In 1974 there appeared on the London art market two bound volumes of watercolours entitled ‘Views by Seeta Ram from Moorsheadabad to Patna. Vol. I’ and ‘Views by Seeta Ram from Secundra to Agra. Vol. IX’. Each of these volumes contained twenty-three large watercolours, normally on paper watermarked ‘John Dickinson & Co. 1810’, laid down on album pages some of which are watermarked ‘J. Whatman 1811’. The paintings were recognised immediately as among the greatest achievements of Indian artists in their response to the requirements of their latest patrons, the British officials, officers and merchants of the East India Company, which by 1810 was the ruler of nearly half of India. They all display a sophisticated grasp of the contemporary English topographical style of watercolour painting and engraving with aquatint, exemplified for India by such artists as William Hodges and Thomas and William Daniell, but far transcending their prosaic models in their poetic atmosphere. Sitaram, as we shall henceforth more correctly call him, is perhaps the first Indian artist since the great era of Mughal painting in the seventeenth century to be able to suggest the light and atmosphere of India. Although his grasp of perspective and recession in the European manner can sometimes fail him, it is his mastery of distances dissolving into the heat haze and of the changing light, with particularly atmospheric effects of evening light and moonlight, which marks his stature among Indian artists.

Nothing is known of Sitaram’s antecedents. He seems to have been trained in the late Mughal school in Murshidabad, the capital of the Nawab of Bengal, which, under increasing British influence from 1790, developed a spectacular if rather coarse style of watercolour painting of which the subjects were mostly processions and festivities. Artists from this school were also practising in Calcutta. No other work from his hand is known, although the titles of these two volumes suggest that another seven volumes of views remain to be discovered. As for his British patron, he clearly hired Sitaram at either Calcutta or Murshidabad to accompany him on a journey up the rivers Ganges and Jumna as far as Agra. The great rivers of northern India were the normal means of transport in the early nineteenth century. They alone were reasonably safe after travellers left the boundaries of British India at Allahabad and journeyed through country infested with marauders, until reaching the relative safety of the cities of Agra and Delhi, which had been in British hands since 1803.
A clue to the identity of the patron may be afforded by a third volume of drawings which accompanied the two Sitaram volumes in the sale. This is an album entitled ‘Views Connected with the Positions of the Army 1817–18’, bound in exactly the same format as the other two and with its watercolour drawings executed on the same paper as those by Sitaram, i.e. watermarked ‘John Dickinson & Co. 1810’. Two of these views bear the signature of Captain P. Y. Waugh on the reverse. Patrick Young Waugh (1788–1829) was in India from September 1805. He was posted to the First Native Cavalry regiment of the Bengal Army in 1806, with which he saw service in Bundelkhand in 1810-11 and the Third Maratha War of 1817-18: this latter campaign is that with which this volume of views is connected. Between 1819 and 1822 Waugh was in Rajputana with his cousin James Tod, the Political Agent to the Western Rajput States from 1818–22, and indeed succeeded him briefly as Political Agent from 1822–3. Since all three volumes are so closely connected, it would seem probable that Waugh was the owner of all of them, and at least possible that it was he who was Sitaram’s patron on a voyage up-river to Agra, at some stage during or just after his service in Bundelkhand. Waugh was himself a talented artist: some of his views of Rajputana were engraved for James Tod’s classic Annals and Antiquities of Rajasthan (London, 1829–32). He died at Shahpura in February 1829 as a result of an accident. Apart from a few minor bequests, all his possessions were left to his mother, Mrs Jesse Waugh.6

Several of Sitaram’s watercolours have returned to the market since 1974, and in 1986 the India Office Library was fortunate to be able to acquire one. This is the last, number twenty-three, from the volume of views of the Mughal monuments at Agra, which was the Mughal capital under Akbar (1556–1605), Jahangir (1605–27) and for part of the reign of Shah Jahan (1628–58). It bears the caption: ‘Doond Hanee or great Gun lying at Beessaram Ghaut at Agra’ (Plate I). Subsequent research has revealed many references to this famous gun, but at the time of the painting’s acquisition, its identity and especially its whereabouts were puzzling. A great gun, whose width at the bore is sufficient to allow people to crouch within it, lies dismounted by the river amidst the remnants of Mughal buildings. To the right is a red sandstone Mughal bastion, obviously of great height to judge by the passing elephant, and what appears to be a small shrine and a toran or sacred arch. In the distance, apparently across the river Jumna, the Taj Mahal shimmers in the heat haze, with to its right its great gateway of red sandstone.

No reference in local topography or early maps of the city has yet been found to this place called Beessaram Ghaut (a ghāt being a landing place on a river), but literary and visual evidence has gradually accumulated to reveal that the gun in fact lies below the north-east bastion of the curtain wall of the Fort. At Agra the Jumna runs north–south, while the city lies, apart from garden suburbs, on the river’s right or west bank. The east wall of the Fort, which was begun by Akbar in 1566, thus faces the river, protected by its lower curtain wall, and Akbar’s son and grandson crowned the high wall with their palace buildings. Figure 1, a plan of the Fort drawn by Shaykh Ghulam Ahmad about 1812–15, shows the layout clearly.7 The area north of the Fort was later completely changed by the building of a railway bridge over the Jumna, which erased all trace of its former name.
Fig. 2. The Malik-i Maidan gun on the ramparts of Bijapur; anonymous albumen print, about 1860.
IOLR Photo 394 (103)
Below the Fort the river swings round in a great curve to the east, and two miles downriver on the south bank Shah Jahan built the marble tomb of his wife Arjmand Banu Begum, known as the Taj Mahal. Shah Jahan, who was deposed by his third son Aurangzib in 1658, spent his last years immured in the palace at Agra from which the Taj Mahal can easily be seen.

The place having thus been identified, what of the gun itself? The name given to it in the inscription, Dhoon Hane, corresponds to the Hindustani dhūm dhānī, a gun’s great roar,\(^8\) and in fact it figures prominently in many of the accounts written by British visitors to, and residents of, Agra in the early years of the nineteenth century. Known as the Great Gun at Agra, it was one of the largest pieces of ordnance ever cast. Destroyed in 1833 before it could be properly studied, there is no original source for determining when it was cast, and opinions differed whether this was in the reign of Shah Jahan or of his grandfather Akbar. In 1833, it was found to weigh over thirty tons. It was fourteen feet two inches in length, and four feet in diameter at both ends, while the diameter of its bore at the muzzle, and hence its ball, was twenty-two inches. It was supposed to have shot such a ball over twenty miles from Agra to Fatehpur Sikri, Akbar’s ceremonial capital, and another to the town of Karauli. It was made of gunmetal, i.e. copper and tin in the ratio of 9 : 1. On the British capture of Agra from the Marathas in 1803, it was regarded as one of the great prizes in the campaign, for which the Government reportedly paid 70,000 rupees (£7,000 at the time) to its captors.

