M.R.O. 14—10,000—21-4-32.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 620 Press ~~Mis.~~

306-07

Dated 16 march 1861.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
16th March 1861.

No. 306. Read the following Proceedings of the Board of Revenue, dated 3rd November 1860, No. 5,080:—

Read letter dated 11th June 1860, No. 587, from the Director of Revenue Settlement, forwarding Reports on the working of the Survey classes for the years 1858 and 1859.

(In Cons., 15th June 1860, No. 2,881.)

1. Resolved that the letter above recorded, together with its enclosures, be submitted for the information and orders of the Honorable the Governor in Council.

2. During the two years to which the operations reported in the foregoing letter relate, Survey classes appear to have been conducted in four Districts only, viz., Rajahmundry, Masulipatam, Guntoor and Malabar in the year 1858, and Ganjam, Kistna, Nellore, and Malabar in the year 1859. The Reports of the several Collectors on the classes employed in their Districts, together with specimen maps and field books, are forwarded as enclosures to Captain Priestley's Report to the Director of Revenue Settlement, dated 27th April 1860, No. 370.

3. Referring more particularly to the Reports for 1859, the Board observe that the Ganjam Survey class met with considerable attention from Mr. Morris, late Head Assistant to the Collector, but the low standard of education in the District materially hampered his efforts. The three senior pupils have been recently entertained in the Godavery Survey Establishment.

4. The Guntoor class, which was under the charge of Mr. C. G. Master in the year 1858, made considerable advance in the acquisition of knowledge of Surveying. Ten villages were measured and mapped in that year and in 1859, in the mode adopted in the Revenue Survey, *i. e.*, by taking village circuits with a Prismatic Compass, and filling in the interior details by Chain measurement. The Board agree with the Director in considering the maps creditably got up, especially with reference to the colouring. They think, however, that the skeleton maps of villages require improvement, and still more the lettering and writing inserted in all. This is a very important branch of the art of Plotting, and should on no account be neglected in the training of young Surveyors.

5. In his letter, dated 18th May 1860, the Collector of the Kistna District observes that the Survey class is of great use in the Collector's department, and enables him to settle disputes concerning boundaries of villages, and of fields between one village and another. In such cases, lands are correctly and quickly measured by the Survey class, which cannot be done so easily and accurately by the common measurement of the country. One or two Gumáshtas were deputed from the Survey class to teach a few Curnums the art of Surveying.

6. The class at Nellore was under the charge of Messrs. Hooper and Whiteside in succession, but the immediate instruction of the pupils was entrusted to C. Soobba Ráu, head Surveyor, who exerted himself creditably in his task. The condition of the class was not considered satisfactory by Mr. Dykes, when he took charge of the District, but this opinion was subsequently modified. The great obstacle to improvement was found to be the difficulty of retaining pupils for a sufficient length of time under instruction, and of inducing them to look to the Survey Department as the future field of their labors and advancement. To remedy this, Captain Priestley has proposed certain rules, which will be noticed in a subsequent part of these Proceedings.

7. In Malabar, the pupils were employed on several important works in 1858, such as measuring lands taken up by the Pooraparamba Canal, surveying the Calay river, the encamping ground at Beypoor, the Calicut Bazar Canal, and roads for the Engineer Department. The class was taught by Mr. Cabral, the Deputy Accountant of the Collector's Office, whose exertions in this respect have been highly spoken of by Messrs. Robinson and Grant, and by Captain Priestley who reports, that his examination of the pupils gave evidence that great care had been taken, and accuracy obtained in the Surveys, which were executed entirely with the Chain and Cross staff. As no volunteers latterly offered themselves for instruction, and the Survey Department could not derive any aid from the class in organizing or recruiting the Establishment for the Survey of Wynaad, it was judged expedient to abolish the class from the 10th May last, retaining

only two lads on reduced salaries to complete the District Maps, which are under preparation by Order of Government.

8. It will thus be seen the progress made by the several classes has been on the whole satisfactory, and that they have rendered efficient service in some cases in the Collector's Department.

9. With the view of preventing the sudden removal of pupils from the Survey Department to other branches of the public service, Captain Priestley suggests the following propositions:— First, that without the sanction of the Superintendent of Revenue Survey, no pupil be transferred to any other department. Secondly, that after the completion of the eighteenth year of age, a person be allowed to count his service in the Survey class towards pension, provided he enter the Survey Department on a post being offered him, and serve in it for at least the same number of years as he may by this rule be entitled to reckon in the Survey class.

10. With regard to these propositions, Mr Newill points out that the first is provided for by the Orders of the Government of India, dated 31st December 1856, No. 58, and of the local Government, dated 20th January 1857; and that as respects the second, Captain Priestley has overlooked the fact, that under the pension rules no time spent in the Survey class can count towards pension, as the salary of the pupils (5 Rupees per mensem) falls much below the minimum standard laid down by those rules. The Board would deprecate the first proposition made by Captain Priestley, believing that its effect would be to restrain eligible youths from entering the Department. The Survey, like other public Departments, can only secure suitable *employés* by paying a just equivalent for the qualifications, &c., which it requires. Even the restriction contained in the order of the Supreme Government, dated 31st December 1856, should not, the Board think, be exercised, except when the exigency of the public service may render it really necessary.

11. Captain Priestley makes two further suggestions in his Report, viz., the employment of a Surveyor on a salary of 15 Rupees per mensem, to aid in instructing the Ganjam class, owing to the Assistant Collector being unable always to give his personal supervision to it, on account of Jamábandí, &c.,; and, secondly, the transfer to himself of the allowance of the Malabar class to train up a body of Surveyors to fill up vacancies in the District establishments, more particularly in the office of draughtsmen, who are difficult to be procured in the country, and for want of whom, the completion of maps is frequently delayed. Mr. Newill advocates both propositions, and as they are evidently calculated to increase the efficiency of the Survey classes, the Board add their own recommendation to them, it being understood that the first shall involve no additional expense to the State, and that the second shall be experimental for one year.

From Director of Revenue Settlement, in Cons., 25th October 1860, *No.* 5,429.

