

MONOGRAPH

ON

THE IVORY CARVING INDUSTRY

OF

Southern India.

WITH SEVEN PLATES.

BY

EDGAR THURSTON,

Superintendent, Madras Government Museum.

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PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

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# The Ivory Carving Industry of Southern India.

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IVORY, as used in the industrial arts in India, is obtained from the elongated conical incisor teeth or tusks of *Elephas maximus*, the Indian or Asiatic elephant. These tusks are composed mainly of solid dentine, the fine elastic quality and large mass of which renders it invaluable as ivory for commerce and the arts. "Tusks are firmly embedded in sockets or cylinders of bone, which run up to the forehead, and end at a line drawn from eye to eye. Tusks, except those of very aged elephants, are only solid for a portion of their length; the hollow is filled with a firm, bloody pulp. In young animals the tusks are only solid for a portion of their length even outside the gum, and are hollow throughout the embedded portion. With age the pulp cavity decreases in depth, till, in very old animals, it becomes almost obliterated."<sup>1</sup>

The African elephant possesses the largest tusks, these attaining to a length of 9 or 10 feet, and a weight of 160 lb. each, whilst the tusk of an Indian elephant, which measured 8 feet in length, and weighed 90 lb., has been placed on record as exceptionally large. A pair of African tusks at the London Exhibition of 1851 weighed 325 lb. and measured 8 feet 6 inches in length, and 22 inches in circumference. But authorities, acquainted with the African ivory districts, give 20 to 50 lb. as the average weight of tusks. In Africa both males and females are furnished with large tusks; but, in the Indian species, a sexual difference exists, the tusks of the female only projecting a few inches from the gums, while, even of the males, by no means all are 'tuskers.' Sanderson says that 10 per cent. of Indian male elephants have very small tusks, while, in Ceylon, only one in three hundred of the males is powerfully armed.

With regard to the tusks of elephants, Mr. W. Maskell writes<sup>2</sup>:—"African and Asiatic ivory must be distinguished. The first, when recently cut, is of a mellow, warm, transparent tint, with scarcely any appearance of grain, in which state it is called transparent or green ivory; but, as the oil dries up by exposure to the air, it becomes lighter in colour. Asiatic ivory, when newly out, appears more like the African which has been long exposed to the air, and tends to become yellow by exposure. The African variety has usually a closer texture, works harder, and takes a better polish than the Asiatic."

The main seats of the ivory industry in Southern India are, at the present day, the Native States of Travancore and Mysore, and the British districts of Vizagapatam and Gódvári. With these centres I will deal *seriatim*.

To my friend Mr. Harold S. Ferguson, Director of the Travancore Government Museum, my hearty thanks are due for the following memorandum on ivory carving in Travancore, which he has been good enough to prepare in connection with the present monograph:—

## IVORY CARVING IN TRAVANCORE.

The art of carving in ivory has long been known in India. The *Silpa* or *Sihapatya Veda*, the fourth of the *Upa Vedas*, which treats of the mechanical arts and architecture, gives ivory as one of the several kinds of materials<sup>3</sup> fitted for making idols. Figures and conventional designs carved in ivory as mentioned in the *Ramayana* as being used for the decoration of houses, furniture, and the chariots of warriors.

When ivory carving was first introduced into Travancore is uncertain. Goldsmiths from time immemorial had practised turning plain articles in ivory and horn; and, being accustomed to casting figures of the Hindu pantheon according to the proportions laid down in the *Silpa Sastra*, they turned their knowledge to account in making small ivory figures, especially of Ganesa and Hanuman, according to these proportions. The chief use, however, to which ivory was put in early days, was the decoration of palanquins. For this purpose thin plates

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<sup>1</sup> Sanderson. *Thirteen years among the wild beasts of India.*

<sup>2</sup> *Ivories, ancient and mediæval.* 'South Kensington Hand-book.'

<sup>3</sup> In the *Sukra-neeti*, Dr. Oppert mentions sand, flour, drawings, mortar, mud, wood, stone and metals as being suitable for the manufacture of idols. From another source I gather that there are eight ways of making an idol, viz., *saiti* (stone), *dárumayi* (wood), *lauhi* (metal), *lipya* (lime), *álekhyá* (pictures), *saikatí* (sand), *manómayi* (men'al), *manimayi* (precious stones).

of ivory, about an eighth of an inch in thickness, were laid over the wooden frames of the palanquins. The plates were engraved throughout with conventional designs, taken mostly from the Pagodas, and coloured with fast dyes. The plate to be engraved was coated with wax, in which the design was cut. Lime juice was poured over it, and allowed to bite into the surface of the ivory. Various colours were then run in, which fixed the design.<sup>1</sup>

It may be of interest here to insert a description of the conventional designs generally used, which has been prepared by Mr. Narayana Iyer, Superintendent of the School of Arts, to whom I am indebted for much of the information contained in this memorandum.

1. *The human form—*

- (a) Bhoothams, very short and stout. The full figure is generally introduced.
- (b) Maharshi's head. The head of a Sanyasi with long beard and twisted tuft. The head alone is introduced in the design.
- (c) Kimpiri. Face alone, having crooked teeth, monkey's features, pig's ears, snake's eyes, and ram's horns.

2. *Animals—*

- (a) Vyali. Generally in the form of a horse with tusks and trunk.
- (b) Simhom, or lion conventionalised. The face is similar to that of the Vyali, without the tusks and trunk.
- (c) Vyagrom or tiger. Slightly different from the lion pattern.
- (d) Elephants, deer, monkeys, squirrels, pigs, sheep, etc., also conventionalised, are shown fully, or the faces alone are represented.

3. *Birds—*

- (a) Vyali bird. The face resembles that of the animal of the same name, without the trunk and tusks.
- (b) Annom, or swan-like bird. These are the favourite birds.
- (c) Peacocks, parrots, and fowls are also rarely introduced in conventionalised forms.

