REPRINT FROM DINOSAUR TRACKS AND TRACES

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HISTORICAL PERSPECTIVES

"Not a track remains," says Dr Buckland, "or a single hoof, of all the countless millions of men and beasts whose progress spread desolation over the Earth. But the reptiles that crawled upon the half finished surface of our planet, have left memorials of their passage enduring and indelible." And we may add, that the proudest monuments of human art will moulder down and disappear; but while there are eyes to behold them, the sandstone of the Connecticut valley will never cease to remind the observer of the gigantic races that passed over it while yet in an incipient state."

Rev. Edward Hitchcock 1844

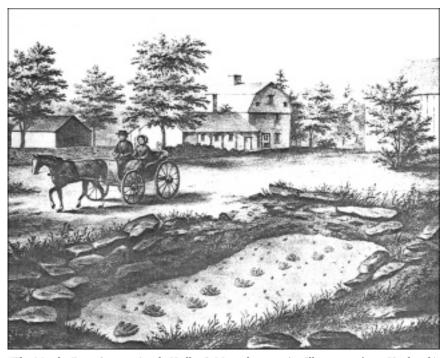
The markings in question appear to have been observed by several persons at Hastings; but they have not been found consecutive.

They are of large size ... measuring sixteen inches in length; but there does not appear ... any decisive evidence as to their origin.

Rev. Edward Tagart 1846

We may therefore be allowed provisionally to refer these tracks to the *Iguanodon*, who certainly wallowed in the Wealden waters and frequented their sand-bars and mud-banks – who had a great three-toed foot – and who ... may have ... planted his footprints uniserially, leaving as his spoor a single row of thick-toed trifid imprints ...

T. Rupert Jones 1862



"The Moody Foot Quarry, South Hadley," Massachusetts. An Illustration from Hitchcock's monograph on the Connecticut Valley Triassic footprints.

Dinosaur tracks were observed by prehistoric peoples who evidently regarded them with interest and sometimes carved their own symbols alongside tracks (Leonardi 1984). However the science of vertebrate ichnology dates back only a little over 150 years. We know that dinosaur tracks were observed by Pliny Moody as early as 1802, in the Connecticut Valley, and described by Reverend Edward Hitchcock, Professor of Natural Theology and Geology at Amherst College, in 1836. Although Hitchcock is famous for assigning many to *Omithichnites*, or stony-bird tracks, he and his contemporaries also recognized the affinities of many other trackmakers, as in *Sauroidichnites* (see quotation above). The accompanying figure of *Otozoum moodi* from the original 1802 locality represents a problematic trackmaker assigned by Hitchcock to the Amphibia and by subsequent workers to the Prosauropoda and the Pseudosuchia.

In Europe a different situation existed. By 1836 non-dinosaurian reptile tracks of Permo-Triassic age had already been described, and Cretaceous dinosaur remains had been described as fossil reptiles. By 1863, the year of Hitchcock's death, Cretaceous tracks from England had been discovered, scrutinized and assigned with some confidence to *Iguanodon* (see quotations by Tagart 1846 and Jones 1862). Although the class Dinosauria had been established in 1841 by Richard Owen, Hitchcock never lived to see a pre-Cretaceous dinosaur described or realize that skeletal remains would eventually be unearthed in the track bearing Jurassic strata he knew so well.

In the latter part of the 19th century, when a wealth of dinosaur skeletal material was unearthed, the study of fossil footprints was all but abandoned. Even in the early part of the 20th century, when the rate of discovery of dinosaur skeletal remains slowed somewhat, the study of footprints was revived as a parttime activity by only a few workers, notably Richard Swann Lull, Charles Sternberg, Roland T. Bird and Barnum Brown. Consequently the late 20th century revival of interest in dinosaur tracks is unprecedented and long overdue. Although vertebrate ichnology is breaking new ground in this new age of dinosaur research, after a century of neglect, ichnologists still rely on the valuable contributions of many of the early contributors to the field.

Reference

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