CULTURAL RESOURCE MANAGEMENT OF THE DYING IVORY CRAFTSMANSHIP AS REFLECTED IN THE WOOD CARVING OF THIRUVANANTHAPURAM, KERALA

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ABSTRACT
Ivory carving from Thiruvananthapuram, the capital of the Indian state of Kerala, was once appreciated internationally for its outstanding craftsmanship. The origin of the industry can be traced back to 17th century CE or before that, and grew as a full-fledged industry under the patronage of the Maharajas of Travancore from the 19th century onwards. During olden days it was practiced by Brahmins and goldsmiths, and later by carpenters (achary) as well. Though they are very few in number, some craftsmen are now continuing the art on alternative to ivory such as rosewood, white cedar and, even more rarely, sandalwood. After the ban on ivory in 1990, this practice—emblematic of Intangible Cultural Heritage—looked to be on the brink of disappearing. In an example of Cultural Resource Management success, the traditional carvers of Thiruvananthapuram were shifted to sandalwood carving. Presently, sandalwood is a vulnerable species and extremely expensive. In addition to the threats mentioned in the UNESCO Paris convention (UNESCO 2003), some elements of Intangible Cultural Heritage are also disappearing due to the conflict that arises from the cultural use of endangered natural heritage resources. The aim of the current research is to analyze these problems and to formulate fruitful strategies for the safeguarding of the age-old craft with sustainable use of natural raw materials and alternative materials.

INTRODUCTION
Intangible Cultural Heritage (ICH), including its conservation and preservation, is as important for Cultural Resource Management (CRM) as are tangible cultural and natural heritage. In India, there are certain laws protecting the country’s tangible cultural and natural heritage, but no legislation exists for the protection of ICH, except Geographic Indication System under the Intellectual Property Rights, which gives an identity to handicrafts having special characteristics and originating from a definite geographical territory (GIR 2003). However, a strong normative CRM instrument for the management of ICH was internationally adopted by UNESCO in 2003 by introducing the Convention for the Safeguarding of the Intangible Cultural Heritage. India joined as a state party in 2005, and only 10 ICH elements have been inscribed so far (UNESCO 2014). India is a country of rich intangible cultural resources which are reflected in its countless age-old indigenous craft traditions, among which ivory crafting goes back to antiquity, dating back to the time of the Indus civilization and being continuously practiced until a complete ban of the practice was enacted in 1990. During the late medieval and British periods, various schools emerged in different parts of India showing outstanding ivory craftsmanship (Burns 1900). Among these, Thiruvananthapuram of Kerala (the capital of old Travancore) was internationally famous for its outstanding craftsmanship.
However, over-exploitation of raw materials due to the high demand for ivory articles over many centuries in different parts of the world led to the ruthless killing of African and Asian elephants. In India the elephant population in the early part of the 20th century was 200,000, which fell to between 16,000 and 20,000 by the mid-1980s (Singh 1997). As such, in 1989, an international ban on the ivory trade had completely stopped the practice of the ivory craft in India. By enacting the Wild Life (Protection) Amendment Act 1986 (Act no. 28 of 1986), 1991 (Act no. 44 of 1991) and 2002 (Act no. 16 of 2003), the Indian Government banned all kinds of trading in ivory (Indian or imported) and prohibited ivory carving. In addition to that, the mere possession of raw ivory or ivory art objects by a trader or a person without an authorized certificate also became a punishable offence. The ivory art works from previous eras should be preserved and displayed in the museum as they are the “cultural and religious heritage of India”, as stated in the judgment of the Honorable Supreme Court of India in the case of Indian Handicrafts Emporium And ... vs Union Of India and Ors. on 27 August, 2003 (Sinha 2003).

The UNESCO convention mentions that ICH is facing the threat of “destruction, deterioration and disappearance” due to the process of “globalization and social transformation”, as well as a lack of funding to protect it (UNESCO 2003). Another important threat is the conflict that arises from the cultural use of natural heritage where this can lead to species extinction. An example of this is the over-exploitation of ivory causing a rapid depletion of the elephant population, forcing the state to sacrifice ivory working for the sake of the survival of this endangered species. There are other heritage crafts in India which confront similar conflicts: conch shell carving, sandalwood carving, rosewood carving, and so on. The question is whether the craftsmanship behind these kinds of crafts can be saved by the sustainable use of natural raw materials or their substitution with alternative materials. If such a thing is possible, then how it can be done?

The mere preservation of extant ivory art works in museums cannot protect the traditional knowledge and creative skills of the craftsmen, who bring the products to life and add value to the objects. As much as the fine objects themselves, these skills deserve society’s appreciation and respect.

Thiruvananthapuram, the capital of Kerala, one of the southernmost states of India, was chosen as the area of study for the present research. Here, under the patronage of the kings of the Travancore dynasty (1729–1947 CE), a highly specialized school of ivory craft had evolved, which earned international fame for its outstanding craftsmanship during the British Period (Thurston 1901; Watts 1903). The center had its own signature items and they followed the technique of carving mentioned in the ancient shilpa sastras (Hindu texts on the science of Art). However, today only a few aged craftsmen are still engaged in this craft, applying their skill to ivory alternatives such as sandalwood, rosewood and white cedar among which the former two now have been categorized as vulnerable species.

