

AN EARLY BARMOTE COURT DISPUTE AND SOME FACTS RELATING TO FLOTS, FLOATS, FLATS AND PIPES

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Abstract: Derbyshire lead miners used the words flot (fflot), float, flat and pipe indiscriminately. A flot/flat could refer to alluvial, residually weathered or strata-bound ore deposits whilst floats appear to relate only to the alluvial and residually weathered varieties.

A Barmote Court dispute dating from 1669, held at Hazlebadge, near Bradwell, concluded that flots and pipes were identical and that both should be freed by square measure meers. Flats were similarly treated by the Low Peak articles dated 1665, but in this latter case no contemporary records mention freeing square meers.

INTRODUCTION

The opening session of the International Mining Law History Conference, held as part of the 700th anniversary celebrations for the 1288 Quo Warranto, was chaired by the writer, whose brief address contained a reference to setting out meers of ground in flat-works and the apparent absence of entries in Barmasters' books relating to such events (Rieuwerts, 1988).

A passage in Hopkinson (1644) and the discovery of a previously unknown mid 17th century Barmote Court dispute (SCL.Bag.702) have led to a re-examination of the available evidence regarding the nature and definition of flats, flatworks, flots, floats, float ore and their relationship to "pipe-type" deposits.

FLOTS AND FLATS IN 17th AND 18th CENTURY DERBYSHIRE

Derbyshire lead miners used more than a dozen words to describe various forms of ore deposit encountered in their daily work, (e.g. Hooson 1747). Terminology was imprecise and confused and there was no attempt at standardisation. The most familiar terms, all of which are still in regular use are, rake, scrin, string and leading, relating to vertical or near vertical fissure fillings, whilst pipes and flats are essentially horizontal strata-bound occurrences. Less familiar terms include the ambiguous flot and float workings.

The word pipe covered a whole variety of mineral deposits, cavern linings and fillings, alluvial or glacial melt water reworking of the latter, early mineralisation vughs, replacement deposits and mineralisation between bedding planes. All "pipes" were distinguished by limited vertical range and had, as Hooson stated:

"a hard Roof and Sole".

Flats, so named in Derbyshire, were comparatively rare and Farey (1811) could find but three examples. There were others that he missed, but clearly much mineralisation which today would be regarded as being of "flat-type" and/or replacement was referred to by the old miners as a pipe.

Mining documents refer also to flots but the meaning is often obscure and may signify either alluvial and residually weathered occurrences or again the anomalous "pipe-type" deposit. Floats and float ore, refer only to the alluvial or residual varieties. Float ore was sometimes called "potato ore".

Hopkinson (1644) in a lengthy treatise on the laws and customs of the Derbyshire lead mines, gave a clear definition of a flot, float or flatwork.

"It may be conceived that all Lead Mynes are either veins or flots. And that all veins are either Rakes or pipes - a flot or flatwork which dilateth itself and spreadeth in Breadth without any known Bounds is no vein. - A fflot or flatwork - spreadeth itself all abroad Lying near the Grass and Green Earth and hath neither Roof nor known skirts to Limit and bound the same -."

A century later Hooson (1747) related that a Flot or Flat

"is neither Vein, Rake, Pipe or Scrin but a Place that hath both length, Breadth and Thickness, but all uncertain."

These descriptions obviously relate to alluvial and residually weathered ores, the latter found in the zone of sub-soil and weathered rock above a vein. Float ore seems to have retained this original meaning, but flots or flats could also refer to pipe-type deposits, though the double interpretation appears to have been confined to that part of the ore-field north of the Wye.

The Low Peak articles and customs dating from 1549 and 1557 (R.A. 1645), do not mention flots or flats, neither do the High Peak articles of 1601 (Bar. Coll). However by 1665 the Low Peak customs (Hardy 1748) relate that a meer contained,

"in a Flatwork fourteen yards square"

Hooson confirmed that miners measured flots by Quarter-Cord.

A different definition to those given by Hopkinson and Hooson must be applied to a case which was heard at the Hazlebadge Great Barmote Court in 1669 (SCL. Bag. 702). The dispute arose because a definition was required as to how rakes, pipes and flots were recognised in the Lordship,

how meers should be set out in each and how they had been laid out historically. The earliest known Articles concerning lead mining in Hazlebadge Lordship date from 1630 (DRO. L1289, Rieuwerts), but they do not mention flots, only rakes.

In 1669 the Barmote Jury were asked to enquire whether or not the grooves lying in Chappell Flat within the Hazlebadge Liberty were rake, pipe or flot,

"in which sayd place called Haslebach hills all the Mynes there except such as were Rakes or Veynes, have beene - freed, staked and layd out as fflots although most of them do in many places pipe and strike out into pipes".

Questions and disputes had arisen whether pipes should be laid out as flots or as rakes

"whereupon it is agreed for the preventing of - suites that the same and all others of that nature should be wrought and laid out as fflots whether they were indeed fflots or pipes unlesse they were apparent Rakes."

Godfrey Morton then took possession of two founder meers and a Lords meer in the Hills, this grove being freed as a "fflot". Godfrey Marshall, Thomas Dolphin and partners

"having a desire to get a share thereof and finding they could not endeavoured to have the same found to bee a pipe and to have it layd out according to the custome of the Kingsfield thereby to drive out a greate pte of the Mynes."