In fact, these great guns were not uncommon in mediaeval India. A very similar gun still survives at Bijapur, on the western ramparts of the city (fig. 2). Known as Malik-i Maidan, or Monarch of the Plain, it was cast in Ahmadnagar in 1549 by Muhammad son of Hasan Rumi, an Ottoman Turk. This was brought to Bijapur in 1632 and set up on its present bastion which was built specially for it. Its dimensions are slightly larger all round than those of the Great Gun at Agra, but it was apparently used to shoot vast quantities of grape-shot rather than single balls. Like the Great Gun, it was under worship in the nineteenth century, and nearly met a similar fate of being sold for scrap in 1854. It is made of the standard mixture of copper and tin, and Cousens calculates its weight as fifty-five tons. An even larger gun made of iron, formed of bars of square section welded together and bound with iron hoops, still sits upon the south wall of Bijapur—this one is twenty-one feet seven inches long, and has a diameter at the muzzle of nineteen and a half inches.\(^9\) A similar one of iron at Dacca, which was measured by Major James Rennell for his *Memoir of a Map of Hindoostan*, was placed on an island in the river, which, according to D’Oyly, was gradually eroded so that the gun sank into the river.\(^10\) It is likely that gun-founders from the Ottoman Empire, whose artillery was famous in the late mediaeval period, introduced the concept of these great guns into India. Cast originally to batter the walls of the cities of the Byzantine Empire, some forty of them, with bores measuring between twenty and twenty-nine inches, were cast in the fifteenth and sixteenth centuries to guard the Dardanelles. Twenty-one still existed in 1868, when one was presented to Queen Victoria and placed in the Woolwich Rotunda. These guns were normally cast in one piece, according to eyewitness accounts, a gigantic and immensely strong mould with
an inner core being placed muzzle downwards, and filled from the top with the molten metal from the adjacent furnace.\(^\text{11}\) The method of casting these guns in India would have been the same.

The Great Gun at Agra first comes into British documentation on the capture of the Fort from the Marathas, who had held it since expelling the imperial Mughal forces in 1785. The historical background is complex. The vacuum left in north India by the decline of Mughal imperial power during the course of the eighteenth century sucked in the Afghans from the north-west and the rising power of the Hindu Marathas from central India, while lesser powers circling round the decaying capitals included the Rohilla Afghans from Rohilkhand east of Delhi and the Hindu Jats from Bharatpur to its south-west. By the end of the century, the Marathas had come to dominate the whole of north-western and central India, and held the aged Mughal Emperor Shah Alam in Delhi, to whose person all the contending parties, including the British, paid deference as the source of legitimate power. The British were undisputed masters of eastern India, and, since the death of Tippoo Sultan at Seringapatam in 1799, of the south as well.

The expansionist policy of the Marquess Wellesley, Governor-General 1798–1805, precipitated a campaign against the Marathas. The Commander-in-Chief General Lake captured Delhi in September 1803 and then moved downriver to Agra, which he captured on 17 October.

Lake’s despatch to Lord Wellesley of 22 October 1803 details the returns of ordnance and ammunition captured in the Fort of Agra, and heading the table of the brass guns is ‘the famous piece known by the name of the Great Gun at Agra. It is said to be composed of many metals, including all the precious ones. Its ball measures 22 inches: such a one if of cast iron, weighs nearly 1500 lbs.’\(^\text{12}\) The balls fired from it would in fact have been of stone. Marble was normally used, and such a ball if of marble would have weighed 567 lbs.\(^\text{13}\)

Lake’s despatch does not indicate where he found the Gun. A Rajasthani miniature (Plate II) shows the Great Gun lying between the inner and outer gates of the Delhi Gate of the Fort. This is the main gateway towards the city of Agra, on the west side of the Fort as shown in fig. 1.\(^\text{14}\) Since this bird’s-eye view of the Fort (Plate II) shows sepoys (privates) of the East India Company’s Bengal Army,\(^\text{15}\) it must be datable between 1803, immediately after the capture of the Fort, and 1812 or 1813, when Sitaram painted the
gun under the north-east bastion. A visitor in 1812, Lady Maria Nugent (for whom, see below), records that the Gun was still near the Gate. Although it is possible that the Gun had been left in this position after an earlier attempt to move it from one of the Fort's bastions by the Jat leader Suraj Mall, the Rajah of Bharatpur, who captured Agra in 1761 and took many of the guns along with much other loot back to Bharatpur, there is no evidence that he moved it at all. On the other hand, General Lake appears to have planned to send the Gun home to the Prince Regent, so it is likely that it was at his orders that it was moved from its original bastion down to the Delhi Gate, but the attempt was abandoned. Between Lady Nugent's visit and that of the Marquess of Hastings in 1815, the Gun was moved round to the Jumna, near the north-east bastion, where it was painted by Sitaram. Lord William Bentinck's minute of 1832 (see below) indicates that this move was entirely unauthorised.

The Gun remained by the river at Beessaram Ghaut for the next twenty years. It is shown in many of the Company drawings of the east face of the Fort which, with drawings of the principal monuments of Agra and Delhi, were produced for British visitors. These drawings at their best combine a secure grasp of European perspective (derived from the type of work required for surveyors or engineers, who were active in the area from the 1780s, working for the Marathas) with an Indian painterly passion for precise and meticulous detail. Figure 3 comes from an early set in the India Office Library which was assembled by Captain George Steell of the Bengal Engineers, who was posted to Agra

Fig. 4. River face of the Fort; watercolour, 1826. IOLR Add. Or. 3253
from 1807 to 1813. Were it dated solely by its style and watermarks, this set would all seem
to have been painted before 1810, but the position of the dismounted Gun, lying at the
extreme right of the picture of the Fort, indicates that this drawing at least must date from
1812 at the earliest. Figure 1, the plan of the Fort of about 1812–15, also shows the Great
Gun in the top right corner. A drawing of the east face of the Fort made about 1826, from
a collection put together by James Chicheley Hyde of the Bengal Artillery, adopts in
common with other drawings of the period a more naturalistic standpoint, and shows in
miniature not only the Gun but also the little temple, arch and surrounding trees which
are all in Sitaram’s version (fig. 4).

With Agra and Delhi accessible after 1803, it was not long before British visitors arrived
on sight-seeing tours of the Mughal monuments. The Great Gun was commented upon
by many of them in their memoirs and diaries. A story soon current in Agra held that there
had been two similar guns (see citations below), both of which had been dragged round to
the river by General Lake’s men: one had been got onto a raft but had promptly sunk into
the sands of the Jumna, whereupon all attempts to move the other were abandoned. In
India many such stories have accumulated round these large guns; a story of a similar pair
is found in Dacca, male and female, one crowning the fort, the other lying below in the
river, and a peculiar booming noise made by the river is supposed to be the submerged
gun calling to its mate. Some such story must soon have been noised about in Agra. But
Lake’s ordnance report lists all the guns captured in 1803, and there is mentioned only the
one Great Gun. A conflation of the two stories found from as early as 1820 goes that there
was only the one gun, loaded on to a raft by Lake, and that it sank into the river.

