

## OBITUARY.

## PROFESSOR KARL ALFRED VON ZITTEL.

BORN SEPTEMBER 25, 1839.

DIED JANUARY 5, 1904.

It would be difficult to estimate the loss sustained by geological and palæontological science through the lamentable death of Professor K. A. von Zittel, of Munich, who for many years has occupied so eminent a position as a writer and teacher in these subjects, and has been rightly regarded as the most eminent of all exponents in the domain of palæontology. To those who are acquainted with the splendid work of von Zittel, the sudden termination of his brilliant career will come as a shock; among all who had personal dealings with the man himself, more especially the fortunate ones who, in the capacity of pupils, were privileged to enjoy the advantages of daily intercourse with a teacher so inspiring and so lovable, there will not be one who does not experience poignant regret and a genuine sense of personal bereavement.

To the Professor's rare personal qualities and the unflinching cordial and courteous attitude he displayed towards colleagues and students, must in no small measure be attributed the great success achieved by the Munich school of palæontology during the long period of von Zittel's tenure of the chair. By his zeal and thoroughness in handling the subject to which he patiently and strenuously devoted so great a part of his energies, he directly accomplished much for science, but also afforded an example which must clearly have borne valuable fruits, especially when we note that his teaching was a reflection of his own admirable method. An exceptionally lucid and eloquent lecturer, Professor von Zittel regarded palæontology primarily in its correct aspect as an important branch of biology, and his influence was in no slight degree responsible for the important status which his special subject has attained among the sciences in Germany, a position which even yet seems to be most reluctantly accorded to it in this country. A striking feature of the late Professor's discourses on palæozoology consisted in the remarkably even treatment which he devoted to all parts of the subject; he seemed to possess an equally extensive knowledge when dealing in turn with each class of animals, while throughout his lengthy course of lectures his deliverances were frequently brightened by an inspiring enthusiasm.

Scrupulous thoroughness, accurate observation, and cautious interpretation were the principles upon which Professor von Zittel most strongly insisted; and if he hesitated to express himself concerning the philosophic and speculative aspects of his subject, and, in his published writings, maintained in regard to these a somewhat conservative attitude, we may perceive in this reticence evidence of that cautious and judicial spirit which has ensured soundness and lasting value in his own work and in that of many of his disciples. In an excellent article recently contributed to the columns of *Nature*, to which the present writer is indebted for



*I remain yours sincerely*  
*Zittel*

some of the following biographical details, a passage is quoted from an address delivered by Professor von Zittel before the International Congress of Geologists in 1894, illustrating his attitude towards certain modern tendencies in the treatment of biology. In this he says: "The domination of the Linnæan and Cuvierian principles threatened systematic biology with soulless paralysis: the unbridled subjectivity of recent times may easily lead to anarchy." It is regrettable to have to add that in some departments of palæontology this prophecy seems already to have become fully realized.

Professor von Zittel distrusted voluminous and hastily produced work; to one so painstaking as himself, unsoundness owing to lack of care was sufficiently abhorrent. Yet he was a lenient and generous critic of work which, though imperfect, had been conscientiously achieved, and he looked with the greatest disfavour upon the kind of criticism which, betraying a needless spirit of antagonism, is couched in terms that might prove offensive or injurious. It is delightful to recall the kindly encouragement with which this gifted man assisted the circle of students at work in the palæontological laboratory at Munich and in the field, and to note that, however busily occupied with his own researches, he was at all times willing to lay his work aside in order to answer a question or to discuss some point with even the humblest of his students. This ready accessibility, coupled with his modest bearing and the deferential manner in which he expressed his own opinions or offered criticism in discussion, served to endear Professor von Zittel to the many who, attracted by his fame, journeyed from almost every quarter of the globe in order to pursue their studies under his direction. The confident and independent attitude which he directly encouraged by making his pupils feel that he discussed subjects with them as equals, would have been fostered in less degree by the adoption of a more purely didactic tone, and must be reckoned among the most valuable results of the training he imparted. It may be remarked that he entertained very liberal views on the subject of education, and warmly advocated the admission of women to the full privileges of the university courses in Germany.