There has been very little published on ivory craft and the carvers of Thiruvananthapuram, with no systematic study having been carried out so far on the present scenario of the ivory craftsmen, who are presently working on different kinds of woods and no research undertaken to formulate strategies to safeguard the traditional ivory craftsmanship on the brink of being lost. This is the reason for taking up research on the present topic to find out whether there is any continuity of the traditional craftsmanship after substituting raw material from ivory to wood and also to propose relevant, useful recommendations for the sustainable development of the craft as well as the craftsmanship that are presently using vulnerable species, like sandalwood and rosewood as alternatives to ivory.

Purposive and snowball sampling techniques were employed to identify the carvers who used to carve ivory before the ban, or who received training from ivory carvers. The author located some of them with the help of official documents and, through them, other craftsmen with the same background were identified and inter-
viewed. In addition, interviews were also conducted with exporters, government officials, and timber shop owners relevant to the purpose of the study. Both qualitative and quantitative methods were followed to analyze the data.

ORIGIN, DEVELOPMENT AND DECLINE OF THE IVORY CRAFT IN THIRUVANANTHAPURAM, KERALA

The earliest evidence of ivory artifacts in India were unearthed from various sites of the Indus civilization (2600–1900 BCE), for example Mohenjo-daro, Harappa, Chanhu-daro, Rakhi-garhi, Lothal, etc. (Dwivedi 1976; Archaeological Survey of India 2005:32). Starting from that period, at every phase of Indian history, ample archaeological evidence of ivory antiquities has been found. Moreover, records attest to the presence of the ivory craft and carvers, both being mentioned profusely in ancient inscriptions, scriptures and epics (Dwivedi 1976).

During the early medieval period, Indian ivory was known to have been exported from the Malabar region, in the northern part of Kerala. The origin of the modern ivory industry of Thiruvananthapuram can be traced back to the 17th century CE, as evidenced by an ivory panel showing female dancers dating to that period—currently displayed in the Victoria and Albert Museum, London—identified by scholars as the work of Kerala ivory carvers (Dwivedi 1976).

In one of his earliest publications, the writer G.C.M. Birdwood (1884:296) mentioned that, during that period, Travancore was one of the chief centers of ivory carving in India. A detailed account of the ivory industry of Travancore was described by Thurston (1901) in his report, where he mentioned that the Maharajas of Travancore were great patrons of ivory carving from the early part of the 19th century, but at least 200 years before that, exquisite ivory palanquins, thrones, figures of gods and goddesses and tiny animals the size of a grain of rice (Figure 1) were carved by goldsmiths and Namburi Brahmins of old Travancore. The kings had their own ivory carving department. Many beautiful specimens were carved out and sent to different international exhibitions in London, Calcutta, Madras, etc. The carvings comprised images of gods and goddesses, animal figurines, hunting scenes, hair combs, jewelry boxes, etc.

![Figure 1. Tiny animal figurines carved in ivory.](image-url)

Trivandrum (the name given to Thiruvananthapuram by the British) was also considered one of the most important ivory craft centers in India along with Delhi, Murshidabad and Mysore, in the official catalogue of the Delhi Exhibition written by Watts (1903:193). The first prize in an ivory craft category at that exhibition was won by the carvers of His Highness Mahraja’s School of Arts, Trivandrum.

In independent India, the picture of Trivandrum’s ivory industry was captured meticulously in the survey report of the All India Handicrafts Board (1962). During that period, the greatest number of carvers were employed in the Trivandrum ivory industry, nearly 542 workers in 40 establishments, compared to other ivory carving centers in India. Though at other centers (Delhi, Jaipur, etc.) carvers installed electric tools, Trivandrum carvers preferred to continue the age-old traditional methods using only hand tools. Some of the most noteworthy creations were miniature models of animals carved with minute detailing (Figure 1), intricately fashioned images of Hindu gods and goddesses, figures of great personalities, secular fancy figures, etc.

In 1978, among the 7,200 ivory craftsmen in all of India, 3,000 were in Kerala and the rest were in Delhi, Jaipur, Mysore, Varanasi, Murshidabad, etc., according to a survey conducted by Esmond Bradley Martin (1980:364). When he surveyed again in 1988 he found that their number had fallen to 2,060 with the highest number of craftsmen in Jaipur. Trivandrum had
totally collapsed with merely 100 ivory craftsmen, of whom the majority had shifted to sandalwood carving (Martin and Vigne 1989).

A survey was conducted by Traffic India (2003) in 2001 to find out whether the ban was enough to completely eradicate ivory carving and trading from India or not. The study revealed that, after a ban of ten years, hundreds of carvers were still involved in ivory carving, with Murshidabad, Jaipur, Udaipur, Kochi and Thiruvananthapuram being the most active areas of illegal ivory carving. According to the survey, illegal ivory carving was prevalent in Kerala because the state had itself a steady source of domestic ivory and the carvers sustained their craft through alternative materials like sandalwood and rosewood, while supplementing their income by illegal ivory carving.

PRESENT SITUATION OF THE IVORY CRAFTSMEN

In Thiruvananthapuram, a total of 23 families were surveyed from different parts of the cities. The major concentration of carvers is in the Manacaud area. The ivory craftsmen are presently carving on different kinds of wood, such as sandalwood (Santalum album Linn.), rosewood (Dalbergia latifolia Roxb.) and white cedar (Dysoxylum malabaricum Bedd.exHieron). Females were never represented in the carving profession.

