Govt. of {1889} Madras.

REVENUE.

No. 1136 W d/ 31st May 1889

Communicated to officers of the Public Works Department in continuation of G.O. 1866 W d/ 22nd June 1888

1 d/ R.C.E.D.B.

W

Issued

Recd. *Encl.*

G.O., 30th April 1889, No. 324.

No. 1136 W d/ 31st May 1889

APRIL.

Famine Batta.

Prescribing the grains which should be adopted as the standard crops in the several districts for regulating the grant of — and considering that the batta should be regulated with reference to the prices not of the cheapest staple food-grain of the district but of the cheapest staple food of the servants to whom it is intended to afford relief.

C.E. for L

C.E. for Rys

S. Engrs

C.A. to Govt

Engr. P.W.A

Engr. Ry. A.

143b

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 10th January 1889, No. 13:—

W. WILSON, ESQ., M.A., C.S.

READ—the following G.O., dated 8th November 1888, No. 777, Revenue:—

ABSTRACT.—Passing orders on telegram from J. H. Garstin, Esq., regarding the grant of famine batta at Ganjam.

Resolution—dated 10th January 1889, No. 13.

The Board beg to submit the accompanying statements A and B, the former showing (1) the total area cultivated on the average of the five years 1883-84 to 1887-88 in each district of the Presidency, (2) the percentage of that area under food-grains and pulses, (3) the average area cultivated during the same period with food-grains and pulses only, and (4) the percentage of the several cereals and pulses to the area in (3); the latter giving the average prices of the various food-grains and pulses during the same series of years.

2. For the determination of what is the cheapest grain in ordinary use among the people it is necessary—

(1) to compare the prices of the various grains under similar conditions, that is to say, husked with husked, and unhusked with unhusked;

(2) to consider their comparative importance judged by the area covered by them.

3. The Board will therefore consider the facts of each district in turn—

Ganjam.—In Ganjam the cheapest food-grain is varagu, the average price of which was 34·4 imperial seers for a rupee. It is followed by second-sort paddy with 33·9 seers; next come cumbu with 33·6 and ragi with 31·8 seers. Varagu, however, represents only ·1 per cent. of the area covered by food-grains and pulses and cumbu only 1 per cent. Judged by their extent therefore neither of these grains, though cheaper than either second-sort paddy or ragi, has any title to be regarded as a staple of the district. As between second-sort paddy and ragi the former is the cheaper of the two, but no comparison of the respective areas covered by each is possible, for the distinction between first and second sort paddy is one made by the grain merchant and salesman, not by the ryot. The rice crop represents on the whole 66·7 per cent. and ragi 19·4 per cent. of the total area under food-grains and pulses. Ragi is largely and commonly consumed by the agricultural and laboring population, and, being cheaper than second-sort paddy, should be adopted as the staple for Ganjam for the purposes of famine batta.

Vizagapatam.—The cheapest grain in Vizagapatam is cumbu, which sold at 30·1 seers for the rupee, the prices of ragi and second-sort paddy for the same period being, respectively, 28·7 and 28·4 seers for the rupee. It moreover represents 19 per cent. of the area covered by cereals and pulses, and is distinctly a staple of the district and in common use by the people of it. Rice represents 41·5 and ragi 13·2 per cent. of the food-crop area, but cumbu being cheaper than both should be adopted as the staple for famine batta.

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Godávari.—Ragi is the cheapest grain in the Godávari, selling at 29·9 seers for the rupee. The great staple of the district is rice, representing 71·2 per cent. of the area under food-crops, but it is very much dearer than ragi as is also cholum—26·5 seers for the rupee—which is the only other cereal that exceeds ragi in area. Ragi therefore should be adopted for the Godávari.

Kistna.—The cheapest grain in the Kistna is ragi, selling at 29·7 seers for the rupee. Judged by its area (28·4 per cent.), cholum is the most important crop in the district, more important even than rice (26·6 per cent.), but its price, 22·6 seers for the rupee, was very much higher than that of ragi, which, therefore, should be taken as the staple for purposes of famine batta.

Nellore.—In Nellore by far the cheapest grain is varagu, which sold at 37·3 seers for the rupee; next to cholum (32 per cent.) it is the chief dry staple of the district and represents 8 per cent. of the food-crops. Cholum is very much dearer, selling at 24·8 seers for the rupee. For Nellore, therefore, varagu should be taken as the staple.

Cuddapah.—In Cuddapah, too, varagu is the cheapest grain, selling at 40·1 seers for the rupee; it represents 2·4 of the food-crop. The next cheapest grain, viz., ragi, is very much dearer, selling at 32·9 seers for the rupee; it stands for 9·6 per cent. of the food-crop. The most important staples of the district, viz., cholum (18·3 per cent.), cumbu (16·6 per cent.) and paddy (11 per cent.) are all very much dearer than either, selling at 28·9, 29·6 and 27 seers for the rupee, respectively. Varagu should be adopted as the standard for Cuddapah.

Anantapur.—Ragi is the cheapest grain in Anantapur, selling at 33·7 seers for the rupee; the next cheapest is cholum, the chief (25·2 per cent.) dry staple of the district. Ragi stands for 6·8 per cent. of the food-crop. Prices are not recorded for korra, which represents 19 per cent. of the crop. Ragi should be taken as the staple in Anantapur.

Bellary.—The cheapest grain in Bellary is ragi, which sold at 34·4 seers for the rupee. The next cheapest is cholum, which sold at 30. Ragi stands for 2·7 per cent. of the food-crop, while cholum, the great dry staple of the district, represents 53·1 per cent. For the next staple in order of area, viz., korra (17·1 per cent.), prices are not recorded, while the price of cumbu (5·3 per cent.), the only other staple that exceeds ragi in area is very much higher than that of either ragi or cholum by 25·8 seers for the rupee. Ragi should be adopted as the standard for Bellary.

Kurnool.—The cheapest grain in Kurnool is varagu, which sold at 39 seers for the rupee. It represents 10·8 per cent. of the food-crop. For the staple next above it in importance, viz., korra, prices are not recorded, while the price—28·8 seers for the rupee—of cholum, which is the chief (46·2 per cent.) staple of the district, is very much higher than that of varagu, which should be adopted as the staple for Kurnool.

Madras.—The cheapest grain in the city of Madras is ragi, which sold at 27·2 seers for the rupee; second-sort paddy, which is under existing orders (G.O., No. 1853, dated 29th May 1877) the standard for purposes of compensation for dearness of food, was dearer, selling at 24·3 seers for the rupee. Ragi should be adopted as the standard in Madras.

Chingleput.—The cheapest grain in Chingleput is second-sort paddy, selling at 27·5 seers for the rupee. It is closely followed, however, by ragi at 27·3 seers for the rupee, while husked paddy on the data assumed in the Board's replies to the Famine Commission (p. 97) would sell at some 18 seers for the rupee when second-sort rice was selling at 16·2. Ragi as food is therefore the cheaper of the two, and though it covers hardly a tenth of the area represented by rice, it should, as a grain in common use, be adopted as the standard.

North Arcot.—Varagu is the cheapest grain in North Arcot, selling at 34·5 seers for the rupee. It stands for 9 per cent. of the food crop. The next cheapest grain is ragi, which sells at 31·6 seers for the rupee and represents 16·2 per cent. of the crop. It is considerably dearer than varagu, which should be adopted as the standard.

South Arcot.—The cheapest grain in South Arcot is varagu, which sold at 48·4 seers for the rupee and represents 23 per cent. of the food-crop. The next cheapest is cholum, which sold at 31·9 seers for the rupee, but represents only 3·1 per cent. of the food-crop. The main (24 per cent.) dry staple of the district, viz., cumbu, was much dearer, selling at 29·5 seers for the rupee. Varagu should be adopted as the standard.

Tanjore.—By far and away the cheapest grain in Tanjore is varagu, which sold at 50·3 seers for the rupee. It is the chief dry staple of the district and represents 6·6 per cent. of the food-crop. The main staple of the district, viz., rice (84 per cent.), is very much dearer, second-sort paddy selling at 27·7 seers for the rupee. Varagu should be taken as the standard for Tanjore.

Trichinopoly.—The cheapest grain in Trichinopoly is varagu, which sold at 44·4 seers for the rupee. It represents 16 per cent. of the food-crop. The crops which from their area may be regarded as more important than varagu, viz., rice (22·4 per cent.), cumbu (19 per cent.) and (cholum 17·1 per cent.), are all dearer than varagu, which should be adopted as the standard for Trichinopoly.

Madura.—The cheapest grain in Madura is varagu, which sold at 46·1 seers for the rupee and represents 12·2 per cent. of the food-crop. The next cheapest is cholum, which sold at 32·7 seers for the rupee. Cholum is the only dry staple which exceeds (22·7 per cent.) varagu in area. Varagu should be adopted as the standard for Madura.

Tinnevelly.—The cheapest grain in Tinnevelly is varagu, which stands for 7·3 per cent. of the food-crop. The next cheapest, viz., ragi, selling at 27 seers the rupee, stands for 4·8 of the food-crop. The prices of the other chief staples, viz., paddy, cholum and cumbu, are all much higher than that of varagu, which should be taken as the standard.

Coimbatore.—In Coimbatore varagu is the cheapest grain, selling at 29·9 seers for the rupee. It represents, however, only ·3 per cent. of the food-crop. It is closely followed in price by ragi, which sold at 29·1 seers for the rupee and represents 11 per cent. of the food-crop. The prices of the main staples of the district, viz., cholum (33·3 per cent.) and cumbu (31·8 per cent.), are both higher than that of ragi, which should be taken as the standard.

Nilgiris.—The cheapest grain on the Nilgiris is varagu, which sold at 25·2 seers for the rupee, but it represents only ·5 per cent. of the food-crop. For the chief staple of the district, viz., shamai, prices are not recorded, but ragi, which is the next in cheapness to varagu (22 seers to the rupee), represents 7 per cent. of the food-crop and is next to shamai, the chief dry product of the district. Ragi should be adopted as the standard.

Salem.—The cheapest grain in Salem is varagu, which sold at 34·9 seers for the rupee and represents 7 per cent. of the food-crop. The next cheapest is ragi, which sold at 31·9 seers for the rupee. Ragi stands for 22·2 per cent. of the food-crop, but varagu is the cheaper by a good deal and is undoubtedly in common use as food. Varagu should therefore be adopted as the standard.

South Canara and Malabar.—A glance at the figures in statements A and B will show that the only possible standard for the two districts is second-sort rice.

4. The following is the sum of the foregoing recommendations:—

(i) *Second-sort rice* should be the standard for the purposes of compensation in—

(1) Canara. | (2) Malabar.

(ii) *Varagu* should be the standard in—

(1) Nellore.
(2) Cuddapah.
(3) Kurnool.
(4) North Arcot.
(5) South Arcot.
(6) Tanjore.
(7) Trichinopoly.
(8) Madura.
(9) Tinnevelly.
(10) Salem.

(iii) *Ragi* should be the standard in—

(1) Ganjam.	(6) Madras.
(2) Godávari.	(7) Chingleput.
(3) Kistna.	(8) Coimbatore.
(4) Anantapur.	(9) Nílgiris.
(5) Bellary.	

(iv) *Cumbu* should be the standard in Vizagapatam.

(True Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
„ all Collectors.

APPENDIX A.

Districts.	Average of the total extent of cultivation for five years.	Average extent of cultivation under the principal food-grains and pulses calculated for five years (1883-84 to 1887-88).										Percentage of the area under the principal food-grains, including pulses, to the total extent of cultivation calculated on the average of five years (1883-84 to 1887-88).					
		Rice.	Cholum.	Cumbu.	Tenai or korra.	Ragi.	Samai or chumalu.	Varagu or arikulu and varagu.	Pulses.	Total.		Rice.	Cholum.	Cumbu.	Tenai or korra.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14				
Ganjam	488,171	287,804	1,408	4,231	84	83,763	2,295	640	60,175	440,320	90·2	58·9	·3	·8	..		
Vizagapatam	171,539	53,748	5,559	24,597	1,464	17,136	5,149	4,339	15,979	127,372	74·2	31·3	3·2	14·3	·8		
Godávari	1,006,311	567,174	85,344	9,901	6,264	22,328	9,441	15,412	73,866	789,730	78·4	56·3	8·5	·9	·6		
Kistna	1,958,232	391,691	418,500	166,491	52,795	21,673	119	207,339	110,970	1,369,579	69·9	20·	21·4	8·4	2·7		
Nellore	1,057,906	247,819	300,367	68,326	4,985	51,351	3,663	76,222	106,436	859,217	81·2	22·5	27·3	6·3	·4		
Cuddapah	1,654,316	142,869	241,408	213,304	103,281	127,217	8,080	32,567	345,739	1,215,773	73·5	8·6	14·6	13·2	6·2		
Anantapur	1,292,604	76,592	255,086	63,146	260,466	68,773	25,290	22,876	285,816	858,963	66·4	5·9	19·8	4·9	15·5		
Bellary	1,777,770	32,057	772,648	76,748	264,738	38,963	25,149	278	187,279	1,397,988	78·6	1·8	43·5	4·3	14·3		
Kurnool	1,784,052	62,927	631,787	80,624	268,423	16,988	5,449	148,387	148,042	1,362,627	76·3	3·5	35·4	4·5	15·0		
Madras	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Chingleput	681,456	458,706	7,144	14,179	137	43,789	45	44,596	5,440	573,896	84·2	67·3	1·1	2·1	..		
North Arcot	875,164	336,764	49,584	83,855	229	118,196	3,995	65,631	59,073	717,301	81·9	38·5	5·6	9 6	2·1		
South Arcot	1,347,847	369,618	34,123	259,093	12,913	130,801	1,713	250,436	31,258	1,089,939	80·8	27·4	2·6	19·2	1·		
Tanjore	1,262,120	986,079	16,245	32,125	261	35,339	615	77,797	24,702	1,173,018	92·9	78·1	1·3	2·5	..		
Trichinopoly	1,000,605	193,550	148,293	164,205	6,759	84,418	38,056	135,063	90,539	860,924	86·0	19·3	14·8	16·4	·6		
Madura	986,346	165,622	188,376	98,452	7,698	92,824	89,768	101,405	89,389	825,112	83·6	16·7	19·7	9·9	·7		
Tinnevelly	1,361,151	277,864	103,322	189,968	2,911	48,912	125,408	74,207	178,141	1,001,456	73·5	24·8	7·6	13·9	·2		
Coimbatore	2,312,706	95,746	641,716	611,179	31,640	211,856	87,271	5,317	236,750	1,929,441	83·4	4·3	27·7	26·4	1·4		
Nilgiris	70,096	3,134	21	..	37	2,241	6,509	179	2,778	14,900	21·3	4·4	..	..	..		
Salem	1,337,207	111,382	74,987	296,491	20,061	265,113	77,886	83,056	257,744	1,176,643	88·0	8·3	5·6	22·2	1·5		
South Canara	678,313	486,439	..	..	..	3,500	52	..	40,021	530,012	78·1	83·9	..	..	..		
Malabar	978,037	586,016	167	29	..	4,143	7,125	..	12,144	609,624	62·3	60·2	..	..	..		

APPENDIX A—*cont.*

Districts.	Percentage of the area under the principal food-grains, including pulses, to the total extent of cultivation calculated on the average of five years (1883-84 to 1887-88).							Average extent of cultivation for five years under cereals and pulses only.	Percentage of the area under the principal food-grains, including pulses, to the total extent of cultivation calculated on the average of five years (1883-84 to 1887-88)—*cont.*							Average extent of cultivation for five years under cereals and pulses only.
	Rice.	Cholum.	Cumbu.	Tenai or korra.	Ragi.	Samai or chamalu.	Varagu or arikalu.	Pulses.		Ragi.	Samai or chamalu.	Varagu or arikalu.	Pulses.			
	20	21	22	23	24	25	26	27		15	16	17	18	19		
Ganjam	66·7	..	1·0	..	19·4	·5	·1	11·6	431,130	17·1	·5	·1	10·3	431,130		
Vizagapatam	41·5	4·3	19·	1·1	13·2	4·	3·3	12·4	129,461	10·	3·	2·5	9·3	129,461		
Godávari	71·2	10·7	1·2	1·	3·	1·2	2·	9·2	795,963	2·2	·9	1·5	7·2	795,963		
Kistna	26·6	28·4	11·2	3·6	1·5	..	18·1	7·5	1,473,368	1·1	..	13·6	5·7	1,473,368		
Nellore	26·3	32·0	6·2	·5	6·4	·4	8·	11 3	942,097	4·7	·3	6·8	9·7	942,097		
Cuddapah	11·0	18·3	16·6	8·	9·6	·6	2·4	26·3	1,315,730	7·7	·5	1·9	20·9	1,315,730		
Anantapur	7·5	25·2	6·2	19·	6·8	2·5	2·2	28·3	1,008,834	5·3	1·9	1·7	22·1	1,008,834		
Bellary	2·2	53·1	5·3	17·1	2·7	1·7	..	13·0	1,437,991	2·2	1·4	..	10·5	1,437,991		
Kurnool	4·6	46·2	5·9	19·6	1·2	·4	10·8	11·0	1,368,497	1·5	·3	8·3	8·3	1,368,497		
Madras	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Chingleput	79·1	1·3	2·5	..	7·6	..	7·8	·9	576,019	..	..	6·5	..	576,019		
North Arcot	46·3	6·3	11·5	..	16·2	..	9·0	8·1	727,379	6·4	·4	7·5	6·7	727,379		
South Arcot	34·0	3·1	24·0	1·2	12·	·2	23 0	3·	1,092,847	9·7	·1	18·6	2·3	1,092,847		
Tanjore	84·0	1·4	2·7	..	3·	..	6·6	2·1	1,173,798	2·8	..	6·2	1·9	1,173,798		
Trichinopoly	22·4	17·1	19·	1·	9·7	·4·4	16·0	10·5	864,017	8·4	3·8	13 8	·9	864,017		
Madura	18·6	22·7	11·8	1·	11·1	10·8	12·2	10·7	831,819	9·4	9·1	10·3	9·1	831,819		
Tinnevelly	27·5	10·2	18·8	·3	4·8	12·4	7·3	17·6	1,008,769	3·6	9·2	5·4	13·1	1,008,769		
Coimbatore	4·9	33·3	31·8	1·7	11·	4·5	·3	12·3	1,925,191	9·1	3·7	·2	10 2	1,925,191		
Nilgiris	9·8	..	..	..	7·	20·4	·5	1·	31,889	3·2	9·3	·2	·3	31,889		
Salem	9·	·8·	24·9	1·7	22·2	6·5	7·	21·6	1,192,886	19·8	5·8	6·2	19·3	1,192,886		
South Canara	92·	..	..	..	1·	..	..	7·5	529,012	·6	..	..	6·9	529,012		
Malabar	95·4	..	..	..	1·	1·1	..	2·0	613,702	·4	·7	..	1·2	613,702		

APPENDIX B.

STATEMENT showing the average prices of food-grains of the five years from 1883-84 to 1887-88 in the Presidency of Madras.

Districts.	Rice, 1st sort.	Rice, 2nd sort.	Paddy, 1st sort.	Paddy, 2nd sort.	Cholum.	Cumbu.	Ragi.	Varagu.	Horse-gram.
	Government seers of 80 tolas per rupee.								
Ganjam	16·0	17·2	31·8	33·9	27·8	33·6	31·8	34·4	35·0
Vizagapatam	13·3	15·0	26·6	28·4	26·5	30·1	28·7	..	37·1
Godávari	13·6	15·4	24·3	25·9	26·5	29·2	29·9	29·6	30·1
Kistna	13·1	14·7	23·5	24·6	22·6	23·2	29·7	28·3	26·5
Nellore	13·2	15·0	22·7	25·2	24·8	24·2	29·0	37·3	24·6
Cuddapah	13·8	15·3	24·1	27·0	28·9	29·6	32·9	40·1	28·2
Anantapur	13·6	15·2	23·5	25·6	30·8	27·7	33·7	..	34·0
Bellary	12·1	13·6	21·3	24·0	30 0	25·8	34·4	..	29·9
Kurnool	11·7	13·3	21·3	23·9	28·8	24·9	29·3	39·0	26·7
Madras	12·5	14·1	23·1	24·3	21·8	23·4	27·2	16·5	24·5
Chingleput	14·6	16·2	25·3	27·5	22·8	21·5	27·3	16·8	21·6
North Arcot	14·9	16 3	26·2	28·5	28·6	27·0	31·6	34·5	25·9
South Arcot	14·6	16·2	25·1	27·5	31·9	29·5	30·3	48·4	26·1
Tanjore	14·3	16·0	24·6	27·7	26·7	26·7	29·2	50·3	23·6
Trichinopoly	13·9	14·9	24·7	27·2	40·6	27·5	30·3	44·4	25·8
Madura	13·4	15·0	23·6	26·5	32·7	28·6	30·7	46·1	27·4
Tinnevelly	12·7	13·4	21·0	23·3	25·0	22·8	27·0	37·0	26·1
Coimbatore	12·9	14·7	22·2	24·6	23·8	27·9	29·1	29·9	29·7
Nilgiris	10·5	11·8	12·2	14·2	20·9	17·8	22·0	25·2	22·4
Salem	14·1	15·7	24·1	26·7	28·7	27·7	31·9	34·9	31·4
South Canara	12·4	14·6	21·3	23·0	..	..	20·6	..	18·8
Malabar	13·1	14·1	23·0	25·1	24·3	..	23·4	..	23·3

READ—also the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 26th March 1889, No. 145 :—

W. WILSON, ESQ., M.A., C.S.

Read—the following letter from H. G. TURNER, Esq., Collector of Vizagapatam, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 14th March 1889, No. 654 :—

In paragraph 3 of their Proceedings, dated the 10th January last, No. 13, the Board were pleased to propose that cumbu should be adopted in the Vizagapatam district as the staple for famine batta.

2. But I respectfully beg to point out that ragi and not cumbu is the largest cultivated and the largest consumed dry grain, taking the district as a whole, although, so far as the Government taluks of Golgonda and Sarvasiddhi are concerned, our accounts show that cumbu is cultivated on a larger area. Everywhere ragi is the chief food-grain of the poorer classes. Copies of my General Duty and Huzur Deputy Collectors' letters on the subject are herein enclosed for the Board's information.

3. The statistics of crops embodied in the Board's Proceedings quoted in paragraph 1 *supra* refer only to the three Government taluks of Golgonda, Sarvasiddhi and Pálkonda and to a few isolated resumed inams in the zemindari tracts, and these statistics show no information whatever regarding the cultivation of the extensive tracts of the zemindari and proprietary estates which the district mostly consists of.

The whole of the Vizagapatam district including the hill tracts comprises 16,992 square miles as per figures communicated in the Board's Proceedings, dated 11th February 1888, No. 64. Of this, the area of the Government taluk is as follows :—

	ACS.	SQ. MILES.
Golgonda taluk ... ... Sarvasiddhi do.	1,146,394	= 1,791
Rented estates of Pálkonda and Honjaram comprising the Pálkonda taluk	47,012	= 73
		1,864

Thus, the area of the Government taluks is only about one-ninth of the entire district. Ragi is grown throughout the whole of the Agency tracts and cumbu hardly at all.

Even in the Government taluks the cultivation statements are not available for the hill tracts; in the village accounts referring to plains the survey area not having as yet been adopted, the figures shown in our cropwar statements for Government taluks are only figures of estimate in point of area and they are therefore far from being accurate.

4. It is considered by the Board that cumbu is cheaper in this district.

Although it may be so at the time of harvest, yet its stock is exhausted in a few months afterwards.

On the other hand, ragi is stored to meet the public demand and always procurable throughout the year. Next to paddy ragi is more largely imported than any other food-grain.

Cumbu is cultivated only once in a year when the south-west monsoon sets in, but ragi is cultivated not only in that season, but also in all other seasons under wells and other irrigation sources. Again, different qualities of ragi are grown on wet lands in this district under the names of "buradachodi" and "pyrachodi," while cumbu is not grown on wet lands. Poorer classes of people in the district are more accustomed to consume ragi than cumbu.

5. Also, in paragraph 9 of the Board's Proceedings (Revenue Settlement, Land Records and Agriculture), dated 24th September 1888, No. 525, it was proposed that ragi alone should be the standard for dry lands in the settlement of the Pálkonda taluk as it was for the adjacent Chicacole taluk of Ganjam.

As regards Golgonda and Sarvasiddhi taluks, it is true that cumbu represents higher percentage than ragi as shown in the following table:—

Taluks.	Percentage of the crops out of the dry cultivation.		
	Cumbu.	Ragi.	—
Golgonda	15	9	
Sarvasiddhi	39	14	

But, as the Vizianagrum Deputy Collector points out, the crops grown only on dry lands were taken into consideration in the scheme prepared by the Settlement Department for the purpose of fixing the rates of assessment for dry land, and these figures cannot give an idea of the extent of ragi grown on wet lands.

6. The Deputy Collector, Vizianagrum, estimates that ragi and cumbu are grown and consumed in the district on the whole in the proportion of 2 to 1, while the Huzur Deputy Collector considers that in most of the taluks in the ordinary tracts the percentage of cumbu is only 19·5 against 76·17 of ragi.

7. For all these reasons I solicit that the substitution of ragi for cumbu as the staple dry grain in this district may be recommended to Government.

Enclosure No. 1.

From M.R.Ry. T. RAMAMURTI PANTULU, Garu, Huzur Deputy Collector, Vizagapatam, to the Collector of Vizagapatam, dated 25th February 1889, No. 60.

I have the honor to acknowledge the receipt of your letter, dated the 20th instant, Extra No. 1, relating to the comparative cultivation and consumption of the dry grains, viz., cholum, cumbu and ragi.

2. In reply, I have no hesitation whatever to say that ragi is the largest cultivated and the largest consumed dry grain in the district. Except in a bad year, like the present one, cholum is but sparsely cultivated. Cumbu is cultivated largely, but its outturn is very small compared with the outturn of ragi. It takes a much larger extent to produce the same quantity than ragi. It is grown only once during the year, and only on dry lands, whereas ragi is cultivated both on dry lands and wet lands and at any and every season of the year. There are rarely any months in the year during which ragi is not on the ground in one stage or other, and in some seasons one will find it in all its stages. I have seen ragi being sown in one place, transplanted in another, and harvested in a third at the same time.

3. I would fix the outturn of cholum, ragi and cumbu as follows as far as my division is concerned, and I think the same proportion will apply to most if not all the other taluks in the ordinary tracts:—

Cholum	4·78
Cumbu	19·05
Ragi	76·17
	100·00

4. Ragi is the chief food-grain of the poorer classes.

Enclosure No. 2.

From M.R.Ry. V. JAGANNADHA ROW, General Duty Deputy Collector, Vizianagrum Division, to the Collector of Vizagapatam, dated Vizianagrum, 9th March 1889, No. 143.

Referring to your letter of the 20th ultimo, Extra No. 1, inquiring in what proportion cholum, cumbu and ragi are cultivated in the ordinary tracts of my division, and which of them can be regarded as the principal food-grain of the people, I have the honor to submit the following remarks.

2. The Revenue Settlement Department have recently worked out these for the Pálkonda, Sarvasiddhi and Golgonda taluks, and the elaborate calculations they made for the purpose of fixing the standard grains on which to lease the money rates for lands afford a sufficient data for our present purposes.

3. To avoid recapitulation of the information already available in print, I beg to invite your attention to the following:—

Board's Proceedings, dated 24th September 1888, No. 525, Revenue Settlement, Land Records and Agriculture.

(1) Paragraphs 49 and 50, 55 to 57 of Colonel Stuart's report, pages 27 and 29.

(2) Paragraphs 19 to 22 and 23 (*b*) of Mr. W. Wilson's comments thereon, pages 5, 6, and 8.

(3) Paragraph 3 of Board's Resolution, dated 5th November 1888, No. 628, Revenue Settlement, containing report on the outturn of the principal crops during 1887-88.

4. The result of the investigation made by the Settlement Department or rather by the Commissioner is this—

"Ragi alone should be the standard for dry lands in Pálkonda as it was for the adjacent Chicacole taluk of Ganjam."

For Golgonda and Sarvasiddhi, "cumbu and ragi are properly taken as standards, but for the proportion adopted by Colonel Stuart, viz., half each, should be substituted that of 2 to 1, which more accurately represents their actual conditions." Further on Mr. Wilson observed: "For dry, the standard grains adopted are ragi and cumbu; the former alone for Pálkonda, but both for Golgonda and Sarvasiddhi, ragi in the proportion of one-third and cumbu of two-thirds."

5. It follows from this that cholum has been ignored as too insignificant a crop in this district.

6. The Commissioner based his conclusions on the following figures:—

Taluks.	Percentage of the crops out of the total dry cultivation.		
	Cumbu.	Ragi.	Cholum.
Pálkonda	2	13	..
Golgonda	15	9	7
Sarvasiddhi	39	14	3

7. These calculations may be right enough for the purpose of fixing the rates of assessment for dry land, but they are fallacious in giving an exact idea of the proportion or extent of the

crops grown or consumed. For the figures quoted by the Commissioner represent only the crops grown on *dry* lands. Enormous quantities of ragi are grown on *wet* lands in this district under the names of "buradachodi" and "pyrachodi," whereas cumbu is not grown on wet lands at all. I am inclined to think that it would be more correct to say that ragi and cumbu are grown and consumed in this district on the whole in the proportion of 2 to 1. At the very least, Colonel Stuart's approximation of half each may be safely adopted. Cholum may be ignored altogether as too insignificant.

8. Now, to take up another source of information, I solicit your attention to the following figures taken out of Board's Resolution, dated 5th November 1888, No. 628, Revenue Settlement. These represent the proportion of the area contributed by each district in this Presidency under the principal food-grains and cotton :—

Vizagapatam—	Acs.
(1) Paddy	1·0
(2) Cholum	0·1
(3) Cumbu	1·1
(4) Ragi	1·1
(5) Cotton	0·4

9. These figures show that cumbu and ragi are grown in equal proportions, and that cholum is comparatively very insignificant.

10. The poorer classes, as a rule, prefer ragi to cumbu, although they eat both when they cannot get the former in sufficient quantity.

11. As regards the zemindari tracts, the condition is not very different from that of Golgonda and Sarvasiddhi, and what is true of them is also true of the bulk of the zemindari lands within my division.

12. On the whole, the proportions of ragi, cumbu and cholum which may be adopted for my division, excepting Pálkonda, are, respectively, 3, 2 and 1, and for Pálkonda ragi alone. It must be remembered that in Pálkonda * the dry area is only 50 per cent. of the wet.

	Acs.
* Dry	13,811
Wet	23,922

13. If any one crop out of the three is to be regarded as the staple crop of the poorer classes of this district, it is ragi, not cumbu or cholum.

Resolution—dated 26th March 1889, No. 145.

Submitted to Government in continuation of Board's Proceedings, No. 13, dated 10th January 1889.

2. The recommendation of the Board that cumbu should be taken as the standard for famine batta purposes was based on the conditions ruling in the three Government taluks of Vizagapatam as it was the cheapest grain ordinarily consumed in them. So far as they and probably the whole of the plain zemindaries are concerned, there is not, in the Board's opinion, any ground for modifying their recommendation, but from what the Collector now reports ragi would seem to be the more proper grain for all the hill tracts.

(True Copies and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
Copy to the Collector of Vizagapatam.

Order—dated 30th April 1889, No. 324, Revenue.

Miscellaneous.

In paragraph 9 of their Resolution, dated 28th March 1888, No. 1648, printed in G.O., dated 7th May 1888, No. 2717, Revenue Department, the Government of India have ruled that the compensation to be granted to servants of Government for dearness of food-grains

in each district should be regulated with reference to the prices of the cheapest food-grain which forms *the common staple food of the district*. In making the recommendations contained in the Proceedings read above, the Board, however, have been guided solely by the prices of the different grains without giving sufficient consideration to the question how far the cheapest grain selected can be regarded as forming the staple food of the district. On a careful consideration of the acreage of the several kinds of food-crops shown in the appendix to the present Proceedings of the Board and of the prices of the staple food-grains ordinarily in use in each district, a list of which is given in the Board's Proceedings printed in G.O., dated 11th September 1880, No. 1137, His Excellency the Governor in Council is of opinion that the following grains should be adopted as the standard in each district for regulating the grant of famine batta :—

Ragi.—Ganjam, Vizagapatam, Godávari, Madras, Chingleput, North Arcot, Tanjore, Nílgiris, Salem.
Cholum.—Kistna, Nellore, Cuddapah, Anantapur, Bellary, Kurnool, Trichinopoly, Madura, Tinnevelly.
Cumbu.—South Arcot, Coimbatore.
Second-sort rice.—South Canara and Malabar.

