(1) Number of pages 16

(2) Date of repair 16.12.89

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. & DEPARTMENT

G.O. No. / ~~B.P. No.~~	930 - W	Press. / Mis.
Dated	5. 4. 1886	~~198~~

5.4.89.

Not to be folded or roughly handled.

Archives —I 10,006-9 88

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

READ—the following letter from J. BURGESS, Esq., LL.D., C.I.E., Director-General, Government Archæological Survey, to the Chief Secretary to Government, dated Madras, 24th March 1886, No. 147 :—

In Government of India Resolution, No. $\frac{5}{95\text{-}113}$ of 15th March 1886, paragraph 3, it is sanctioned that "a small provision not exceeding Rs. 50 monthly may be made in each (Archæological) Surveyor's budget for clearing out jungle growth or performing such urgent petty works of conservation as may most conveniently be carried out by his party when surveying a monument." I have often wished that I could employ a small sum in this way in rooting out vegetation from old buildings, and only a day or two ago Mr. Rea reported to me that a fine temple now deserted is now being rapidly ruined at Nilagunda in the Harpanahalli taluk.

2. I have the honor to solicit that a sum of, say, Rs. 300, from the budget for conservation work, may be placed at the disposal of Archæological Survey, so that cases of the above kind may be dealt with by the Survey when met with and the cost defrayed out of this small allotment.

Endorsement on the above.

No. 585 C., Public.

Transferred to the Public Works Department who will place the necessary funds at the disposal of Dr. Burgess.

(By Order.)

FORT ST. GEORGE,
1st April 1886.

(Signed) E. S. LAFFAN,
Ag. Under Secretary.

ORDER—dated 5th April 1886, No. 930 W., Public Works.

A sum of Rs. 300 will be placed at the disposal of Dr. Burgess from the grant of Rs. 7,500 which will be provided * for conservation in the final issue of the Provincial budget for 1886-87.

* G.O., No. 852 W., dated 29th March 1886.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Public Department.
To Superintending Engineers.
To the Examiner, Public Works Accounts.

Exd. A. Aubert.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1886} Madras

PUBLIC WORKS.

Dated April, 5th.

Recd. *Encl.*

G.O., 5th April 1886, No. 930 W.

APRIL.

Conservation of Ancient Monuments

Promising to place a sum of Rs. 300 at the disposal of Dr. Burgess from the grant to be provided for — in final issue of the Provincial budget for 1886-87 for clearing out jungle growth and other such urgent petty works.

930

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

Demi-official from F. C. BLACK, Esq., dated 21st June 1883.
Letter from do. „ 23rd „ „ No. 85.

From F. C. BLACK, Esq., Assistant Engineer, to the Deputy Chief Engineer, Public Works Department, dated 9th July 1883, No. 100.

I have the honor to forward the estimate for the preservation of the Ancient Monuments at the Seven Pagodas, which estimate I have received back direct from the Curator with his remarks on the margin.

Enclosure.

SEVEN PAGODAS, MAHAVELLIPUR.

Estimate of the Probable Cost of Preserving the Alaiva or Shore Temple No. 6.

Report.

The Curator of Ancient Monuments states in his report for the year 1881-82—

This is a most remarkable monument, probably dating from the 8th or 9th century, and, if not the most early, is one of the best examples of structural primitive Dravidian architecture. * * * The stone masonry of the pagoda is much broken and displaced, and should be rendered secure and replaced. The interior should be cleaned out and the sand removed, so as to completely reveal the plinth of the exterior. Sand should also be removed to lay bare the outline of the walls which form the outermost enclosure. The removal of roots of creepers from the roof is important.