4. *Fish—*

- (a) Makara. The face of this is invariably introduced for ornaments of gods, especially the ear-ornaments. Brahmins, who perform sacrifices or yogas, wear ear-ornaments of gold with this design, called Makara-kundala, even at the present day.
- (b) Serpents conventionalised are often introduced, with one or three heads.
- (c) The head of a fish and body of a snake are generally combined.

5. Fruits, leaves, flowers, creepers, and trees are conventionalised without any special rule.

It is noteworthy that the images of gods seldom form part of a design. They are kept as central figures only, the designs being used to ornament round them, whenever required.

Engraving on ivory is still practised in Travancore. On Plate I is represented the palanquin used by His Highness the Máharajah. It is about fifty years old, and is entirely covered with plates of ivory, on which many of the designs described are engraved.

I am informed that palanquins ornamented in this way, and figures carved in ivory, worked by goldsmiths over two hundred years ago, are still found, though rarely, in the palaces at Trivandrum, Shunganacherry, and Haripad; also in some Pagodas in North Travancore, in the houses of rich Namburis, and in the mutts of Namburi Sanyasis. But, though this was the main use, in these earlier days, to which ivory was first put, no doubt there were scattered here and there goldsmiths who occasionally carved figures of the gods in ivory, and also Namburi Brahmins, who, in their leisure hours, amused themselves by doing the same. But it was due to the direct encouragement of the rulers of the State that the art was finally established in Travancore.

In the early days of the Rajah who ascended the throne in 1829-30, certain Namburi Brahmins from North Travancore brought for the Rajah's inspection figures of the gods and of sacred animals carved in ivory, of so minute a size that they could be enclosed in a paddy husk.<sup>2</sup> What made the work the more remarkable was that the only tool which these Brahmins used to accomplish the task was a small knife. The Rajah was so

<sup>1</sup> Ivory takes a variety of dyes well, without interfering with the polish of its surface. The actual matrix is stained, and the colour is not merely due to the penetration of pigment into the open dentine tubes.

<sup>2</sup> Colonel Olcott recently showed me a figure of Buddha beautifully engraved on a rice-grain—E.T.



pleased with their ingenuity that he presented them with gold bangles as a mark of honour. Whether the Rajah's taste for art was aroused by the sight of this work, or whether it was already established, and, being known to the Brahmins, had caused them to bring their work with the certainty that it would be appreciated, it is impossible to say. But it is certain that the Rajah Ráma Varma gave great encouragement to ivory carving. Goldsmiths from Tiruvankode in the south, and Haripad and Shunganacherry in the north, were employed on account of their technical knowledge; and, as carving in wood had long been practised by men of the carpenter class, the services of men of this class also were enlisted. The most important work that they did was to design and execute a throne in ivory. This was used by the Rajah at durbars, and still lies in the old durbar hall in the Fort at Trivandrum. The throne is almost square, supported on four solid legs. The back rises to a height of three feet and a half. The breadth is four feet, and the depth slightly more. The sides are solid, and slope to the front. The whole of the interior of the back and arms is covered with ivory plates of different sizes, engraved, in the way I have already mentioned, with conventional designs. The exterior is similarly covered with thicker plates carved in low relief. The arms of the State, (the sacred conch)<sup>1</sup> are carved on the back and on both sides, but the supporters are different from those now adopted, being tigers, more or less grotesque, instead of elephants. Figures of dancing girls in various attitudes, parrots, dragons, pine-apples, and other designs fill the remaining panels. One side of the throne is shown in Plate I.

The throne is an interesting specimen of early Travancore work, but lacks the delicacy of finish, which characterises the more modern.

Many other minor works were executed, and the liberality of the Rajah kept the men, especially those of the carpenter class, constantly employed, so that one or two families became professional carvers, and still continue to do the same work. Rajah Ráma Varma died in the Malabar year 1022 (1846-47), and was succeeded by Rajah Marthanda Varma. He showed the same interest in the art that his predecessor had evinced. In 1851 he sent as a present to Her Majesty the Queen an ivory throne, elaborately carved, and set with jewels. It was exhibited at the Great Exhibition in London in that year, and was much admired. It is a beautiful piece of work, thoroughly Indian in design, much more finished than the one made in his predecessor's reign, and worthy of the purpose for which it was intended. It now finds a fitting place in the State apartments at Windsor Castle.

On the death of Rajah Marthanda Varma in 1036 (1860-61), ivory carving was still carried on in the palace under the patronage of the Máharajah. His brother, who afterwards succeeded him, and was then first Prince, also employed carvers on his own account, while Dewan Madhava Row (afterwards Sir T. Madhava Row) also had men who worked privately for himself. Specimens<sup>2</sup> of the work were sent to various exhibitions in India and Europe, and the fame of Travancore ivory carving was thus spread abroad.

So many enquiries and orders came in, that at last it became necessary to start a department of ivory carving under the Government. This was done in 1048 (1872-73). The staff consisted of a designer, an assistant, a clerk, and nine carvers, whose combined salaries amounted to one hundred and twenty-nine rupees per mensem. For sixteen years the work was successfully carried on, and many beautiful specimens were turned out. Convicts in the jail, who showed any taste for carving, received instruction, and some private persons started work on their own account. In 1063,<sup>3</sup> Mr. K. Narayana Iyer was sent to Madras to study the working of the School of Arts there. He returned towards the middle of the next year, and was appointed Superintendent of the newly-instituted School of Arts in Trivandrum. The establishment of ivory carvers from the Huzur Catcherry was taken over, and became a branch of the Industrial School under his superintendence. The family of Tiruvankode goldsmiths, who had been employed in ivory work on a small scale, is now almost extinct. The goldsmiths of Shunganacherry and Haripad have, for the most part, left off carving, and reverted to their original metal-work. There are still several Namburi Brahmins, who carve in ivory, but only for amusement, as they are not professional workmen, and do not sell their work. The Elaya Rajah gives encouragement to the art by the employment of some carvers; and there are a few persons who practise on their own account, who have been instructed in the Industrial School. But ivory carving is chiefly carried on in the school itself.