2. With the exception of the two west coast districts, the grains selected as the standards are, it will be seen, the staple dry grains, commonly used as food by the people, which are cheaper than rice. In several districts, however, *e.g.*, Madras, Chingleput, Tanjore, all classes of Government servants are habitually rice-eaters, who will not ordinarily eat dry grains to which they are unaccustomed even under the pressure of severe distress. In these cases, the strict application of the rule laid down by the Government of India causes hardship by deferring the dispensation of relief in the shape of famine batta until long after the necessity for it has arisen. Wherever this is the case His Excellency the Governor in Council is of opinion that the rule laid down should be modified so as to admit of the grant of famine batta being regulated with reference to the prices not of the cheapest staple food-grain of the district but of the cheapest staple food of the servants to whom it is intended to afford relief.

3. Ordered that the Government of India be addressed.

(True Extract.)

Secretary to Government.

To the Commissioner of Revenue Settlement, Land Records and Agriculture.
„ the Commissioners of Land Revenue.
„ the Accountant-General.
„ the Public, &c., Departments.
„ the Local and Municipal Department.
„ the Public Works Department.
„ the Military Department.

Exd. A. D. Xavier.

110 Copies.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper:—

From J. BURGESS, Esq., LL.D., C.I.E., Director-General of the Archæological Survey of India, to the Chief Secretary to the Government of Madras, dated Calcutta, 21st February 1889, No. 189.

I have the honor to forward herewith the progress report of the Madras Archæological Survey under Mr. A. Rea, for the months of December and January last.

2. Mr. Rea's tour during these months has been singularly prolific in discoveries of ancient Buddhist remains at places where they were least suspected to exist. Those of the stupas at Franguladinne and Garikipad, and of a veritable structural Buddhist Chaitya temple at Chezarla, are of great interest and importance.

3. It is exceedingly desirable that the sculptures he has left at the Pedda Ganjam canal bungalow, and those he excavated at Amaravati last year, should be early and safely transmitted to Madras. Mr. Rea has no means nor the time at his disposal for effecting this, and the duty should properly fall on the Public Works officers, who can best arrange for boats and carriage.

4. The stúpa excavated at Garikipad is specially noteworthy, and its sculptures should either be carefully protected *in situ*, or so numbered that their precise arrangement may be preserved, and then transmitted to the Madras Museum.

5. The impressions of the inscriptions at Chezarla have been forwarded to Dr Hultzsch for translation, but the oldest is so mutilated that I fear little can be learnt from it.

P.S.—Mr. Rea's report has been hurriedly written at intervals, and he had better see the proof before it is printed off.

ENCLOSURES.

From A. REA, Esq., M R.A.S., First Assistant to the Director-General, Archæological Survey of India, dated Garikipad, 3rd February 1889, No. 61.

I have the honor to forward my progress report for the months of December and January 1888-89.

2. I have been fortunate in the places selected for visit; and much interesting information has been obtained. Every facility for the investigation of the archæology of these places has been freely given by the local officers, chiefly through the interest taken by Mr. Arundel in the work.

3. On the 15th November, I left Kávali, and went to Juvuladinne, where I found some remains of ancient buildings existing in a mound (Section I of report). The place had hitherto been unnoted. I had only time to note the remains, and consequently was unable to make an extended excavation. A temple at Bittragunta was surveyed (Section III). The south of the Nellore

district seems to have comparatively few, if any, examples of works of very ancient date; but, on the coast, and towards the north where it borders on the Kistna, Buddhist remains may be confidently expected.

4. On the 16th I returned to Kávali, and then moved the camp into the Kistna district, viâ Ongole to Franguladinne, where I arrived on the 20th. I excavated the large Buddhist *stúpa* discovered there last season, and found a number of finely-sculptured marbles (Section V). These have been removed to the Pedda Ganjam canal bungalow, and Mr. Vincent, Executive Engineer of the canal, has kindly consented to their remaining there till the orders of Government as to their removal to the Madras Museum can be received. Another small Buddhist *stúpa* was discovered on the site, but only the foundations remain, and as the mound is low, probably all the sculptures have been removed. It would have been useless, therefore, to extend the excavation and look for them. The discovery is thus but of partial interest. (Section IV).

5. On finishing the excavation of the large *stúpa*, I went to Narsaravupeta and inspected the antiquities there. In the town are several temples, all however unnoteworthy. The Zamindar's palace is a good example of the class which existed during the last century, and is deserving of a survey, which should be carried out at no distant date, as some parts of the buildings are in danger of falling. The woodwork of the floors and cornices is in a tottering condition, and it is a pity but something could be done in the way of preservation. In one of the halls there are a number of curious paintings on the walls, representing people dressed in the costume of the time and the large state coaches used during the past century.

6. From Narsaravupeta I visited the small village of Kamapalle (Section VI); and then on the 8th January went to Chezarla (Section VII), a most interesting village, said to belong to the Zemindar of Narsaravupeta. The village officials and temple authorities were very obliging, and aided me in procuring all the information asked for. The discovery of a complete structural Buddhist Chaitya is of the first importance; and the inscriptions and sculptures are of interest. A large and ancient tree grows there, and I sent a specimen of the leaves, flowers and fruit to Sir Charles Lawson, Honorary Secretary of the Madras Agri-Horticultural Society, who has found that it is the Baobab (*adansonia digitata*). I found remains of an ancient, but now extinct, industry in the manufacture of steel; saw some interesting burial customs, relics of those in use in pre-historic times; and gleaned a number of ancient legends concerning the village.

7. On the 19th idem I left Chezarla, and, proceeding to Panidem, inspected the *Dipaldinne* mounds there. I found them to be, to all appearance, specimens of ancient tumuli (Section IX). I also visited an ancient site at Attaluru (Section X).

8. Mr. P. Virasami Nayudu, Tahsildar of Krósúr, visited my camp at Panidem, and gave me some interesting information regarding a number of hitherto unknown mounds, and other antiquities in his taluka. One of the former—at Garikipad—was stated to be a mound with "bricks in chunam," and, as I suspected it might be a *stúpa*, I decided to visit it, and went there on the 24th ultimo. In the mound I made an important discovery of an ancient Buddhist *stupa* possibly dating prior to the Christian era. The excavation is now finished as far as it can be carried out at present. A trench has been dug round the circle, which has been found to be 80 feet in diameter, with sculptured marble slabs standing in position almost continuously round. A number of these are almost complete, and have sculpture of a very archaic type. The survey is not yet quite complete, so I defer a description till the ensuing report. It will have to be decided whether the slabs are all to remain on the spot, or whether a few of the most complete might not be removed to Madras. The *stupa* will, in any case, have to be conserved, and this might be best done by planting a cactus hedge round. The plants can be got near the neighbouring village of Gudipad, and could be removed in carts and planted at but a small outlay. *

	Rs.	A.	P.
Say, 2 carts removing the plants for 2 days	2	0	0
12 coolies at 3 annas at cutting and planting, for, at the most, 3 days	6	12	0
1 man tending and watering for a few days.	1	4	0
Total ..	10	0	0

I.—Juvuladinne.

The remains at this place have been hitherto unnoticed, and I was only induced to visit the village through the significance attached to the ancient form of the name. The modern village itself stands to the west of an extensive mound now covered with sand and under cultivation, after which it is named. The local account of the origin of "Juvuladinne" is, that it is derived from a plant (*juvul*), which once covered the mound, but there is no such similar term in the very complete list of the flora of the district given in the *Nellore Manual* (pages 95—145), and it seems improbable that this is the correct explanation. The adjacent remains shew it to have been an ancient site, one of the many seaports which prior to, or during the period of, the decay and fall

of Buddhism, from the 4th to the 8th centuries, seem to have existed along this coast; though now, through the recession of the coast line seawards, it stands at some distance inland. In each of these there is a tradition of their having been destroyed by an inundation of the sea. This may have been so, more especially as the tradition is so general. The towns being thus either completely or partially destroyed, they would not again to any extent revive, though a few might carry on a lingering existence. India had undoubtedly commercial relations with western and other countries, but it was principally carried on in the ships of other nations. This may be attributed to caste prohibition against long voyages by sea. Not till the appearance of European powers in India do we find any considerable settlements on the coast.

Local tradition asserts a European settlement once existed at a neighbouring mound named *Wallandula dibba*, and Franguladinne further north is "Mound of the Franks," where a Venetian colony existed in the 13th century (A.D. 1224).

A traditional Dutch Colony.

About a mile south by east of the village, a quarter of a mile distant from the coast line, and on the south of a salt marsh once traditionally a natural harbour, or arm of the sea, is an extensive mound. It rises with a somewhat steep slope to a height of about 15 feet direct from the edge of the waterline of the marsh. The top of the mound is nearly level; and forms almost a square, with sides of about 60 yards in length. The angles are rounded off and stand north and south, east and west, with the sides on the intermediate points of the compass. Broken bricks are strewn over the surface of the north-west side, which has less drift sand than the others. Beyond this mound to the south, the ground is broken by a number of smaller ones now covered by sand. The large mound is supposed to be the site of a fort, and is named *Gudikurtikota*; it is also known, after the European settlers whom local tradition states to have built it, as *Uland* or *Wallandula kota*, that is, the "Fort of the Hollanders."

The Dutch had early settlements at various parts of the coast—at Pulicat, for example, where the remains of a fort and numbers of tombs still exist to testify to their presence. There they had a mint where gold was coined. They are also said to have founded the first fort at Masulipatam under the kings of Golconda in the beginning of the 17th century. Numbers of inscribed tombstones of that date still exist there. These seem to resemble those of Pulicat * for they have each a coat-of-arms and inscriptions, all executed with considerable skill. I find, too, that the site in Masulipatam where the Dutch had their villa residences is still known as Vallandupalem,†. If a European Dutch colony has really existed near Juvuladinne, which seems probable, it may have been in conjunction with an earlier native one. It would be a convenient site for carrying on an inland trade with the town of Nellore. At Franguladinne, Buddhist *stupas* and other interesting remains of the same period were lately discovered on ground adjacent to the mound on which had been the European colony. The tradition therefore, as to the Dutch fort near Juvuladinne, there is reason to believe, may be trustworthy. It is another discovered example of these numerous and hitherto unknown sites of ancient cities or seaports which in early times flourished all along this part of the coast. They show that a very extensive trade must have been carried on, but through the civil wars which desolated the country, they had fallen to mere fishing villages. The recession of the sea left them further and further inland, leaving their natural harbours but mere marshes; the *raison d'être* of their existence had thus gone. The trade never revived, and all that remains to prove what has been, is only shewn by the ruins now covered by mounds.

* Section I (3) of my previous report. In one of the inscriptions given therein, is the word *Palliakatta*. I find in a letter from the Dutch Governor to the English Governor at Fort St. George quoted in the *Kistna District Manual* (pages 104—106), that Pulicat is written *Palliacat*, also *Paleakat* (page 89). The other is evidently meant for the same place.

† *Ib.*, page 100. See also pages 97—104.

II.—Excavations in the Mound of Vallandula kota.

As no traces of any walls appeared on the surface, a slight excavation was necessary to determine whether any did exist. Three short trial trenches were driven in, at intervals of about 12 feet apart, on the north-west side, and shewed the ground to be formed of red sandy soil for a depth of 4 feet, below which was a yellow sea sand. The trenches were carried in just below the point where the ground dips down from the upper level portion, as, should walls exist, it was to be expected they would, from the configuration of the ground, be found there. The west trench came on a wall 3 feet thick running north and south; directly in front of it at a distance of a foot was another of similar breadth; these were traced for a length of 12 feet. The middle trench shewed nothing but a large collection of oyster shells mixed with broken bricks; while the east one came on a wall running east and west. The bricks forming these are large, and such as are only found in very early buildings, they measure 20″ long by 9¾″

broad, and 2½″ thick. These walls were built on blocks of stone laid in the sand, and could not, from their high position, insufficient foundation, and nature of the plan, be those of a fort. The bricks, moreover, are not such as we find used in early European buildings in the south. Nor were they used in later Indian works. The want of mortar also militates against the theory of a European foundation for these at least.

Only a few men were engaged in the digging for a short time, simply to ascertain whether remains really existed. One small piece of white marble and two fine large conch shells were found. It would be interesting to carry on further exploration of the ground, as it would appear, could time and funds have permitted the tracing of them into the level upper ground, these walls may still exist in sufficient preservation to shew at least the plan and nature of the building or buildings.

III.—Bittragunta.

This village stands 7 miles south by west of Kávali. The Vishnu temple is stated to have been built by the Rishi Narada, and improved and enlarged by Gauramaniba,* a princess of the Langula Gajapati family. The "cave temple" mentioned as being here, is a natural cavern in the hill.

* Sewell's *Topog. Lists*, page 142.

Sri Vencatisvarasvami Temple.

(Drawing Nos. 733 and 734.)

The plan is a rectangular courtyard, measuring 191 feet by 119 feet. The entrance *gopura* stands on the north of the court, and is a plain blackstone structure. Inside to the west of the entrance is a small shrine in stone, dedicated to *Krishnasvami*. The main shrine is a small, square cell with thick walls, ornamented on the exterior with pilasters; and a tower above, decorated in plaster. In front is an antechamber, and square *mandapa* with four piers inside. On the north is the *Amman* temple, the goddess of which is Alamallamangathammal. Its plan is of similar form, but smaller than, that which it adjoins. Both these shrines stand on a moulded platform, and constitute the only ancient portions of the temple. In front of the *mahamandapa* of the main shrine is a four-pillared *mandapa*; *dvajastamba*; and a small square shrine of Hanuman facing them. In the south-east corner of the court is a *yagasala*, with a round and a square trough on the floor for the preparation of the *homa*. In the north-east of the court is a *kalyanamandapa* for placing the images at the annual festival; and a square walled structure for the reception of twelve small images (*Alvarmithi*).

IV.—Discovery of Stupa, No. 3, Pedda Ganjam.

The discovery of these remains was first announced in December 1888.† It forms the third of this class of Buddhist relics found at the Franguladinne mounds. If not extensive, and with but little of it remaining, it shews some interesting features and is important in helping to prove the previous existence of a large Buddhist settlement at the place. The two former *stupas* stand at the south-west extremity of the site, and on the west side of the canal. This is on the extreme north, or about a mile distant, and on the east bank of the canal. It is hardly to be expected that any remains will be found in this locality in a very complete condition: the mounds are all low, and the walls are easily got at. In addition, they seem to have suffered at the hands of some former iconoclasts, or through some great catastrophe, or inundation.

† Report, No. 460, of 26th December 1888.

A small mound about 50 feet in diameter by 4 feet high, surrounded by others, to all appearances the same, had bricks, and some chips of white marble strewn over its surface. A close examination showed at one point four or five bricks, lately uncovered by the rain, evidently laid so as to form part of a circular wall. A trench dug in front of these showed at least eight courses of brickwork standing on a foundation of blocks of stones. This was traced out for over a quarter of the circle with an exterior diameter of 32 feet; it also exposed two projecting facets, each of a length of 9 feet 6 inches, on the north and east faces of the circle.

The most interesting feature was revealed by the shaft sunk in the centre. It showed a rectangular pit, 10 feet 6 inches by 8 feet, with vertical sides, which had originally been dug in the clay and closely packed with stones and earth. On the removal of the stones, and at a depth of 2 feet 6 inches from the surface was a series of large bricks. Below, was a large *svastika* formed of eight bricks; four radiate at right angles from the centre, while other four lie at right angles to their extremities. On the top of the east arm of this figure was a smaller one of four bricks, each pointing to the right, and laid with its end against the side of another. All the bricks fitted together in the centre; it had no arms at the extremities.

On the top of this was a square of four bricks. The large under bricks measure 19″×9″×3⅜″. Curiously, the objects lay facing different points of the compass; the lower one at one point west of north, and the two upper at one point east of north. It will be remembered that in *stupa* No. 1, at Pedda Ganjam (Bogandanidibba), two large *svastikas* were found in the centre, but the one not lying directly on the top of the other, a packing of stones being between the two. In that case they also lay with two points of difference, so the coincidence can scarcely be said to be accidental. In the present case a few bricks lie in a line along the north, east, and south sides of the pit at a level with the lower *svastika*. It would be interesting to know whether this feature is peculiar to this locality only. It is unlikely that it would be so, and it may occur elsewhere; though it probably was only used in certain classes of *stupas*, else we might have heard of it before. No relic casket was found, and none could have existed, and been subsequently removed, for the top stone-packing appeared as if it had never been disturbed. In one of the bricks of the small central square a bone—evidently human—is embedded in the material. It was in a crumbling condition. This bone may have been the *sarira* or relic of the holy man deposited in its proper place, but without an enclosing box.

V.—Pedda Ganjam.

Bogandanidibba (*Buddhist Stupa No.* 1).

Excavation during Season 1888-89.*

This Buddhist *stupa* was discovered during last season's tour, as the result of the investigation made to ascertain whether two marbles found at Franguladinne a few years ago were, as had previously been stated, from one of the then known topes of the district, or, as I thought more probable, from a *stupa* on the spot. A close examination of the surface of all the mounds was made, but as no solid brickwork appeared above ground, the existence of a *stupa* could only be assumed from the numerous chips of marble and loose broken bricks strewn around. Even when this mound had been fixed on as the probable site of a *stupa*, a more searching investigation had to be made—without wasting expense in unnecessary digging—to ascertain on what part of the large mound the *stupa* stood. For there had at one time been several buildings there. From numbers of small indications which I cannot here particularise, all pointing in the one direction, the south-east corner was fixed on as the spot to begin digging. This selection was fortunate in that the *stupa* wall was found at the end of a short, shallow, first cutting. A few preliminary or trial trenches were then dug at certain points to fix its extent and plan, but nothing further could then be attempted.

With the grant made for this season's work, the excavation has been continued with the results below described. It was hardly to be expected that the sculpture would be found in anything like a complete condition, for the building bore evident traces in the portions first exposed of having been partly demolished, and the bricks and sculptures removed to be used in the construction of other works, as was the case at Amaravati. From the time of its desertion till it was spared further destruction by being buried in the friendly covering of earth, this spoliation had probably gone on, the building—as so many of its class have done—being utilized as a convenient quarry for the surrounding villages. This is shown to have been the case by the absence of the majority of the marble sculptures that would once adorn the building. These cannot wholly be accounted for, even by the great quantity of fragments which were found at all points around the circumference. Among these it is curious the large number of exquisitely carved heads which have been knocked off the images; this might perhaps point to the Muhammadans as having taken their share in the destruction, when this part of the country was over-run by their armies. The vast number of images adorning these buildings would excite their religious zeal into a perfect frenzy. The probable reason for anything at all existing is perhaps due to the fact that the nearest village is over two miles distant; and the removal of the materials could only be accomplished at some inconvenience to the spoilers. Notwithstanding all this, the remains of the *stupa* now existing are sufficiently complete to allow of our easily picturing what the proportions of the perfect building had been.

The marble used in the sculpture is of a kind which seems peculiarly liable to fracture, and certain parts of it readily scale off in thin flakes. In addition, when the material has been exposed to moisture lodging in the hollows of the sculpture, it has lost its cohesion and become more powdery than chalk. This being so, the slabs used in decoration of the higher portions of the building, such as the body of the dome, would inevitably go to pieces on falling from their lofty position. The large quantities of bricks found around would also cause some considerable destruction, and the consequence is that the only sculptures which have remained at all intact are certain of those round the face of the basement. They are fortunately nearly all *stupa* slabs, and are specially interesting in that they probably represent the *stupa* as it stood complete when

* Continued from Section 5 of Report in G.O., No. 703, of the 14th July 1888.

worship was carried on by the Buddhists. Those slabs were standing erect in their places, firmly secured to the brickwork by an intermediate layer of mortar. Like all those still standing at Amaravati, their tops are broken off. This may have been due to the falling bricks of the dome, for their tops stood higher than the floor of the circular platform, or, as their upper edges were found close to the surface of the ground, the destroyed parts may have projected above it, and been wilfully smashed off, the spoilers fortunately not taking the trouble to dig down and remove the remainder of the slabs. The ground of the mound bears evidence of this, in that nearly all the surface remains of buildings have been removed. The north half of the mound before being brought into cultivation is said to have had a number of walls dug out of it, and the south-west quarter, or that directly west from the *stupa*, though not at present cultivated, shows a large number of old trenches all over it, from whence have been removed the walls of what must have been an extensive series of buildings. One set of these trenches forms three sides of a rectangle about 30 yards broad. A continuation of the digging of one of them was carried out last season, when some foundations with marble fragments on the exterior side were found. Three yards to the inside of the pits and parallel to them, traces of brick walls are still visible. These must have formed the central building, probably a *vihara*, while the basement of a surrounding veranda would extend up to, and be marked by, the foundation walls now removed from the outer trenches. The lower part of a square marble column previously seen here, may have been one of the surrounding colonnade.

(1) *Excavation at the Stupa.*

A trench has been carried round the outer circumference of the basement. The wall of the north-west quadrant was found complete, with the mortar facing still adhering along almost its whole length; and three sculptured marble panels (Nos. 1, 2 and 3), standing at intervals along the wall (see drawing No. 736, figs. 1 and 2), each separated by a space of 8 inches. This upright division between the panels is filled in with mortar and raised from the face of the wall till flush with a channel cut on each side of the slabs. Pilasters in marble, or *chakra* pillars, would undoubtedly be placed in front of these, but no traces of them now remain. Each slab stood on a foundation formed of a smooth block of blackstone placed on edge at a level with the bottom of the brick flooring. The flooring of this portion of the procession path is formed of an under layer of bricks, with slabs of pavement laid over them. The bricks mostly remain intact and a portion of the pavement flooring also. The procession path at this section of the ground is 6 feet below the surface. The wall of the projection on the west face was found by a return of the dressed plaster surface at its north point, while some of the lower brick courses of the projection itself still stand in position. On the face of these, standing in their places, separated by the usual 8-inch spacing, were two slabs (Nos. 4 and 5). The plaster backing at this point was thickly mixed with chips of marble, either intended to make it into a sort of concrete, or perhaps they might have been pieces left over from the burning, had the mortar been made with calcined marble. At the south-west quadrant, the most of the bricks of the face of the wall are away, but there are some at the position of the south projection. Nearly midway between the west and south projections is a small brick platform which may have been for a small cell standing out from the circular wall. The lower brick flooring and some of the pavement slabs are found extending around to this point. No. 6 slab was found lying on its side at the position of the south projection, while close to it, a portion of the plastered surface of the main wall was again met with. The flooring at this quarter averages from 2 to 3 feet below the surface. Along the position of the face of the south-east quadrant, only loose bricks were turned up. The inner courses of brickwork may still remain, but little would have been gained by digging to ascertain, so the trench was carried but little inside the line of the exterior surface. Some bricks of the east projection were found, and near them stood a marble slab (No. 7). Behind it, a large slab of black granite rounded on top, and similar in size to the marble panels, stood erect; and another lay on the floor.

It will be remembered that rail slabs of a similar material exist at Amaravati,* also near the east gateway there. The recurrence here of the same stone at the same side of the *stupa* is remarkable, and may possibly have had some architectural or other meaning attached to its use in this position. Around the whole of this, and along towards the north projection, the paving was almost intact. At the north-east quadrant the bricks were away from the exterior surface of the wall, though the trench which was previously dug along its inner surface shows them to be quite complete in the inside. While digging at the north projection last season, a complete marble slab, 16 inches high, carved with a coiled *naga* in bas-relief was found in position against its east wall. Along the north-west quadrant, a trench, concentric to the inner one, was dug on the edge of the paving for a length of 40 feet, to ascertain if portions of the outer rail might exist, but only some fragments of pillars with a few letters were found. The ground is highest on the east, and round by the north towards the west, where it averages from 5 to 6 feet above the floor. The other half is from 2 to 3 feet above it. To save expense, the bank between the two trenches was not removed: nor was this outer trench carried round any other part of the encircling pavement. Only from one quarter (the north-west), therefore, has the earth been almost wholly removed. It is, of course, quite

* Burgess, *Amaravati and Jaggayyapeta Stupas*, p. 22.

possible that traces of the rail may exist at other parts of the circumference, and had expense been of no consideration, the earth would have been completely removed from the whole circle of pavement and for some distance outside of it. At no point, however, has the trench been carried beyond the outer edge of the paving, as, though every facility for digging was freely offered by the proprietor, it was considered undesirable to encroach on the neighbouring ground, which may at some subsequent time be brought under cultivation. The mound is not sufficiently high to admit of any of the large panels of the rail being still in position, but considering what their weight and size must have been, probably over $6' \times 2' \times 1'$; and that the spoilers had not removed the smaller ones now found, it is probable that at least some of them may still lie underground where they had fallen at a distance less than 20 feet outside the pavement, as did some at Amaravati. Had the ground on which the *stupa* stands, and this space outside of it, or a circular plot measuring only 142 feet in diameter, been Government property, it would have been interesting to have had it excavated, as the results would most likely have repaid the small sum required to dig it. This excavation would have been for a breadth of less than 34 feet outside the north and west walls of the *stupa*.

No earth was removed from the centre, or from over the walls of the *stupa*, except along the north-west quadrant, where the upper plaster flooring was found extending unbroken along its whole length. This upper floor probably remains intact along the greater part of the north half of the *stupa*. It was thickly covered with broken bricks fallen from the dome. A projection of brick work 1 foot deep stood against the dome wall at the north-west. This has probably been an architectural feature repeated at the other three corresponding points of the circumference.

The digging has therefore been strictly confined to such parts as gave most promise of results with the least possible outlay.

With the exception of slab No. 1, all the others are *chaitya* or *stupa* slabs. Their discovery is thus of some value, for though numbers were seen by Colonel Mackenzie at Amaravati, they mostly all afterwards disappeared; only a very few having been since recovered. They can be judged of, from the drawings he made. Standing in position, as those now found did, around and forming the casing of the *stupa* itself, is a feature of some significance. In the present instance, these slabs have been found standing in position round and against the main wall of the building, with the spaces for the intermediate *chakra* pilasters remaining intact. The inner rail at Amaravati seems to have stood at the same level as the outer rail on the pavement, and was formed of slabs placed against each other, and so differed considerably from the upright posts and crossbars of the outer rail. As Amaravati is so well known, it will give some idea of the present example if the main features of the two *stupas* are compared. There is nothing anomalous in this, though their proportions are so very different, for their sculptures show them to be of about the same date.

Large statues of Buddha, similar to those found at Amaravati and Jaggayyapeta, have existed here, for portions of two faces with curled locks of hair, and some pieces of the flowing robes of a figure, were found near the position of the west gateway. One would be about life size, and the other, whose eyes measure $1\frac{3}{4}$" broad, would be somewhat over it, if standing erect, nearly 8 feet 5 inches high.

There are two kinds of limestone used in the sculptures, one white, and the other with a tinge of yellowish brown, probably acquired through longer exposure. The carving of the discovered fragments of the rail is in the former, and is somewhat inferior in style to the others; leaves and other minute portions being represented in cases by little more than a mere outline chiselled in the marble. In the others, scrupulous attention has been paid to the working of the most minute parts; they equal in beauty of execution, and in no way differ in style, from the finer of the slabs at Amaravati. The design in each of these *stupa* slabs is the same; but they widely differ in detail in every example. Their style and arrangements will be found closely to resemble those described and illustrated by Dr. Burgess in his Amaravati volume, and those referred to by Boswell in his report to Government on the antiquities of the Kistna District.* Five pieces of marble have letters of inscriptions dating about the 3rd century A.D. Their letters are similar to some of those from Jaggayyapeta.† With the exception of one from the bottom, and another from the top of a slab, all are fragments of pillars. They have only a palæographical interest, as the form of the letters may help to fix the date. One has nearly the half of the curve on the semi-disc usually seen on these pillars, dividing the square from the octagon, and a production of this curve, gives a square, for the pillar of 12 inches. This half-disc is not ornamented with a lotus leaf pattern as was the inscribed pier discovered at Kollitippa, but has a flat surface, ornamented on the lower side with a medallion in outline, surmounted by a small finial. The letters are inscribed under the top of the curved line. They are as given in the

* G.O., No. 1725, of the 17th November 1870, p. 5.

† Burgess, *Amaravati and Jaggayapeta Stupas, Pl. LXII.*

facsimile (No. 1). A portion of the left side of the pier remains, but has no ornament; the pillar must therefore only have had the carving in front. Perhaps it was one of the five stelæ on the face of the dome.

The piece from the top of a slab has a diamond diaper pattern outlined over the letters (No. 2.)

The others are also mere fragments useful only for the forms of the few letters they contain (Nos. 3, 4 and 5).

The last has been from the bottom of a slab.

A small disc of black granite was picked up in the south pavement. It is $2\frac{1}{4}''$ in diameter and $1\frac{1}{8}''$ thick. The sides are rounded off; one side flatter than the other. Through the centre is a cylindrical hole $\frac{3}{8}''$ diameter. On both sides, around this perforation, are a number of triangular lines grouped in the form of a star. Its use may have been similar to a small soft, black-stone cylinder found last season at Amaravati. It is shaped somewhat like an ordinary thread bobbin, the side being convex, and a small head running round each end. It is $1\frac{7}{16}''$ long and $1\frac{11}{16}''$ diameter; with a cylindrical hole through the centre of its length of $\frac{3}{8}''$ diameter. It also has the triangles marked around the two ends of the perforation (fig. 1.)