Replacing Masonry.—The number of stones to be rehoisted on to the enclosure wall is four of about 15 cwt. each. Five large stones of about 1 ton each have fallen out of the walls of the temple itself; also one of about 2¼ tons; also several of the smaller granite ornaments, which latter are, however, almost all missing. The bas-relief of Siva in the sanctum has also got partly shifted from its place. The walls have been originally covered with stucco, but the stucco having got removed, the surface of the granite has much decayed. This is especially the case on the south and east sides, where the salt spray has made the carvings indistinguishable. The granite likewise decays much at the joints and becomes very insecure. It is therefore suggested to fill up the joints with spauls and lime mortar, and thus repoint the whole building, which will do much to preserve it for a long while. This filling of the joints is absolutely necessary to prevent the stones from subsiding and ultimately falling out of the walls. The mortar under some of the corner eave stones has disappeared for a depth of 4 feet, and other large stones are nearly as insecure. The outermost enclosure wall has almost all fallen down, so it is not proposed to do anything in the way of rebuilding it.

Specification.—The mortar will be made of lime of burnt shells and sand, in the proportion of 3 of sand to 1 of lime. This makes excellent mortar. The spauls will be chips of granite from the neighbouring quarry. The hoisting of the stones will be done with a small three-legged derrick made from three stout poles and a 2½-ton differential block and chain.

Rehoisting and setting stones—			
Stones of 2¼ tons, 1	... ...	Tons	2¼
Do. of 1 „ 5	... ...	„	5
Do. of 15 cwt., 5	... ...	„	3¾
		Total ...	11
Rebuilding masonry	... ...	C. ft.	150

Removing sand—

Superficial feet	301 × ½	=	...	...	...	C. ft.	205
,,	109 × ½						
,,	1,000 × 1	=	...	...	...	,,	3,530
,,	1,000 × 1						
,,	1,530 × 1						
					Total, Sand ...		3,735

Pointing—

Superficial feet	...	...	...	...	...	...	...	2,983
,,	...	...	...	...	...	...	...	1,560
,,	...	...	...	...	...	...	...	444
,,	...	...	...	...	...	...	...	1,278
,,	...	...	...	...	...	...	...	1,071
						Total, Pointing ...		7,336

Summary.

Hoisting and setting 11 tons stone, at 10-0-0	...	...	Rs.	110
Removing sand cubic feet 3,735, at 3-8-0	...	...	,,	13
Pointing masonry supl. feet 7,336, at 4-0-0	...	...	,,	293
Lime masonry 150 cubic feet, at 25-0-0	...	...	,,	37
		Total ...		453

KRISHNA MANDAP No. 15.

The Curator of Ancient Monuments mentions—

The bas-relief representing Krishna with a group of herdsmen and cows is carved on the solid rock * * * The roof over this rock sculpture is built of masonry, and gives access to a stream of rain-water, thus destroying and wearing away the carvings and covering them with lichen. The roof should be made water-tight, and the interior as well as the carvings thoroughly cleansed. The front row of columns should be filled in with a frame of galvanized wire netting, and the centre fitted with a wicket gate under lock and key.

Leakage of Roof.—Since the report of 23rd June 1881 was written a channel has been cut on the slope of the granite hill as a catchwater, which will prevent any drainage from the ground above; but as a good deal of leakage still comes through the roof of the porch, it is proposed to remove the old concrete with which the stone-work was covered and make the roof quite water-tight with a fresh coat of concrete. The carvings in the temple will thus be preserved from further damage from water.

Frames of Galvanized Wire Netting.—The average price per superficial foot of these frames has been arrived at in the following manner:—The frames will be of teak-wood wrought, plain square, covered with galvanized wire netting of a large-sized mesh and attached to the side walls and columns by iron bolts ⅜ diameter let in to the granite, and fixed with a little Portland cement or best lime mortar.

For one frame 8 feet × 12½ feet = 100 square feet—

Teak-wood—

$2 \times 12\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4} = 2\frac{1}{7}$

$2 \times 8 \times \frac{1}{2} \times \frac{1}{4} = 1\frac{1}{2}$

Total ...	$3\frac{5}{12}$	at 4	...	...	13 10 0	
Wire netting 7½ × 12 = 90 square feet, at 6 annas			...	...	33 12 0	
Add for bolts and screws	...	...	...	...	0 6 0	
Labor of fixing—						
One day mason, at 12 annas	...	...	0 12 0			
Half day carpenter, at 12 annas	...	...	0 6 0			
Carriage, &c.	...	...	0 4 0			
			1 6 0		1 6 0	
					49 2 0	

Divide by 90 supl. feet for the area of netting Rs. 49-2-0 ÷ 90 = 8·73 annas.
Thus price is 8·73 annas per foot superficial.

