

ABSTRACTS



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ANTHROPOQUINAS: RECENTLY FORMED SEDIMENTARY ROCKS WITH TECHNOFOSSILS IN SOUTHERN BRAZIL

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Technofossils are preserved human artifacts that range from near-continental (urban settlements), small (e.g. bottles, pens) to microscopic (fly ash particles). Though more common in terrestrial environments, they also currently have wide distribution in marine environments. Litter, especially plastic, can be found in virtually any environment. This material has been described in the literature as an anthropogenic component of marine and continental sediments and, therefore, it is expected that future sedimentary rocks present human artifacts – technofossils – which may be used to characterize human behavior. There are few examples of technofossils described in association with geological material. In southern Brazil, the recently described anthropoquinas are an example of technofossils cemented with bioclasts and sediment. The objective herein was to describe these anthropoquinas considering their technofossils. Six samples of anthropoquinas were collected from the southern coast of the state of Rio Grande do Sul, Brazil. They presented different technofossils (metal bottle caps, ship nail, plastic earring and plastic fragment) and composition (lithic and biogenic fragments). All anthropoquinas presented bioclasts, including a well-abraded fragment of *Glycymeris longior* and a well-preserved shell of *Macra isabelleana*. Energy Dispersive X-ray Spectroscopy (EDS) analyses were conducted in two samples showing different types of cement (calcium-rich and iron-rich), reflecting two possible origins for the cement: seawater and the samples themselves. The type and state of preservation of the technofossils found suggest these anthropoquinas were probably formed during the past decades. These rocks are concerning and reflect how deeply human behavior influences natural compartments. Moreover, this shows that technofossils may be preserved over geological time and used to correlate and characterize deposits as technostratigraphical markers of human behavior and influence. Short-term (decades/centuries) preservable items may help current scientists to characterize Anthropocene deposits, while those preservable over geological time scales may contribute to the far-future signal of this epoch.