Karl Alfred Zittel was born at Bahlingen, in Baden, on Sept. 25th, 1839, and was the youngest son of Dean Zittel, a well-known Protestant divine. In the latter end of 1857 he entered the University of Heidelberg, where he studied under Bronn and Leonhard, afterwards devoting a year to complete his academic studies in Paris under Hébert. While still there, during 1861, he published, in collaboration with E. Goubert, his first palæontological paper, a short pamphlet dealing with the description of fossils from the Corallian rocks of Glos. After leaving Paris, Zittel joined the Geological Survey of Austria as a voluntary assistant, and commenced active work in Dalmatia. In 1863 he qualified himself as a 'Privatdozent' in the University of Vienna, and, refusing the offer of a professorship in Lemberg, accepted a post as assistant in the Mineralogical Museum in Vienna (now the Royal Natural History Museum). In the same year Zittel left

Vienna to occupy the position of Professor of Mineralogy in the Polytechnic at Karlsruhe, but here also his sojourn was a brief one, and on the death of the renowned Albert Oppel he was appointed in the Autumn of 1866, at the early age of 27, to fill the vacant chair of palæontology in the University of Munich, at the same time taking over the charge of the State palæontological collection preserved in the Old Academy. It is interesting to record that the selection of so young a candidate for this important position was warmly supported by C. W. von Gümbel, who, as the revered veteran among Bavarian geologists, lived almost long enough to follow to its untimely termination the brilliant career of the man upon whom he so wisely bestowed his patronage. In 1880 the chairs of geology and palæontology became combined in the Munich University, and ten years later, on the death of Schafhäütl, Professor von Zittel was appointed keeper of the State geological collection also. It is well known with what enthusiasm he laboured in order to enlarge and perfect the museum under his charge, and how far, in face of great initial difficulties, he succeeded in bringing the Munich palæontological collection into the very first rank among similar institutions.

It may be said that from the time of his appointment at Munich Professor von Zittel's life was one of restless and fruitful activity. He had already completed a monograph on the lamellibranch molluscs of the Gosau beds, a memoir which amply illustrated his painstaking and precise method of work, and this was followed by his able and comprehensive study of the fauna and relationships of the Tithonian stage (1868–1873). Various other works in the field of palæontology showed the versatility of the writer, and included papers on representatives of vertebrate classes. Researches of a geological character resulted in the publication of a treatise on the glacial phenomena of the Upper Bavarian plain (1874–1875), and after accompanying the Rohlf's Expedition to the Libyan Desert (1873–1874), von Zittel in 1880 produced his well-known work "Ueber den geologischen Bau der Libyschen Wüste." The fuller results of his fruitful journey have appeared in the pages of *Palæontographica*, and include special studies of the collections of fossils obtained, the investigation of which was entrusted to several collaborators, and has only been recently concluded (1883–1902). In addition to his other labours Professor von Zittel, in the capacity of principal editor, successfully conducted the publication of the important *Palæontographica* from the year 1869 until the time of his death.

The work by which the late Professor made his name most widely known, however, was the great "Handbuch der Palæontologie," which, begun in 1876, required seventeen years of strenuous labour for its preparation. An enormous amount of original investigation was necessitated during the compilation of this wonderfully complete compendium, and the most important of these incidental researches, that which dealt with the classification of the sponges, occupied no less than three years of the author's time, and resulted in the production of a monograph of great value, which was published by the Royal Bavarian Academy (1877–1879). The

“Handbuch” appeared in five volumes, four of which include the whole range of palæozoology, while the fifth volume, comprising palæobotany, was contributed by Schimper and Schenk. The publication of this work was the greatest service rendered by its author, and the famous “Handbuch” still remains the most comprehensive and trustworthy treatise of reference on the subject with which it deals. It was translated into French by Professor Charles Barrois.