Removing old concrete—

48 × 27½ × ¾ =	...	...	...	...	...	C. feet	1,320
New concrete—							
48 × 27½ × ½ =	...	...	...	...	...	C. feet	880
Galvanized wire netting.—							
7 × 12 =	...	...	...	...	...	Supl. feet	84
9 × 12½ =	...	...	...	...	...	,,	112
9 × 12½ =	...	...	...	...	...	,,	112
8 × 12½ =	...	...	...	...	...	,,	100
8 × 12½ =	...	...	...	...	...	,,	100
						Total ...	509
Cleaning carvings.—							
41 × 12 =	...	...	...	...	...	...	492
13 × 4 =	...	...	...	...	...	...	52
9 × 5 =	...	...	...	...	...	...	45
						Total ...	589

Summary.

Removing old concrete, cubic feet	1,320, at 1	...	...	13
Laying new ,, ,,	880, at 20	...	...	196
Galvanized wire netting, supl. feet	509, at 8·73 annas	...	...	278
Cleaning sculptures, ,,	589, at 3	...	...	17
			Total ...	504

CAVE No. 16, AN UNFINISHED ROCK EXCAVATION.

The orders of the Curator of Ancient Monuments regarding this cave are—

The second row of columns has been bricked up for dwelling purposes, and should be cleared The cave should be cleaned out and kept in custody; and, in order to prevent natives from damaging the interior by lighting their cooking fires, the front should be railed in with a stone railing or wall.

The walls to be removed are portions of nine walls, amounting in all to 162 cubic feet.

The fence wall to be erected in front will be in all 70 feet long, and it is proposed to make it 1½ feet thick by 3 feet high with a foundation of 6 inches deep. The wall to be constructed of rubble masonry set in lime mortar, but not plastered.

Dimensions—

70 × 2 × ½ =	...	...	...	...	...	C. feet	70
70 × 1½ × 3 =	...	...	...	...	...	,,	315
					Total ...		385

Summary.

Removing of walls, cubic feet 162, at Rs. 2	...	...	Rs.	3
Fence wall, cubic feet 385, at Rs. 20	...	...	,,	77
		Total ...		80

CAVE No. 21, KAPALISVARA MANDAP.

This cave is a small one with three inches situated very near the Gopis Churn. The Curator of Ancient Monuments has ordered the front of the cave to be fenced to prevent damage.

It is therefore proposed to erect a small wall of solid masonry round the front of this cave. The wall will be 30 feet long in front with returned ends of 5 feet each, making a total of 40 feet. It will be 3 feet high and 18 inches thick, with a small foundation of 6 inches deep. To be constructed of rubble masonry set in lime, but not plastered.

Dimensions—

40 × 1½ × 3 =	...	...	...	...	...	C. feet	180
40 × 2 × ½ =	...	...	...	...	...	,,	40
					Total ...		220

Cost—
Cubic feet 220 rubble masonry, at Rs. 20 ... ... Rs. 44

GANESA TEMPLE No. 24.

The Curator of Ancient Monuments states—

This temple is in fair preservation, but should have the three front openings between the pillars filled with frames of wire netting to prevent the inner chamber being damaged by use as a dwelling or cook-house.

The Ratha has been cleaned out and is now in good condition, the only things required being the addition of the frames of wire netting as ordered, the dimensions and cost of which will be as follows :—

Netting—
Superficial feet $2\frac{1}{2} \times 7$, $2\frac{1}{2} \times 7$, $3\frac{1}{2} \times 7$ = ... $8\frac{1}{2} \times 7 = 59\frac{1}{2}$

Cost—
Netting, $59\frac{1}{2}$ supl. feet, at As. 8·73 per foot ... ... Rs. 32

THE VAISHNAVA CAVE No. 25.