At Attakulangara there is a Common Facility Service Center (CFSC) or workshop cum raw material depot under the Handicrafts Development Corporation of Kerala, Ltd. (HDCKL), where presently 30 craftsmen are working. All are aged above 50 and have been working from the time of its first enrollment in 1970, except for one young carver. According to the craftsmen, this young carver was enrolled a few years back with 10 other young craftsmen, of whom nine have now left the center. Among them, six artisans who were previously ivory carvers were interviewed. They are getting some benefits in the form of tools (one time), designs and raw material in subsidized rate.

A six-month training programme sponsored by the Central Government is conducted at a center named Amrita Shilpa Kalakshetra at Poonkulam under Amrita Vishwa VidyaPeetham University for upgrading the skills of the craftsmen and carpenters. The training is given by two master craftsmen who themselves had been ivory carvers. The trainers and the trainees were interviewed for this study.

In addition to that, other craftsmen and relevant people were also interviewed.

Only Hindu artisans are found to practice the craft. Previously, the craft was practiced by goldsmiths and Namboor Brahmins (Upper Caste Hindus) and later on by Achary/Asari, who by profession are carpenters and by caste Viswakarma. Under the Viswakarma caste there are a few sub-castes such as goldsmiths, carpenters, stone carvers, utensil makers and blacksmiths. From the old records it was found that only goldsmiths and carpenters among these sub-castes used to practice ivory carving. In the present study it was found that 43.5 percent of artisans are Viswakarma in caste whereas the remaining 56.5 percent belong to other castes such as Nair, Ezhava, etc. Among the Viswakarma both goldsmiths and carpenters are represented.

Among the 23 families, the total number of artisans is 25 (all males). Among them, 15 (60%) artisans are above the age of 60 (Table 1). Regarding their formal education, it is found that 72 percent of artisans have degrees up to or below matriculation, though 20 percent of them have technical diplomas in arts and crafts.

| Age groups | N  | %   |
|------------|----|-----|
| 6 to 30    | 3  | 12.0|
| 31 to 60   | 7  | 28.0|
| Above 60   | 15 | 60.0|
| **Total**  | 25 | 100 |

**Training**

Carving of traditional images on ivory or wood is very difficult to learn and requires a long period of training with maximum involvement and concentration. Students need to develop proficiency and accuracy in drawing by following the measurements and technique mentioned in the ancient Silpa-sastras. As such,
the mentorship of a professional carver is very much required for a novice learner.

There are different modes of training received by the artisans. It was found that 64 percent of artisans received training from family members, as most of the craftsmen are hereditary carvers (Table 2). Family members mean either any elder member from the artisan’s ascending generation or anyone from his own generation.

The Government of India has introduced a programme for trainees of six months to one year to learn the skill of carving or have it upgraded by master craftsmen at the master craftsmen’s homes or at any government training center. The trainees get a stipend of INR2,000 per month and the trainer is paid INR15,000 per month as an honorarium. Only 16 percent of craftsmen were found to have received training under this programme (Table 2).

Table 2. Modes of training availed by the artisans. Note: any one artisan can avail more than one mode of training (Table 3).

| Mode of training                  | No. of Artisans | %    |
|-----------------------------------|----------------|------|
| Family members                    | 16             | 64.0 |
| On the job training or Gurukul system | 12             | 48.0 |
| Master craftsman (Central Government patronized) | 4              | 16.0 |
| Training Institute                | 5              | 20.0 |
| **Total**                         | **25**         | **100** |

Another kind is apprenticeship, where training is provided by the owner and other senior workers of any workshop. Nowadays apprentices receive remuneration, but in earlier times they followed a practice called the Gurukul system wherein the learner had to do all the household chores for the Guru (teacher) and, in exchange, the Guru taught him the technique of carving. At Thiruvananthapuram, 48 percent of artisans received this kind of training (Table 2).

Twenty percent of the craftsmen also completed a two-year diploma course in “Ivory and Wood Carving and Inlay Work” or “Indian Traditional Art and Realistic Art” from His Highness Maharaja’s School of Arts at Trivandrum (Table 2). From 1975 onwards, the School of Art has become the College of Fine Arts where, now, no such diploma courses on traditional crafts are offered (College of Fine Arts 2014).

However, extremely good skill, patience and concentration are required to carve images from raw materials such as ivory, sandalwood or rosewood, as wastage of costly material is not desirable. That’s why many artisans are not satisfied with a single mode of training: they try to enhance their skill by receiving multiple modes of training. Thirty-six percent of artisans have taken two modes of training, and eight percent three modes of training (Table 3).

Table 3. Combined modes of training availed by the artisans.

| Mode of training                  | No. of Artisans | %    | cf  | %    |
|-----------------------------------|----------------|------|-----|------|
| Only Family members               | 7              | 28.0 |     |      |
| Only On the job training or Gurukul system | 6              | 24.0 | 13  | 52.0 |
| Only Master craftsman (Central Government patronized) | 1              | 4.0  | 14  | 56.0 |
| Master craftsman and On the job training or Gurukul system | 2              | 8.0  | 16  | 64.0 |
| Family members and Training Institute | 3              | 12.0 | 19  | 76.0 |
| Family members and On the job training or Gurukul system | 3              | 12.0 | 22  | 88.0 |
| Family members and Master craftsman | 1              | 4.0  | 23  | 92.0 |
| Family members and On the job training or Gurukul system and Training Institute | 2              | 8.0  | 25  | 100 |
| **Total**                         | **25**         | **100** |     |      |
Duration of Training

It is difficult for the artisans to recall the exact period of training; however, around 50 percent of artisans reported having undertaken training for 3 to 6 years, and 30 percent for 6 to 9 years. A few of them took training for 10 to 12 years before starting on a professional career.