Prompted, no doubt, by his own requirements as a lecturer, the Professor directed the publication of an extensive series of palæontological wall-diagrams to illustrate generic characters (1879–1891), which have been very widely appreciated by teachers. To meet a long-felt want, he published in 1895 the “Grundzüge der Palæontologie,” a volume most admirably adapted to the requirements of students, which embodies, though with some revision, the principal outlines of the author’s larger treatise on palæozoology. The translation of this work into the English language was undertaken, with the collaboration of several specialists, by Dr. C. R. Eastman, and thus under American auspices the first part of it, comprising the Invertebrata, was published separately, though with such far-reaching modifications as to render the volume for practical purposes an almost entirely new work. Professor von Zittel himself only lived to superintend the issue of that part of the second German edition which deals with the Invertebrata, but in order to preserve those features whereby, according to his belief, the work would best retain its utility as a student’s manual, he adhered to the scheme employed in the first edition.

A little book adapted to supply the needs of a wider circle of readers had been many years previously published by the Professor, under the title “Aus der Urzeit,” and in this the author attractively described and illustrated the progress of development in the organic world from the earliest times onwards. This work became much in request, and, having passed through a second edition, has for some time been out of print. One other work from the pen of von Zittel calls for special mention. This is his well-known and valued History of Geology and Palæontology, in itself a striking monument of conscientious toil, which demanded several years of steady application in its compilation. The preparation of this volume was a labour of love with the author, whose wide literary knowledge, proficiency as a linguist, and keen interest in tracing out the course of development in the study of these sciences, specially qualified him for such a task. This reliable, comprehensive, and well-written work has been translated into English by Mrs. M. Ogilvie Gordon, and issued in somewhat abridged form. It has with some justification been maintained that in this book, as in so much of von Zittel’s purely scientific writings, the character of the work suffered in a certain degree from the author’s too strictly objective method of treatment; it was not that he lacked the critical or imaginative faculties, but we must rather suppose that the exercise of these was often purposely held in check in the endeavour to ensure an entirely truthful and precise presentation of facts.

Professor von Zittel's ability and industry were rewarded by the bestowal upon him of abundant honours; he received various orders and medals, and was elected an honorary member of numerous learned societies. He became a foreign member of the Geological Society of London in 1889, and in 1894 was the recipient of the Wollaston medal. In 1875 he was made an ordinary member of the Royal Bavarian Academy of Sciences, and in 1899, on the retirement of von Pettenkofer, was chosen to fill the presidency of the Academy, with the position of Conservator-General of the State scientific collections. An honorary member of the Royal Academy of Sciences in Berlin, he became a foreign associate of the United States National Academy of Sciences in 1898, and a corresponding member of the Paris Academy of Sciences in 1900. He was Rector of the University of Munich in the year 1880, and in that capacity delivered an able inaugural address which afterwards appeared in print, entitled "Arbeit und Fortschritt im Weltall." Some time afterwards he was awarded a knighthood, and it is many years since he was made a Privy Councillor.

Rest and change during last year seemed to have warded off the dangerous cardiac trouble with which Professor von Zittel had for a time been threatened, but before he had completely recovered from the effects of an unfortunate accident which befell him last October, he suffered a return of the serious symptoms, and passed away on January 5th, at the age of 64. A large and very representative gathering assembled to pay a last honour to the memory of the man who had so well merited the impressive eulogium which was delivered at the graveside on behalf of his sorrowing colleagues of the Academy of Sciences.

F. L. KITCHIN.

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[The very admirable portrait of Geheimrath Prof. Karl Alfred von Zittel, Ph.D., For. Memb. Geol. Soc. Lond., accompanying this notice (Plate IV), is reproduced by kind permission of the Walter Scott Publishing Company (Limited), Felling R.S.O., co. Durham, and Paternoster Square, London, E.C.; and appeared as the frontispiece to the English edition of Zittel's "History of Geology and Paläontology" in their Contemporary Science Series.—EDIT. GEOL. MAG.]

IN MEMORY OF ALFRED GILLET, an excellent geologist, and a very dear friend of many years, one of the founders of the Street Geological Museum, who died at his residence, Overleigh, Street, Somerset, on the 24th January, 1904, in his 90th year.