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# Yeadon Brickworks

## Highlights

Yeadon Brickworks is the eponymous site for the Yeadonian Stage, and is of importance for understanding the evolution of the chronostratigraphical classification of the Namurian Series.

## Introduction

The disused brickworks [SE 193 407] and the adjacent railway cutting, 9 km NNE of Bradford, West Yorkshire, is the original type and eponymous locality for the Yeadonian Stage, as proposed by Hudson (1945; see also Hudson, 1936; Edwards *et al.*, 1950; Stephens *et al.*, 1953; Ramsbottom, 1969a). Although it is no longer the official stratotype, it provides an excellent exposure through much of the lower part of the stage, as well as being of historical significance.

## Description

### Lithostratigraphy

The combined sequence demonstrated in the railway cutting and quarry is about 30 m thick. It is mostly shales in the lower part, passing up into flaggy shales near the top, thought to be the Rough Rock Formation. The argillaceous part of the sequence contains two marine shales (the Cancellatum and Cumbriense marine bands see below), but near the base there is a ganister-like seat earth.

### Biostratigraphy

The lowest of the marine bands mentioned above, which immediately overlies the seat earth, contains *Lingula* in the lower part, but higher up has yielded a diverse assemblage of marine fossils. According to Stephens *et al.* (1953), it includes *Cancelloceras cancellatum* (Bisat), *Anthracoceras* sp., *Agastrioceras carinatum* (Frech), *Bilinguites superbilinguis* Bisat, *Homoceratoides divaricatus* Cope, *Posidonia* sp., *Caneyella multirugata* (Jackson) and *Dunbarella elegans* Jackson. *B. superbilinguis* Bisat occurs in the lower part of this ammonoid-bearing interval, and *A. carinatum* (Frech) in the upper part. However, there is no evidence of *Branneroceras branneroides* (Bisat) that occurs in the lower part of the Cancellatum Marine Band in certain other localities such as Orchard Farm.

The upper of the two marine bands has yielded a more restricted assemblage but is nevertheless diagnostic of the Cumbriense Marine Band. Species reported by Stephens *et al.* (1953) include *Cancelloceras cumbriense* Bisat, *Cancelloceras crenellatum* Bisat, *Orthoceras* sp., *Anthracoceras* sp., *Aviculopecten* cf. *Iossenii* (von Koenen) and *Dunbarella elegans* Jackson.

## Interpretation

This sites provides an excellent section through the Yeadonian of the Central Province, showing both of the principal marine bands. For many years it was acknowledged as the effective stratotype for the stage. However, Ramsbottom (1969a) demonstrated that the basal part of the Cancellatum Marine Band is missing here, with a more complete succession being present at Orchard Farm. As the base of this marine band was to mark the base of the Yeadonian in its stratotype section, this omission was critical and resulted in this site not being selected as the official stratotype. Nevertheless, the site remains of considerable interest for upper Namurian stratigraphy in Britain.

## Conclusions

Yeadonian Brickworks is historically important as being where the geological time-interval known as the Yeadonian Age (about 316 million years old) was first defined.

## [References](#)