The elusive Walloon finery forges of Liège

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ABSTRACT: In the Walloon forge there were two hearths, the finery, for decarburizing cast iron from the blast furnace, and the chafery for re-heating iron during forging into bars. The use of Walloon forges began in the 15th century and by 1600 they were recorded all over Wallonia (the modern francophone southern Belgium and Luxembourg), where they continued in use until the 19th century. However, south and south east of Liège there was a local contrast: in the basins of Franchimont and Durbuy 19th-century Walloon forges were less common, most ironworks combining the finery and chafery operations in a single-hearth ‘fourneau et marteau’. Hansotte explained the local use of these single-hearth (‘Comtois’) forges by replacement by French decree (1807–1811) in order to save fuel. It is shown here that single-hearth working similar to the German ‘Hütte und Hammer’ had long been common in Franchimont and Durbuy. This is emphasised by the difficulty that the Liège entrepreneurs who set up forges in Sweden in the 1620s had encountered in recruiting specialists in multi-hearth working from their locality.

Introduction

The decarburisation of cast iron in the finery forge can be divided between two traditions. In the Walloon forge, the finery hearth (or hearths in the case of double-fineries), where decarburisation took place, was separate from the chafery, where the decarburised iron was re-heated before and during forging into bar. In other forges, named ‘Hütte und Hammer’ in German, and ‘fourneau et marteau’ or ‘Forge Comtois’ in France, a single hearth was used for both stages.

The Swedish industrialist Reinhold Angerstein visited John Hanbury’s works at Pontypool in 1754. Because he was acquainted with the Swedish Walloon ironworks in Uppland, he at once recognized the forge plant at Pontypool as being Walloon in design, and told the proprietor that ‘he did not have to be so afraid of showing strangers his methods of manufacturing, which in any case had originated in Liège and were brought to England from there’ (Berg and Berg 2001, 163). But Angerstein himself was unaware of the fact that the Walloon method did not originate in Liège. Hanbury and his workers probably knew even less history, and a Walloon origin of English forges was not among the few facts about the early history of English iron discussed by Harry Scrivenor in his History of the Iron Trade (1854).

The origin and spread of the Walloon forge

The earliest Walloon forge (afinerie) so far detected remains the one built at Vaux in 1445–6, in the extreme north of the duchy of Bar, on the border of the Walloon area. Further south, in the duchy of Burgundy, finery bellows were mentioned at the monastic forge of Bèze in 1448, and documentation of 1449 shows that this forge then had a double finery. By 1455 even the forge at Précy in Nevers (where in 1437 the mention of only its chaufferie suggested single-hearth fining) was also equipped with a double finery.

The first known finery in Wallonia proper was une roellette pour affiner fer which the duke of Burgundy’s receiver-general authorized Pierchon de Jausse to build at a new hammer mill near Jausse-les-Férons in the county of Namur in January 1450 (AGR, CC 1002, f. 182). Between 1450 and 1460, rolettes pour affiner le fer were installed at forges in both Ermenton and Acoz, a further marteau, forge et affinoir was mentioned at