

Ru7004 Box 30 F.8

Taconic

~~M.C.~~ Limestones

~~70-72-80~~

The condition of the limestones in the dark shales & purple & green slates leads ^{only} to the conclusion that ⁱⁿ many instances they are a conglomerate derived from a preexisting formation but as we find ~~interbedded~~ limestone in layers in the slate & without doubt ~~is~~ deposited contemporaneously with it & the conglomeratic brecciated l- containing the same fauna as the bedded layers we must look for some other explanation for the conglomerate limestone. A study of numerous localities suggests two modes of origin -

1st. The formation of
small irregular
masses of limestone from
two millimetres in diameter to
~~the size of a potato~~
~~two feet~~ in diameter
a metre ~~or more~~ ^{600 metres} ~~feet~~ thick
& several miles in area
as in Georgia Vermont
The masses appear to be
~~formed~~ ^{formed} ~~by~~ ^{by} the aggregation of calcareous
matter on the sea bed
& usually numerous
fossils occur in ~~them~~ ^{the}
larger ones.

2d) By the formation of
calcareous layers on the
sea bed & their heaving
up after partial
consolidation & induration
by the pressure of the
accumulating sedi-
ments above & the
~~soft~~ yielding nature of
Bull. U.S. Geol. Surv. p.

the clays beneath.

In many instances the rock looks like a great pudding stone - the hecciated pieces of limestone having been broken & pressed in all directions thro' the plastic clays. By the same pressure the concretionary masses were crumpled & irregularly thro' the clay & matrix.

The general character of the conglomerate does not appear to be that of the accumulation on a sea beach - tho' in places it is difficult to say whether we are looking at a conglomerate or a rock broken & mixed up

~~and~~ plastic matrix
by pressure +

10-13-86

at the ~~State~~^{Rock Hill} School
House in north part
of Greenwich both
bedded & congl. l-
contains ~~well~~^{Jacovic} fossils.

~~H. mcans~~

~~Q. asaphides~~

~~This is a fine locality to collect at.~~

This & the East Hebron
locality are fine illustrations
of the bedded l- carrying
~~M. C. fauna~~^{Jacovic} fossils.

May 4, 1988

F. 8

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May 4/88-

Atlantic Coast Cambrian.

With Prof. N. S. Shaler & Mr. Foerste examined Cambrian rocks in Attleborough, Mass.

The ^{greenish} redish-siliceous & arenaceous shales carrying some calcareous layers with fossils are much like the Middle Cambrian shales beneath the Berlin Conglomerate of Rensselaer Co. N.Y. The fauna however is more like that of the western limb of the Cambrian in Rensselaer & Washington Cos. N.Y. The presence

of a True Paradoxides ²
in association with
the Middle Cambrian
fauna ~~is also~~ of the
lower horizon of
New York is very
significant as it
points to Paradoxides
as older than the
True Alveolus.

Prof. Shaler's discovery
is a very important
one ~~in~~ ~~the~~ ~~presence~~ ~~of~~ the
~~presence~~ presence of the
Alveolus fauna on the
eastern side of the
Green Mts & their south-
ward extension into
Connecticut.

Geologically it forms
the age of a large
area of hitherto
undetermined rocks in
Eastern Massachusetts

The fauna is like that of the Allenella horizon in the presence of Abolilla crassa.

- Hyalites communis -
- " Americana -

Microdiscus -

Stenotheca allied to S. rugosa - (Coarsely ~~reticulated~~ annulated variety) -

In the presence of Paradoxides & the absence of Allenella it is ~~therefore~~ drawn towards the Paradoxides fauna & the type of Ptychoparia is also more that of the lower horizon.

As a whole it is, with my present idea of the ^{vertical} distribution of the Cambrian fauna, to be referred to the base

of this Middle Cambrian⁴
fauna -