakarma kulaja.' To cite a few examples, the Chebrolu inscription of 1118, the Nadindla inscription of 1141 and the Tellapur inscription dated 1417, all state that the smiths and sculptors belong to the Vishwakarma kula.³

This article will focus on certain specific aspects of the Vishwakarma craftsmen, broadly based on epigraphic evidence, in an attempt to answer the following questions: (1) Who were the Vishwakarma craftsmen? (2) What constitutes the essential difference between artisans and craftsmen? (3) Where did they live (i.e., the geographical and spatial location of craftsmen)? and (4) What did they do in terms of their role in medieval society and economy?

The article is an attempt to use inscriptional evidence to explore and reconsider some of the questions that have been raised by A. Appadorai, Burton Stein, Heitzman and others in the context of medieval South Indian socio-economic structures.⁴ However, none of these scholars specifically focus on the history of crafts. The only possible exceptions are Kenneth Hall, who looks primarily at trade networks and incidentally at crafts in his book *Trade and Statecraft in the Age of the Cholas* (1980) and, Noboru Karashima who actively grapples with the issues of craft mobility and caste unrest in his essay, 'Growth of Power in the Kaikkola and Kanmala Communities' in his recent book, *History and Society in South India* (2001). This essay by Karashima, however, does not deal with the period prior to the sixteenth century, which is the centre of attention of my present study. For the early medieval period, some work was done on the Andhra region by K. Sundaram (1968) and P. Chinna Reddy (1991). Both are useful studies but the focal point is primarily the so-called 'guild' system rather than a broad-based analysis of production organisation. More importantly, crafts form only one of the many facets of these two studies, although their empirical foundation makes them very valuable for researchers.

The present endeavour concentrates on crafts, especially on the evidence from the Tamil country, something that has not been attempted earlier. This study is unequivocally grounded in empirical, epigraphic data, rather than

³ *SII*, vol. VI, no. 117, *SII*, vol. VI, no. 673, etc. Some of these records have been analysed by E. Sivanagi Reddy (1997: 10).

⁴ A. Appadorai's two-volume work on *Economic Conditions in Southern India* (1936) was the first to look at the craft sector as a major adjunct of the economy. Burton Stein's *Peasant, State and Society in Medieval South India* (1980) deals very peripherally with craft groups. However, his essay, 'Social Mobility and Medieval South Indian Sects' (2004, originally published in 1968), engages a little more with issues of social mobility. James Heitzman's book, *Gifts of Power: Lordship in an Early Indian State* (1997), helps situate the early medieval economy, especially in terms of the agrarian structure, but it also has an interesting section on 'Temple Urbanism.'

attempting any theoretical speculation based on historical models⁵—whether of the Feudal school presented by Karashima, the Segmentary model proposed by Stein, Spencer, and others, or the intermediary model of the ‘Early State’ adopted by Heitzman. In this article, the inscriptional analysis will be based upon evidence from Tamil Nadu, drawing upon records from other South Indian regions for cross-referencing and substantiation. In terms of their time frame, these inscriptions range from the twelfth to the sixteenth centuries, with more than ninety percent of them being before the fourteenth century, since the primary period of this study is the early medieval period. While providing a ‘thick’ description of craft and craftsmen in the early medieval period, I shall attempt to look at the directions of change, indicated by the socio-economic dynamics of the crafts situation leading up to the medieval era (that of the Vijayanagar empire) and the later-medieval or pre-colonial period.

SITUATING THE VISHWAKARMA—THE ARTISANS AND THE CRAFTSMEN

The socio-economic status of the Vishwakarma as a collective body, as well as the differentiation and stratification that existed among them, depended upon the nature of their function, which in turn was linked to their physical location. It would be erroneous to treat craftsmen as a monolithic unit, despite their banding together as the ‘Vishwakarma.’ The distinction between an artisan and a craftsman may seem fuzzy because of the shifting nature of their occupations, but it is nevertheless important to make this distinction. Unless one is aware of the complex layers that shaped craft development in early medieval India, one may impose one’s own teleological vision, as did the ‘Orientalist,’ the ‘imperial’ or the Marxist historians, by imagining the medieval craftsman as a static, immobile figure enmeshed within a ‘honey-combed’ caste structure. One of the ways of dismantling this discourse is to look at the producers of craft objects as distinct from the producers of purely utility commodities. Is the man routinely laying bricks or being employed as a workman in the construction of a dam, an artisan or a craftsman? Would the hereditary maker of ploughs in a village have the same position in economy and in society as the icon-maker?

In the context of medieval Peninsular India, it can be said that artisanal skills and craftsmanship came to be differentiated economically in terms of the very

⁵ I have looked at the theoretical underpinnings of India’s craft history, specifically in the context of the handloom industry, in an article previously published by me in *The Journal of the Economic and Social History of the Orient* 28 entitled ‘Genesis and Historical Role of Master Weavers in South Indian Textile Production.’

different dynamics that affected them. Inscriptional evidence clearly indicates that they represented two different kinds of economies, both of which existed parallel to each other. While the maker of ploughs would exist in the village community with a certain degree of relative physical immobility, socio-economic security and comparatively static living standards, the Kammalar or Panchalar craftsmen who had moved out of the custom determined 'local' market would band together as the Vishwakarma. Benefiting from the temple economy and an expanding clientele, the temple-town-based craftsmen would be more mobile and have greater opportunities for improving their income, while also facing greater risks. The risks would primarily arise from the withdrawal of patronage, or the decline of temple centres with the fall of dynasties, as happened in the twelfth and thirteenth centuries with the decline of the Chola State. This situation happened yet again with the fall of Vijayanagar in the sixteenth century. Thus it can be said that while every craftsman was an artisan, every artisan was not a craftsman, the principal distinction arising from their differing relationships to the medieval economy, both in terms of location and of function. More particularly on the latter count, the artisan differed quite significantly from his urban counterpart. To give an example, even among the goldsmiths there were two distinct hierarchical categories. At the lower level was the small-time *tattan* or goldsmith who worked on a piece-wage and lived at the subsistence level, catering to a custom-determined market. These goldsmiths can be seen even today in South India, sitting at street corners and eking out a living by repairing chains or other ornaments, and piercing ears and noses (a must for women and female children among many South Indian communities). At the higher level was the great goldsmith referred to in the inscriptions as *perum-tattan* (literally, 'great goldsmith') indicating master-craftsman employing apprentice goldsmiths, catering to a fairly wide market and forming a part of the urban establishment.

Another question that comes to mind when one looks at the plethora of evidence on the Vishwakarma is the precise character of this grouping. What is the link between the *jati* structure or caste system within which the categories of craftsmen (among others) are said to be located, and the Vishwakarma community which is obviously cutting across caste lines? For a long time, beginning with theorists like Max Weber and Karl Marx, caste has been regarded as a major cause of India's economic and technological backwardness. The classic statement by Marx (1958: 339-40) that crafts in the Indian context 'either petrify into castes or ossify into guilds,' was taken up by historians like Irfan Habib (1972) for the medieval period and Morris D. Morris (1968) for early modern India, to argue for a situation of technological stasis in the craft structure. Marx

(1958: 340), commenting on the fineness of the Dacca muslins, in fact concludes on a note of irony by saying, 'It is only the special skill accumulated from generation to generation and transmitted from father to son, that gives to the Hindu, as it does to the spider, this proficiency!' In this article, I have attempted to show that the functioning of the Vishwakarma as a community, comprising five socially and economically differentiated jatis, demonstrates that the ground situation at least in South India's craft history, was much more complex. The situation was comparatively fluid, and community solidarity in certain situations may have taken precedence over jati solidarity. Caste distinctions certainly continued and craftsmen in the rural setting seem to have been known by their individual jati affiliation rather than as members of the Vishwakarma kula. It is in the context of temple building where these five craft groups worked in such close coordination that the concept of 'Vishwakarma kula' seems to have predominated over that of separate caste identities. This can be deduced by the location of the inscriptions referring to the 'Vishwakarma kula' in the early medieval times, whether one is looking at the Cholas, Pandyas or Eastern Chalukyas.⁶ Having argued for a more open interpretation of craft groups cutting across caste barriers and embracing the wider notion of craft community, one cannot logically push forward this argument to state that the five jatis within the Vishwakarma community were exogamous. No evidence is forthcoming, either one way or the other in this regard. However, working back from the Kallidaikurichchi inscription of the seventeenth century,⁷ which records the legal disassociation of the five jatis, one could presume that the five castes may have been exogamous up to that point. If economic status was a factor, then the Vishwakarma goldsmith located in the temple town would have much more in common (e.g., in terms of forming matrimonial alliances) with the affluent smiths settled there than with his poor village counterpart. Although one can deduce the fluidity of caste boundaries among these crafts, in the absence of more concrete evidence it is not possible to determine how open the 'Vishwakarma community' was to social and familial interaction among the five disparate jati categories.

⁶ One unique inscription from Varikunta in Cuddapah district says that a Boya (tribal community) named Tippana (who was obviously a non-Vishwakarma craftsman) built the local temple for a lump sum contract of 20 rukas (*Inscriptions of Andhra Pradesh, Cuddapah district, vol. II, no. 107*). The inscription is late, dated 1529, but it points to a certain degree of social flux which was most likely a post-Chola phenomenon (see Reddy 1997: 7).