Extent of Craft Continuance among the Artisan Family and Young Generation’s Perception towards their Hereditary Profession

Just over half, or 52.2 percent, of the artisans are hereditary craftsmen whereas the remaining 47.8 percent are non-hereditary. But only one person (4%) among the offspring of the artisans has chosen this craft field, whereas eighteen (72%) are in other professions. Six (24%) of them are still students.

The reason for continuing in the hereditary profession, as reported by that young artisan, is that he did not get any other employment. Among the offspring who have chosen other professions, 66.7 percent are highly educated and 33.3 percent have a school-level education. Those who are less educated have chosen professions like automobile driving, photography, manual jobs in Gulf countries and so on. The reason behind choosing those jobs instead of a hereditary profession is mainly the sharp decrease in income from wood carving compared to ivory. Among those who are still students, their parents also do not wish for their offspring to remain in this profession.

Problems and Aspirations of the Artisans

The artisans said that when ivory carving was very popular, then many young people used to choose the profession; mostly among those who were not interested in seeking a higher education and who had some artistic talent. It was very profitable then but now the trend has almost stopped. Presently, only three artisans have apprentices under them, of whom two are the trainers of Amrita Shilpa Kalakshetra.

The artisans desire for proper long-term training with an attractive stipend from the government which according to them can encourage young people to join and stay in this wood carving. Previously, this kind of training was given in His Highness Maharaja’s School of Arts under the patronage of local kings.

Occupation

Artisans according to their professions can be divided into two categories: wage-earner and self-employed. 43.5 percent of the artisans are only wage earners. Wage earners work under self-employed artisans or dealers, and most of them work in the CFSC of the HDCKL. Another 43.5 percent of artisans are self-employed. One self-employed artisan also works as a dealer. He makes objects at his own workshop and also purchases products from other artisans to supply to exporters (Table 4). Among the artisans, three are in jobs associated with handicrafts; one is the master craftsman in the CFSC of the HDCKL, and the other two are the mentors of Amrita Shilpa Kalakshetra.

Table 4. Occupation wise distribution of the artisans’ families (Household Units, HHUs).

| Nature of occupation               | No. of HHU | %  |
|------------------------------------|------------|----|
| Wage earner (WE)                   | 10         | 43.5|
| Self-employed (SE)                 | 10         | 43.5|
| Both (WE+SE)                       | 1          | 4.3 |
| Both (SE+Dealer)                   | 1          | 4.3 |
| Craft related Job                  | (3)        | 13.0|
| Craft related Job (retired)        | (2)        | 8.7 |
| Trainee                            | (2)+1      | 13.0|
| **Total**                          | **23**     | **100**|
| Other occupation (current)         | 1          | 4.3 |
| Other occupation (past) or retired | 4          | 17.4|

Income of the Artisans

Income of skilled craftsmen who make traditional images ranges from INR250 to 400/day. The highest income of the wage earners at CFSC was INR4,350/month in 2011. The income of master craftsmen at CFSC is INR350/day. Almost 100 percent of the artisans are not satisfied with the present state of affairs. Twenty-four percent of them have almost left
the job and 21.7 percent depend on other sources of income, only carving occasionally.

RAW MATERIALS
Artisans now mostly carve on white cedar. Apart from that, 69.6 percent of HHUs exploit rosewood, 13 percent sandalwood and 34.8 percent other woods like teak and mahogany (Table 5). None of them were found to be working on illegal ivory. Most of the artisans have said that sandalwood is the best substitute for ivory for carving images. Some important features of the woods used as alternatives for ivory are discussed below to understand the advantages and shortcomings of each.

Table 5. Raw materials exploited by the artisans’ families (Household Units, HHUs). Note: most HHUs use more than one raw material.

| Raw material | No. of HHU | %    |
|--------------|------------|------|
| White cedar  | 23         | 100.0|
| Rosewood     | 16         | 69.6 |
| Sandalwood   | 3          | 13.0 |
| Other woods  | 8          | 34.8 |
| Ivory        | 1          | 4.3  |
| **Total HHU**| **23**     | **100**|

The aesthetic aspect of an image depends on the fusion of color, quality of carving, and texture. Ivory has a unique translucent off-white colour with a lustrous shine along with a high specific gravity (SG) that varies from 1.83 to 1.93 (Burack 1984:28–29), which means it can be intricately carved because of its high density. Even minute details can be achieved on a tiny object (Figure 1). Sandalwood is golden brownish in color with a shiny look due to the presence of oil in it. Rosewood has a unique bright purplish red color with dark streaks. White cedar is pale yellow in color. After polishing, a white cedar image looks almost identical to sandalwood. Sandalwood has a higher density (SG—0.96) than most of the woods whereas rosewood’s SG is 0.66 and white cedar’s is 0.53 (College of Forestry 2012). Sandalwood has a straight grain structure whereas rosewood has shallowly interlocked grain structure, and white cedar has a straight to somewhat interlocked grain structure (College of Forestry 2012). Due to the interlocking nature of the grain, the movement of tools is rather difficult on rosewood. Intricate carving on white cedar is difficult to achieve because of its low density, though carving can be done easily on it because it is softer than ivory or sandalwood, but if fine details are attempted, then the image becomes fragile and the chances of breakage are increased. Sandalwood and white cedar are both fine-textured whereas rosewood is medium coarse-textured (College of Forestry 2012).