The carving, as I have said, was at first confined to the production of the conventional figures of the Puranic deities, which are admittedly unsuitable for the higher forms of artistic representation, but into these

<sup>1</sup> The conch, sankhu, or chank shell (*Turbinella rapa*).

<sup>2</sup> An admirably executed ivory tankard, silver-mounted, the property of Sir T. Madhava Row, is figured in Hawkes' 'Photographs of Madras and Burmese Artware,' 1886, Plate 10—*Vide* also 'Photographic Illustrations of Selected Objects, Simla Exhibition,' 1881, Plates VIII, XXXVII.

<sup>3</sup> 1063 commenced on 15th August 1887. The Malayáls compute their time by the Kollam era, which is reckoned from the supposed date of the foundation of the town of Quilon or Kollam.

even it was possible to put a degree of finish, and an elaboration of detail that rendered the work of Travancore distinguishable for its artistic quality. Wood carving had long been practised, being as ancient as the temple architecture, and a naturalistic style had sprung up in Travancore, which was happily applied to relief work in ivory.

Plate II shows the ivory portion of a vase without its setting. On one side is a representation in relief of the very interesting Tulabharam <sup>1</sup> ceremony. The other side shows the Máharajah engaged in the Palli vetta ceremony, or shooting the cocoanut; a ceremony annually performed with much pomp in Trivandrum.

Plate III shows the top, back, and one end of an oblong ivory box. The State car is seen, standing before the palace, with the gopálan of the temple in the distance. On the back of the box the landing place in the fort, with boats (jangadams), is carved. On the end is a group of musicians with their various instruments.

On Plate II are shown two vases, on the first of which a State procession winds its way in a spiral round the vase, while the second is a scene from nature—the landing-stage from the backwater at Bolghatty in Cochin.

In the School of Arts this style of work is used for the decoration of many articles of European use, such as the backs of brushes, hand-glasses, combs, book-racks, etc., and is eminently adapted for such a purpose.

At one time English designs were partially followed; but, since the institution of the school, a reversion has been made to good old Indian designs, the excellence of which in decorative art is now thoroughly appreciated. A collection of designs from the different pagodas in the State has been made, and proves very useful.

The following table shows the value of the work turned out since 1056 (1880-81):—

Year.	<i>In the Huzur Catcherry.</i>											Value of articles manufactured.			
	rs.	CH.	C.	...	...	...	...	...	...	...	...	...	rs.	CH.	C.
1056	...	...	...	...	...	...	...	...	...	...	...	...	1,108	13	14
1057	...	...	...	...	...	...	...	...	...	...	...	...	1,434	20	10
1058	...	...	...	...	...	...	...	...	...	...	...	...	1,097	26	3
1059	...	...	...	...	...	...	...	...	...	...	...	...	1,286	9	3
1060	...	...	...	...	...	...	...	...	...	...	...	...	761	2	7
1061	...	...	...	...	...	...	...	...	...	...	...	...	616	14	3
1062	...	...	...	...	...	...	...	...	...	...	...	...	546	10	10
1063	...	...	...	...	...	...	...	...	...	...	...	...	1,042	10	1
1064	...	...	...	...	...	...	...	...	...	...	...	...	2,159	14	12

*In the School of Arts.*

Year M.E.	Ivory used for work.		Value of articles manufactured.	Value of articles sold.																
	Quantity.	Value.																		
	LB.	OZ.	RS.	CH.	C.	RS.	CH.	C.												
1065	..	..	..	..	..	..	..	..	..	143	13½	878	13	5	3,003	22	14	1,357	24	9
1066	..	..	..	..	..	..	..	..	..	132	2½	807	2	12	1,378	25	10	1,009	9	13
1067	..	..	..	..	..	..	..	..	..	91	1	556	3	11	1,391	17	9	1,008	7	13
1068	..	..	..	..	..	..	..	..	..	134	4½	820	2	2	2,534	17	9	2,182	22	8
1069	..	..	..	..	..	..	..	..	..	79	14½	488	2	2	1,940	3	10	2,232	1	12
1070	..	..	..	..	..	..	..	..	..	77	7	472	25	13	2,346	6	4	1,499	8	11
1071	..	..	..	..	..	..	..	..	..	107	3½	654	25	2	2,163	15	2	2,136	16	15
1072	..	..	..	..	..	..	..	..	..	80	3	489	20	1	3,895	27	2	4,092	26	8
1073	..	..	..	..	..	..	..	..	..	74	15½	457	7	3	4,008	2	12	2,812	13	14
1074	..	..	..	..	..	..	..	..	..	93	15	573	19	5	2,949	12	9	1,303	22	2

<sup>1</sup> The ceremony in which the Máharajah, after his accession, is weighed against gold coins struck for the occasion, and distributed among the officiating priests and Brahmans.