⁷ *Annual Report of Epigraphy* (henceforth A.R.E.) 309 and 378 of 1916; Report 1917, para. 55.

RURAL NETWORK AND THE CRAFTSMEN

The various functions performed by the smiths are defined primarily in terms of their geographical location. Of the group of five, the kollan (blacksmith) and the tachchan (carpenters) invariably formed a part of the village community. An inscription from Sundara Pandya Chaturvedimangalam in Coimbatore (dated 1258) refers to the settling of villages with Vellalar and other functionaries.⁸ The list of village artisans usually comprised the tachchan (carpenter) and kollan (blacksmith) among the smiths, and included the *navidan* (barber), *kumbaran* (potter), *talaiyari* or *padikappan* (watchman), *uvachchan* (drummer) and the *purohitar* (priest). The indispensability of the kollan to the village community is demonstrated by a record from Punganur in North Arcot district from the period of Kulottunga Chola, dated to the twelfth century, which states that Punganur and the surrounding villages were without a blacksmith. Vikramachola Sambuvarayar (apparently a state official) appointed the blacksmith of Sembai to serve in that locality.⁹ Sometimes the list of village functionaries included the weavers, the goldsmith and the mason, but these did not form a major part of the traditional village community.¹⁰

Regarding the village craftsmen, inscriptional evidence indicates that they were paid either in terms of a small piece of land as a service grant, or in terms of a share of the usufruct, as illustrated by a thirteenth-century inscription for Rajasikamaninallur in Chidambaram district.¹¹ The plethora of service grant inscriptions from the eighth to the thirteenth centuries also indicate the geographical location of the craftsmen in terms of their lands (referred to as *tachcha kuzhi*, *tattan kani*, etc.), as well as house-sites (Kammalar Ozhugai).¹²

What emerges on the basis of epigraphical evidence is that at least during the time of Rajaraja and Rajendra Chola, the poorer artisans (called *kizh kalanai*) lived in the *kammanachcheri* (street of the Kammalar), which in terms of its geographical proximity was usually coupled with the *paraichcheri* (street of the

⁸ *A.R.E.*, 306 of 1958-59 from the period of Jatavarman? Sundara Pandya I.

⁹ *A.R.E.*, 7 of 1940-41.

¹⁰ See pages 35-38 of my book *Textiles and Weavers in Medieval South India* (1985) for a discussion of the location of village professionals and artisans in the village communities, during the early medieval period and the absence of weavers from most of these inscriptions.

¹¹ *A.R.E.*, 277 of 1914 from the period of Jatavarman Sundara Pandya I.

¹² For example, the term 'karuman kundil' which occurs in a record from Tiruvallam in Gudiyattam taluq, North Arcot district of the period of Rajaraja I—*S.I.I.* (*South Indian Inscriptions*, Government Press, Madras, 1890 onwards), vol. III, No. 51 and the term 'tachcha kundil' from the same place, also of Rajaraja I—Ibid., No. 53 etc. A detailed chart has been provided below under the section 'Wages of Craftsmen.'

Paraiya). Interestingly, along with *vannarachcheri* (washermen's street) and *tindaachcheri* (the area of the untouchables), both of these are mentioned as *iraiyili* (i.e., tax free lands). This evidence recurs in an entire block of inscriptions dated between the tenth and eleventh century from Tanjavur.¹³ The reference to the artisanal *cheris* is followed by a reference to *paraikkulam* and *kuzhi* (i.e., ponds and wells of the paraiyas as well as the cremation grounds *sudukadu*). The extent of social differentiation prevailing in the early medieval times, and the significance of this fact in terms of the geographical location of the craftsmen, is reflected in a Rajaraja inscription from Tanjavur. This refers to Vellan *sudukadu*, the cremation ground of the dominant cultivating caste, as distinct from the *parai sudukadu*, the burning ground of the low caste.¹⁴

Inscriptional evidence indicates that the areas where the *kammanacheris* were located ranged from Brahmadeya-settlements (villages conferred on Brahmins) like Karimangalam, Panamangalam, etc., to the Vellan vagai (or non-Brahmin villages) like Kizh Vadugakkudi, Kizh Palaru, Ingaiyur and others,¹⁵ as also a nagaram such as Tiruttengur,¹⁶ which seems to have had a quasi-urban status. Another important question that emerges from the inscriptional evidence is the connection between status and location in relation to the terms *purambadi* ('outside' in the sense of the habitational site being outside the village margins) and *ullalai* ('inside' pertaining to the habitational heart of the temple town). For instance, a record of Rajaraja, also from Tanjavur, says that while the streets of the shepherds (*Agambadaiyar*), elephant *mahuts* (*anaiyatkal*), and the street of musicians (*Villigal teru*) were *purambadi* or outside, the *Saliya teru* or weavers' street was *ullalai* or inside.¹⁷ By this criterion, the *kammanachcheri* stood outside, and therefore it may be deduced that the artisans ranked below the weavers. The Street of the *paraiya* geographically coupled with that of the *kammalar* suggest implications that are important for determining the hierarchy of social status in medieval Peninsular India.

While the available evidence clearly indicates both that the carpenter and the blacksmith were part of the hereditary village community, there might have been some efforts on their part towards social and geographical mobility, which was effectively blocked by social-legislation. For instance the assembly at Tribhuvani, in South Arcot district, states in respect of the carpenters and some

¹³ *S.I.I.*, Vol. II, no. 4, no. 5, etc.

¹⁴ *S.I.I.*, Vol. II, no. 5.

¹⁵ *S.I.I.*, Vol. II, pt. I, nos. 4 and 5.

¹⁶ *S.I.I.*, Vol. II, pt. I, no. 5.

¹⁷ *S.I.I.*, Vol. II, pt. 4, no. 94.

other village functionaries in a record dated 1113 that ‘They should take up such services in the village only. Those who engage themselves in these services beyond this village will be considered to have transgressed the law, to have committed a fault against the great assembly and to have ruined the village.’¹⁸

CRAFTSMEN IN THE ‘RURBAN’ MILIEU—TEMPLE TOWNS

The hallmark of the early medieval period in Peninsular India, which can be roughly dated between the eighth and the thirteenth century, was the tremendous temple building activity that took place under the later-Cholas, Pandyas, Hoysalas, Chalukyas and other regional dynasties. The history of the Vishwakarma craftsmen is bound up with this significant development in the medieval south. The long phase of temple-urbanism has been divided by historians like Heitzman (1997)¹⁹ and Champakalakshmi (1996) into gradually evolving stages. While the former splits the urbanisation into two phases, the latter prefers to treat the entire period from the sixth to the beginning of the fourteenth century as one historical block (Champakalakshmi 1996: 205). In terms of my own study of the epigraphic material, it seems preferable to concur with Heitzman that the first stage was roughly from the seventh to the ninth century when the temple construction that was started by the Pallavas in Thondaimandalam was in its incipient stage. The Brahmadeya (literally, ‘land granted to Brahmins’) constituted the dominant expression of legitimisation by the state, and the Brahmin *sabhas* (or ‘assemblies’) formed the hub of economic and cultural activities along with the Vellan Vagai villages whose assemblies were dominated by the non-Brahmanical dominant groups like the Sudra vellalar. The middle Chola phase, from the tenth to the twelfth centuries, constituted the classical phase of temple urbanism. Devadana or temple-centred lands gained dominance over the Brahmadeya. The decline of Brahmin influence was marked in these centuries by a growth in the power of craft and mercantile communities. The twelfth century witnessed the growing power of many mercantile corporations like the Ayyavole, Manigramam,²⁰ and the Chitrmezhi Periyannattar. As has been pointed out at the onset of this article, the twelfth century was also

¹⁸ A.R.E., 205 of 1918-19 from the period of Kulottunga Chola.

¹⁹ Chapter 3 of Heitzman’s book has valuable sections on ‘Temple Urbanism’ as well as ‘Temples, Urbanism and Political Economy’ in which he discusses what has been called ‘The third phase of urbanization’ in the South Indian context.

²⁰ The emergence and growth of these two mercantile guilds forms the theme of Meera Abraham’s monograph (1988).

the period when the corporate representation of Vishwakarma craftsmen first begins to appear in inscriptions.

The creation of artistic wonders like the Brahadisvara temple in Tanjavur (constructed in the tenth century) and the innumerable temples in Chola-mandalam and Pandimandalam led to what historians have referred to as the emergence of temple towns. They have called these *tirumadaiviagam*. While crafts occupied a primary role in temple construction itself, the settlements of craftsmen around the temple premises became vital for the growth of the economy. The construction of temples did not involve the mere erection of shrines but the building up of an entire temple town-complex that was spread over a vast area, such as the one around the Srirangam temple at Tiruchirapalli. Temple towns were not purely devotional or pilgrimage centres. While some did evolve as primarily religious centres or as centres of scriptural studies such as Sri Rangam and Kumbakonam, over time other temple towns became commercial and/or administrative towns, with the religious feature not necessary the dominant one. The development of Nagapattinam (a reknowned Saivite as well as Buddhist center), and Karaikkal, as leading commercial port towns, would be good examples of this.