Mrs Florentia Sale, whom we shall meet again below, opined in 1833 that Suraj Mall
may have taken the Great Gun’s twin back to Bharatpur, and that Lord Combermere, the
victorious Commander-in-Chief during the Bharatpur campaign in 1826, may have sent it
to England. Certainly a great Mughal gun was found in Bharatpur in 1826, which was sent
back to England to King George IV, who ordered it to be placed in front of the Royal
Artillery Barracks at Woolwich. This gun is sixteen feet four inches long, weighs
seventeen tons and three-quarters, and has a calibre of eight inches. It was cast in the
twentieth year of Aurangzib’s reign, A.H. 1087/A.D. 1677. Two other brass guns,
valued by the Prize Agents at £500, were presented to Lord Combermere by the Army.
These were exhibited at the Woolwich Rotunda before being reclaimed for Combermere
Abbey in 1850. However, their valuation and lack of comment in the sources about their
size, indicates that while formidable, they were in no way extraordinary. Thomas Seaton
in his memoirs mentions the great Mughal gun in Bharatpur, as well as some other
extraordinary guns found at the Jat fortress of Wer:

... a tremendous long, heavy brass gun, that threw every shot into our camp... On the walls of the
fort at Weer we found some enormous iron guns, built up something in the style of our present
Armstrongs, but with this difference, that over the inner core of longitudinal bars, forming the
bore, iron hoops, not coils, were shrunk on, over which came a layer of longitudinal bars, welded on
parallel to the bore, and outside these another layer of hoops shrunk on. The diameter of
these guns at the muzzle was enormous—something like three feet, and the bore was
small. I should suppose they were about 40-pounders. I don’t think any amount of powder would have burst them.21

The Wer guns were thus like the great iron gun at Bijapur described above.

One of the most splendid sets of drawings of the Agra monuments, notable for its full size copies of the inlaid tops of the cenotaphs of Shah Jahan and his wife, was assembled in 1812 by Sir George and Lady Maria Nugent.22 Nugent was the Commander-in-Chief of the Bengal Army, and visited the Agra garrison in 1812. In Lady Nugent’s journal, published many years later, she writes:

One of the gateways [of the town of Karauli] has a large stone exhibited on the top of its arch, to shew the size of the ball, said to have been fired out of the great gun at Agra, and lodged at this place, a distance of about sixteen miles!—We saw the gun, lying near one of the gates of the fort at Agra, and carved all over with sentences from the Koran, in Arabic characters. The natives hold it in great veneration, and make pilgrimages to worship it, firmly believing in the story of the ball reaching as far as this place.23

This is one of the key passages for elucidating the history of the Gun in the early nineteenth century, for if it was still at the Delhi Gate, then it cannot have been Lake who moved it round to the river. No documentary evidence has yet appeared to indicate who in fact was responsible for this move. Lady Nugent is, moreover, the only one of our journalists to record the presence of inscriptions on the Gun, which also find no place on any of the visual representations. Her recollections on this point were confirmed by a manuscript of copies of Mughal inscriptions in Agra, principally of the Taj Mahal, which she and her husband commissioned from the munshee (Persian scholar) employed by the Government to show the place to visitors. At the end of the manuscript are recorded the inscriptions on the Great Gun and on another gun called Zafar Bakhsh (see fig. 5 for the Persian and English texts). The English version reads (punctuation supplied, along with round brackets for Nugent’s additions to the Persian, and square for editorial ones):

(Inscribed on the great Gun and 72 pounder at Agra). Made by Usstad (master founder) Sultan Mahummud. Weight 1464 maunds six seers Ackbaree (7.9510b). In the reign of Ackber Shah the Fakere. Sultan Mahummud son of Abd-ul Ghefoor of Dehly. Year of the Hijereh 1038 (181 years ago) [1628-9]. (Length 14F: 121.) Also Shah Jehangeer son of Ackber Badshah conquered the Dakan by the grace of God.

On the 72R [i.e. 72-pounder, which the Persian identifies as called Zafar Bakhsh]: The Father of Victory the Life of Religion, Mahummud Ourungzeeb Alumgeer the Victorious Warrior of the Faith year of the Hejereh 1085 (134 years ago) [1674-5] made by Muttra Dass son of Ramjee in the 18th year of the Reign of Alumgeer;
(The ball of the great Gun if of cast iron would weigh 1500lb nearly—it measures 22 inches in diameter.)24

There are certain confusions in this account and indeed in the Persian original. Neither of them agrees with Florentia Sale’s ‘native accounts’ as she calls them or with other accounts cited below. The problems of the date of the Gun’s casting and its inscriptions
Fig. 5. Persian text of the inscription on the Great Gun and the 72-pounder, with translation.
Stowe Or. 17 B, f. 39
will be dealt with later when all the evidence has been presented. The probability is that
the inscriptions were almost completely obliterated when the Gun was dragged from the
Delhi Gate round to the ghaut by the river.

Three years after the Nugents, Lord Moira (later Marquess of Hastings, Governor-
General 1813–23) visited Agra. His visit is memorable chiefly for his decision to dismantle
the half-collapsed royal baths in the Fort, on the terrace opposite to the Hall of
Private Audience, in order to ship them down to Calcutta. He too gives us his thoughts on
the Gun:

From the cantonments to the place where our boat waited for us, the route lay under the walls of
the fort. Just at the Ghaut we saw the famous brass cannon. It is probably the largest, certainly the
most useless, piece of ordnance ever cast. It lies, without a carriage, on blocks of timber near the
ghaut, whence one infers there was at some period an intention of moving it elsewhere by water.
The transportation of it would not be difficult, but I am told that nothing would more painfully
affect the feelings of the inhabitants of Agra than the removal of this

In 1819 General Thomas Hardwicke, the Commandant of the Bengal Artillery, visited
Agra, and although he seems to have written nothing about the Gun, he was sufficiently
impressed with it to draw a detailed plan. This is now in the Hardwicke Collection in
Manuscript Collections (Add. MS. 11031, f. 66). The Gun is shown to be perfectly
cylindrical, with both muzzle and breech having a diameter of four feet, while the length is
fourteen feet two inches. Sitaram’s version in Plate I seems to make the gun wider at one
end than the other, but a close inspection reveals that this is owing to his inexperience in
suggesting recession in the European manner. A similar plan of the Gun appears in Col.
Fitzclarence’s Journal. The author comments:

The natives of India, and indeed of every eastern nation, seem to have been anxious at all
periods to render this destructive engine, from its size, more powerful than those of the western
world; and I have witnessed some curious instances of what may be called their extravagance in this
way. At Agra I have seen a gun more like an immense howitzer, above 14 feet long, 22½ inches in
the bore, into which persons can get . . . This gun was once supposed to contain much gold; and
even as old brass, it is valued at £7000; but if serviceable, it may be estimated at about £18,000. It at
present lies near the banks of the Jumna, outside the wall of the fort. An attempt was made to
transport it down to Calcutta, but its embarkation failed. I wished exceedingly, when I saw it on my
first arrival in India, that it should find its way to England, to be placed in St. James’s Park, near the
trophies of Africa and Europe represented by the Egyptian gun and Spanish mortar from Cadiz,
and thus complete the military tribute to the British arms from three quarters of the globe.

