III.

NOTE, ON EXAMINING THE CONTENTS OF AN OLD STAGNANT POOL AT CARLUKE. By D. R. RANKIN, Esq.

On one of the scorching days about the middle of July 1876, while a foundation was being dug for a house within the old boundary of Kirkstyle, and within 100 yards southward of the Old Kirk Steeple, Carluke, peat-like matter, 2 feet thick and 6 feet from the surface was come upon. Portions of small trees, leaves, twigs, grass, moss, &c., all decayed and mingled, formed the principal part of the mass, in which were found bones, teeth, shells, insects, &c. But what was more interesting, the remains of fabricated articles were brought to light, which were not of the type or pattern of recent times.

The open trenches for the foundation alluded to, from east to west, exposed the margins of what had probably been a stagnant pool, from 12 to 14 feet wide, extending north and south beyond these trenches. The present aspect of the surrounding ground, however, did not favour the supposition that a marsh or pool, anything but limited in extent, could, in such a position, have existed. From the absence of those plants, the growth and decay of which constitutes what is properly called peat; and from the presence of substances brought together by long-continued accumulation of floated, or mechanically added matter, arrested and consolidated in stagnant water, it may be assumed that the nature, if not the extent of the pool is sufficiently indicated. The shells are of the oyster, the bones and teeth are of our common domestic animals; a single plum-stone was found; the mass, also, contained the hard cases of water beetles and other aquatic insects, the denizens proper to such a homestead in its earlier condition. The bones and twigs in particular are covered, and in some instances seem partially incorporated with a substance, white, when first exposed, but of blue colour after free contact with the atmosphere, soft and pigment-like when found, but when dry, easily rubbed to fine powder. This substance was eliminated and aggregated, no doubt, from the compound mass in its fluid state.

The chemistry of long silted up animal and vegetable matter is always interesting—the story, so to speak, of decomposition, and of various combinations. The blue-coloured substance, in this instance, is the result of phosphorous coming into contact with iron in a certain state, constituting what is called phosphate of the protoxide of iron—strictly speaking, the components of the mineral named Vivianite—which was abundant, and which tinged everything more or less. This substance has been found in the fossilised antler of the stag, and it is likely to be met with in all stagnant accumulations of organised matter of considerable standing, in which iron may be present.

But the point to which the attention of the Archæologist is more particularly called is that manufactured articles of wood, probably domestic dishes of a long past day, were also found. The larger of two, of oval form, was 14 inches long, by 10 inches wide at the widest part, and 5 inches deep at the deepest part, having a rounded overlaid rim; the other was $5\frac{1}{2}$ inches long, by 4 wide at the widest part, including the flat soup-plate-like rim, and about one inch deep. Both were greatly decayed, almost beyond hope of preservation, but with care the smaller specimen has been restored and kept together in such a way as to afford a good idea of its original character; both have been cut from wood side-ways, and the largest had originally been strengthened by bands of copper, or had been repaired with straps of that metal fixed with copper nails, clipped seemingly from the ends of the hoops. These extemporised nails had been driven into small slits in the hoops, till the thick end was arrested, which part had been folded down so as to form a head or rivet. This is an early example of a somewhat modern invention of nailer-craft, the cutting or clipping of cold iron into all sorts of nails.

Antiquity is indicated by the nature, contents, and products of this bed of accumulated and decayed or decaying matter, but it may not be easy to fix a date.

Specimens of the Vegetable Mass. Contents and Products.

1–3. Vegetable matter, from upper, middle, and lower parts of section.
4. A plum-stone.
5. Part of a bone covered and tinged by phosphate of iron.
6. A tooth of a ruminant partially covered with the same substance.

7–8. Valve of oyster shell, and fragments.
9. Fragments of beetles.
10. Phosphate of the protoxide of iron.
11. Dish, warped in drying, but retaining its shape.
12. Fragment of dish, showing upper edge, and part of copper hooping, found connected with it by peculiar copper nails.