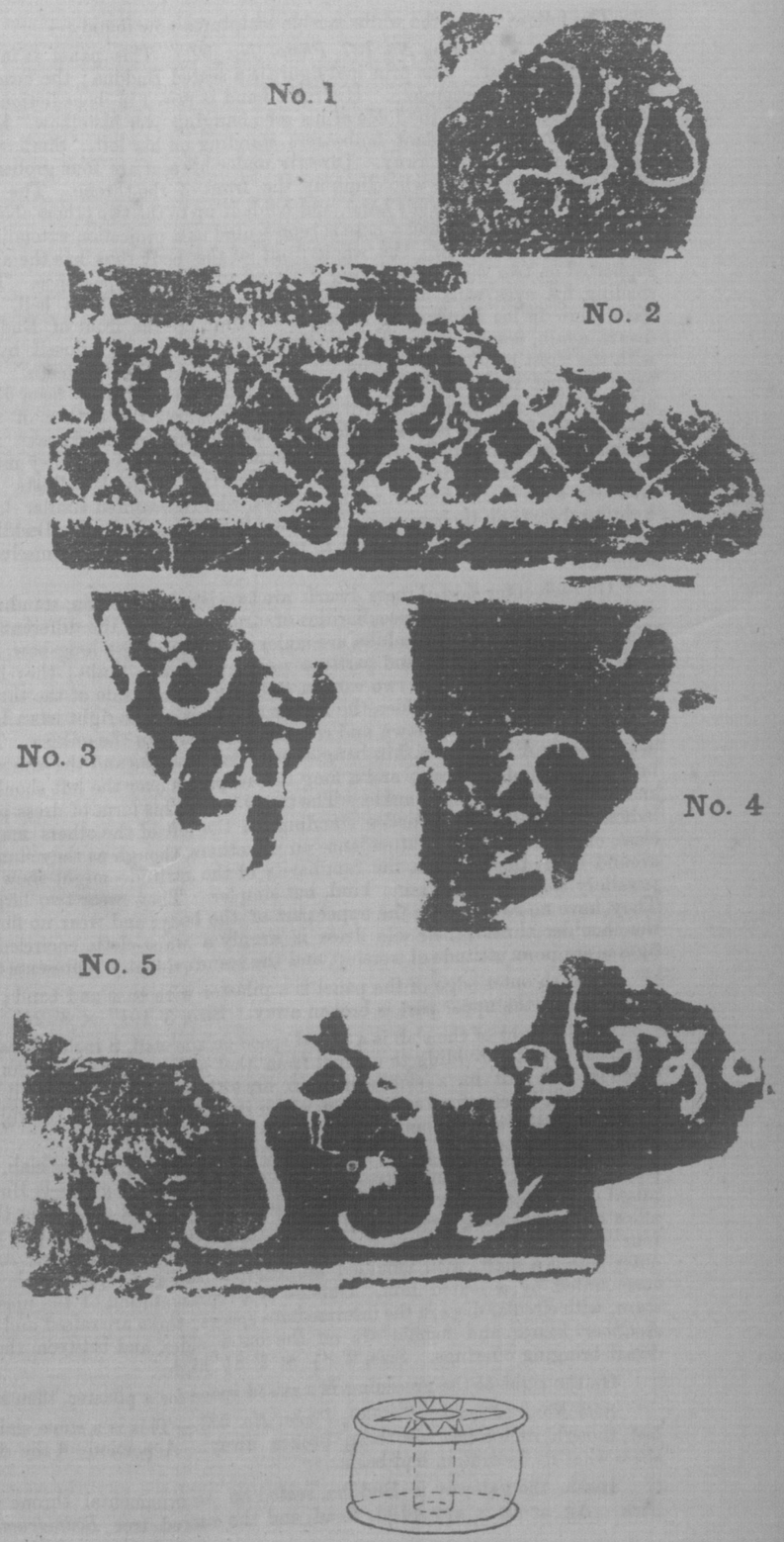


Fig. 1

(2) *Notes on the Sculptured Slabs.*

The following are the white marble sculptures now found :—

Slab No. 1 (*Drawing No.* 737, *Photo. No.* 52.)—This panel is in two pieces, with the top broken off and lost. The principal figure is a seated Buddha; the head has been broken, but the rest of the figure is complete. His right hand is raised in benediction, and he sits with the left folded across the body, the folds of his robe hanging over his elbow. He is seated on a cushioned throne, with two attendant fanbearers standing on his left. Similar figures would be on the right, but this is broken away. Directly under his seat are four grotesque *bhutas* or dwarfs; two below support other two who climb up the front of the throne. The left under one has, what appears to be, a torch in his hand, and holds it up to the two others above. His breasts are made so as to form two eyes, and a nose is represented as a projection extending from the middle of his chest down to his navel. The whole front of the body thus has the appearance of a large face supported on two short legs, giving it a most grotesque appearance. The right dwarf looks up shading his eyes with his left hand, while his right holds a bell. The right upper dwarf has a club in his hands, and attempts to climb up the front of Buddha's throne. The other dwarf, again, crawls up on the other's back, and supports himself by grasping his neck-band with the right hand, and seizing the back lock of hair in his teeth. It would be interesting to learn to what race these pigmies belonged; they cannot have been Buddhists, from the hostile attitude they are always shown as bearing towards the author of the religion. They may possibly be fanciful representations of the demons of darkness. But the offering-bearing attendants are also usually dwarfs of a somewhat negro type; they may be a race who, without adopting the religion, were brought into subjection by the Buddhists. Or is it possible that the idea may have been taken from the Greeks, who represented similar large-headed, short-legged, fighting dwarfs on their vases? This may have been so, as the Buddhists undoubtedly owe the origin of some of their finest art, if not to Greek sculptors themselves, at least to their direct influence.

On each outer side of these dwarfs are two jewelled women, standing with their arms around each other's necks. The peculiarities of dress worn by the different figures merit attention. The two on each side of Buddha are males; one carrying a long-bow. They wear a waist-cloth with robes flowing down, and partly covering the lower limbs; they have bangles on the wrists and over the elbows. The two women standing on each side of the throne are in each case differently dressed. On both sides, the female standing on the right has a long robe, girt at the waist with a belt, and flowing down and covering the limbs to the ankles. They wear a peculiar high head-dress. A number of thin bangles encircle the wrists and the arm above the elbow; a double bracelet is round the neck; and a long thread passes over the left shoulder, behind the waist-belt and down round the right ankle. The two wearing this form of dress probably represent married ladies. The other two females standing on the left of the others may represent the unmarried class, or perhaps maids in attendance on the others, though as they stand with their arms wound around each other's necks, the familiarity of the attitude might show them to be equals. The jewellery worn is of the same kind, but simpler. They wear two large bangles on the ankles. They have no covering on the upper part of the body, and wear no flowing robe, nor have they the shoulder thread, their sole dress is simply a waist-cloth encircled by a belt. None of the figures are in an attitude of worship, and the scene evidently represents the temptation of Buddha.

Up each outer edge of the panel is a pilaster with base and band; there may also have been a capital, but the upper part is broken away. Size, $3'\ 10\frac{1}{2}'' \times 3'\ 2\frac{1}{2}'$.

On the right of the slab is a raised space on the wall, 8 inches broad, against which has been a marble pilaster dividing the panel from that adjoining it. On the right of the pilaster is a space in the wall for a slab, similar in breadth to the above; but it is now away. Under it, however, is a black stone support on which it had rested. On the right is the raised space for another pilaster, and adjoining it stood the panel noted below.

Slab No. 2 (*Drawing No.* 738).—This is a portion of a *stupa* slab, which wants the greater part of the top. In the centre—represented as inside the gate—is Buddha seated on a throne raised over two seated worshippers, who have each a thick cloth over the shoulders, evidently to allow of their bearing some burden easily. On each side is a broad pier with a vase at its base and four circular raised pateras or discs along the height of the pier over. Attached to each pier on its outer side is a shaft, with moulded and carved base and capital. Above is a small entablature surmounted by a seated lion. Outside is a representation of the upright piers and rails of the *stupa*, with circular discs in the intermediate spaces; these are raised and rounded convex as knobs. A *Chouri* bearer and female are on the outer sides, and between them and the gateway is a dwarf bringing offerings. Size, $2'\ 8\frac{1}{2}'' \times 1'\ 8\frac{1}{2}''$ high.

On the right of the preceding is a raised space for a pilaster, then a panel.

Slab No. 3 (*Drawing No.* 739, *Photo. No.* 53).—This is a *stupa* slab, more complete than the last, though its top has also been broken away. A portion of the dome, however, remains to shew what its decoration had been.

Inside the gateway is Buddha, seated on an ornamental throne with cushions and carved back. An *areola* is around his head, and the sacred tree *Bodhidruma* behind. The throne is

supported by two seated lions, with a casket between them, while on the ground below are two kneeling worshippers, who bring a large circular dish with offerings of (?) fruit.

Over Buddha, and forming the top or lintel of the gate, is a panel with a number of small images, around a figure of unusual form in the centre. A throne is shewn with two cushions on the seat, and side arms. On this is placed a figure with three upright lines, probably meant for a *trisula*, with side lines radiating upwards as flames. On each side of the panel are three kneeling worshippers. The scene may represent the worship of the fiery *trisula*. A similar image is sculptured on a slab from Amaravati.*

* Burgess, *Amar. and Jagg. Stupas*, Pl. XVII, Fig. 4.

The pier and shaft on the gateway are similar to those previously described; the surmounting lions sit facing outwards from the gate. Over these, and on each side of the central *trisula* panel, are two other lions, sitting facing the centre.

On the ground on each side of the gate is a man standing in a graceful attitude, with his left hand resting on his thigh, and the right holding a bunch of lotus flowers. On the exterior side of each is a female—probably the wife of the other—seated on three cushions and holding a large lotus bud. Next the gate-pillars is an attendant dwarf bearing a dish of offerings on his head. These figures present a striking difference from similar groups on all the other slabs, in that they are shewn of much higher stature. On the others, the male barely reaches midway up the height of the posts of the rail. In this panel they stand with their heads level with the under side of the upper carved rail panel. Behind them are the rail posts and cross-bars, the upper panel sculptured with the usual wavy scroll, supported by figures in the hollows between. Over the exterior top of the rail coping is a seated lion; others sit inwards nearer the centre. Between the lions, and surmounting the rail, is a *stambha*, with a three-stepped slab on its top; the widest of the steps is uppermost. It is similar to that surmounting the *tee* of the dome of a *stupa*. This representation explains the use of some slabs—each cut in three steps—found last season at the east and south gateways of the Amaravati *stupa*.* Their use was not then quite apparent; they had holes cut in their sides and I thought them to have been bases. It is quite evident now, that they have been the slabs topping these *stambhas* over the rail, and the holes would be for fixing them on to the top of the shaft, and for the securing of the finials which surmounted them, also represented on this slab.

* Report in G.O., No. 896, dated the 11th September 1888 (slabs, Nos. 56 and 85).

The dome on the slab has a lower tier of square floral panels shewn as an inner rail with coping, all projecting out from the surface of the dome as if it stood on the ledge of the encircling platform. Fergusson supposes that such a rail or balustrade must have existed at Sanchi,† and that such has been the case here, the indications on the ledge of the platform itself, and the further representations on each of these panels, distinctly shew. It appears as a minor copy of the great outer rail itself.

† *Ind. and East Arch.*, p. 64.

Over is a series of panels with groups of figures. These have either one, or in others two, figures, seated on a throne with attendant worshippers on each side. One panel has a screen, behind which, female faces look out towards those seated on the throne. These panels are sculptured *on* the surface of the dome, and from their appearance, it is clearly seen that they were meant to shew the slabs placed against it. A wavy, running decoration over these replaces a band of *trisulas* occupying a similar position on another and older slab (No. 6).

This panel has a newer appearance than the others. Its panels have the carving less undercut; and have not the same artistic finish. It is undoubtedly more modern, and may have replaced an older one which had been damaged or destroyed. Size, 3′ 5″ × 3′.

Slab No. 4 (*Drawing No.* 741).—A representation of a *stupa*, in two pieces, found standing at the west projection of the main circular wall. In the centre is a pedestal supporting a *Dharmachakra* placed over a casket, with worshippers on each side, and two animals below. Under these are two worshippers, who kneel on a pedestal placed over the semi-circular step at the entrance of the gateway. The offering-bearers approaching the gate from the right and left are the usual group of three, but they seem a different class of people. It was probably the intention of the sculptors to represent on the various slabs the different races who were devoted to the worship of Buddha. The front of the rail, and carved coping panel with the sculptured scroll, all shew flat towards the centre, and are returned back with a curve on each side to shew the circular sweep of the railing. It may be here noted, that all the panels shew this, the front with the body of the building, being raised from 4 to 5 inches above the background at each side. A piece of the dome is on the right upper end, with panels similar to those last noted. The top of the slab is defaced. Size, 3′ 5¼″ × 3′ 0½″.

Slab No. 5 (*Drawing No.* 742).—This stood, separated by the breadth of a pilaster, from the preceding. It is a *stupa* slab with a five-hooded coiled *naga* as the central object. Below it are two figures, who kneel on a pedestal above a semi-circular, lotus-ornamented step at the gate. The *naga* has no worshipping attendants on each side. This peculiarity has been already remarked on by Dr. Burgess.‡ The panel over the gate has a seated Buddha, with a worshipper at his side. The piers and shafts of the gateway support a seated lion, with the head of an

‡ *Amar. and Jagg. Stupas*, p. 78.

elephant appearing in the space behind. The return or in-going of the top of the gate at this point has a standing fan-bearer. Over him are the upper lions surmounting the façade.

The usual groups—male, female and dwarf—bring offerings to the *stupa*. The rails have four tiers of raised knobs; while over is the flowing scroll panel. On the bottom of the dome are the inner balustrade, and slabs in floral and figure design.

The top of the slab is away. When found, it lay back at an angle of 45°; and has in consequence suffered from moisture lodging in the hollows of the sculpture. The marble is, on the surface of the parts most exposed, as soft and friable as chalk. Size, 3′ 4½″ × 3′ 1½″.

Slab No. 6 (*Drawing No.* 740).—This is a *stupa* slab with its dome almost complete to the crown, and with sufficient of the ornament remaining to enable us to judge of the mode of decoration employed in the missing parts of the other slabs; and probably on the great dome of the building itself. The stone stood at the east side of what had been the south projection of the main circular wall—on its left side with its face towards the building: it inclined outwards at an angle of about 60°. The sculpture has therefore suffered from the moisture which would lodge on its surface, and a proportion of the carving is obliterated, some parts being quite soft and spongy. This is unfortunate, as it is the largest and most complete of any, but part of the top ornament remains, and supplies some portions missing in others. That it stood on its side, and not with its length upright, we may conclude is the reason for its top not being smashed off.

The central gate has the outlines of two kneeling images on a semi-circular step. Over them is a pedestal having the *Dharmachakra* with worshippers on each side. Over the gate lintel can be traced the outlines of a seated Buddha. Surmounting it are the five stelæ (*ayaka khambo*) which stood near the dome opposite each gateway. Their position, if not actually against the dome, might have been on the edge of the projection, of the encircling platform or inner *pradakshina*, at the four cardinal points. From the front representation of these stelæ, it might perhaps be thought that they stood over the gateway. The side elevation of the corresponding pillars at the sides shows, however, that this cannot have been the case. The recessed vertical side panels of the slabs are really the sides of the right and left gateways, and the stelæ there are not shown over the entrances, but inside and close to the dome.

The front of the rail only remains in part, but on the return sides it is perfectly distinct.

The upper inner balustrade is showing with its coping clearly raised from the surface of the dome. Over it, on the dome, are figure panels separated by pilasters. Each panel has a seated figure, with others grouped around. Over them is a sculptured band of *trisula* ornament, which has been carried right around the curve. Above it is a blank surface and then a horizontal band of wavy ornament. At the top of the slab, on the right side, is a large circular patera with tassels on the under side: a similar ornament has been in the centre, and another at the left. Running parallel between each is a series of ornamental rolls, with a hanging tassel on the surface between each patera.

On the right and left of the slab is a recessed upright panel, showing a continuation of the great outer rail. Opposite the coping panel of the rail is a *makara*, and above it two lions, the one placed over the other, each in a separate panel. These are intended to show the side elevations of the corresponding right and left gateways, at the other two sides of the *stupa*. Size, 4′ × 2′ 11″.

Slab No. 7 (*Drawing No.* 743, *Photo. No.* 53).—This panel was standing erect behind a large blackstone slab at the east projection of the main wall. It is carved with a *stupa*, complete up to the figure panels over the inner upper balustrade. In the centre are two worshippers kneeling behind a semi-circular step, and Buddha seated on a throne with a sacred *bodhi* tree at each side. In front of the throne are three kneeling worshippers. The people with offerings who stand on each side of the gateway, are similar in their grouping to those before described. In front of the right side recess is another offering-bearing dwarf. An important feature is shown on the sculptured panel along the top of the rail. In place of the usual scroll ornament is a procession of figures grouped together. Some are mounted on lions, and others recline on the backs of the animals with their feet on the ground behind. Some seem to wrestle with the rearing lions, while others lead them along; a few are borne down in the struggle and recline on the ground. This piece of the sculpture is interesting in that it differs from the more usual scroll found on these rails.

In the panel over the gate is a seated Buddha, with attendant worshippers. The inner rail has figure panels divided by posts with circular discs. Above this the marble is broken off.

The upper central panel, the inner rail panels, and the four central lions, have their raised surfaces slightly worn or flattened, not through decay of the stone as in slab No. 6, but, from their appearance, it would seem that it must at some previous time or other have lain so that it may have been trodden on by people passing over it. As it stood erect, however, it is unlikely that it could have fallen, and been again raised into position. It may therefore have been caused by being rubbed against, while the *stupa* was in use for worship. Similar cases are often seen in the sculpture of the more frequented parts of the South Indian temples.

This panel is almost a duplicate of one of the *chaitya* slabs from Amaravati illustrated by Dr. Burgess.* On both is the procession of animals shown on the upper panel of the rail. A slight variation of detail is seen in the centre, where, over the two kneeling images, there are, in this example, three, while in that from Amaravati there are seven. The date of each cannot be widely different, for a comparison of the details of each shows a wonderfully close similarity. The other slabs now found might also be compared in most parts with those illustrated in the work above referred to, and would tend to show the identicity of style in each. But where this is so generally marked, only the most strikingly characteristic can thus be specially referred to. Size, 2′ 10$\frac{3}{4}$″ high by 3′ 0$\frac{1}{2}$″ broad.

* *Amar. and Jagg. Stupas*, Pl. XXXVI, Fig. 3.

No. 8 (*Drawing No.* 744).—This example is a fragment of the right upper centre of a *stupa* slab. A part of the *areola* of a Buddha is the only piece of what has been the centre panel. Over it is a panel with a *chakra* on a pedestal, and a seated and standing worshipper on each side. Over this are four of the five *stelæ* or *arya stambhas* of the dome. They are square below, octagonal in the middle of the shaft, with a square foliated capital. In an inscription at Jaggayyapeta these shafts are called *Ayaka khambhe*.* On the right of the fragment is a lion seated facing the centre. Over it is a panel with a small figure of Buddha seated on a throne, and two worshippers on his right. An ornamental band of processional lions, and another of sculptured *trisulas* are over; this has formed a part of the lower curve of the dome.

* Burgess' *Amar. and Jagg. stupas*, p. 71.

The sculpture has a much newer appearance than any of the slabs, as if it had been less exposed to the weather; and the execution of the more minute floral ornament has not the high finish of workmanship displayed by the others. It is similar in style to No. 3. Though a comparatively small piece of sculpture, it supplies a portion of the upper central ornament over the gate, which is less complete in the other examples. Size 2′ 1″ high by 10″ broad.

Though this is the largest of the three *stupas* here discovered, the fact of their standing so widely apart perhaps shows that a considerable Buddhist town must have existed on the spot; it is very probable therefore that, though a large building, it may not have been the principal place of worship on the site. The large mound, with the trigonometrical station and bungalow on the top, is circular, and about the same size as the *Dipaldinne* at Amaravati; it is quite possible, judging from the remains on the surface, that a large building may lie buried under it. In connection with this, it is curious that, till these were discovered, there was even no shadow of a tradition regarding this having been a Buddhist site. Their name was completely blotted out, and the only traces that survived lay buried in the mounds, even these being attributed as the relics of a small and obscure European settlement which existed in a corner of the town the Buddhists had founded. There would thus seem to be some truth in the legend of a sudden destruction having overwhelmed the town, and almost completely effaced it at one sweep, though it would be wrong to ascribe this—as has been done—to the much later time when a European colony appreciated the advantages of the site as a place of settlement.

VI.—KAMAPALLE.

Is a small village, 12 miles south-west of Narsaravupeta. It has been mentioned * that there is a deserted temple, and an inscribed stone on a mound. The former is almost completely ruined, only the four corner upright stones of the shrine and the roof remaining. Foundations of brick are visible, and in front is a rough pier with an image carved on the side facing the shrine. An image of Krishna stands near.

* Sewell's *Topog. Lists*, Vol. I, p. 69.

The mound is named *Samuladinne*, and the inscription is in old Telugu letters, slightly cut on an uneven surface and almost illegible: at the head is an outlined *linga*. A stone with a nandi carved on the top and a number of boulders lie near. The mound is probably a tumulus, and the boulders still remaining may be part of the enclosing stone circle. Under a tree to the north is a dolmen, and close on the north outskirts of the village are three others. One with its top slab gone, has a Ganesa inside. Two others remain complete, and one has been adapted as a shrine to Ganga, of whom a small image stands inside. In this instance, the round hole usually found in a side slab of certain *kistvaens*, exists on the west upright slab; the side facing the east is open. This is one instance at least of a shrine for the dead being adapted as a place of worship for the living.

In the village is a bas-relief of Hanuman, and a thin slab with a defaced *viran* carved on its surface in low relief.

VII.—CHEZARLA.

The village stands 14 miles west-north-west of Narsaravupeta (not "east-north-east," as in Mr. Sewell's *Lists*, p. 68). The north, west and south-west sides of the village are enclosed by a low range of rocky hills covered with jungle scrub, and in parts infested by wild animals.

The previously published information of the extent and nature of the antiquities is rather misleading. From it, the village would seem to be filled with temples, statues, sculptures, &c., 78 temples being mentioned. With the exception of a roofless enclosure recently built to enclose a bas-relief of Hanuman, there is only one temple, and no statues in the village. There are a few ruined shrines on the surrounding hills. The list may have referred to the unusually large number of small shrines in the court of the large temple itself; or, the case may be similar to Dendaluru in the Godávari district, where I found that 55 temples, reported to be there, had only a traditional existence. This latter would seem to be the case here, for the remains quoted in the *Lists* (*ib.*) correspond with those given in one of the inscriptions dating from the end of the last century. If the inscription can be trusted, it is interesting as showing what remains then existed; the majority have now disappeared.

(1) *Abstract of the Inscription.*

It is dated Monday the 10th *magha* of the year *Kalayukti*, or of the year A.D. 1799.

The invocation is Sri Cherum Cherala, the Southern Kasi (Benares). Sri Mat Kapotesvara Sibirajavaradu (the temple of the god of that name). Sri Mat Kapotesvara, Sriman Maha Deva Deva (the abode of the true god). Sriman Mukha, Sri Karna, Sri Namasvaya, Gauri (secondary deities). In the boundaries of the village of Sri Cherum Cherala are 78 temples, 28 *Nandis*, 11 *Vinayakas*, 10 *Bhairavas*, 1 *Kumaraswami*, 1 *Mathava*, 1 *Giruda*, 1,000,001 *Lingas*, 62 *Durgas*, 2 *Viras*, 20 *Nagukals*, 9 *Suriyas*, 11 *Chandras*, 1 *Viran*. 24 *Akkadevas*, (goddesses), 2 *Krishnas*, 4 *Ramalakshmanas*, 3 *Hanumans*, 2 *Venkateswaras*, 6 *Sasanams*,* 1 great tree,† 8 *Duvarapalakas*, 1 Sulam,‡ 4 *stambhas*,§ 4 caves,‖ 4 *chaultris*, 101 wells, 1 aqueduct, 3 tanks and 30 ponds.

* At present in the temple with others more modern.

† Of the *ficus* species growing in the south court.

‡ A Buddhist *Trisula* over a long inscription on white marble (Ins. No. 374).

§ Buddhist; in white marble.

‖ Three are natural, in the Devarakonda hill, and one from which the large tree is supposed to grow.

Tangaturti Butchayya (the donor) daily performs 1,000 acts of worship. He who repeats that all these are in the village will have practised the same charity as if he had placed 1,000 *Lingas* in Benares. But he who denies it will have committed the like sin of having killed a Brahman at Kasi. This inscription was engraved by Rangoji Ramudu.

(2) *Kapotesvara Temple.*

The principal temple in the village is of great antiquity and sanctity, and dedicated to Kapotesvarasvami. It is a curious medley of 35 small shrines scattered about, without apparent arrangement, inside a double courtyard, (Dr. No. 745); most of them seem quite modern. In one is a finely carved Chalukyan doorway, (Dr. No. 746). The outer court measures 298 feet from north to south, and 291 feet from east to west. Its walls are 6 feet 3 inches thick, built of small coarse stone slabs. They are now somewhat ruined in places, but must in early times have been of the nature of a fort. The inner court is 167 feet 3 inches from north to south and 174 feet from east to west. Its walls are 5 feet 6 inches thick, built of large polygonal blocks of masonry.

The main shrine is a remarkable structure of curious and unusual design, and is very ancient. The peculiarities of plan and construction merit special attention. It is apsidal-ended on the west, and square on the east or entrance side. The roof is barrel vaulted; the vault being returned round the apsidal end. The east facade is upright to the crown of the vault, the tympanum being ornamented with niches, accessory pilasters and cornices. Its total height is lofty in relation to its breadth; the proportions being similar to various sculptured representations of *Chaitya* halls. A study of its features should be sufficient to prove that it has had a Buddhist origin.

(3) *A Buddhist Chaitya Hall.*

(Accompanying Plate I.)

A few of the most typical proofs of the character of this structure may be first briefly noted as follows:—

1. A shrine built of large bricks, with thick walls indicating great age.
2. Its floor is not only under court level, but below the level of its entrance *mandapas*, showing that it is older than they.
3. Its apsidal-ended plan and design are those of a Buddhist *chaitya*.
4. Though now used by Hindus, its proportions are widely different from any shrine originally built for their worship.
5. It bears undoubted and admitted evidences of having been altered to adapt it to Hindu worship.
6. The presence of the following white marbles. Two Pali inscriptions on a pier; and another lengthy one with a *trisula* over it. Several Buddhist columns; a sculptured slab and a large number of *Lingas* also in marble, which may very possibly have been hewn out of Buddhist piers as was the case at Amaravati.
7. An adapted Buddhist *Jataka* for the *sthala purana*.

The dimensions of the building are as follows (Dr. No. 748, fig. 1). The plan is apsidal on the west end, the exterior being semi-circular, while the interior is a flatter segmental curve. The curved wall is 4 feet 7 inches thick. The interior breadth across the apse is 8 feet 3 inches, with side walls 3 feet 10½ inches thick. The breadth at the entrance is 8 feet 9 inches, but as the exterior lines of the side walls are parallel, this increased breadth makes them 3 inches thinner than they are at the back. The exterior length is 30 feet 3 inches; the inner length is 22 feet 11 inches; but to this is added a wall 2 feet 9 inches thick, built across the east end to form an entrance. This may be the extent of the original building, though as the porch directly in front is also built of large bricks, whose courses would seem to run parallel to the others, it may also have been original, though its walls are slightly thinner than the others. This feature of an entrance porch exists in some of the rock-cut examples, as at Karli * and Dhamnar. If this had been the case here, its front would be occupied by two piers with side pilasters; while standing detached in front would be the usual two lion-*stambhas*. The porch adds another 25 feet, making the total inside length 50 feet 8 inches. With regard to this, it must be noted that this porch floor is 9 inches above the shrine floor. Now unless the floor has been raised, it would go to disprove the theory of the porch being of an equal age. The *mahamandapa* is without doubt a later erection, built to conform the shrine to the usages of Hindu worship. The shrine floor is a foot below the courtyard level. Along the two interior sides are ten stone piers, propped at intervals against the walls, supporting stone beams and a ceiling of flags, 7 feet 6 inches high. This was an innovation introduced to reduce the height, and bring it down to the proportions of a Hindu shrine. A reference to the section will explain this. Nothing could be learned of the construction of the interior above the ceiling, except that there is a tradition as to its being a hollow space with a vault over. There can be little doubt but that the walls proceed upright to the wallhead at the springing of the vault, and above that, there would be, or perhaps at present are, curved wooden rafters acting as supports to the vaulting, as was usual in *chaityas* such as those illustrated by Fergusson.† The vaulting is of brick, in horizontal courses, and of a low parabolic section. The side elevations are of unique construction. The brick courses are horizontal, but the vault and lines of the wall-head cornices dip backwards for 2 feet 3 inches in the length. On the north exterior side of the shrine are 12 small detached monolithic shrines of ancient design, such as are seen on niches or cells of early cave works. The stone is a white limestone resembling marble. Each has a small *linga* carved out of the solid in bas-relief on the back of a small opening. Whether these are contemporaneous with the shrine it is difficult to say. There are four others in the courtyard, and another lies by the south side of the large tank west from the village. They may date from the first Hindu occupation (Drs. Nos. 749 and 750). The exterior of the shrine vault is plain brick and plaster, and the side walls are devoid of ornament, there being simply the main cornice, with three tiers of stepped mouldings above it. The east elevation is upright, and the lower portion of the facade is abutted against by a porch or *mandapa*. Above the porch roof, the wall is vertical up to the line of the springing of the vault. Over this, the wall inclines backwards at right angles to the line of the ridge. The ornament on this facade is in plaster, and Hindu in character. It probably replaces a tympanum of wooden construction such as *chaitya* halls seem to have had.‡ The bricks used are 1′ 5″ × 9″ × 3.″ Some others appearing through cracks in the plaster are 1′ 4″ and 1′ 3″ long. It has been above noticed that the floor is below the courtyard level. To any one acquainted with the subject it will be at once apparent that this could not have been the case when the structure was erected. It would be placed *higher* than the surrounding ground, at a surface now below the floor of the court. It is thus a link in the evidence proving the ancient character of the shrine. With reference to the dipping of the roof, and the increased width of the entrance, it will be remarked that whether intentional or otherwise, the construction is one calculated to give the building accoustic properties such as would aid in concentrating and throwing forward the voice of a speaker stationed inside. Its length too would impart a resonance which would give to his words an impressiveness otherwise wanting. For a Hindu shrine these would be no desiderata, but it might be otherwise for one built for the worship of Buddha. These are points for consideration, and when it is acknowledged that the Buddhists were masters in artistic architectural and constructional art, and when, according to Fergusson, they had studied the art of lighting their shrines, we may be permitted to suggest that in addition to borrowing a knowledge of art they may also have learned something of accoustics from the Greeks who originated the science.

* Fergusson's *Ind. and East Arch.* Pls. 54 and 65. Fergusson and Burgess' *Cave temples of India*, Pls. LIII, LXII, &c.

† *Ind. and East. Arch.* Pls. 46, 53, 56 and 58.

‡ *Ib.* compare Pls. 47 and 111.

The structure is brick throughout, and without any tower. In connection with this, two important facts must be mentioned. The only races in the south, that we yet know of, who erected apsidal-ended shrines were, first the Buddhists with their *chaityas* constructed of bricks—in the early centuries of our era; and the later Cholas who, in the eleventh century, formed circular-ended structures in stone. These latter have left no examples of this class in brickwork. In addititon to the Cholas the Pallavas may be mentioned, as they have left a monolithic example at Mamallapuram. A feature peculiar to the first of these, is that they had no tower; the latter

invariably had, always rising direct over the circular end of the shrine. It will be seen that this building resembles the first of these classes and has no features in common with the others, nor with any Chola building yet known. The building is thickly coated with plaster so little can be learned from the form of the detail. The wall head-cornice nevertheless bears its ancient character, and, in spite of the plaster, the remarkable proportions of the shrine are at once apparent. Though it is unfortunate that the early detail should be thus obliterated, we must not forget that it is to the fact of the Hindus having adopted it as a place of worship—as they have done with certain Buddhist caves and *dagobas*—* that we owe its preservation to the present time. There thus seems a certainty that here we have a Buddhist *chaitya* standing in its entirety, though sadly defaced by the white-washing tendencies of the Hindus. It should be noted in connection, that there are in this and other shrines 29 lingas of white marble. There are several white marble columns with Buddhist carvings in the court (Dr. No. 750); one has two inscriptions in Pali (fig. 1, and inscriptions, Nos. 376 and 377); the other is carved with the usual Buddhist semi-circular pateras of lotus leaves. Another marble pier has latterly been inscribed in modern Telugu (Dr. No. 747, fig. 3, and Ins. No. 384). There is also a figure sculptured white marble slab in the south side of the courtyard (Dr. No. 747, fig. 1); and another slab of the same material standing in front of the shrine with a long inscription of 49 lines, with a *trisula* over it (Dr. No. 747, fig. 2, Ins. No. 374). The presence of these supports the theory, as they may have been removed from their position in the *chaitya* portico, when the building was being adapted to Hindu worship by the erection of the adjoining *mandapas*. This would necessitate the removal of the colonnade of marble piers.

* One is worshipped as a *linga* at Guntupalle.

(4) *An Ancient Sacred Tree.* (*Adansonia digitata*).

Standing in a line with, and south from the *chaitya*, inside the outer court, is a large tree which, having a hollow core, is popularly stated to grow from out of a subterranean cave. It is known as *Peruleni pedda manu* (the nameless great tree). Around the base is a platform 25 feet by 22 feet 6 inches and 3 feet high. The circumference of the trunk at that height is 58 feet 6 inches. The first branches are 9 feet 6 inches from the ground, and there the girth is 56 feet. The spread of the foliage is 78 feet across, and the height of the tree is about 87 feet. It has large 5—7 lobed leaves: large flowers; and seed in a hard woolly pod. It must be of great age (Photo. No. 56).

(5) *Various Ruins, and Traces of the ancient Manufacture of Steel.*

The other ancient buildings around the village are few and insignificant. On the tops of the hill to the north-west is a ruined shrine of Kumarasvami. At the west base of the same hill are a few small brick shrines all more or less ruined; none of them can be older than the 16th century. The Hanuman temple in the village is simply a three-walled roofless enclosure. On the east outskirts is a large clay pit from which the ruins of a temple have been removed to provide building materials. It is said that a brass image and two others in black stone were found there and they now serve as deities in the large temple. It is probable that the large bricks, of which some of the modern shrines in the Kapotesavara temple are built, were found here. Further to the east is a low irregular mound named *linga dibba*, after five *lingas* which still stand erect on the foundations of some demolished Hindu shrines. There are no other mounds in or near the place which might mark an ancient site. Between the Kapotesvara temple and the west tank are some large and ancient heaps of debris from the smelting of iron ore. No such industry is carried on in the village now-a-days, nor even has been in recent times; but a local tradition states that in ancient days an extensive manufacture of steel was carried on here, the ore being brought from the hill of Guttikonda in the Dachepalle taluk. India was anciently famous for its steel, blades of high temper and quality being in great repute. The manufacture reached a high state of perfection before the Christian era. Though this industry has undoubtedly been carried on here, it would be hazardous to assert that it might have flourished at so early a date as that: there are no visible proofs present to fix even its approximate date.

