



the world, and live upon alms; but in reality they are all great rascals. It is estimated that there are in INDIA 800,000 Muhammadan *Fakirs*, and 1,200,000 among the idolaters, of whom I shall speak farther on.

Once a fortnight the King goes out to hunt, and while *en route* he is always mounted on his elephant, as also while the chase lasts. All the beasts which he shoots are driven within musket range of his elephant. Ordinarily these are lions, tigers, deer, and gazelles—for, as for wild boars, he as a good Muhammadan does not wish to see them. On his return he uses a *pallankeen*, and there is the same guard and the same order as when he goes to the mosque, save that at the chase there are 200 or 300 horsemen who ride before him in confused ranks.

As for the Princesses, whether they are the wives of the King, his daughters, or his sisters, they never leave the palace except when they go to the country for a few days' change of air and scene. Some of them go, but rarely, to visit the ladies of the nobles, as for example the wife of ZAFAR KHAN, who is the King's aunt. This is not done except by the special permission of the King. It is not here as in PERSIA where the Princesses only make their visits at night, accompanied by a great number of eunuchs, who drive away all persons whom they meet on the road. But at the court of the GREAT MOGUL the ladies generally go out at nine o'clock in the morning, and have only three or four eunuchs to accompany them, and ten or twelve female slaves who act as ladies of honour. The Princesses are carried in *pallankeens* covered with embroidered tapestries, and every *pallankeen* is followed by a small carriage which can only contain one person. It is

drawn by two men, and the wheels are not more than a foot in diameter. The object in taking these carriages is, that when the Princesses arrive at the houses they are going to visit, the men who carry the *pallankeens* are only allowed to go to the first gate, where the eunuchs compel them to retire, the Princesses then change into the carriages, and are drawn by the ladies of honour to the women's apartments. For, as I have elsewhere remarked, in the houses of the nobles the women's apartments are in the centre, and it is generally necessary to traverse two or three large courts and a garden or two before reaching them.

When these Princesses are married to nobles of the Court they become the rulers of their husbands, who, if they do not live as they desire, and do not act according to their commands, as they possess the power of approaching the King whenever they wish, they persuade him to do what they please, to the disadvantage of their husbands; most frequently asking for them to be deprived of their offices. As it is the custom that the firstborn succeeds to the throne, although he be the son of a slave, immediately that the Princesses of the King's harem become aware that there is one among them with child, they use all conceivable methods to make her have a miscarriage. When I was at PATNA in the year 1666, SHĀISTĀ KHĀN's surgeon, who is a half-caste (*mestiv*) Portuguese, assured me that the Princess, wife of SHĀISTĀ KHĀN, in one month had caused miscarriages to eight women of his harem, not permitting any children but her own to survive.

CHAPTER X¹

The GREAT MOGUL orders all his jewels to be shown to the Author.

ON the first day of November 1665 I went to the palace for the purpose of taking leave of the King, but he said that he did not wish me to depart without having seen his jewels, and until I had witnessed the grandeur of his *fête*.²

The day following the great morning five or six officers from the King, and others on behalf of *Nawáb ZAFAR KHÁN*, came to tell me that the King had sent for me. Immediately on my arrival at the Court the two custodians of the King's jewels, of whom I have elsewhere spoken,³ accompanied me into the presence of his Majesty; and after I had made him the ordinary salutation, they conducted me into a small apartment, which is at one of the ends of the hall where the King was seated on his throne, and from whence he was

¹ This very important chapter and the next are altogether omitted in the English translation by John Phillips, 1684.

² Joret (*J. B. Tavernier*, p. 190) sees an inconsistency between this statement and that at the beginning of chap. viii, p. 379. The words as he quotes them support this view, but they are not Tavernier's. To me the two, as I understand Tavernier, appear perfectly consistent with one another. Prof. Joret quotes, it should be added, as from chap. ix, but that is a misprint for chap. x.

³ See Book I, chap. viii, p. 135.

able to see us. I found in this apartment AKIL KHÁN, chief of the jewel treasury, who, when he saw us, ordered four of the King's eunuchs to go for the jewels, which were brought in two large wooden trays lacquered with gold leaf, and covered with small cloths made expressly for the purpose—one of red velvet and the other of green brocaded velvet. After these trays were uncovered, and all the pieces had been counted three times over, a list was prepared by three scribes who were present. For the Indians do everything with great circumspection and patience, and when they see any one who acts with precipitation, or becomes angry, they gaze at him without saying anything, and smile as at a madman.

The first piece which AKIL KHÁN placed in my hands was the great diamond, which is a round rose, very high at one side.¹ At the basal margin it has a small notch and a little flaw inside. Its water is beautiful, and it weighs three hundred and nineteen and a half ($319\frac{1}{2}$) *ratis*, which are equal to two hundred and eighty (280) of our carats—the *rati* being $\frac{2}{3}$ th of our carat. When MIR JUMLÁ, who betrayed the King of GOLCONDA, his master, presented this stone to SHÁH JAHÁN, to whose side he attached himself,² it was then

¹ A *resumé* of all the information regarding this important stone, the so-called "Great Mogul," will be found in an appendix. It may be mentioned here that this allusion to the form of the stone as a "rose" appears to have given rise to the erroneous idea with one author, and those who have followed him, that it had a roseate tinge.

² Bernier's reference to this incident is as follows: "At first he (Mir Jumlá) presented to him (Sháh Jahán) that great diamond which is esteemed matchless, giving him to understand that the precious stones of Golconda were quite other things than those rocks of Kandahár; that there it was where the war ought to be made, to get the possession of and to go as far as Cape Comorin." (*History of the Late Revolution*, etc., vol. i, p. 44.)



in the rough, and weighed nine hundred (900) *ratis*, which are equivalent to seven hundred and eighty-seven and a half ($787\frac{1}{2}$) carats; and it had several flaws.

