Epibiosis on ammonoids of the Opalinus Clay (Aalenian, S. Germany): Implications for paleoenvironment

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The Opalinus Clay, an Aalenian formation overlying the infamous Posidonia Shale, has yielded a number of ammonoid fossils with evidence of epibiosis. A small collection of these *Leioceras* specimens, with epibiotic oysters, was examined to determine whether the ammonoids were encrusted during life, or only after death. This distinction acted as a signal of oxygen content in the paleoenvironment. Evidence was derived from the frequency, distribution, and angular position of the oysters on the several ammonoid specimens. The "Benthic Island" model is addressed as a possible candidate, and the "Stagnant Basin" model (sensu Seilacher and Kauffman) is commented upon as a possible scenario in which such epibiosis could occur.