12. The Orders of Government regarding the instruction in Surveying by means of the Survey classes of the village Menons, Shanbogues, or Curnums, of the different Districts, and of the Amíns attached to the several Courts, have been only partially carried out hitherto, but the Board think that the subject should receive more attention from the Officers in charge of Survey classes. The failure of the attempt to diffuse a knowledge of Surveying among the Amíns of the District Munsíf's Courts in Malabar, was communicated to Government in the Board's Proceedings, dated 19th February 1858, No. 655.

15th February 1858, *No.* 193, *in Cons., 1st March* 1858, *No.* 793.

13. In accordance with the orders in Extract Minutes Consultation, 13th October 1857, No. 1,041, Captain Priestley has compiled a Manual for the instruction of the Survey classes, a copy of which is herewith forwarded for inspection. The Manual consists of a series of elementary propositions worked out in a simple manner, and appears complete and well adapted for the object for which it was prepared.

In Cons., 10th November 1857, *No.* 4,043.

(A true Extract.)

(Signed) J. D. SIM, *Secretary.*

Proceedings of the Madras Government, Revenue Department, 16th March 1861.

No. 307. ORDER THEREON, 16th March 1861, No. 620.

1. With these Proceedings the Board of Revenue forward the reports of the Superintendent of Revenue Survey, accompanied by Mr. Newill's remarks, on the operations of the District Survey classes for the years 1858 and 1859.

2. The Board having reviewed the operations in each District in detail, it will be unnecessary for the Government to enter into particulars; they will only observe that the progress made is generally spoken of in a favorable manner.

3. In both the years reported on, there were only four classes at work. In 1858 these were in the Districts of Rajahmundry, Masulipatam, Guntoor, and Malabar; but all of these, except that in Guntoor, have been broken up. Some of the pupils in Rajahmundry and Masulipatam were absorbed in the regular Survey Department; and the class in Malabar was abolished early in 1859 in consequence of a paucity of volunteers for the work, and the organization of a regular Establishment for the Wainád to which place the pupils objected to proceed. The Guntoor class still continues.

4. The operations in 1859 were conducted in the Districts of Guntoor, Malabar (for a few months) Nellore and Ganjam. The two latter classes were formed under the sanction of Government from the funds set at liberty by the abolition of the Rajahmundry and Masulipatam classes. The former was organized in November 1858, and the latter not until August 1859.

5. Most of the maps sent up for inspection are from the Guntoor District, and they are creditable to their authors. There is room for improvement, however, and the remarks of the Board in paragraph 3 of the Proceedings under review should be communicated to the Collector for the information of the class. The Revenue Survey scale, too, should in future be adopted for the maps, as proposed in paragraph 5 of Mr. Newill's letter of 11th June 1860, No. 587.

6. The classes in Nellore and Ganjam have not been organized sufficiently long for any great progress in this respect.

7. With regard to the several propositions and suggestions on which the orders of Government are required, the Governor in Council fully agrees with the Board in the conclusion to which they have come (paragraph 9) concerning those stated in paragraph 8 of their Proceedings. Such a restriction as that proposed by Captain Priestley in his second proposition would certainly have an injurious effect on the Survey classes themselves.

8. The two further suggestions made by Captain Priestley (paragraph 10), relating (1) to the appointment of a Surveyor on 15 Rupees per mensem in Ganjam, and (2) the transfer to himself of the allowance of the Malabar class as a means of training up Surveyors for the regular Survey, are sanctioned under the conditions proposed by the Board.

9. The extention of a knowledge of the principles of Survey among the Curnum class, is of much importance. The efforts directed to this end, have not yet, it appears, been attended with much success. There are, it is true, difficulties in the way; but His Excellency in Council thinks that something might be effected by a better arrangement in the working of the Survey classes. It is too much the custom, at present, to employ the pupils on scattered works, whereby each individual is at a distance from supervision, and incorrectness and delay are the consequence.

10. If the labours of at least half the class were concentrated on any one village under the immediate direction of the head Surveyor, not only would its Survey be done speedily and correctly, but opportunity would be afforded for the instruction of the Curnums of that, and the surrounding villages, who might in a months' time acquire a very fair knowledge of practical Surveying. The Government request that the Superintendent Revenue Survey will consider this suggestion and carry it into effect if found practicable. The remaining pupils would still be available for any of the minor jobs, such as disputed boundaries, &c., of such constant occurrence in every District. The Government think that too much is attempted at one time. They would be better satisfied if the pupils were well grounded, so that what they did, should be *well* done.

11. The Manual prepared by Captain Priestley is described as being well suited for the purpose for which it was compiled. It should be circulated generally to all Collectors, and each member of the Survey classes should be furnished with a copy. The attention of the Director of Revenue Settlement will be drawn to the concluding sentence in his letter* of 20th March 1858, No. 92, regarding the preparation of a vernacular manual in a briefer form for the use of Curnums.

* *Recorded in G. O. 22nd April* 1858, *No.* 513 *Revenue Department.*

12. Captain Priestley's attention will be called to the remarks made by some of the Collectors on the inferior nature of the Prismatic compasses supplied for the use of the Survey classes. It is desirable, both to ensure correctness of work and in fairness to the pupils, that the simple instruments used by them should be trust worthy. The chains should also be tested, from time to time; and when requiring it, should be carefully corrected. Attention to these petty details will obviate much inconvenience. The head of each class should be responsible for any delay in bringing such wants to notice.

13. It is desirable that future reports should be submitted within a short time after the close of the year to which they refer. When so long delayed the use of such documents is much diminished.

(Signed) C. G. MASTER,

Deputy Secretary to Government.

In Con. 15th June 1860, No. 2,881.

From H. NEWILL, Esq., Director of Revenue Settlement,

dated Madras, 11th June 1860, No. 587.