If this stone had been in Europe it would have been treated in a different manner, for some good pieces would have been taken from it, and it would have weighed more than it does, instead of which it has been all ground down. It was the *Sieur* HORTENSIO BORGIO,¹ a Venetian, who cut it, for which he was badly rewarded; for when it was cut he was reproached with having spoilt the stone, which ought to have retained a greater weight; and instead of paying him for his work, the King fined him ten thousand (10,000) rupees, and would have taken more if he had possessed it. If the *Sieur* HORTENSIO had understood his trade well, he would have been able to take a large piece from this stone without doing injury to the King, and without having had so much trouble grinding it; but he was not a very accomplished diamond cutter.²

¹ Bernier mentions but does not name a jeweller who took refuge at the Mogul's Court after having cheated all the monarchs of Europe with his "*doublets*." He was, however, a Frenchman, while Hortensio was an Italian, and therefore King is probably mistaken when he suggests their identity.

² I cannot understand this statement in the light that Mr. King seems to have done, namely, that Hortensio might have defrauded the Mogul by taking off a large piece. It simply means, I think, that Hortensio might with advantage have cleaved the stone instead of grinding it; the pieces so cleaved would then have been the property of the Mogul, not the perquisite of Hortensio. (See *Natural History of Precious Stones*, Bohn's Ed., 1870, p. 78 *n.*) In an appendix I have dealt with the stories which, to have any reasonable possibility, must have referred to the breaking up of the original large stone, as, after Tavernier's time, the stone of 280 carats could not, as is often stated, have been made to break up into three whose united weights were equal to nearly twice that amount; but the statement in the text here is



After I had fully examined this splendid stone, and returned it into the hands of AKIL KHAN, he showed me another stone, pear-shaped, of good form and fine water, and also three other table diamonds, two clear, and the other with little black spots. Each weighed fifty-five (55) to sixty (60) *ratis*, and the pear sixty-two and a half ($62\frac{1}{2}$). Subsequently he showed me a jewel of twelve diamonds, each stone of 15 to 16 *ratis*, and all roses. In the middle a heart-shaped rose of good water, but with three small flaws, and this rose weighed about 35 or 40 *ratis*.

Also a jewel with seventeen diamonds, half of them table and half rose, the largest of which could not weigh more than seven (7) or eight (8) *ratis*, with the exception of the one in the middle, which weighed about sixteen (16). All these stones are of first-class water, clean and of good form, and of the most beautiful kind ever found.

Also two grand pear-shaped pearls, one (weighing) about seventy (70) *ratis*, a little flattened on both sides, and of beautiful water and good form.

Also a pearl button, which might weigh from fifty-five (55) to sixty (60) *ratis*, of good form and good water.

Also a round pearl of great perfection, a little flat on one side, which weighs fifty-six (56) *ratis*. I ascertained that to be the precise weight, and that SHAH ABBAS II, King of PERSIA, sent it as a present to the GREAT MOGUL.

clearly against the supposition that the large stone was otherwise treated than by grinding down from $787\frac{1}{2}$ to 280 carats. That the natives knew how to cleave diamonds is abundantly proved in Book II, chap. xv, where Tavernier says they understood the art better than Europeans.



Also three other round pearls, each of twenty-five (25) to twenty-eight (28) *ratis*, or thereabouts, but the water of which tends to yellow.

Also a perfectly round pearl of thirty-six and a half ($36\frac{1}{2}$) *ratis*, of a lively white, and perfect in every respect. It is the only jewel which AURANGZEB, who reigns at present, has himself purchased on account of its beauty, for the rest either came to him from DÁRA SHÁH, his eldest brother, and which he had appropriated, after he had caused his head to be cut off,¹ or they were presents made to him after he ascended the throne. I have elsewhere remarked that this King has no great regard for jewels, priding himself only on being the great zealot of the law of MUHAMMAD.

AKIL KHÁN also placed in my hands (for he allowed me to examine all at my ease) two other pearls, perfectly round and equal, each of which weighed twenty-five and a quarter ($25\frac{1}{4}$) *ratis*. One is slightly yellow, but the other is of a very lively water, and the most beautiful that can be seen. It is true, as I have else-

¹ This statement is important, as we know that Sháh Jahán, who was still alive at this time in prison, had with him a great number of his precious stones, which were not handed over to Aurangzeb till after his death, when Jahánará Begum presented him with a gold basin full of them (see pp. 342 and 344). According to Bernier, however, some had been previously given to Aurangzeb by Sháh Jahán during his lifetime. Moreover, Aurangzeb, in a letter written to Sháh Jahán at the time when he arrested him, acknowledged the gift of Dára's jewels by letter. Dára was left about £4,000,000 worth of gold and jewels by his grandfather, Asaf Khán, who passed over his own sons Sháístá Khán and Nawáz Khán—perhaps because the Mogul, according to custom, might have declared himself the heir, so that they would have derived no benefit. But Asaf consoled himself with the reflection that he left his sons in good and highly lucrative positions, which was a better provision for them.



where said, that the Prince of ARABIA, who has taken MUSCAT from the Portuguese, has a pearl which surpasses in beauty all others in the world; for it is perfectly round, and so white and lively that it looks as though it was transparent, but it only weighs fourteen (14) carats. There is not a single monarch in ASIA who has not asked this Prince of ARABIA to sell him this pearl.¹

Also two chains, one of pearls and rubies of different shapes pierced like the pearls; the other of pearls and emeralds, round and bored. All the pearls are round and of diverse waters, and from ten to twelve (10 to 12) *ratis* each in weight. In the middle of the chain of rubies there is a large emerald of the "old rock,"² cut into a rectangle, and of high colour, but with many flaws. It weighs about thirty (30) *ratis*. In the middle of the chain of emeralds there is an Oriental amethyst,³ a long table, weighing about forty (40) *ratis*, and the perfection of beauty.

Also a *balass*⁴ ruby cut in *cabuchon*, of fine colour and clean, pierced at the apex, and weighing seventeen (17) *melscals*. Six *melscals* make one *once* (French).⁵

Also another *cabuchon* ruby of perfect colour, but slightly flawed and pierced at the apex, which weighs twelve *melscals*.

¹ See Book II, chap. xx.

² Precious stones were denominated "of the old rock" (*rocca velha*), when they exhibited more or less perfect crystalline forms, being considered more developed than those with amorphous forms.

³ The "Oriental" amethyst is a purple sapphire, and when perfect is of great beauty.

⁴ *Balet* in the original. (See p. 382, *n.*)

⁵ *Melscals* = *mishkals*. (See Appendix, p. 418.)



Also an Oriental topaz¹ of very high colour cut in eight panels, which weighs six *melscals*, but on one side it has a small white fog within.