(6) *Remains on the Devarakonda Hill* (*Hill of the gods*).

The hill stands over a mile west of Chezarla and reaches an elevation of some 200 feet. It is covered with large granitic rocks and jungle scrub. At the south base is a small ruined and deserted stone temple of Durgibhairava. It has a shrine, enclosed *mandapa*, and small pillared *gopura*. It may date from the 16th century.

Close to the west of it, is a natural cave in the rock. The roof is rounded and the entrance has been artificially widened by hewing the rock. To give regularity to the interior, walls are built under some of the overhanging portions of the rock inside. In front is a rough enclosure formed of stone blocks. In this space, 7 or 8 images about 2½ feet high are said to be buried in the ground; the face of one was picked up on the spot. The cave had been in use as a temple about the same time as the adjoining structural shrine.

About 50 feet above, and slightly to the west, is another similar cave, with mud and stone walls built inside and in front. Standing near, is a thin slate slab, 2 feet high, carved with an

image in low relief. Another small square stone with the corner off, has two *sripadas* on a circular lotus patera. Another small slab has standing figures of Krishna and two *gopis*. In the inner recess is a buried *linga*. An inner and an outer stair lead up to the upper part of the cave which has been formed into a separate compartment or shrine by the erection of walls. In it is a small brick enclosure built against the wall, its sides being stepped back and upwards to a point against it. It has been a shrine for a *linga*, the *panavatham* of which lies upon it. All the constructional work is of the roughest possible description. These caves, along with the temple of Durgibhairava, seem to have been deserted after being desecrated by the Muhammadans. The caves are mentioned in the local *Sthala purana* as having been the abode of *rishis*. There seems no reason to doubt its being true. Around the base of the hill, towards the west, is a small brick shrine, with some upright enclosing pavement slabs standing around. Three others similar stand at intervals on the west and the north sides of the hill. These are said to mark the road by which the processional *ratha*, attached to the above temple, proceeded round the hill when it was dragged out at the annual festival.

On the summit of the hill is a ruined temple of Mehallamallesvarasvami. It is a brick structure: the shrine and tower being in a dilapidated condition. In the front *mandapa* are two Bhairavas and a Durgi to whom *puja* is occasionally made. In front is another Durgi on a slab. There are also a Ganesa and a *nandi*, both with their heads smashed off. The *nandi* stands on a *panavatham* with one line of a nearly illegible Telugu inscription which seems to read శ్రీసనమువుప్పడుప్ప (Sri sanamupadupu).

At the south side is a black slab with seven seated female figures or *sathamahas*. In a panel below each are their several *vahanas*, in the following order from the left, *hamsa*, *nandi*, parrot, *giruda*, buffalo, elephant, and an ass. All the heads and breasts of the goddesses are chipped off. At the back of the temple are two other slabs with their heads destroyed. The condition of these betokens a previous visit from the Muhammadans. Up the east side of the hill is a rough causeway leading to the shrine on the summit. It is now little used and blocked with bushes. Two small shrines stand by the way.

(7) *Burial Customs.*

In the burial grounds on the east side of the village are some modern kistvaens, which have been erected by certain of the castes to cover the remains of the dead. Though these differ considerably from the megaliths—of the pre-historic tribes—which exist all over the country, they are nevertheless interesting in showing that the custom is not yet extinct, but is still practised by some, and probably always has been from pre-historic times. The custom had at one time been a general one in use by all the tribes scattered over the country, and though it had fallen into disuse by other sections of the people, it has survived here, probably through the facility with which the people can procure suitable slabs of pavement from the adjoining quarries. This would seem to have been the case, for even here, members of the castes—which use these kistvaens—when they cannot afford them, dispense with their use altogether. It does not, therefore, seem to be a matter of caste necessity, though they have a preference for its use when possible, and were stone unavailable, it would probably fall into disuse completely, even the tradition of its having been so used would disappear, as it has done elsewhere. A consideration of this circumstance might go to prove that at different periods in early times, a considerable migration of the original people, who used this mode of burial, had taken place; and that they must have come from hilly tracts where stone was plentiful and easily obtained. When they settled in their new habitation on the plains, they would take their customs with them, and this special one, they would, for a time, continue to practise even in spite of the difficulties attendant on procuring stone slabs of suitable size. These difficulties would in time gradually force themselves upon the people, till the custom fell into disuse; and this neglect would in time permeate even the tribes who dwelt nearer the hills, till it disappeared altogether. The custom which supplanted the use of megaliths, was probably that of placing the remains in earthenware sarcophagi. The intermediate or transition stage would be shown when these two occur simultaneously, or when the earthen sarcophagus was placed inside a kistvaen. The latter stage would be reached when the earthenware grave stood apart and free of any such enclosure. Even this latterly fell into desuetude, probably through some sufficient cause, though we cannot at present say what it may have been. The remains were then simply placed in the earth without any enclosure whatever, as is that in general modern use.

In the custom which prevails here, the body is laid horizontally in a shallow grave, the earth is heaped over it in a long narrow mound, and these kistvaens are then placed over it. They do not approach a square, as in the ancient examples, but bear a proportion to the size of the body. At the head and feet are small upright slabs about two feet broad. Long slabs are placed upright at the sides, and another of sufficient length and breadth to cover these four upright stones is laid on the top. In some instances a separate stone is placed upright at the head of the grave. Their use thus seems primarily to be to protect the mound, and prevent its being washed down by the weather. Another important purpose these kistvaens would serve, and probably one of the first considerations which influenced their adoption would be—in a time when they were more numerous than they even are now—to protect the remains from the ravages of wild beasts.

Those who still practise this mode of burial are Vaishnavas of the following castes: the Gentus or Balingallu, here known as Telakallu (cultivators); Sakalavallu (dhobies or washermen; by the Sathani (or Sudra priest for the Vaishnavas); Salavallu (weavers or workers in cloth); and the Pariahs. Saivites of the same castes burn their dead. This is curiously the reverse of the custom peculiar to the sects further south, where the Saivites bury and the Vaishnavas burn. With the Saivites here, a shallow grave is also dug, and after the remains are placed therein, bushes are cut on the spot, and heaped over the body. Large stones are then thrown over these, and the pile is lighted in the evening. When everything is consumed, the earth is heaped over. The absence of Kistvaens in these cases seems to be simply that no purpose would be served by their use. With the others, of course, the case is different. In the casting of stones over the layer of bushes, we probably have a simple explanation of the presence of such in some of the pre-historic graves at Pallavaram, and other places lately examined. In these particular cases, cremation may have been practised, and the small holes which were seen in some of the pyriform tombs may have been to facilitate the burning.* In the village, all Brahmans, both Vaishnava and Saivite, practise cremation. Some years ago, a carpenter fell over the rocks on the west side of the Devarakonda hill, and was killed. He was buried where he fell, and a cairn of stones heaped over the grave. An upright stone post, with a *nandi* on the top, and an inscription recording his name and the year of his death, was placed to mark the spot. The fact of his remains not being removed to the ordinary burial place in the village seems to have been through a superstition held regarding the nature of the fatality, and the sacredness of the hill, the scene of the sacrifice, as related in the *Sthala purana*, of two devotees of Siva.

* See remarks on the subject in *Some pre-historic remains in Southern India. Journal, Asiatic Society, Bengal.* Vol. LVII, par. 1, No. 2, p. 10, 1888.

(8) *Legends of the Sthala Purana.* (*An adapted Buddhist Jataka*).

The *Puranas* of Chezarla, and the sacred shrine of Sri Sailam in the Karnul district—distant about 70 miles—are intimately associated. The two are written in Sanskrit verse, bound in one palm-leaf manuscript, in the possession of the *Dharmakarta* of the Chizarla temple. Another *Purana* of the latter place is in the possession of a Brahman † at Timmapuram, but it is stated to be quite new. The one with the *Dharmakarta* is said to be over 100 years old.‡ It is traditionally stated that the king who built Sri Sailam was also connected with the erection of this temple. This favors Dr. Burgess' theory of the Buddhist origin of the former.‖ Pilgrims who visit that most sacred of temples, must first pass through one or more of eight others which rank second in religious importance. These are metaphorically styled gateways. These shrines stand at various distances around the chief one, at the eight points of the compass. Those pilgrims who come from the north-east pass through Chezarla; those from the east are said to go *viâ* Tripurantakam; others visit Yelesvaram, and so on at the five other places.

† Sewell's *Topog. Lists*, p. 69.

‡ The Chizarla MSS. had been detached and sent to a Brahman—one Kolatshala Yegga Narayana of Ramachendrapura Agraharam—at Guntur, for translation into Telugu prose. I was therefore at the time unable to see it. I was shown the Sri Sailam *Purana*. It is in 74 pages written in Sanskrit verse with Telugu characters. I had a translation made, but it has little or no historical information, and is chiefly of a mythical nature, relating a conversation between Siva and Parvati extolling the extreme sacredness of the site. It need not therefore be given here at present.

‖ See the interesting paper in G.O., No. 742 A, of the 8th April 1886.

The legend of the origin of the temples at Chezarla, as narrated by a Brahman of the village, is as follows. The story is a version of one of the Buddhist *Jatakas*:—

In Kashmir, one of the largest and richest of the 56 kingdoms of India, a king named Sivichakravarti, son of Mandata, and grandson of Eyayatimaharaja (see the *Ahrenyaparva* of the *Mahabharata*) reigned peacefully and justly during his long period of years. He had two brothers—named Mehadambara and Jimutavahana. One day Mehadambara asked his brother Sivi to permit his going on a pilgrimage to all the sacred shrines and rivers in Southern India. The king was much pleased with the request, and ordered his prime minister to make all the necessary arrangements for his brother's journey, and at the same time directed 1,500 people to accompany him. The prime minister did accordingly and Mehadambara started immediately with the escort given by his brother the king. He visited a number of holy shrines and rivers, and at last came to a place named Cherum Cherla where many *Yogis* were doing penance in the caves of Devarakonda (a hill now also named Mehalamallayakonda). He went and conversed with the *Yogis* for some days. By so doing, he suddenly lost all interest in worldly affairs, joined the *rishis* and began penance along with the others. Some days after, he died, and his body was buried on the summit of the hill. Through the power of his penance, it assumed the form of a *Linga*. The people who saw this, built a temple over the *Linga*, and named it Mehadambaresvara. The followers of the prince, who had been ordered to return to Kashmir, went their way and told everything to king Sivi, who, up to this, had been expecting his brother's return. After hearing these things the king grieved for his brother Mehadambara, and after consulting with his younger brother Jimutavahana, that prince promised to bring the missing brother, and started with an escort of the same number of followers. After spending many days on the way, he reached Cherum Cherla, where he made inquiry for his brother. When he came

to understand that Mehadambara had lost his life, and been transformed into a *Linga*, he determined to do the same; he dismissed his escort, and sat as a *Yogi* on the same hill. His penance exceeded in severity that of his brother, for which his body soon attained Kailasa. On the return of the followers to Kashmir, they informed king Sivi what Jimutavahana had done, and that they had not seen the other brother Mehadambara there. The king who had grieved about the first brother, now fell into deep sorrow over the fate of the other, and calling his prime minister, handed him his ring. The prime minister received it, and was instructed that he should carefully govern the kingdom for some months, as the king wished to visit the place where his two brothers had gone. So the king immediately started with 1,000,001 people, and making some haltings by the way, at last reached Cherum Cherla. On learning of the deification of his two brothers, and seeing the *Linga* of the former, Sivi determined to perform 100 *yahas* because of the holiness of the place. He made all ready, and selected a place for *yahasala* by the side of a water-channel, near to the great tree. He completed 99 *yahas*, and began the performance of the last. On completing 100 *yahas*, the merit would be the attaining of the realm of Brahma. But this deity and other *devas* conferred with Siva and Vishnu to interrupt the last *yaha* of Sivi so that it might be rendered ineffectual, if he did not stand the test they proposed to impose. These three therefore—Brahma, Rudra and Vishnu,—descended to Buloka, at a spot now named Rupanaguntla (*rupu*, sight). The place was thus named through the *Trimurti* here making themselves visible to the sight of mortals. They then stepped over to Kandlagunta from whence they looked for Sivi (*Kandlu* looking). After leaving this place they halted at Vipparlanagari, and there transformed themselves,—Siva as a hunter, Brahma as an arrow, and Vishnu as a bird (*kapotabakshi*). The hunter with his arrow then ran and jumped about, affecting a desire to shoot the bird, at a place now named Kunkulagunta (*kunkal* jumping about).* Then the hunter followed the bird to where Sivi was engaged in his *yaha*. The bird flew rapidly and alighted on Sivi's hand, making signs that it wished protection. Shortly after, the hunter appeared before Sivi, who had the bird in his bosom, and spoke thus: "My Lord I am a hunter who live on the flesh of birds and animals; this bird that you now hold in your bosom I have pursued from early morning, but it escaped me. I am hungry and thirsty, so in justice give it to me so that I may kill and eat it." Sivi replied that it was not justice to deliver over the bird when it had fled to him for protection, but promised instead to give whatever the hunter wished, land, gold or wealth, anything but the bird. The hunter would have none of these, but only demanded the bird's flesh to appease his hunger. Then Sivi said he would give of his own flesh, a weight equal to that of the bird's. To this the hunter agreed, and Sivi placed the bird on one scale. With his own hands he tore off portions of his body, and placed them in the other scale; but, by the power of the *Trimurti*, they did not balance the weight of the bird. On seeing this, king Sivi procured a *Gandakattari* (long shears) and cut his body in two pieces, and had one-half placed on the scales. Immediately the *Trimurti*—Brahma, Rudra, and Vishnu—assumed their real shapes and appeared before Sivi; and Siva addressed him thus: "My dear believer, I am much pleased with your *yahas*, and sacrifice for the sake of the bird, ask whatever you wish, I will make your body more beautiful than before, and you may be a king of kings." King Sivi overjoyed, replied thus: "O Paramesvara, Parvatisameda, Annadaratshaka, O Patbunta, Sri Mahadeva, I want nothing but this which you might vouchsafe me, I want no kingdom such as I enjoyed in my worldliness. I desire only the bliss of Kailasa for myself and the 1,000,001 people who followed me here; and that all our bodies should be transformed into *Lingas* to remain for ever in the boundaries of Cherum Cherla. Siva immediately granted these requests, Sivi and his followers attained Kailasa, and their bodies were transformed into *Lingas*. The Brahmans at once erected a temple over, and named Sivi's *linga* Kapotesvara, as he gave up his life for a *Kapotabakshi*.

* Rupanaguntla, about 10 miles to the south-east; Kandlagunta, 16 miles east; Vipparlanagari, 7 miles south-east; and Kunkalagunta, 2 miles east of Chezarla.

In support of the legend, the Brahmans point to the white marble *linga* which has two large holes on the top, and small marks round the sides. One of the holes is said to hold but one pot of water; while the other which represents Sivi's throat can receive numberless pots. The small marks on the sides are the scratches made by Sivi's nails when he tore the flesh from his body.

The story not only occurs in the Mahabharata, but also in the Buddhist *Jatakas* where the king's sacrifice was made to save the life of a hunted pigeon. The connection of the legend with the place may be very ancient, and probably originated during the Buddhist occupation. The Hindus having a similar story, adopted it, using their own version, with their own deities as the principal actors, to the exclusion of the Buddhist characters who had figured in the tale. It is doubly interesting when we consider that it was also a Buddhist legend, and taken in conjunction with the discovery of Buddhist remains, may be looked on as additional proof of the identicity of the shrine. The legend, as related, has therefore been given in full.

VIII.—KUNKULAGUNTA.

This is one of the places mentioned in the Chezarla *sthala purana*. There are two temples here, both in a ruinous condition. On the north outskirts is the small temple of Virabhadrasvami. The shrine is a plain structure, with a small walled *antarala mandapa* and a pillared *mahamandapa*. The former is quite plain; the latter has 16 piers in four rows, the four central ones being older than the others. The first are square below and above, with an octagonal portion in the middle of the length. The others have square shafts. The temple is built of stone throughout, and some portions are in a ruinous condition. Near the *mahamandapa*, some stones lie in two lines on the ground: they have been intended for the construction of a platform around it. An inscribed stone stands near.

About 200 yards north-east of the village are the remains of a temple of Bogesvara. There are a few rough piers, some of which still stand erect, and others lie about in different places. A *linga* stands in a heap of mud, and adjacent are two inscribed stones.

The temples date from the 12th century.

IX.—MOUNDS AT PANIDEM.

The village stands about 6 miles south-south-east of Krosuru. About a mile to the west is the hamlet of Dipaldinnepaliem, named after three large adjacent mounds. The largest is about 173 feet in diameter, and 28 feet high. Two others are near and measure, the one on the north, some 173 feet in diameter by 9 feet high and that on the south, 126 feet in diameter by 7 feet high. A trench had been previously cut through each of them, and the sections thus exposed, showed them to be artificial, with thick layers of black earth, and thin deposits of gravel. In these excavations nothing whatever was found, and there was no trace of even a brick or other building material. Around the base of the largest is a circle of large stone-boulders. As the previous trenches were cut right through at the level of the present ground surface, the non-existence of a building might scarcely be considered as conclusively proved. A few cuttings were therefore made at the entrance to the trenches, and at some other points varying in depth from 3 feet 6 inches to 6 feet. In every instance, at the former depth, a natural strata of lime nodules or kankar (Tel. *gatsu*) was found, and as it continued down to the greater depth, it was unlikely that anything would be found by carrying the digging deeper. The black artificial earth of the mounds has been placed immediately over this strata; the sections showed this clearly. Should that have been the ancient surface, the date of the mounds would be about the 13th century.

Local tradition states that they were made through the heaping up of the soil taken out while digging a tank now silted up; and the boulders were placed in a circle round to prevent the earth being washed down into the tank. The explanation is more ingenious than probable, as it would be a very unusual proceeding in works of the kind. Others relate the usual myth of a buried treasure. A story states that a dancing-girl lived on one of them, and buried a large treasure there; she lighted a lamp on the top, each night that she saw another on the *Dipaldinne* at Amaravati.

The mounds seem to be large tumuli.

X.—ANCIENT SITE AT ATTALURU.

This is a small village about 6 miles to the north-east of Panidem. On the north are some extensive irregular clay mounds, from which the villagers procure material for building purposes. They are known under the name of Peddapadu, and are evidently the site of an ancient settlement, from the name, probably Buddhist. There are no walls visible; the houses would thus seem to have been built of mud, hence the large deposit of this material. Broken pottery abounds, but no signs of bricks or stones; it is said that coins are sometimes found. On the north side of the site is a circular mound about 60 feet in diameter by 8 feet high, known as *Dipaldinne*. Its surface is formed of gravel, and some rough blocks of black stone appear at intervals around it. The people say it formed part of the bund of an old tank now silted up, which was attached to the ancient village. This, however, is very unlikely as it has no appearance of being such. It is either the site of a building, or a tumulus like the mounds at Panidem. As there are no bricks or other remains on the surface, it is most probably the latter. There is a stone standing near the mounds, inscribed on two sides in old Telugu characters.

APPENDIX A.

DRAWINGS.

1. 10th to 12th December 1888.—Ground plan of Sri Venkatesvarasvami temple, Bittragunta (on hill), Nellore district. Scale $\frac{1}{100}$. Half sheet. M. Balakrishna Naidu, No. 733.
2. 10th to 12th December.—Side elevation of Sri Venkatesvarasvami temple, Bittragunta, Nellore district. Scale $\frac{1}{100}$. Half sheet. S. N. Apparao Mudaliar, No. 734.
3. 24th to 26th December.—Plan of Stupa at the north-east of Franguladinne, near Pedda Ganjam. Scale $\frac{1}{50}$. Half sheet. S. N. Apparao Mudaliar, No. 735.
4. 29th to 31st December.—Plan of (Bogandani dinne) Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{100}$. Half sheet. B. N. Muthu Alagiri Naidu, No. 736.
5. 27th to 30th December.—Slab No. 1 from wall of Stupa No. 1 at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 737.

6. 31st December to 1st January 1889.—Slab No. 2 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 738.

7. 31st December to 5th January.—Slab No. 3 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. M. Balakrishna Naidu, No. 739.

8. 1st to 5th January.—Slab No. 6 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. P. Nathamuni Naiker, No. 740.

9. 31st December to 5th January.—Slab No. 4 of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 741.

10. 2nd to 4th January.—Slab No. 5 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. B. N. Muthualagiri Naidu, No. 742.

11. 2nd to 5th January.—Slab No. 7 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. Munisami Naiker, No. 744.

12. 5th January.—Slab No. 8 and pieces of sculpture from Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. P. Nathamuni Naiker, No. 744.

13. 10th to 20th January 1889.—Ground plan of Sri Kapotesvarasvami temple, at Chezarla, Kistna district. Scale $\frac{1}{150}$. Full sheet. M. Balakrishna Naidu, No. 745.

14. 10th to 20th January.—Doorway of Virabhadra shrine in the Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{5}$. Half sheet. C. P. Nathamuni Naiker and S. M. Apparao Mudaliar, No. 746.

15. 10th to 15th January.—Sculptures on two marble slabs, and a pillar in the Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{5}$. Half sheet. S. N. Apparao Mudaliar, No. 747.

16. 14th to 15th January.—Plan section and elevation of main shrine of Sri Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{50}$. Half sheet. C. Munisami Naiker, No. 748.

17. 16th to 20th January.—Longitudinal section of Sri Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{100}$. Half sheet. C. Munisami Naiker, No. 749.

18. 16th to 17th January.—Two marble pillars in the first entrance of Sri Kapotesvarasvami temple; and a niche near tank at Chezarla. Scale $\frac{1}{10}$, and $\frac{1}{5}$. Half sheet. S. N. Apparao Mudaliar, No. 750.

Note.—Full sheet 40″ × 27″; half sheet 27″ × 20″.

APPENDIX B.

Inscriptions copied in fac-simile.

1. Bittragunta; in Sri Venkatesvarasvami temple. On the base of dvajastamba, 5 feet 5 inches × 1 foot 2 inches; 5 lines of 33 letters in Telugu. No. 369.

2. Musunuru; in the middle of village. On an upright stone, 2 feet 10 inches × 1 foot 1 inch; 17 lines of 9 letters in Telugu. No. 360.

3. Paliem; near Musunuru, in front of Venugopalasvami temple. On a stone, 3 feet 2 inches × 1 foot 1 inch; 19 lines of 8 letters in Telugu. No. 371.

4. Ongole; on a stone standing in a field close to the road, 2 feet 4 inches × 2 feet; 13 lines of 23 letters in Telugu. No. 372.

5. Ongole; on a stone standing in a field close to the road (on back), 2 feet × 4 inches; 2 lines of 11 letters in Telugu. No. 373.

6. Chezarla; in Kapotesvarasvami temple. On a white marble slab, with *trisula* on top, standing in front of the shrine, 5 feet 6 inches × 1 foot 4 inches; 49 lines of 20 letters in an old form of Telugu. No. 334.

7. Chezarla; in Kapotesvarasvami temple. On a slab standing at the south of the shrine, 4 feet × 1 foot 1 inch; 35 lines of 20 letters in Telugu. No. 375.

8. Chezarla; in Kapotesvarasvami temple. On a white marble pillar at the entrance to the Gopura, 2 feet 1 inch × 1 foot 1 inch; 12 lines of 19 letters in Pali. No. 376.

9. Chezarla; in Kapotesvarasvami temple. On a white marble pillar at the entrance to the Gopura (on back), 2 feet 5 inches × 1 foot 1 inch; 13 lines of 10 letters in Pali. No. 377.

10. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of the shrine, 2 feet 1 inch × 1 foot 5 inches; 18 lines of 20 letters in Telugu. No. 378.

11. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of the shrine, 2 feet × 10 inches; 18 lines of 9 letters in Telugu. No. 379.

12. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of dvajastambha (on north side), 3 feet 2 inches × 8 inches; 35 lines of 10 letters in Telugu. No. 380.

13. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of dvajastambha (on south side), 3 feet 5 inches × 7 inches; 36 lines of 7 letters in Telugu. No. 381.

14. Chezarla; in Kapotesvarasvami temple. On a pillar lying on the ground at the south of dvajastambaha, 2 feet 3 inches × 1 foot 5 inches; 12 lines of 12 letters in Telugu. No. 382.

15. Chezarla; in Kapotesvarasvami temple. On a stone in front of Vishnu shrine, 3 feet × 1 foot 2 inches; 20 lines of 12 letters in old Telugu. No. 383.

16. Chezarla; in Kapotesvarasvami temple. On a white marble pillar (on back), 4 feet 7 inches × 1 foot 2 inches; 34 lines of 10 letters in Telugu. No. 384.

17. Kunkalagunta; in front of Virabhadra temple. On an upright stone, 2 feet 10 inches × 1 foot 6 inches; 15 lines of 11 letters in Telugu. No. 385.

18. Kunkalagunta; on a stone slab lying near the Bogesvara temple, 3 feet 3 inches × 3 feet 2 inches; 21 lines of 32 letters in Telugu. No. 386.

19. Kunkalagunta; on a slab standing near the Bogesvara temple, 3 feet × 1 foot 6 inches; 17 lines of 9 letters in Telugu. No. 387.

20. Panidem; in Venugopalasvami temple. On a stone standing in front, 1 foot 3 inches × 1 foot 3 inches; 13 lines of 15 letters in Telugu. No. 388.

21. Panidem; at the side of the temple of the Gramadeva. On an upright stone, 3 feet 10 inches × 1 foot 6 inches; 36 lines of 11 letters in Telugu. No. 389.

APPENDIX C.

Photographs.

1. Pedda Ganjam.—Stupa No. 3; view of walls, 12″ × 10″ wet plate. No. 50.

2. Pedda Ganjam.—Stupa No. 2; view of walls, 12″ × 10″ wet plate. No. 51.

3. Pedda Ganjam.—Stupa No. 1; marble slab No. 1, 12″ × 10″ wet plate. No. 52.

4. Pedda Ganjam.—Stupa, No. 1; slab Nos. 3 and 7, 12″ × 10″ wet plate. No. 53.

5. Chezarla.—North-east view of *chaitya* at Kapotesvara temple; 12″ × 10″ wet plate. No. 54.

6. Chezarla.—North-west view of *chaitya* at Kapotesvara temple; 12″ × 10″ wet plate. No. 55.

7. Chezarla.—View of the ancient *ficus* tree and *chaitya*, from the south; 12″ × 10″ wet plate. No. 56.

Order—dated 30th April 1889, No. 382, Public.

The Government has read Mr. Rea's report with much interest. The discoveries reported seem important.

2. The matter referred to in paragraph 3 of the Director-General's letter has already been dealt with in G.O., dated 3rd April 1889, No. 308.

3. The Collector of Kistna will take steps for the protection of the *stúpa* at Garikipad.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Director-General, Archæological Survey.
„ the First Assistant, Archæological Survey.
„ the Collector of Kistna.
„ all Collectors of districts.
„ R. Sewell, Esq.
„ the Public Works Department.
„ V. A. Smith, Esq., Bengal Civil Service.
„ Dr. R. Rost, Librarian, India Office.

Copy to Secretary, Royal Asiatic Society.
„ to President, Asiatic Society, Bengal.
„ to Secretary, Madras Literary and Scientific Society.

Exd. A. Raitt.

Govt. of {1889} Madras.

PUBLIC.

Issued

Recd. *Encl.*

G.O., 30th April 1889, No. 382.

APRIL.

Archæology.

Passing orders on letter from the Director-General, Archæological Survey of India, forwarding the progress report of the Madras Archæological Survey under Mr. Rea for December 1888 and January 1889.

No 1448 W d/25th May 1889

Communicated to the Superintending Engineers I & II circles

2. G.O. 308 dated 3rd April 1889 was communicated to the Superintending Engineer II circle by G.O. No 1102 W d/25th April 1889.

Std W.L.C.B

A. W

Sd/ Ses I & II circles

Engr. & W. Accts

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper:—

From J. BURGESS, Esq., LL.D., C.I.E., Director-General of the Archæological Survey of India, to the Chief Secretary to the Government of Madras, dated Calcutta, 21st February 1889, No. 189.

I have the honor to forward herewith the progress report of the Madras Archæological Survey under Mr. A. Rea, for the months of December and January last.

2. Mr. Rea's tour during these months has been singularly prolific in discoveries of ancient Buddhist remains at places where they were least suspected to exist. Those of the stupas at Franguladinne and Garikipad, and of a veritable structural Buddhist Chaitya temple at Chezarla, are of great interest and importance.

3. It is exceedingly desirable that the sculptures he has left at the Pedda Ganjam canal bungalow, and those he excavated at Amaravati last year, should be early and safely transmitted to Madras. Mr. Rea has no means nor the time at his disposal for effecting this, and the duty should properly fall on the Public Works officers, who can best arrange for boats and carriage.

4. The stúpa excavated at Garikipad is specially noteworthy, and its sculptures should either be carefully protected *in situ*, or so numbered that their precise arrangement may be preserved, and then transmitted to the Madras Museum.

5. The impressions of the inscriptions at Chezarla have been forwarded to Dr Hultzsch for translation, but the oldest is so mutilated that I fear little can be learnt from it.

P.S.—Mr. Rea's report has been hurriedly written at intervals, and he had better see the proof before it is printed off.

ENCLOSURES.

From A. REA, Esq., M.R.A.S., First Assistant to the Director-General, Archæological Survey of India, dated Garikipad, 3rd February 1889, No. 61.

I have the honor to forward my progress report for the months of December and January 1888-89.

2. I have been fortunate in the places selected for visit; and much interesting information has been obtained. Every facility for the investigation of the archæology of these places has been freely given by the local officers, chiefly through the interest taken by Mr. Arundel in the work.

3. On the 15th November, I left Kávali, and went to Juvuladinne, where I found some remains of ancient buildings existing in a mound (Section I of report). The place had hitherto been unnoted. I had only time to note the remains, and consequently was unable to make an extended excavation. A temple at Bittragunta was surveyed (Section III). The south of the Nellore

district seems to have comparatively few, if any, examples of works of very ancient date; but, on the coast, and towards the north where it borders on the Kistna, Buddhist remains may be confidently expected.

4. On the 16th I returned to Kávali, and then moved the camp into the Kistna district, viâ Ongole to Franguladinne, where I arrived on the 20th. I excavated the large Buddhist *stúpa* discovered there last season, and found a number of finely-sculptured marbles (Section V). These have been removed to the Pedda Ganjam canal bungalow, and Mr. Vincent, Executive Engineer of the canal, has kindly consented to their remaining there till the orders of Government as to their removal to the Madras Museum can be received. Another small Buddhist *stúpa* was discovered on the site, but only the foundations remain, and as the mound is low, probably all the sculptures have been removed. It would have been useless, therefore, to extend the excavation and look for them. The discovery is thus but of partial interest. (Section IV).

5. On finishing the excavation of the large *stúpa*, I went to Narsaravupeta and inspected the antiquities there. In the town are several temples, all however unnoteworthy. The Zamindar's palace is a good example of the class which existed during the last century, and is deserving of a survey, which should be carried out at no distant date, as some parts of the buildings are in danger of falling. The woodwork of the floors and cornices is in a tottering condition, and it is a pity but something could be done in the way of preservation. In one of the halls there are a number of curious paintings on the walls, representing people dressed in the costume of the time and the large state coaches used during the past century.

6. From Narsaravupeta I visited the small village of Kamapalle (Section VI); and then on the 8th January went to Chezarla (Section VII), a most interesting village, said to belong to the Zemindar of Narsaravupeta. The village officials and temple authorities were very obliging, and aided me in procuring all the information asked for. The discovery of a complete structural Buddhist Chaitya is of the first importance; and the inscriptions and sculptures are of interest. A large and ancient tree grows there, and I sent a specimen of the leaves, flowers and fruit to Sir Charles Lawson, Honorary Secretary of the Madras Agri-Horticultural Society, who has found that it is the Baobab (*adansonia digitata*). I found remains of an ancient, but now extinct, industry in the manufacture of steel; saw some interesting burial customs, relics of those in use in pre-historic times; and gleaned a number of ancient legends concerning the village.

