

LESSONS FROM PALUXY

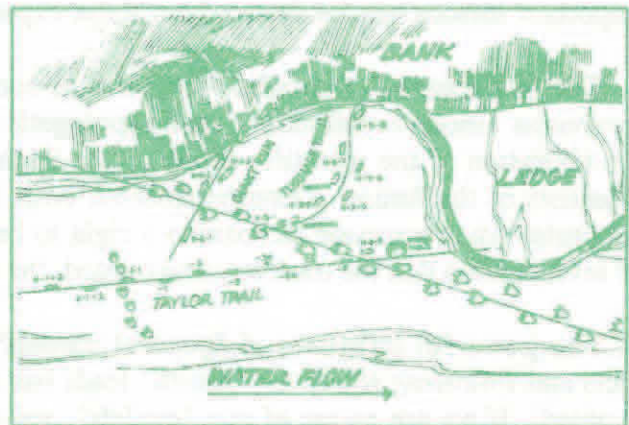
It was about the year 1970 when a friend pointed out to me the significance of finding fossil human footprints alongside those of dinosaurs. "It requires only one human fossil to be found in Cretaceous rock", he said, "and the evolutionary timescale is devastated". My friend had been excited by the account of discoveries at Paluxy, Texas, where human and dinosaur prints were reported to exist alongside each other. Whitcomb and Morris's book *The Genesis Flood* (1961) brought the prints to the attention of thousands of people; Wilder-Smith reported on the trackways in *Man's Origin, Man's Destiny* (1968) and supported the man-track interpretation; Films for Christ produced the documentary *Footprints in Stone* (1973) - which was perhaps the high point in the history of these tracks. I was sufficiently impressed by the film to have organised several showings of it. Others got involved in excavating trackways and an appeal was launched to construct a creation evidences museum in the area.

Despite all this, there have always been some problems with the trackways. Documentation never advanced beyond the popular level, and technical reports suitable for independent analysis were never produced. Furthermore, creation-science activists seemed content to use the evidence to oppose evolutionary schemes without giving much thought to how the tracks could have been formed within a coherent diluvialist scenario of Earth history.

Some cautionary words were voiced, but the only creationist article to challenge these interpretations was by Neufeld in 1975. Writing in the American journal *Origins*, he explained why the prints were not good evidence for the coexistence of man and dinosaur. Unfortunately, he failed to explain how the film *Footprints in Stone* had got things so wrong - leaving readers in considerable confusion!

John Morris did much to recover the man-track interpretation in his book *Tracking those incredible dinosaurs* (1980). He devoted many pages to problems of forgery, mistaken identity and so on, and concluded that "man and dinosaur walked together at the same time and place." Furthermore, Morris did attempt to formulate a Flood-scenario for the formation of the tracks. Criticisms of the book were published in *The Journal of Geological Education* and the journal *Creation/Evolution*, but Morris put up a convincing defence of the man-track interpretation. After responding to criticism, Morris declared:

"My interpretation of the Paluxy River data, which is based on 10 years of field work and geologic study, remains that man and dinosaur lived at the same time and place. All told, the evidence, in my opinion, is quite compelling".



By 1986, however, a different picture had emerged, largely stimulated by the research of Glen Kuban. Tracks which once appeared man-like were changing their appearance, and it was clear that the earlier interpretations were seriously astray. It was fitting that a retraction should be published by the Institute for Creation Research - which through its staff had taken the lead in bringing the tracks to the attention of the public. John Morris wrote:

"Due to an unknown cause, certain of the prints once labelled human are taking on a completely different character. The prints in the trail which I have called the "Taylor Trail", consisting of numerous readily visible elongated impressions in a left-right sequence, have changed into what appear to be tridactyl (three-toed) prints, evidently of some unidentified dinosaur".

"In view of these developments, none of the four trails at the Taylor site can be regarded as unquestionably of human origin".

" . . . it would be improper for creationists to continue to use the Paluxy data as evidence against evolution . . . "

At the same time, Films For Christ withdrew *Footprints in Stone* from circulation and declared its willingness to cooperate with the Institute for Creation Research in further investigations of the site.

Kuban's work was presented to a Christian readership in considerable detail in *Origins Research*, the journal of the US organisation: Students for Origins Research. He has also contributed technical papers to scientific journals and conferences. One of his main findings is that the trackways are the marks left by dinosaurs walking in plantigrade mode. That is, the bones behind the foot, which are normally oriented away from the ground, drop - leaving elongate tracks. Plantigrade tracks were not recognised prior to Kuban's research. Research on the bones of dinosaur feet shows that they are never naturally plantigrade.

The 2nd International Conference on Creationism in Pittsburgh (1990) provided an opportunity for the subject to be discussed further. There are several people actively working in the area who advocate the authenticity of some alleged man-tracks. However, in their presentations, they explained that human footprints are only found within dinosaur tracks. That is, the humans stepped in tracks that were already made by dinosaurs. Kuban attended this presentation and presented a coherent response. I made no systematic investigation of opinion, but everyone I spoke to at the Conference was convinced that Kuban was right in his analysis.

Research continues, but there is no convincing evidence to support the idea of man-tracks in the Paluxy rocks. There will always be people who wait in hope that irrefutable evidence will one day emerge from Paluxy. However, most of us have to move on in our thinking. It seems to me that at least two important lessons can be drawn from these experiences.

1. **The importance of careful, critical and comprehensive research.** There seems to be a growing awareness among creationists that an apologetic directed primarily towards the general public leads to the alienation of the scientific community. Such an apologetic captures publicity, but it does not build scientists of the future. Genuine research costs time and effort, and it gains the respect of others who recognise when someone has earned a right to be heard. Although Morris was approaching the quality of investigation that the trackways warranted, the detailed technical investigations were never carried out.

2. **The powerful influence of "general models".** The idea of scientists sitting down before "simple" facts and following wherever "nature" leads has always been a myth. A research framework cannot be avoided. If we are aware of our "models", we are more likely to guard against gullibility, jumping to conclusions, an uncritical attitude, and so on. Creationists have been predisposed to recognise some Paluxy tracks as human, and this has allowed popular books and a film to substitute for properly researched academic papers. This criticism does not just apply to creationists. Consider the title of a 1983 response to creationist claims: *Dinosaur tracks, erosion marks and midnight chisel work (but no human footprints) in the Cretaceous limestone of the Paluxy River bed, Texas*. In reality, the tracks under dispute proved to be most unusual (of plantigrade form) and their true nature eluded the writers of that article. Their commitment to their own cause prevented them from approaching the tracks with an open mind and recognising that there were some very unusual features to be explained. In other ways, this predisposition continues to this day: despite growing evidence that catastrophic processes were involved in forming most geologic strata, there is no sign that this has affected the interpretation of the Paluxy limestones. However, the days may come when the very existence of fossilised tracks will be understood as demanding catastrophic deposition, and it may be that the plantigrade tracks will be reinterpreted as a distress behaviour in dinosaurs suffering from extreme exhaustion.

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