In reference to paragraph 4 of Extract Minutes of Consultation, dated 22nd April 1858, No. 513, I have the honor to submit the accompanying reports of the Superintendent of Revenue Survey on the working of the Survey classes for the years 1858 and 1859, together with the reports and other papers received from the Collectors as per list appended. Captain Priestley explains that as the reports for 1858* were not received from the Collectors till late in the past year, and he himself was then engaged in organising his office, he thought it better to wait for those for 1859, and to report on the two years together. Captain Priestley's report for 1859, dated 27th April last, comprised in the first instance only two out of the four Survey classes, as the reports for the two others had not been received up to that date. An urgent call upon the Collectors secured the submission of the wanting reports, for which I detained that of Captain Priestley, in order that the whole might be submitted in its present complete form.

Dated 27th April and 25th May 1860, Nos. 370 and 401.

* For Coimbatore, dated 26th January 1859.
„ Nellur, dated 12th February „
„ Malabar, dated 3rd June „
„ Canara, dated 9th June „
„ Masulipatam, dated 28th June „
„ Guntur, dated 3rd June „

2. During the period under review, Survey classes were conducted in the districts noted in the margin. On the introduction of the general survey in the Rajahmundry and late Masulipatam districts, the funds allotted to the Survey classes there were appropriated, under the orders of Government, dated respectively 11th August 1858, No. 1,120 and 16th May 1859, No. 669, for the formation of similar classes in the Nellur and Ganjam districts. The Survey class proposed to be opened in the Canara district never came into existence, as already intimated in the proceedings of the Board of Revenue, dated 12th November 1858, No. 4,212; and that at Coimbatore was discontinued under the orders of Government of 13th October 1857, No. 1,041, paragraph 16.

1858.	1859.
Masulipatam.	Malabar.
Rajahmundry.	Guntur.
Malabar.	Ganjam.
Guntur.	Nellur.

3. In his report Captain Priestley notices in detail the manner in which these classes have been employed, and speaks favorably of the progress they have made generally. Some of these classes have done good service, and proved very useful to the Collectors in Revenue and other matters where small detail surveys were required to be made. They have also been instrumental, though to a very limited extent, in training hands for the General Survey Department.

4. In Malabar, the pupils were employed in measuring lands belonging to the Betatnaad escheated estates, and those taken up by the Railway, and also in surveying roads, canals &c. The examination, in Captain Priestley's office, of the field-books and maps forwarded by the Collector of Malabar gives evidence that great care was taken in their preparation and that accuracy has been obtained in the surveys, which were performed entirely with the chain and cross staff. The important influence of this class in raising up a number of trained surveyors in the district, is described in the Collector's last report. As the General Survey Department is carrying on operations in the district, and no volunteers offer themselves for instruction, that officer abolished the class from the 10th ultimo, retaining two lads only on reduced salaries to complete the district maps, which are being got ready by direction of Government—of this step Captain Priestley approves.

Report for 1858, paragraph 8.

Letter, dated 8th May 1860, paragraph 8.

Letter, dated 25th May 1860, No. 401.

5. In Guntur, 10 villages were measured and mapped in the mode adopted in the General Survey. The maps are creditably got up; some of them are on the scale of 8 chains to the inch (the Survey standard being 5); but on this reduced scale the fields are shown with sufficient distinctness. It is desirable, however, that the Revenue Survey scale should be generally adopted under ordinary circumstances. Some slight errors were discovered in the plotting and omission of offsets in copying the field-books; but on the whole, this class, regarding which the Government made special inquiry in paragraph 2 of Extract Minutes of Consultation, 22nd April 1858, No. 513, has kept up its efficiency. It has further made a survey of the salt works at China Ganjam—a general map being given of the relative portions of the several yards and pans, and a detail plan being also furnished of the pans under two yards.

6. The Masulipatam class, which was discontinued in the early part of 1859, in consequence of the introduction of the General Survey in that district, during its existence of ten months, completely surveyed the outlines of the villages of the Godiwada Taluq—24 villages and portions of several others in further detail.

7. The class at Nellur was organized on the 1st of November 1858, and has been generally engaged during the past year in learning the rudiments of surveying, and in laying down, with chain and compass, the streets and suburbs of the station. A marked improvement in the style of work is stated to have been latterly visible. Two villages were measured by it, with a view to the gross extent of each and the area under cultivation being ascertained, but with what results it does not appear. They were also employed in surveying disputed boundaries.

8. The Ganjam class is still in its infancy. Considerable difficulty was at first experienced in obtaining suitable candidates, but at length the class was gradually formed. The three senior pupils have recently been entertained on the Godavari Survey Party.

Nellore { W. S. Hooper, Esq. / W. S. Whiteside, Esq.
Masulipatam—T. Chase, Esq.
Ganjam—F. W. Morris, Esq.
Guntur—C. G. Master, Esq.
Malabar—Mr. Cabral.

9. The officers in charge of these classes have, as remarked by the Superintendent of Revenue Survey, evidently taken great interest in their progress, and to their exertions is due the degree of usefulness to which they have attained.

Report for 1859, paragraph 10.

10. It is stated by Captain Priestley that the Survey Department obtains comparatively little aid from these classes, as the more efficient hands can obtain employment in the Public Works, and other departments. With a view, therefore, to induce the pupils to regard the Survey Department as the one to which they should look for a livelihood, Captain Priestley suggests :

1st. That without the sanction of the Superintendent of Revenue Survey, no pupil be transferred to another department.

2nd. That, after 18 years of age, a person be permitted to count his service in the Survey class towards pension, provided he enter the Survey Department on a post being offered him, and serve in it for at least the same number of years as he may by this rule be entitled to reckon in the Survey class.

11. The orders of the Government of India, dated 31st December 1856, No. 58, and of the Madras Government, dated 20th January 1857, bear on the first of these points, and provide for servants not being suddenly removed from one establishment to another without reference to the officer in charge of it. In the second case it has been overlooked by the Superintendent of Revenue Survey, that even if the time spent in the Survey class were, under the partial rule he proposes, to be considered as ordinary public service, it would be of no advantage, as the pupils draw less than the minimum standard salary which entitles to reckon as service for pension under the established rules.

12. Captain Priestley also recommends, on the suggestion of the officer lately in charge of the Ganjam class, the employment of a Surveyor on a salary of 15 Rupees per mensem, to aid in instructing the class. The Assistant Collector cannot always give his personal supervision, owing to his being away on Jammabundy and other occasions. This is a moderate salary for the purpose, and can be allowed on condition that reduction is made in other items, so that the sanctioned amount is not exceeded.