These, then, are the jewels of the GREAT MOGUL, which he ordered to be shown to me as a special favour which he has never manifested to any other *Frank*; and I have held them all in my hand, and examined them with sufficient attention and leisure to be enabled to assure the reader that the description which I have just given is very exact and faithful, as is that of the thrones, which I have also had sufficient time to contemplate thoroughly.

¹ The Oriental topaz is a yellow sapphire (corundum). It was probably this topaz which Aurangzeb wore at his coronation. (See p. 372, *n.*) It was also mentioned by Bernier. Its weight, as given on page 372, was $181\frac{1}{8}$ *ratis*, or $157\frac{1}{4}$ carats (should be $158\frac{1}{2}$ carats), hence these should = 6 *melscals*, and the *melscal* = $30\frac{2}{10}$ *ratis*, or $26\frac{5}{12}$ carats. To the *mishkal* of Baber a weight of 40 *ratis* is attributed, so that either Baber's *mishkal* must have weighed absolutely one-third more than Tavernier's, or Tavernier's *rati* must have exceeded Baber's by one-third. The latter will be shown to be the case. (See Appendix.)

CHAPTER XI¹

Terms of the passport which the Nawáb SHÁISTÁ KHÁN sent to the Author, with some letters which he wrote to him, and the replies to them, in which the style of these countries manifests itself.

I COME now to the passport which the *Nawáb SHÁISTÁ KHÁN* gave me, and the letters which I wrote to him in reference to my affairs, and it is as much by these letters as by the replies which he made to me that the reader will be enabled to comprehend the style and manner of writing among the Indians. I also received a passport from the King himself, which his Majesty had already given me through *ZAFAR KHÁN*,² his uncle, to whom I returned it after having read it, because it was not couched in the language which I wished. I desired it to be without restriction, equally full and in the same style as that which I had received from the King of *PERSIA*, in virtue of which I had been exempt from all dues both in going and coming, whether I sold or did not sell; because the

¹ This chapter is omitted in the English translation by John Phillips, 1684.

² *Giafer Kan* in the original. He was brother of *Arjamund Begum*, afterwards called *Mumtáz-i-Mahal*, the lady for whom the *Táj* was built by her husband, *Sháh Jahán*. There is frequent mention of *Zafar Khán* in these pages, though he is not often referred to in other histories of India.



passport offered me on the part of the GREAT MOGUL was limited, and in the event of sale it required that I should pay custom dues on whatever I had sold. Although ZAFAR KHÁN assured me that it was the most favourable passport of this kind which the King had ever given, and that according to custom it could not be otherwise, nevertheless I was unwilling to accept it, and contented myself with that which I had held for some years from SHÁISTÁ KHÁN, which sufficed for me, and was as much esteemed as that of the King, or more so. It is true that the King did not require that I should pay any duty on account of what I had sold to him, and that the matter was done graciously.

Copy of the letter which the Author wrote to SHÁISTÁ KHÁN, uncle of the GREAT MOGUL, on the 29th of May 1659.

The least of the servants of your Highness, who prays to God for the prosperity of your Greatness, JEAN BAPTISTE TAVERNIER, a Frenchman, presents a request to your liberal bounty. You who are the Lieutenant of the King, who govern as his relative all the Kingdoms which are subject to the rule of his Majesty, who has placed under your direction the most important affairs of his Crown, the Prince invincible, SHÁISTÁ KHÁN, whom may God keep in his care.

It is now some years since I had the honour of presenting to your Highness, then Governor of the Kingdom of GUJARÁT, and residing in AHMADÁBÁD, some large pearls and other rarities, which were deemed worthy of your treasury, for which I received



a just payment and magnificent liberality. At the same time I received your instructions to return to EUROPE, to search for other rarities and bring them to you:¹ this I have done during the five or six years which I have spent traversing many European countries, where I have met with many beautiful objects and rare curiosities, which are worthy of being presented to your Highness. And as I heard, when at the Court of the King of PERSIA, that there were wars going on in INDIA, I sent by one of my servants the aforesaid effects and rarities by way of MASULIPATĀM; and when I reached SURAT some days ago, I received intelligence of the safe arrival of all.² If his Highness is willing to buy the aforesaid rarities, and desires that I should bring them into his presence, I beg to be given an order by which I shall be able to travel to him without any one causing me trouble *en route*. But if your Highness does not wish me to go to you I shall go to some other place. However, I await your orders at SURAT, praying God that He will keep you always in all kinds of prosperity:

Translation of the first letter which SHĀISTĀ KHĀN wrote to the Author in reply to the above.

GREAT GOD—

To the beloved of fortune, support of virtue, Monsieur TAVERNIER, Frenchman, my dear friend, know that your letter has been delivered to me, by

¹ These commands were given in 1654.

² What the postal arrangements could have been between places so distant as Masulipatam and Surat we can only guess—probably letters between the factories were conveyed mainly by sea. Special runners were employed by the Native Princes.



which I have learnt of your return to SURAT, and that you have brought with you what I asked. I have carefully considered all that you have written to me, with which I am much contented; wherefore, on receiving this, you should arrange to come to me, together with those things which you have brought; and be assured that I will render you all possible courtesy, and all the aid and profit that it is possible for you to wish for. Moreover, I send you the passport you have asked me for, recommending you to come quickly in order that I may see the things described in your letter. The quicker you are able to come the better, wherefore write more?

The 11th of *Chowal*, in the year of Muhammad 1069.

This which follows is written in SHÁISTÁ KHÁN'S own hand—

The chosen one among my most beloved, your request has been delivered to me. God bless you and reward you for having held to your word and kept your promise. Come quickly to me, and be assured that you will receive all sorts of contentment and profit from me.

This which follows is contained round his seal—

The Prince of Princes, the servant of the King,
victorious AURANGZEB.

Translation of the passport which SHÁISTÁ KHÁN sent to the Author.

GREAT GOD—

To all the agents and officers of the customs and tolls, to all the guardians of the roads, both great and



small, between the port of SURAT and the Court of JAHÁNÁBÁD. As Monsieur TAVERNIER, Frenchman, the most exalted and beloved of us, who is a servant of my household, comes to me from the port of SURAT, let no one, whomsoever he may be, and on whatsoever pretext, interrupt his way or his journey, or cause him inconvenience or trouble, but permit him to pass in all safety, so that he may be able to come into my presence with comfort ; and let each of the abovenamed see that he is accompanied through their respective jurisdictions, so as to facilitate his journey. I charge you specially with this matter, and let no one act otherwise.