7. On the 19th idem I left Chezarla, and, proceeding to Panidem, inspected the *Dipaldinne* mounds there. I found them to be, to all appearance, specimens of ancient tumuli (Section IX). I also visited an ancient site at Attaluru (Section X).

8. Mr. P. Virasami Nayudu, Tahsildar of Krósúr, visited my camp at Panidem, and gave me some interesting information regarding a number of hitherto unknown mounds, and other antiquities in his taluka. One of the former—at Garikipad—was stated to be a mound with "bricks in chunam," and, as I suspected it might be a *stúpa*, I decided to visit it, and went there on the 24th ultimo. In the mound I made an important discovery of an ancient Buddhist *stupa* possibly dating prior to the Christian era. The excavation is now finished as far as it can be carried out at present. A trench has been dug round the circle, which has been found to be 80 feet in diameter, with sculptured marble slabs standing in position almost continuously round. A number of these are almost complete, and have sculpture of a very archaic type. The survey is not yet quite complete, so I defer a description till the ensuing report. It will have to be decided whether the slabs are all to remain on the spot, or whether a few of the most complete might not be removed to Madras. The *stupa* will, in any case, have to be conserved, and this might be best done by planting a cactus hedge round. The plants can be got near the neighbouring village of Gudipad, and could be removed in carts and planted at but a small outlay. *

	Rs.	A.	P.
Say, 2 carts removing the plants for 2 days	2	0	0
12 coolies at 3 annas at cutting and planting, for, at the most, 3 days	6	12	0
1 man tending and watering for a few days.	1	4	0
Total ..	10	0	0

* Say, 2 carts removing the plants for 2 days, 12 coolies at 3 annas at cutting and planting, for, at the most, 3 days, 1 man tending and watering for a few days.

I.—Juvuladinne.

The remains at this place have been hitherto unnoticed, and I was only induced to visit the village through the significance attached to the ancient form of the name. The modern village itself stands to the west of an extensive mound now covered with sand and under cultivation, after which it is named. The local account of the origin of "Juvuladinne" is, that it is derived from a plant (*juvul*), which once covered the mound, but there is no such similar term in the very complete list of the flora of the district given in the *Nellore Manual* (pages 95—145), and it seems improbable that this is the correct explanation. The adjacent remains shew it to have been an ancient site, one of the many seaports which prior to, or during the period of, the decay and fall

of Buddhism, from the 4th to the 8th centuries, seem to have existed along this coast; though now, through the recession of the coast line seawards, it stands at some distance inland. In each of these there is a tradition of their having been destroyed by an inundation of the sea. This may have been so, more especially as the tradition is so general. The towns being thus either completely or partially destroyed, they would not again to any extent revive, though a few might carry on a lingering existence. India had undoubtedly commercial relations with western and other countries, but it was principally carried on in the ships of other nations. This may be attributed to caste prohibition against long voyages by sea. Not till the appearance of European powers in India do we find any considerable settlements on the coast.

Local tradition asserts a European settlement once existed at a neighbouring mound named *Wallandula dibba*, and Franguladinne further north is "Mound of the Franks," where a Venetian colony existed in the 13th century (A.D. 1224).

A traditional Dutch Colony.

About a mile south by east of the village, a quarter of a mile distant from the coast line, and on the south of a salt marsh once traditionally a natural harbour, or arm of the sea, is an extensive mound. It rises with a somewhat steep slope to a height of about 15 feet direct from the edge of the waterline of the marsh. The top of the mound is nearly level; and forms almost a square, with sides of about 60 yards in length. The angles are rounded off and stand north and south, east and west, with the sides on the intermediate points of the compass. Broken bricks are strewn over the surface of the north-west side, which has less drift sand than the others. Beyond this mound to the south, the ground is broken by a number of smaller ones now covered by sand. The large mound is supposed to be the site of a fort, and is named *Gudikurtikota*; it is also known, after the European settlers whom local tradition states to have built it, as *Uland* or *Wallandula kota*, that is, the "Fort of the Hollanders."

The Dutch had early settlements at various parts of the coast—at Pulicat, for example, where the remains of a fort and numbers of tombs still exist to testify to their presence. There they had a mint where gold was coined. They are also said to have founded the first fort at Masulipatam under the kings of Golconda in the beginning of the 17th century. Numbers of inscribed tombstones of that date still exist there. These seem to resemble those of Pulicat* for they have each a coat-of-arms and inscriptions, all executed with considerable skill. I find, too, that the site in Masulipatam where the Dutch had their villa residences is still known as Vallandupalem,†. If a European Dutch colony has really existed near Juvuladinne, which seems probable, it may have been in conjunction with an earlier native one. It would be a convenient site for carrying on an inland trade with the town of Nellore. At Franguladinne, Buddhist *stupas* and other interesting remains of the same period were lately discovered on ground adjacent to the mound on which had been the European colony. The tradition therefore, as to the Dutch fort near Juvuladinne, there is reason to believe, may be trustworthy. It is another discovered example of these numerous and hitherto unknown sites of ancient cities or seaports which in early times flourished all along this part of the coast. They show that a very extensive trade must have been carried on, but through the civil wars which desolated the country, they had fallen to mere fishing villages. The recession of the sea left them further and further inland, leaving their natural harbours but mere marshes; the *raison d'être* of their existence had thus gone. The trade never revived, and all that remains to prove what has been, is only shewn by the ruins now covered by mounds.

* Section I (3) of my previous report. In one of the inscriptions given therein, is the word *Palliakatta*. I find in a letter from the Dutch Governor to the English Governor at Fort St. George quoted in the *Kistna District Manual* (pages 104—106), that Pulicat is written *Palliacat*, also *Paleakat* (page 89). The other is evidently meant for the same place.

† *Ib.*, page 100. See also pages 97—104.

II.—Excavations in the Mound of Vallandula kota.

As no traces of any walls appeared on the surface, a slight excavation was necessary to determine whether any did exist. Three short trial trenches were driven in, at intervals of about 12 feet apart, on the north-west side, and shewed the ground to be formed of red sandy soil for a depth of 4 feet, below which was a yellow sea sand. The trenches were carried in just below the point where the ground dips down from the upper level portion, as, should walls exist, it was to be expected they would, from the configuration of the ground, be found there. The west trench came on a wall 3 feet thick running north and south; directly in front of it at a distance of a foot was another of similar breadth; these were traced for a length of 12 feet. The middle trench shewed nothing but a large collection of oyster shells mixed with broken bricks; while the east one came on a wall running east and west. The bricks forming these are large, and such as are only found in very early buildings, they measure 20″ long by 9¾″

broad, and 2½″ thick. These walls were built on blocks of stone laid in the sand, and could not, from their high position, insufficient foundation, and nature of the plan, be those of a fort. The bricks, moreover, are not such as we find used in early European buildings in the south. Nor were they used in later Indian works. The want of mortar also militates against the theory of a European foundation for these at least.

Only a few men were engaged in the digging for a short time, simply to ascertain whether remains really existed. One small piece of white marble and two fine large conch shells were found. It would be interesting to carry on further exploration of the ground, as it would appear, could time and funds have permitted the tracing of them into the level upper ground, these walls may still exist in sufficient preservation to shew at least the plan and nature of the building or buildings.

III.—Bittragunta.

This village stands 7 miles south by west of Kávali. The Vishnu temple is stated to have been built by the Rishi Narada, and improved and enlarged by Gauramaniba,* a princess of the Langula Gajapati family. The "cave temple" mentioned as being here, is a natural cavern in the hill.

* Sewell's *Topog. Lists*, page 142.

Śri Vencatisvaraswami Temple.

(Drawing Nos. 733 and 734.)

The plan is a rectangular courtyard, measuring 191 feet by 119 feet. The entrance *gopura* stands on the north of the court, and is a plain blackstone structure. Inside to the west of the entrance is a small shrine in stone, dedicated to *Krishnaswami*. The main shrine is a small, square cell with thick walls, ornamented on the exterior with pilasters; and a tower above, decorated in plaster. In front is an antechamber, and square *mandapa* with four piers inside. On the north is the *Amman* temple, the goddess of which is Alamallamangathammal. Its plan is of similar form, but smaller than, that which it adjoins. Both these shrines stand on a moulded platform, and constitute the only ancient portions of the temple. In front of the *mahamandapa* of the main shrine is a four-pillared *mandapa*; *dvajastamba*; and a small square shrine of Hanuman facing them. In the south-east corner of the court is a *yagasala*, with a round and a square trough on the floor for the preparation of the *homa*. In the north-east of the court is a *kalyanamandapa* for placing the images at the annual festival; and a square walled structure for the reception of twelve small images (*Alvarmithi*).

IV.—Discovery of Stupa, No. 3, Pedda Ganjam.

The discovery of these remains was first announced in December 1888.† It forms the third of this class of Buddhist relics found at the Franguladinne mounds. If not extensive, and with but little of it remaining, it shews some interesting features and is important in helping to prove the previous existence of a large Buddhist settlement at the place. The two former *stupas* stand at the south-west extremity of the site, and on the west side of the canal. This is on the extreme north, or about a mile distant, and on the east bank of the canal. It is hardly to be expected that any remains will be found in this locality in a very complete condition: the mounds are all low, and the walls are easily got at. In addition, they seem to have suffered at the hands of some former iconoclasts, or through some great catastrophe, or inundation.

† Report, No. 460, of 26th December 1888.

A small mound about 50 feet in diameter by 4 feet high, surrounded by others, to all appearances the same, had bricks, and some chips of white marble strewn over its surface. A close examination showed at one point four or five bricks, lately uncovered by the rain, evidently laid so as to form part of a circular wall. A trench dug in front of these showed at least eight courses of brickwork standing on a foundation of blocks of stones. This was traced out for over a quarter of the circle with an exterior diameter of 32 feet; it also exposed two projecting facets, each of a length of 9 feet 6 inches, on the north and east faces of the circle.

The most interesting feature was revealed by the shaft sunk in the centre. It showed a rectangular pit, 10 feet 6 inches by 8 feet, with vertical sides, which had originally been dug in the clay and closely packed with stones and earth. On the removal of the stones, and at a depth of 2 feet 6 inches from the surface was a series of large bricks. Below, was a large *svastika* formed of eight bricks; four radiate at right angles from the centre, while other four lie at right angles to their extremities. On the top of the east arm of this figure was a smaller one of four bricks, each pointing to the right, and laid with its end against the side of another. All the bricks fitted together in the centre; it had no arms at the extremities.

On the top of this was a square of four bricks. The large under bricks measure 19″×9″×3⅜″. Curiously, the objects lay facing different points of the compass; the lower one at one point west of north, and the two upper at one point east of north. It will be remembered that in *stupa* No. 1, at Pedda Ganjam (Bogandanidibba), two large *svastikas* were found in the centre, but the one not lying directly on the top of the other, a packing of stones being between the two. In that case they also lay with two points of difference, so the coincidence can scarcely be said to be accidental. In the present case a few bricks lie in a line along the north, east, and south sides of the pit at a level with the lower *svastika*. It would be interesting to know whether this feature is peculiar to this locality only. It is unlikely that it would be so, and it may occur elsewhere; though it probably was only used in certain classes of *stupas*, else we might have heard of it before. No relic casket was found, and none could have existed, and been subsequently removed, for the top stone-packing appeared as if it had never been disturbed. In one of the bricks of the small central square a bone—evidently human—is embedded in the material. It was in a crumbling condition. This bone may have been the *sarira* or relic of the holy man deposited in its proper place, but without an enclosing box.

V.—Pedda Ganjam.

Bogandanidibba (Buddhist Stupa No. 1).

Excavation during Season 1888-89.*

This Buddhist *stupa* was discovered during last season's tour, as the result of the investigation made to ascertain whether two marbles found at Franguladinne a few years ago were, as had previously been stated, from one of the then known topes of the district, or, as I thought more probable, from a *stupa* on the spot. A close examination of the surface of all the mounds was made, but as no solid brickwork appeared above ground, the existence of a *stupa* could only be assumed from the numerous chips of marble and loose broken bricks strewn around. Even when this mound had been fixed on as the probable site of a *stupa*, a more searching investigation had to be made—without wasting expense in unnecessary digging—to ascertain on what part of the large mound the *stupa* stood. For there had at one time been several buildings there. From numbers of small indications which I cannot here particularise, all pointing in the one direction, the south-east corner was fixed on as the spot to begin digging. This selection was fortunate in that the *stupa* wall was found at the end of a short, shallow, first cutting. A few preliminary or trial trenches were then dug at certain points to fix its extent and plan, but nothing further could then be attempted.

With the grant made for this season's work, the excavation has been continued with the results below described. It was hardly to be expected that the sculpture would be found in anything like a complete condition, for the building bore evident traces in the portions first exposed of having been partly demolished, and the bricks and sculptures removed to be used in the construction of other works, as was the case at Amaravati. From the time of its desertion till it was spared further destruction by being buried in the friendly covering of earth, this spoliation had probably gone on, the building—as so many of its class have done—being utilized as a convenient quarry for the surrounding villages. This is shown to have been the case by the absence of the majority of the marble sculptures that would once adorn the building. These cannot wholly be accounted for, even by the great quantity of fragments which were found at all points around the circumference. Among these it is curious the large number of exquisitely carved heads which have been knocked off the images; this might perhaps point to the Muhammadans as having taken their share in the destruction, when this part of the country was over-run by their armies. The vast number of images adorning these buildings would excite their religious zeal into a perfect frenzy. The probable reason for anything at all existing is perhaps due to the fact that the nearest village is over two miles distant; and the removal of the materials could only be accomplished at some inconvenience to the spoilers. Notwithstanding all this, the remains of the *stupa* now existing are sufficiently complete to allow of our easily picturing what the proportions of the perfect building had been.

The marble used in the sculpture is of a kind which seems peculiarly liable to fracture, and certain parts of it readily scale off in thin flakes. In addition, when the material has been exposed to moisture lodging in the hollows of the sculpture, it has lost its cohesion and become more powdery than chalk. This being so, the slabs used in decoration of the higher portions of the building, such as the body of the dome, would inevitably go to pieces on falling from their lofty position. The large quantities of bricks found around would also cause some considerable destruction, and the consequence is that the only sculptures which have remained at all intact are certain of those round the face of the basement. They are fortunately nearly all *stupa* slabs, and are specially interesting in that they probably represent the *stupa* as it stood complete when

* Continued from Section 5 of Report in G.O., No. 703, of the 14th July 1888.

worship was carried on by the Buddhists. Those slabs were standing erect in their places, firmly secured to the brickwork by an intermediate layer of mortar. Like all those still standing at Amaravati, their tops are broken off. This may have been due to the falling bricks of the dome, for their tops stood higher than the floor of the circular platform, or, as their upper edges were found close to the surface of the ground, the destroyed parts may have projected above it, and been wilfully smashed off, the spoilers fortunately not taking the trouble to dig down and remove the remainder of the slabs. The ground of the mound bears evidence of this, in that nearly all the surface remains of buildings have been removed. The north half of the mound before being brought into cultivation is said to have had a number of walls dug out of it, and the south-west quarter, or that directly west from the *stupa*, though not at present cultivated, shows a large number of old trenches all over it, from whence have been removed the walls of what must have been an extensive series of buildings. One set of these trenches forms three sides of a rectangle about 30 yards broad. A continuation of the digging of one of them was carried out last season, when some foundations with marble fragments on the exterior side were found. Three yards to the inside of the pits and parallel to them, traces of brick walls are still visible. These must have formed the central building, probably a *vihara*, while the basement of a surrounding veranda would extend up to, and be marked by, the foundation walls now removed from the outer trenches. The lower part of a square marble column previously seen here, may have been one of the surrounding colonnade.

(1) *Excavation at the Stupa.*

A trench has been carried round the outer circumference of the basement. The wall of the north-west quadrant was found complete, with the mortar facing still adhering along almost its whole length; and three sculptured marble panels (Nos. 1, 2 and 3), standing at intervals along the wall (see drawing No. 736, figs. 1 and 2), each separated by a space of 8 inches. This upright division between the panels is filled in with mortar and raised from the face of the wall till flush with a channel cut on each side of the slabs. Pilasters in marble, or *chakra* pillars, would undoubtedly be placed in front of these, but no traces of them now remain. Each slab stood on a foundation formed of a smooth block of blackstone placed on edge at a level with the bottom of the brick flooring. The flooring of this portion of the procession path is formed of an under layer of bricks, with slabs of pavement laid over them. The bricks mostly remain intact and a portion of the pavement flooring also. The procession path at this section of the ground is 6 feet below the surface. The wall of the projection on the west face was found by a return of the dressed plaster surface at its north point, while some of the lower brick courses of the projection itself still stand in position. On the face of these, standing in their places, separated by the usual 8-inch spacing, were two slabs (Nos. 4 and 5). The plaster backing at this point was thickly mixed with chips of marble, either intended to make it into a sort of concrete, or perhaps they might have been pieces left over from the burning, had the mortar been made with calcined marble. At the south-west quadrant, the most of the bricks of the face of the wall are away, but there are some at the position of the south projection. Nearly midway between the west and south projections is a small brick platform which may have been for a small cell standing out from the circular wall. The lower brick flooring and some of the pavement slabs are found extending around to this point. No. 6 slab was found lying on its side at the position of the south projection, while close to it, a portion of the plastered surface of the main wall was again met with. The flooring at this quarter averages from 2 to 3 feet below the surface. Along the position of the face of the south-east quadrant, only loose bricks were turned up. The inner courses of brickwork may still remain, but little would have been gained by digging to ascertain, so the trench was carried but little inside the line of the exterior surface. Some bricks of the east projection were found, and near them stood a marble slab (No. 7). Behind it, a large slab of black granite rounded on top, and similar in size to the marble panels, stood erect; and another lay on the floor. It will be remembered that rail slabs of a similar material exist at Amaravati,* also near the east gateway there. The recurrence here of the same stone at the same side of the *stupa* is remarkable, and may possibly have had some architectural or other meaning attached to its use in this position. Around the whole of this, and along towards the north projection, the paving was almost intact. At the north-east quadrant the bricks were away from the exterior surface of the wall, though the trench which was previously dug along its inner surface shows them to be quite complete in the inside. While digging at the north projection last season, a complete marble slab, 16 inches high, carved with a coiled *naga* in bas-relief was found in position against its east wall. Along the north-west quadrant, a trench, concentric to the inner one, was dug on the edge of the paving for a length of 40 feet, to ascertain if portions of the outer rail might exist, but only some fragments of pillars with a few letters were found. The ground is highest on the east, and round by the north towards the west, where it averages from 5 to 6 feet above the floor. The other half is from 2 to 3 feet above it. To save expense, the bank between the two trenches was not removed: nor was this outer trench carried round any other part of the encircling pavement. Only from one quarter (the north-west), therefore, has the earth been almost wholly removed. It is, of course, quite

* Burgess, *Amaravati and Jaggayyapeta Stupas*, p. 22.

possible that traces of the rail may exist at other parts of the circumference, and had expense been of no consideration, the earth would have been completely removed from the whole circle of pavement and for some distance outside of it. At no point, however, has the trench been carried beyond the outer edge of the paving, as, though every facility for digging was freely offered by the proprietor, it was considered undesirable to encroach on the neighbouring ground, which may at some subsequent time be brought under cultivation. The mound is not sufficiently high to admit of any of the large panels of the rail being still in position, but considering what their weight and size must have been, probably over $6' \times 2' \times 1'$; and that the spoilers had not removed the smaller ones now found, it is probable that at least some of them may still lie underground where they had fallen at a distance less than 20 feet outside the pavement, as did some at Amaravati. Had the ground on which the *stupa* stands, and this space outside of it, or a circular plot measuring only 142 feet in diameter, been Government property, it would have been interesting to have had it excavated, as the results would most likely have repaid the small sum required to dig it. This excavation would have been for a breadth of less than 34 feet outside the north and west walls of the *stupa*.

No earth was removed from the centre, or from over the walls of the *stupa*, except along the north-west quadrant, where the upper plaster flooring was found extending unbroken along its whole length. This upper floor probably remains intact along the greater part of the north half of the *stupa*. It was thickly covered with broken bricks fallen from the dome. A projection of brick work 1 foot deep stood against the dome wall at the north-west. This has probably been an architectural feature repeated at the other three corresponding points of the circumference.

The digging has therefore been strictly confined to such parts as gave most promise of results with the least possible outlay.

With the exception of slab No. 1, all the others are *chaitya* or *stupa* slabs. Their discovery is thus of some value, for though numbers were seen by Colonel Mackenzie at Amaravati, they mostly all afterwards disappeared; only a very few having been since recovered. They can be judged of, from the drawings he made. Standing in position, as those now found did, around and forming the casing of the *stupa* itself, is a feature of some significance. In the present instance. these slabs have been found standing in position round and against the main wall of the building. with the spaces for the intermediate *chakra* pilasters remaining intact. The inner rail at Amaravati seems to have stood at the same level as the outer rail on the pavement, and was formed of slabs placed against each other, and so differed considerably from the upright posts and crossbars of the outer rail. As Amaravati is so well known, it will give some idea of the present example if the main features of the two *stupas* are compared. There is nothing anomalous in this, though their proportions are so very different, for their sculptures show them to be of about the same date.

Large statues of Buddha, similar to those found at Amaravati and Jaggayyapeta, have existed here, for portions of two faces with curled locks of hair, and some pieces of the flowing robes of a figure, were found near the position of the west gateway. One would be about life size, and the other, whose eyes measure $1\frac{3}{4}$" broad, would be somewhat over it, if standing erect, nearly 8 feet 5 inches high.

There are two kinds of limestone used in the sculptures, one white, and the other with a tinge of yellowish brown, probably acquired through longer exposure. The carving of the discovered fragments of the rail is in the former, and is somewhat inferior in style to the others; leaves and other minute portions being represented in cases by little more than a mere outline chiselled in the marble. In the others, scrupulous attention has been paid to the working of the most minute parts; they equal in beauty of execution, and in no way differ in style, from the finer of the slabs at Amaravati. The design in each of these *stupa* slabs is the same; but they widely differ in detail in every example. Their style and arrangements will be found closely to resemble those described and illustrated by Dr. Burgess in his Amaravati volume, and those referred to by Boswell in his report to Government on the antiquities of the Kistna District.* Five pieces of marble have letters of inscriptions dating about the 3rd century A D. Their letters are similar to some of those from Jaggayyapeta.† With the exception of one from the bottom, and another from the top of a slab, all are fragments of pillars. They have only a palæographical interest, as the form of the letters may help to fix the date. One has nearly the half of the curve on the semi-disc usually seen on these pillars, dividing the square from the octagon, and a production of this curve, gives a square, for the pillar of 12 inches. This half-disc is not ornamented with a lotus leaf pattern as was the inscribed pier discovered at Kollitippa, but has a flat surface, ornamented on the lower side with a medallion in outline, surmounted by a small finial. The letters are inscribed under the top of the curved line. They are as given in the

* G.O., No. 1725, of the 17th November 1870, p. 5.

† Burgess, *Amaravati and Jaggayapeta Stupas, Pl. LXII.*

facsimile (No. 1). A portion of the left side of the pier remains, but has no ornament; the pillar must therefore only have had the carving in front. Perhaps it was one of the five stelæ on the face of the dome.

The piece from the top of a slab has a diamond diaper pattern outlined over the letters (No. 2.)

The others are also mere fragments useful only for the forms of the few letters they contain (Nos. 3, 4 and 5).

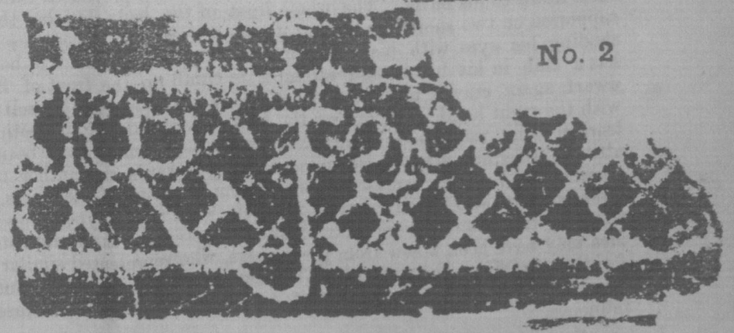
The last has been from the bottom of a slab.

A small disc of black granite was picked up in the south pavement. It is $2\frac{1}{4}$" in diameter and $1\frac{1}{8}$" thick. The sides are rounded off; one side flatter than the other. Through the centre is a cylindrical hole $\frac{3}{8}$" diameter. On both sides, around this perforation, are a number of triangular lines grouped in the form of a star. Its use may have been similar to a small soft, black-stone cylinder found last season at Amaravati. It is shaped somewhat like an ordinary thread bobbin, the side being convex, and a small head running round each end. It is $1\frac{7}{16}$" long and $1\frac{1}{16}$" diameter; with a cylindrical hole through the centre of its length of $\frac{3}{8}$" diameter. It also has the triangles marked around the two ends of the perforation (fig. 1.)

No. 1



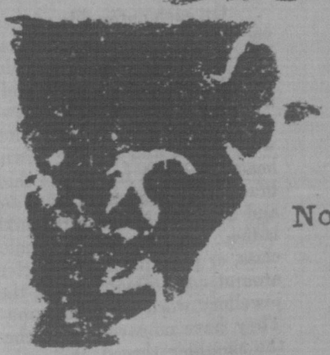
No. 2



No. 3



No. 4



No. 5



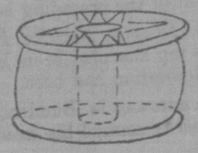


Fig. 1

(2) *Notes on the Sculptured Slabs.*

The following are the white marble sculptures now found :—

Slab No. 1 (*Drawing No.* 737, *Photo. No.* 52.)—This panel is in two pieces, with the top broken off and lost. The principal figure is a seated Buddha; the head has been broken, but the rest of the figure is complete. His right hand is raised in benediction, and he sits with the left folded across the body, the folds of his robe hanging over his elbow. He is seated on a cushioned throne, with two attendant fanbearers standing on his left. Similar figures would be on the right, but this is broken away. Directly under his seat are four grotesque *bhutas* or dwarfs; two below support other two who climb up the front of the throne. The left under one has, what appears to be, a torch in his hand, and holds it up to the two others above. His breasts are made so as to form two eyes, and a nose is represented as a projection extending from the middle of his chest down to his navel. The whole front of the body thus has the appearance of a large face supported on two short legs, giving it a most grotesque appearance. The right dwarf looks up shading his eyes with his left hand, while his right holds a bell. The right upper dwarf has a club in his hands, and attempts to climb up the front of Buddha's throne. The other dwarf, again, crawls up on the other's back, and supports himself by grasping his neck-band with the right hand, and seizing the back lock of hair in his teeth. It would be interesting to learn to what race these pigmies belonged; they cannot have been Buddhists, from the hostile attitude they are always shown as bearing towards the author of the religion. They may possibly be fanciful representations of the demons of darkness. But the offering-bearing attendants are also usually dwarfs of a somewhat negro type; they may be a race who, without adopting the religion, were brought into subjection by the Buddhists. Or is it possible that the idea may have been taken from the Greeks, who represented similar large-headed, short-legged, fighting dwarfs on their vases? This may have been so, as the Buddhists undoubtedly owe the origin of some of their finest art, if not to Greek sculptors themselves, at least to their direct influence.

On each outer side of these dwarfs are two jewelled women, standing with their arms around each other's necks. The peculiarities of dress worn by the different figures merit attention. The two on each side of Buddha are males; one carrying a long-bow. They wear a waist-cloth with robes flowing down, and partly covering the lower limbs; they have bangles on the wrists and over the elbows. The two women standing on each side of the throne are in each case differently dressed. On both sides, the female standing on the right has a long robe, girt at the waist with a belt, and flowing down and covering the limbs to the ankles. They wear a peculiar high head-dress. A number of thin bangles encircle the wrists and the arm above the elbow; a double bracelet is round the neck; and a long thread passes over the left shoulder, behind the waist-belt and down round the right ankle. The two wearing this form of dress probably represent married ladies. The other two females standing on the left of the others may represent the unmarried class, or perhaps maids in attendance on the others, though as they stand with their arms wound around each other's necks, the familiarity of the attitude might show them to be equals. The jewellery worn is of the same kind, but simpler. They wear two large bangles on the ankles. They have no covering on the upper part of the body, and wear no flowing robe, nor have they the shoulder thread, their sole dress is simply a waist-cloth encircled by a belt. None of the figures are in an attitude of worship, and the scene evidently represents the temptation of Buddha.

Up each outer edge of the panel is a pilaster with base and band; there may also have been a capital, but the upper part is broken away. Size, 3′ $10\frac{1}{2}$" × 3′ $2\frac{1}{2}$′.

On the right of the slab is a raised space on the wall, 8 inches broad, against which has been a marble pilaster dividing the panel from that adjoining it. On the right of the pilaster is a space in the wall for a slab, similar in breadth to the above; but it is now away. Under it, however, is a black stone support on which it had rested. On the right is the raised space for another pilaster, and adjoining it stood the panel noted below.

Slab No. 2 (*Drawing No.* 738).—This is a portion of a *stupa* slab, which wants the greater part of the top. In the centre—represented as inside the gate—is Buddha seated on a throne raised over two seated worshippers, who have each a thick cloth over the shoulders, evidently to allow of their bearing some burden easily. On each side is a broad pier with a vase at its base and four circular raised pateras or discs along the height of the pier over. Attached to each pier on its outer side is a shaft, with moulded and carved base and capital. Above is a small entablature surmounted by a seated lion. Outside is a representation of the upright piers and rails of the *stupa*, with circular discs in the intermediate spaces; these are raised and rounded convex as knobs. A *Chouri* bearer and female are on the outer sides, and between them and the gateway is a dwarf bringing offerings. Size, 2′ $8\frac{1}{2}$" × 1′ $8\frac{1}{2}$" high.

On the right of the preceding is a raised space for a pilaster, then a panel.

Slab No. 3 (*Drawing No.* 739, *Photo. No.* 53).—This is a *stupa* slab, more complete than the last, though its top has also been broken away. A portion of the dome, however, remains to shew what its decoration had been.

Inside the gateway is Buddha, seated on an ornamental throne with cushions and carved back. An *areola* is around his head, and the sacred tree *Bodhidruma* behind. The throne is

supported by two seated lions, with a casket between them, while on the ground below are two kneeling worshippers, who bring a large circular dish with offerings of (?) fruit.

Over Buddha, and forming the top or lintel of the gate, is a panel with a number of small images, around a figure of unusual form in the centre. A throne is shewn with two cushions on the seat, and side arms. On this is placed a figure with three upright lines, probably meant for a *trisula*, with side lines radiating upwards as flames. On each side of the panel are three kneeling worshippers. The scene may represent the worship of the fiery *trisula*. A similar image is sculptured on a slab from Amaravati.*

* Burgess, *Amar. and Jagg. Stupas*, Pl. XVII, Fig. 4.

The pier and shaft on the gateway are similar to those previously described; the surmounting lions sit facing outwards from the gate. Over these, and on each side of the central *trisula* panel, are two other lions, sitting facing the centre.

On the ground on each side of the gate is a man standing in a graceful attitude, with his left hand resting on his thigh, and the right holding a bunch of lotus flowers. On the exterior side of each is a female—probably the wife of the other—seated on three cushions and holding a large lotus bud. Next the gate-pillars is an attendant dwarf bearing a dish of offerings on his head. These figures present a striking difference from similar groups on all the other slabs, in that they are shewn of much higher stature. On the others, the male barely reaches midway up the height of the posts of the rail. In this panel they stand with their heads level with the under side of the upper carved rail panel. Behind them are the rail posts and cross-bars, the upper panel sculptured with the usual wavy scroll, supported by figures in the hollows between. Over the exterior top of the rail coping is a seated lion; others sit inwards nearer the centre. Between the lions, and surmounting the rail, is a *stambha*, with a three-stepped slab on its top; the widest of the steps is uppermost. It is similar to that surmounting the *tee* of the dome of a *stupa*. This representation explains the use of some slabs—each cut in three steps—found last season at the east and south gateways of the Amaravati *stupa*.* Their use was not then quite apparent; they had holes cut in their sides and I thought them to have been bases. It is quite evident now, that they have been the slabs topping these *stambhas* over the rail, and the holes would be for fixing them on to the top of the shaft, and for the securing of the finials which surmounted them, also represented on this slab.