The common element in all of these towns was the settlement of craftsmen, weavers and others around the temple. The kammalar, weavers and merchants were situated in the various streets located on all four sides of the temple-complex. The long copper plate from the Kanchipuram temple from the period of Uttama Chola (tenth century) provides, for instance, the details of the four cheris or streets assigned to the Saliya weavers and their powers of supervision, along with the merchants, over the other artisan castes of the region, in the context of temple service and revenue collection.²¹ However, in keeping with the ritual hierarchies, some social groups were settled in the inner radius of the temple, referred to as ullalai (literally, 'inner') including the temple trustees and the Brahmins, while most of the craftsmen along with other service groups were settled in the purampadi (literally, 'outer') constituting the outer radius of the temple.

An analysis of the inscriptions suggests that blacksmiths, carpenters, and potters, remained largely a part of the agrarian subsistence economy, although some carpenters surely did form a part of the temple town since woodwork was an essential part of temple construction, just as the construction of *ratha* (or

²¹ *S.I.I.*, Vol. 3, pt. 3, Madras Museum copperplates of Uttama Chola. Another well-known inscription is from the Tanjavur temple in the period of Rajaraja (end of tenth century), *S.I.I.*, Vol. 2, pt. 2, no. 66.

temple chariots) was crucial for the ritual activities of the temple. However, the evidence from the reign of Rajaraja suggests that these Rathakaras had a fairly low status during the Chola times. The social mobility of craft groups depended among other things on their importance to the economy and the changing nature of technology. For example, it has been pointed out in the context of early medieval Northern India that the importance of the *takshaka* or *kashtagara* (carpenters) honoured in ancient India as *rathakara*, was supplanted by that of the stone mason or *shilpi*, as the essential building material changed from wood to stone in the post-Mauryan period. Perhaps a similar explanation would hold true for Southern India.²² On the other hand, most of the metal-workers, the mason, sculptor and the architect (whom the records refer to as *shilpachariyar*), along with the weavers and the oilmen, participated in the process of urbanisation, especially the emergence of temple-towns, in a manner which advantaged them over other artisanal groups. It must, however, be emphasised that the term 'urbanisation' is being used here not in its modern sense, but in a much more limited sense, since the dividing line between town and country was not very sharp. In fact a more convenient term for this period would be the portmanteau word 'rurban,' which Frank Perlin (1983) has used in his article on 'Proto Industrialization and Pre-Colonial South Asia.'

Inscriptions from the tenth century onwards that marked the commencement of extensive temple building activities under the later-Cholas provide evidence of the location of smiths around the temple-town and their participation in the urbanisation process. Every temple had masons, architects, metal-smiths and carpenters attached to them in a permanent capacity, and these seem to have lived in and around the tirumadaiviagam. The best example of this would be employment of various categories of smiths at the Brahadisvara temple according to Rajaraja's inscriptions dated 1011.²³

The early medieval period also saw the rise of 'nagarams' or marketing centres (also translated as 'market towns'). Kenneth Hall (1980) provides an appendix giving the growth of nagarams under the Cholas by district. The growth of nagarams was in tandem with the emergence of craft and commercial corporations and the development of temple towns. Heitzman (1997) rightly argued that 'the expansion of local temples occurred alongside and interacted with the growth of commercial networks focused on the mercantile communities.' The growth of ritual endowments to the temples, such as sacred lamps or other

²² This point has been made by R. N. Misra in his book, *Ancient Artists and Art Activity* (1975).

²³ *S.I.I.*, Vol. II, no. 66.

religious objects, led initially to the settlement of craftsmen and merchants in the tirumadaivilagam. In due course, their presence developed an economic significance independent of the ritual factor in that they had a growing clientele among the court, officials and upper classes. The integrative role played by temples in state-formation using bhakti as a cementing ideology has been the subject of specialist studies²⁴ although the present essay does not intend to deal with this aspect except to point out that the state was a major patron of crafts (see below).

NAME ANALYSIS OF CRAFTSMEN

An oft-expressed question raised by historians, whether they are looking at the arts/aesthetics aspect or the economic aspect, is whether craftsmen in those times worked in total anonymity or did they sign their names to what they had crafted? In a society in which the individual identity was, or seemed to be, submerged under caste/community identities, it was not usually the practice of the craftsman to sign his name on his product. Therefore, the instances where such names are available in the records, either below a piece of sculpture, beneath a hero-stone or on an engraved inscription, are an invaluable source of information for understanding the location of the craftsman in the medieval social milieu. This section studies these names and their social implications.

The majority of inscriptions merely give the name of the engraver such as Revachari, Samundachari, etc., or if the record is from Andhra or Karnataka, the names are usually suffixed by the term Oja such as Dasadomoja, Malloja, etc. An alternate nomenclature to *achari* is *Bhatta*. An inscription from Badami states that Sri Chandra Kirtiya Bhatta made the sculpture of Durgadevi.²⁵ The nomenclatures *acharya* or *achari* and *bhatta* or *bhattar* are very interesting because although all craftsmen in South India are Sudras, they were using a name given to Brahmins. In fact, Bhattacharya is regarded as the highest even among Brahmins. It is a fairly common Bengali Brahmin surname. Does this indicate the influence of Sanskritisation and Brahmanisation from a very early period in South India? The inscriptional evidence definitely points that way. It is worth observing here that a third term, *karmiyar*, is again used in inscriptions ambiguously for both Brahmin priests and for craftsmen. Even now the South India Vishwakarma *kula*, the name by which the kammalar prefer to be known

²⁴ An interesting pioneering effort in this direction was by M. G. S. Narayanan and Kesavan Veluthat (1978).

²⁵ *A.R.E., Bombay-Karnatak Inscriptions*, 223 of 1927-28.

these days, uses the Dravidian versions of these nomenclatures—Pathar for Bhattar and Asari for Achari.

The names of the craftsmen themselves vary between Tamil names and Sanskritised names. While Tamil names end with the nomenclature *devan*, for example Muvendavelar devan, Achchappan devan, etc., all Sanskritised names invariably carry the suffix 'Achari' such as Baladeva Achari, Sommachari, Revachari, etc. However, in the face of as yet inadequate evidence about these names and the fixing of their geographical locations against a historical setting, mere categorisation of these names does not provide much information. And now one comes to the term *perum tattan* found in a tenth-century inscription from Kumbakonam.²⁶ It describes the engraver as Pullaiya, the *peruntattan* (the conjugation of the words *perum* and *tattan*) of Teeyamkudi. The terms *perum tachchan* and *perum kollan*, meaning the 'great craftsman,' also appear in many inscriptions from Tamil Nadu, and in some cases also indicate the employment of subordinate carpenters or goldsmiths working under the master-craftsman. Thus one can say with absolute certainty that the term *perum* when attached to a craftsman defined his status as a master-craftsman with power to supervise and control the craftsmen working under him. One can assume that the Kumbakonam inscription must have registered an act of considerable importance (it deals with food offerings and endowments to the temple), since it was personally engraved by the head goldsmith or *perum tattan*.

The Dharmaraja ratha at Mahabalipuram contains inscriptions²⁷ dating back to the seventh and eighth centuries, which provide details not only about the names of craftsmen but also the categories of craftwork and professional hierarchy. It calls Kevata Perum Tachchan Payyam Izhippan as the greatest of *takshakas*. He was obviously the master-carpenter since the term 'takshaka' means 'carpenter.' The record next refers to Kalyani Kollan Semakan as the blacksmith involved in the work. Another craftsman Kunamalla is referred to as a strong wielder of the sledgehammer. Sala Mukhiyan, the chief toolsman, is another name given in this inscription. The record ends with the craftsmen paying their obeisance to Tiruvorriyur Abhachar. Tiruvorriyur is sixty kilometres from Mahabalipuram and was apparently the place where the chief architect was located. The crucial importance of this inscription stems from the clearly defined hierarchies among craftsmen, as well as the complex levels of craft specialisation as early as the seventh or eighth century.

²⁶ *A.R.E.*, 297 of 1965-66.

²⁷ *S.I.I.*, vol. XXII, volume on the Pallavas, p. 11. Inscription no. 23 A (*A.R.E.*, nos. 105-7 of 1932-33).

While some inscriptions refer only to the craftsman who is actively involved in a particular craft, there are many which refer to two or three generations of craftsmen, either father and sons, or also the grandfather. For example, the Pallava inscription from Tiruvorriyur, dated in the ninth century, refers to the engraver Parameshwaran as the son of Chanundacharya.²⁸ On the other hand, a Chalukyan inscription of Somesvara III from Dharwar, refers to Aloja the engraver as the son of Mudda Bammoja and the grandson of Jatoja.²⁹ This not only shows that the crafts were hereditary but also the continuity of generations of craftsmen at a particular place.

One final conclusion in the context of craftsmen engraving inscriptions and putting their names on them is the proof of their literacy in a society that was largely illiterate. In the context of the township Virayachilai, R. Tirumalai (1981: 28) comments that despite their ritual status or overall economic prosperity, most castes and communities were illiterate. This was true of the Arasamakal (people belonging to the chieftain's family), the Maramudalis (the Sivabrahmana temple priests) or the koyilvasal Pichchamudaliyar, the head of the Saiva sect looking after the temple affairs. None of them could even sign their names and the temple accountant not only had to transcribe their documents but also to attest them on their behalf. Thus, with the exception of the Brahmin community, the majority of Vaisyas and Sat-Sudras were ignorant of the three R's. The lowly Sudras and the groups below them were of course automatically excluded from access to any kind of knowledge. It is therefore remarkable to note that the kammala rathakarar were, by and large, literate.