The Curator of Ancient Monuments has ordered—

The openings between the columns should be filled in with wire netting and the front cleared of debris.

Quarrying should be absolutely forbidden.

No quarrying is now going on at this spot.

The dimensions of the openings to be filled in with netting, and the cost will be as follows.

The openings are three in number with a total superficial area of 153 feet.

A sketch in the report of the Curator, dated June 1881, shows the manner of putting in these gratings at this cave.

Cost—
Galvanized wire netting in teak-wood frames, superficial feet 153, at 8·73 annas ... ... Rs. 83

No. 27, RAVALA GOPURAM.

It is proposed to excavate the earth from round this unfinished Gopura and cut-root the scrub jungle as ordered by the Curator of Ancient Monuments.

The dimensions are as follows :—

50 × 11 × 2 =	...	C. feet	1,100
30 × 5 × 2 =	...	„	300
30 × 5 × 2 =	...	„	300
30 × 5 × 2 =	...	„	300
10 × 10 × 3 =	...	„	300
10 × 10 × 3 =	Total ...		2,300

Cost—
Clearing earth and stones, cubic feet 2,300, at 4 ... ... Rs. 9

CAVE No. 32, THE MAHISHMARDINI MANDAP.

The sculptures in this cave are very good; the one of Durga and Mahishama especially so.

The orders of the Curator of Ancient Monuments are as follows :—

One of the four front pillars has completely fallen, and might, for appearance sake, be replaced; but the rock above is so massive that there is no actual need of support. The sculptures should be cleaned and the front openings closed with frames of wire netting.

The pillar, which will contain 9·6 cubic feet, will cost, it is believed, Rs. 1-8-0 per cubic foot.

The openings in front are five, $5 \times 5 \times 10\frac{1}{2} = 262{\cdot}5$ superficial feet.

Cleaning sculptures—

18 × 8 =	...	104
13 × 8 =	...	104
4 × 12 =	...	48
5 × $1\frac{1}{2}$ =	...	$7\frac{1}{2}$
	Total ...	$263\frac{1}{2}$

Summary.

Pillar, cubic feet 9·6, at Rs. 1-8-0	Rs.	14
Netting, superficial feet 262, at As. 8·73	„	143
Cleaning sculptures 263, at Rs. 3·00	„	8
Total ...		165

No. 34, OLAK ANESVARA TEMPLE.

The orders of the Curator regarding this temple are—

Debris ought to be cleared away from the interior. Creepers should be out-rooted from the masonry and access made easier than at present, as visitors have to scramble over slippery rock to reach the building.

It is also now proposed to repoint the whole building as suggested for the Alaiva or Shore Temple No. 6. In the *Madras Journal of Literature and Science* for the year 1880 this temple is spoken of as follows :—

"This imposing relic is only the outer stone casing of a handsome structural temple which occupies the highest part of the rocks. * * * Outside it is very much weather-worn * * * and the whole structure looks as if it must soon fall down."

The joints are now so weather-worn as to be quite open in many places throughout the entire thickness of the wall, which makes them very unstable.

Creepers have already been removed from the masonry.

The best place to cut a path is on the south side of the temple, and at that spot it will be 21 feet long and of an average breadth of 2 feet.

Dimensions of pointing—

21 × 15 =	Supl. feet	315
21 × 15 =	„	315
15 × 15 =	„	225
12 × 15 =	„	180
12 × 13 =	„	156
17 × 13 =	„	221
17 × 13 =	„	221
9 × 13 =	„	117
3 × 3 =	„	9
	Total ...	1,759

Cutting path—
21 × 2 × ½ = ... C. feet 21

The debris has already been removed.

Summary.

Pointing, supl. feet 1,759, at Rs. 4	Rs.	70
Cutting path, c. feet 21, at „ 1-8-0	„	31
Total ...		101

THE SOUTHERN GROUP OF RATHAS Nos. 37, 39, 41, 42 and 43.

The orders of the Curator of Ancient Monuments as regards these temples are as follows :—

No. 37, Draupadi's Ratha.

