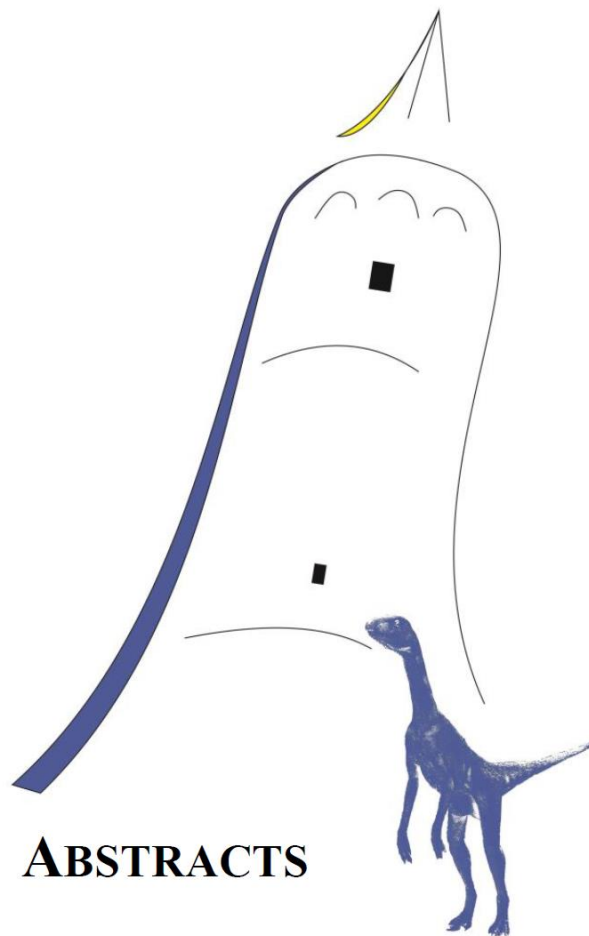


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ABSTRACTS

Taphonomy of dicynodont bones from the Lipie Śląskie clay pit at Lisowice (Upper Triassic, Norian-Rhaetian; Upper Silesia, southern Poland)

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Eighteen dicynodont bones (Reptilia, Therapsida), collected from six bone-bearing horizons, were examined in order to decipher their taphonomic histories. The examined remains have been subdivided into two main groups. The first group comprises bones with strongly abraded cortex, or none at all. Internal voids are filled with dark grey silt accompanied by larger quartz grains (the first generation of infillings), as well as pyrite and spar (the second generation). The infillings occurring in more external voids (mainly secondary osteons) are frequently truncated, which suggests that the remains may have been redeposited to the final burial site when their pore spaces were already filled and cemented.

Bones belonging to the second group show fewer effects of abrasion and reveal a specific succession of void infillings. Dark grey silt with dispersed pyrite, yellowish fibrous calcite, dolomite (in some cases), spar drusy mosaics and sulphates (mostly barite) occupy marrow cavities, inter-trabecular spaces and erosional rooms. Occasionally, strontianite has been detected in cracks. When fibrous calcite is present on the external bone surface, it grows on the abraded bone tissue and/or truncated silt infillings occupying osteons. This suggests that fibrous calcite (and later generations of diagenetic minerals) crystallised in the final depositional site.

The above-mentioned features provide evidence of the fact that each of the two groups of examined bones had been primarily buried in different environments, and subsequently were exhumed and abraded during redeposition at the final place of burial.