## Ichnofossil/ Rusophycus (C12)

Provenance : France; Loire Atlantique, Sainte-Aubin-les-Chateaux Formation : ? Fm Age : Upper Ordovician

**Details** : The difference between cruziana and rusophycus? Ah...perhaps first a word about "Ichnofossils". Those are the trails and traces left behind by trilobites (and many other creatures living on the seafloor) as they moved, grazed, or rested upon the muddy or sandy bottoms of the sea. Depending on the action, the ichnofossil gets a different name.

So, let's start with the trilobite in a resting position, which usually includes a certain amount of burial. These are called Rusophycus...and it would appear that the majority of pre-Devonian ones were in fact predatory traces (with the trilobite burrow intersecting a worm's burrow), whereas younger ones (Devonian and beyond) included more actual resting places. Traces left by the animal creeping along the sediments (just slow movements, or even grazing), or more complex forms attributed to "sieving" surface sediments, are called Cruziana. Traces left by rapid walking (or even swimming) across the sediment surface, are known as Protichnites and Diplichnites.

Additional funky notes of interest : 1) occasionally the rusophycus will still contain the trilobite which made it, the latter being buried by surprise (for instance, by an underwater earth quake or sediment movement). 2) The ichnofossils are not always made by trilobites. With several criteria employed in an effort to confirm that the trace fossils were made by trilobites, other arthropods, such as aglaspids, xiphosurans, euthycarcinoids, or other organisms that lived at the same time as trilobites, might equally have produced these traces. [info retrieved from *The Back To The Past Museum Guide to Trilobites II* (Bonino & Kier, 2024)]

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Above a general view on the ichnofossil from dorsal perspective...

(hum...or should I rather say from ventral perspectivet? I mean, the ichnofossil was made on the underside of the trilobite!),

...the images on next page were made from different angles.