The literacy of the kammala craftsmen is evidenced both by the fact that they engraved the inscriptions and by the insertion of panegyric references to themselves in these records. However the most remarkable information in this regard comes from three Pandya copper plates belonging to the reign of Parantaka Viranarayana, son of Srivallabha.³⁰ The first record, dated 946, says that the engraver was Nirupasekhara Perumkollan Nakkam and that the Tamil *prashasti* in the record was composed (and sung?) by his father who came from a family that had served as sculptors under the Pandyan kings for generations. Then follows the peculiar phrase that this sculptor had carved (what?) in the 'Himalayan peaks.' If this phrase were taken literally, it would mean that the craftsman must have been remarkably mobile, traveling from the far south to the far north. The more likely explanation is that as part of a eulogy, it indulges

²⁸ *S.I.I.*, no. 105.

²⁹ *A.R.E.*, 408 of 1965-66.

³⁰ *Pandya Cheppedugal Pattu*, pp. 90 and 91 of copper plate No. IV.

in poetic exaggeration. The second inscription consists of two verses in Tamil. The verses are said to be composed by ‘Tamilabharanan’ Sri Vallabaha Pandimaraya Perumkollan. It is to be noted that the name Tamilabharanan is in fact a title meaning ‘jewel among Tamils,’ conferred on this ‘great blacksmith.’ The record further specifies that he was not a native of the Tamil country but belonged to Guntur. Finally, the record comes out with the eulogia that he came from a family of blacksmiths who had made the axe of Parashurama and were descended from Manu! The third and last inscription states that to the sculptor Marttandan who *not only engraved the following prashasti but also composed it* (emphasis mine), the Mahasabhaiyar—that is the Brahmadeya assembly heads—granted a land of 3 pulan (?) and some other privileges. To conclude, these three tenth-century inscriptions bear witness to the remarkable attributes of the Kammalar, their ability not merely to read and write inscriptions but even to compose royal prashastis!

However, the most elaborate prashasti on craftsmen by the craftsmen with details of their names and lineage, comes from Chingleput dated to 1018, the period of Rajendra Chola.³¹ The Sanskrit panegyric says:

Four Sculptors, born at Kanchipuram, ornaments of the race of Hovya, wrote this prashasti. The high minded Aravamurta, who though born of Krishna, was ‘akrishna’—(literally meaning ‘not dark,’ but the idiomatic meaning is ‘of unsullied character’), his younger two brothers Ranga and Damodhara and his son, the famous Purushottama, who was a bee at the lotus feet of Purushottama (Vishnu in the second context). By these four persons who are well versed in the various forms of mechanical art, who had their birth in the great city of Kanchipuram, who were wise and born in the Ovi family, this edict was clearly engraved.

This panegyric written by the craftsmen concerning themselves shows their skill at poetic composition especially in the use of *shleshaalankara* or the art of punning, a special feature of Sanskritic compositions in the early medieval period.

The name analysis of craftsmen raises another important issue. The names listed in almost all inscriptions seem to be only of craftsmen. An overarching patriarchal framework can be clearly perceived in early craft structures. Women by and large functioned in an ancillary or subordinate capacity in the work of the smiths. In the craft of the blacksmiths, the women are allowed to work the bellows while they are not permitted to forge the iron. In the craft of jewellery making among the goldsmiths and the silversmiths, women are engaged in the tasks of polishing, fine cutting and embellishing the designs, but not allowed a

³¹ *S.I.I.*, part III, No. 205 from Tiruvalangadu.

primary role in the designing or making of the ornaments. The goldsmith community called 'Bayala Akkasaliga' (literally 'itinerant goldsmiths') seems to have trained both men and women in the art of goldsmithy (Brouwer 1987a: 6). One does not hear of women sculptors at all especially in the craft of icon making. Hence, it can be logically assumed that women were marginalized in the whole craft process. There were, however, two notable exceptions, both from Dharwar, pertaining to the eleventh and twelfth centuries respectively. One from Gadag inscribed under the image of Uma Mahesvara says that Revakabbarasi, the wife of Vavanarasa, made the sculpture.³² The other from Kalkeri says that Saraswati Gandidasi Malloja made the image of Suryadeva.³³ In the first case, the female sculptor is essentially defined in terms of her marital relationship, while in the second, only the name of the father is given which was the usual practice in all the inscriptions. The mention of just two women out of nearly eighty inscriptions relating to craftsmen's names shows that the exception may prove the rule. However, it does seem that women might have sometimes taken to crafts out of economic necessity. Among the Gudigara caste in Karnataka, women are said to have taken over the family profession in the case of death of the male member and this included goldsmithy, perhaps both crafting as well as sales.³⁴

The debate over the gender component of crafts is a complex one. In a society where crafting was obviously a family enterprise, women must have been familiar with crafting techniques since they assisted in most major aspects of crafting. The fact that Gudigara women could take over their hereditary profession on the death of their husbands shows that this was not a skill acquired overnight but accumulated over years of assisting in the family occupation. The comparative anonymity of women within crafts and the absence of their names as crafts persons could therefore be broken down with more intensive research into the popular literatures of that age.

THE ORIGINS OF THE VISHWAKARMA

The mythological origins of the craftsmen are found both in their rich body of oral traditions and in the references to such traditions in early medieval inscriptions. The oral traditions of the smiths consist of origin myths, craft-related oral traditions, and ritual status related traditions. Although these constitute basically

³² *A.R.E.*, 464 of 1961-62.

³³ *A.R.E.*, 109 of 1949-50.

³⁴ For an interesting discussion of this theme, see Jan Brouwer 1987a.

‘soft evidence,’ some of these oral traditions assume the form of ‘hard evidence’ when they are found in medieval inscriptions. For instance, an inscriptional record (dated 1177) from Macherla in Palnad taluq, Guntur district of Andhra Pradesh links the Vishwakarma to Brahma the divine creator.³⁵ The record refers to the smiths as ‘Vishwakarma Kulaja’ (literally, ‘those born into the family of Vishwakarma’).

Many of these origin myths are found in the *Vishwakarma Puranam* written in Tamil (there could be a Sanskritic version as well).³⁶ The work does not have an author, and different stories and local legends seem to have been incorporated into it, some of these dating back to the pre-*Vijayanagar* inscriptions. It was most probably compiled during the East India Company period in the eighteenth century because of the occasional reference to the company rule. For example, it says that while at the beginning of time the smiths could think objects and buildings into existence, now they had to work on the basis of musters.

The *Vishwakarma Puranam* says that Brahma and Vishwakarma together created the universe. In their own special version of the ‘Big-bang theory,’ the artisans claim that the five natural elements formed an enormous egg that burst forth like thunder and the universe came into being. Siva and Vishnu emerged from the blue space and created Vishwakarma and Brahma respectively. Vishwakarma had five faces representing the three smiths and the two non-smiths. In fact, according to the text, the color of their faces were also symbolic of their crafts—gold for the goldsmith, copper or brass for the coppersmith, black for the blacksmith, stony color for the mason, and a wooden face for the carpenter. Vishwakarma then made tongs out of the power emanating from Brahma and Vishnu, and joined them with the nail called Rudram or Siva. He called this ‘Kuradu,’ which is of course an important tool of the smiths.

This origin myth also makes the point that Vishwakarma was born wearing the sacred thread ‘similar to what the Brahmins wear around their shoulder.’ This loaded statement makes it obvious that the one major purpose behind this origin myth was to claim Brahmanical status. The Vishwakarma artisans I have interviewed told me that even now Avani Avittam (or Thread changing ritual) is among their most important ceremonies. The *Vishwakarma Puranam* says that Vishwakarma wrote the *Mayanool*, which is the science of architecture. This contains the details of indigenous hand measurement systems (*Kadam, ma,*

³⁵ A.R.E., 575 of 1909, pt. 2, 1910, para. 60.

³⁶ *Visvakarma Puranam*, Mackenzie Manuscripts, Wilson Collection, No. 72, This is a handwritten manuscript in the India Office, London.

Yojanai, etc.) and refers to the importance of mathematical and astrological calculations for the construction of buildings.

The origin of the Vishwakarma smiths is usually referred to in the inscriptions in panegyric terms by the smiths themselves and therefore falls under the category of origin myths. It was usually in the context of their role as engravers and sculptors that the names of craftsmen, at times accompanied by the panegyric note on their origins and skills, occur in inscriptional records. An inscription from Macherla in Palnad Taluq in Guntur district (dated to 1111) states that the smiths were descended from Vishwakarma who was the son of Brahma. He is also said to be the father-in-law of the sun, converting the rays emanating from the sun into divine weapons like the discus of Vishnu.³⁷ The inscription also says that the Vishwakarma smiths made images of Gods, the four kinds of mansions (based on the directions they faced), and used their knowledge of geometry (from the Sanskrit *yamitro*) in *vastu shastra* or the science of sculpture.