Sandalwood is the most expensive wood in India. Its price varies from INR 8,000 to 10,000 per kilogram (INR 350,000–430,000/hundredweight). The price range of rosewood is from INR 2,000 to 4,000/hundredweight according to its quality. The cost of white cedar is INR 500–600/hundredweight.

Regarding availability, major concentrations (almost 90%) of natural Indian sandalwood are found in the forests of south Indian states such as Tamilnadu, Karnataka, and Kerala. The State Governments’ monopoly on sandalwood production has led to excessive smuggling (Kumar et al. 2012:1410). As such, there has been a rapid decline in the tree population over the past few decades. Nobody was interested in sandalwood plantation prior to 2001. After the 2001 amendment of the Karnataka Forest Act this scenario has changed; now the government is encouraging people to engage in sandalwood plantation.

Unlike ivory, sandalwood is in high demand in the pharmaceutical, religious and cosmetic fields. As such, low production and high demand increased the price from INR100/kg in 1980 (Kumar et al. 2012:1408) to INR10,000/kg (Rate at the raw material depot of HDCKL as at May 2012). Rosewood and white cedar are both available in the forests of South India. Rosewood is also a vulnerable species like sandalwood and cannot be sold without permission from the government.

Problems and Aspirations of the Artisans
The major problem regarding raw materials is the excessive price of sandalwood. In addition, carvers who work with sandalwood have to fol-
low stringent rules and regulations, which is why they prefer to avoid sandalwood. Good quality seasoned sandalwood and rosewood are also not always available in the market. Even they complained about the inferior quality of rosewood provided by CFSC at a subsidized rate.

According to the carvers, they used to be able to get sandalwood from the state government at a subsidized rate, but now the government has stopped the subsidy. The artisans want that the government should reconsider the scheme.

MARKETING
Seventy-five percent of the self-employed artisans have chosen to supply to the dealers or exporters of other states, mostly at Bangalore in Karnataka. A quarter of all artisans prefer to supply local dealers and/or sell their products through local S.M.S.M showrooms under the HDCKL.

Subject matter, style of carving and designs are the criteria which manipulate market demand. The artisans have three principle sources of designs: first, those who provide them with orders (dealers/exporters or State or Central Cottage emporiums); second, their own designs (obtained from their forefathers or teachers); and third, designs currently available on the market. Only 25 percent of self-employed artisans have said that they are interested in experimenting with products and designs.

Sales Analysis

A six-month (1st Oct 2012 to 31st March 2013) analysis of sales of woodcraft items (by artisans who previously used to carve ivory) was conducted to ascertain the current market demand for items sold at the S.M.S.M showroom under the HDCKL. For that purpose, the only customers taken into consideration were those who made purchases using credit cards because their bills contain customer details. A total of 1,899 bills were analyzed. The study was carried out on the traditional images of gods and goddesses and secular human figures which were earlier available in ivory.

Wood-carved images manufactured at CFSC and images sent by the artisans for sale on consignment were selected for the analysis. Regarding the price analysis, a comparison was done with the traditional and secular items that came from Jaipur, Rajasthan which were carved on Kadamba wood (*Neoalamarkia cadamba*).

Three types of raw materials were in evidence—rosewood, sandalwood and other wood (white cedar and occasionally teak). Most of the customers preferred other wood images compared to rosewood and sandalwood. Rosewood images were preferred by local customers (inside Kerala), whereas foreigners were inclined towards buying sandalwood images (Table 6).

Regarding products, it was found that 27 kinds of images were sold from the showroom, among which *Ganesha* (the Elephant God) was the most popular (41.5%). Apart from that, local customers also had preferences for *Krishna, Radhakrishna* and *Lakshmi*. Images of the *Buddha* were enjoyed by the foreign customers.

| Raw material | Local (within Kerala) | % | Institutes (within Kerala) | % | National (within India except Kerala) | % | Foreign | % | Total | % |
|--------------|-----------------------|---|---------------------------|---|--------------------------------------|---|---------|---|-------|---|
| Other wood   | 47                    | 32.2 | 4                       | 2.7 | 17                                   | 11.6 | 25      | 17.1 | 93    | 63.7 |
| Rosewood     | 18                    | 12.3 | 3                       | 2.1 | 1                                    | 0.7  | 5       | 3.4  | 27    | 18.5 |
| Sandalwood   | 8                     | 5.5  | 1                       | 0.7 | 2                                    | 1.4  | 15      | 10.3 | 26    | 17.8 |
| **Total**    | **73**                | **50.0** | **8**                  | **5.5** | **20**                               | **13.7** | **45**     | **30.8** | **146** | **100** |

Table 6. Customer analysis on the basis of raw materials.
The majority of products sold from the showroom were within the limit of INR 10,000. From the data it was also found that larger-sized images were in less demand, as only eight other wooden images—one rosewood and one sandalwood image above INR 10,000—got sold (Table 7). While conducting the price analysis, one thing was also noticed, the price of the items varied according to raw material (Table 8). Only small-sized (approximately within 6 to 8 inches) sandalwood images were in demand, and mostly among foreigners.