Other visitors to Agra in the 1820s commented on the Gun, but it would be tedious to
examine all of them in view of the impending destruction of the Gun to which we must
now turn. The end of this decade was a time of changing official attitudes, especially under
Lord William Cavendish Bentinck, Governor-General 1828–35. Bentinck was a reformer,
and under more than usually strict instructions from London to reduce costs and to save
money. One of his severest measures was to cut the ‘batta’ or allowances of certain officers
in the Bengal Army, which made him much hated, as shown by the normally genial
Seaton's spiteful description: 'His attempts to sell the Taj at Agra, and the bursting of the Great Gun for the sake of the metal, showed the meanness and baseness of his mind, and made him odious in the eyes of all. The gun was really a wonder, its dimensions being such that I saw a large artilleryman creep into it one day.'

The ideas of the Utilitarians had gained firm root in Indian government circles, and just as no future could be seen in still maintaining the dignity of the Mughal Emperor in Delhi by subscribing any more to his nominal sovereignty, so the obvious uselessness of the Gun, commented upon by Lord Hastings, inspired the idea of selling it for scrap to make something useful with the proceeds.

The subject of the Gun's disposal occupies many pages in the Consultations of the Bengal Government, the copies of internal correspondence and proceedings within India forwarded to East India House for the information of the Court of Directors. The idea seems to have been Bentinck's own, of selling the metal for scrap to finance the building of a permanent bridge of boats across the Jumna. Agra had had up to this time only a temporary boat bridge in the dry weather, as it was thought that the river rose too rapidly and flowed with too great rapidity in the rainy season, at the onset of which the temporary bridge was dismantled, and all communication between the two banks reverted to boat. A licence to operate a ferry service was farmed out to a local operator in return for an annual payment. Bentinck's first minute on the Gun's destruction is worthy of being quoted in full:

Amongst other subjects of curiosity at Agra is what is called the 'Great Gun'. The epithet is certainly well applied, for it denotes the only remarkable quality of this enormous mass of metal, which as a piece of ordnance is ugly, disproportionate and worthless. Had it been otherwise, had any elegance of its form been obvious to the eye, the inventive genius of the East would have given it a place in some eventful passage of Hindoo or Mahomedan history. As it is this Gun is not coupled with a single incident to render it an object of the slightest regard to any class of persons. Tradition seems not even to have fabled by whom, or where it was fabricated.

Nor is it in any sense considered a trophy of British prowess. It fell among other artillery into the hands of Lord Lake at the capture of the fortress but was not in any way interwoven with the occurrences of the siege. It proved valuable however to the captors; the Prize Committee having appraised it, on account of the supposed costliness of the metals, at, as I have heard, 70,000 rupees, which sum was paid to them by Government. A few years after its capture a clumsy attempt was made to send it down to Calcutta, which attempt either failing or being abandoned on the score of the expense the Gun now lies useless and neglected near a petty ghaut of the Jumna under an angle of the Fort.

Whether or not this Gun stands upon the public returns as stock, I do not know—probably a record of the payment to the captors of its estimated value, and of the unsuccessful attempt to remove it from Agra will be forthcoming in some public office. For my purpose, however, the absence of any notice of it on the records is immaterial, if I am right in assuming that the Gun as it lies on the bank of the river, is the property of Government. If it be so, and if I have correctly described it as being remarkable only for its bulk, the value of its metal, and the failure of the attempt to remove it, [it] can not be worth preserving in its present shape. As it is to be presumed also from what I have said that no feelings or prejudice will be offended by its being broken up, I
really think that an article so valuable as it is supposed to be owing to the quantity and quality of the metal of which it is composed, should not be allowed longer to remain useless at a petty ghaut.

I propose therefore that the Gun be offered for sale at Agra, in order to its being melted down; it will not probably fetch nearly the prize valuation amount; but if it bring half that sum, it will be admitted that so much money laid out in the execution of some useful public work will be a clear gain. I shall hereafter have the honor of stating in what manner I would make available the funds that may be realized from the sale of this Gun.

With a view of being enabled to estimate the value of the metal with some approach to truth, I shall instruct the Commissioner of Revenue and Circuit at Agra to employ, with the sanction of the Commandant, Captain Boileau of Engineers to separate small specimens of the metal—one to be assayed on the spot, and the other at the Calcutta Mint.

Captain J. T. Boileau, the Executive Engineer at Agra, established quickly that only copper and tin were present, and that neither gold nor silver, which popular imagination attributed to such antique cannon, was present at all. He submitted specifications of the dimensions, weight and potential value of the Gun, as well as an accurate plan, which has not survived with the official records in London, but of which his own copy was lithographed and published by J. H. Lefroy in 1870 (fig. 6). His final calculations showed the weight to be 67,618 lbs or thirty tons three cwts two qrs eighteen lbs or 845.9 maunds. His suggested valuations of between four and eight annas a pound would yield a total value of between 16,904 and 33,809 rupees. The analysis of the filings contributed by the Calcutta Mint showed variations in the mixture of copper and tin, but averaged out at about 92.7% copper to 7.3% tin near the muzzle and 88.3% to 11.7% near the breech. Boileau further suggested breaking the Gun up into twenty seer pieces (about forty pounds), to be sold by auction at an upset price of fourteen annas or one rupee (i.e. sixteen annas) per seer, which would yield about 33,000 rupees. The Governor-General eventually approved of this method of disposal. Investigations were undertaken by Boileau and by the Assistant Magistrate at Agra into the local market for copper and its price, which revealed that 300 maunds of copper were used per month in the city, obtained from the Mirzapur and Farrukhabad copper marts, so that the unloading of 845 maunds all at once would not glut the market. The Commissary of Ordnance at Agra, Captain T. Chadwick, reported on 21 June 1832 that the Gun had been drawn up from the Ghaut to the Tripolia (the triple-gate of the court linking the Delhi Gate of the Fort to the Great Mosque; see top left corner of fig. 1), and had been taken onto the books of the magazine at Agra. There was a minor altercation between the Commissioner, C. Macsween, and the Commandant, Colonel Robert Sale, over the subsequent release of the Gun to Government, but this was quickly resolved when the right pieces of paper arrived.

Bentinck minuted on 27 July his desire to build a permanent bridge of boats across the Jumna with the proceeds, and again his reasoning is worth quoting in full:

The assay of the composition of the Agra Gun proves, that tradition greatly overrated the quality of the ingredients of which the precious metals seem to form no part, its real value therefore falls somewhat short of my anticipations, but limiting to 30,000 Rs the amount which the sale of the
Gun may produce I incline to bring this sum into active use, instead of allowing it to be a dormant possession in its present shape.

2. Captain Boileau in a late letter expresses opposition that the natives on the spot may have scruples about the breaking up of the Gun, and Captain Chadwick the Ordnance Officer at Agra has expressed an opinion that the natives would preserve the Gun subscribe the amount of its value, but of the correctness of this supposition I have the greatest doubt, nor can I imagine what difference it can make to them whether it were broken up or as was intended some years ago it were removed altogether from the place. I should be concerned to offend any strong feeling by either course, but I am satisfied the scruples, such as they are, may be subdued by rendering whatever sum may be realized available for the execution of some universally acknowledged useful work in the neighbourhood of Agra. On any other ground I might hesitate in making the present suggestion.

3. Seeing therefore no objection on the score of these scruples to the sale of the Gun if the proceeds are appropriated in the manner proposed, I beg leave to recommend that a permanent boat bridge may be erected opposite the city as being in the opinion of Mr. Macsween the Commissioner a public work of very great general convenience and above all others calculated to promote the increasing commerce of this flourishing town.
The Great Gun at Agra; watercolour by Sita Ram, 1812–15. IOLR Add. Or. 4311
Buddhist cosmology manuscript showing the cosmic axis and Ananda, King of the fishes. Or. MS. 14004, ff. 22, 23
a) Detail from Burney's 'Life of the Buddha' Manuscript, showing the birth of Prince Siddhattha. Or. MS. 14297, f. 6

b) Jataka story painting. IOLR Bur. MS. 202, f. 110
There follows a summary of the complex minuting and correspondence between Agra and Calcutta about the feasibility of constructing the bridge of boats over the shifting bed of the river, and about its cost, as well as the potential revenue from tolls. The total cost was eventually estimated to be 41,630 rupees, from which Boileau subsequently deducted Rs 8,000, by making use of old iron guns instead of anchors, a move which must have pleased the economy-minded Governor-General.

On 13 November 1832, Boileau wrote to the Commissioner at Agra stating that his endeavours to have the Gun cut up had failed. This was communicated to Calcutta, and permission was given for application to be made to the Commissary of Ordnance for assistance (i.e. for gunpowder). On 16 August 1833 Boileau again wrote to the Commissioner that the Gun had been blown up (in a great pit which had been dug for it according to Mrs Sale’s account cited below), but that the breech part remained intact and still underground, where it would have to remain until the end of the rainy season; the pieces of the remainder of the Gun had been dug out, but the highest offer that he had received for the metal was sixteen rupees per maund (i.e. six and a half annas per seer). Boileau had no instructions to sell to the highest bidder, but only at the Government’s lower price of fourteen annas per seer, and awaited further instructions from the Commissioner. He was told to appoint a day for the sale at the Agra Kotwallee (Police Station), giving a full month’s notice, and put up a few lots at fourteen annas a seer to see if bidders came forward. On 20 August, the Commissioner informed Calcutta that the Gun had at length been partially broken up, but that he feared that the metal would not fetch the price expected by Government. The sale was held on 30 September, and Boileau and C. G. Mansel, the Acting Magistrate at Agra, reported that prices averaging thirty rupees per maund or twelve annas per seer had been obtained from the fourteen lots offered, a total of 156 maunds, yielding Rs 4,686, 4 annas. They were surprised that the price realised was so high, since assays conducted by the prospective purchasers in the city on large pieces of the metal (only small filings had been sent to Calcutta) revealed that 75% copper was the best to be expected rather than the 93% suggested by the Assay Master, while the bazaar price of pure copper was only seventeen and a half to eighteen annas per seer. The largest lot in the sale, of 100 maunds, was bought for 3,000 rupees by Kunhaee Tuksaleea (Kanhaiya Takshaliya), who offered to buy all the rest of the metal at a price of twelve annas per seer, payable on 1 April next, provided he was allowed to take away a whole maund for proper investigation. The Commissioner (now R. H. Boddam) reported all this to Calcutta, and was told that the arrangements for the sale of the remainder could go ahead as suggested.

On 3 December 1833, Boileau and Mansel wrote to Boddam about the funds now or expected to be available for constructing the pontoon bridge: in all over 60,000 rupees, consisting of funds accumulated from the ferry service and from tolls on the temporary bridge, while Rs 4,758, 12 annas were available from the sale of 158 maunds 25 seers of metal from the Gun, with the sum of Rs 20,741, 4 annas outstanding on the remaining 691 maunds 15 seers payable on 1 April. Boddam wrote on 18 December to Calcutta urging the immediate commencement of work on the bridge of boats, which would be a
key element in the spur road then being constructed to link Agra to the Grand Trunk Road between Delhi and Allahabad.\textsuperscript{37}

Yet despite the evident keenness at Agra to press ahead, it was not to be. The bureaucratic machine seemed unable to reach a final decision and issue the relevant orders. The letters were referred to the Military Board in Calcutta for another re-assessment of the plans, with questions as to the minutiae of Boileau’s intentions for construction. On 6 March 1834 Mansel and Boileau reported that the Gun’s destruction was now complete, the breech which was naturally impervious to gunpowder having been destroyed by fire. The total of metal resulting was now calculated as ‘688 maunds 5 seers of good metal, 18 maunds of metal mixed with charcoal and fluxed, and 76 maunds of metal recovered by washing the ashes after the destruction by burning of the breech of the Gun, total 782 maunds 5 seers. Of the above quantity 148.5 maunds has been distributed to purchasers and the remainder six hundred and thirty four maunds is in charge of the Executive Engineer 10th Division [i.e. the Agra Division] Capt. Sanders.’ The total expense of destroying the Gun amounted to Rs 1586. Boileau had been transferred as Executive Engineer to the Bareilly Division, despite his protests, as Government thought Captain Sanders was the best engineer they had for the construction of new Government buildings in Agra. This letter, which may have been prompted by Boileau’s imminent departure, but written only a few days before the impending sale of all the remaining metal for a sum in excess of 20,000 rupees and which made no mention of this all-important fact, when transmitted to Calcutta by Boddam drew down on the latter’s head the wrath of the Council. What, they wanted to know, caused the discrepancies in the figures, and above all, what had happened to this prospective sale?\textsuperscript{38}

What indeed? Searches of all the relevant series of Consultations have failed to find any further mention of the Gun and its metal.\textsuperscript{39} Yet Captain Sanders was left with about twenty–three tons of scrap copper in his godown, which as Government property could not be disposed of without authority. No doubt it was sold eventually, at even lower prices, or recycled for official use (of the fourteen lots sold on 30 September 1833, five of them had been purchased by various branches of Government and the army). It may even have helped in the construction of the permanent bridge of boats, which was finally in place in 1842, yet for all its painstaking effort to achieve something useful with the proceeds of the useless Gun, Government found it realised only Rs 4758, and of these 1586 had to be spent on destroying the Gun in the first place.