The Vishwakarma community sports a banner with the image of Hanuman even today. Offering an explanation for this, the *Vishwakarma Puranam* says that Vishwakarma was the divine architect who accompanied the victorious army of Rama to Ilangai (i.e., modern Sri Lanka). He rebuilt Sri Lanka after it had been burnt down by Hanuman and as a symbol of their triumph they began to fly the *Hanumatkodi*—the flag with Hanuman's image. An inscription from Dindigal which carries the spurious date 1365 but refers to Tirumalai Nayakar and seems actually to belong to the seventeenth century, also mentions that Hanumatkodi (Hanuman insignia) was the banner adopted by the Kammalar called the 'Anju Jatiyar' in the inscription, meaning the five castes.

One of the longest panegyrics on the Kammalar comes from Alangudi in Tanjavur. Found in the Apatsahayesvara temple, the inscription is dated 1264 and registers the construction of a *mandapam* (a pillared hall) by the Kammalarathakarar community and the grant of certain endowments to the temple for its maintenance.³⁸ Interestingly, they describe themselves as 'the four kinds of Rathakarar of the six kinds of profession.' Since the workers in the mint have been referred to separately quite often (kammatta), one can presume that this was the sixth category of craftsmen. One of the earliest eulogies relating to craftsmen is found in two inscriptions from Ayyangaripalem in Guntur³⁹ that refer to the architect of the Jalpesa, called Maindarama as 'kalgarabharana

³⁷ *A.R.E.*, 575 of 1909.

³⁸ *S.I.I.*, vol. VI, no. 439.

³⁹ *A.R.E.*, 331 and 332 of 1936-7.

acharya' (an ornament to sculptors) of the fourth (i.e., *sudra*) caste and the jewel of the Vishwakarma kula.

RITUAL STATUS OF CRAFTSMEN

Two important inscriptions from Tiruvarur (Tanjavur district) and Uyyakondan Tirumalai (Tiruchchirapalli district) of the twelfth century provide us with a detailed account of the social and ritual origins of the Vishwakarma. In terms of their social and ritual status, the origin of the Kammala-Rathakarar was defined as being that of a mixed caste, primarily *anuloma* (i.e., born of a high-born father and low-born mother). In the Tiruvarur inscription of the twelfth century from Pandyakulantaka Chaturvedimangalam (Tanjavur district),⁴⁰ and in another record from Rajasraya Chaturvedimangalam from Uyyakondan Tirumalai (Tiruchchirapalli district)⁴¹ of the same period, the Brahmin determined the status, rights and duties of the Kammala-Rathakarar. Based on the Dharma Shastras and the Smritis of Yajnavalkya, Gautama, Maskara and Bhima, they arrived at the consensus that the Rathakarar were primarily *anuloma* being born of Mahisha (Vaisya) male and Karana (Sudra) female. According to some texts, as *anuloma* they could perform the *upanayanam* (sacred thread ceremony) and *sandhyavandanam* (the special worship of the sun at dawn, dusk and high-noon) but silently (*tushnim eva*). Yajnavalkya restricts them from all sacred texts relating to architecture and sculpture like Agastya Vastu Shastra, although Visvakarmiyam (meaning the professional obligations/privileges of the Vishwakarma) gave them the right to build temples and to sculpt the images of Gods.

The Vaikansa Dharmasutra, however, defines their status as *pratiloma* (i.e., born of a high-caste Vaisya mother and a low-caste Sudra father) and says that they were fit only to perform menial tasks like feeding and training horses. The *Smartyarthasara* of Sridhara Bhatta (a South Indian text from 1150) states that a Kammala-Rathakarar born of a Mahisha male and a Karana female was in fact a *pratiloma* and hence no more than a menial artisan. The second major inscription from Uyyakondan (Tiruchchirapalli) makes a clear distinction between the *anuloma* Rathakarar and the *pratiloma* smiths aspiring to the privileges like *upanayana* (the sacred thread) accorded only to the superior Rathakarar.

One could, therefore, conclude from the rather ambiguous and confusing evidence presented in inscriptional records, especially the above-mentioned two

⁴⁰ *S.I.I.* Vol. XVII, no. 603, Tiruvarur, Nagapattinam taluq, Tanjavur district.

⁴¹ *A.R.E.*, 479 of 1908 from Uyyakondan Tirumalai, Tiruchchirapalli taluq and district.

inscriptions, that a Kammala-Rathakara could be classified as *anuloma* or *pratiloma* depending on the nature of his job, thus providing ritual sanction for the socio-economic differentiation that already existed among the prosperous architects and jewellers on the one hand and the poor village smiths on the other.

ROLE FUNCTION OF THE VISHWAKARMA: CRAFTSMEN, CLIENTS AND PATRONS

The blacksmith and the carpenters were an indispensable part of every village since they manufactured the agricultural tools of production like ploughshares, hoes and axes. While the village potter met the bulk of the rural demand, there was a limited market for metal pots and pans in the countryside. The temple was, however, the most important centre of all craft activities. Temple inscriptions mention the categories of craftsmen listed in the following table (see table 1).

First, the temple craftsman was to be recognized in his role as engraver. The medieval temple was not just a religious site, but also the hub of secular life as well, serving as meeting hall, emergency court, and cultural centre. Matters ranging from temple donations to land transactions and issues of crime and punishment were registered for posterity on temple walls. Inscriptions were the best means of recording any act or transaction, and all inscriptions had to be engraved whether on rock or copper plate. Thus lengthy inscriptions pertaining to temple charities or land transactions would conclude with the name of the

Table 1: Categories of craftsmen mentioned in temple inscriptions

Function	Term
Stone cutter	kal kuttigar
Stone marker/measurer	sutrgrahi
Stone dresser	vartaki
Mason	kal tachchan
Sculptor	silpi
Architect	sthapati/asari or acharya (a generic term for any craftsman)
Repair craftsmen	tiruppani <i>cheyvar</i>
Craft overseer	kankani
Blacksmith	kollan
Master blacksmith	perum-kollan
Goldsmith	tattan
Master goldsmith	perum-tattan
Jewel stitcher	ratna tayyan
Carpenter	achchan
Master carpenter	perum tachchan

engraver. Since the temples served as a record office, many of the engravers were smiths who were attached to that particular temple. Some examples include an inscription of the time of Vikrama Chola (dated 1123) from Tiruvarur in Tanjavur district says that the inscription that concerns a land grant to the temple by the king was 'engraved by that greatest of masons, our temple achari.'⁴² Another inscription dated 1268 from Kanchipuram Ulagalanda Perumal temple refers to the arrangement of Vedic teaching in the temple and concludes with the statement that it was engraved by the temple 'por koyil' (literally, 'golden temple') craftsman.⁴³ Similar information regarding the engravers is available from the Pandyan and later from the Vijayanagar inscriptions. In the instances where the phrase 'our achari' or the 'por koyil achari' does not occur, one can presume that the services of artisans that were not directly attached to the temple were enlisted.

The inscriptions also list the various craft activities involved in the sculpting of images and temple building. The first step in image making is the identification of the right kind of stone (Brouwer 1987b). The twelfth-century Tiruvarur record described a *shiladosha parikshaka*—the one who can examine the defects in stones.⁴⁴ Stone-cutting seems to have been a separate occupation and the inscriptions refer to *kal-kuttigar* or stonecutters.⁴⁵

The craftsman called *sutragrahi* was responsible for measuring and marking the stones prior to the carving of images, ornamental arches, and pillars. He also demarcated land boundaries. A record from Tiruvannamalai (North Arcot district) of the period of Rajaraja Chola says 'from the stone marked by the asari to the north and the south.'⁴⁶ One of the earliest pieces of evidence of asari's marks on rocks comes from the Amaravati caves in Guntur where the mason's marks are accompanied by the name of the mason written in Brahmi. The stone bears marks such as pa 70:5, dha 70:1 and cha 70:2.⁴⁷ The Tiruvarur inscription refers to the different categories of craftsmen who represent the mason-stone markers called *sutragrahi*, the stone dresser-joiner called *vartaki* and the actual sculptor called *shilpi* or *kal-tachchan*, a corruption of the Sanskrit word *takshaka*.⁴⁸ The inscriptions also refer to sculptors as *tirumeni cheyyar*

⁴² S.I.I., Vol. V no. 456.

⁴³ S.I.I., Vol. IV no. 353.

⁴⁴ S.I.I., Vol. XVII, no. 603, stanza 6.

⁴⁵ The expression *kal-kutti* occurs in the Badami cave inscriptions from Bijapur, A.R.E. 204, 220 and 223 of 1927-28.

⁴⁶ S.I.I., Vol. VIII, no. 83.

⁴⁷ A.R.E., no. 21 of 1959-60 dating back to the third century.