13. Captain Priestley further proposes that the allowance to the Malabar Survey class, which, as intimated above, has been abolished, should be transferred to another district or made over to him to train a few persons to be drafted into the Survey classes. The latter course is calculated to increase the efficiency of these classes generally, particularly as qualified persons cannot always be found for teaching the classes, and there seems to me no objection to the appropriation of the funds in this manner for a limited period, say one year, within which the object in view may be expected to be accomplished.

14. In paragraph 8 Extract Minutes of Consultation 15th February 1858, No. 193, Government approved the proposal of imparting some knowledge of surveying to the village Menous, Shambogues, or Karnams of the different districts and among the Amins attached to the several courts, and hoped that the Board of Revenue and Court of Sadr Udalut would further this plan by all the means in their power. No steps appear to have been since taken in promoting this object in connection with the Survey classes, except in the Malabar district, where some of the Karnams were brought under instruction. This subject should receive the consideration of the officers in charge of the classes.

15. In paragraph 23 of Extract Minutes of Consultation 13th October 1857, No. 1041, the Superintendent of Revenue Survey was directed to prepare a manual of instruction for these classes. He has accordingly drawn up a manual which is suited for the Survey Department generally, as well as for the more limited use of these classes. The book contains a description of all the processes required for measuring and mapping villages in the Revenue Survey, except perhaps the mode of correction of the meridian line by astronomical observation.

List of original documents submitted with the letter from the Director of Revenue Settlement to the Secretary to Government, dated 11th June 1860, No. 587.

1. Letter from Superintendent of Revenue Survey, dated 27th April 1860.
2. Do. do. do. 25th May „
2½. Do. do. do. 13th June „ No. 483.
3. Do. Collector of Nellur to Superintendent of Revenue Survey (with the papers stitched with it), dated 12th February 1859.
4. Do. do. do. dated 25th February 1860.
5. Do. Collector of Malabar to do. do. 3rd May 1859.
6. Do. do. do. 5th May 1860.
7. Do. Collector of Guntur to do. do. 30th June 1859.
8. Do. Collector of the Kistnah District to do. do. 18th May 1860.
9. Do. Collector of Masulipatam to do. do. 8th June 1859.
10. Do. Collector of Ganjam to do. do. 5th April „
11. Do. Collector of Coimbatore to do. do. 26th January 1859.
12. Do. Collector of Canara to do. do. 3rd June 1859.
13. Map of the Gudewada Taluq.
14. Do. of the village of Meneegotepur in the Guntur District.
15. Do. do. of Marakapudy do.
16. Do. do. of Ravepad in the Guntur District.
17. Do. do. of Lingayapalem do.
18. Do. do. of Ramanakadu do.
19. Field book of Ramanakadu in the do.
20. Do. of Marekapudy in the do.
21. Do. of Lingayapalem in the do.
22. Do. of Narasapuram in the do.
23. 3 copies of manual of Revenue Survey.
24. Map of the salt yards in China Ganjam in the Guntur District.
25. Do. of the pans, &c., in yard No. 7 in the do. Kotam in do.
26. Do. do. No. 13 do. do. do.

Enc. 1.

From Captain F. J. B. PRIESTLEY, Superintendent Revenue Survey,
To H. NEWILL, Esq., Director of Revenue Settlement,
dated Madras, 27th April 1860, No. 370.

In reply to your letter of the 23rd instant, I beg to forward the report on the Survey classes for 1858 and 1859.

2. With reference to the delay that has occurred in submitting the former, I have the honor to state that the reports from the different Districts bear date from the 12th February to the 30th* June 1859, and occupied as I was, more particularly with the organization of my own office, the preparation of the report was completed so late in the year that I thought it better to defer its transmission till that for 1859 was due.

* Nellur Survey class report, dated 12th February 1859.
List of persons composing the class, 13th July 1859.
Malabar Survey class report, dated 3rd May 1859.
Masulipatam Survey class report, dated 28th June 1859.
Guntur Survey class report, dated 30th June 1859.

3. I regret that this last mentioned is incomplete, no reports of the Guntur and Malabar Survey classes having reached me.

REPORT ON THE DISTRICT SURVEY CLASS FOR 1858.

In Canara, Coimbatore, Rajahmundry and Masulipatam, Survey classes no longer exist.

2. In the two former districts, the agency required for their maintenance was not forthcoming, in the two latter the Survey having been commenced, the district classes have been absorbed into the permanent establishment.

Rupees 93.

3. The monthly grant on the dissolution of the class in Rajahmundry was transferred to Nellur where the Head Assistant, Mr. Hooper, undertook to superintend the class when formed.

S. Soobarow struck off strength of permanent establishment, 1st October 1858.

4. A man who had acquired in the Survey a good practical knowledge of all details both of field work and plotting, was also sent to take charge of and instruct the pupils.

5. I am glad to learn from the report of the Collector, Mr. Elton, that he has been found most efficient, and that his conduct has been uniformly good.

6. On the 1st November, the class was organised by the selection of 10 pupils from the Free Church Mission school.

7. These were then instructed in measuring single fields and subsequently a tract of country according to the method laid down in the Manual of Khusreh for the Settlement Department.

8. The pupils being all more or less instructed in Geometry have made good progress. Their attendance also has been regular.

9. Towards the end of December a general road survey with Chain and Compass was commenced preparatory to surveying the Nellur village, on the system adopted in the Revenue Survey.

10. A statement of the charges incurred up to the end of the year is appended.

Mr. Chase's report only embraces the period included between these dates.

11. From May 1858 to February 1859 the total extent of land surveyed by the Masulipatam Survey class is 54·5 square miles or 34,933·7 acres.

12. Of this 18,724·2 acres are the area of 24 villages which were completely surveyed, and the remainder of certain portions in other villages measured to ascertain the extent of dry land converted into wet by the new irrigation channels from the Kistnah river.

