A medieval iron smelting site at Stanley Grange, Derbyshire

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ABSTRACT: Rescue excavation by Trent & Peak Archaeological Unit on behalf of RJB Mining (UK) Ltd has recorded the remains of part of an extensive medieval iron smelting site at Stanley Grange, Derbyshire (SK 427406). Eight furnaces of late-13th to early-14th century date were excavated; it is suggested that the majority of the furnaces may have functioned using induced draught assisted by orientation to the prevailing winds. This paper reviews the results of the excavation and initial scientific analysis of the slags, and offers a preliminary interpretation of the excavated furnaces. It is presented for publication as a contribution to the debate about furnace types and function and with the hope of provoking discussion on the interpretation of the excavated evidence.

Introduction

Stanley Grange lies on the south side of the valley of Stanley Brook, a tributary of the River Erewash, and is surrounded by low undulating hills, which rise to c 120m OD. Figures 1 A–D show the location nationally and locally. The geology is predominantly Lower Coal Measures (Fig 1B), which provide a source of Black Rake ironstone (Frost and Smart 1979).

The Grange formed part of extensive estates within Stanley and Dale parishes granted to Dale Abbey during the 12th and 13th centuries AD. The extent and location of the land forming these estates are now difficult to trace; however, they are likely to include land exempt from tithes in the tithe award of 1846, which includes all of the land within the present site boundary (outlined in Fig 1D). No trace of the medieval buildings of Stanley Grange survives, though its focus may have been close to the farmstead now called Stanley Grange, the post-medieval fabric of which includes much re-used masonry.

Stanley Grange and Dale Abbey: historical summary

Dale Abbey was a house of Premonstratensian canons founded about 1200 AD, but with a complicated history of failed earlier foundations by this and other orders (Saltman 1966). During its life the Abbey acquired widespread land, including the three adjacent granges at Stanley, Boyah and Ockbrook (Littlehay Grange; Figure 1C). The growth of Dale Abbey, and transactions of land-ownership associated with its growth, were documented both in the abbey cartulary (Saltman 1966) and in Thomas of Muskham's 13th-century Dale Chronicle (Saltman 1967). The grange at Stanley may have been set up as early as the 1180s when Stanley Park was granted to a group of Premonstratensian canons from Tupholme in Lincolnshire, whose attempt at creating a community founded in 1192. A more secure context is provided by numerous 13th-century grants of land in and around Stanley, which are recorded in the cartulary (Saltman 1966, 45–62: the first 28 charters essentially relate to land in Stanley granted to Dale Abbey by various individuals). However, there is no mention of Stanley Grange in the Papal Taxation Roll of 1291, which omission might suggest that it did not exist at that time (Colvin 1939, 142). The first certain mention of the grange was not until the rule of William Horsley, Abbot from 1332–1352, when the Chronicle records the addition of a stone chamber to the existing buildings of Stanley Grange (Saltman 1967).

Documentary sources relating to Dale Abbey make no direct reference to iron working at Stanley Grange or at any other of the abbey's properties. There are, however, references to activities and resources associated with iron working in the cartulary. These include numerous