* Report in G.O., No. 896, dated the 11th September 1888 (slabs, Nos. 56 and 85).

The dome on the slab has a lower tier of square floral panels shewn as an inner rail with coping, all projecting out from the surface of the dome as if it stood on the ledge of the encircling platform. Fergusson supposes that such a rail or balustrade must have existed at Sanchi,† and that such has been the case here, the indications on the ledge of the platform itself, and the further representations on each of these panels, distinctly shew. It appears as a minor copy of the great outer rail itself.

† *Ind. and East Arch.*, p. 64.

Over is a series of panels with groups of figures. These have either one, or in others two, figures, seated on a throne with attendant worshippers on each side. One panel has a screen, behind which, female faces look out towards those seated on the throne. These panels are sculptured *on* the surface of the dome, and from their appearance, it is clearly seen that they were meant to shew the slabs placed against it. A wavy, running decoration over these replaces a band of *trisulas* occupying a similar position on another and older slab (No. 6).

This panel has a newer appearance than the others. Its panels have the carving less undercut; and have not the same artistic finish. It is undoubtedly more modern, and may have replaced an older one which had been damaged or destroyed. Size, 3′ 5″ × 3′.

Slab No. 4 (*Drawing No.* 741).—A representation of a *stupa*, in two pieces, found standing at the west projection of the main circular wall. In the centre is a pedestal supporting a *Dharmachakra* placed over a casket, with worshippers on each side, and two animals below. Under these are two worshippers, who kneel on a pedestal placed over the semi-circular step at the entrance of the gateway. The offering-bearers approaching the gate from the right and left are the usual group of three, but they seem a different class of people. It was probably the intention of the sculptors to represent on the various slabs the different races who were devoted to the worship of Buddha. The front of the rail, and carved coping panel with the sculptured scroll, all shew flat towards the centre, and are returned back with a curve on each side to shew the circular sweep of the railing. It may be here noted, that all the panels shew this, the front with the body of the building, being raised from 4 to 5 inches above the background at each side. A piece of the dome is on the right upper end, with panels similar to those last noted. The top of the slab is defaced. Size, 3′ 5¼″ × 3′ 0½″.

Slab No. 5 (*Drawing No.* 742).—This stood, separated by the breadth of a pilaster, from the preceding. It is a *stupa* slab with a five-hooded coiled *naga* as the central object. Below it are two figures, who kneel on a pedestal above a semi-circular, lotus-ornamented step at the gate. The *naga* has no worshipping attendants on each side. This peculiarity has been already remarked on by Dr. Burgess.‡ The panel over the gate has a seated Buddha, with a worshipper at his side. The piers and shafts of the gateway support a seated lion, with the head of an

‡ *Amar. and Jagg. Stupas*, p. 78.

elephant appearing in the space behind. The return or in-going of the top of the gate at this point has a standing fan-bearer. Over him are the upper lions surmounting the façade.

The usual groups—male, female and dwarf—bring offerings to the *stupa*. The rails have four tiers of raised knobs; while over is the flowing scroll panel. On the bottom of the dome are the inner balustrade, and slabs in floral and figure design.

The top of the slab is away. When found, it lay back at an angle of 45°; and has in consequence suffered from moisture lodging in the hollows of the sculpture. The marble is, on the surface of the parts most exposed, as soft and friable as chalk. Size, 3′ 4½″ × 3′ 1½″.

Slab No. 6 (*Drawing No.* 740).—This is a *stupa* slab with its dome almost complete to the crown, and with sufficient of the ornament remaining to enable us to judge of the mode of decoration employed in the missing parts of the other slabs; and probably on the great dome of the building itself. The stone stood at the east side of what had been the south projection of the main circular wall—on its left side with its face towards the building: it inclined outwards at an angle of about 60°. The sculpture has therefore suffered from the moisture which would lodge on its surface, and a proportion of the carving is obliterated, some parts being quite soft and spongy. This is unfortunate, as it is the largest and most complete of any, but part of the top ornament remains, and supplies some portions missing in others. That it stood on its side, and not with its length upright, we may conclude is the reason for its top not being smashed off.

The central gate has the outlines of two kneeling images on a semi-circular step. Over them is a pedestal having the *Dharmachakra* with worshippers on each side. Over the gate lintel can be traced the outlines of a seated Buddha. Surmounting it are the five stelæ (*ayaka khambo*) which stood near the dome opposite each gateway. Their position, if not actually against the dome, might have been on the edge of the projection, of the encircling platform or inner *pradakshina*, at the four cardinal points. From the front representation of these stelæ, it might perhaps be thought that they stood over the gateway. The side elevation of the corresponding pillars at the sides shows, however, that this cannot have been the case. The recessed vertical side panels of the slabs are really the sides of the right and left gateways, and the stelæ there are not shown over the entrances, but inside and close to the dome.

The front of the rail only remains in part, but on the return sides it is perfectly distinct.

The upper inner balustrade is showing with its coping clearly raised from the surface of the dome. Over it, on the dome, are figure panels separated by pilasters. Each panel has a seated figure, with others grouped around. Over them is a sculptured band of *trisula* ornament, which has been carried right around the curve. Above it is a blank surface and then a horizontal band of wavy ornament. At the top of the slab, on the right side, is a large circular patera with tassels on the under side: a similar ornament has been in the centre, and another at the left. Running parallel between each is a series of ornamental rolls, with a hanging tassel on the surface between each patera.

On the right and left of the slab is a recessed upright panel, showing a continuation of the great outer rail. Opposite the coping panel of the rail is a *makara*, and above it two lions, the one placed over the other, each in a separate panel. These are intended to show the side elevations of the corresponding right and left gateways, at the other two sides of the *stupa*. Size, 4′ × 2′ 11″.

Slab No. 7 (*Drawing No.* 743, *Photo. No.* 53).—This panel was standing erect behind a large blackstone slab at the east projection of the main wall. It is carved with a *stupa*, complete up to the figure panels over the inner upper balustrade. In the centre are two worshippers kneeling behind a semi-circular step, and Buddha seated on a throne with a sacred *bodhi* tree at each side. In front of the throne are three kneeling worshippers. The people with offerings who stand on each side of the gateway, are similar in their grouping to those before described. In front of the right side recess is another offering-bearing dwarf. An important feature is shown on the sculptured panel along the top of the rail. In place of the usual scroll ornament is a procession of figures grouped together. Some are mounted on lions, and others recline on the backs of the animals with their feet on the ground behind. Some seem to wrestle with the rearing lions, while others lead them along; a few are borne down in the struggle and recline on the ground. This piece of the sculpture is interesting in that it differs from the more usual scroll found on these rails.

In the panel over the gate is a seated Buddha, with attendant worshippers. The inner rail has figure panels divided by posts with circular discs. Above this the marble is broken off.

The upper central panel, the inner rail panels, and the four central lions, have their raised surfaces slightly worn or flattened, not through decay of the stone as in slab No. 6, but, from their appearance, it would seem that it must at some previous time or other have lain so that it may have been trodden on by people passing over it. As it stood erect, however, it is unlikely that it could have fallen, and been again raised into position. It may therefore have been caused by being rubbed against, while the *stupa* was in use for worship. Similar cases are often seen in the sculpture of the more frequented parts of the South Indian temples.

This panel is almost a duplicate of one of the *chaitya* slabs from Amaravati illustrated by Dr. Burgess.* On both is the procession of animals shown on the upper panel of the rail. A slight variation of detail is seen in the centre, where, over the two kneeling images, there are, in this example, three, while in that from Amaravati there are seven. The date of each cannot be widely different, for a comparison of the details of each shows a wonderfully close similarity. The other slabs now found might also be compared in most parts with those illustrated in the work above referred to, and would tend to show the identicity of style in each. But where this is so generally marked, only the most strikingly characteristic can thus be specially referred to. Size, 2′ 10$\frac{3}{4}$″ high by 3′ 0$\frac{1}{2}$″ broad.

* *Amar. and Jagg. Stupas*, Pl. XXXVI, Fig. 3.

No. 8 (*Drawing No.* 744).—This example is a fragment of the right upper centre of a *stupa* slab. A part of the *areola* of a Buddha is the only piece of what has been the centre panel. Over it is a panel with a *chakra* on a pedestal, and a seated and standing worshipper on each side. Over this are four of the five *stelæ* or *arya stambhas* of the dome. They are square below, octagonal in the middle of the shaft, with a square foliated capital. In an inscription at Jaggayyapeta these shafts are called *Ayaka khambhe*.* On the right of the fragment is a lion seated facing the centre. Over it is a panel with a small figure of Buddha seated on a throne, and two worshippers on his right. An ornamental band of processional lions, and another of sculptured *trisulas* are over; this has formed a part of the lower curve of the dome.

* Burgess' *Amar. and Jagg. stupas*, p. 71.

The sculpture has a much newer appearance than any of the slabs, as if it had been less exposed to the weather; and the execution of the more minute floral ornament has not the high finish of workmanship displayed by the others. It is similar in style to No. 3. Though a comparatively small piece of sculpture, it supplies a portion of the upper central ornament over the gate, which is less complete in the other examples. Size 2′ 1″ high by 10″ broad.

Though this is the largest of the three *stupas* here discovered, the fact of their standing so widely apart perhaps shows that a considerable Buddhist town must have existed on the spot; it is very probable therefore that, though a large building, it may not have been the principal place of worship on the site. The large mound, with the trigonometrical station and bungalow on the top, is circular, and about the same size as the *Dipaldinne* at Amaravati; it is quite possible, judging from the remains on the surface, that a large building may lie buried under it. In connection with this, it is curious that, till these were discovered, there was even no shadow of a tradition regarding this having been a Buddhist site. Their name was completely blotted out, and the only traces that survived lay buried in the mounds, even these being attributed as the relics of a small and obscure European settlement which existed in a corner of the town the Buddhists had founded. There would thus seem to be some truth in the legend of a sudden destruction having overwhelmed the town, and almost completely effaced it at one sweep, though it would be wrong to ascribe this—as has been done—to the much later time when a European colony appreciated the advantages of the site as a place of settlement.

VI.—KAMAPALLE.

Is a small village, 12 miles south-west of Narsaravupeta. It has been mentioned * that there is a deserted temple, and an inscribed stone on a mound. The former is almost completely ruined, only the four corner upright stones of the shrine and the roof remaining. Foundations of brick are visible, and in front is a rough pier with an image carved on the side facing the shrine. An image of Krishna stands near.

* Sewell's *Topog. Lists*, Vol. I, p. 69.

The mound is named *Samuladinne*, and the inscription is in old Telugu letters, slightly cut on an uneven surface and almost illegible: at the head is an outlined *linga*. A stone with a nandi carved on the top and a number of boulders lie near. The mound is probably a tumulus, and the boulders still remaining may be part of the enclosing stone circle. Under a tree to the north is a dolmen, and close on the north outskirts of the village are three others. One with its top slab gone, has a Ganesa inside. Two others remain complete, and one has been adapted as a shrine to Ganga, of whom a small image stands inside. In this instance, the round hole usually found in a side slab of certain *kistvaens*, exists on the west upright slab; the side facing the east is open. This is one instance at least of a shrine for the dead being adapted as a place of worship for the living.

In the village is a bas-relief of Hanuman, and a thin slab with a defaced *viran* carved on its surface in low relief.

VII.—CHEZARLA.

The village stands 14 miles west-north-west of Narsaravupeta (not "east-north-east," as in Mr. Sewell's *Lists*, p. 68). The north, west and south-west sides of the village are enclosed by a low range of rocky hills covered with jungle scrub, and in parts infested by wild animals.

The previously published information of the extent and nature of the antiquities is rather misleading. From it, the village would seem to be filled with temples, statues, sculptures, &c., 78 temples being mentioned. With the exception of a roofless enclosure recently built to enclose a bas-relief of Hanuman, there is only one temple, and no statues in the village. There are a few ruined shrines on the surrounding hills. The list may have referred to the unusually large number of small shrines in the court of the large temple itself; or, the case may be similar to Dendaluru in the Godávari district, where I found that 55 temples, reported to be there, had only a traditional existence. This latter would seem to be the case here, for the remains quoted in the *Lists* (*ib.*) correspond with those given in one of the inscriptions dating from the end of the last century. If the inscription can be trusted, it is interesting as showing what remains then existed; the majority have now disappeared.

(1) *Abstract of the Inscription.*

It is dated Monday the 10th *magha* of the year *Kalayukti*, or of the year A.D. 1799.

The invocation is Sri Cherum Cherala, the Southern Kasi (Benares). Sri Mat Kapotesvara Sibirajavaradu (the temple of the god of that name). Sri Mat Kapotesvara, Sriman Maha Deva Deva (the abode of the true god). Sriman Mukha, Sri Karna, Sri Namasvaya, Gauri (secondary deities). In the boundaries of the village of Sri Cherum Cherala are 78 temples, 28 *Nandis*, 11 *Vinayakas*, 10 *Bhairavas*, 1 *Kumaraswami*, 1 *Mathava*, 1 *Giruda*, 1,000,001 *Lingas*, 62 *Durgas*, 2 *Viras*, 20 *Nagakals*, 9 *Suriyas*, 11 *Chandras*, 1 *Viran*. 24 *Akkadevas*, (goddesses), 2 *Krishnas*, 4 *Ramalakshmanas*, 3 *Hanumans*, 2 *Venkateswaras*, 6 *Sasanams*,* 1 great tree,† 8 *Duvarapalakas*, 1 Sulam,‡ 4 *stambhas*,§ 4 caves,‖ 4 *chaultris*, 101 wells, 1 aqueduct, 3 tanks and 30 ponds.

* At present in the temple with others more modern.

† Of the *ficus* species growing in the south court.

‡ A Buddhist *Trisula* over a long inscription on white marble (Ins. No. 374).

§ Buddhist; in white marble.

‖ Three are natural, in the Devarakonda hill, and one from which the large tree is supposed to grow.

Tangaturti Butchayya (the donor) daily performs 1,000 acts of worship. He who repeats that all these are in the village will have practised the same charity as if he had placed 1,000 *Lingas* in Benares. But he who denies it will have committed the like sin of having killed a Brahman at Kasi. This inscription was engraved by Rangoji Ramudu.

(2) *Kapotesvara Temple.*

The principal temple in the village is of great antiquity and sanctity, and dedicated to Kapotesvarasvami. It is a curious medley of 35 small shrines scattered about, without apparent arrangement, inside a double courtyard, (Dr. No. 745); most of them seem quite modern. In one is a finely carved Chalukyan doorway, (Dr. No. 746). The outer court measures 298 feet from north to south, and 291 feet from east to west. Its walls are 6 feet 3 inches thick, built of small coarse stone slabs. They are now somewhat ruined in places, but must in early times have been of the nature of a fort. The inner court is 167 feet 3 inches from north to south and 174 feet from east to west. Its walls are 5 feet 6 inches thick, built of large polygonal blocks of masonry.

The main shrine is a remarkable structure of curious and unusual design, and is very ancient. The peculiarities of plan and construction merit special attention. It is apsidal-ended on the west, and square on the east or entrance side. The roof is barrel vaulted; the vault being returned round the apsidal end. The east facade is upright to the crown of the vault, the tympanum being ornamented with niches, accessory pilasters and cornices. Its total height is lofty in relation to its breadth; the proportions being similar to various sculptured representations of *Chaitya* halls. A study of its features should be sufficient to prove that it has had a Buddhist origin.

(3) *A Buddhist Chaitya Hall.*

(Accompanying Plate I.)

A few of the most typical proofs of the character of this structure may be first briefly noted as follows:—

1. A shrine built of large bricks, with thick walls indicating great age.
2. Its floor is not only under court level, but below the level of its entrance *mandapas*, showing that it is older than they.
3. Its apsidal-ended plan and design are those of a Buddhist *chaitya*.
4. Though now used by Hindus, its proportions are widely different from any shrine originally built for their worship.
5. It bears undoubted and admitted evidences of having been altered to adapt it to Hindu worship.
6. The presence of the following white marbles. Two Pali inscriptions on a pier; and another lengthy one with a *trisula* over it. Several Buddhist columns; a sculptured slab and a large number of *Lingas* also in marble, which may very possibly have been hewn out of Buddhist piers as was the case at Amaravati.
7. An adapted Buddhist *Jataka* for the *sthala purana*.

The dimensions of the building are as follows (Dr. No. 748, fig. 1). The plan is apsidal on the west end, the exterior being semi-circular, while the interior is a flatter segmental curve. The curved wall is 4 feet 7 inches thick. The interior breadth across the apse is 8 feet 3 inches, with side walls 3 feet 10½ inches thick. The breadth at the entrance is 8 feet 9 inches, but as the exterior lines of the side walls are parallel, this increased breadth makes them 3 inches thinner than they are at the back. The exterior length is 30 feet 3 inches; the inner length is 22 feet 11 inches; but to this is added a wall 2 feet 9 inches thick, built across the east end to form an entrance. This may be the extent of the original building, though as the porch directly in front is also built of large bricks, whose courses would seem to run parallel to the others, it may also have been original, though its walls are slightly thinner than the others. This feature of an entrance porch exists in some of the rock-cut examples, as at Karli * and Dhamnar. If this had been the case here, its front would be occupied by two piers with side pilasters; while standing detached in front would be the usual two lion-*stambhas*. The porch adds another 25 feet, making the total inside length 50 feet 8 inches. With regard to this, it must be noted that this porch floor is 9 inches above the shrine floor. Now unless the floor has been raised, it would go to disprove the theory of the porch being of an equal age. The *mahamandapa* is without doubt a later erection, built to conform the shrine to the usages of Hindu worship. The shrine floor is a foot below the courtyard level. Along the two interior sides are ten stone piers, propped at intervals against the walls, supporting stone beams and a ceiling of flags, 7 feet 6 inches high. This was an innovation introduced to reduce the height, and bring it down to the proportions of a Hindu shrine. A reference to the section will explain this. Nothing could be learned of the construction of the interior above the ceiling, except that there is a tradition as to its being a hollow space with a vault over. There can be little doubt but that the walls proceed upright to the wallhead at the springing of the vault, and above that, there would be, or perhaps at present are, curved wooden rafters acting as supports to the vaulting, as was usual in *chaityas* such as those illustrated by Fergusson.† The vaulting is of brick, in horizontal courses, and of a low parabolic section. The side elevations are of unique construction. The brick courses are horizontal, but the vault and lines of the wall-head cornices dip backwards for 2 feet 3 inches in the length. On the north exterior side of the shrine are 12 small detached monolithic shrines of ancient design, such as are seen on niches or cells of early cave works. The stone is a white limestone resembling marble. Each has a small *linga* carved out of the solid in bas-relief on the back of a small opening. Whether these are contemporaneous with the shrine it is difficult to say. There are four others in the courtyard, and another lies by the south side of the large tank west from the village. They may date from the first Hindu occupation (Drs. Nos. 749 and 750). The exterior of the shrine vault is plain brick and plaster, and the side walls are devoid of ornament, there being simply the main cornice, with three tiers of stepped mouldings above it. The east elevation is upright, and the lower portion of the facade is abutted against by a porch or *mandapa*. Above the porch roof, the wall is vertical up to the line of the springing of the vault. Over this, the wall inclines backwards at right angles to the line of the ridge. The ornament on this facade is in plaster, and Hindu in character. It probably replaces a tympanum of wooden construction such as *chaitya* halls seem to have had.‡ The bricks used are 1′ 5″ × 9″ × 3.″ Some others appearing through cracks in the plaster are 1′ 4″ and 1′ 3″ long. It has been above noticed that the floor is below the courtyard level. To any one acquainted with the subject it will be at once apparent that this could not have been the case when the structure was erected. It would be placed *higher* than the surrounding ground, at a surface now below the floor of the court. It is thus a link in the evidence proving the ancient character of the shrine. With reference to the dipping of the roof, and the increased width of the entrance, it will be remarked that whether intentional or otherwise, the construction is one calculated to give the building accoustic properties such as would aid in concentrating and throwing forward the voice of a speaker stationed inside. Its length too would impart a resonance which would give to his words an impressiveness otherwise wanting. For a Hindu shrine these would be no desiderata, but it might be otherwise for one built for the worship of Buddha. These are points for consideration, and when it is acknowledged that the Buddhists were masters in artistic architectural and constructional art, and when, according to Fergusson, they had studied the art of lighting their shrines, we may be permitted to suggest that in addition to borrowing a knowledge of art they may also have learned something of accoustics from the Greeks who originated the science.

The structure is brick throughout, and without any tower. In connection with this, two important facts must be mentioned. The only races in the south, that we yet know of, who erected apsidal-ended shrines were, first the Buddhists with their *chaitya* constructed of bricks—in the early centuries of our era; and the later Cholas who, in the eleventh century, formed circular-ended structures in stone. These latter have left no examples of this class in brickwork. In addititon to the Cholas the Pallavas may be mentioned, as they have left a monolithic example at Mamallapuram. A feature peculiar to the first of these, is that they had no tower; the latter

* Fergusson's *Ind. and East Arch.* Pls. 54 and 65. Fergusson and Burgess' *Cave temples of India*, Pls. LIII, LXII, &c.

† *Ind. and East. Arch.* Pls. 46, 53, 56 and 58.

‡ *Ib.* compare Pls. 47 and 111.

invariably had, always rising direct over the circular end of the shrine. It will be seen that this building resembles the first of these classes and has no features in common with the others, nor with any Chola building yet known. The building is thickly coated with plaster so little can be learned from the form of the detail. The wall head-cornice nevertheless bears its ancient character, and, in spite of the plaster, the remarkable proportions of the shrine are at once apparent. Though it is unfortunate that the early detail should be thus obliterated, we must not forget that it is to the fact of the Hindus having adopted it as a place of worship—as they have done with certain Buddhist caves and *dagobas*—* that we owe its preservation to the present time. There thus seems a certainty that here we have a Buddhist *chaitya* standing in its entirety, though sadly defaced by the white-washing tendencies of the Hindus. It should be noted in connection, that there are in this and other shrines 29 lingas of white marble. There are several white marble columns with Buddhist carvings in the court (Dr. No. 750); one has two inscriptions in Pali (fig. 1, and inscriptions, Nos. 376 and 377); the other is carved with the usual Buddhist semi-circular pateras of lotus leaves. Another marble pier has latterly been inscribed in modern Telugu (Dr. No. 747, fig. 3, and Ins. No. 384). There is also a figure sculptured white marble slab in the south side of the courtyard (Dr. No. 747, fig. 1); and another slab of the same material standing in front of the shrine with a long inscription of 49 lines, with a *trisula* over it (Dr. No. 747, fig. 2, Ins. No. 374). The presence of these supports the theory, as they may have been removed from their position in the *chaitya* portico, when the building was being adapted to Hindu worship by the erection of the adjoining *mandapas*. This would necessitate the removal of the colonnade of marble piers.

* One is worshipped as a *linga* at Guntupalle.

(4) *An Ancient Sacred Tree.* (*Adansonia digitata*).

Standing in a line with, and south from the *chaitya*, inside the outer court, is a large tree which, having a hollow core, is popularly stated to grow from out of a subterranean cave. It is known as *Peruleni pedda manu* (the nameless great tree). Around the base is a platform 25 feet by 22 feet 6 inches and 3 feet high. The circumference of the trunk at that height is 58 feet 6 inches. The first branches are 9 feet 6 inches from the ground, and there the girth is 56 feet. The spread of the foliage is 78 feet across, and the height of the tree is about 87 feet. It has large 5—7 lobed leaves: large flowers; and seed in a hard woolly pod. It must be of great age (Photo. No. 56).

(5) *Various Ruins, and Traces of the ancient Manufacture of Steel.*

The other ancient buildings around the village are few and insignificant. On the tops of the hill to the north-west is a ruined shrine of Kumarasvami. At the west base of the same hill are a few small brick shrines all more or less ruined; none of them can be older than the 16th century. The Hanuman temple in the village is simply a three-walled roofless enclosure. On the east outskirts is a large clay pit from which the ruins of a temple have been removed to provide building materials. It is said that a brass image and two others in black stone were found there and they now serve as deities in the large temple. It is probable that the large bricks, of which some of the modern shrines in the Kapotesavara temple are built, were found here. Further to the east is a low irregular mound named *linga dibba*, after five *lingas* which still stand erect on the foundations of some demolished Hindu shrines. There are no other mounds in or near the place which might mark an ancient site. Between the Kapotesvara temple and the west tank are some large and ancient heaps of debris from the smelting of iron ore. No such industry is carried on in the village now-a-days, nor even has been in recent times; but a local tradition states that in ancient days an extensive manufacture of steel was carried on here, the ore being brought from the hill of Guttikonda in the Dachepalle taluk. India was anciently famous for its steel, blades of high temper and quality being in great repute. The manufacture reached a high state of perfection before the Christian era. Though this industry has undoubtedly been carried on here, it would be hazardous to assert that it might have flourished at so early a date as that: there are no visible proofs present to fix even its approximate date.

(6) *Remains on the Devarakonda Hill* (*Hill of the gods*).

The hill stands over a mile west of Chezarla and reaches an elevation of some 200 feet. It is covered with large granitic rocks and jungle scrub. At the south base is a small ruined and deserted stone temple of Durgibhairava. It has a shrine, enclosed *mandapa*, and small pillared *gopura*. It may date from the 16th century.

Close to the west of it, is a natural cave in the rock. The roof is rounded and the entrance has been artificially widened by hewing the rock. To give regularity to the interior, walls are built under some of the overhanging portions of the rock inside. In front is a rough enclosure formed of stone blocks. In this space, 7 or 8 images about 2½ feet high are said to be buried in the ground; the face of one was picked up on the spot. The cave had been in use as a temple about the same time as the adjoining structural shrine.

About 50 feet above, and slightly to the west, is another similar cave, with mud and stone walls built inside and in front. Standing near, is a thin slate slab, 2 feet high, carved with an

image in low relief. Another small square stone with the corner off, has two *sripadas* on a circular lotus patera. Another small slab has standing figures of Krishna and two *gopis*. In the inner recess is a buried *linga*. An inner and an outer stair lead up to the upper part of the cave which has been formed into a separate compartment or shrine by the erection of walls. In it is a small brick enclosure built against the wall, its sides being stepped back and upwards to a point against it. It has been a shrine for a *linga*, the *panavatham* of which lies upon it. All the constructional work is of the roughest possible description. These caves, along with the temple of Durgibhairava, seem to have been deserted after being desecrated by the Muhammadans. The caves are mentioned in the local *Sthala purana* as having been the abode of *rishis*. There seems no reason to doubt its being true. Around the base of the hill, towards the west, is a small brick shrine, with some upright enclosing pavement slabs standing around. Three others similar stand at intervals on the west and the north sides of the hill. These are said to mark the road by which the processional *ratha*, attached to the above temple, proceeded round the hill when it was dragged out at the annual festival.

On the summit of the hill is a ruined temple of Mehallamallesvarasvami. It is a brick structure; the shrine and tower being in a dilapidated condition. In the front *mandapa* are two Bhairavas and a Durgi to whom *puja* is occasionally made. In front is another Durgi on a slab. There are also a Ganesa and a *nandi*, both with their heads smashed off. The *nandi* stands on a *panavatham* with one line of a nearly illegible Telugu inscription which seems to read శ్రీసనముపదుపు (Sri sanamupadupu).

At the south side is a black slab with seven seated female figures or *sathamahas*. In a panel below each are their several *vahanas*, in the following order from the left, *hamsa*, *nandi*, parrot, *giruda*, buffalo, elephant, and an ass. All the heads and breasts of the goddesses are chipped off. At the back of the temple are two other slabs with their heads destroyed. The condition of these betokens a previous visit from the Muhammadans. Up the east side of the hill is a rough causeway leading to the shrine on the summit. It is now little used and blocked with bushes. Two small shrines stand by the way.

(7) *Burial Customs.*

In the burial grounds on the east side of the village are some modern kistvaens, which have been erected by certain of the castes to cover the remains of the dead. Though these differ considerably from the megaliths—of the pre-historic tribes—which exist all over the country, they are nevertheless interesting in showing that the custom is not yet extinct, but is still practised by some, and probably always has been from pre-historic times. The custom had at one time been a general one in use by all the tribes scattered over the country, and though it had fallen into disuse by other sections of the people, it has survived here, probably through the facility with which the people can procure suitable slabs of pavement from the adjoining quarries. This would seem to have been the case, for even here, members of the castes—which use these kistvaens—when they cannot afford them, dispense with their use altogether. It does not, therefore, seem to be a matter of caste necessity, though they have a preference for its use when possible, and were stone unavailable, it would probably fall into disuse completely, even the tradition of its having been so used would disappear, as it has done elsewhere. A consideration of this circumstance might go to prove that at different periods in early times, a considerable migration of the original people, who used this mode of burial, had taken place; and that they must have come from hilly tracts where stone was plentiful and easily obtained. When they settled in their new habitation on the plains, they would take their customs with them, and this special one, they would, for a time, continue to practise even in spite of the difficulties attendant on procuring stone slabs of suitable size. These difficulties would in time gradually force themselves upon the people, till the custom fell into disuse; and this neglect would in time permeate even the tribes who dwelt nearer the hills, till it disappeared altogether. The custom which supplanted the use of megaliths, was probably that of placing the remains in earthenware sarcophagi. The intermediate or transition stage would be shown when these two occur simultaneously, or when the earthen sarcophagus was placed inside a kistvaen. The latter stage would be reached when the earthenware grave stood apart and free of any such enclosure. Even this latterly fell into desuetude, probably through some sufficient cause, though we cannot at present say what it may have been. The remains were then simply placed in the earth without any enclosure whatever, as is that in general modern use.

In the custom which prevails here, the body is laid horizontally in a shallow grave, the earth is heaped over it in a long narrow mound, and these kistvaens are then placed over it. They do not approach a square, as in the ancient examples, but bear a proportion to the size of the body. At the head and feet are small upright slabs about two feet broad. Long slabs are placed upright at the sides, and another of sufficient length and breadth to cover these four upright stones is laid on the top. In some instances a separate stone is placed upright at the head of the grave. Their use thus seems primarily to be to protect the mound, and prevent its being washed down by the weather. Another important purpose these kistvaens would serve, and probably one of the first considerations which influenced their adoption would be—in a time when they were more numerous than they even are now—to protect the remains from the ravages of wild beasts.

Those who still practise this mode of burial are Vaishnavas of the following castes: the Gentus or Balingallu, here known as Telakallu (cultivators); Sakalavallu (dhobies or washermen; by the Sathani (or Sudra priest for the Vaishnavas); Salavallu (weavers or workers in cloth); and the Pariahs. Saivites of the same castes burn their dead. This is curiously the reverse of the custom peculiar to the sects further south, where the Saivites bury and the Vaishnavas burn. With the Saivites here, a shallow grave is also dug, and after the remains are placed therein, bushes are cut on the spot, and heaped over the body. Large stones are then thrown over these, and the pile is lighted in the evening. When everything is consumed, the earth is heaped over. The absence of Kistvaens in these cases seems to be simply that no purpose would be served by their use. With the others, of course, the case is different. In the casting of stones over the layer of bushes, we probably have a simple explanation of the presence of such in some of the pre-historic graves at Pallavaram, and other places lately examined. In these particular cases, cremation may have been practised, and the small holes which were seen in some of the pyriform tombs may have been to facilitate the burning.* In the village, all Brahmans, both Vaishnava and Saivite, practise cremation. Some years ago, a carpenter fell over the rocks on the west side of the Devarakonda hill, and was killed. He was buried where he fell, and a cairn of stones heaped over the grave. An upright stone post, with a *nandi* on the top, and an inscription recording his name and the year of his death, was placed to mark the spot. The fact of his remains not being removed to the ordinary burial place in the village seems to have been through a superstition held regarding the nature of the fatality, and the sacredness of the hill, the scene of the sacrifice, as related in the *Sthala purana*, of two devotees of Siva.

* See remarks on the subject in *Some pre-historic remains in Southern India. Journal, Asiatic Society, Bengal.* Vol. LVII, par. 1, No. 2, p. 10, 1888.

(8) *Legends of the Sthala Purana.* (*An adapted Buddhist Jataka*).