Done the 11th of *Chowal*, in the year of Muhammad 1069.

Translation of the second letter written by SHÁISTÁ KHÁN to the Author.

To the most expert of engineers and the cream of good fellows, Monsieur TAVERNIER, Frenchman, know that I regard you as one of my dearest favourites and well beloved. As I have before written to you to come to JAHÁNÁBÁD and to bring with you the rarities which you have for me, now, by the favour and grace of the King, I have been appointed his Viceroy and Governor in the Kingdom of Deccan. Immediately on the receipt of his Majesty's orders I set out, on the 25th of the month of *Chowal*; for this reason it is no longer desirable that you should come to JAHÁNÁBÁD, but rather that you should make your way as soon as possible to BURHÁNPUR, where, with God's assistance, I shall arrive in the course of two months or thereabouts. I trust you will act in accordance with that which I write to you.



Reply of the Author to this second letter.

He who prays to God for your Highness, and for the increase of your greatness and prosperity, JEAN BAPTISTE TAVERNIER, Frenchman, etc., as in the first letter.

I have received the honour of the commands which your Highness has deigned to bestow on the least of your servants. Salutation to the *Nawáb*, the Prince of Princes. I gave myself the honour some days past to write by the messenger of your Highness, that after the rains I should not fail to go unto your presence at JAHÁNÁBÁD. Now that you direct that it is to be at BURHÁNPUR, I shall follow your orders and carry with me all the rarities which I have destined for your Highness's service.

Done the 10th of the month *Huge*.

Translation of the third letter written by SHÁISTA KHÁN to the Author.

The most beloved of my favourites, Monsieur TAVERNIER, Frenchman, know that I keep you fresh in my memory. The letter which you wrote me by my messenger has been received, and I have read it word by word. You write that the rains and bad roads have prevented your coming, and that after the winter you will come to seek me. Now that the rains are over,¹ and that I hope that in twenty-five or twenty-six days I shall be at AURANGÁBÁD, on receipt of this hasten to come to me. I believe you will not fail.

¹ *I.e.* the rainy season or south-east monsoon.



Done the 5th of *Sefer*,¹ in the first year of the reign of AURANGZEB.²

This which follows was in the hand of the Nawáb.

Dear friend, you will not fail to act according as I have written.

Reply of the Author to this third letter.

The least of the servants of your Highness, JEAN BAPTISTE TAVERNIER, Frenchman, prays God for the prosperity of your person, you who are the Lieutenant of the King, the channel by which his favours are distributed, of whom the title is venerable and full of respect, who are the near relative of the King, the Governor-General of his Kingdoms, to whom he refers the accomplishment of all matters of importance. You who are the Prince of Princes, I the servant of your Highness present this petition. Having arrived in this country in obedience to your orders, I have wholly trusted in your favour; and when I believed myself to be most laden with your bounty, I fell into the nets of MIRZA-ARAB, Governor of SURAT, for, having received the latest orders of your Highness, I went to take leave of him to go to make my salutation to you. He replied that he had written to the King in reference to my person, [and that in consequence he could not give me permis-

¹ The month *Sefer* or *Safar*, as Chardin has it, is the second month of the Persian lunar year.

² Tavernier elsewhere (p. 356) says Aurangzeb ascended the throne 1660, and hence Prof. Joret remarks that consequently he would have remained in Surat on this occasion more than fifteen months, which is inadmissible, as on p. 409 he says six months. This, adds Prof. Joret, is an almost insoluble difficulty. There is, however, a simple solution, namely, that Tavernier was in error in naming 1660 as the year of Aurangzeb's coronation, it having in fact been 1659. (See p. 371 n.; see also p. 31 n.)



sion to depart till he had received the reply of his Majesty. I represented to him that, having nothing with me, and that at my arrival in this port, not having been found possessed of any merchandise of importance passing through the customs, I was astonished that he had written to the King in reference to my person].¹ Disregarding all my arguments he did not alter his decision, and refused to give me permission to leave SURAT. Now all is in the hands of your Highness, to whom it is due that I should obey his commands, and that a person like MIRZA-ARAB should not be able to oppose his wishes with so formal a resistance.

Besides, not having my effects with me, as I have written to your Highness, my delay in SURAT causes me considerable loss, which must give you displeasure. Moreover, it will prevent merchants from coming to this port, and that will inflict considerable injury on the Kingdom. As for myself, I am resolved to burn my effects or throw them into the sea rather than allow any one but your Highness to see them. I trust that the great authority of your Highness will withdraw me speedily from the trouble I am in, and will enable me to go to pay you my respects. And I hope that the news of the favours which I have received from your Highness, when it shall reach France, will cause many great merchants to do business in this country, and then INDIA will know that the rare goods of the French and their precious curiosities put to shame all that has hitherto appeared in the country. This is what I deemed it necessary to write to your Highness. Dated at SURAT the 25th of the month *Rabi* and *Auel*.

¹ The portion between brackets is omitted in the edition of 1713, though given in those of 1676 and 1679.



All these letters and replies explain the reason why I delayed nearly six months¹ at SURAT. At length there came an express order from the *Nawáb* to the Governor of the town to allow me to depart, or otherwise he would have to resign his office. The Governor of SURAT was so much annoyed at being baffled that when I took leave of him he did not deign to look at me, of which I held him willingly quitted.

In consequence of the news which I had received that the *Nawáb* had parted from AURANGÁBÁD, I found him with the army in DECCAN, where he had besieged SHOLÁPUR,² one of the towns of *Raja SIVAJI*. I sold him what I had intended for him, and during the time that I was with him he gave orders that I should lack nothing, neither for my own mouth nor the feed of my horses. They brought me each day four trays of meat and two of fruit and sweetmeats; these for the most part fell to the share of my servants, because I was seldom permitted to eat in my tent.

The *Nawáb* gave orders that five or six *Rajas* or idolatrous Princes whom he had in his army should entertain me in their own manner. But their rice and vegetables, which constitute, as I have said, all their dishes, were so full of pepper, ginger, and other spices that it was impossible for me to eat them, and I left the repast with a very good appetite.