⁴⁸ S.I.I., Vol. XVII, no. 603.

literally 'idol makers.' In the category of temple craftsmen one also finds the *tirupani cheyyar*⁴⁹ or repairers. A record from Avinasi in Coimbatore registers the permanent appointment of two artisans in Avinasisvara temple to attend to the *dasa kriyai* (ten kinds of repair) and to receive in return a service grant called tachchakani.⁵⁰

The architect was referred to as *sthapathi* although these days the term has become interchangeable with *shilpi* or sculptor. The Tiruvarur inscription⁵¹ describes the sthapathi as *vastu tatvajna* (i.e., 'one who has knowledge of the science of architecture'). He was also *nimitha shakuna*, *jyotirgyana prabodhakah* and *gan-ityayah*, (i.e., one well versed in 'studying portents' and in applying astrological and mathematical knowledge to the construction of temples). The Tiruvarur inscription also refers to the construction of the secular *prasada* or building—the term used in contrast to those referring to the sacred structures (*deva-layam*).⁵² In this context it would be interesting to look at a literary source like the *Vishwakarma Vastushastram*, which declares that while only the timber from eight special kinds of trees could be used in temples, the wood of thirty-two varieties could be used in secular buildings.⁵³ Moreover, trees leaning towards the north were especially auspicious for temple constructions.

Besides the crafts directly concerned with temple building, the kammalar were also engaged in the construction of water bodies, like wells, tanks, and irrigation channels and sluices. A remarkable inscription dated to 1369 from Cuddappah district gives the details of tank and bund construction in medieval South India. Although the inscription is not from the Tamil country, it is cited here at some length because it is perhaps the earliest evidence of this kind. The Porumamilla tank inscription of Bhaskara Bhavadure⁵⁴ notes that a righteous king and a Brahmin well versed in hydraulics (*pathas-shastra*) are essential prerequisites of tank construction. A gang of men skilled in tank construction was to be employed, and the tank was to be at a distance of three yojanas (roughly 26 miles) from its river source and bounded by a hill. The tank was to have a compact stonewall and four swiftly flowing sluices leading to rich fruit bearing land (the term used is *phala kshetra* but this may also just mean good arable land). The inscription warned that the presence of saline soil, an uneven tank

⁴⁹ A.R.E., No. 368 of 1904.

⁵⁰ A.R.E., No. 188 of 1909-10 from Avinasi, Coimbatore.

⁵¹ S.I.I., Vol. XVII, No. 603, stanza 4 and 6.

⁵² S.I.I., Vol. XVII, No. 603, stanza 4 and 6.

⁵³ *Visvakarma Vastushastra*, see the introduction by Shastri (1990: vi-vii).

⁵⁴ *Epigraphica Indica (E.I.)*, vol. XIV, no. 4.

bed, a scanty supply of water or excessive water, would all be features detrimental to tank construction. The most valuable information comes towards the end of the record, which says that the tank was seven miles long and two and a half miles wide. The artificial bund that was made along with it was 6250 yards long, 8 yards wide and 10 yards in depth (the measure used is *rekha danda*). Both of these were completed in two years. One thousand labourers worked at the tank and a hundred carts were employed for the masonry work. This inscription gives rise to a very important question—were the men employed in the construction of the tank and the bund skilled workers or unskilled artisans? While the phrase in the Porumamilla inscription ‘a gang of men skilled in temple construction’ suggests that these might have possessed craft skills, one wonders whether the one thousand odd men employed in the task could be justifiably described as skilled workers or artisans.

A category of work that lay outside both the temple and the court, but constituted a major source of income for both stonemasons and sculptors, was the construction of hero-stones referred to as *vira kal*, some of them embellished with great artistry. Memorial stones from Chengam in North Arcot district in the Thondaimandalam region date back to the sixth and seventh centuries, the time of Pallava kings Simhavishnu and Mahendravarman I. A memorial stone from Sennivaykkai of the period of Nandivarman III bears the sculpture of a Brahmin hero wearing a sacred thread with an arrow piercing his neck.⁵⁵ Parallel evidence for the crafting of hero stones also comes from other southern regions. A tenth-century record from Kappalle in Chittoor district says that the sculptor eulogized as *bahugunaateja* (sculptor endowed with many good qualities) built the hero stone of a seated image of a *chetti* (meaning ‘merchant’) who was killed in a cattle raid.⁵⁶ The figure is surrounded by female attendants.

The metal-smiths—goldsmith, silversmith and the workers in bronze, copper and brass—received the bulk of their orders from the court and the temples. Both the Tiruvarur and the Uyyakkondan Tirumalai inscription (cited earlier) state that it was the work of the smith to make jewellery for the king, court and temple.⁵⁷ Vessels of bronze, gold and iron for *yajna* or sacrifices had to be prepared by the smiths. The jeweller’s art in South India goes back to antiquity and extensive references to various types of jewellery are found as early as the *Silappadhikaram*. The records of Rajaraja and Rajendra Chola primarily from

⁵⁵ *A.R.E.*, 144 of 1929.

⁵⁶ *A.R.E.*, 167 and 168 of 1933-34.

⁵⁷ *S.I.I.*, Vol. XVII, no. 603 stanza 3 and *A.R.E.*, 479 of 1908.

Tanjavur refer to nearly sixty different types of jewellery. The jewellers could identify twenty types of pearls and ten kinds of diamonds. The Chola inscriptions record the weight of each piece of jewellery and sometimes even the cost of manufacturing it. The Brahadisvara temple of Rajaraja refers to two distinct categories of goldsmiths—tattan and ratna tayyan. It appears that the latter term was specific to the jewel-stitcher.⁵⁸

The Chola inscriptions again refer to the making of copper-brass, gold and silver vessels, lamps, plates, ornamental stands, etc. The making of ritual objects, like flat gold and copper plates called *yantra* for ritual use, also involved certain secret procedures by craftsmen which the records refer to as *mantrapoorvamaga cheyda*⁵⁹ (literally, ‘making the esoteric way’). Records of Rajaraja from Panchanadisvara temple in Tiruvaiyar list not only the usual metals but also lead, zinc and bell-metal vessels.⁶⁰ Another inscription from Brahadisvara temple of Rajaraja gives a list of silver vessels presented by the king to the deity and specifies that they were made from silver seized during campaigns after defeating the Cheras and Pandyas in Malainadu.⁶¹ The record suggests, and this is borne out by geological findings, that in south India silver deposits were scarce and loot was perhaps the primary source for acquiring this metal.

The armoury industry provided a major source of employment for the smiths. The twelfth-century Tiruvarur inscription describes the Vishwakarma as *salyod-dhara* or makers of weapons.⁶² Their products included metal shields, swords, battle-axes and javelins. The same record details that the smiths were well versed in archery (*dhanurvidyanvitah*) showing that they were skilled not merely in making bows and arrows but in wielding these against the enemies. In fact, there are quite a few references to soldiering smiths who died in cattle raids. It is also stated in the records that the smiths manufactured chariots for war. Chariots were also used as a means of domestic transport along with the common carts, and employed in the temples to draw the images of the Gods during the festivals. The chariots and carts were made and decorated by the craftsmen’s skilled knowledge of *vastushastra*. In fact, it was this function in the Chola period that gave craftsmen the nomenclature Rathakara (meaning, ‘the makers of chariots’). The same record also states that the Rathakaras alone possessed the ability to assess horses in terms of their endurance in wars. This

⁵⁸ *S.I.I.*, Vol. II, pt. 3, no. 66.

⁵⁹ *S.I.I.*, Vol. V, no. 647.

⁶⁰ *S.I.I.*, Vol. V, no. 521; *S.I.I.*, Vol. II., pt. 4, no. 85, etc.

⁶¹ *S.I.I.*, Vol. VII, no. 603.

⁶² *S.I.I.*, Vol. XVII, no. 603, stanza 4 and 6.

point was considered important enough to be repeated in Grantham and in Tamil in the inscription. This type of smithy was obviously different and distinct from the temple smithy. Weapon making was one branch of smithy, which is clearly outside the temple region. The location of the armoury is discussed in the *Vishwakarma Vasthushasthram*,⁶³ which states that the *ayudhashala* should be either near the palace premises or in the vicinity of the courts of justice to enable kings to maintain constant supervision over the arsenal.

Another metal craft activity far removed from the temple premises was the mint, which was located either in the palace complex or near the law courts. The minting of coins, however, was not a royal monopoly. Evidence from Karnataka shows that private mints could also issue coins but only under the supervision of state officials. Parallel evidence for the Tamil country is not forthcoming, however, from the reference to the variety of coins existing during the Chola-Pallava and even later periods, we can infer that coins were produced by private agencies besides the state mints. It also appears that the multiplicity of currency made any attempt at standardization of exchange rates extremely difficult. Among the Vishwakarma craftsmen, the *kammata* or worker in the mints seems to have constituted an independent group. The coin minters, as inscriptional evidence from Karnataka shows, were powerful enough to make donations on their own without connecting with the other constituents of the *kam-malar* guild. These also began to act as moneychangers in later times.

A major question connected with all these craft activities of the town-based craftsmen would be the nature of their clientele or patrons. Inscriptions make it clear that the craftsmen residing in the *tirumadaivilagam* of the temple serviced the temple. Epigraphs, when recording the names of craftsmen, refer to them as 'our temple goldsmith' or 'the temple (*porkoyil*) mason.' The temple also employed various smiths, and had carpenters and even repairers attached to it in a permanent capacity. Thus, a major patron-consumer of craft-products was the temple and its functionaries.