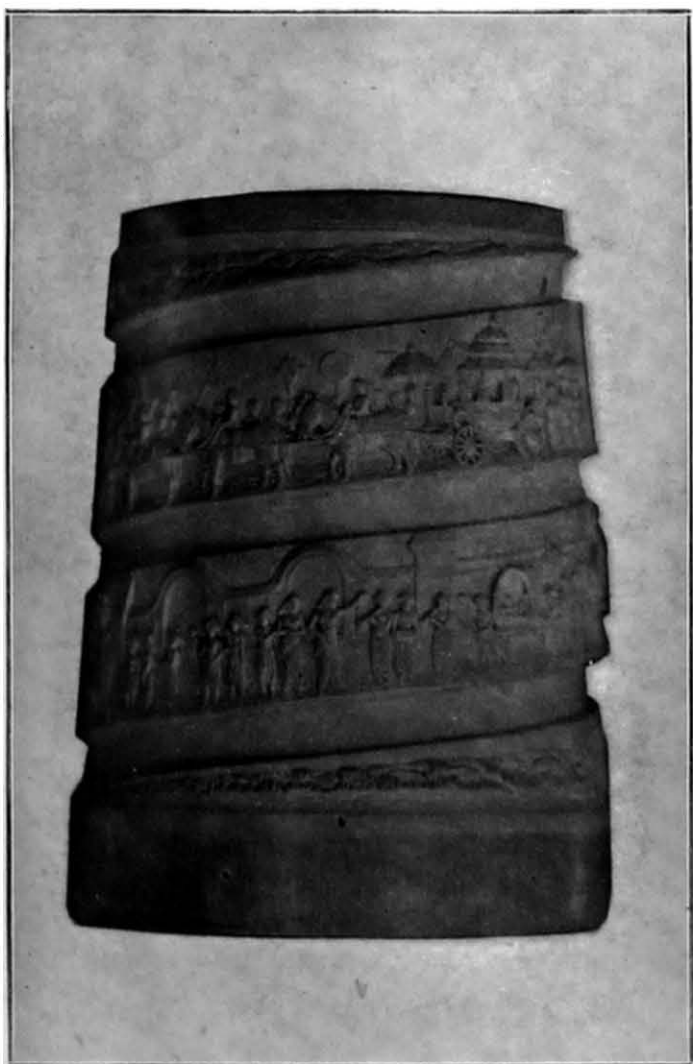
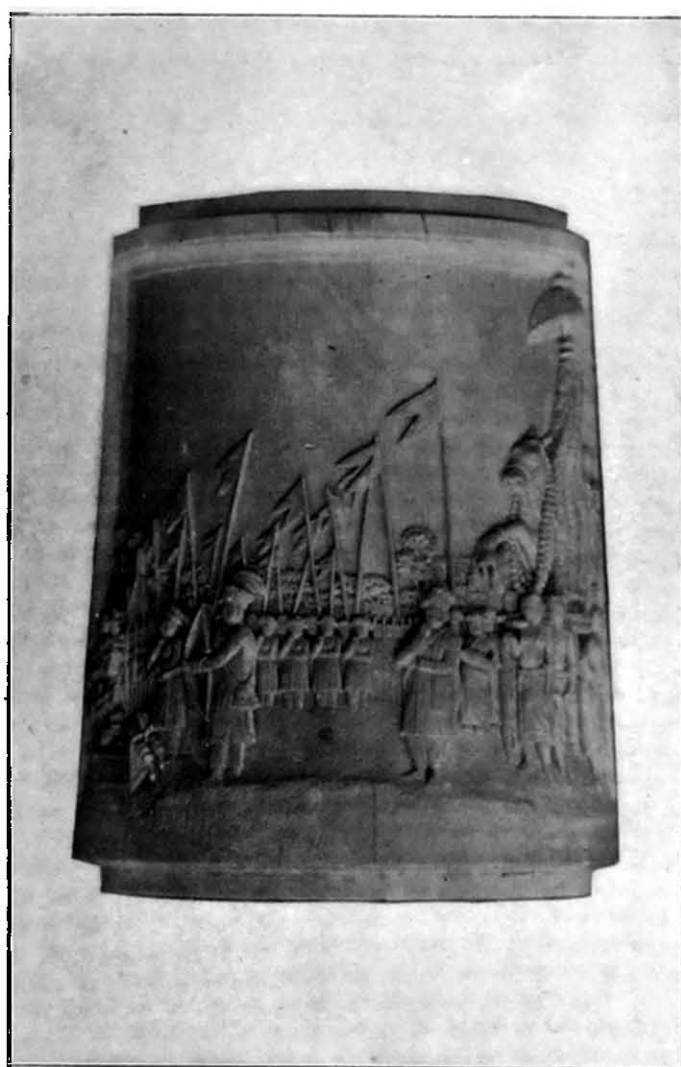
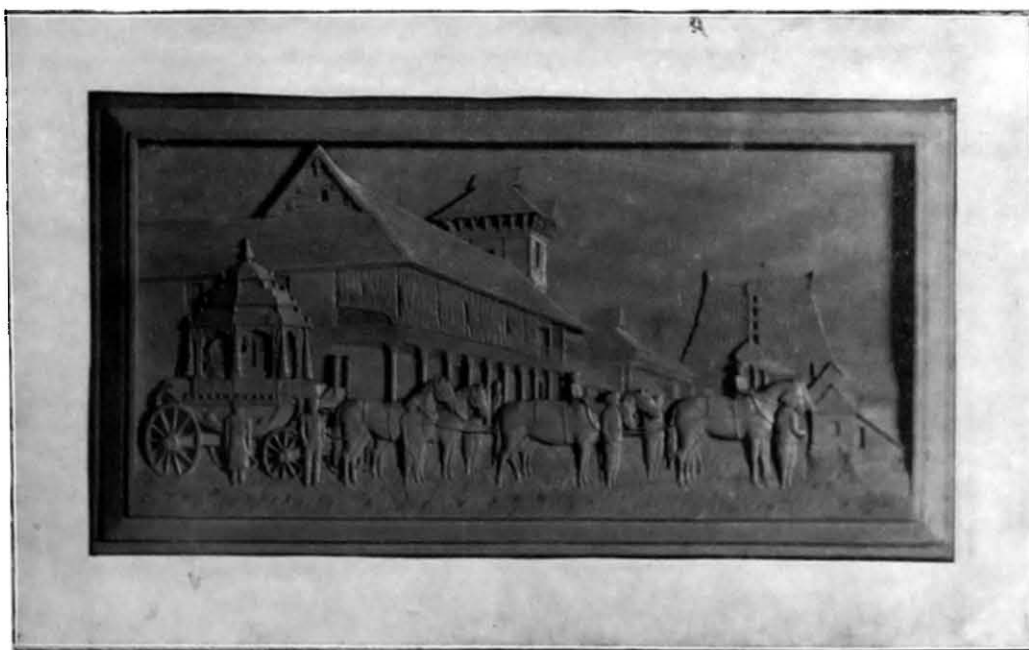
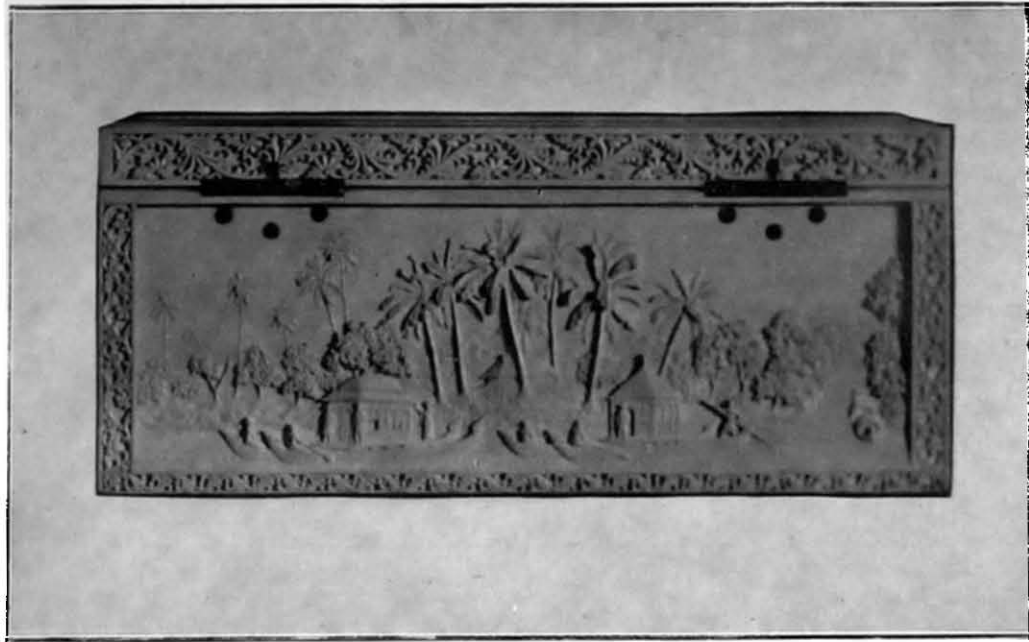