It was found that, among the total credit card customers, only 7.5 percent preferred to buy traditional and secular images whereas 41 percent had a preference for other craft items, like decorative and utilitarian objects made of rosewood and other wood (Table 9).

Problems and Aspirations of the Artisans
Artisans can make more profit by carving large idols (Figure 2), which are in greater demand on the international market compared to the local domesticate market.

Regarding sandalwood images, large or medium sized idols are highly expensive as such have less demand in market (Tables 7 and 8) but the artisans of CFSC are inclined to carve large sized images for extra wages. Previously HDCKL used to provide sandalwood to the artisans of CFSC for carving images but now they have stopped as they are unable to clear the stock of sandalwood images for less market demand. Now they are providing only rosewood and white cedar or teak.

Market demand for wood carved images is a lot less than ivory articles and as such the artisans compromise with the quality of carving to save time. If they want to do intricate carving on wood as they used to do on ivory they will not get satisfying labour charge according to their hard work and time spent on carving.

The artisans have reported that, as the demand for traditional images is low, that’s why officials of the government department encourage them to make decorative utilitarian items which have strong market demand (Table 9).

Regarding the aspirations of the artisans, they want the emporiums to directly purchase more products rather than put their work on consignment, and the government should provide more support in marketing at the international level.

TYPES OF PRODUCTS, TECHNIQUE AND TOOLS
From the 17th century onwards, for generation after generation the carvers of Thiruvananthapuram have been sculpting images of Hindu gods and goddesses by following ancient methods, styles and iconography (Figure 3).

It has been found that artisans of Thiruvananthapuram have a great respect for and attachment to their traditional items and designs. Inclusion of new elements is mostly found in secular or fancy items. At Thiruvananthapuram, the artists follow different styles, including the Ajanta style, Mysore style, styles of Chola-period bronzes, and Ravi Varma style. Regarding measurements and iconography, they strictly follow the ancient Shilpasastras. Most of them still have the old drawings of their forefathers. Some art forms have been lost due to the ban on ivory like the models of miniature animals of the size of a rice grain which cannot be possible to imitate on wood.

Artisans are still using the same kind of tools that were used to do ivory carving. Thiruvananthapuram artists have never liked using electric tools, and even today these tools are avoided. The only difference is in the size of the tools, which are larger today compared to the ivory carving tools used in the past, as most artisans are now carving large-sized white cedar images (Figure 4). Almost the same techniques are employed to carve on wood. Hand or electric saws are used to cut the required pieces of wood down to a rough size. A sketch of the model is drawn on the piece of the wood by pencil or chalk. Different kind of files, chisels and a soft wooden mallet are used to give the image a rough shape.
Then, the finer engraving is done with the help of various kinds of styluses. There were three types of styluses on the basis of the working end and edges, like pointed working end, straight, and U-shaped working edge. The pointed stylus was mostly used in ivory carving whereas the two others are mostly used on wood. Tools are made by the artisans themselves according to their requirements.

Table 7. Price analysis on the basis of raw materials.

| Price Range (INR) | Other wood | Rose wood | Sandal wood | Total | Jaipur (other wood) |
|-------------------|------------|-----------|-------------|-------|---------------------|
| 0–1000            | 41         | 4         | 0          | 45    | 20                  |
| 1001–5000         | 59         | 15        | 21         | 95    | 13                  |
| 5001–10,000       | 15         | 13        | 7          | 34    | 0                   |
| 10,001–15,000     | 2          | 1         | 0          | 2     | 0                   |
| 15,001–20,000     | 2          | 0         | 0          | 2     | 0                   |
| 20,001–25,000     | 1          | 0         | 1          | 2     | 0                   |
| 25,001–30,000     | 1          | 0         | 0          | 1     | 0                   |
| 30,001–35,000     | 1          | 0         | 0          | 1     | 0                   |
| 35,001–50,000     | 0          | 0         | 0          | 0     | 0                   |
| 50,001–100,000    | 0          | 0         | 0          | 0     | 0                   |
| 100,001–150,000   | 1          | 0         | 0          | 1     | 0                   |
| Total             | 123        | 33        | 29         | 184   | 33                  |

Table 8. Variations in price according to raw material and size.

| Item (Length)       | Raw material | Price (INR) |
|---------------------|--------------|-------------|
| Radhakrishna (30cm) | Other wood   | 2,166       |
| Radhakrishna (12cm) | Sandalwood   | 4,158       |
| Krishna (23cm)      | Sandalwood   | 14,280      |
| Hanuman (66cm)      | Rosewood     | 14,901      |
| Gopala Krishna (130cm) | Other wood | 170,100     |

Table 9. Comparative analysis between the total numbers of customers who bought traditional images and other utilitarian and decorative craft items made on rosewood and other wood.