The second important group of consumers of craft products was royal and state officials. As regards metal work, gold and silver jewellery was in great demand in the temples and at the court, as well as among the upper classes. Besides jewellery, gold and silver vessels, and other ceremonial metal objects were in demand in the temples, the courts and in Brahmanical and upper caste homes. One factor in the gradual increase in the volume of demand of metal products, whether metal cots, utensils or jewellery, was the emergence of new classes

⁶³ *Visvakarma Vasthu Shasthram*, see the introduction by Shastri (1990: xiv).

such as the Shudra landlords in the lower Kaveri valley and the increase in state officials. The former aspect is dealt with in a lengthy essay by Karashima (2001: 15-31), while the point of bureaucratisation and the growth of officialdom is made by many scholars but most significantly by James Heitzman (1997: 143-48) who refers to the emergence of a proto-bureaucracy under the Cholas. Brassware, copper pots and pans were in use in less affluent homes.

A craft area where the kammalar drew their patrons entirely from royalty was that of portrait sculpture, a feature quite common to many South Indian temples. Excellent examples of such sculptures have been found both at Koraganatha temple at Srinivasanallur and at the Nagesvara temple in Tirunagesvaram near Kumbakonam. The portraits were apparently of royal donors to the temple. The earliest identified portrait sculpture is that of Tirukarali Pichchan, the patron who commissioned the stone temple at Tiruvaduturai in Tanjavur district. The most substantive evidence comes from the reign of Rajendra Chola I, a bronze statue in the Kalahasti temple representing Cholamadevi, the queen of Rajendra. The period and identity of this statue, the name of the sculptor who crafted it and other details are carved on an inscription on its pedestal. This says that Nichchapattalagan, the sculptor, cast it on the order of Rajendra Choladeva. Kalahasti also has a portrait sculpture of King Kulottunga in the praying posture. The metal images of Narasinga Munaiyadaraiyar, the Milada military chief and the patron of saint Sundaramurthy Nayanar is found in the Siva temple at Tiruvennallur in South Arcot. In his study of portrait sculptures through the centuries, N. S. Ramaswami (1979) argues that portrait sculptures enjoyed maximum popularity in Pandianadu and that in just seven temples in Ramanathapuram there were over a hundred portrait sculptures. The commissioning of such sculptures must surely have been a major source of income for craftsmen. It is noteworthy that the commissioning of portrait sculptures continued well into the Vijaynagar period.

WAGES OF KAMMALAR CRAFTSMEN

In his pioneering book *An introduction to the Study of Indian History*, D. D. Kosambi (1975: 387-88) makes a clear distinction between the *grama-taksha* (the carpenter attached to the village community) and the *kauta taksha* (the independent carpenter), based on the ancient Sanskrit lexicon *Amarkosha*. A similar distinction can also be drawn between the village blacksmith who was paid out of the grain heap and the perum kollan and master blacksmith who were associated with the huge temple towns. Even among the goldsmiths there were two hierarchical categories, as mentioned earlier, the small tattan living on

a piece wage, and the master goldsmith or perum tattan who was a part of the urban set up. The master goldsmith functioned more like a craftsman-contractor, with patrons drawn from among the royalty, the upper classes and the temple complex itself. Thus, inscriptional evidence clearly indicates that the *rathakarar*, like the blacksmith, village carpenter, potter and other functionaries, lived just outside the village in the area called *kammanacheri* and formed a part of the agrarian subsistence economy. The role of craftsmen like the blacksmith and the carpenter, who formed an indispensable part of the village community, was very different from the craftsmen in temple towns who had a multiplicity of customers as well as patrons. Their work consisted of the manufacture and repair of agricultural tools like ploughshares, hoes, spades and axes. The inscriptions use the term *kil kalanai* for these poor craftsmen, and the inscriptions of Rajaraja Chola I and Rajendra Chola repeatedly refer to them as being located in the *kammanacheri* which in terms of its geographical proximity was usually coupled with the *paraicheri* (street inhabited by the untouchable Paraiya). These were low-paid artisans living at the subsistence level and catering to a custom-oriented market without the benefit of wealthy patrons like the town sculptors.

There is some inscriptional evidence to illustrate the nature of payment to the craftsmen in early medieval Tamil Nadu although the evidence is meager, scattered and disparate. In this essay the term 'wages' is being used not only in the narrow sense of cash payment, but also in the wider sense of payment in the form of service tenures, daily food rations, etc. The most common mode of payment to craftsmen seems to have been in the form of service tenure. In the case of the *makkalar ozhugai* or land for house sites allotted to the craftsmen in the *kammanacheri* as in the series of inscriptions from the reign of Rajaraja Chola I,⁶⁴ they are always declared to be *iraiyili* or tax-free. However, a record from Coimbatore of Jatavarman Sundara Pandya (dated to 1251) demonstrates that the land was not free of all obligations. The inscription refers to the apportioning of 200 *velis* (1320 acres) among 121 Brahmins and the village artisans, like the barber, potter, carpenter and blacksmith. It states that although exempted from paying tax on their holdings, they had to give a stipulated quantity of paddy to the *Tillainayakan perumbhandaram* or temple store-house.⁶⁵ Several terms and conditions for land given as service tenure to the kammalar are found in the inscriptions. The following table (table 2) lists the terms and shows that in addition to the regular work of carpentry or smithy, a land holding was also given for constructing a tank or for undertaking repair work in the temple (*dasakriya*).

⁶⁴ *S.I.I.*, vol. II, nos. 4 and 5 etc.

⁶⁵ *A.R.E.*, 306 of 1958-59.

There are quite a few inscriptions that refer to the giving of house-sites either along with a small piece of surrounding land or by itself as a mode of payment. For example, a record in the thirty-first year of Rajaraja Chola I from Tiruvilimalai in Tanjore refers to the grant of a house-site and some surrounding land to a *tachcha achari* (carpenter) for executing repairs in the shrine of Ninru Aruliyai Nayinar.⁶⁶ Similar grants of house-sites to artisans are also found in the Chalukyan inscriptions in Karnataka.

Yet another mode of payment to artisans was in paddy, which may or may not be addition to cash, and also payment purely in cash. A record of the thirtieth year of Vijaya Gandagopaladeva's reign refers to payment partly in paddy and partly in cash to some sculptors.⁶⁷ An undated record assigned to the thirteenth-fourteenth century from Vallipuram in Salem district records a grant of

Table 2: of Terms for Craft Service Tenures

Service Tenure	Period	Place Name	Taluka, District	Source
Tachcha Achari <i>kani</i>	Rajaraja	Tiruvilimalai	Tanjore, Tanjore	A.R.E. 403 of 1958
Tachchakkani	Rajendra	Perunganji	Walajapet, N. Arcot	A.R.E. 19 of 1940-41
Tachchakkani		Avinasi	Avinasi, Coimbatore	A.R.E. 188 of 1909-10
Tachchakkani		Madurantakam	Madurantakam, Chingleput	S.I.I. vol. V, 991
Tachchhhani	Pandya 8th century	Ramnad	Dindigal, Madurai	S.I.I. Vol. XIV, 26
Tachcha acharya <i>kani</i>	Pandya 8th century	Sakkotai	Tirupattur, Ramnad	A.R.E. 38 of 194-47
Tachchakkundil	Srivallabha Rajendra I	Tiruvallam	Gudiyattam, N. Arcot	S.I.I. Vol. III, 53
Karumankundu	Rajaraja I	Tiruvallam	Gudiyattam, N. Arcot	S.I.I. Vol. III, 51
Silpacharya <i>kani</i> (sculptor / or architect?)	Kulottunga III	Nagar	Lalgudi, Trichi	A.R.E. Vol. 691 of 1962-63
Iluppai <i>chey nilam</i>	Rajendra III	Narttamalai (nagaram)	Pudukotai	S.I.I. Vol. III pt. 3
Kollan karum <i>chey</i>	Sundara Pandya	Kalugumalai	Koyilpatti, (Tirunelveli)	S.I.I. Vol. V
Kashtakara pangu	Uttama Cola (chola?)	Koyiltebaraya pettai	Papanasam, Tanjore	S.I.I. Vol. IX

⁶⁶ A.R.E., 403 of 1908-9.

⁶⁷ A.R.E., 278 of 1955-56.

one podi of millet (*kambu*) and 4 kulagam (?) of paddy per year to Tattan Nambi Tiyagar.⁶⁸

The granting of service tenures was not peculiar to the Kammalar and almost all artisanal classes seem to have been paid in terms of a piece of land usually referred to as '*kani*'. This land was usually declared *iraiyili* or tax free in the case of the poorer artisans. The record of Koparakesari Parantaka from Tiruperumber in Tiruchchirapalli refers not only to kollan and tachchan *nilam* but also to kusavan (potter) *chey*. Both *nilam* and *chey* are terms referring to land. Similarly an inscription of the period of Vira Pandya (dated to 951) from Ambasamudram (Tirunelveli district) mentions the apportioning of land to the smith, potter, drummer, barber and others.⁶⁹ An inscription from Kaniyur in Walajapet (North Arcot district) specifies a *kusakkani* holding as 400 *kuzhi* (a little less than a *veli*, which is approximately 6.6 acres).⁷⁰ D. D. Kosambi (1975: 387-88) in his brief discussion of craft wages asserts that all artisans were paid in terms of a piece of land. He also states that payment in paddy was for special services rendered and was in addition to the tax-free land. The share of the carpenter was 2% of the peasant's total yield and that of the blacksmith was 1.75%.