PLATE III.



The accounts are kept in rupees, chuckrams, and cash. The figures show that there is a steady, though not a large demand for Travancore ivory carvings; and it is probable that, if steps were taken to advertise their excellence more widely, the demand might be considerably increased.

As to the source from which the material is obtained. Ivory has, for many years, been a monopoly of the Government, but there are no records to show when it was first made so. No ivory is imported. Travancore depends for her supply on the elephants that are found in great numbers in her forests; and the amount obtained is amply sufficient for all her requirements.

By the Travancore Forest Regulation the ivory of wild elephants, whether grown or found upon Government land or private property, is a royalty, and no trade shall be carried on, unless it has been obtained from the Government. Whoever, unless authorised to do so, kills, wounds, or captures a wild elephant within the territories of the State, shall be punished with imprisonment which may extend to three months, or with fine which may extend to five hundred rupees, or both for each animal; and the tusks and teeth of the animals which have been killed, or the elephants that have been captured, shall be regarded as the property of the Sircar, and shall be delivered to the nearest Forest officer or Police officer. Provided that our Dewan may, from time to time, on an application being made to him, grant general or special permits in writing for the shooting or the capturing of elephants.

Elephants have been more or less protected by the State for a long time. Mr. Bourdillon, the Conservator, says in his report on the forests:—"Lieutenant Arthur, in his memoir of Travancore written in 1810, mentions that, at that time, Government used to allow people to cut pits for these animals on payment of a tax per pit. The elephants thus taken apparently became the property of the persons who dug the pits. Subsequent to 1810, Government commenced digging pits on its own account; but it was still allowable for private persons to have *indam* pits, as they were called. The elephants thus captured by private persons had to be sold to the Government at Rs. 150 a head." A tax on cutting pits in which to capture them was thus the first means adopted for the protection of elephants. It was not till the year 1869 that it was found necessary to prohibit their being shot. This, no doubt, was necessitated by the opening up of the country, and the influx of Europeans to the hills for the purpose of planting coffee. The sixth paragraph of the notice prohibiting the shooting of elephants runs as follows:—"In any case the tusks and teeth . . . of wild elephants, however death may have occurred, will as hitherto be the property of the Sircar, and are deliverable to the nearest Police officer." This shows that the monopoly of ivory had been recognised for some time previously. Tusks found by private persons may be delivered to the nearest Government officer. Any officer who takes charge of them forwards them to the Huzur Treasury. By these means about eight tusks a year are received. It is the duty of the Forest Department to collect ivory, and to forward it to the Commercial office at Alleppey, where it is sold by auction annually. The Kanikars, or hillmen, bring in many; and some are taken from animals that have been caught in pits and died. A *kolvila*, or reward, is given for all tusks brought in; and the tusks are divided into four classes, for which different rates of *kolvila* are paid as follows:—

Class 1, 18 lb. and over	$\frac{\text{Fanams } 128}{\text{Bh. Rs. } 17-10-10-37}$	per thulam.
„ 2, 10—18	$\frac{\text{Fanams } 94\frac{1}{2}}{\text{Bh. Rs. } 13-4-2-53}$	do.
„ 3, over 7—10	$\frac{\text{Fanams } 68}{\text{Bh. Rs. } 8-13-5-68}$	do.
„ 4, under 7	$\frac{\text{Fanams } 81\frac{1}{2}}{\text{Bh. Rs. } 4-6-3-85}$	do.

N.B.—A thulam is equal to 80 Dutch pounds or nearly 20 English.

The weight of tusks delivered by the Forest Department at Alleppey each year averages about 24 thulams, i.e., 480 lb. roughly. But, says Mr. Bourdillon, "sometimes elephants die in large numbers, as in the year 1866, when a murrain attacked them in the forests near Malayattur, and fifty pairs of tusks were brought to the Forest offices at that place and Thodupuzha in April and May."