During this time the *Nawáb* fired a mine, which so much alarmed the inhabitants of SHOLÁPUR that they

¹ Tavernier's account of this same visit on p. 30 seems somewhat inconsistent with this, as he implies there was no delay, while the contents of the letters bear out this specific statement of six months (see p. 407 n.)

² *Choupar* in the original, on p. 31 written *Choupart*. It appears to be the same as the modern Sholápur in the Deccan.



yielded by agreement, on which account the soldiers, who thought to take the town by assault, were much annoyed, seeing themselves deprived of the hope of the loot which they had anticipated. On my departure the *Nawáb* wanted to pay me, but having represented to him that I had to pass through a disturbed country, and had to fear the followers of both armies, I asked him to allow me to draw the money at DAULATÁBÁD¹; this he granted willingly, and on an order which he gave me I was paid on the day following my arrival in that town. The treasurer who counted out the money to me said that he had received the advice four days previously by an express, and that the *Nawáb* had commanded him to pay me promptly; this shows the great precision of the Indians in matters of trade to satisfy debts without delay.

¹ *Dultabat* in the original, for Daulatábád, also called Deogir (see p. 160). Bernier describes this town as being fifteen or sixteen days' journey from Golconda, and calls it the capital of Deccan. (*History of the late Revolution*, etc., p. 37.) According to the statement on p. 33, this payment was made at Aurangábád, and by no means promptly, or with satisfaction to Tavernier. This is but another inconsistency in the narrative.



APPENDIX

*On the values of Coins, Weights, and Measures referred to by
Tavernier.*

I LIMIT myself here mainly to an interpretation of the values given by our author, not having space for any wider discussion of the question. He has been quoted as an authority, not always correctly, as I believe, in support of particular views, especially as to the value of the rupee. I think it can be demonstrated from the numerous relations which he gives between Indian coins and various European ones that it cannot have had a less average value than 2s. 3d. Sometimes, however, the evidence tends in the direction of a greater and sometimes of a less value.

The discrepancies are in part due to the varying values of coins bearing the same names in different provinces, and partly to the fact that European coins in Oriental countries, and Oriental coins in countries not their own, had two values—one the intrinsic, which was ascertained at the mints, and sometimes by actual conversion into the coin of the country, and the other the exchange value of the coins themselves when used as a means of purchasing in the marts.

This Appendix is supplementary to the foot-notes, but is at the same time intended to give a general and connected view of the subject.

French Money.

12 *Deniers* (money of account) = 1 *Sol* (*Sous Tournois*).

20 *Sols* = 1 *Livre* (money of account).

60 „ or 3 *Livres* = 1 *Écu*.

2 *Louis d'or*, old = 16s. 9d., new = £1:0:6; both according to Sir Isaac Newton. (*Assays, etc., of Coins at London Mint, before 1717.*)

It is of the utmost importance to establish beyond question of doubt the value of the above as they were employed by Tavernier.



Sir Isaac Newton's estimate of the value of the *écu* in 1717 was 4s. 6d., and the very frequent relations given between it and various other European coins by Tavernier clearly indicate, as will be apparent in speaking of them, and as has been shown already in the foot-notes, that a less value cannot be ascribed to it. Whence it follows that what Tavernier understood as the *livre*, or $\frac{1}{3}$ d of an *écu*, had a value of rs. 6d., and the same value is indicated by its relations to other well-known coins—as, for instance, the Dutch *guilder* (florin). From this again we obtain the deduction that the *sol*, as he uses it, which, from its small value, gives that of other coins with great nicety, was worth 0.9 of a penny; in other words, 10 sols = 9d.¹

Spanish Money.

The *piastre* and *reale* or *real*, as determined by Sir Isaac Newton, and as valued by Tavernier, were of equal value with the *écu*, being therefore worth 4s. 6d. Tavernier states that the former was equal to two rupees (*Persian Travels*, p. 238), i.e. 4s. 6d. also.

The double *pistole* or *Frederic d'or* was worth from £1 : 12 : 6½ to £1 : 13 : 3, the latter being Sir Isaac Newton's estimate. The single *pistole* he valued at 16s. 9d.

Portuguese Money.

Crusado.—According to Sir Isaac Newton, in 1717, the *crusado* = 2s. 10d. Other authors place its value as low as 2s. 3d., and there are various intermediate valuations.

Italian Money.

Croisart of Genoa and *Sequin* of Venice.

The *croisart* is once mentioned by Tavernier, Book I, chap. xiii; its value seems to have been about 6s. 6d. The *sequin*, according to Sir Isaac Newton, was worth 9s. 5.7d., and according to Yule and Burnell, *Anglo-Indian Glossary*, 111d., or 9s. 3d.

German Money.

Gulden, *Rixdollars*,² properly Reichsthalers (*Richedales* of Tavernier), and *Ducats*.

¹ The above computations, as well as those of the values of Indian and Persian coins, although made independently, agree exactly with those which are given in a table in the English translation of Tavernier, by J. Phillips, dated 1684.

² The rixdollar was also a money of account in several different countries.



The *gulden*, of which there were several different kinds, ranged from about 2s. 2d. to 2s. 4d., the double *gulden* being equal to about twice that amount. The rixdollars, of which there were many kinds, averaged, according to Sir Isaac Newton, about 4s. 7d. in intrinsic value; being, therefore, worth slightly more than the *écu*, or French crown.

The *ducats* averaged about 4s. 9d.

Dutch Money.

Gulden (*guilder* of Tavernier) or florin.—Its value in currency seems to have been about 1s. 9d. to 1s. 9½d., and to the *livre* it bore the proportion of 5 to 6, which gives a value for the latter of very nearly 1s. 6d.

Indian Money.

50-80 *Cowrie* (*corie* of Tavernier), shells (*Cypræa moneta*), = 1 *paisá*.

35-40 *Bádám* (*baden* of Tavernier), bitter almonds (*Amygdalus communis*, var. *amara*) = 1 *paisá*.

46-56 *Paisá* (*pecha* of Tavernier) = 1 rupee (p. 27).

14-14¼ Rupees = 1 gold rupee or gold *mohur*.

Also

Fanam (*fano* of Tavernier) = 4½d.; but some, of which six only went to the *écu*, were worth double, or 9d.

