

The Krantz palaeontological collections from the University of Coimbra (Portugal): a century of teaching and museological activities

Pedro M. Callapez^{1, 2}, Ricardo Paredes³, Fernando Barroso-Barcenilla^{3, 4}, José M. Brandão⁵, Vanda F. Santos⁶ and Manuel Segura⁴

¹Dpto. Ciências da Terra, Universidade de Coimbra, 3000-272 Coimbra, Portugal

²Centro de Geofísica da Universidade de Coimbra (FCT), Coimbra, Portugal

³Dpto. Paleontología, U. Complutense de Madrid, 28040 Madrid, España.r.filipae@gmail.com

⁴Dpto. Geología, Universidad de Alcalá de Henares, 28871 Alcalá de Henares, España

⁵Centro de Estudos de História e Filosofia da Ciência, Universidade de Évora, Portugal

⁶Museu Nacional de História Natural e da Ciência, 1250-102 Lisboa, Portugal

The Faculty of Philosophy was an innovative structure at the moment of its creation, in 1772, as a part of the overall reformation of the University of Coimbra promoted by the Marquis of Pombal (1699-1782), minister of D. José I, King of Portugal. Its original settlement was inspired by Enlightenment ideals and enriched by the creation of Natural History and Physic cabinets, a botanic garden and an Astronomic observatory. Nevertheless, this structural and teaching planning was little changed throughout the following decades, thus becoming progressively inadequate and behind time in face to the new realities of the country. By the second half of the XIXth century, Portugal was following a timid but stepped way into modernization, and these new challenges and some competition by the polytechnic and professional schools of Lisbon and Oporto were imperative for a new reformation of the Faculty, which took place in 1885. These changes included the restructuring of sections, museums and curricula. They also were the

departure point for extensive acquisitions of instruments, models, scientific books, maps and natural history specimens destined to reequip laboratories and classrooms. During this period of relative abundance that persisted until the First World War were made dozens of transactions with European comptoirs specialized in didactic and scientific materials. For the Section of Mineralogy of the university Natural History Museum that was functioning as a close support for several disciplines, it was the awaited and desired opportunity to acquire large collections of minerals, rocks, fossils and models. The director of the section was the notable mineralogist António Gonsalves Guimarães (1850-1919), later assisted by Anselmo Ferraz de Carvalho (1878-1955). Both were involved in the acquisition of several thousands of specimens and large collections of models for the museum, with emphasis for those of the Krantz house from Bonn, Germany. The dealership founded by Adam August Krantz (1809-1872) was one of the most important comptoirs of that time, with several noteworthy catalogues available, and many collections sold to other Iberian institutions, including the official Portuguese Geological Survey and the Industrial Institute of Oporto (Portugal), and the Central University and the School of Mines of Madrid (Spain). The Krantz palaeontological collections held at the University of Coimbra were bought at August 1890, June 1909 and November 1913, respectively by the amounts of 1189,00, 1884,00 and 627,50 D.M. They originally included 686, 961 and 92 specimens of invertebrates, fossil plants, and a few vertebrates collected from the most well-known European sites, but also from North-America, Brazil, North-Africa and Australia. They were organised for taxonomic and stratigraphic purposes, and to be an overall synthesis of the Phanerozoic periods and main fossil invertebrate groups. From them also stand out a noteworthy record of the classical XIX century stratigraphy of West Europe. The Krantz palaeontological collections were widely used in the classrooms of the faculty, contributing for the formation of several generations of Natural Sciences teachers and many other professionals. The surviving hundreds of samples are mixed with similar specimens bought from other comptoirs and conserved in a reserve room of the Science Museum of the University of Coimbra, awaiting the finalization of a long conservation work destined to confer them their original relevance.