	By Survey.		By Revenue Accounts.	
	Acres.	Sq. Yards.	Acres.	Sq. Yards.
Gudiwada.	69,647	2,122½	69,307	1,862
Vinnacotta.	70,216	177	65,776	3,835
Total Government lands...	139,863	2,299½	135,084	857
Chavendra.	7,745	1,937½	5,687	4,061½
Grand Total...	147,608	4,237	140,771	78½
	140,771	78½		
Difference.	6,837	4,158½		

13. In the margin is given a tabular statement showing the area of the Gudivada and Vinnacotta pergunahs, and the Government lands of the Chavendra pergunah of the Gudiwada Taluq from the survey completed by the class, and as it stands in the Revenue accounts.

14. Mention is made of a map of the above-named Taluq in one of Mr. Chase's letters, but it has not been received in the Survey office.

15. On the commencement of the operations of the Revenue Survey in Masulipatam the class was discontinued, and of the persons composing it five were found willing to enter the department.

16. The grant of money for its maintenance was transferred to Ganjam.

Measured lands taken up for the Pooraparamba canal.
Surveyed roads for the Engineer department.
Do. part of the Calay river.
Do. encamping ground at Beypoor.
Do. the Calicut bazar canal.

17. In Malabar it is stated by Mr. Robinson, then Collector of that district, that during the first five months of 1858 the pupils of the class were employed on different surveys of utility and importance, some of which are noted marginally.

18. Of the first the field books and a map were also forwarded, which on being examined in this office (as far as their being written in Malayalum admitted) gave evidence that of great care had been taken and accuracy obtained in the survey performed entirely with chain and cross.

19. Four of the pupils were temporarily transferred to the Department Public Works, two are attached to the office of the Sub-Collector and three to that of the Special Assistant Collector, variously employed in surveying disputed and escheated lands and in instructing village accountants.

20. Since Mr. Grant has taken charge of the district, two pupils have passed into the general service, and at the request of the Kottakel Rajah one pupil was employed at his expense for 11 months in teaching him and some other members of his family.

21. During the year four Curnums have received instruction and nine are still under training.

22. Mr. Grant points out that the orders regarding the employment of persons who have passed the examination for entering the public service, have had a tendency to impair the attendance at the Survey class; he further gives it as his opinion that the strong disinclination of the people on the west coast to quit their homes, will prevent the pupils from accepting service in any Survey establishment at a distance.

*Deputy Accountant Collector's Office.

23. Both Messrs. Robinson and Grant speak in high terms of Mr. Cabral's* exertions in superintending the class from the commencement.

24. The report from Guntur embraces a period of 20 months, during which time the extent of land surveyed was 47,772 acres; of this extent 5,293 acres compose the three villages in which the field measurements were in progress at the time of the last report.

25. Of the villages mentioned in Mr. Newill's report of August 1859 as being in progress, Ameenabad is completed and mapped, but the survey proves worthless and an entire re-measurement is necessary.

One of each of 5 villages.

26. The survey was commenced in 12 villages during the months reported on, seven are completed and of them the maps and five field books have been forwarded for examination.

27. In addition to the above, two villages have been (at the request of the villagers) measured in the native manner, they cover an area of 4,970 acres.

Lingayapalem.
Brananakodoor.

28. The result of examination in this office shows slight errors in plotting the fields of from 25 to 65 feet, and in some places offsets appear to have been omitted in copying the field book. On the whole, however, the work is satisfactory.

29. Of the pupils composing the class, five have acquired a tolerable knowledge of the principles of surveying and three others can survey correctly according to the English method.

30. Returns of expenditure are appended.

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

27th April 1860.

Statement of Charges incurred on account of the Survey Classes.

	Rs.	A.	P.
Nellur Survey Class from 1st October to 31st December 1858.	171	7	2
Masulipatam Survey Class from May 1858 to February 1859....	714	0	2
Malabar Survey Class from January to December 1858...	922	1	3
Guntur Survey Class from January to December 1858... ...	1,352	6	11
	3,159	15	6

Establishment sanctioned and Expenditure.

Nellur Survey Class... ...	12 Pupils... ... ... 6 Peons.	93	Rs. per month.
Masulipatam Survey Class.	8 Pupils... ... ... 8 Peons.	72	,, ,,
Malabar Survey Class	13 Pupils...	72	,, ,,
Guntur Survey Class... ...	10 Pupils... ... ... 10 Peons.	115	,, ,,

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

REPORT ON THE DISTRICT SURVEY CLASSES FOR 1859.

NELLUR.—From the report of Mr. Whiteside, Head Assistant Collector, under whom the Survey Class of the Nellur District has been placed, I am glad to find that the Head Surveyor, C. Subba Row, still continues to perform his duties satisfactorily and has exerted himself very creditably in the instruction of pupils.

2. The late Deputy Surveyor has been transferred to the Collector's office, and his successor has been found useful during Mr. Whiteside's recent Jamabundy in surveying disputed boundaries, &c.

3. The Collector Mr. Dykes informs me that on his joining the district he was much disappointed with the Survey class, and indeed he communicated his opinion to me when I visited Nellur in December last.

4. The result of the examination I made on that occasion, however, convinced me that the instruction of the pupils had been sound, though perhaps the supervision had not been so strict as might be desired.

5. Subsequent to my visit I am happy to say Mr. Dykes has had reason to form a more favorable opinion of the class, and states his hope "that in the course of the next few months the class will be able to render valuable assistance in surveying the irrigable area under our first class tanks as well as making a survey of the present salt pans."

6. Half the class have been occupied under Mr. Dykes in measuring two villages to ascertain the gross extent of each and the area under cultivation. The survey contemplated by Mr. Dykes in paragraph 5, however, will descend to details, and on it he purposes employing the whole class.

Shanaypalem Kovúru.

7. The Gomastahs have been generally engaged during the year in learning the rudiments of surveying, and in laying down with Chain and Compass the streets and suburbs of the station.

8. Latterly a marked improvement has, it appears, been visible in the style of work performed, and were it not for a drawback pointed out by Mr. Whiteside, the Survey class might doubtless be considered on a most satisfactory footing, and likely to afford valuable aid in organising an establishment for the survey of the district.