Pardao = 27 *sols*.

Pagoda, new = 3½ rupees; old = 4½ rupees and 2⅓ *écus*.

Passing the bitter almonds and cowries, we come to the *paisá* (or *pecha* of Tavernier). He says that it was worth about 2 French *liards*, but that there were coins of half a *paisá*, 2 and 4 *paisá*. At Surat 49 to 50, and sometimes only 46, *paisá* went to the rupee; and at Agra, nearer the copper mines, 55 to 56. Taking it at the average of 50, therefore, this coin was worth the 50th part of the rupee,¹ and it was also worth the 20th part of the *mahmúdí*. If the rupee, as shown below, was worth 2s. 3d., then Tavernier's *paisá* was worth .54 of a penny; but with the *mahmúdí* at 9d. its value would be only 0.45d. The former appears to be the safer figure to adopt, owing to the various relations given by Tavernier from which we can determine the value of the rupee.

The Rupee.—The simplest of these relations (*vide* Book I,

¹ Thevenot and Mandelslo make somewhat similar statements, but contradict themselves in other passages.



chap. II, and p. 385) is 2 rupees = 1 *écu*, or 4s. 6d.¹ ∴ 1 rupee = 2s. 3d. Tavernier frequently repeats his calculations in rupees, separately also in *livres*; these always indicate a ratio of 2 to 3, and, as we have shown his *livre* to have been equal to 1s. 6d., the rupee would again be 2s. 3d.²

In terms of the Spanish *reale*, 100 of which = 213 to 215 rupees, the latter must have had the intrinsic value of at least 2s. 1½d., and in terms of the rixdollar or reichsthaler, 2s. 1½d. These alone prove an absolute intrinsic value of upwards of 2s. 1d. The relations with Persian coins, to which reference has been made in the foot-notes, and the values of which are discussed below, support the ascription of values of from 2s. 1d. to 2s. 3d. for the rupee.

The *gold rupee*, or *gold mohur*.—All the evidence goes to show that this coin, as known to Tavernier, was worth at least from 31s. 6d. to 32s.; its equivalent was 14 to 14½ rupees, hence we may again deduce a value of at least 2s. 3d. for the rupee.

The *fanam* is of no importance in so far as Tavernier's calculations are concerned.

Pardao.—In three places (Book I, chap. xiii, and Book II, chaps. xii and xxiii) Tavernier gives for the *pardao* the value of 27 *sols* = 2s. 0.3d.; this is less than what is ascribed to it about this period in the *Anglo-Indian Glossary*, namely, 2s. 6d.

Pagoda.—Tavernier gives a number of different values for this coin. Thus, New P. = 3½ rupees, say 7s. 10½d.; Old P. = 4½ rupees (Book II, chap. xviii), say 10s. 1½d.; also = 7½ *livres* (Book II, chap. xxiv) = 11s. 9d., or 2½ *écus* (Book I, chap. xix) = 10s. 6d. In the table in the English translation above referred to, the *pagoda* = the *demi-pistol*, or 8s. 3d. The average value was therefore about 9s.

Persian Money.

2 *sháhis* = 1 *mahmúdi*.

2 *mahmúdis* = 1 *abási*.

5 *abásis* = 1 "or" ? (money of account).

50 *abásis* = 1 *toman* (money of account).

Sháhi (*chaes* of Tavernier).—According to Tavernier (p. 24), 200 *sháhús* = 29½ rupees, so that with the rupee at 2s. 3d. the value

¹ Bernier says the same.

² Terry gives the value of 2s. 3d. for ordinary rupees, and 2s. 9d. for the best (*Voyage, etc.*, London, 1777, pp. 67, 113, 167). Fryer and Mandelslo also give the value at 2s. 3d. Mr. Keene's ascription of only 1s. 3d. to the rupee seems to be based on an incorrect valuation of the *livre*, for which Tavernier cannot be held responsible. (See *History of Hindustan*, p. 211).



of one *sháhi* would be 3.98d., say 4d. As he elsewhere states the relation to French money to be 10 *sháhis* = 46 *sols* and 1 *liard*, ∴ 1 *sháhi* = 4½d., and Mandelslo (*Voyages*, English translation, p. 8) gives the value of one *sháhi* to be nearly 5d., I conclude, although the value is given at only 2½d. by Kelly in the *Universal Cambist*, that in Tavernier's time its value was from 4d. to 5d., say 4½d.

Mahmúdi (*mamoudi* of Tavernier).—Hence the *mahmúdi* would be worth between 8d. and 9d. Both Tavernier and Fryer represent it, however, as being worth ⅔ths of a rupee, so that with the latter at 2s. 3d. its value would be 10½d.; and Mandelslo (English ed., pp. 13 and 68) gives it the value of 1s., which would make the rupee 2s. 6d. Its range in value, therefore, was from 8d. to 1s.

Abási.—Tavernier, in his account of Persian money, says 1 *abási* = 18 *sols* 6 *deniers*, which would be about 1s. 4.65d. Mandelslo (p. 8) says 3 = 1 *écu*, and as we must give a value of at least 4s. 6d. to the *écu*, the *abási* would be worth 1s. 6d.; so confirming the intermediate values of the *sháhi* (*chaerz*) (4½d.) and of the *mahmúdi* (9d.) above given.

In his *Persian Travels*, 1st ed., 1676, p. 122, Tavernier states that 1 *or* = 5 *abásis*, or about 6s. 11¼d. with the *abási* at 1s. 4.65d., or 7s. 6d. with the *abási* at 1s. 6d. The *or* may have been a name used by the Franks much as we use the slang term "tin"; it corresponded to the Persian *zar*, which simply means money,¹ but Tavernier here gives it a definite value.

Toman.—Though generally regarded as a money of account, it is sometimes spoken of as though it had actually been a coin. At 50 *abásis*, as above, its value was £3 : 15s.; but Tavernier states that in India its value was 29½ rupees, which at 2s. 3d. would be only £3 : 6 : 4½. Tavernier also states that the *toman* = 46 *livres*, which at 1s. 6d. = £3 : 9s. Mandelslo gives it as = 5 *pistoles*, i.e. about £4 : 3 : 9. Fryer says £3 : 6 : 8; and Tavernier, in his *Persian Travels*, p. 122, says it = 15 *écus*, which at 4s. 6d. = £3 : 7 : 6. Probably about £3 : 9s. would be a fair average estimate. In 1821, according to Kelly (*Universal Cambist*), it only represented a value of £1 : 16s.

