MICROPALAEONTOLOGY NOTEBOOK

The Reverend Henry Eley, and his collection of foraminifera preserved in flint

RICHARD L. HODGKINSON

Department of Palaeontology, The Natural History Museum, London SW7 5BD, UK

INTRODUCTION

The Reverend Henry Eley MA was a little-known Victorian cleric who wrote a delightful book entitled *Geology in the Garden* in 1859. In it are described and illustrated many foraminifera preserved in flint, which are some of the first recorded Upper Cretaceous foraminifera from south east England. Jones & Parker thought well enough of his work to review Eley's material in 1872. Eley's collection is preserved in The Natural History Museum, London.

BACKGROUND

Whilst undertaking an investigation into the life and work of Professor Thomas Rupert Jones, I came across an old collection of foraminifera in The Natural History Museum (registration numbers 54916-54944) attributed to a Rev. H. Eley. This, Jones had not only recorded in his Catalogue (1882: p. 14) but earlier in 1872 (with W. K. Parker) had thought worthy of revision much as they had done with other more famous collections during the 1860s in their series On the Nomenclature of the Foraminifera. Why they should choose such an apparently obscure collection was unclear until I had chance to read a letter in the Museum's archive, which Jones (1882) had previously mentioned. The letter was written by Eley to Jones on the 23 February 1872 from 5 Bloomsbury Place, Brighton. This indicates that Jones knew Elev and his whereabouts, since the former writes that he was going to read the March 1872 issue of the Geological Magazine with interest, because he remembered that ... 'the note at the foot of page 195 of the Geology in the Garden refers to yourself, because, you were good enough to give me the names of the foraminifera I had tried so hard to draw'. Another clue to Jones's interest lies in a note written by Heron-Allen on the fly-sheet of his own copy of Eley's little book, that ... 'for many years this book of Eley's was one of the principal works on the Chalk foraminifera', and it is known that Jones was particularly interested in the Chalk of Southern England. Eley's own illustrations were lithographed by J.R. Jobbins (there are about 50 foraminifera on 7 plates).

Eley was not the first, however, to observe foraminifera in flint from England. The Rev. J. B. Reade FRS discovered them, according to Mantell (1846: p. 465), but the latter was the first to illustrate them (viz. rotaliids from the Folkestone Chalk).

THE COLLECTION

The material consists of small pieces of flint containing foraminifera which were latterly entered into the handwritten registers of the Museum at South Kensington in 1886. However, since Jones (1882) used registered numbers in his Catalogue, they must have been presented and numbered earlier when the collections were in the Natural History Department of the British Museum, Bloomsbury (Geology). They were not transferred to South Kensington until about 1880.

Jones (1882) says nothing about the collection except that Eley's own numbering was written on the surfaces the flint; this is still visible but faint. At present the flint pieces, sometimes more than one to a box, are themselves mounted in glass-topped boxes, glued onto labelled boards. These are probably not the original mountings. Furthermore, the labels are not those of Eley but of Jones & Parker (1872). Jones himself probably rehoused them, as there are similarities with the labelling by Jones of his Richmond Boring collection, also preserved in the Museum. The labelling is characteristic – many of the letters having a backward projection, especially the capitals. All are labelled 'Upper Chalk, S.E. England'.

THE FIGURED SPECIMENS

The figured specimens are highlighted by Canada Balsam which has now become so yellowed that recognition of many specimens is difficult. Those I have not been able to identify are: figs. 9, 10, 11 (Pl. 2), 15, 17 (Pl. 3), 21 (Pl. 4), 27–29 (Pl. 5), and figs 36–38 (Pl. 6). In Jones's day he might have seen more since the balsam would not have been so old. In addition, the specimens from Plate 8 cannot be found and it is possible that they were never presented to the Museum, and thus Jones & Parker never re-examined them.

The spelling Vernouilina of Eley is incorrect. So is Textilaria by Jones & Parker (fide Loeblich & Tappan, 1988).

THE ONLY NEW SPECIES

Textularia obsoleta Eley – pp. 195, 202, Pl. 2, fig. 11, Pl. 8. fig. 11c. The original authorship is unclear but is attributed to Eley, following Jones & Parker (1872). Cushman (1927) renamed the species *Bolivinita eleyi*, as it is unfortunately a junior primary homonym of *Textularia obsoleta* Reuss, 1845. Subsequently, Marie (1941) designated it the type-species of his new genus *Bolivinitella*, even though Loeblich & Tappan (1987: p. 501) have now synonymized it with *Loxostomum*. Although I doubt that Cushman would have known whom the Rev. Eley was, it is pleasing to note that he is still remembered by this species which has proved to be one of the most stratigraphically useful benthonic foraminifera in the Chalk (Hart *et al.*, 1989).

REFERENCES.

- Cushman, J. A. 1927. American Upper Cretaceous species of Bolivina and related species. Contributions from the Cushman Laboratory for Foraminiferal Research, 2: 85-91.
- Eley, H. 1859. Geology in the Garden; or the Fossils in the Flint Pebbles. Bell & Dalby, London.
- Bart, M. B., Bailey, H. W., Crittenden, S., Fletcher, B. N., Price, R. J. & Swiecicki, A. 1989. Chapter 7. Cretaceous. *In:*Jenkins, D.G. & Murray, J.W. (Eds), *Stratigraphic Atlas of Fossil Foraminifera*. (Second Edition). Ellis Horwood, Chichester. pp. 273–371.
- Jones, T. R. 1882. Catalogue of the Fossil Foraminifera in the Collection of the British Museum (Natural History), Cromwell Road, S.W. London. Trustees of the British Museum (Natural History), London.
- Jones, T. R. & Parker, W. K. 1872. Notes on Eley's foraminifera from the English Chalk. Geological Magazine, 9: 123-126.
- Locblich, A. R. Jr. & Tappan, H. 1987. Foraminiferal Genera and their Classification. Volume 1. Van Nostrand Reinhold Company, New York.
- Mantell, G. A. 1846. On the fossil remains of the soft parts of foraminifera discovered in the Chalk and flint of the south-east of England. *Philosophical Transactions of the Royal Society of London*, **1846**: 465–471.
- Marie, P. 1941. Les foraminifères de la Craie à Belemnitella mucronata du Bassin de Paris. Mémoires, Muséum National d'Histoire Naturelle, Paris, (new series), 12: 1–296.
- Reuss, A. E. 1845. Die Versteinerungen böhmischen Kreideformation.. Volume 1. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart.