

19-8-38 B II

Revenue Department
No 687

Dated 19th May 1859

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*Proceedings of the Madras Government, Revenue Department,
from 18th to 27th May 1859.*

No. 10 Read the following letter from THOMAS OLDHAM, Esq., Superintendent of the Geological Survey of India; to J. D. BOURDILLON, Esq., Secretary to the Government of Madras; dated Calcutta April 21st 1859, No. 267.

I have the honor to forward herewith for the information of the Right Honorable the Governor in Council, a brief notice by Mr. William King, (one of my Assistants at present engaged in the Geological examination of the Madras Presidency), of the occurrence of Crystalline Limestone near Trichinopoly, discovered by him during the regular progress of his work.

This mineral must prove valuable, in a district where lime has hitherto been considered wanting; and taken in connection with the occurrence of similar limestone near Coimbatore, would lead to the hope that an extension of the same beds may be traced between the two localities.

I would venture to suggest that this notice might be sent to the Madras Society of Literature and Science for publication in their Journal.

*On the occurrence of Crystalline Limestone in the vicinity of Trichinopoly by W. KING, Esq.,
Geological Survey of India.*

While surveying the Moosery and Toriore talooks of the Trichinopoly District, I observed some blocks of Crystalline Limestone in the band of a tank near Comungalum. Subsequent observation shewed that this rock occurs *in situ* in two places: at Naivailie, about sixteen miles North-west of Trichinopoly; and at Mootum four miles further North and on the West side of the Tyaur river.

These two localities occur in a metamorphic district consisting of beds of micaceous, hornblendic, and quartzose gneiss, more or less foliated and in many cases particularly in the South western part of the Toriore talook assuming a perfectly schistose character. They are situated almost on the Northern edge of a great development of granite and quartz, either in the form of veins or protruded masses, which forms a belt more than eight miles in width extending along the Northern bank of the Cauvery from a point North of Trichinopoly into the Coimbatore District. Generally throughout this granitic region the direction of the foliation of the metamorphic rocks is E. N. E. = W. S. W. while the average dip of the beds is 45° to the North.

At Naivailie the limestone appears at the Eastern end of the tank as a bed 6 or 7 feet in width cropping up between bands of gneiss. From this point it extends in an E. S. E. direction for a little more than a mile, where it takes a new direction E. N. E., and so continues for another mile. Here another band joins it which may be a continuation of a smaller one occurring at Naivailie about 100 yards North of the first.

Throughout the greater part of its extent the main band preserves an uniform thickness of 67 or feet but widens out at one place (where there is a large granite vein and much contorted gneiss) into a surface of more than 50 yards square. The bedding of the gneiss rocks in the vicinity is quite distinct, the dip being vertical, so that the vertical extent of the limestone may in all probability be very great.

Immediately adjoining the main band on its Northern side is a thick bed of quartz rock, and on the Southern is a bed of irregularly foliated hornblendic and felspathic gneiss succeeded by a large vein of granite some yards in width. This vein assumes towards its interior the structure of graphic granite. It is here that the change in the direction of the band takes place.

The limestone is generally of a grey color, but this changes to a white and in some places to pink. Its structure is granularly crystalline, resembling loaf sugar, at the same time the crystals are not so large as to render the rock friable. The foliation, which as a rule is extremely imperfect, is parallel to that of the gneiss, in this case the same as the direction of the band given above. The folia consists of mica and chlorite, these sometimes disappearing altogether and never exceeding an eighth of an inch in width. Fragments of contorted gneiss, and small nests of quartz, chlorite and calc spar occur in it to very small extent, while in places the limestone itself appears to have been squeezed in between the folia of the gneiss and separated into lenticular patches.

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At Mootum the band of limestone is nearly a mile in length but not so broad nor so much of it seen, as that at Naivailie. It presents the same characters, and the rocks of the vicinity are the same as at that place; the only difference being that the general color is pink and the development of granite not so great.

As an industrial resource of this district, the occurrence of crystalline limestone is very important, owing to its being useful as a building material in the form of stone, marble, or lime. In the present case, the uniformly close texture, the pleasing colors and semitranslucency, and the comparative freedom from foreign matters, are qualities which render it peculiarly well adapted for these different purposes. I had some of the light grey limestone burnt by the chunam-maker of the place, and specimens of different colors roughly polished in Trichinopoly; and the results were most satisfactory. The marble is fine grained and clouded while the colors come out clear and decided; the lime was of excellent quality.

No. 11.

ORDER THEREON, 19th May 1859, No. 687.

Ordered to be communicated to the Chief Engineer, in order to the material referred to by Professor Oldham being brought into practical use in the Engineer Department.

Ordered also that a copy be forwarded to the Madras Literary Society for publication in their Journal, as requested by the Professor.

(Signed) J. D. BOURDILLON,
Secretary to Government.

Handwritten notes and signatures in the right margin, including a large signature and some illegible text.

Revenue 1859 Report
Done 27th May

1859

From the superintendence
of the Geological Survey
of India -

Noted 21st April &

Dec 24th May 1859

Towards a brief notice
of the discovery of crystalline
limestone near Trichinopoly
by Mr. Wingrave of the
Geological Survey of India
of the north & suggests that
the notice may be sent to the
Chairman Society of Literature
& Science for publication
in their Journal.
1859 = 19th May 59
With an order

1859

Ordered to the Commissioner

to the Chief Engineer, in order to the
material referred to by Mr. Wingrave
being brought into practical use
in the Engineering Department.

Ordered also that a copy

be forwarded to the Madras Literary
Society for publication in their

Journal, as requested by the Secy.

W. M. Secy.

Noted 24th Dec. 2
19th May 1859

10th May 1859. The Chief Engineer
Secretary Society