9. I so entirely coincide with Mr. Whiteside in his remarks on the subject, that I quote his words unaltered; "but the great obstacle I have observed is the difficulty experienced in making these "youths regard their present employment as their future profession for life; they are all apt to look "upon it merely as a first step in the public service and they are much too ready to leave it for even a "trifling increase of pay; this originating, I believe, in an idea that the survey class is only a tem-"porary measure and liable to be broken up at any time, has considerably retarded their advancement."

10. As a means of inducing pupils in the Survey classes to regard the Survey Department as the one to which they are to look for a livelihood, I venture to suggest: 1st, that without the sanction of the Superintendent Revenue Survey no pupil be transferred to another department; 2nd, that after 18 years of age a person be permitted to count his service in the Survey class, provided he enter the Survey Department on a post in it being offered him, and serving in it for at least the same number of years as he may by this rule be entitled to reckon in the Survey class.

11. These rules should of course be explained to the pupils on entering, and exceptions to their general application (more especially perhaps in the case of the instructor) should, where necessary, be made.

12. That the Survey Department obtained the pupils of least value in my opinion was communicated to the Board of Revenue by me,* on their making a reference regarding a question of batta to the Malabar class.

* 7th February 1860, No. 92.

13. I append a statement showing the result of the examination made by me in December last.

GANJAM.—14. The Report of the Ganjam Survey class is made by Mr. F. Morris, late Head Assistant to the Collector of that district, but who is at present, I believe, Deputy Director Revenue Settlement, Krishna Division.

Order of Government dated 3rd May 1859, No. 1,560.

15. From the backward state of education in the Ganjam district, it appears that considerable difficulty was experienced in meeting with suitable candidates for the Survey class on the first steps being taken for its organization in August.

Charles Robson.
Henry Madeira.
T. Rungaiaikulu.

16. Three persons were, after the expiration of a month or two, sufficiently instructed in the use of the Prismatic Compass by Mr. Morris to enable them to survey independently, and to impart to the pupils placed under them a general knowledge of surveying.

17. Of the degree of proficiency which these latter had attained, Mr. Morris had no opportunity of ascertaining.

18. To make the class effective Mr. Morris states that there still are four requirements: 1st, a surveyor on higher pay than the other pupils to take immediate charge of and instruct the class, more especially during the absence of the Assistant Collector; 2nd, an increase to the number of measurers, (it being, he states, manifestly impossible for any one to survey with only one man to assist him, and that had not the deficiency been supplied from his private means, the class could have done nothing); 3rd, a direct prospect of promotion to the general Survey establishment; 4th, a small Theodolite in order that the more intelligent pupils may receive instruction in the use of that instrument.

19. I agree with Mr. Morris that a Surveyor on Rupees 15 per mensem is required, and would suggest the appointment if such a person can be met with in possession of the required qualifications.

20. With regard to an increase in the number of measures, I would point to the Nellur Survey class where there are only six men of that description to 12 Surveyors, whereas in Ganjam each pupil is provided with one. I am aware that in this country there exists in all ranks and classes, both East Indian and Native, a prejudice against any description of manual labor, but in the Survey department it is not possible to recognise or permit it. In England I may remark every individual who learns surveying has to drag the Chain and perform all the work of flag and offset man himself, in order that he may have a thorough practical acquaintance with the duties of every person under him.

21. I shall be only too happy to give employment to any pupils of the Survey class who are recommended as fit by the gentleman in charge. It so happens that the three persons first enrolled by Mr. Morris and mentioned in paragraph 3, were received into the Godaveri Survey Establishment on the 1st February 1860, as Detail Surveyors.

Charles Robson.
Henry Madeira.
T. Rungaiaikulu.

22. In general the Survey classes have been extremely fortunate in the Assistant Collectors in charge, and all have evidently taken great interest in their progress. It cannot, however, be

expected that every gentleman, under whom a class may be placed, should have a practical acquaintance with surveying, such as Mr. Morris evidently possesses.

23. I therefore doubt the expediency of supplying these classes with costly instruments except in special cases on the application of an Assistant Collector who is acquainted with the use of them.

24. A statement of the establishment and expenditure sanctioned for each class is appended, and also a copy of the Manual for the use of the Survey, drawn up in obedience to the Orders of Government.

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

Establishment sanctioned and Expenditure.

Nellore Survey Class, 12 pupils.....93 Rupees per month.
6 peons.

Ganjam Survey Class, 8 pupils.....72 Rupees per month.
8 peons.

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

NELLUR SURVEY CLASS.

Result of Examination by Superintendent, 17th December 1859.

Names.	Use of Prismatic Compass.	Chain Survey.	Use of Traverse Tables.	Plotting, &c.	Knowledge of English.		Mensuration.	Remarks.
					Fair.	Indifferent.		
V. Ramiah...	1	1	1	1	1	0	1	These six have a fair knowledge of their work.
K. Lutshiminaramappa..	1	1	1	1	1	0	1	
G. Soobramaniam... ...	1	1	1	1	0	1	1	
G. Narasinga Row	1	1	1	1	1	0	1	
N. Sashagiri...	1	1	1	1	0	1	1	
M. Chenchiah.....	1	1	Slight.	1	0	1	1	
S. Streenivasa Row.. ...	1	0	do.	1	0	1	1	
T. Vencataramaniah.....	1	0	0	1	0	1	0	Attainments indifferent.
M. Narainsamy...	1	0	0	1	0	1	0	Has a knowledge of preparing ground plans, sections, and elevation of buildings, &c., volunteer for 10 months, now appointed Acting Gomastah.
V. Ramadasoo.....	1	0	0	Slight.	0	1	0	

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

APPENDIX.

For 1859.
- 1 Map of Lingayapalem.
- 1 Do. Brammanakodoor.
- 1 Statement of Charges incurred.

For 1860.
- 1 Establishment sanctioned and Expenditure, Result of the examination of the Nellur Survey Class.
- 1 Copy of the Manual on Surveying.

(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

ENC. 2.

From CAPTAIN F. J. B. PRIESTLEY, Superintendent Revenue Survey,
To H. NEWILL, Esq., Director of Revenue Settlement,
dated Madras, 25th May 1860, No. 401.

