

REMARKS TO POST-MORTEM BEHAVIOUR OF ORTHOCONIC SHELLS

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Post-mortem behaviour of orthoconic shells is the subject of the discussion. Contrary to Reyment (1958) and some other authors (e.g. Ferretti and Kriz 1995) I suppose that after the decay of the soft body, the shells in the majority of orthocones with primarily developed cameral deposits had apex heavier than the apertural part (comp. Turek 1983). After a generally rather short period of post-mortem transport, these orthocones were sinking with the axis of the shell oblique or almost vertical. In a shallow water below wave base, where cephalopod shell accumulated forming so called orthoceras beds, many shells could withstand in contact with the sea bottom in an oblique or almost vertical position (with the aperture oriented up) for rather long time. Water in these depths could penetrate gas chambers very slowly. In such position widely open aperture could 'catch' other cephalopod shells or graptolites sinking to the bottom. So called telescoping one shell into another, rather frequently occurring in some cephalopod concentrations, special cases of occurrence of graptolites within body chamber where the tips of rhabdosomes are in the same orientation as the apex of a cephalopod shell and many examples of complete overgrowth of cephalopod shells by epizoans, can be simply explained by this way. The last case was often interpreted as overgrowth of living cephalopods though there are some serious reasons not to believe to this interpretation. As the examples considered can be mentioned e.g. rather uniformly orientated clusters of cornulitids (*Conchicolithes*) from the Upper Ordovician of Barrandian Area (with the apertures oriented conformable with the aperture of the host shell) heavily encrusting cephalopod shells along the whole outline as well as bryozoans *Monotrypa* completely covering the surface of the shells.

Cases of obliquely or vertically deposited shells discussed e.g. by Holland, Gnoli and Histon 1994 as well as character of the deposition of cephalopod shells in Branfk facies type (*sensu* Ferretti and Kriz 1995, Kriz 1998) observed by the author on more than 60 square meters of polished Ludfordian limestone planes (used in past for decorative purposes in one recently restored building in Prague) can support this idea. These samples also indicates that in the environment, in which these deposits were formed, the implosion of the shells (caused by hydrostatics pressure) did not played an important role.

References

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