Coprolite Diggers

Original source unknown.

The discovery that certain types of stone was good for the growing of crops was discovered during the eighteenth century after a Suffolk farmer spread gravel over his land. Analytical chemists studied the stones and fossils, found a way to dissolve them and make a powdered fertiliser which could be then used on the land.

Coprolites are known locally as ‘dinosaur’s dung’, but examination of the fossils showed an important element was the remains of marine life. The chemical quality was important and coprolites found in Cambridgeshire contained up to 60% phosphates.

At the height of the boom during the late nineteenth century a great deal of money could be made from the extraction of the coprolites from the land and turning them into fertiliser. Cambridge City Council received about £10,000 from their beds on Coldham’s Common. This money was used to help in the building of Fulbourn Mental Hospital and the Guildhall. Other entrepreneurs included well known local names; William Coulson, John Ellis, Samuel Fison, Fred. Hart, John Chivers, Charles Bidwell, Carter Jonas and Clement Francis.

The fossil bed in Cambridgeshire ranged from Soham in the north-east and curved around Cambridge southwards down to the Bedfordshire and Hertfordshire borders. There was a large bed in the area between Fen Ditton, Horningsea and Bottisham.

The average layer of coprolites in the soil was ten inches, but in some places could be up to six feet deep. The extraction of all the coprolites was labour intensive and dangerous. First of all the topsoil had to be removed to one end of the field. A stepped trench would be dug if the coprolites were at some depth, to stop the sides falling in on top of the miners, and the coprolites removed. The whole field would be extracted trench by trench, backfilling as they progressed, then the topsoil was replaced over the fields be the contractors if the field owner was lucky. The largest number of workers in one field Mr. O’Connor told us was four hundred, including women and children.

Once dug, the coprolites were sent to a washing mill to clean off the sticky gault clay. At the beginning coprolites were washed in a box by the river, but increasingly more sophisticated machinery was used, including a roller washer where the coprolites went into a revolving cylinder and came out clean at the other end. Many of the mechanical parts for this industry were made by the Cambridge firm of James Headley.

The cleaned fossils then went to the sorting sheds where the women would remove all pebbles and any other rubbish. The work was a thankless task in the winter when clothes froze solid due to all the water that was present.

Men could earn between £2 and £3 per week compared to the agricultural labourer’s 8/-, wages for boys averaged 8/- to 9/- for days work and for girls at ten years of age the rate was 7/-. More could be earned on piece work. These young workers were described as indecent, badly educated – the “refuse of society”.

After grinding, the fertiliser was distributed throughout England and abroad, for example, to France to help in the fight against the vine disease Phylloxere.

But the boom could not last, seams became exhausted, others were too deep to be developed economically and could not compete with cheap imports from the American continent and Africa.

The ribbed effect of the diggings can be seen quite clearly from the air but only with great difficulty from ground level. Where the land was not refilled and topsoil replaced, the trenches would fill with water and these can still be seen on land between Quy and Horningsea.