In compliance with the request contained in your letters of the 9th and 16th instant, I have
No. 442. the honor to forward the reports on the Survey classes, received from the Collectors of
„ 483. the different districts in which they are maintained.

2. Those from Guntur and Malabar, just come to hand, do not seem to require any special notice, except that I concur with Mr. Grant in his opinion that it is advisable to discontinue the Malabar Survey class, inasmuch as the Revenue Survey Department cannot expect any aid from it in organising or recruiting the establishment for the Survey of Wynaad, and in the event of operations being commenced in lower Malabar, there will be a trained body of men available for the purpose after the completion of the Wynaad.

3. I venture, however, to propose that the grant instead of being resumed should be transferred to one of those districts, the Survey of which is intended at no distant date to be entered on; that permission be given me to expend the small sum sanctioned, in training up a body of *Surveyors* to fill up vacancies in the district establishments.

4. Men of this kind are hardly to be met with, for if they have a sufficient knowledge of Surveying they are certain also to have studied the elements of Civil Engineering, Estimate making, &c., &c., and in consequence of this knowledge (useless in the Survey), rate themselves so high as to prevent our taking advantage of their services.

5. With reference to this subject, I append copies of letters from Captain Winscom, Principal, Civil Engineering College, in reply to my applications for lads trained under him.

Copy of a letter from the Principal Civil Engineering College, to the Superintendent Revenue Survey, dated Chepaukum, 25th November 1859, No. 749.

In reply to your letter, No. 934, dated 23rd instant, I have the honor to inform you that no students will be ready at this College, until they have gone through their regular course of instruction, which will probably be about June next, and that they will then be too highly educated to take the pay you offer.

A Junior Department for Estimate makers and Draughtsmen is in contemplation. From it, I shall probably in time be able to supply the style of men you require.

Copy of a letter from the Principal Civil Engineering College, to the Superintendent Revenue Survey, dated Chepaukum, 9th January 1860, No. 792.

I have the honor to inform you, in reply to your letter, No. 24, dated 7th instant, that at the present time, I have no students in the College, who I would recommend for the appointments you mention.

2. The institution only commenced to work, in September last, and the students go through a regular course of instruction of which surveying forms only a portion. In about six weeks or two months more, I expect to have several men who will be qualified to join your staff, and you will, I doubt not, find them more than ordinarily efficient, but at present, I fear they would but disappoint you.

Copy of a letter from the Principal Civil Engineering College, to the Superintendent Revenue Survey, dated Chepaukum, 26th April 1860, No. 933.

In reply to your letter, No. 357, dated 25th April 1860, I have the honor to inform you that I have several men quite qualified for employments as Surveyors, but I cannot allow them to leave the College until the end of the session, which will be on the 15th June next.

(True Copies.)
(Signed) F. J. B. PRIESTLEY, Captain,
Superintendent Revenue Survey.

Documents accompanying Superintendent's Report on Survey Classes for the years 1858 *and* 59.

1 Report on Nellur Survey Class, dated 12th February 1859.
1 do. Malabar do. 3rd May do.
1 do. Guntur do. 30th June do.
1 Two maps Munegotepur and Marekapudy, two maps of salt yards, Nos. 13 and 7, and one of salt kotar, and four boundary measuring books of Brammanakodur, Marekapudy, Lingayavalum and Narasapuram Puttah.
1 Report on Masulipatam Survey Class, dated 8th June 1859.
1 Letter from the Collector of Coimbatore, 26th Jany. do.
Do. do. Canara, 3rd June do.

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1 Report on Ganjam Survey Class, 5th April 1860.
1 do. Nellur do. 25th Feby. do.
1 do. Malabar do. 5th May do.
1 do. Kristna do. 18th May do.
1 Map of Ranepaud.

(Signed) F. J. B. PRIESTLEY, Captain,
— Superintendent Revenue Survey.

ENC. 3.

ABSTRACT.—From the Superintendent Revenue Survey, to the Director of Revenue Settlement, dated 13th June 1860. Forwarding a memorandum and its enclosure from the Collector of Nellur, respecting the charges of the Survey class, for 1859.

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ENC. 4.

ABSTRACT.—From the Collector of Nellur, to the Superintendent of Revenue Survey, dated 12th February 1859. Submitting a report on the operations of the Survey class.

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ENC. 5.

ABSTRACT.—From the Collector of Nellur, to the Superintendent of Revenue Survey, dated 21st March 1860. Submitting the report on the Survey class for 1859.

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ENC. 6.

ABSTRACT.—From the Collector of Malabar, to the Superintendent of Revenue Survey, dated 3rd May 1859. Submitting a report upon the Survey class.

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ENC. 7.

ABSTRACT.—From the Collector of Malabar, to the Superintendent of Revenue Survey, dated 8th May 1860. Submitting the report on the Survey class for 1859.

—

ENC. 8.

ABSTRACT.—From the Officiating Collector of Guntur, to the Superintendent of Revenue Survey, dated 30th June 1859. Submitting a report upon the Survey class.

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ENC. 9.

ABSTRACT.—From the Collector of Kristna District, to the Superintendent of Revenue Survey, dated 18th May 1860. Submitting a report on the Survey class for 1859.

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ENC. 10.

ABSTRACT.—From the Acting Sub-Collector in charge, Masulipatam, to the Superintendent of Revenue Survey, dated 11th October 1858. Submitting report and map of the operation of the Survey class.

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ENC. 11.

ABSTRACT.—From the late Senior Assistant Collector of Ganjam, to the Superintendent of Revenue Survey, dated 5th April 1860. Submitting the report on the Survey class for 1859.

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ENC. 12.

ABSTRACT.—From the Acting Collector of Coimbatore, to the Superintendent of Revenue Survey, dated 26th January 1859. Stating that the Survey class in his district has been broken up.

—

ENC. 13.

ABSTRACT.—From the Collector of Canara, to the Superintendent of Revenue Survey, dated 9th June 1859. Stating that a reply was sent to the Circular of 23th December 1858.

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ENC. 14.