"*Tun*" of Gold.—According to Tavernier (Book III, chap. xxix), the *tun* was equal to 100,000 *gulden* (or Dutch florins), or 120,000 *livres*; and as these were worth 1s. 9d. and 1s. 6d. respectively, the value of the *tun* would be about £9000. I have not been able to find the term in any other work.

¹ Comp. Chardin, *Voyages*, Amsterdam, 1711, vol. iv, 277.

It is unnecessary to describe other Persian coins here, as they are not mentioned by our author in the Indian portion of his travels.

Chinese Money.

A money of account = 600 *livres* = £45 (see Book II, chap. xxiii, and *Persian Travels*) is referred to by Tavernier as a *pain*, i.e. a loaf or cake; probably it was represented in bullion by an ingot, to which the English applied the term "shoe."

WEIGHTS.

French Weights.

- 1 *grain* = .837 of a grain troy.
 24 *grains* = 1 *denier*.
 72 " (= 3 *deniers*) = 1 *gros*.
 579 " = 1 *once* = 482.312 grs. troy.
 16 *onces* = 1 *livre* = 1 lb. 4 oz. 1 dwt. 13 gr. troy, or 1 lb. 1 oz. 10½ dr. av.

Indian Weights.

Ghánchi (*gongy*).—The name of the seed of *Abrus precatorius*. 3 = 1 *val* ∴ 1 = 1.95 to 1.98 grs. troy (see *val*); but this value is too high for the ordinary *rati*, and too low for Tavernier's *rati* (see *rati*).

Carat.—In order to determine the value of Tavernier's carat, we may have recourse to one particular diamond of which he makes mention, namely, that belonging to the Grand Duke of Tuscany, which he figures and states weighed 139½ carats. From the foot-notes in Book II, chap. xxii, it will be seen that it is practically certain that this stone is the same as the one now known as the "Austrian Yellow," which weighs, according to Schrauf, 133½ Vienna carats, or 134 modern French carats, the latter differing very slightly from English carats. Hence we might deduce that Tavernier's carats were about 4 per cent lighter than the modern French carat. But the stone may have been polished, and have lost weight, or the difference of 5½ carats may be simply due to improved and more careful means of weighment.

If we could be quite sure that the *melscal* of Tavernier was the orthodox Persian *mishkal*, weighing about 74 grains troy, we should also have a means of testing the value of his carat, because he gives the weight of Aurangzeb's celebrated topaz in one place as 6 *melscals*, and in another as 181½ *ratis*, or 157¼ carats (more properly, at the



proportion of 8 to 7, it should be $158\frac{1}{2}$ carats), the equivalent of which would be 444 grs. troy, and a *rati* consequently would be equal to 2.456 troy grains, and a carat to 2.8 troy grains, or .37 less than the modern carat. Tavernier's *melscal*, however, seems to have been equal to from 80.38 to 83.7 grs. troy (see below), and the carat calculated from the latter equals 3.169 grs. troy—a very close approximation indeed to the modern French carat. From both the above we may conclude that Tavernier's carat differed but slightly, if at all, from the French carat of to-day. (See Preface, vol. ii, for correction.)

The *Rati*.—Tavernier, however, further says that 6 *melscals* = 1 *once*, and, therefore, as the French *once* = 482.312 grs. troy, the *rati* would be 2.66 grs. troy,¹ which is an approximation to its value, namely 2.77 grs. (see Book II, chap. xviii), when calculated at $\frac{2}{3}$ ths of the modern carat of 3.17 grs. troy; and a still closer approximation, namely 2.74, if we regard, as above, Tavernier's carat as being 4 per cent less than the modern carat. The average of these three gives a value of 2.72, which I conclude may have been about the value of the *rati* uniformly used by Tavernier, but I shall employ the 2.77 grs. as a more definitely arrived at sum in future calculations. This was the pearl *rati*, equal, as he himself tells us, to the *abás* (see Book II, chap. xxi, and *Persian Travels*, p. 238), which was used in Persia for weighing pearls. The value of the *abás*, as given by Kelly in the *Universal Cambist*, is 3.66 diamond, or 2.25 troy grains. This proportion is, I think, incorrect, as 3.66 diamond grs. = 2.9 troy grains, or 1 diamond grain = .7925 gr. troy.

The ordinary *rati* (the seed of the *Abrus precatorius*) varied from 1.75 up to 1.9375, the mean of which is 1.843 grs. troy. Mr. Thomas² has finally adopted 1.75 in his calculations. The above mean is identical with the value derived from the *tola* of Bábar of 177 grs. = 96 *ratis*. From the *mishkal* of Bábar Prof. Maskelyne has deduced values of 1.8425 to 1.85 grs. troy for the *rati*. General Cunningham³ and Mr. Laidlay, by weighment of the seeds, obtained 1.823 and 1.825 grs. troy,⁴ or only about $\frac{2}{3}$ ds of the *rati* of Tavernier. Another weighment by Mr. Blackie in the Bellary District gave an average of 2.142 grs.—the seeds in the south being larger.⁵

¹ The carat, calculated in the same way, would be similarly enhanced, and would amount to 3.043 troy grains, or within 1.27 of the modern value.

² *Numismata Orientalia*, New ed., Pt. I, pp. 13-14.

³ Royal Institution of Great Britain, March 1860. Cf. V. A. Smith, *Jour. As. Soc. Bengal*, Part I, 1884, p. 147.

⁴ *Num. Chron.*, vol. xiii, N.S., 1873, pp. 196-197.

⁵ *Proced. As. Soc. Bengal*, 1887, p. 222.

Mangelin.—Seed of *Adenanthera pavonina*, L.; it varied as follows:—

		If carat grains.		If ordinary French grains.
In Ramulkota (Raolconda)	= 7. grs.	= 5.55 grs.	troy	5.8 grs. troy.
„ Golconda and Bijapur	= 5½ „	4.36 „	„	4.6 „
„ Goa	= 5 „	3.96 „	„	4.185 „

The *Anglo-Indian Glossary* gives the average result of the weighment of 50 seeds of *Adenanthera pavonina* as 4.13 grs. troy; selected seeds gave 5.02 to 5.03 grs. troy.