Perhaps the most valuable inscription that discusses payment to all kinds of professionals, artisans and craftsmen is the Brahadisvaram temple inscription of Rajaraja.⁷¹ Some scattered information is also found in a few other records. In the following table (table 3), an attempt is made at a rough computation of the wages of the kammala craftsmen given the uneven, disparate and widely scattered nature of the information. The table considers the craft-wages given in four temple inscriptions spanning a period of 200 years. These are the Erichchaudaiyar temple in Ambasamudram (Tirunelveli district), the Umamahesvara temple in Koneri rajapuram (Thanjavur district), the Brahadisvara temple in Thanjavur, and the Nataraja temple in Chidambaram (South Arcot district). These figures of the wages of the kammalar craftsmen form a select part of a much wider framework encompassing all temple functionaries.

The table uses as its base the equation provided in the second volume of the South Indian inscriptions according to which 1 *pangu* or share was equal to 1 *veli* or a yield of 100 *kalams* of paddy (roughly 3200 kgs). The pattern of remuneration shows distinct economic differentiation between an ordinary blacksmith

⁶⁸ *S.I.I.*, Vol. XIII, no. 110.

⁶⁹ *S.I.I.*, Vol. XIV, no. 95.

⁷⁰ *A.R.E.*, 4 of 1940-41

⁷¹ *S.I.I.*, vol. II, pt. 3, no. 66.

Table 3: Craft Wages in Early Medieval Tamil Nadu

Craftsmen	Erichchudaiyar Temple CE 951-52	Umamahesvara Temple CE 978	Brahadisvara Temple CE 1011	Nataraja Temple CE 1264	Annual wages in Kalanju	Annual wages in Rs.	Comparative figures from Kesava/ Panchalingesvara Temples in Karnataka- CE 1276	
	Daily (Kgs)	Annual Share	Daily (Kgs)	Annual Share	Daily (Kgs)	Share	Gadayana Rupees	
Kollan (Blacksmith)	-	1/8	1.12	-	2.24	1 1/2 to 2 1/2	-	
Tachcha (Carpenter)	-	1/8	1.12	-	-	15	-	
Tachcha Acharyan (Master Carpenter)	1/2	1/4	2.24	-	4.48	7 1/2	2ga 13.30	
Kal Tachchan (Stone mason)	1/4 (Specifies engraver)	-	-	3/4 (Two apprentice mason)	6.72	5.45	7	42
Tachcha Acharyan (Master Mason)	-	-	-	1 1/2	7	-	15	90
Perum Tachchan (Architect)	-	-	-	3	26.89	-	30	180
Kannan (Brazier)	-	-	-	1	8.96	-	10	60
Tattan (Goldsmith)	-	-	-	-	-	2.24	2 1/2	15
Perum Tattan? (Master Goldsmith)	-	-	-	1(Kankani Supervisor)	8.96	-	1-	60
Ratna Tavyan (sp?) (Jeweller)	-	-	-	1 1/2	13.44	-	15	90

Note 1 Share (pangu) = 100 Kalam of paddy (South Indian Inscriptions Vol. II Pt. II)

100 Kalam = 3272.72 kgs.
 1/2 Pangu = 50 kalam = 1636.36 kgs.
 3/4 Pangu = 70 Kalam = 2454.54 kgs.
 1/4 pangu = 25 Kalam = 818.18 kgs.
 3/4 pangu = 60 Kalam = 1989.25 kgs.

or carpenter getting a ration of barely 1 to 2 kg of paddy per day and the affluent *tachcha acharyan* (probably the sculptor or master mason) as well as the highest paid functionary, the *perum tachchan* who, one can presume, was the architect of the temple. The Rajaraja Chola I inscription is most explicit in detailing the difference between the master craftsmen who were paid 1/2 shares (which works out to 13.44 kg of paddy per day) and the apprentice craftsmen who were paid exactly half this rate (i.e., 6.72 kgs of paddy per day). The economic stratification that emerges from the table is supported by numerous inscriptions that refer to the *perum tachchan* or the *perum tattan* as a category distinct from the ordinary *tachchan* or *tattan*.

Another point to be noted in the table is that the wage of the goldsmith or *tattan* attached to the temple is more or less on a par with the ordinary blacksmith (i.e., a payment of 2.24 kg of paddy per day or a share annually). This figure is to be contrasted with the whole share assigned to the *perum tattan* or master goldsmith who is referred to in the Brahadisvaram inscription as a *kankani* (i.e., supervisor). It specifically states that his job is to supervise the work of the apprentice goldsmiths. The master goldsmith's wage was 8.96 kg of paddy per day (i.e. exactly a ratio of 1:4 between the master and the apprentice craftsman).

One of the highest-paid craftsmen seems to have been the *ratna tayyan* (literally, 'jewel-stitcher'). The Brahadisvaram temple inscription, by referring to the *ratna tayyan* as well as the *tattan*, makes it clear that the jeweller was distinct and separate from the goldsmith. He was paid on a par with the temple sculptor or mason, at one-half shares per annum or 13.44 kg of paddy per day.

At the other end are the lowest paid artisans like the carpenter and the blacksmith, who in the Koneri Rajapuram inscription, were granted only one-eighth share (i.e., just 12 kalams or 1.12 kg per day). The *kollan* was paid at a higher rate or share in the Nataraja temple. Perhaps this increase in wage was due to the difference of 200 years that exists between the two inscriptions. However, this argument is not supported in all cases since the income of the *asari/acharyan* or mason is steady at one-half share over a period of time. It is not possible to arrive at definite conclusions in the matter because the evidence is extremely limited and wage variations both in time and space have to be taken into account.

However, the wide economic gap between the goldsmiths, the masons/ sculptors and the architects on the one hand, and the blacksmith and the carpenter on the other, is conclusively proved by the table and substantiated by other inscriptional evidence. It is clear that the income of the higher craft professionals was not limited to the share given by the temple. Depending on the eco-

conomic capacity of their patrons, they were also paid in cash for specialized services such as designing and constructing dams, the making of portrait sculptures or the fashioning of jewellery on commission. There are inscriptions that refer to cash payments to masons and the fact that tattarpattam, the tax on goldsmiths, was classified as *kasaayam* or *kasu kadamai* (i.e., money) shows that their wages must have been paid primarily in cash. The numerous cash collections made to temples by goldsmiths also goes to prove that the more important goldsmiths and jewellers, apart from serving the temple also worked on a commission basis for which they were paid in cash.

CONCLUSIONS

The present article on the Vishwakarma stops at the threshold of the Vijayanagar period, which commenced in 1336. The period under survey broadly coincides with the phase of urbanisation that started with the Pallavas and reached its zenith under the Cholas. In the course of these four to five centuries, temple sites evolved from being simple ritual/religious centres to becoming the hub of the political economy of the state. The temple towns became flourishing nodal points of commerce and crafts with the temples serving as signifiers of a society in transactions which were not merely religious, such as donations, but purely economic ones of land sales and commercial/corporate decisions (i.e., wholly 'non-religious,' a phrase that I prefer over the loaded term 'secular') in character, were engraved on temple walls. Craftsmen who were beneficiaries of these urban processes banded together as the Vishwakarma. As merchants and artisans from the eleventh and twelfth centuries tried to carve out for themselves an identity that was distinct from that 'imagined' for them within the Sanskritic-Brahmanical order, it led to socially cathartic movements within the broader notion of 'bhakti' or devotion. The outstanding example would be Virasaivism in Karnataka within which lower castes cutting across gender lines were both visible and audible.⁷²

However, for the Vishwakarma craftsmen, the great era of gaining and losing royal privileges, of social mobility and conflict, was the Vijayanagar period.⁷³

⁷² This strikingly radical religious movement also known as the Lingayat movement has been studied by many scholars. My monograph titled *Divinity and Deviance: Women in Virasaivism* (1996) looks at it from a gender perspective within the context of its lower caste roots.

⁷³ This forms the exclusive focus of my essay 'Artisans in Vijayanagar Society' in *The Indian Economic and Social History Review*, Vol. XXII, No. 4, Oct.-Dec., 1985.

Society in the period from the fourteenth to the seventeenth centuries was in a state of flux. The economic differentiation between the blacksmiths, the carpenter and the village goldsmith on the one hand, and the affluent nagaram or patinam (town-based) goldsmiths and wealthier sthaphathis on the other hand, widened. By the mid-sixteenth century, craft groups like the weavers and silver and goldsmiths also benefited from the presence of the European East India Companies. Many craftsmen moved into the Black Towns and began to work for the Companies.

To conclude, in the course of the medieval period, the Vishwakarma craft union broke up as the gulf between the various groups within the craftsmen became greater. These developments eventually resulted in the disassociation of the goldsmiths from the kammala union. In the early seventeenth century, at Kallidaikurichchi in Tirunelveli district, the smiths finally separated from each other. The inscription records the order of Virappa Nayaka that the Kammalar should not intermingle any longer (*udankoota vendam*). The writ is said to be a privilege granted to the Kammalar in the presence of their chief, Kulasekhara Asari, indicating that the separation of the smiths was at their own request.⁷⁴

Postscript: I would like to add that the South Indian craftsmen in the twenty first century are trying to use modern modes of communication to re-affirm and re-claim their identity as Vishwakarma.

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⁷⁴ A.R.E., 309 and 378 of 1916-17 para 55.

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