The finial which surmounted the roof has fallen, and may probably be found in the sand, which should be removed so as to lay bare the plinth.

The sand has already been excavated from round this as well as from round the rest of the temples of this group. Two finials were found, one belonging to Draupadi's Ratha No. 37 and the other to Dharmaraja's Ratha No. 43.

No. 39, Arjuna's Ratha.

The clearing of the sand has already been done as mentioned.

No. 41, Nakula and Shadeva's Ratha.

The same remark applies.

No. 42, Bhima Ratha.

The clearing of sand having been done, and the large crack in the roof as well as the smaller ones filled up, it is now proposed to replace the portions of the lower cornice which have fallen off. The largest of these pieces has fallen from the south-west corner, in consequence of a vein in the rock. It weighs about 4 tons, and is triangular, sloping down to a point at the lower end. It can easily be replaced by cutting off the lower point square with the face and inserting a square block of stone in the building for the fragment to rest on.

Another large piece on the west side will be rather more difficult to replace, but with two large dowels it can be supported. A third fragment has fallen from the north-west corner, which can be supported and replaced as the fragment No. 1 will be.

Some cracks require filling in three of the pillars of this Ratha.

Summary.

Hoisting and setting fragments 7 tons total weight, at Rs. 10 per ton	Rs.	70
Dowelling to support fragments, 8 dowels of granite, at Rs. 2-4-0 each	„	18
Filling cracks, 12 lineal feet	„	1
Total ...		89

No. 43, Dharmaraja's Ratha.

The finial of this has been found and will be rehoisted. The parapet wall of one of the galleries has cracked in three places, and should be carefully filled with lime mortar. About 20 lineal feet require to be done.

Hoisting and setting finial ½ ton at Rs. 10	Rs.	5
Do. do. for Temple No. 37, Draupadi's Ratha	„	5
Filling cracks, 20 lineal feet	„	1
Total ...		11

CAVES Nos. 44, 46, 48, 50, 51, 52.

The orders of the Curator of Ancient Monuments as regards these are as follows:—

Means should be taken to prevent the interiors from being used as dwellings, cook-houses for fishermen or cattle-sheds; and this can only be efficiently done by fencing round the entrance so as to prevent access to any but authorised persons.

It is therefore proposed to erect low walls round the entrances of these caves, which will serve to keep out cattle, and also to prevent the caves being readily utilized as dwellings. The walls will be 3 feet high and of the same dimensions as those suggested for Caves Nos. 16 and 21.

The total length of wall for these will be as follows:—

Cave No. 44		
„ „ 46	L. feet.	36
„ „ 48	„	41
„ „ 50	„	69
„ „ 52	„	51
„ „ 51	„	68
„ „ 49	„	72
Total ...		337
337 × 1½ × 3 =		
337 × 2 × ½ =	C. feet	1,516½
	„	337
		1,853½

Summary.

Lime masonry, cubic feet 1,853½, at Rs. 20 ... ... Rs. 371

Employment of Custodians.—The Curator of Ancient Monuments has ordered three watchmen to be employed, in order that a proper relief may be observed.

It is estimated that 5 rupees per month would be sufficient wages for each of these men, which would be 60 rupees per annum, or a total of 180 rupees for the three watchmen.

Cost—

Three watchmen for one year, at Rs. 60 each ... ... Rs. 180

930/5

Abstract of Cost of Estimate for the Preservation of the Caves, Temples, and Sculptures.

Summary.

No. of Monument.	Name of Cave or Temple.	Rs.
6.	Alaiva or Shore Temple	453
15.	Krishna Mandap	504
16.	Panca	80
21.	Kapala	44
24.	Ganesa Temple	32
25.	Vishnu do.	83
27.	Rayal Gopura	9
32.	Mahishmardini	165
34.	Olak Anesvara Structural Temple	101
37.	Draupadi's and Dharmaraja's Ratha	11
42.	Bhima's Ratha	89
44, 46, 48, 50, 51, and 52	Caves, amongst which the two Koneri Caves, Nos. 51 and 52, are the most important	371
	Establishment (three watchmen)	180
	Total ...	2,122
	Contingencies, 5 per cent. ...	106
	Grand Total ...	2,228

(Signed) H. C. BLACK,
Archæological Engineer.