ABSTRACT.—Boundary measuring book of Ramanakadur of the Poonnoor Taluq.

—

ENC. 15.

ABSTRACT.—Boundary measuring book of Marekapudy of the Nursarowpettah Taluq.

—

ENC. 16.

ABSTRACT.—Survey field book of Lingaypaliem.

—

ENC. 17.

ABSTRACT.—Survey field book of Marekapudy.

Exd. J. Thomson.

Revue Deptt

No. 620

Proceedings of the Madras Government
Under date the 16th March 1861—

Read the following Proceedings of the Board of Revenue.

Submitting for information and orders with the Board's remarks a letter from the Director of Revenue Settlement forwarding reports on the working of the Survey Classes in several districts for the years 1858 & 1859.

(Here enter 3rd Nov. 1860 No. 5080)

1. With these Proceedings the Board of Revenue forward the reports of the Superintendent of Revenue Survey, accompanied by Mr. Nevill's remarks, on the operations of the District Survey classes for the years 1858 & 1859.

2. The Board having reviewed the operations in each District in detail, it

it will be unnecessary for the Government to enter into particulars; they will only observe that the progress made is generally spoken of in a favorable manner.

3. In both the years reported on there were only four classes at work. In 1838 these were in the Districts of Rajahmundry, Masulipatam, Guntoor, and Malabar; but all of these, except that in Guntoor, have been broken up. Some of the pupils in Rajahmundry and Masulipatam were absorbed in the regular Survey Department; and the class in Malabar was abolished early in 1839 in consequence of a paucity of volunteers for the work, and the organization of a regular establishment for the Wynaad to which place the pupils objected to proceed. The Guntoor class still

still continues.

4. The operations in 1839 were conducted in the Distric of Guntoor, Malabar (for a few months) Nellore and Ganjam. The two latter Classes were formed under the sanction of Govt from the funds set at liberty by the abolition of the Rajahmundry and Masulipatam classes. The former was organized in November 1838, and the latter not until August 1839.

5. Most of the Maps sent up for inspection are from the Guntoor District, they are creditable to their authors Here is roome for improvement, however, and the remarks of the Board in para 3 of the Proceedings under re: view should be communi: cated to the Collector for the information of the class. The Revenue Survey scale, too,

should

should in future be adopted for the Maps, as proposed in para 5 of Mr. Newill's letter of 11th June 1860, No. 584.

6. The classes in Nellore and Ganjam have not been organized sufficiently long for any great progress in this respect.

7. With regard to the several propositions and suggestions on which the orders of Government are required, the Governor in Council fully agrees with the Board in the conclusion to which they have come (para 9) concerning those stated in Para 8 of this Proceedings, ~~under consideration~~.

~~8~~ Such a restriction as that proposed by Captain Priestley in his second proposition would certainly have an injurious effect on the Survey Classes themselves.

8. The two further suggestions made by Captain Priestley (para 10) relating (1) to the appointment

appointment of a Surveyor on 15 Rupees per mensem in Ganjam (2) the transfer to himself of the allowance of the Malabar class as a means of training up Surveyors for the regular Survey, are sanctioned under the conditions proposed by the Board

9. The extension of a knowledge of the principles of survey among the Kannam class is of much importance. Her efforts directed to this end, have not yet, it appears, been attended with much success. There are, it is true, difficulties in the way, but His Excellency in Council thinks that something might be effected by a better arrangement in the working of the Survey classes. It is too much the custom, at present, to employ the pupils on scattered works, whereby each individual

dual is at a distance from supervision, and incorrectness and delay are the consequence.

10. If the labours of at least half the class were concentrated on any one village under the immediate direction of the head Surveyor, not only would its survey be done speedily and correctly, but opportunity would be afforded for the instruction of the Karnams of that and the surrounding villages, who might in a months time acquire a very fair knowledge of practical surveying. The Govt. request that the Superintendent Revenue Survey will consider this suggestion and carry it into effect if found practicable. The remaining pupils would still be available for any of the minor jobs, such as disputed boundaries

Commns

boundaries &c. of such constant occurrence in every District. The Govt. think that too much is attempted at one time. They would be better satisfied if the pupils were well grounded, so that what they did should be well done.

11. The Manual prepared by Captain Priestley is described as being well suited for the purpose for which it was compiled. It should be circulated generally to all Collectors, and each Member of the Survey Class should be furnished with a copy. The attention of the Director of Revenue Settlement will be drawn to the concluding sentence in his letter of 20th March 1858 No. 92, regarding the preparation of a vernacular

Manual

* Recorded in G.O. 22d April 1858 No. 513 R.D.

manual in a briefer form
for the use of Karnams.

12. Captain Priestley's
attention will be called to the
remarks made by some of
the Collectors on the inferior
nature of the Prismatic
Compasses supplied for the
use of the Survey Classes.
It is desirable, both to en-
sure correctness of work
and in fairness to the pupils,
that the simple instruments
used by them should be
trustworthy. The chains
should also be tested from
time to time; and when re-
quiring it, should be
carefully corrected. Attention
to these petty details will
obviate much inconvenu-
ience. The head of each
class should be responsible
for any delay in bring-
ing such wants to notice.

If

13. It is desirable
that future reports should
be submitted within a
short time after the close
of the year to which they
refer. When so long delayed
the use of such documents
is much diminished.

C J C

13 Copies. Boards of Revenue Cir. & Wt with 12 Encls
13 " Dr. of Rev. & Settlement &c
7 " Supt. of Rev. & Survey

Comp. Kurnool

Rs. - 21-22

13. 10. 57

" — 33- 34

16- 2- 58

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2- 3. 58.

" — 9 — 10

27- 4- 58.

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17- 8. 58.

" — 41- 42

17- 5- 59

On the working of the Survey classes

Revenue 1861 Departt.

Pro: of Govt. for March.

No. 620.

Pro: of the Madras Govt.

Dd 16th March 1861.

Forwarding the Direction of Mr Pell dd 11 Apr 1861 No 888 - with pro: 19th April No. 853.

Passing orders on Board's Proceedings on the operations of the Survey Classes in several Distts for the year 1858/59.

No 306 & 307.