An average tusk weighs about 10 pounds. The largest ever received by the Government weighed 75 pounds.<sup>1</sup>

<sup>1</sup> "Tusks vary greatly. The longest recorded, I believe (Sir V. Brooke's from Mysore), measured 8 feet and weighed 90 lb.; but a shorter tusk from Gorakhpur is said to have weighed 100 lb. Both were from elephants with but one tusk perfect. Two pairs from the Garo hills (Assam) are said to have weighed 157 and 155 lb., respectively."—'Blanford. Faun. Brit. Ind.'

The average price, which Travancore ivory has realised from the year 1875 to 1900, is S. Rs. 5 per pound.

The subjoined table shows the amount of tusks exported from 1890 to 1900 :—

Years.	Number of tusks received in the Commercial Office for 10 years.	Total weight in lb. of tusks received.	Total weight in lb. of tusks sold.	Total weight in lb. of tusks exported from Alleppey.	Total weight in lb. of tusks sold and kept in Travancore supposing that ivory was exported only from Alleppey.	Average price per lb.	Remarks.
						RS. A. P.	
1066 .. ..	68	469	423	196½	272½	4 10 8	
1067 .. ..	53	668	57½	91	577	6 6 4	
1068 .. ..	57	674	579½	106½	567½	6 5 5	6 tusks sent to the Huzur.
1069 .. ..	92	700½	684	836½	..	5 14 7	19 do. do.
1070 .. ..	56	885	909½	773½	61½	6 1 7	
1071 .. ..	74	570	592½	354	216	6 8 11	
1072 .. ..	78	1,212	1,313½	963½	248½	4 8 5	
1073 .. ..	61	746½	771½	548	198½	5 14 11	
1074 .. ..	70	1,160½	1,033	536½	623½	3 9 10	20 tusks sent to the Huzur.
1075 .. ..	84	844½	956½	125½	719	..	All tusks sold by auction; not exported yet.
Average of 10 years ..	69.8	Average for 1 year 788 lb.	Average for 1 year 783½ lb.	Average for 1 year 453½ lb.	Average for 1 year 334½ lb.	5 0 0	

To the Madras Fine Arts Society Exhibitions, 1899 and 1900, the artisans of the Elaya Rájah of Travancore sent ivory carvings of antelopes, deer, Vishnu at the deluge, Venugopál Krishna, a hunting scene with a mixed herd of pigs, rabbits, and deer; hair-combs with the arms of Travancore, and the lion of Lucerne. None of these, however, equal, in artistic delicacy of treatment, a figure of Vishnu at the deluge, by a former Travancore ivory carver, which is reproduced in 'Photographs of Indian Art Work in the Calcutta International Exhibition,' 1883-84. Of this exquisite little figure (Plate VII) I was fortunate enough to obtain an example at the recent Madras Exhibition, whereat several loan collections bore evidence to the fact that ivory carving in Southern India was at a higher level of excellence than it is at the present day.

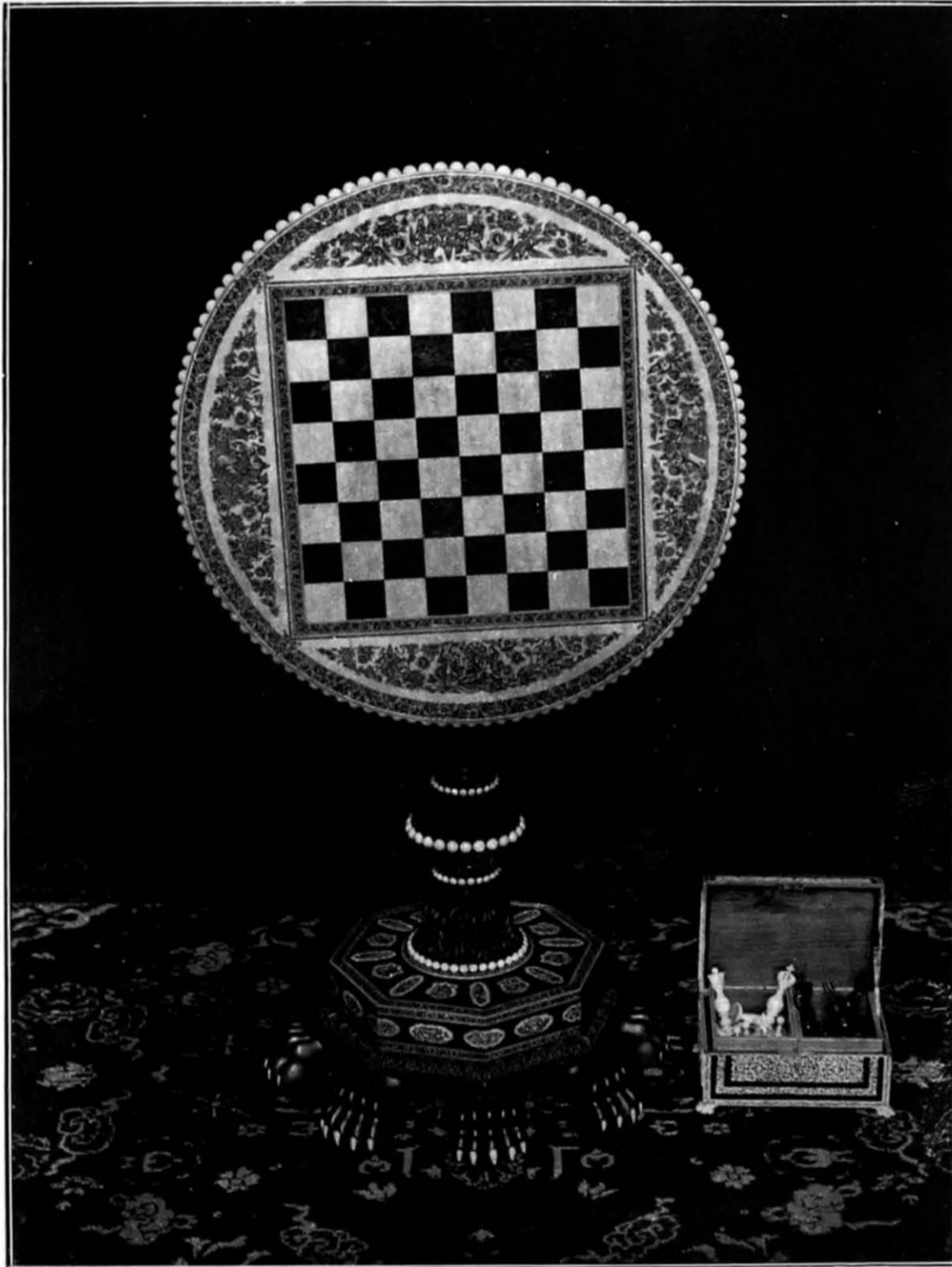
Through the courtesy of Rajah V. Vasudeva, Rajah of Kollengode, I have been able to inspect a series of ivory carvings made by artisans in his employ, which comprise Krishna, Ganesa, and Subramaniya, dogs, lions, deer, and other animals. Some of these carvings are represented in Plate VII.

