

of the southern quarry, gains support from the work detailed in this paper, although the results of recent excavations show that a rock of different lithological character from that of the northern quarry probably underlies the rocks of the southern quarry.

A list of the fossils found in the lowest beds of the southern quarry includes eleven species not yet found in the "Oolite" of the northern quarry; a second list comprises the fossils found just below the "Rag" in the Oolite of the southern quarry. Both these faunas are intermediate between those of the "Rag" of the southern and the "Oolite" of the northern quarry.

During the deepening of a well less than a quarter-mile north of the northern quarry, fossils identical with those of the northern quarry were found; the lowest rock enclosed lumps and streaks of bluish-black clay, as though the Oxford Clay were not far underneath. From this excavation and other evidence, the author considers that the "Oolite" can hardly be less than 40 feet thick, and that this rock is geologically below the "Rag" of the southern quarry.

Excavations at the southern end of the ridge and south of the southern quarry show that beds containing the "Rag" fauna are conformably underlain by a rock 16 feet thick, identical with the "Elsworth Rock" both in lithology and fossils. The discussion of the fossils from this rock and that of Elsworth itself indicates that "there is no longer any palæontological evidence for correlating it with the Lower Calcareous Grit rather than with higher beds."

On the whole, the author is in favour of the view that the "Oolite" of the northern quarry is the lateral equivalent of the Elsworth Rock seen in the excavations south of the southern quarry.

The next meeting of the Society will be held on Wednesday, November 9, 1898.

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#### CORRESPONDENCE.

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##### "THE LLANBERIS UNCONFORMITY."

SIR,—The letter from the Rev. J. F. Blake which appears in your issue of July, p. 335, seems to call for a short comment from me. The paper by Professor Bonney and myself published in the Q.J.G.S. for 1894 was founded on the work done in Wales by both authors. Previous to my investigations, the work of Professor Bonney had led him to conclusions mainly identical, I believe, with those which we enunciated. He had visited the district after the publication of his earlier paper;<sup>1</sup> and he re-examined in 1893 the critical sections in both the Bangor and the Llanberis area. His opinion on the question of the 'unconformity' which has been claimed as exhibited along the L. Padarn railway, was drawn from his own examination of the section. Of the sections not examined by him, the only important one, I believe, is that at Bryn Efail, and of those rocks he saw all my specimens. But his scrupulous sense of justice

<sup>1</sup> I believe this was in 1880; I am not sure of the exact year.

demanded that he should give away the credit for the "larger share of the work." I did not anticipate, when I saw the note appended by him to our joint paper, that it could be misinterpreted to mean that, because Professor Bonney had not seen or re-examined certain sections (many of them supplementary), therefore he had not seen sufficient to draw his own conclusions. To those who know his work this statement must seem unnecessary.

CATHERINE A. RAISIN.

#### ON A QUARTZITE AND SYENITE ROCK IN WORCESTERSHIRE.

SIR,—The valuable note by Mr. Charles St. Arnaud Coles in your July number (p. 304) suggests several questions of interest to students of Malvernian geology. I can quite confirm his descriptions in a general way, as I have visited Martley, and collected specimens of the rocks. The so-called syenite is an altered form of one of the Malvern diorites, the biotite and quartz being of secondary origin; but, as the modifications undergone by these diorites have been described in my series of papers on the Malvern Hills (Quart. Journ. Geol. Soc., August, 1887, August, 1889, and August, 1893), I need not here discuss them. The chief point of interest is the relation of the quartzite to the Malvernian. Mr. Coles compares the former with the quartzite of the Lickey. He might with equal probability have included in his correlation the basal Cambrian quartzite which clings like a blanket round the Malvernian and Uriconian masses of Shropshire. Whether this quartzite occurs in the Malvern chain I cannot say from personal knowledge; but, in the well-known section at the southern end of the Raggedstone Hill, the Hollybush Sandstone is thrust over the upturned edges of the contorted gneiss, and the quartzite is wanting, its absence being probably due to dislocation.

C. CALLAWAY.

July 15, 1898.

#### OBITUARY.

#### PROFESSOR GEORG BAUR, PH.D.

BORN JANUARY 4, 1859.

DIED JUNE 25, 1898.

WE deeply regret to record the death of Dr. Georg Baur, of the University of Chicago, at the early age of 39 years. He was born at Weisswasser, in Bohemia, where his father was at the time Professor of Mathematics; but he spent the greater part of his youth in Hesse and Würtemberg. He passed through the Gymnasium at Stuttgart, and in 1878 entered the University of Munich, where he devoted special attention to zoology, palæontology, geology, and mineralogy. In 1880 he went to Leipzig, where he studied under Credner and Leuckart. Two years later he returned to Munich and took the degree of Ph.D. He remained at this University as assistant to Prof. von Kupffer until 1884, when he left for America and became assistant to Professor Marsh at Yale. Dr. Baur held this appointment until 1890, when he removed to the Clark University,