I approve the provisions of this estimate.

27th June 1883.

(Signed) H. H. COLE, Major, R.E.,
Curator of Ancient Monuments in India.

Order—dated 23rd July 1883, No. 2018 W., Public Works.

The estimate, amounting to Rs. 2,228, for restorative work at the Seven Pagodas, is sanctioned.

2. The question as to allotment of funds is being separately considered with reference to paragraph 2 of G.O., No. 1741 W., dated 21st June 1883.

3. This sanction has been registered as Provincial No. 75 W. of 1883-84 and classified as Civil Buildings, Repairs.

(True Extract.)

(Signed) R. H. SANKEY, Major-General, R.E.,
Secretary to Govt., P.W.D.

To H. C. Black, Esq., Special Assistant Engineer.
To the Curator of Ancient Monuments in India.
„ Superintending Engineer, Fifth Circle.
„ Accountant-General.
„ Examiner, Public Works Accounts.
„ Public Department.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated July, 23rd.

Recd. *Encl.*

G.O., 23rd July 1883, No. 2018 W.

JULY.

Seven Pagodas

Estimate for restorative work at the —, sanctioned.

930/6

No. 147 of 1886.

Address Go General Post Office
Madras
24th March 1886.

To

The Chief Secretary to Government
Fort St. George.

Sir

In Government of India Resolution No. 5/95-113 of 15th March 1886 para 3, it is sanctioned that "a small "provision not exceeding Rs 50 monthly "may be made in each [archaeological] "Surveyor's budget for clearing out jungle "growth or performing such urgent "petty works of conservation as may "most conveniently be carried out by "his party when surveying a monument". I have often wished that I could employ a small sum in this way in rooting out vegetation from old buildings, and only a day or two ago Mr Rea reported to me that a fine temple now deserted is now being rapidly ruined at Nilagunda in the Harpanahalli taluk.

2. I have the honour to solicit that a sum of say Rs 300 from the budget for conservation work may be placed at the disposal of Archaeological Survey, so that cases of the above kind may be dealt with by the

Survey when met with and the cost defrayed out of this small allotment.

I have the honour to be
Sir
Your most obedient Servant

Ja.s Burgess L.L.D. C.I.E.
Director General
Gov.t archaeological Survey

930/7

C.R. 1135/807

2018 W e3. 4. 83
1047 W 5. 5. 85
1352 W 10 6. 85
2995 W 5. 12. 84
1937 W 20. 8. 85
3071 W 19. 12. 85
852 W 29. 3. 86

No. 585 C.

Public

OUDRE'T NO. 1226

Brch 2637

930/5/8

Transferred to the Public Works Dept who will place the necessary funds at the disposal of Dr. Burgess.

By Order
Sy: Under Secretary

From Dr. Burgess
No 147.

Q 24.3.86
26.3.86

Rec 3/4/86

Fort Pg
1 April 86.

Entd- G.O. & 852 W dy 24-3-86 Note 2 P

No. 930 to dy 5 April 86.

A sum of Rs 300 will be placed at the disposal of Dr. Burgess from the grant of Rs 7500 which will be provided for conservation in the final issue of the Provl. Budget for 1886-87.

Public Dept.
Supdg: Engr.
Ex: Wrdects.

5/4/86

5.4.86

Soliciting allott of Rs. 300/- for clearing out Jungle growth &c

Bill ordd
With Endorst

2637

Govt. of Madras.

1886

PUBLIC WORKS.

Dated

Read. Encl.

G.O., 5 April 1886. No. 930 W

Conservation of
Reserved Trees:
Grant.

Promising to place
a sum of Rs 300 at
the disposal of Dr
Burgess from the
funds to be provided
for — in Final Issue
of the Prov. Budget
for 1886-87, for clearing
out jungle from the &
other such urgent
petty works

170
10

1886
5