Concerning Vizagapatam work in ivory, bison and stag horn, and porcupine quills, Sir George Birdwood writes<sup>1</sup> that it "is applied to the same class of articles as Bombay inlaying, namely, work-boxes, tea-caddies, desks, chess-boards, and a variety of fancy articles. It is of a very recent origin, and the etching in black, *sgraffito*, on the ivory, is exclusively of European flower forms, represented naturally, in light and shade. The effect is seldom pleasing."

In a list of ivory articles made at the present day at Vizagapatam the following are enumerated: glove-boxes; handkerchief boxes; money boxes; envelope cases; blotting books, book-stands; stamp boxes; card-cases; jewel and work-boxes; chess-boards, and picture frames. A chess-board (price Rs. 800), made of sandal-wood, ivory, and tortoise-shell, which was exhibited by Messrs. Golthy Lutchmiah at a recent Exhibition in Madras, is represented on Plate IV. The etching in black in this, as also in other articles which were exhibited, represents various Hindu deities as well as floral devices. From a report which was received in connection with the preparation of this monograph I gather that the ivory-wares are exported to Bombay and Madras on a large scale, and to Calcutta on a small scale. The demand is, however, said to have diminished of late owing to plague

<sup>1</sup> Industrial Arts of India.

PLATE IV.



and famine. The ivory is obtained from Bombay and Calcutta, and brought by Marwáris to Vizagapatam for sale at the following prices:—

	RS.
First sort, <i>i.e.</i> , big white pieces without cracks	140 per 25 lb.
Second sort, <i>i.e.</i> , small pieces with cracks	100 do.

The process of etching in black is described as follows in the report under reference. Melt 4 tolas of good red wax (lac) with  $\frac{1}{2}$  tola of lamp black, or soot from a gingelly (*Sesamum indicum*) oil lamp. Let the melted composition become somewhat thick, and draw it out into thin threads about six inches long, and allow them to become hard by cooling. Take a portion of one of these threads, and place it on the already engraved portion of the ivory. Then beat it with a red-hot poker till it becomes liquid, and fills in the engraved lines, which then become black.

One of the ivory-ware merchants of Vizagapatam informs me that he buys ivory from Marwári traders, who obtain it from Bombay and Calcutta. Very rarely a small supply can be obtained locally in the Vizagapatam district. The larger tusks, weighing more than 2 or 3 maunds (of 25 lb.), are usually brought from Bombay. The price of the first sort of ivory ranges between Rs. 110 and Rs. 120 per maund, and of the second sort between Rs. 80 and Rs. 100. The artisans, who manufacture the ivory-wares, belong to the Viswakarma or carpenter caste, and are pure vegetarians, unlike the Tamil carpenters. There are between fifty and sixty families in Vizagapatam, who are engaged in the industry. A good workman is paid Rs. 30 per mensem. The trade is flourishing, as there is a good demand for the wares from merchants at Vizagapatam and Madras. The black figures and lines, my informant tells me, are made in the following manner. The 'ink' is prepared by mixing the soot, obtained from a lighted cotton wick dipped in gingelly oil and held beneath a metal vessel, with melted lac. The design is drawn on the smooth ivory surface with a lead pencil, and engraved with a sharp etching needle. The ink is then rubbed over the surface with the fingers. When the ink is dry and hard, the whole surface is scraped with a sharp chisel or plane, by which means all the ink is removed, except that which adheres to the engraved portions. By this process a polish is also given to the surface of the ivory.

The names of firms of ivory-carvers at Vizagapatam at the present day, which have been submitted to me, are Lala Venkatadoss, Sivacooty Chundraya, and Golthy Lutchmiah. A variety of articles in ivory fret-work on black or sandal-wood, and *sgraffito*, in the Madras Museum collection, were made by G. Chinnaveeranna.

At Dhovleshwaram, in the Gó dávari district, an ivory-carver, Salendam Viswambharam by name, manufactures sundry articles in pure ivory or ivory and sandal-wood, which include idols, paper-cutters, rulers, ink-stands, chess-boards, combs, card-cases, paper-weights, etc. He generally works to orders received from Europeans or Zemindars, but also takes his wares for sale at Hyderabad, Madras, and other places. He usually obtains the ivory from Marwári traders at Hyderabad.

Turning lastly to the Mysore Province, I cannot do better than quote extracts from a note on 'Ebony carving inlaid with ivory' by Mr. J. Cameron, who writes as follows: "In Mysore this art is at present confined to a very narrow circle, being practically in the hands of a small Mahomedan firm employed in the city of Mysore under the immediate auspices of His Highness the Máharajah. But there is evidence that the art flourished to some extent in former times, and not improbably the original craftsmen were adventurers from the north, who followed successful leaders in the fortunes of war, in view to practising this craft during the intervals of peace.

