CURRICULUM VITAE RESUMIDO

Antonio Checa is full Professor of Paleontology at the Department of Stratigraphy and Paleontology, University of Granada, Spain. He graduated in 1979 and received his PhD in Geology in 1984 from the University of Granada. He became Assistant Professor in 1987. Since 2000 he has been Full Professor of Paleontology at the same university. His PhD subject was on the evolution of Upper Jurassic ammonites and he later changed to the study of the constructional and adaptive morphology of molluscs. Some 20 years ago he began to be interested in the biomineralization of molluscs, which is the group with the greatest diversity of aragonite and calcite microstructures. With time, this study has extended to other groups such as brachiopods, foraminifers, and bryozoans. His approach is relatively wide, including the interaction of the soft parts with the shell, the crystallography, and the physics underlying the formation of such biomineral aggregates. The main goal behind this research strategy is to determine the physical and biological controls acting on the organization of the shell microstructures, i.e. the fabricational strategies followed by the organisms, as the way to evaluate the possibilities for a future biomimicking of such highly functional hard biomaterials. As a paleontologist, he is also interested in the microstructures secreted by the earliest molluscs (appeared some 540 Ma), and how these may have changed with time. These evolutionary patterns are later contrasted with hypotheses such as the increasing levels of predation throughout the Phanerozoic or the differences in the rates of diversification of groups with particular microstructures.