

TRAVELS IN INDIA

BY

JEAN BAPTISTE TAVERNIER

BARON OF AUBONNE





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At the age of 74

1676

Rare section

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BARON OF AUBONNE

TRANSLATED FROM THE ORIGINAL FRENCH EDITION OF 1676

WITH A

BIOGRAPHICAL SKETCH OF THE AUTHOR,
NOTES, APPENDICES, ETC.

BY

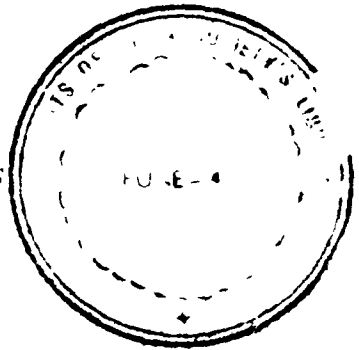
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IN TWO VOLUMES

VOL. I



London

MACMILLAN AND CO.

AND NEW YORK

1889

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PREFACE

TAVERNIER'S name, owing to its frequent mention in histories and in works on precious stones, has long been known as that of one of the most renowned travellers of the seventeenth century. Possibly it would not be incorrect to speak of Tavernier as in some respects the most renowned traveller during that period when so much was done to bring home to the people of Europe information about countries which had previously been but little known.

Such being the case, it is not only somewhat surprising that there should be so much error in the published accounts of his life, but also that his *Travels*, although they have been frequently issued in various languages, have not, as a whole, been subjected to critical examination and elucidation with the aid of our modern knowledge of the countries which they describe.

Of Tavernier's life and work Prof. Charles Joret has given an exhaustive survey in a recently-published monograph. In the present volumes it is sought to present an approximately literal translation of the portion of the *Travels* which refer to India, accompanying it by such identifications of localities with modern sites,

and such elucidation of obscure points, as have been possible under the circumstances.

As will be explained more particularly in the biographical sketch, the chief faults in Tavernier's encyclopædic volumes consist in a want of systematic arrangement of the subjects, a fuller and more carefully correlated chronology, and a reconciliation of really or apparently contradictory statements: such work, in short, as should have been done by the editors whom he employed, but which they appear to have either wilfully shirked or omitted to recognise as a part of their duty.

Upwards of two hundred years have elapsed since an English translation, that by John Phillips, has appeared; but owing to that translator's misconception of the author's meaning, through want of local knowledge, and to serious abridgment, it gives a very inadequate idea of the true merits of the work, which, except to those who have read it in the original, have therefore been practically unknown to English readers.

A word of explanation is due to the readers of these volumes as to how it has happened that the present editor came to undertake the onerous task of translation and annotation.

For a long time I have been well acquainted with the portions of Tavernier's works which deal with the economic mineral resources of India, and although I have published some accounts of these, having succeeded in identifying the sites of the diamond mines described by him, which were for a long time supposed

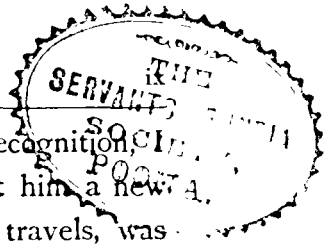
PREFACE

by authors to be beyond the reach of recognition, have felt that in order to truly represent him a new English edition, at least of the Indian travels, was much wanted, which would give his facts in their own setting and substantiate, by means of modern illustration, the strong claim which he has to be regarded as a veracious and original author.

Being fully mindful of my deficiencies as a philological and historical critic, I had, when further acquainted with the work, determined not to undertake the task myself, as I felt that such qualifications as I possessed, which were mainly derived from a long experience of travelling in India in connection with the Geological Survey of that country, would not make up for the lack of special knowledge in the subjects just alluded to.

Acting, however, under the advice of Colonel Yule, I commenced the translation and annotation in the year 1886, and have devoted the greater portion of my spare time since then to this work.

In speaking of the aid which Colonel Yule has ever been most ready to afford, I must guard against implying that the work has been completed in any way under his supervision; that for various reasons has not been possible, and it would be an ill return for so much assistance as I have received to lay upon him any responsibility for opinions which he has not had an opportunity of considering. At the same time the direct acknowledgments of his advice which are made in the footnotes by no means cover the extent of



my indebtedness, and I regret the impossibility of doing more now than to give expression to my gratitude to him for his labour and advice in these somewhat general terms.

To Mr. V. A. Smith of the Bengal Civil Service I am indebted for much assistance and advice while passing this first volume through the press. His departure for India has deprived me of a continuation of his valuable aid in connection with the second volume.

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 1s. 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 : 6 $\frac{1}{2}$ 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 2½ *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 *mahmúdi*. If the rupee, as shown below, was worth 2s. 3d., then Tavernier's *paisá* was worth .54 of a penny; but with the *mahmúdi* 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 *sháhis* = 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 (*mamouði* of Tavernier).—Hence the *māhmúdi* would be worth between 8d. and 9d. Both Tavernier and Fryer represent it, however, as being worth ¾ths of a rupee, so that with the latter at 2s. 3d. its value would be 10¼d.; 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* (*chaec*) (4½d.) and of the *māhmúdi* (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 *licres*, 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 *guldén* (or Dutch florins), or 120,000 *licres*; 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.

Ghūnchī (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 footnotes 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 $\frac{7}{8}$ 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.