The *Puranas* of Chezarla, and the sacred shrine of Sri Sailam in the Karnul district—distant about 70 miles—are intimately associated. The two are written in Sanskrit verse, bound in one palm-leaf manuscript, in the possession of the *Dharmakarta* of the Chizarla temple. Another *Purana* of the latter place is in the possession of a Brahman † at Timmapuram, but it is stated to be quite new. The one with the *Dharmakarta* is said to be over 100 years old.‡ It is traditionally stated that the king who built Sri Sailam was also connected with the erection of this temple. This favors Dr. Burgess' theory of the Buddhist origin of the former.‖ Pilgrims who visit that most sacred of temples, must first pass through one or more of eight others which rank second in religious importance. These are metaphorically styled gateways. These shrines stand at various distances around the chief one, at the eight points of the compass. Those pilgrims who come from the north-east pass through Chezarla; those from the east are said to go *viâ* Tripurantakam; others visit Yelesvaram, and so on at the five other places.

† Sewell's *Topog. Lists*, p. 69.

‡ The Chizarla MSS. had been detached and sent to a Brahman—one Kolatshala Yegga Narayana of Ramachendrapura Agraharam—at Guntur, for translation into Telugu prose. I was therefore at the time unable to see it. I was shown the Sri Sailam *Purana*. It is in 74 pages written in Sanskrit verse with Telugu characters. I had a translation made, but it has little or no historical information, and is chiefly of a mythical nature, relating a conversation between Siva and Parvati extolling the extreme sacredness of the site. It need not therefore be given here at present.

‖ See the interesting paper in G.O., No. 742 A, of the 8th April 1886.

The legend of the origin of the temples at Chezarla, as narrated by a Brahman of the village, is as follows. The story is a version of one of the Buddhist *Jatakas*:—

In Kashmir, one of the largest and richest of the 56 kingdoms of India, a king named Sivichakravarti, son of Mandata, and grandson of Eyayatimaharaja (see the *Ahrenyaparva* of the *Mahabharata*) reigned peacefully and justly during his long period of years. He had two brothers—named Mehadambara and Jimutavahana. One day Mehadambara asked his brother Sivi to permit his going on a pilgrimage to all the sacred shrines and rivers in Southern India. The king was much pleased with the request, and ordered his prime minister to make all the necessary arrangements for his brother's journey, and at the same time directed 1,500 people to accompany him. The prime minister did accordingly and Mehadambara started immediately with the escort given by his brother the king. He visited a number of holy shrines and rivers, and at last came to a place named Cherum Cherla where many *Yogis* were doing penance in the caves of Devarakonda (a hill now also named Mehalamallayakonda). He went and conversed with the *Yogis* for some days. By so doing, he suddenly lost all interest in worldly affairs, joined the *rishis* and began penance along with the others. Some days after, he died, and his body was buried on the summit of the hill. Through the power of his penance, it assumed the form of a *Linga*. The people who saw this, built a temple over the *Linga*, and named it Mehadambaresvara. The followers of the prince, who had been ordered to return to Kashmir, went their way and told everything to king Sivi, who, up to this, had been expecting his brother's return. After hearing these things the king grieved for his brother Mehadambara, and after consulting with his younger brother Jimutavahana, that prince promised to bring the missing brother, and started with an escort of the same number of followers. After spending many days on the way, he reached Cherum Cherla, where he made inquiry for his brother. When he came

to understand that Mehadambara had lost his life, and been transformed into a *Linga*, he determined to do the same; he dismissed his escort, and sat as a *Yogi* on the same hill. His penance exceeded in severity that of his brother, for which his body soon attained Kailasa. On the return of the followers to Kashmir, they informed king Sivi what Jimutavahana had done, and that they had not seen the other brother Mehadambara there. The king who had grieved about the first brother, now fell into deep sorrow over the fate of the other, and calling his prime minister, handed him his ring. The prime minister received it, and was instructed that he should carefully govern the kingdom for some months, as the king wished to visit the place where his two brothers had gone. So the king immediately started with 1,000,001 people, and making some haltings by the way, at last reached Cherum Cherla. On learning of the deification of his two brothers, and seeing the *Linga* of the former, Sivi determined to perform 100 *yahas* because of the holiness of the place. He made all ready, and selected a place for *yahasala* by the side of a water-channel, near to the great tree. He completed 99 *yahas*, and began the performance of the last. On completing 100 *yahas*, the merit would be the attaining of the realm of Brahma. But this deity and other *devas* conferred with Siva and Vishnu to interrupt the last *yaha* of Sivi so that it might be rendered ineffectual, if he did not stand the test they proposed to impose. These three therefore—Brahma, Rudra and Vishnu,—descended to Buloka, at a spot now named Rupanaguntla (*rupu*, sight). The place was thus named through the *Trimurti* here making themselves visible to the sight of mortals. They then stepped over to Kandlagunta from whence they looked for Sivi (*Kandlu* looking). After leaving this place they halted at Vipparlanagari, and there transformed themselves,—Siva as a hunter, Brahma as an arrow, and Vishnu as a bird (*kapotabakshi*). The hunter with his arrow then ran and jumped about, affecting a desire to shoot the bird, at a place now named Kunkulagunta (*kunkal* jumping about).* Then the hunter followed the bird to where Sivi was engaged in his *yaha*. The bird flew rapidly and alighted on Sivi's hand, making signs that it wished protection. Shortly after, the hunter appeared before Sivi, who had the bird in his bosom, and spoke thus: "My Lord I am a hunter who live on the flesh of birds and animals; this bird that you now hold in your bosom I have pursued from early morning, but it escaped me. I am hungry and thirsty, so in justice give it to me so that I may kill and eat it." Sivi replied that it was not justice to deliver over the bird when it had fled to him for protection, but promised instead to give whatever the hunter wished, land, gold or wealth, anything but the bird. The hunter would have none of these, but only demanded the bird's flesh to appease his hunger. Then Sivi said he would give of his own flesh, a weight equal to that of the bird's. To this the hunter agreed, and Sivi placed the bird on one scale. With his own hands he tore off portions of his body, and placed them in the other scale; but, by the power of the *Trimurti*, they did not balance the weight of the bird. On seeing this, king Sivi procured a *Gandakattari* (long shears) and cut his body in two pieces, and had one-half placed on the scales. Immediately the *Trimurti*—Brahma, Rudra, and Vishnu—assumed their real shapes and appeared before Sivi; and Siva addressed him thus: "My dear believer, I am much pleased with your *yahas*, and sacrifice for the sake of the bird, ask whatever you wish, I will make your body more beautiful than before, and you may be a king of kings." King Sivi overjoyed, replied thus: "O Paramesvara, Parvatisameda, Annadaratshaka, O Patbunta, Sri Mahadeva, I want nothing but this which you might vouchsafe me, I want no kingdom such as I enjoyed in my worldliness. I desire only the bliss of Kailasa for myself and the 1,000,001 people who followed me here; and that all our bodies should be transformed into *Lingas* to remain for ever in the boundaries of Cherum Cherla. Siva immediately granted these requests, Sivi and his followers attained Kailasa, and their bodies were transformed into *Lingas*. The Brahmans at once erected a temple over, and named Sivi's *linga* Kapotesvara, as he gave up his life for a *Kapotabakshi*.

* Rupanaguntla, about 10 miles to the south-east; Kandlagunta, 16 miles east; Vipparlanagari, 7 miles south-east; and Kunkalagunta, 2 miles east of Chezarla.

In support of the legend, the Brahmans point to the white marble *linga* which has two large holes on the top, and small marks round the sides. One of the holes is said to hold but one pot of water; while the other which represents Sivi's throat can receive numberless pots. The small marks on the sides are the scratches made by Sivi's nails when he tore the flesh from his body.

The story not only occurs in the Mahabharata, but also in the Buddhist *Jatakas* where the king's sacrifice was made to save the life of a hunted pigeon. The connection of the legend with the place may be very ancient, and probably originated during the Buddhist occupation. The Hindus having a similar story, adopted it, using their own version, with their own deities as the principal actors, to the exclusion of the Buddhist characters who had figured in the tale. It is doubly interesting when we consider that it was also a Buddhist legend, and taken in conjunction with the discovery of Buddhist remains, may be looked on as additional proof of the identicity of the shrine. The legend, as related, has therefore been given in full.

VIII.—KUNKULAGUNTA.

This is one of the places mentioned in the Chezarla *sthala purana*. There are two temples here, both in a ruinous condition. On the north outskirts is the small temple of Virabhadrasvami. The shrine is a plain structure, with a small walled *antarala mandapa* and a pillared

mahamandapa. The former is quite plain; the latter has 16 piers in four rows, the four central ones being older than the others. The first are square below and above, with an octagonal portion in the middle of the length. The others have square shafts. The temple is built of stone throughout, and some portions are in a ruinous condition. Near the *mahamandapa*, some stones lie in two lines on the ground: they have been intended for the construction of a platform around it. An inscribed stone stands near.

About 200 yards north-east of the village are the remains of a temple of Bogesvara. There are a few rough piers, some of which still stand erect, and others lie about in different places. A *linga* stands in a heap of mud, and adjacent are two inscribed stones.

The temples date from the 12th century.

IX.—MOUNDS AT PANIDEM.

The village stands about 6 miles south-south-east of Krosuru. About a mile to the west is the hamlet of Dipaldinnepaliem, named after three large adjacent mounds. The largest is about 173 feet in diameter, and 28 feet high. Two others are near and measure, the one on the north, some 173 feet in diameter by 9 feet high and that on the south, 126 feet in diameter by 7 feet high. A trench had been previously cut through each of them, and the sections thus exposed, showed them to be artificial, with thick layers of black earth, and thin deposits of gravel. In these excavations nothing whatever was found, and there was no trace of even a brick or other building material. Around the base of the largest is a circle of large stone-boulders. As the previous trenches were cut right through at the level of the present ground surface, the non-existence of a building might scarcely be considered as conclusively proved. A few cuttings were therefore made at the entrance to the trenches, and at some other points varying in depth from 3 feet 6 inches to 6 feet. In every instance, at the former depth, a natural strata of lime nodules or kankar (Tel. *gatsu*) was found, and as it continued down to the greater depth, it was unlikely that anything would be found by carrying the digging deeper. The black artificial earth of the mounds has been placed immediately over this strata; the sections showed this clearly. Should that have been the ancient surface, the date of the mounds would be about the 13th century.

Local tradition states that they were made through the heaping up of the soil taken out while digging a tank now silted up; and the boulders were placed in a circle round to prevent the earth being washed down into the tank. The explanation is more ingenious than probable, as it would be a very unusual proceeding in works of the kind. Others relate the usual myth of a buried treasure. A story states that a dancing-girl lived on one of them, and buried a large treasure there; she lighted a lamp on the top, each night that she saw another on the *Dipaldinne* at Amaravati.

The mounds seem to be large tumuli.

X.—ANCIENT SITE AT ATTALURU.

This is a small village about 6 miles to the north-east of Panidem. On the north are some extensive irregular clay mounds, from which the villagers procure material for building purposes. They are known under the name of Peddapadu, and are evidently the site of an ancient settlement, from the name, probably Buddhist. There are no walls visible; the houses would thus seem to have been built of mud, hence the large deposit of this material. Broken pottery abounds, but no signs of bricks or stones; it is said that coins are sometimes found. On the north side of the site is a circular mound about 60 feet in diameter by 8 feet high, known as *Dipaldinne*. Its surface is formed of gravel, and some rough blocks of black stone appear at intervals around it. The people say it formed part of the bund of an old tank now silted up, which was attached to the ancient village. This, however, is very unlikely as it has no appearance of being such. It is either the site of a building, or a tumulus like the mounds at Panidem. As there are no bricks or other remains on the surface, it is most probably the latter. There is a stone standing near the mounds, inscribed on two sides in old Telugu characters.

APPENDIX A.

DRAWINGS.

1. 10th to 12th December 1888.—Ground plan of Sri Venkatesvarasvami temple, Bittragunta (on hill), Nellore district. Scale $\frac{1}{100}$. Half sheet. M. Balakrishna Naidu, No. 733.
2. 10th to 12th December.—Side elevation of Sri Venkatesvarasvami temple, Bittragunta, Nellore district. Scale $\frac{1}{100}$. Half sheet. S. N. Apparao Mudaliar, No. 734.
3. 24th to 26th December.—Plan of Stupa at the north-east of Franguladinne, near Pedda Ganjam. Scale $\frac{1}{50}$. Half sheet. S. N. Apparao Mudaliar, No. 735.
4. 29th to 31st December.—Plan of (Bogandani dinne) Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{100}$. Half sheet. B. N. Muthu Alagiri Naidu, No. 736.
5. 27th to 30th December.—Slab No. 1 from wall of Stupa No. 1 at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 737.

6. 31st December to 1st January 1889.—Slab No. 2 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 738.

7. 31st December to 5th January.—Slab No. 3 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. M. Balakrishna Naidu, No. 739.

8. 1st to 5th January.—Slab No. 6 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. P. Nathamuni Naiker, No. 740.

9. 31st December to 5th January.—Slab No. 4 of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. S. N. Apparao Mudaliar, No. 741.

10. 2nd to 4th January.—Slab No. 5 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. B. N. Muthualagiri Naidu, No. 742.

11. 2nd to 5th January.—Slab No. 7 from wall of Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. Munisami Naiker, No. 744.

12. 5th January.—Slab No. 8 and pieces of sculpture from Stupa No. 1, at Pedda Ganjam. Scale $\frac{1}{4}$. Half sheet. C. P. Nathamuni Naiker, No. 744.

13. 10th to 20th January 1889.—Ground plan of Sri Kapotesvarasvami temple, at Chezarla, Kistna district. Scale $\frac{1}{120}$. Full sheet. M. Balakrishna Naidu, No. 745.

14. 10th to 20th January.—Doorway of Virabhadra shrine in the Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{2}$. Half sheet. C. P. Nathamuni Naiker and S. M. Apparao Mudaliar, No. 746.

15. 10th to 15th January.—Sculptures on two marble slabs, and a pillar in the Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{2}$. Half sheet. S. N. Apparao Mudaliar, No. 747.

16. 14th to 15th January.—Plan section and elevation of main shrine of Sri Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{10}$. Half sheet. C. Munisami Naiker, No. 748.

17. 16th to 20th January.—Longitudinal section of Sri Kapotesvarasvami temple, Chezarla. Scale $\frac{1}{100}$. Half sheet. C. Munisami Naiker, No. 749.

18. 16th to 17th January.—Two marble pillars in the first entrance of Sri Kapotesvarasvami temple; and a niche near tank at Chezarla. Scale $\frac{1}{10}$, and $\frac{1}{5}$. Half sheet. S. N. Apparao Mudaliar, No. 750.

Note.—Full sheet 40″ × 27″; half sheet 27″ × 20″.

APPENDIX B.

Inscriptions copied in fac-simile.

1. Bittragunta; in Sri Venkatesvarasvami temple. On the base of dvajastamba, 5 feet 5 inches × 1 foot 2 inches; 5 lines of 33 letters in Telugu. No. 369.

2. Musunuru; in the middle of village. On an upright stone, 2 feet 10 inches × 1 foot 1 inch; 17 lines of 9 letters in Telugu. No. 360.

3. Paliem; near Musunuru, in front of Venugopalasvami temple. On a stone, 3 feet 2 inches × 1 foot 1 inch; 19 lines of 8 letters in Telugu. No. 371.

4. Ongole; on a stone standing in a field close to the road, 2 feet 4 inches × 2 feet; 13 lines of 23 letters in Telugu. No. 372.

5. Ongole; on a stone standing in a field close to the road (on back), 2 feet × 4 inches; 2 lines of 11 letters in Telugu. No. 373.

6. Chezarla; in Kapotesvarasvami temple. On a white marble slab, with *trisula* on top, standing in front of the shrine, 5 feet 6 inches × 1 foot 4 inches; 49 lines of 20 letters in an old form of Telugu. No. 334.

7. Chezarla; in Kapotesvarasvami temple. On a slab standing at the south of the shrine, 4 feet × 1 foot 1 inch; 35 lines of 20 letters in Telugu. No. 375.

8. Chezarla; in Kapotesvarasvami temple. On a white marble pillar at the entrance to the Gopura, 2 feet 1 inch × 1 foot 1 inch; 12 lines of 19 letters in Pali. No. 376.

9. Chezarla; in Kapotesvarasvami temple. On a white marble pillar at the entrance to the Gopura (on back), 2 feet 5 inches × 1 foot 1 inch; 13 lines of 10 letters in Pali. No. 377.

10. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of the shrine, 2 feet 1 inch × 1 foot 5 inches; 18 lines of 20 letters in Telugu. No. 378.

11. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of the shrine, 2 feet × 10 inches; 18 lines of 9 letters in Telugu. No. 379.

12. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of dvajastambha (on north side), 3 feet 2 inches × 8 inches; 35 lines of 10 letters in Telugu. No. 380.

13. Chezarla; in Kapotesvarasvami temple. On a slab standing in front of dvajastambha (on south side), 3 feet 5 inches × 7 inches; 36 lines of 7 letters in Telugu. No. 381.

14. Chezarla; in Kapotesvarasvami temple. On a pillar lying on the ground at the south of dvajastambaha, 2 feet 3 inches × 1 foot 5 inches; 12 lines of 12 letters in Telugu. No. 382.

15. Chezarla; in Kapotesvarasvami temple. On a stone in front of Vishnu shrine, 3 feet × 1 foot 2 inches; 20 lines of 12 letters in old Telugu. No. 383.

16. Chezarla; in Kapotesvarasvami temple. On a white marble pillar (on back), 4 feet 7 inches × 1 foot 2 inches; 34 lines of 10 letters in Telugu. No. 384.

17. Kunkalagunta; in front of Virabhadra temple. On an upright stone, 2 feet 10 inches × 1 foot 6 inches; 15 lines of 11 letters in Telugu. No. 385.

18. Kunkalagunta; on a stone slab lying near the Bogesvara temple, 3 feet 3 inches × 3 feet 2 inches; 21 lines of 32 letters in Telugu. No. 386.

19. Kunkalagunta; on a slab standing near the Bogesvara temple, 3 feet × 1 foot 6 inches; 17 lines of 9 letters in Telugu. No. 387.

20. Panidem; in Venugopalasvami temple. On a stone standing in front, 1 foot 3 inches × 1 foot 3 inches; 13 lines of 15 letters in Telugu. No. 388.

21. Panidem; at the side of the temple of the Gramadeva. On an upright stone, 3 feet 10 inches × 1 foot 6 inches; 36 lines of 11 letters in Telugu. No. 389.

APPENDIX C.

Photographs.

1. Pedda Ganjam.—Stupa No. 3; view of walls, 12″ × 10″ wet plate. No. 50.

2. Pedda Ganjam.—Stupa No. 2; view of walls, 12″ × 10″ wet plate. No. 51.

3. Pedda Ganjam.—Stupa No. 1; marble slab No. 1, 12″ × 10″ wet plate. No. 52.

4. Pedda Ganjam.—Stupa, No. 1; slab Nos. 3 and 7, 12″ × 10″ wet plate. No. 53.

5. Chezarla.—North-east view of *chaitya* at Kapotesvara temple; 12″ × 10″ wet plate. No. 54.

6. Chezarla.—North-west view of *chaitya* at Kapotesvara temple; 12″ × 10″ wet plate. No. 55.

7. Chezarla.—View of the ancient *ficus* tree and *chaitya*, from the south; 12″ × 10″ wet plate. No. 56.

Order—dated 30th April 1889, No. 382, Public.

The Government has read Mr. Rea's report with much interest. The discoveries reported seem important.

2. The matter referred to in paragraph 3 of the Director-General's letter has already been dealt with in G.O., dated 3rd April 1889, No. 308.

3. The Collector of Kistna will take steps for the protection of the *stúpa* at Garikipad.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Director-General, Archæological Survey.
" the First Assistant, Archæological Survey.
" the Collector of Kistna.
" all Collectors of districts.
" R. Sewell, Esq.
" the Public Works Department.
" V. A. Smith, Esq., Bengal Civil Service.
" Dr. R. Rost, Librarian, India Office.

Copy to Secretary, Royal Asiatic Society.
" to President, Asiatic Society, Bengal.
" to Secretary, Madras Literary and Scientific Society.

Exd. A. Raitt.

Govt. of {1889} Madras.

PUBLIC.

Issued

Recd. *Encl.*

G.O., 30th April 1889, No. 382.

APRIL.

Archæology.

Passing orders on letter from the Director-General, Archæological Survey of India, forwarding the progress report of the Madras Archæological Survey under Mr. Rea for December 1888 and January 1889.

requested to state distinctly, in all applications for sanction to expenditure, whether provision for the proposed charge had or had not been made in the Budget Estimate of the year, and, if not, whether it could be met from savings in the existing grants. The Secretary of State for India has drawn attention to these instructions in the extracts from the Despatches quoted above, and, in view of the necessity for their strict application, the Governor General in Council directs that these extracts shall be communicated to, and the instructions in them carefully observed by, Local Governments and Heads of Departments.

ORDER.—Ordered, that the Resolution be communicated to the several Departments of the Government of India; to the several Local Governments and Administrations; to the Heads of Departments under the Department of Finance and Commerce; to the Comptroller and Auditor General; and to the Accountants General and Comptrollers for information and guidance.

RESOLUTION.—The Governor General in Council now directs that every proposal for increased expenditure, which is submitted for the sanction of the Government of India, shall be accompanied by a statement in the following form :—

Major and Minor Heads of Account under which the proposed expenditure will fall.	Sanctioned grants for Major and Minor Heads.	Recorded outlay against those grants by latest available accounts.	Proposed reductions in sanctioned grants from which the expenditure will be met.	Explanation, if no reappropriation is considered possible. In such cases the urgency and necessity for the outlay must also be explained.
1	2	3	4	5

NOTE.—In sanctioning, the reduced grants from which transfers are made will be stated for the information of the Audit Officers.

ORDER.—That this Resolution be communicated, for information and guidance, to all Departments of the Government of India, to all Local Governments and Administrations, to the Commissioner of Northern India Salt Revenue, the Director General of the Post Office of India, the Head Commissioner of Paper Currency, the Mint Masters, Calcutta and Bombay, the Comptroller and Auditor General, and to all Accountants General and Comptrollers.

No. 1419 W. of 25th Augt.

Communicated to officers concerned in continuation of G.O. No. 1/12th October 1885.

Sd/ R.R.E.D.S.

W

Government of India Central Printing Office.—No. 19 P. W. D.—8-5-89.—960.

Ch. Engr. for Irrn:

[For Heads of Departments.]

Circular No. XI Public Works.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

General.

Calcutta, the 1st May 1889.

Procedure for submission of proposals for expenditure not provided for in Budget Estimates.

The following is forwarded to the Officers noted in the margin for information and guidance, with the remark that the form prescribed in the Finance Department Resolution cannot be conveniently introduced into the Public Works Department. Applications for re-appropriations within Budget grants should be submitted, as heretofore, in Form No. 41H, as prescribed in Public Works Department Code, Vol. II, Chapter XV, paragraph 199, but in submitting applications for additional grants the information required in column 5 of the form should invariably be supplied.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners, Central Provinces, Burma, Assam, and Coorg.
The Resident at Hyderabad.
The Agents to the Governor General for Central India, Rajputana, and Biluchistan.
The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
The Director General of Telegraphs.
The Accountant General, Public Works Department.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, and Central Division.

For information.

The Military Department.
The Finance Department.

By order,

A. G. BEGBIE, *Lieut.-Col., R.E.,*
Offg. Deputy Secy. to the Govt. of India.

No. 251, dated 14th January 1889.

RESOLUTION,—By the Government of India, Department of Finance and Commerce

Read again—

Resolutions in this Department, Nos. 1959 and 1661, dated, respectively, the 31st July 1873 and 18th June 1884.

Read also the following—

No. 4958, dated 8th September 1888.

RESOLUTION,—By the Government of India, DEPARTMENT OF FINANCE AND COMMERCE.

Read again—

Resolutions in this Department, Nos. 1959 and 1661, dated, respectively, the 31st July 1873 and 18th June 1884.

Read also the following extracts from recent Despatches of the Secretary of State for India:

Paragraph 8 of Despatch No. 115 (Military), dated 17th May 1888.

Your Government will, I am sure, agree with me in holding it to be a principle of the first importance that, except under the stress of quite exceptional or unforeseen circumstances, no expenditure shall be made during any year which has not been already provided for in the regular estimates for that year, and accordingly, even had the need of the proposed general increase to the Department been more conclusively established than I hold it to be, I should have been unable to accord my sanction to the introduction of a supplementary estimate for the purpose.

Paragraph 32 of Despatch No. 190 (Financial), dated 26th July 1888.

It is the standing order, as embodied in the Civil Account Code, that, "save for exceptional reasons, expenditure for which no provision has been made in the estimates of the current year should not be proposed, and cannot be sanctioned." I am of opinion that this rule should be enforced much more strictly than seems to be the practice in dealing with applications for an increase of expenditure during the current year; that in the really exceptional cases where it has to be incurred, the Financial Department, if able to do so, should especially report that the expenditure can be met by savings in other directions, or from the surplus provided in the Budget; and that, if this is impracticable, your Government should, before authorising the expenditure, consider the question of the manner in which the cost is to be defrayed before submitting the proposals to the Home Government for sanction.

RESOLUTION.—In the Resolutions read above it was decided that, save for exceptional reasons, no expenditure should be proposed or sanctioned unless provision had been made for it in the estimates of the year; and Local Governments and Heads of Departments were requested to state distinctly, in all applications for sanction to expenditure, whether provision for the proposed charge had or had not been made in the Budget Estimate of the year, and, if not, whether it could be met from savings in the existing grants. The Secretary of State for India has drawn attention to these instructions in the extracts from the Despatches quoted above, and, in view of the necessity for their strict application, the Governor General in Council directs that these extracts shall be communicated to, and the instructions in them carefully observed by, Local Governments and Heads of Departments.

ORDER.—Ordered, that the Resolution be communicated to the several Departments of the Government of India; to the several Local Governments and Administrations; to the Heads of Departments under the Department of Finance and Commerce; to the Comptroller and Auditor General; and to the Accountants General and Comptrollers for information and guidance.

RESOLUTION.—The Governor General in Council now directs that every proposal for increased expenditure, which is submitted for the sanction of the Government of India, shall be accompanied by a statement in the following form:—

Major and Minor Heads of Account under which the proposed expenditure will fall.	Sanctioned grants for Major and Minor Heads.	Recorded outlay against those grants by latest available accounts.	Proposed reductions in sanctioned grants from which the expenditure will be met.	Explanation, if no reappropriation is considered possible. In such cases the urgency and necessity for the outlay must also be explained.
1	2	3	4	5

NOTE.—In sanctioning, the reduced grants from which transfers are made will be stated for the information of the Audit Officers.

ORDER.—That this Resolution be communicated, for information and guidance, to all Departments of the Government of India, to all Local Governments and Administrations, to the Commissioner of Northern India Salt Revenue, the Director General of the Post Office of India, the Head Commissioner of Paper Currency, the Mint Masters, Calcutta and Bombay, the Comptroller and Auditor General, and to all Accountants General and Comptrollers.

Government of India Central Printing Office.—No. 19 P. W. D.—8-5-89.—960.

[For Heads of Departments.]

Circular No. XI Public Works.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

General.

Calcutta, the 1st May 1889.

Procedure for submission of proposals for expenditure not provided for in Budget Estimates.

The following is forwarded to the Officers noted in the margin for information and guidance, with the remark that the form prescribed in the Finance Department Resolution cannot be conveniently introduced into the Public Works Department. Applications for re-appropriations within Budget grants should be submitted, as heretofore, in Form No. 41H, as prescribed in Public Works Department Code, Vol. II, Chapter XV, paragraph 199, but in submitting applications for additional grants the information required in column 5 of the form should invariably be supplied.

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The Resident at Hyderabad.
The Agents to the Governor General for Central India, Rajputana, and Biluchistan.
The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
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By order,

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RESOLUTION.—In the Resolutions read above it was decided that, save for exceptional reasons, no expenditure should be proposed or sanctioned unless provision has been made for it in the estimates of the year; and Local Govern[illegible] Department

[*Heads of Departments.*]

Circular No. XIII P. W.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

GENERAL.

Simla, the 10th May 1889.

Examination of Royal Engineer Officers at the School of Military Engineering, Chatham.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab.
The Chief Commissioners of the Central Provinces, Burma, Assam, and Coorg.
The Resident at Hyderabad.
The Agents to the Governor General for Cental India, Rajputana, and Baluchistan.
The Accountant General, Public Works Department.
The Director General of Railways.
The Consulting Engineers to the Government of India for Railways, Calcutta, Central Division, and Lucknow.
The Director General of Telegraphs.

The following is forwarded to the Local Governments, Administrations and Officers noted on the margin for information.

By order,

G. H. D. WALKER,
Under Secretary.

No. 1017-A., Simla, the 18th April 1889.

ENDORSED—by the Secretary to the Governmet of India, Military Department.

Extract, paragraph 19, of a Military letter from the Right Hon'ble the Secretary of State for India,—No. 60, dated 21st March 1889.

19. Any Royal Engineer officer who has passed in subjects *a* and *b* for promotion before appointment to the Indian class at Chatham need not join for the first month of the course. On arrival in England he should report himself to the Commandant of the School of Military Engineering for the purpose of ascertaining the exact date on which he should join.

G. C. Press, Simla.—No. 133 P. W. D.—12-5-89.—1,020.

[*Heads of Departments.*]

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G. C. Press, Simla.—No. 133 P. W. D.—12-5-89.—1,020.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

1436

READ—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 10th January 1889, No. 13:—

W. WILSON, ESQ., M.A., C.S.

READ—the following G.O., dated 8th November 1888, No. 777, Revenue:—

ABSTRACT.—Passing orders on telegram from J. H. Garstin, Esq., regarding the grant of famine batta at Ganjam.

Resolution—dated 10th January 1889, No. 13.

The Board beg to submit the accompanying statements A and B, the former showing (1) the total area cultivated on the average of the five years 1883-84 to 1887-88 in each district of the Presidency, (2) the percentage of that area under food-grains and pulses, (3) the average area cultivated during the same period with food-grains and pulses only, and (4) the percentage of the several cereals and pulses to the area in (3); the latter giving the average prices of the various food-grains and pulses during the same series of years.

2. For the determination of what is the cheapest grain in ordinary use among the people it is necessary—

(1) to compare the prices of the various grains under similar conditions, that is to say, husked with husked, and unhusked with unhusked;
(2) to consider their comparative importance judged by the area covered by them.

3. The Board will therefore consider the facts of each district in turn—

Ganjam.—In Ganjam the cheapest food-grain is varagu, the average price of which was 34·4 imperial seers for a rupee. It is followed by second-sort paddy with 33·9 seers; next come cumbu with 33·6 and ragi with 31·8 seers. Varagu, however, represents only ·1 per cent. of the area covered by food-grains and pulses and cumbu only 1 per cent. Judged by their extent therefore neither of these grains, though cheaper than either second-sort paddy or ragi, has any title to be regarded as a staple of the district. As between second-sort paddy and ragi the former is the cheaper of the two, but no comparison of the respective areas covered by each is possible, for the distinction between first and second sort paddy is one made by the grain merchant and salesman, not by the ryot. The rice crop represents on the whole 66·7 per cent. and ragi 19·4 per cent. of the total area under food-grains and pulses. Ragi is largely and commonly consumed by the agricultural and laboring population, and, being cheaper than second-sort paddy, should be adopted as the staple for Ganjam for the purposes of famine batta.

Vizagapatam.—The cheapest grain in Vizagapatam is cumbu, which sold at 30·1 seers for the rupee, the prices of ragi and second-sort paddy for the same period being, respectively, 28·7 and 28·4 seers for the rupee. It moreover represents 19 per cent. of the area covered by cereals and pulses, and is distinctly a staple of the district and in common use by the people of it. Rice represents 41·5 and ragi 13·2 per cent. of the food-crop area, but cumbu being cheaper than both should be adopted as the staple for famine batta.

Godávari.—Ragi is the cheapest grain in the Godávari, selling at 29·9 seers for the rupee. The great staple of the district is rice, representing 71·2 per cent. of the area under food-crops, but it is very much dearer than ragi as is also cholum—26·5 seers for the rupee—which is the only other cereal that exceeds ragi in area. Ragi therefore should be adopted for the Godávari.