Besides the official record of the Gun’s destruction, there exist two other eye-witness accounts. Florentia Sale, wife of Robert Sale of the Thirteenth Regiment of Foot, who was Commandant at Agra 1831–5, kept a notebook, which is now in the India Office Library and Records (MSS Eur B 360). A sensitive observer of the great Mughal buildings around her, she records many interesting details about their condition at the time and the delapidation into which they had fallen as a result of Jat, Maratha and British occupation of the Fort. She gives the results of her researches on the Great Gun and minutely describes its final hours. We give her account as she states it, albeit with minor corrections of grammar and syntax:
When Lord Lake took the Fort there were two large guns found in it. One of them was many years since attempted to be taken to Calcutta and was actually got upon either a boat or raft. They then upset the Gun [which] sank in the sands of the Jumna and has never been recovered.

The other which laid for a long time under the Fort was a most unwilling awkward piece of ordnance. Government paid the captors 75,000 rupees for it and lately ordered it to be sold. Some native power wanted to become the purchaser but that not being approved of, and Lord William Bentinck not being able to get it conveyed to Calcutta to send it to England which was what he most wanted to do—orders were given to sell it piecemeal. This poor unfortunate gun was only taken into notice to undergo every species of torment. First they tried to melt it by making enormous fires under and around it. The obstinate metal would not yield. It was drawn up from the King's Bastion [the Shah Burj, at the north-east corner of the Fort] to the head of the street leading down to the ghaut near the Tripolia. It was attempted to saw the Gun asunder in slices in vain for they spoilt all their tools and could make but little impression. At length they tried the irresistible force of gunpowder. A large hole was dug about 25 feet deep wherein the Gun was deposited with 1000 lbs of fine powder in the chamber. The hole was filled up and all Agra was in anxiety, the natives were fearful that the explosion would throw down half the city which was depopulated for a night, the inhabitants bivouacing outside in consequence of which 4 children were carried off by wolves that night.

We all went down to see the sight—when the fuse was lighted a musket was fired to give notice for all persons to get out of the way. We went up to the top of the Tripolia Gateway from where we saw the earth heave up and subside again, there was a mighty dust but the sound was not so great as that of the signal musket, which gave 4½ minutes law to get out of no danger[?]. The concussion was said to be slightly felt at the Tripolia but I was not sensible of it. Those at the Customs House felt the shake. The Gun was burst on the 26th of June 1833. The next day Capt. Boileau brought me some of the metal to look at—it had not been melted and was badly mixed[?]. The metal was sold by public auction at 14 annas a seer—it will not work by beating and is only fit to cast and produced a sum very inferior to what Govt. gave for it.

She next cites the dimensions, weight, etc., of the Gun, omitted here, and includes plans of the Gun based on Boileau's measurements.

The Gun's name was Dhoondanee. The native accounts say of the two Guns, first that of which I have been giving a description—The Gun lying at the Shah Bourje, or principal Bastion near the ghaut, named Dhoondanee. By order of Shah Jehan in 1657 or the year of the Hezira 1068 this Gun was cast at Asseergurh by Muttra Dass son of Ramjee Mull who was then a Prisoner in the Fort. This Gun carried a Ball of 35 Seers weight.

The metal was a mixture of:

\[
\begin{align*}
1822 \text{ maunds of mixed metal valued at } & 1895 \text{ rupees} \\
5 \text{ maunds of silver valued at } & 7000 \\
25 \text{ seers of gold valued at } & 55840 \\
\text{Workmanship of the gold & silver} & 235
\end{align*}
\]

The whole value of the Gun 1 lakh 1090 rupees. The history of one of these Guns is said to be written on a black stone in the Fort which said stone I cannot find anywhere.

The other Gun [the one supposed to have been sunk in the Jumna] was cast by a man named
either Abdool Guffoor or Sultaun Mahomed a native of Delhi. The Gun weighed 1474 maunds. The highest maund in Akbar’s time was 47 lbs the lowest 34 lbs. This Gun was cast by order of Rajah Aga Chund in the reign of Akbar and the name of the Gun was Juffer Buckshht. Its components were

- 1000 maunds of various metal
- 300 maunds of brass
- 300 maunds of charcoal
- 1500 rupees weight of silver
- 1000 rupees weight of gold.

When Suraj Mull took Agra he carried away to Bhurtpore Deeg & Combire — guns and it is not likely that he should not have made prize of some of the large pieces of ordnance and when Bhurtpore was taken by the Army under Lord Combermere in — [1826] a large Gun was taken there and sent home as a curiosity to the King.45

The second eye-witness account is from the Agra local newspaper called the Mofussil Achbar, which is quoted by Fanny Parkes:

The utmost offer that has yet been made for the metal of the great gun is sixteen rupees per maund; it is proposed to put it up now for sale by auction, at the Agra-Kotwallee, in the course of next month; the upset price of the lots to be fourteen anas per seer. The destruction of the Agra gun, our readers are aware, has, for some time past, been entrusted to the Executive Engineer. As stated in the last Meerut Observer, an attempt was made first to saw, and afterwards it was intended to break it into pieces. In the mean time, it is lying, like Robinson Crusoe’s boat, perfectly impracticable under the Fort. Though there is a tradition in the city of its weight being 1600 maunds, it has not been found, on actual measurement, to contain more than 845 maunds of...46

The gun, from its size, is naturally regarded by the native population as one of the lions of our city. Of the Hindoos, too, many are accustomed to address their adorations to it, as they do, indeed, to all the arms of war, as the roop [manifestation] of Devee, the Indian Hecate.47 Beyond this, Hindoo tradition has not invested the gun with any character of mythological sanctity. The antiquaries of our city, indeed, say that it was brought here by the Emperor Acbar, perhaps from the fortress of Chittore. We have, however, ourselves been unable to find any mention of it in tawareek [chronicles] of that reign, or of any subsequent period. Among its other just claims to be saved from the hands of the Thatheras [metal-beaters], we must not forget the fact of its having once fired a shot from Agra to Futtiepoor Sicri, a distance of twenty-four miles. A stone ball now marks the spot where it fell... The fellow of the Agra gun is stated to be still embedded in the sands of the Jumna. Its destruction seems as unpopular with the natives as it is with the European community. Its doom, however, being, we believe, sealed, we are gratified to think that the proceeds of its sale are to be devoted to the erection of a permanent bridge of boats over the Jumna at this city, the estimate for which, the supposed value of the gun, with an advance of one or two years’ ferry tolls, is expected to meet...

