

Life and Impact of Johannes Walther (1860 – 1937) – an Earth Scientist of international standing from Thuringia

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Abstract

JOHANNES WALTHER (1860-1937) is one of the founders of sedimentology and paleoecology. Among marine geoscientists, WALTHER is also regarded as one of the fathers of marine geology in Germany. Many of his works were especially popular in Russia and the USA, and were translated in the Russian and English languages. WALTHER'S most important work are the three volumes of "Introduction to Geology as Historic Science" (1893/94) in which he published his law of facies correlation ("Walther's Law"). WALTHER was a follower of the actualistic method, however, he also took into account its limitations. He termed this approach "ontological". Like his former professor and supporter HAECKEL, WALTHER supported DARWIN'S evolutionary theory in his publications.

WALTHER made a classic career in the German university system. After dissertation (1882) and habilitation (1886) at the University of Jena, he worked as a lecturer without salary; since 1890 as titular professor. In 1894, he was given tenure and promoted to be the first Haeckel-professor in Jena. In 1906, WALTHER was appointed the chair in geology and paleontology at the University of Halle/Saale. He retired in 1928 at age 68. During his career, WALTHER visited all continents except for Antarctica. He published 13 textbooks and more than 120 articles in scientific journals. WALTHER had 30 Ph.D.-students, five of which became university professors.

WALTHER was both biologist and geologist. As student of the famous ERNST HAECKEL at the University of Jena, WALTHER focussed on biology at first. Subsequent geological studies led him to the universities in Leipzig and Munich. WALTHER conducted his first research projects after his dissertation at the Zoological Station in Naples, Italy. He investigated modern marine habitats and depositional systems in the Mediterranean and was one of the first to identify the geological significance of calcareous algae. Subsequently, WALTHER travelled to Egypt and southern India and continued his marine studies at the shores of the Red Sea and the Indian Ocean. During these journeys, he began to take interest in deserts as sedimentary environments. Walther's achievements in both reef and desert research include the recognition of the importance of bioerosion in reefs or the significance of wind erosion in the desert. Walther also tackled questions of climate change during Earth history including sea-level change, topics that are highly important today due to their socio-economic relevance.