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Seminario

Dinoichnlogy 2.0. Dinosaur ichnology in the 21st century

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Abstract:

Dinosaur ichnology has been undergoing a major modernisation in data acquisition techniques over the past few years. Different research groups have been testing several methods for the acquisition of three-dimensional data since the late 1980?s, but it has only been in recent years that major developments have led to increased resolution and ease of use, accompanied by a fall in cost that has made digital data acquisition available to all.

However, with this new-found ability with which to digitally document fossil tracks, 3D ichnology is now facing new challenges: first and foremost is how to interpret the 3D digital representation of a track.

The information that can be obtained from a digital specimen is often superior to the real object, as it is easy to manipulate, create false-colour images, cross-section or produce contour-lines. Although such data are inherently objective, deciding which data should be used, e.g. for metrics such as track length and width, remains entirely subjective and dependent on the investigator. There is therefore a strong need for standardisation in interpretation of digital data.

At present, but especially in the coming years, 3D digital ichnology will become as popular as classical surveying methods, and sharing ichnological data through the internet will become the norm, favouring quantitative approaches to the morphological analyses which would be at the base for a higher understanding of the taxonomical variations among dinosaur ichnites.

But, are we sure that classical methods are completely overtaken? Or is there any good in these ?analogic? approach to vertebrate fossil footprints?

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