

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,

Worcester, Mass. Two years later he was appointed to be Assistant Professor of Comparative Osteology and Palæontology in the newly-founded University of Chicago, and in 1895 he became Associate Professor—the position he held at the time of his death. Last autumn his health began to fail, on account of excessive mental strain. He then came to Europe to spend a holiday with his relatives in Germany; but his mental powers were never recovered, and the disease rapidly culminated in death.

Dr. Baur was a vertebrate morphologist of the modern school, who looked as much towards extinct animals as towards the existing fauna for the basis of his researches. He thus added greatly to our knowledge of vertebrate palæontology, not so much in describing new types, as in formulating new and clearer conceptions of forms already named and made known by other workers. His contributions, though mostly very brief, have had considerable influence upon the classification of the Reptilia now most widely adopted; and some of his papers contain important new facts concerning the skeleton of the Ichthyosauria, Chelonia, and Mosasauria.

Dr. Baur also made a valuable contribution to geology in his researches on the Galapagos Islands, the well-known haunt of the giant tortoises. He conducted an expedition to the islands in 1891, and made large collections both of the animals and plants now living there. His conclusion was that the Galapagos Islands were not of the Oceanic type, as commonly supposed, but must be regarded as the peaks of mountains which once existed on a western extension of the Central American region now submerged. The Galapagos tortoises were thus to be considered as the stranded survivors of the large forms which were abundant on the American continent in the middle part of the Tertiary period.

The more important of Dr. Baur's papers having special reference to vertebrate palæontology are enumerated in the following list:—

1. "Osteologische Notizen über Reptilien," Fortsetz. i: Zool. Anz., 1886, pp. 733-743.
2. "Ueber die Homologien einiger Schädelknochen der Stegocephalen und Reptilien": Anat. Anz., 1886, pp. 348-350.
3. "On the Morphology of the Ribs": Amer. Nat., 1887, pp. 942-946.
4. "Ueber die Abstammung der amnioten Wirbelthiere": Biol. Centralbl., vol. vii (1887), pp. 481-493.
5. "On the Morphology and Origin of the Ichthyopterygia": Amer. Nat., 1887, pp. 837-840.
6. "Ueber den Ursprung der Extremitäten der Ichthyopterygia," Bericht xx: Versamml. Oberrhein. geol. Vereins, 1887, with plate.
7. "On the Phylogenetic Arrangement of the Sauropsida": Journ. Morph., vol. i (1887), pp. 93-104.
8. "Osteologische Notizen über Reptilien," Fortsetz. iii: Zool. Anz., 1888, pp. 417-424.
9. "Palæohatteria, Credner, and the Proganosauria": Amer. Journ. Sci., vol. xxxvii (1889), pp. 310-313.
10. "Mr. E. T. Newton on Pterosauria": GEOL. MAG., Dec. III, Vol. VI (1889), pp. 171-174.
11. "The Systematic Position of *Meiolania*, Owen": Ann. Mag. Nat. Hist. [6], vol. iii (1889), pp. 54-62.
12. "On the Morphology of the Vertebrate Skull": Journ. Morph., vol. iii (1889), pp. 467-474.

13. "*Kadaliosaurus priscus*, Credner, a new Reptile from the Lower Permian of Saxony": Amer. Journ. Sci., vol. xxxviii (1889), pp. 156-158.
14. "On the Classification of the Testudinata": Amer. Nat., 1890, pp. 530-536.
15. "Die systematische Stellung von *Dermochelys*, Blainv.": Biol. Centrabl., vol. ix (1889), pp. 149-153, 180-191.
16. "Nachträgliche Bemerkungen über die systematische Stellung von *Dermochelys*, Blainv.": *ibid.*, vol. ix (1889), pp. 617-620.
17. "The Horned Saurians of the Laramie Formation": Science, vol. xvii (1891), pp. 216, 217.
18. "Remarks on the Reptiles generally called Dinosauria": Amer. Nat., 1891, pp. 434-454.
19. "On the Relations of *Caerthochelys*, Ramsay": *ibid.*, 1891, pp. 631-639.
20. "Notes on some little-known American Fossil Tortoises": Proc. Acad. Nat. Sci. Philad., 1891, pp. 411-430.
21. "On the Morphology of the Skull in the Mosasauridæ": Journ. Morph., vol. vii (1892), pp. 1-22, pls. i, ii.
22. "Bemerkungen über die Osteologie der Schläfengegend der höheren Wirbeltiere": Anat. Anz., vol. x (1894), pp. 315-330.
23. "Die Palatingegend der Ichthyosauria": *ibid.*, vol. x (1894), pp. 456-459.
24. "Cope on the Temporal Part of the Skull, and on the systematic position of the Mosasauridæ: A Reply": Amer. Nat., 1895, pp. 998-1002.
25. "The Paroccipital of the Squamata and the Affinities of the Mosasauridæ once more": *ibid.*, 1896, pp. 143-147, pl. iv.
26. "The Stegocephali": Anat. Anz., vol. xi (1896), pp. 657-673.
27. "Bemerkungen über die Phylogenie der Schildkröten": *ibid.*, vol. xii (1896), pp. 561-570.
28. [With E. C. Case.] "On the Morphology of the Skull of the Pelycosauria and the Origin of the Mammals": *ibid.*, vol. xiii (1897), pp. 109-120.
29. "Ueber die systematische Stellung der Microsaurier": *ibid.*, vol. xiv (1897), pp. 148-151.
30. "Archegosaurus": Amer. Nat., 1897, pp. 875-980.

JOHN CARRICK MOORE, M.A., F.R.S., F.G.S.

BORN 1804.

DIED FEBRUARY 10, 1898.

By the death of John Carrick Moore, science loses the last of that band of ardent field-geologists who, during the first half of the present century, did so much to investigate the underground structure of the British Islands. Inspired by the example and animated by the scientific principles of William Smith, they carried out in fuller detail than was possible to their master, his great idea of delineating in maps and sections the distribution and relations of the British strata, guided everywhere by the organic remains which they contain. But while this band of workers—which included such names as those of Buckland, Conybeare, Webster, Mantell, Dixon, Lonsdale, Sedgwick, Murchison, Fitton, De la Beche, Godwin-Austen, and Phillips—were so deeply influenced by the teaching of William Smith, yet they were seldom, with the exception of the last-mentioned, personally instructed by him, but derived their knowledge of his principles and methods at second-hand from men like Richardson, Townsend, and Farey, who were proud to act as the disciples and interpreters of the distinguished "Father of English Geology."

John Carrick Moore came of a famous stock. His grandfather, Dr. John Moore, the friend and biographer of Smollett, was the author of many well-known works, of which the novel "*Zeluco*" has been longest remembered. Three of the sons of Dr. John Moore