| No. of Customers | Local | Institute | National | Foreign | Total | %   |
|------------------|-------|-----------|----------|---------|-------|-----|
| Other craft items| 352   | 59        | 181      | 187     | 779   | 41.0|
| Traditional images| 73    | 8         | 19       | 42      | 142   | 7.5 |
| Total number of credit card customers |              |           |          |         | 1,899 | 100 |
Figure 2. Giant Nataraja (Dancing Siva) image carved on rosewood, placed beside the front gate of S.M.S.M. Institute under the Handicraft Development Corporation of Kerala Ltd.
Figure 3. Krishna (21.5 cm) in ivory displayed in the Napier Museum, Thiruvananthapuram. (Photograph taken with permission.)
Figure 4. Radhakrishna (110cm) sculpted in white cedar by following the same traditional design but in bigger size.
WELFARE SCHEMES

Artisan Card
The artisan card is an identity card for artisans issued by the Office of the Development Commissioner (Handicrafts) under the Ministry of Textiles, government of India. Eighty-eight percent of artisans have this card, with which they can receive benefits according to government schemes. Eight percent of artisans are not interested in renewing their cards as they are very old, and one young artisan is planning to apply for the card.

Health Insurance Scheme (Rajib Gandhi Shilpi Swasthya Bima Yojana)
Any artisan and his family (consisting of a wife and up to two children) from one day old to 80 years old can apply for health insurance, with which he or a nominee stands to receive INR100,000 in death benefits or accident insurance, and INR 15,000 in treatment coverage for his whole family including himself (DCHC 2010). Only 16 percent of artisans have taken advantage of this scheme. Most report that either they are not interested in applying or they do not have any idea about how to apply. Some of them have reported that they do not know about the scheme at all.

Loans
Only eight percent of the artisans have taken advantage of the facility of artisan loans. However, it was found that artisans are a little tight-lipped about their unpaid loans.

Awards
To encourage the artisans, the government has introduced awards at various levels starting from the district level to the national level. There are some eligibility criteria for applying and a three-tier selection procedure for the national award. It was found that among the 25 artisans, three are national awardees, one is a merit certificate winner, and five are state awardees.

Problems and Aspirations of the Artisans
Regarding loans, the major problem as informed by the artisans is the repayment. They did not have a fixed monthly income, and as such the payment of a regular monthly premium on time has become a most difficult task for them. Many of the artisans have failed to repay the loan and the amount has become huge. That’s why the banks are now not ready to give loans to artisans without any security.

Another problem is that the banks follow the same procedures for sanctioning loans for traditional wood-carving artisans as they do for artisans of other crafts, farmers, and poultry owners. The wood-carving artisans have to install machinery, build a work shed and purchase raw materials, all with their own money, and only after verifying these receipts the bank will sanction their loans. As they are traditional workers working with hand tools, and there being less market demand for their carvings, most of them work alone in their houses—therefore, they do not require to build any work shed. They follow traditional method of carving and as such are not willing to buy power operated tools and regarding wood cutting machines, most prefer to spend a nominal amount to make the cut from a nearby sawmill than to purchase and install a machine which could cost up to INR10,000. They actually require the loan amount to buy raw material in substantial quantity, which they can stock for a longer period for seasoning. Good quality seasoned wood is costly and not easily available in the market so if they are able to invest the loan money on raw material instead of work shed and wood cutting machine only then they will be benefited more.

Regarding awards, artisans indicate that for the past few years artists from Thiruvananthapuram have not been getting the national award. They are complaining that government officials of the State Handicraft Department are not promoting or encouraging wood-carving artisans.

DISCUSSION AND ANALYSIS
Most of the artisans are now aged, and the younger generation is not interested in coming into this profession. This profession requires absolute skill which comes from a long period
of intensive training, after which at least 10 to 15 years are needed to establish oneself as a skilled artisan. After spending so much precious time of one’s life, one can earn a mere INR 250/day as a skilled artisan. In India, wages for labour are highest in Kerala (INR 350 to 1000), except in this craft. Before, many of them supplemented their income with illegal ivory carving (Traffic India 2003) but now due to frequent police raids, this has almost stopped.

After the ban, ivory was substituted by sandalwood and rosewood and now, due to the unavailability of sandalwood, artisans have shifted to using white cedar. Sandalwood is the best raw material for carving (after ivory) because of its high density, straight grain structure, fine texture and shiny appearance. Due to the high price of raw materials, demand has been decreasing day by day. Adding up the cost of labor with the price of raw materials, the cost of each item becomes so high that people are not interested in buying. As such the craftsmen are trying to produce more, in less time to increase the labor charge, which actually reduces the quality of the craftsmanship, but customers want flaw-less intricate carvings when buying an image in costly material. Sandalwood is also appreciated for its aroma and medicinal value, but these qualities are not valued much by the customers who are seeking to buy images. An idol made of whitewood has the same look as sandalwood, but is far cheaper than the latter, so customers prefer to buy images made of cheap raw materials.

White cedar is not appropriate for intricate carving on small or medium-sized idols, which are in greater demand locally. Even if an artisan makes the attempt, he has to be very patient, slow, and cautious to avoid breakage. Time involves a labour cost. There are competitors, like those at Jaipur in Rajasthan, where carvers are making images on similar kinds of wood at a low cost because everybody there uses electric tools (Table 7, Figure 5).