A permanent bridge of boats or pontoon bridge was, however, eventually built, but it was not until the end of the decade. The Directors’ Despatches to Bengal for 1840 record their annoyance that as much as Rs 931 had been spent without authority on constructing a pattern boat for a pontoon bridge. On tracing back the documents, we find that the bill
was first submitted by the Military Board on 20 June 1834. Captain Boileau in a last effort to get the bridge project moving must have started experimenting, but his departure from Agra left the whole project in abeyance. Boileau was obviously a highly capable officer, who received the highest praise from his colleagues and superiors for his engineering and architectural skills (his greatest work was St George’s Church in Agra), but he suffered continual reprimands from Government for exceeding his estimates. In the long run this did not seem to have hurt his career, for he ended his Indian service as Commandant of the Bengal Engineers. However, the bridge of boats seems finally to have been made permanent in the cold season of 1841–2. The Consultations about its construction do not seem to have been sent to London, but the Lieutenant-Governor of the North-Western Provinces reported to Calcutta in December 1842 that the pontoon bridge at Agra had successfully withstood the previous rainy season, and this was duly passed on to London. It may be seen in Dr Murray’s photograph up-river from the Fort taken in 1856 (fig. 7), and there it remained until the coming of the railways made such bridges useless and it was superseded by a great iron bridge.

We will conclude by trying to fix the date of and the inscriptions on the Great Gun. Lefroy in his paper on the great Dardanelles gun at Woolwich published in 1870 cites further recent communications from Captain, now Major-General, Boileau as to the Great Gun at Agra, and in particular what Boileau made of inscriptions actually on the Gun before he destroyed it. Lefroy cites them as follows:

In the days of Shah.

<table>
<thead>
<tr>
<th>Sultan Muhammad Gulistan.</th>
<th>Weight</th>
<th>Date of year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19.99</td>
<td></td>
</tr>
</tbody>
</table>

and then quotes from a Hindustani guide book to Agra, presumably also supplied by Boileau:

One day the Emperor Shah Jahan Ghazu was seated on the Imperial Throne, he commanded who had made the gun Dhoool Dhanee. It was humbly represented the Raja Ujj Chund, Lord of Kunoj. He commanded Sooltan Muhammad Abd ool Ghufoor of Delhi to make a large gun.

Lefroy continues:

I am endebted to Major-General Boileau for the particulars of another monster piece of ordnance which rivalled, if it did not exceed, the Malik-i-Mydan [at Bijapur] in size. It was known by the name of Zufr Bukh, and weighed 1460 maunds, or 52 tons; the account is extracted by him from a pamphlet in the Hindoostanee language, published as a guide to the principal objects of interest in Agra, and which was formerly sold by the vendors of objects of art and curiosity in that city. The actual date of fabrication does not appear, but it was anterior to A.H. 1047, or A.D. 1627.

Written on the gun Zufr Bukh (Dispenser of Victory), which was in the Fort.

The work of the artist (Oostad) Sooltan Muhammad. Weight of the gun one thousand four hundred and sixty maunds, 6s seers.
Fig. 7. View of the palace exterior and the bridge of boats; albumenized salt print by John Murray, about 1856. IOLR Photo 101 (5)
Afterwards in the time of the Emperor Jalal Ordun Mohammad Ukbar Ghazu the Poor and Vile [i.e. Akbar]
Sooltan Muhammad abd ool Ghufoor of Delhi, in the year 1037 of the Holy Hegira wrote.
The Emperor Juhangur, son of the Emperor Ukbar, conquered the Dukhan by the favor of God.

There is a direct conflict of evidence over dating and inscriptions. Lady Nugent's memoirs state that the Gun was covered with inscriptions, and in a manuscript prepared by a munshee at Agra for her, the Persian text of the inscription is cited, stating that it was made by Ustad Sultan Muhammad of Delhi son of Abdul Ghaffur in the reign of Akbar, and weighed 1464 maunds.53 There is also mentioned the date A.H. 1038/A.D. 1628–9, which is possibly the date the inscription was put on the Gun, no inscription having been added when it was actually cast. The Nugent manuscript also mentions another gun called Zafar Bakhsh, which was much smaller, a mere seventy-two pounder, cast in the reign of Aurangzib by Muttra Das in A.H. 1085/A.D. 1674–5. The authority of the Commander-in-Chief on the size of Zafar Bakhsh seems unimpeachable.54

In Mrs Sale's account, the Great Gun was cast in A.H. 1068/A.D. 1657, by Muttra Das at Asirgarh. She does not give its weight, but her list of components makes the Gun weigh in excess of 1827 maunds. Another gun, called Zafar Bakhsh, which had vanished, was cast by Sultan Muhammad on the orders of Rajah Aga Chund in the reign of Akbar; it weighed 1474 maunds. She gives a drawing of the Great Gun in her manuscript, which like those of Hardwicke, Fitzclarence and Boileau as reproduced by Lefroy, gives no indication of the presence of inscriptions.

A third account, cited by Lefroy from Boileau, cites the fragments of an inscription from the Great Gun itself; another story, claiming the Gun was made for Ajij Chund (which seems a variant of Aga Chand in the Sale version), and that Shah Jahan ordered a rival to it to be made by Sultan Muhammad [son of] Abdul Ghaffur; and a full inscription on the now vanished Zafar Bakhsh gun which is virtually the same as that claimed by the Nugent manuscript to be on the Great Gun itself, as well as being nearly the same weight.

Both the Sale and the Boileau accounts of Zafar Bakhsh are based on the popular Hindustani guide-books circulating in Agra, and neither of them can demonstrate what happened to this other enormous gun; for Mrs Sale's account of its sinking into the Jumna there is no evidence whatever, nor for its being taken to Bharatpur, nor indeed for the very existence of another gun of this size in the Fort when captured in 1803. We are surely justified in believing the Nugents' account of the guns and their inscriptions. As to the reason for the transference of the size and characteristics of Dhoon Dhanee to the much smaller Zafar Bakhsh, perhaps the ambiguity of the arrangement of the copies of the inscriptions in the Nugents' manuscript was reinforced by further copying of the text for the guides to the city, and the phrase referring to Zafar Bakhsh was taken to have relevance to the inscription before it rather than to that after it, as the Nugents rightly took it. Some time between the Nugents' seeing the Great Gun and having its inscription copied, and the investigations undertaken by Captain Boileau in 1832, the inscription became so damaged as to become unreadable. The likelihood is that this was when it was
dragged round from the Delhi Gate by unauthorised persons just after the Nugents' visit. Sitaram arrived shortly afterwards and painted his version of the Gun in its new position.

Crown copyright material in the India Office Records is quoted by permission of the Comptroller of Her Majesty's Stationery Office.

1 Sotheby's sale of Oriental Manuscripts and Miniatures, 9 July 1974, lots 263-4.
2 William Hodges's *Select Views in India* (London, 1785-88) and Thomas and William Daniell's *Oriental Scenery* (London, 1795-1808) are the principal publications which influenced Indian topographic drawing.