"It can be easily imagined that an expensive industry such as inlaying could only be developed under the patronage of successful rulers and wealthy chiefs. The Mahomedans enjoy the credit of having introduced the art to Mysore, but there are no data to show when or how this happened: while, on the other hand, we possess relics showing that the ornamental application of ivory was well known to the early Hindu kings. But Mahomedan emigrants may have worked under the latter from an early period, as there can be no question of their hereditary skill in this class of work. The inlaid doors in the mausoleum at Ganjám—the gift of Lord Dalhousie, and a facsimile of the original doors which had decayed—is a fair example of work done in Típu's time. The late Máharajah of Mysore occasionally employed a few skilled workmen in the palace at Mysore, but, with this exception, the art of inlaying has been steadily on the decline for more than half a century. At present there is a slight tendency to triviality of design, or, what is worse, a mixture of oriental with the occidental. This

should be avoided at all hazards, and, when orders are received from abroad, designs should accompany them, or at least be fully approved by the purchaser before they are carried into effect. But there should also be a good consulting album of select oriental patterns, as every one who purchases is not in a position to design even his own requirements; and a difficulty here presents itself in regard to the nature and scope of such designs. If Mahomedans solely are employed in the work, their religion forbids the portraiture of human figures and most animals, and hence we lose the charming effect of historical sketches, as also of mixed natural scenes, where fragments of the animal and vegetable kingdoms are usually combined. But some arrangement should be made to surmount this difficulty, as boldness and originality of design will go far to popularise this class of art. A first-class draftsman, who is conversant with the prominent features of oriental sculpture and painting, should be specially employed in getting up the album."

The inlaid articles usually turned out at the present day consist of small cabinets, book-stands, teapoys, hookah-stands, picture frames, ink-stands, pen-racks, watch-stands, blotting pads, walking sticks, pen-holders, etc., some of which are figured in Plate VI. In Plate V are represented two handsome inlaid doors in the Máharajah's palace at Mysore.

GOVERNMENT MUSEUM, MADRAS,  
*May, 1901.* }

EDGAR THURSTON.

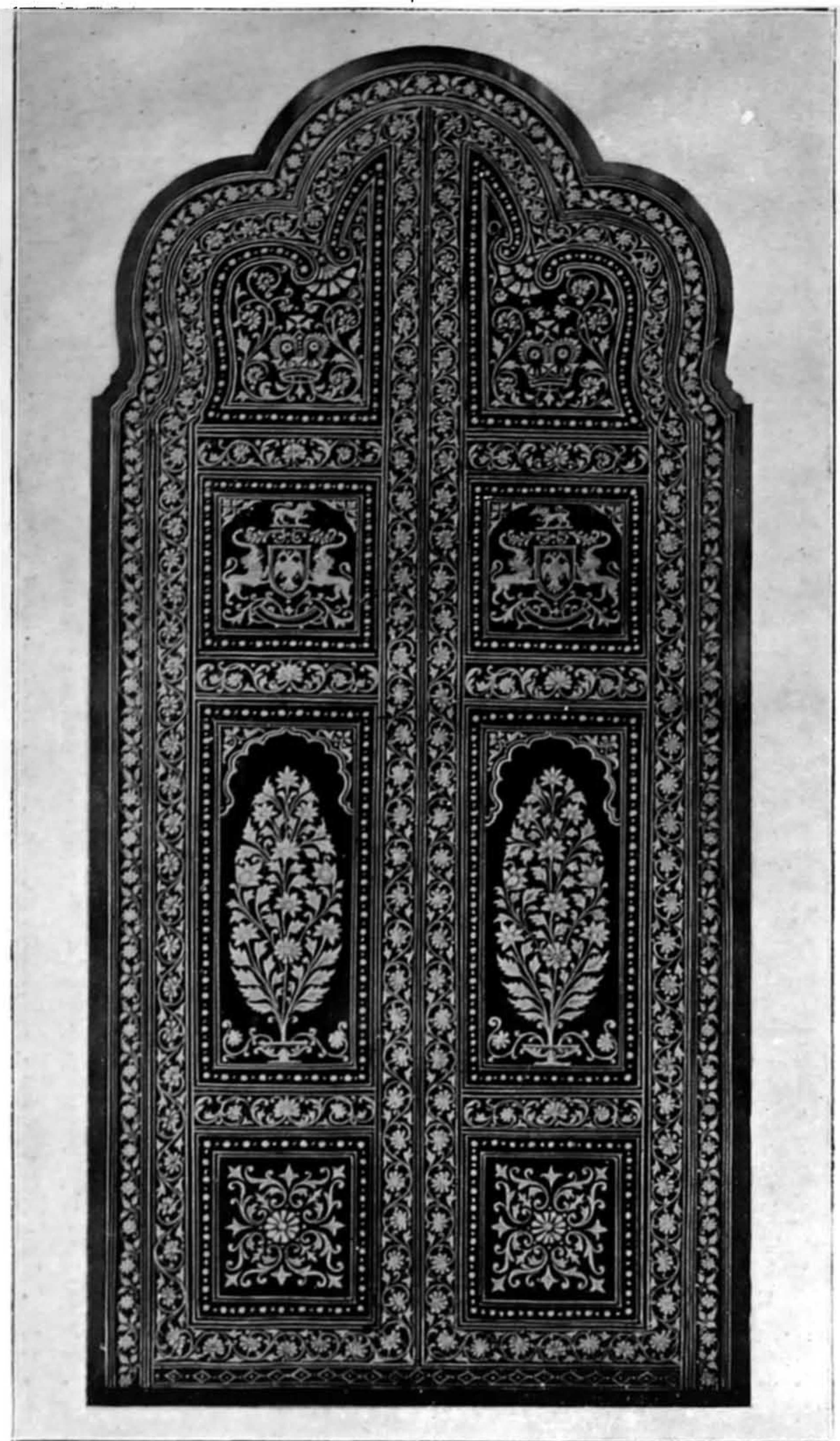


PLATE V.