That’s why Thiruvananthapuram workers, who are very particular about the quality of their work, prefer to make large idols on which they can give their best efforts and also earn maximum profit. On these figures they can imitate their traditional designs on a larger scale which they used to carve on ivory. It can be done easily and quickly without the fear of unwanted breakages. These products have higher demand in the international market compared to the local...
market. At the local state government showroom they mostly have to sell their products on consignment, which means payment is delayed until the product is sold at the showroom. Due to there being low local demand, the artisans have to wait a long time for their money. In addition, artisans report that the state government emporium has a policy whereby images that are not sold after three months get placed behind newer images.

Moreover, they never negotiate for a better price as all the prices are fixed. If the artisan requests a reduction in price, they deduct the difference from his percentage. In contrast, private businessmen buy in cash from the artisans, and after that the responsibility for the final price of the products lies with them. That’s why artisans prefer to sell their products to the outside exporters from whom they get prompt payment, and it is useless to say that the artisans are deprived by the exporters. Utilitarian craft items made of rosewood have much higher demand than traditional images carved on the same raw material.

The ivory carvers of Delhi, Jaipur and Murshidabad are utilizing artificial ivory, which is a synthetic substitute of ivory. The material looks exactly like ivory and the price is also very cheap: around INR800 to 1,000/kilo. It is imported from Japan. It can be engraved both by hand tools and electric tools. Images carved out of it have good demand in the market and artisans who are working with this material receive a satisfactory wage for their labour. The researcher has never encountered this material at Thrivananthapuram, nor even in the S.M.S.M showroom.

Artisans are found to have little interest in exploiting new elements or unique kinds of images from ancient texts or temples. They are afraid of taking risks, because most of them are now carving large images (sometimes larger than life size) which involve large investments in material and time.

Still, the artisans are not willing to operate electric tools. The rough shaping of the image can be done with the help of electric tools which can save time, while the finer engraving can be done with hand tools to achieve perfection. At least this can help to produce more in less time, which can increase income. Moreover, young artisans can be trained to do the rough work with electric tools.

Regarding market demand, it has been found that foreigners have a higher preference for traditional images compared to domestic tourists (Table 9). More support in international marketing can increase the sale and income of the carvers. However, the recent popularity of modern gadgets and electronic entertainment products among middle class men is preventing them from allocating discretionary income to buying expensive items which are meant only for decorative purposes.

Government schemes are not providing much benefit to the artisans. One of the artisans of CFSC has indicated that the whole department is meant to benefit the artisans, but their income is getting worst day by day, whereas the salaries of the government employees of the department are increasing with other benefits.

POLICY RECOMMENDATIONS FOR SAFEGUARDING THE CRAFT

- To attract the younger generation to this profession, training for one or two years can be introduced with traditional wood carving with a special emphasis placed on marketing strategies.
- The rich repertoire of forms of traditional images of the Hindu, Buddhist and Jain pantheon available in books of iconography and carved on ancient temples should be explored more to bring variation to the items and designs available. The artisans should be encouraged to imagine new and interesting compositions based on the stories of the ancient scriptures, rather than motivating them to make utilitarian items.
- The procedures and conditions attached to the provision of loans should be updated to reflect the realities of the craft.
- More plantations should be established to decrease the price of raw materials. As there is a fixed quota for sandalwood for the artisans of Karnataka (Kumar et al. 2012: 1411), the same should be set
for the artisans of Thiruvananthapuram as well.

- Artisans are impelled to purchase sandalwood from the black market at a lower price than that charged by the government raw material depot. If a fixed quota of sandalwood is given to them at a subsidized price, then the above problem can be solved. Subsidy or tax relaxation will reduce the price of sandalwood which will definitely encourage the artisans to carve small sized sandalwood figurines which have high demand among the foreign tourists.

- There is a co-operative organization of artisans named The Travancore Ivory Carvers Co-operative Alliances which was formed before the ban of ivory carving by the ivory carvers of Thiruvananthapuram. The old name is still continuing though the member artisans now have shifted into wood carving. They can take the initiative to register this traditional wood carving of Thiruvananthapuram under the Geographical Indication of Goods (Registration and Protection) Act, 2003 to maintain quality and to boost marketing at national and international levels, which will automatically enhance the economic condition of the artisans.

- Artisans should be regularly informed about modifications to the government’s welfare schemes and they should be informed from time to time about new schemes.

- Eye problems are common among artisans due to the practice of this craft, but health insurance allots only INR75 (DCHC 2010) for eye treatment, which is insufficient to cover today’s cost of treatment.

- The government should raise awareness among artisans through campaigns about the ill effects of poaching, ivory smuggling, and ivory carving.

CONCLUSION

Without stronger CRM efforts, this age-old craftsmanship is about to vanish very soon as the younger generation is not coming forward to learn the art. These images are accorded immense respect by the local communities due to their religious significance. This craft is considered as part of the cultural identity of Thiruvananthapuram. It has been found that the artisans are applying the same skill, technique and knowledge to the alternatives of ivory to carve magnificent pieces of art. There is no doubt about the authenticity of the craftsmanship. The ban on ivory has decreased their income and interest in continuing this art as a hereditary profession. The government should encourage people for doing proper plantation of sandalwood and rosewood trees by relaxing or modifying the strict rules and regulations or by giving attractive offers which only can reduce the scarcity of raw material. It is very important to increase the income of the artisans which is currently very low and it is only possible if proper and special CRM safeguarding measures should be taken by considering the nature of the craft and understanding the emotional attachment of the traditional craftsmen with it, which alone can save it from disappearing.

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