5 Sotheby's, ibid., lot 265.
6 Personal information on Waugh comes from his service record in the India Office Records, as recorded in V. C. P. Hodson's *List of the Officers of the Bengal Army* (London, 1927-47), and from the Accountant-General's records.

This early plan has also recently been acquired by the India Office Library. Drawn with pen-and-ink and watercolour on squared silk, the walls, gateways and principal palace buildings are rendered in elevation, and the remainder in plan. Although far more accurate than traditional Indian bird's-eye views such as Plate II, it none the less cannot be regarded as completely so, as for example the bend in the east wall under Shah Jahan's Musamman Burj has not been depicted, doubtless because it would have caused impossible difficulties in rendering the elevation of the buildings above it. The inscription in Persian records that the plan is the property of Shaykh Sharaf ad-Din Ahmad, son of Shaykh Gulam Ahmad the draughtsman, pensioner (obviously of the East India Company), and resident of the Pipal Mandi district of Agra.

8 An alternative name is dhul dhani, found for example on Plate II and in Lefroy's account (see note 11), meaning 'sound of a thump', or possibly related to dhul dhanf, found for example on Plate II and in Lefroy's account (see note 11), meaning 'sound of a thump', or possibly dhul dhani 'trampled into dust'. The traditional meaning of the Gun's name seems to be 'Scatterer' or 'Disperser'.


22 This and the accompanying manuscript, which the Nugents gave to the Marquess of Buckingham, entered the British Museum with the rest of the Stowe collections (Stowe Or. 17 A and B). They bear inscriptions noting the price paid for each, from fifteen rupees to thirty, for the most elaborate and detailed of the drawings (ten rupees equalled one pound sterling).

23 Lady Maria Nugent, A Journal from the Year 1811 till the Year 1815 (London, 1839), vol. i, p. 373.

24 Stowe Or. 17 B, f. 39. I am indebted to Professor Wayne Begley of the University of Iowa for pointing out this reference to me. Indian weights were measured by maunds and seers, of variable quantity. The Akbari maund here used is equivalent to 46.18 lbs. If the Gun were cast in the reign of Akbar, as stated, then the given date of 1628-9 presumably refers to the date of adding the inscriptions. It is also by no means clear what system of weights and measures Nugent is using.


28 Bengal Military Consultations, 16 April 1832, no. 23, IOR P/34/20.

29 Lefroy, op. cit., plate IV.

30 In British usage in north India, forty seers of just over two lbs each made one maund equivalent to eighty-one lbs. The maund used in Akbar's time was only half this weight—see note 24 above.

31 Bengal Military Consultations, 2 July 1832, nos. 6-10, IOR P/34/23.

32 Ibid., 9 July 1832, no. 56, IOR P/34/24.

33 Ibid., 30 July 1832, nos. 2-4, IOR P/34/25.

34 Ibid., 13 August 1832, no. 18, IOR P/34/25.

35 Bengal Criminal Judicial Consultations, Western Provinces, 19 October 1833, nos. 1-15, IOR P/140/43.

36 These figures when accumulated seem suspiciously round, giving a total weight of metal of 890 maunds and a total price of 25,500 rupees.

37 Bengal Criminal Judicial Consultations, Western Provinces, 30 December 1833, nos. 13-16, IOR P/140/45.

38 Ibid., 7 April 1834, nos. 6-8, IOR P/140/57.

39 The Government of India Act of 1833 had established a new Presidency based at Agra for what had been the Western Provinces of the Bengal Presidency, and the whole business of the sale of the Gun's metal seems to have been lost sight of in the transfer of the details of administration from Calcutta to Agra.

40 If by 'large guns' Mrs Sale means the Great Gun and another equal to it in size, then there is in fact no evidence for this assertion, other than Lake's and then an unknown person's attempts to get the Great Gun embarked. It is, however, possible that, after the Great Gun was abandoned by the river, the seventy-two-pounder known as Zafar Bakhsh was attempted to be embarked and came to a watery end, as this gun seems to have vanished. Mrs Sale believed that Zafar Bakhsh was almost as large as the Great Gun itself (see her account quoted above).

41 Again there is no evidence, and Bentinck's own minutes speak against this.

42 Both the date and the name of the caster contradict the inscription as reported in the Nugent account above. Muttra Dass according to that inscription cast the seventy-two-pounder. Indeed the ball of thirty-five seers or just over seventy pounds would correspond to the second gun, the seventy-two-pounder, in the Nugents' account.

43 Both this list and that for the next gun are unfortunately worthless as historical evidence, but interesting for evidence of the uncritical acceptance by unscientific British visitors of traditional accounts of monuments and antiquities. Mrs Sale has already stated that the Gun weighed no more than 845 maunds (i.e. British Indian ones), while its Akbari weight was 1464 maunds. The total value as stated, 101,090 rupees, is 36,120 rupees more than the sum of her given figures. The value of the 1822 maunds of mixed metal is obviously wrong, and would need to be twenty times more valuable to make the suggested total figure accurate.

44 The Nugent inscription gives the name Sultan Muhammad son of Abdul Ghaffur of Delhi as the caster of the Great Gun itself, which weighed 1464 maunds. Again Mrs Sale's figures do not add up. Juffer Bucksht is a garbled version of Zafar Bakhsh.
45 This is indeed true, but the Bharatpur Gun at Woolwich is not one of these great guns. See note 19 above.
46 Again confusion between Akbari maunds and British Indian ones.
47 Hence of course the temple and arch beside the Gun in Sitaram's picture.
49 Judicial Despatches, North-Western Provinces, 1 July, no. 10 of 1840, para. 37, IOL E/4/763, in reply to Judicial Narrative, North-Western Provinces, 12 September, no. 12 of 1837.
51 See note 11 above.
52 Lefroy takes the modern weight of the maund, i.e. eighty-one lbs, and calculates a total weight of fifty-two tons, rather than the Akbari weight of about forty-three lbs.
53 Although no mention of this particular Gun is found in the chronicles of Akbar's time, we may note here the reference in Abu'l Fazl's *Ain i Akbari*, trans. H. Blochmann (Calcutta, 1873), vol. i, p. 112: 'With the exception of Turkey, there is perhaps no country which in its guns has more means of securing the country than this. There are now-a-days guns made of such a size that the ball weighs 12 mans; several elephants and a thousand cattle are required to transport one.' Twelve Akbari maunds equals about 554 lbs, corresponding to the weight of the marble ball calculated for the Great Gun.
54 Since the Nugent inscriptions include the only references to the size of Zafar Bakhsh in European terms, i.e. as a seventy-two pounder, it follows that the Commander-in-Chief must actually have seen this gun in 1812. This was before the Great Gun had been moved round to the river; it is quite probable that Zafar Bakhsh was moved at the same time and that it was this gun which tumbled into the river.