Kistna.—The cheapest grain in the Kistna is ragi, selling at 29·7 seers for the rupee. Judged by its area (28·4 per cent.), cholum is the most important crop in the district, more important even than rice (26·6 per cent.), but its price, 22·6 seers for the rupee, was very much higher than that of ragi, which, therefore, should be taken as the staple for purposes of famine batta.

Nellore.—In Nellore by far the cheapest grain is varagu, which sold at 37·3 seers for the rupee; next to cholum (32 per cent.) it is the chief dry staple of the district and represents 8 per cent. of the food-crops. Cholum is very much dearer, selling at 24·8 seers for the rupee. For Nellore, therefore, varagu should be taken as the staple.

Cuddapah.—In Cuddapah, too, varagu is the cheapest grain, selling at 40·1 seers for the rupee; it represents 2·4 of the food-crop. The next cheapest grain, viz., ragi, is very much dearer, selling at 32·9 seers for the rupee; it stands for 9·6 per cent. of the food-crop. The most important staples of the district, viz., cholum (18·3 per cent.), cumbu (16·6 per cent.) and paddy (11 per cent.) are all very much dearer than either, selling at 28·9, 29·6 and 27 seers for the rupee, respectively. Varagu should be adopted as the standard for Cuddapah.

Anantapur.—Ragi is the cheapest grain in Anantapur, selling at 33·7 seers for the rupee; the next cheapest is cholum, the chief (25·2 per cent.) dry staple of the district. Ragi stands for 6·8 per cent. of the food-crop. Prices are not recorded for korra, which represents 19 per cent. of the crop. Ragi should be taken as the staple in Anantapur.

Bellary.—The cheapest grain in Bellary is ragi, which sold at 34·4 seers for the rupee. The next cheapest is cholum, which sold at 30. Ragi stands for 2·7 per cent. of the food-crop, while cholum, the great dry staple of the district, represents 53·1 per cent. For the next staple in order of area, viz., korra (17·1 per cent.), prices are not recorded, while the price of cumbu (5·3 per cent.), the only other staple that exceeds ragi in area is very much higher than that of either ragi or cholum by 25·8 seers for the rupee. Ragi should be adopted as the standard for Bellary.

Kurnool.—The cheapest grain in Kurnool is varagu, which sold at 39 seers for the rupee. It represents 10·8 per cent. of the food-crop. For the staple next above it in importance, viz., korra, prices are not recorded, while the price—28·8 seers for the rupee—of cholum, which is the chief (46·2 per cent.) staple of the district, is very much higher than that of varagu, which should be adopted as the staple for Kurnool.

Madras.—The cheapest grain in the city of Madras is ragi, which sold at 27·2 seers for the rupee; second-sort paddy, which is under existing orders (G.O., No. 1853, dated 29th May 1877) the standard for purposes of compensation for dearness of food, was dearer, selling at 24·3 seers for the rupee. Ragi should be adopted as the standard in Madras.

Chingleput.—The cheapest grain in Chingleput is second-sort paddy, selling at 27·5 seers for the rupee. It is closely followed, however, by ragi at 27·3 seers for the rupee, while husked paddy on the data assumed in the Board's replies to the Famine Commission (p. 97) would sell at some 18 seers for the rupee when second-sort rice was selling at 16·2. Ragi as food is therefore the cheaper of the two, and though it covers hardly a tenth of the area represented by rice, it should, as a grain in common use, be adopted as the standard.

North Arcot.—Varagu is the cheapest grain in North Arcot, selling at 34·5 seers for the rupee. It stands for 9 per cent. of the food crop. The next cheapest grain is ragi, which sells at 31·6 seers for the rupee and represents 16·2 per cent. of the crop. It is considerably dearer than varagu, which should be adopted as the standard.

South Arcot.—The cheapest grain in South Arcot is varagu, which sold at 48·4 seers for the rupee and represents 23 per cent. of the food-crop. The next cheapest is cholum, which sold at 31·9 seers for the rupee, but represents only 3·1 per cent. of the food-crop. The main (24 per cent.) dry staple of the district, viz., cumbu, was much dearer, selling at 29·5 seers for the rupee. Varagu should be adopted as the standard.

Tanjore.—By far and away the cheapest grain in Tanjore is varagu, which sold at 50·3 seers for the rupee. It is the chief dry staple of the district and represents 6·6 per cent. of the food-crop. The main staple of the district, viz., rice (84 per cent.), is very much dearer, second-sort paddy selling at 27·7 seers for the rupee. Varagu should be taken as the standard for Tanjore.

Trichinopoly.—The cheapest grain in Trichinopoly is varagu, which sold at 44·4 seers for the rupee. It represents 16 per cent. of the food-crop. The crops which from their area may be regarded as more important than varagu, viz., rice (22·4 per cent.), cumbu (19 per cent.) and (cholum 17·1 per cent.), are all dearer than varagu, which should be adopted as the standard for Trichinopoly.

Madura.—The cheapest grain in Madura is varagu, which sold at 46·1 seers for the rupee and represents 12·2 per cent. of the food-crop. The next cheapest is cholum, which sold at 32·7 seers for the rupee. Cholum is the only dry staple which exceeds (22·7 per cent.) varagu in area. Varagu should be adopted as the standard for Madura.

Tinnevelly.—The cheapest grain in Tinnevelly is varagu, which stands for 7·3 per cent. of the food-crop. The next cheapest, viz., ragi, selling at 27 seers the rupee, stands for 4·8 of the food-crop. The prices of the other chief staples, viz., paddy, cholum and cumbu, are all much higher than that of varagu, which should be taken as the standard.

Coimbatore.—In Coimbatore varagu is the cheapest grain, selling at 29·9 seers for the rupee. It represents, however, only ·3 per cent. of the food-crop. It is closely followed in price by ragi, which sold at 29·1 seers for the rupee and represents 11 per cent. of the food-crop. The prices of the main staples of the district, viz., cholum (33·3 per cent.) and cumbu (31·8 per cent.), are both higher than that of ragi, which should be taken as the standard.

Nílgiris.—The cheapest grain on the Nílgiris is varagu, which sold at 25·2 seers for the rupee, but it represents only ·5 per cent. of the food-crop. For the chief staple of the district, viz., shamai, prices are not recorded, but ragi, which is the next in cheapness to varagu (22 seers to the rupee), represents 7 per cent. of the food-crop and is next to shamai, the chief dry product of the district. Ragi should be adopted as the standard.

Salem.—The cheapest grain in Salem is varagu, which sold at 34·9 seers for the rupee and represents 7 per cent. of the food-crop. The next cheapest is ragi, which sold at 31·9 seers for the rupee. Ragi stands for 22·2 per cent. of the food-crop, but varagu is the cheaper by a good deal and is undoubtedly in common use as food. Varagu should therefore be adopted as the standard.

South Canara and Malabar.—A glance at the figures in statements A and B will show that the only possible standard for the two districts is second-sort rice.

4. The following is the sum of the foregoing recommendations:—

(i) *Second-sort rice* should be the standard for the purposes of compensation in—

(1) Canara. | (2) Malabar.

(ii) *Varagu* should be the standard in—

(1) Nellore.
(2) Cuddapah.
(3) Kurnool.
(4) North Arcot.
(5) South Arcot.
(6) Tanjore.
(7) Trichinopoly.
(8) Madura.
(9) Tinnevelly.
(10) Salem.

(iii) *Ragi* should be the standard in—

(1) Ganjam.	(6) Madras.
(2) Godávari.	(7) Chingleput.
(3) Kistna.	(8) Coimbatore.
(4) Anantapur.	(9) Nílgiris.
(5) Bellary.	

(iv) *Cumbu* should be the standard in Vizagapatam.

(True Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
„ all Collectors.

APPENDIX A.

Districts.	Average of the total extent of cultivation for five years.	Average extent of cultivation under the principal food-grains and pulses calculated for five years (1883-84 to 1887-88).							Percentage of the area under the principal food-grains, including pulses, to the total extent of cultivation calculated on the average of five years (1883-84 to 1887-88).				
		Rice.	Cholum.	Cumbu.	Tenai or korra.	Ragi.	Samai or chamalu.	Varagu or arikalu and varagu.	Pulses.	Rice.	Cholum.	Cumbu.	Tenai or korra.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ganjam	488,171	287,804	1,408	4,231	84	83,763	2,295	640	50,175	58·9	·3	·8	..
Vizagapatam	171,539	53,748	5,559	24,597	1,464	17,136	5,149	4,339	15,979	31·3	3·2	14·3	·8
Godávari	1,006,311	567,174	85,344	9,901	6,264	22,328	9,441	15,412	73,366	56·3	8·5	·9	·6
Kistna	1,958,252	391,691	418,500	165,491	52,795	21,673	119	207,339	110,970	20·	21·4	8·4	2·7
Nellore	1,097,906	247,819	300,367	58,326	4,985	51,351	3,663	75,222	106,436	22·5	27·3	5·3	·4
Cuddapah	1,654,316	142,869	241,408	213,304	103,281	127,217	8,080	32,567	346,739	8·6	14·6	13·2	6·2
Anantapur	1,292,604	76,592	255,086	63,146	200,466	68,773	25,290	22,876	285,816	5·9	19·8	4·9	16·5
Bellary	1,777,770	32,057	772,648	76,748	254,738	38,903	25,149	278	187,279	1·8	43·5	4·3	14·3
Kurnool	1,784,052	62,927	631,787	80,624	268,423	16,988	5,449	148,387	148,042	3·5	35·4	4·5	15·0
Madras	..	..	..	..	..	..	..	..	..	..	..	..	..
Chingleput	681,456	458,706	7,144	14,179	137	43,789	45	44,596	5,440	67·3	1·1	2·1	2·1
North Arcot	876,164	336,764	49,584	83,855	229	118,196	3,995	65,531	59,073	38·5	5·6	9·6	..
South Arcot	1,347,847	369,618	34,123	259,093	12,913	130,801	1,713	250,436	31,258	27·4	2·6	19·2	1·
Tanjore	1,262,120	986,079	16,245	32,125	261	35,339	615	77,797	24,702	78·1	1·3	2·5	..
Trichinopoly	1,000,605	193,550	148,293	164,205	6,759	84,418	38,056	138,063	90,639	19·3	14·8	16·4	·6
Madura	986,346	155,622	188,376	98,452	7,698	92,824	89,768	101,405	89,359	15·7	19·7	9·9	·7
Tinnevelly	1,361,151	277,894	105,322	189,968	2,911	48,912	125,408	74,207	178,141	24·8	7·6	13·9	·2
Coimbatore	2,312,706	95,746	641,716	611,179	31,640	211,856	87,271	5,317	236,750	4·3	27·7	26·4	1·4
Nilgiris	70,096	3,134	21	..	37	2,241	6,509	179	278	4·4	..	..	..
Salem	1,837,207	111,382	74,987	296,491	20,061	265,113	77,886	83,056	257,744	8·3	5·6	22·2	1·5
South Canara	578,313	485,439	..	..	..	3,500	52	..	40,021	83·9	..	..	..
Malabar	973,037	686,016	157	29	..	4,143	7,125	..	12,144	60·2	..	..	..

APPENDIX A—*concluded.*

Districts.	Per centage of the area under the principal food-grains, including pulses, to the total extent of cultivation under cereals and pulses only, each being calculated on the average of five years (1883-84 to 1887-88).							Average extent of cultivation for five years under cereals and pulses only.
	Rice.	Cholum.	Cumbu.	Tenai or korra.	Ragi.	Samai or chamalu.	Varagu or arikalu.	Pulses.	
	20	21	22	23	24	25	26	27	19
Ganjam	66·7	..	1·0	..	19·4	·5	·1	11·6	431,130
Vizagapatam	41·5	4·3	19·	1·1	13·2	4·	3·3	12·4	129,461
Godávari	71·2	10·7	1·2	1·	3·	1·2	2·	9·2	793,963
Kistna	26·6	28·4	11·2	3·6	1·5	..	18·1	7·5	1,473,368
Nellore	26·3	32·0	6·2	·5	5·4	·4	8·	11·3	942,097
Cuddapah	11·0	18·3	16·6	8·	9·6	·6	2·4	26·3	1,315,730
Anantapur	7·5	25·2	6·3	19·	6·8	2·5	2·2	28·3	1,606,834
Bellary	2·2	53·1	5·3	17·1	2·7	1·7	..	13·0	1,437,991
Kurnool	4·6	46·2	5·9	19·6	1·2	·4	10·8	11·0	1,368,497
Madras	..	..	..	..	..	..	..	..	..
Chingleput	19·1	1·3	2·6	..	·6	..	·8	·9	575,019
North Arcot	16·3	6·3	11·6	..	7·6	·5	7·8	8·1	727,379
South Arcot	14·0	3·1	24·0	1·2	16·2	·2	9·0	3·	1,092,847
Tanjore	32·4	1·4	2·7	..	12·	..	23·0	2·1	1,173,798
Trichinopoly	18·6	17·1	19·	1·	3·	4·4	6·6	10·5	864,017
Madura	17·5	22·7	11·8	1·	9·7	10·8	16·0	10·7	831,819
Tinnevelly	4·9	10·2	18·8	·3	11·1	12·4	12·2	17·6	1,008,769
Coimbatore	9·8	33·3	31·8	1·7	4·8	4·5	7·3	12·3	1,926,191
Nilgiris	9·	..	..	..	11·	20·4	·3	1·	31,889
Salem	2·	·8·	24·9	1·7	7·	6·5	7·	21·6	1,192,386
South Canara	1·6	..	..	..	22·2	..	..	7·5	529,012
Malabar	4·4	..	..	..	1·	1·1	..	2·0	618,702

APPENDIX B.

STATEMENT showing the average prices of food-grains of the five years from 1883-84 to 1887-88 in the Presidency of Madras.

Districts.	Rice, 1st sort.	Rice, 2nd sort.	Paddy, 1st sort.	Paddy, 2nd sort.	Cholum.	Cumbu.	Ragi.	Varagu.	Horse-gram.
	Government seers of 80 tolas per rupee.								
Ganjam	16·0	17·2	31·8	33·9	27·8	33·6	31·8	34·4	35·0
Vizagapatam	13·3	15·0	26·6	28·4	26·5	30·1	28·7	..	37·1
Godávari	13·6	15·4	24·3	25·9	26·5	29·2	29·9	29·6	30·1
Kistna	13·1	14·7	23·5	24·6	22·6	23·2	29·7	28·3	26·5
Nellore	13·2	15·0	22·7	25·2	24·8	24·2	29·0	37·3	24·6
Cuddapah	13·8	15·3	24·1	27·0	28·9	29·6	32·9	40·1	28·2
Anantapur	13·6	15·2	23·5	25·6	30·8	27·7	33·7	..	34·0
Bellary	12·1	13·3	21·3	24·0	30 0	25·8	34·4	..	29·9
Kurnool	11·7	14·1	21·3	23·9	28·8	24·9	29·3	39·0	26·7
Madras	12·5	13·3	23·1	24·3	21·8	23·4	27·2	16·5	24·5
Chingleput	14·6	14·1	25·3	27·5	22·8	21·5	27·3	16·8	21·6
North Arcot	14·9	16·2	26·2	28·5	28·6	27·0	31·6	34·5	25·9
South Arcot	14·6	16·3	25·1	27·5	31·9	29·5	30·3	48·4	26·1
Tanjore	14·3	16·2	24·6	27·7	26·7	26·7	29·2	50·3	23·6
Trichinopoly	13·9	16·0	24·7	27·2	40·6	27·5	30·3	44·4	25·8
Madura	13·4	14·9	23·6	26·5	32·7	28·6	30·7	46·1	27·4
Tinnevelly	12·7	15·0	21·0	23·3	25·0	22·8	27·0	37·0	26·1
Coimbatore	12·9	13·4	22·2	24·6	23·8	27·9	29·1	29·9	29·7
Nilgiris	10·5	14·7	12·2	14·2	20·9	17·8	22·0	25·2	22·4
Salem	14·1	11·8	24·1	26·7	28·7	27·7	31·9	34·9	31·4
South Canara	12·4	15·7	21·3	23·0	..	..	20·6	..	18·8
Malabar	13·1	14·6	23·0	25·1	24·3	..	23·4	..	23·3
		14·1							

READ—also the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 26th March 1889, No. 145 :—

W. WILSON, Esq., M.A., C.S.

Read—the following letter from H. G. TURNER, Esq., Collector of Vizagapatam, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 14th March 1889, No. 654 :—

In paragraph 3 of their Proceedings, dated the 10th January last, No. 13, the Board were pleased to propose that cumbu should be adopted in the Vizagapatam district as the staple for famine batta.

2. But I respectfully beg to point out that ragi and not cumbu is the largest cultivated and the largest consumed dry grain, taking the district as a whole, although, so far as the Government taluks of Golgonda and Sarvasiddhi are concerned, our accounts show that cumbu is cultivated on a larger area. Everywhere ragi is the chief food-grain of the poorer classes. Copies of my General Duty and Huzur Deputy Collectors' letters on the subject are herein enclosed for the Board's information.

3. The statistics of crops embodied in the Board's Proceedings quoted in paragraph 1 *supra* refer only to the three Government taluks of Golgonda, Sarvasiddhi and Pálkonda and to a few isolated resumed inams in the zemindari tracts, and these statistics show no information whatever regarding the cultivation of the extensive tracts of the zemindari and proprietary estates which the district mostly consists of.

The whole of the Vizagapatam district including the hill tracts comprises 16,992 square miles as per figures communicated in the Board's Proceedings, dated 11th February 1888, No. 64. Of this, the area of the Government taluk is as follows :—

	ACS.	SQ. MILES.
Golgonda taluk	1,146,394	= 1,791
Sarvasiddhi do.		
Rented estates of Pálkonda and Honjaram comprising the Pálkonda taluk	47,012	= 73
		1,864

Thus, the area of the Government taluks is only about one-ninth of the entire district. Ragi is grown throughout the whole of the Agency tracts and cumbu hardly at all.

Even in the Government taluks the cultivation statements are not available for the hill tracts; in the village accounts referring to plains the survey area not having as yet been adopted, the figures shown in our cropwar statements for Government taluks are only figures of estimate in point of area and they are therefore far from being accurate.

4. It is considered by the Board that cumbu is cheaper in this district.

Although it may be so at the time of harvest, yet its stock is exhausted in a few months afterwards.

On the other hand, ragi is stored to meet the public demand and always procurable throughout the year. Next to paddy ragi is more largely imported than any other food-grain.

Cumbu is cultivated only once in a year when the south-west monsoon sets in, but ragi is cultivated not only in that season, but also in all other seasons under wells and other irrigation sources. Again, different qualities of ragi are grown on wet lands in this district under the names of "buradachodi" and "pyrachodi," while cumbu is not grown on wet lands. Poorer classes of people in the district are more accustomed to consume ragi than cumbu.

5. Also, in paragraph 9 of the Board's Proceedings (Revenue Settlement, Land Records and Agriculture), dated 24th September 1888, No. 525, it was proposed that ragi alone should be the standard for dry lands in the settlement of the Pálkonda taluk as it was for the adjacent Chicacole taluk of Ganjam.

As regards Golgonda and Sarvasiddhi taluks, it is true that cumbu represents higher percentage than ragi as shown in the following table:—

Taluks.	Percentage of the crops out of the dry cultivation.		
	Cumbu.	Ragi.	—
Golgonda	15	9	
Sarvasiddhi	39	14	

But, as the Vizianagrum Deputy Collector points out, the crops grown only on dry lands were taken into consideration in the scheme prepared by the Settlement Department for the purpose of fixing the rates of assessment for dry land, and these figures cannot give an idea of the extent of ragi grown on wet lands.

6. The Deputy Collector, Vizianagrum, estimates that ragi and cumbu are grown and consumed in the district on the whole in the proportion of 2 to 1, while the Huzur Deputy Collector considers that in most of the taluks in the ordinary tracts the percentage of cumbu is only 19·5 against 76·17 of ragi.

7. For all these reasons I solicit that the substitution of ragi for cumbu as the staple dry grain in this district may be recommended to Government.

ENCLOSURE No. 1.

From M.R.Ry. T. RAMAMURTI PANTULU, Garu, Huzur Deputy Collector, Vizagapatam, to the Collector of Vizagapatam, dated 25th February 1889, No. 60.

I have the honor to acknowledge the receipt of your letter, dated the 20th instant, Extra No. 1, relating to the comparative cultivation and consumption of the dry grains, viz., cholum, cumbu and ragi.

2. In reply, I have no hesitation whatever to say that ragi is the largest cultivated and the largest consumed dry grain in the district. Except in a bad year, like the present one, cholum is but sparsely cultivated. Cumbu is cultivated largely, but its outturn is very small compared with the outturn of ragi. It takes a much larger extent to produce the same quantity than ragi. It is grown only once during the year, and only on dry lands, whereas ragi is cultivated both on dry lands and wet lands and at any and every season of the year. There are rarely any months in the year during which ragi is not on the ground in one stage or other, and in some seasons one will find it in all its stages. I have seen ragi being sown in one place, transplanted in another, and harvested in a third at the same time.

3. I would fix the outturn of cholum, ragi and cumbu as follows as far as my division is concerned, and I think the same proportion will apply to most if not all the other taluks in the ordinary tracts:—

Cholum	4·78
Cumbu	19·05
Ragi	76·17
	100·00

4. Ragi is the chief food-grain of the poorer classes.

ENCLOSURE No. 2.

From M.R.Ry. V. JAGANNADHA ROW, General Duty Deputy Collector, Vizianagrum Division, to the Collector of Vizagapatam, dated Vizianagrum, 9th March 1889, No. 143.

Referring to your letter of the 20th ultimo, Extra No. 1, inquiring in what proportion cholum, cumbu and ragi are cultivated in the ordinary tracts of my division, and which of them can be regarded as the principal food-grain of the people, I have the honor to submit the following remarks.

2. The Revenue Settlement Department have recently worked out these for the Pálkonda, Sarvasiddhi and Golgonda taluks, and the elaborate calculations they made for the purpose of fixing the standard grains on which to lease the money rates for lands afford a sufficient data for our present purposes.

3. To avoid recapitulation of the information already available in print, I beg to invite your attention to the following:—

Board's Proceedings, dated 24th September 1888, No. 525, Revenue Settlement, Land Records and Agriculture.

(1) Paragraphs 49 and 50, 55 to 57 of Colonel Stuart's report, pages 27 and 29.

(2) Paragraphs 19 to 22 and 23 (*b*) of Mr. W. Wilson's comments thereon, pages 5, 6, and 8.

(3) Paragraph 3 of Board's Resolution, dated 5th November 1888, No. 628, Revenue Settlement, containing report on the outturn of the principal crops during 1887-88.

4. The result of the investigation made by the Settlement Department or rather by the Commissioner is this—

"Ragi alone should be the standard for dry lands in Pálkonda as it was for the adjacent Chicacole taluk of Ganjam."

For Golgonda and Sarvasiddhi, "cumbu and ragi are properly taken as standards, but for the proportion adopted by Colonel Stuart, viz., half each, should be substituted that of 2 to 1, which more accurately represents their actual conditions." Further on Mr. Wilson observed: "For dry, the standard grains adopted are ragi and cumbu; the former alone for Pálkonda, but both for Golgonda and Sarvasiddhi, ragi in the proportion of one-third and cumbu of two-thirds."

5. It follows from this that cholum has been ignored as too insignificant a crop in this district.

6. The Commissioner based his conclusions on the following figures:—

Taluks.	Percentage of the crops out of the total dry cultivation.		
	Cumbu.	Ragi.	Cholum.
Pálkonda	2	13	..
Golgonda	15	9	7
Sarvasiddhi	39	14	3

7. These calculations may be right enough for the purpose of fixing the rates of assessment for dry land, but they are fallacious in giving an exact idea of the proportion or extent of the

crops grown or consumed. For the figures quoted by the Commissioner represent only the crops grown on *dry* lands. Enormous quantities of ragi are grown on *wet* lands in this district under the names of "buradachodi" and "pyrachodi," whereas cumbu is not grown on wet lands at all. I am inclined to think that it would be more correct to say that ragi and cumbu are grown and consumed in this district on the whole in the proportion of 2 to 1. At the very least, Colonel Stuart's approximation of half each may be safely adopted. Cholum may be ignored altogether as too insignificant.

8. Now, to take up another source of information, I solicit your attention to the following figures taken out of Board's Resolution, dated 5th November 1888, No. 628, Revenue Settlement. These represent the proportion of the area contributed by each district in this Presidency under the principal food-grains and cotton :—

	ACS.
Vizagapatam—	
(1) Paddy	1·0
(2) Cholum	0·1
(3) Cumbu	1·1
(4) Ragi	1·1
(5) Cotton	0·4

9. These figures show that cumbu and ragi are grown in equal proportions, and that cholum is comparatively very insignificant.

10. The poorer classes, as a rule, prefer ragi to cumbu, although they eat both when they cannot get the former in sufficient quantity.

11. As regards the zemindari tracts, the condition is not very different from that of Golgonda and Sarvasiddhi, and what is true of them is also true of the bulk of the zemindari lands within my division.

12. On the whole, the proportions of ragi, cumbu and cholum which may be adopted for my division, excepting Pálkonda, are, respectively, 3, 2 and 1, and for Pálkonda ragi alone. It must be remembered that in Pálkonda * the dry area is only 50 per cent. of the wet.

	ACS.
* Dry	13,811
Wet	23,922

13. If any one crop out of the three is to be regarded as the staple crop of the poorer classes of this district, it is ragi, not cumbu or cholum.

Resolution—dated 26th March 1889, No. 145.

Submitted to Government in continuation of Board's Proceedings, No. 13, dated 10th January 1889.

2. The recommendation of the Board that cumbu should be taken as the standard for famine batta purposes was based on the conditions ruling in the three Government taluks of Vizagapatam as it was the cheapest grain ordinarily consumed in them. So far as they and probably the whole of the plain zemindaries are concerned, there is not, in the Board's opinion, any ground for modifying their recommendation, but from what the Collector now reports ragi would seem to be the more proper grain for all the hill tracts.

(True Copies and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department.
Copy to the Collector of Vizagapatam.

ORDER—dated 30th April 1889, No. 324, Revenue.

Miscellaneous.

In paragraph 9 of their Resolution, dated 28th March 1888, No. 1648, printed in G.O., dated 7th May 1888, No. 2717, Revenue Department, the Government of India have ruled that the compensation to be granted to servants of Government for dearness of food-grains

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in each district should be regulated with reference to the prices of the cheapest food-grain which forms *the common staple food of the district*. In making the recommendations contained in the Proceedings read above, the Board, however, have been guided solely by the prices of the different grains without giving sufficient consideration to the question how far the cheapest grain selected can be regarded as forming the staple food of the district. On a careful consideration of the acreage of the several kinds of food-crops shown in the appendix to the present Proceedings of the Board and of the prices of the staple food-grains ordinarily in use in each district, a list of which is given in the Board's Proceedings printed in G.O., dated 11th September 1880, No. 1137, His Excellency the Governor in Council is of opinion that the following grains should be adopted as the standard in each district for regulating the grant of famine batta :—

Ragi.—Ganjam, Vizagapatam, Godávari, Madras, Chingleput, North Arcot, Tanjore, Nílgiris, Salem.
Cholum.—Kistna, Nellore, Cuddapah, Anantapur, Bellary, Kurnool, Trichinopoly, Madura, Tinnevelly.
Cumbu.—South Arcot, Coimbatore.
Second-sort rice.—South Canara and Malabar.

2. With the exception of the two west coast districts, the grains selected as the standards are, it will be seen, the staple dry grains, commonly used as food by the people, which are cheaper than rice. In several districts, however, *e.g.*, Madras, Chingleput, Tanjore, all classes of Government servants are habitually rice-eaters, who will not ordinarily eat dry grains to which they are unaccustomed even under the pressure of severe distress. In these cases, the strict application of the rule laid down by the Government of India causes hardship by deferring the dispensation of relief in the shape of famine batta until long after the necessity for it has arisen. Wherever this is the case His Excellency the Governor in Council is of opinion that the rule laid down should be modified so as to admit of the grant of famine batta being regulated with reference to the prices not of the cheapest staple food-grain of the district but of the cheapest staple food of the servants to whom it is intended to afford relief.

3. Ordered that the Government of India be addressed.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioner of Revenue Settlement, Land Records and Agriculture.
" the Commissioners of Land Revenue.
" the Accountant-General.
" the Public, &c., Departments.
" the Local and Municipal Department.
" the Public Works Department.
" the Military Department.

Exd. A. D. Xavier.

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6

Govt. of {1889} Madras.

REVENUE.

No 1136 W d/30 April 1889.

Communicated to officers of the Public Works Department in continuation of G.O. No 1866 W d/22nd June 1888

Sd/ R.R.E.D.B

W

Issued

Read. Encl.

G.O., 30th April 1889, No. 324.

No 1136 W d/30th May 1889.

APRIL.

Famine Batta.

Prescribing the grains which should be adopted as the standard crops in the several districts for regulating the grant of — and considering that the batta should be regulated with reference to the prices not of the cheapest staple food-grain of the district but of the cheapest staple food of the servants to whom it is intended to afford relief.

C.E. for d

C.E. for Rys

S. Engrs

C.A. to Govt

Exn. Ch. A

Exn. Ry. A

Orby

8TH MAY 1889, No. 268, FINANCIAL.

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

READ—the following paper:—

From E. LAWRENCE, Esq., Officiating Under Secretary to the Government of India, Department of Finance and Commerce, to the Chief Secretary to the Government of Madras, dated Simla, 19th April 1889, No. 1964.

I am directed to acknowledge the receipt of your letter, No. 89 (Financial), dated the 11th February last, regarding the rate of travelling allowance to be drawn by officers employed in certain special localities in the Madras Presidency.

2. The Government of Madras proposes that the additional allowance to be drawn by officers of all classes (other than those mentioned in rules 2 and 3 of section 71, Civil Travelling Allowance Code) in all these tracts should be fixed at 50 per cent. over the ordinary rate, and that this increased rate should also be given to first-class officers in the Nílgiris who have not hitherto received it.

3. In reply, I am directed to say that the Governor-General in Council sanctions the proposal. His Excellency in Council also agrees to the grant of travelling allowance at the ordinary rates to taluk officials employed in the Nílgiris, who have not heretofore been entitled to travelling allowance for journeys within their jurisdiction. The changes required in the rules of the code will be made hereafter.

ORDER—dated 8th May 1889, No. 268, Financial.

Recorded.

(True Extract.)

(Signed) J. F. PRICE,
Chief Secretary.

To Departments of Government.

Exd. A. Raitt.

Govt. of {1889} Madras.

FINANCIAL.

Issued

Recd. *Encl.*

G.O., 8th May 1889, No. 268.

MAY.

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(Signed) J. F. PRICE,
Chief Secretary.

To Departments of Government.

Exd. A. Raitt.

№ 1430 h dy 19 May 1889

Communicated to officers of the P. W. Department with reference to Go № 724 h dy 9 March 1889

(sd) A K E D B

Govt. of {1889} Madras.

FINANCIAL.

Issued

Recd. *Encl.*

G.O., 8th May 1889, No. 268.

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CE for I
CE for Kys
S Es
6 Asst Govt
6
Ex Ry Accts

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SDJREDB
(Sd) S. REDB

CE for Irr
CE for Railys
S&I
C.A.G. for Govt
C
Ex Off Accounts

Annual return of Public buildings in the West Coast Division for the year ending 31st March 1889.

Accommodation—nature and description of buildings.

No. of buildings.	Name of buildings.	For what number of men constructed.	Number of men in occupation	Nature of buildings.				GARRISON.					
				Walls.	Floors.	Roofs.	Arm of service.	Normal.	Actual on 1st April 1889				
										PERMANENT.			
										External dimensions.			
										Length.	Breadth.	Plinth area	Rate per superficial foot.
1	2	3	4	5	6	7				8	9	10	11
	Ernad Taluk, Imperial Military.												
30	Old library converted into kitchen and drying room Malapuram.			Laterite ...	Gravel ...	Tiled ...				Panel and venetian.	70¾	32	2264
31	Cattle penn at Malapuram ...			Do.	Do.	Do.				Erool wood gate.	32¼	30¾	992

Value.		Date of erection or purchase.	Name of regiment in occupation.
Total.			
13	14	15	16
365		1885	
533		1887	

A. T. FRASER, Col. R. E.,
Executive Engineer.

West Coast Division Office,
3rd May 1889.