Val (from Sanskrit *valla*) = 3 seeds of *Abrus precatorius*.

32 *vals* = 1 *tola* (*tole*) ∴ 1 = 5.86 grs. troy nearly (see *tola*).

81 „ = 1 *once* Fr. ∴ 1 *val* = 5.95 grs. troy.

Melscal of Tavernier. Arabic *mithkál* (or *mitskál*).

1 *melscal* = ⅓ of an *once*, or 80.38 grs. troy.

6 „ = 181⅓ *ratis*, or 157¼ (rather 158½) carats.

∴ 1 „ = 30⅓⅓ *ratis*, or 26⅓⅓ carats.

30⅓⅓ × 2.77 = 83.6 grs. troy; 26⅓⅓ × 3.17 = 83.8 grs. troy.

The average of these, say 83.7 grs. troy, is considerably in excess of the ordinary Persian *miskhál* of from 73.69 to 74 grs. troy; but it must nevertheless be accepted as representing approximately the *melscal* known to Tavernier.

Tola (*tole* of Tavernier).—1 *tole* = 9 *deniers* 8 grains = 224 French grains = 187.488 troy grains.

The modern British Indian *tola* = 180 grs. troy.

Seer or *Ser* (*serre* of Tavernier).

In Surat 42 *seers* = 34½ *livres*, Book II, chap. xii.

„ 40 „ = 34 „ „ „

„ 1 *seer* = ⅓th *livre*, Book I, chap. ii.

Agra 60 *seers* = 51¼ *livres*, Book II, chap. xii.

Bengal 1 „ = 72 „ } Book III,

„ 1 „ = for amber, etc. = 9 oz. } chap. xv.

From the above indications of the value of the Surat *seer*, we may conclude that it averaged nearly 13 French *onces* = 14.3 oz. av., and that the Agra *seer* was equal to 13.6 Fr. *onces* = 15.2 oz. av. In reference to the Bengal *seer*, the value 72 *livres* is possibly a copyist's mistake, and is certainly a blunder (see notes in Book III, chap. xv). The small Patna *seer* of 9 *onces* is probably right.

Thevenot, p. 52, gives the equivalent of the Surat *seer* at 14 *onces*, or 35 *talas*; and Mandelslo, English ed., p. 67, says 40 *seers*



= $30\frac{1}{2}$ *livres*, therefore 1 = 12.2 *onces*. To the Agra *seer* Thevenot gives the value of 28 *onces*.

Maund, *man*, Hin. (*mein* and *men* of Tavernier).

Tavernier's ordinary maund = 69 *livres*.

Indigo „ 53 „

Surat „ 42 *seers*.

„ „ 40 „

„ (Mandelslo) 40 „

„ (Thevenot) 40 „

„ (Fryer) 42 pounds.

We may therefore conclude that the Surat maund contained about 40 *seers*, at about 13 French *onces* to the *seer*, or 35.5 English pounds avoirdupois.

The maund of Agra contained 60 *seers* of 13.6 *onces*, or about 57 lbs. av. English, which corresponds approximately with a value of 55 lbs. given by Hawkins in 1610.

MEASURES OF LENGTH.

French.

The French *lieue* is generally given by Tavernier as the equivalent of the *cosse*, but as he recognises the variability of the latter, it must be considered that the adoption of the European term was determined rather by convenience than by any positive identity having been established by actual measurement. The old *lieue de poste* of France was equal to 2 miles and 743 yards.

Indian Measures.

The Indian measures which we have to investigate are the *tassu* (*tassot* of Tavernier), cubit, *cosse*, and *gos*.

24 *tassus* (*tassots*) = 1 cubit (*aune* of Tavernier).

(5000?) cubits = 1 *cosse* (*cosse*¹ of Tavernier).

4 *cosse* = 1 *gos* (*gos* of Tavernier).

The *tassu* (*tassot*) of Surat, as graphically represented in Book II, chap. xii, and in *Observations sur le Commerce, etc.*, in the "Recueil," is exactly equal to $1\frac{1}{2}$ in. English. The cubit of Surat was equal to 24 times that amount, in other words to 27 in. In Book I, chap. ii (see p. 38), the $\frac{1}{4}$ th of a Surat cubit as represented

¹ Misprinted *cosse* for *cosse* in Tavernier's first edition of 1676, and repeated in other editions, but corrected in the *errata*.



would indicate a cubit of about $\frac{1}{2}$ an inch less, but the same figure is said to be equal to only $\frac{1}{3}$ th of the Agra cubit, which would therefore be about $32\frac{3}{4}$ in. This is very near the *ilâhi gaz* of Akbar, namely 33 in. The *tassu* of Agra was, therefore, about $1\frac{1}{3}$ in. English.

The *Coss*.—As stated above, Tavernier regarded the *coss* and the *lieue* as equivalent values, frequent illustrations of which are pointed out in the foot-notes. In Book I, chap. iv, he speaks of the *coss* between Surat and Burhânpur as short, a cart being able to traverse one in an hour; but between the latter and Sironj the *coss* were longer, a cart taking up to five quarters of an hour; between Sironj and Agra they were common *coss*, of which there were 106; the true distance is about 220 miles. In general, I have found that the true distances indicate a value of 2 miles, approximately, for Tavernier's *coss*. Thus, between Golconda and Masulipatam the distance is given as 100 *coss*, the true distance being about 210 miles. Thevenot speaks of the *coss* as being equal to half a league; but his *lieue* must have been a double one, since, in the particular instance just quoted, he represents the distance as being 53 *lieues*.

The *Gos* of Tavernier appears to have been the same as the *gow* (Hind. *gau*) of some other authors, and this term is at present in use locally both in parts of India and Ceylon; but in the latter country it represents a smaller value than it does in the Peninsula, as stated in the note on page 47. In three different places, Book II, chap. xii, and in Book II, chap. xviii, the value of the *gos* is stated to be 4 *lieues*; in other words, 4 *coss*, or say from 8 to 9 miles, which is the value of the *gau* in S. India at present. According to Tavernier it was the unit of measurement between Surat and Goa, and was also used between Golconda and the Diamond Mines.

END OF VOL. I

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