This was contrary to the custom in Hazlebadge Lordship

"which have - had - flotts and pipes measured and layd out after one and the same Manner and noe difference in the length and breadth thereof"

The Hazlebadge jury concluded that Godfrey Morton's mine in the Hills had been freed correctly as a flott because whether flott or pipe it was quite different in form to the rakes worked in the Lordship which were freed in the conventional manner, i.e. a linear meer of 28 yards irrespective of width or depth.

The indications are therefore that in Hazlebadge Liberty, flatworks as presently defined and all pipe occurrences had been, and continued to be set out by square measure meers of 7¼ yards in each direction from the founder shaft or stake. In the Low Peak, according to the 1665 articles, flatworks were to be measured in meers of 14 square yards though no manuscript records of this procedure have come to light. Elsewhere pipes always seem to have been set out and freed as linear meers along the strike of the deposit.

Examples of flots are rare but they are recorded at Bradwell, Stoney Middleton, near Litton Mills, in Lathkill Dale, near Alport and south west of Wirksworth. High on the southern hillside opposite Litton Mills are the Boothlee mines and there were disputes there in 1671 at Ouldfield Over Flott Grove regarding illegal removal of lead ore. Old Flot Grove in Bradwell Liberty was recorded in 1673, whilst Bradow (Bradwell) Flott Grove, possibly the same mine, was at work, perhaps not continuously, for a century after 1670. This mine was of some significance in the early decades of the 18th century. Shares in it were owned by the Bagshawe family of Oaks Hall, Norton. Lead pipes and wood trunks for ventilation were supplied and gunpowder

was in use (SCL.OD 1149). Later, in 1777, a long length of this mine, over 600 yards, was in possession of Ralph Oakden, one of the principal shareholders in Speedwell Level at Castleton.

An interesting reference occurs in 1687 at mines on Stoney Middleton Cliff, (SCL. Bag. 3508). Mr. Haslehurst of Carter Lane, near Gleadless, was concerned in driving a sough to these mines from Middleton Mill dam (Rieuwerts 1987) and during 1687-1688 he was concerned in arguments about his mines. At "ye over Ingian pitt" there was

"no veyn but a flotter on ye top - he would not free it."

The dispute was ended in March 1688 when Mr. Turner, mineral agent to Lord Halifax,

"agreed with Mr. Haslehurst for ye Ingian Pitt meer which was forfeit for Want of freeing."

Alluvial workings were located at two, possibly three sites in the Lathkill Valley. Adjacent to Hawley's Bridge, near Alport, flots and float ore were being worked in 1754 (Rieuwerts 1987), and may be identical with Farey's site at Priesthill, Stanton. Higher up the valley Farey (1811) recorded alluvial ore being worked west of Over Haddon, near Mandale Mine. He remarked that many miners were of the opinion that these so-called alluvial deposits were in fact the sites of old lead ore washing places and dressing floors, a perfectly feasible assumption.

Shortly after the tenure of the London Lead Co. in Lathkill Dale, twenty five meers in Lathkilldale Vein were claimed by Philip Taylor, but the Barmaster's gift contained a reserve of two meers of ground along the vein.

"for the use of Jos'h Taylor to have Liberty to have the Hillocks and what is called flatt or flott ore" (SCL. Bag. 444)

Earlier dressing operations in the Lathkill valley together with weathered ore derived from the upper portion of Lathkilldale Vein and most probably some mineral transported by river action, make it impossible to be certain as to the origin of either Farey's alluvial ore near Mandale Mine or the flott ore at Lathkilldale Vein. A plan dating from 1826 (Rieuwerts 1973) shows that virtually the whole floor of Lathkill Dale, from Bateman's House westwardly to beyond Gank Hole Vein, was covered by old mine hillocks.

Over twenty years ago, an old miner William Hodson related to the writer that large lumps of galena were found in a field called California, south-west of Wirksworth, a locality also recorded by Green (1887), as

"the ore being found in the top of the vein (Yokecliffe Rake) and scattered under the soil, over a field on the south side of the vein".

CONCLUSIONS

The terminology of the Derbyshire lead miners did not always differentiate with sufficient accuracy between varying forms of mineral deposit. The words flot and or flat might refer to either strata-bound, alluvial or residually weathered forms. Float ore seems always to have referred to the latter

variety.

A definition in Hopkinson's treatise on mineral law dating from 1644 definitely relates to the alluvial variety and Hooson's definition of a century later was virtually identical.

The mineral articles and customs for the Low Peak dating from 1549 and 1557 do not mention them, and neither do the High Peak articles dating from 1601. By 1665 flats were to be set out by square measure of fourteen yards in the Low Peak.

A dispute dating from 1669 at Hazlebadge near Bradwell indicates that within that Lordship or Liberty all flats, flots and pipes were and had been set out by square measure; only rakes were measured along their strike by linear meers.

Flots were worked at three sites in Lathkill Dale, their origin is obscure and they may have been alluvial deposits, remnants from old lead ore washing floors or residually weathered deposits above a vein.

ACKNOWLEDGEMENTS

The author would like to thank the Librarians and Archivists at Sheffield City Libraries, Derbyshire Record Office and Chatsworth House for assistance and for permission to quote from documents in their safe keeping. Mr. W. Erskine, the Barmaster has allowed continuing access to the Barmasters Collection at Chatsworth House.

My sincere thanks are also due to Mrs Doreen Todd and Mrs Irene Calladine for typing the manuscript.

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