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The Moorland Meavy—A Tinners' Landscape

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(Figures 1–5)

Introduction

THE area of Dartmoor through which the River Meavy flows contains an above-average concentration of field remains from the tin industry of the past. These remains cover most periods and many aspects of this industry, from early stream workings to the later nineteenth century mine workings. Apart from the very noticeable evidence of digging activity, there are also the remains of sites associated with ore processing, ranging from the early mills to the larger dressing floors of the late eighteenth and early nineteenth century. The tinners' mills have been thoroughly discussed by other writers, and the later mine workings and dressing floors of Dartmoor have also been described to some extent, although those within this present study area have been a little neglected. This paper is concerned with the earlier workings, and more specifically with 'openworks' or 'beams'. These are the large open gullies which are so common in this area; they are the visible remains of a technique of exploiting lode tin by an opencast method, which date from a period between the fifteenth and seventeenth centuries approximately.

The River Meavy and its tributaries flow through the south-west sector of Dartmoor; the Meavy being the main moorland tributary of the River Plym. (The spelling and pronunciation of this river name is contentious i.e. 'Mew', 'Mewy', but for the purposes of this paper the spelling 'Meavy' will be used.) The area covered by this paper is that between Burrator reservoir and the head of the river. There are three main tributaries on this stretch of the Meavy: Hart Tor Brook, Newleycombe Lake and Narrator Brook. Most of the area is open moorland with easy access but, nearer the reservoir, mixed woodland and conifer plantation are the dominant land feature (Fig. 1).

It has been the aim of this study to locate and record the major openwork sites and their associated remains, particularly the water

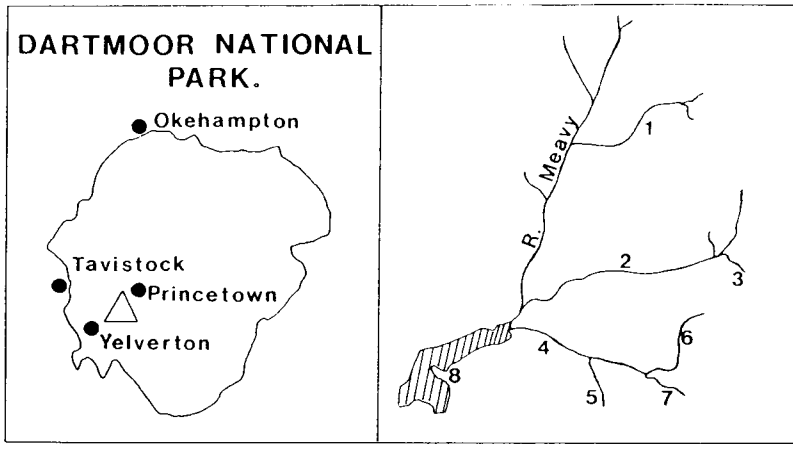

FIG. 1. *The study area. KEY:– 1) Hart Tor Brook, 2) Newleycombe Lake, 3) Drivage Bottom Stream, 4) Narrator Brook, 5) Outcombe Brook, 6) Combeshead Brook, 7) Deancombe Brook, 8) Burrator Reservoir.*

supplies to each, and to investigate some of the later developments at these sites. The recording of this category of field remains has been somewhat overlooked in the past, and it is felt that a systematic survey within one area could make an interesting contribution to the historic study of this industry. Site evidence is presented in the form of tables with maps and diagrams (Figs. 2, 3, 4 and 5). Table I lists openwork sites and identifies the water supply remains to each; Table II lists leats, and Table III lists reservoir remains. All sites are given National Grid references and the more interesting among the remains are discussed in detail in a separate section.

Many remains found in the vicinity of openworks are of other techniques or periods of working, and a satisfactory interpretation of openwork sites depends on a knowledge of these other remains. It is for this reason that a short section on later developments is included.

FIELD EVIDENCE

The Openworks

The exploration for lode tin became necessary after the eventual exhaustion of the rich alluvial stream deposits found in the river beds and valley floors. Although it is not the case that all streamworking on Dartmoor ceased at one point in time, to be superseded by lodeworking, it can reasonably be assumed that within the confines of one river valley—Newleycombe Lake, for example—streamworkings

would mostly have been exhausted before work commenced on the lodes. This assumption is partly reinforced by the fact that remains associated with lode workings, such as spoil dumps and leats, are sometimes placed over or constructed through the remains of the older streamworks.

The openwork was the initial technique used to exploit lode tin and would have been in use by the fifteenth century (see appendix). By this technique the ore was removed from the ground manually with pick and shovel, and waste materials which surrounded the tin-stone, such as sand and mud, were removed by a periodic rinsing with a stream of water, this in turn would expose fresh sections of lode. Mention was made of these water supplies by Mr H. French and Mrs C. Linehan in their brief description of some workings in the Widecombe area.[1] In their paper a seventeenth century account of this technique by Risdon was quoted, part of which stated that: 'On every hill, as high as water could be diverted, the ground has been turned over by these artificial torrents'. The resulting remains, after probably several years of working life, are the large open gullies which we see today. These

TABLE I

Openworks

No.	*Grid Ref.*	*Name or Area*	*Water Supply*
1	SX 57456990	Keaglesborough	Leat No. 1 (possibly)
2	SX 57107007	Riddipit	Leat No. 1
3	SX 58207045	Claziwell	Leats 3 & 4, Reservoirs C & D
4	SX 57857195	Hart Tor (W)	Leat No. 2
5	SX 59157190	Hart Tor Brook Hd.	Diverted springwater
6	SX 58557055	E. of Claziwell	Leat No. 4, Reservoirs E, F & G
7	SX 59207075	S. of Trig point	Reservoir H
8	SX 59657085	Newleycombe Hd. (W)	Reservoir J
9	SX 59807100	Newleycombe Hd. (E)	Reservoirs K and L
10	SX 59857025	Older Bottom	Leat No. 5
11	SX 59906985	Drivage Bottom	Leats 5 and 5a
12	SX 59357015	Willabeam	Leat 6, Reservoir M
13	SX 58606995	Newleycombe Farm	Leat 6
14	SX 58206965	Down Tor (N)	Leats 7, 8 & 8a, Reservoir N
15	SX 57606965	Down Tor (NW)	Leats 7, 8 & 8a
16	SX 57236940	Middleworth (N)	Uncertain
17	SX 57636920	Middleworth (E)	Leats 7, 8 & 8a
18	SX 57756890	Deancombe	Leat 9, Reservoir P
19	SX 57586865	Roughtor	Leat 10
20	SX 57906860	Outcombe	Leats 11 and 12
21	SX 58957110	Cramber Pool	Uncertain, probably rainwater
22	SX 58457350	Meavy Head (not illus.)	Diverted springwater

This list represents only the major sites.

gullies all have very individual characteristics, depending on topographic location and the scale of development, but a large example may be up to 250 m long by 30 m wide and 10 m deep. The floor of the gully is often mire-filled and small streams sometimes issue from within them; although these would not have formed part of the water supply at the time that work was taking place.

Water Supplies

The remains of the openwork water systems within this study area are extensive and well preserved, and in some cases, quite complex. Closer investigation of these water supplies can give some indication of how important they were to the process.

Leats were the primary method of delivering water to an openwork and some of them are among the more noticeable remains in the area. They were of fundamental importance to the Dartmoor tin industry throughout its history, and in the area covered by this paper there are the remains of over twenty-five leats which can be identified as having served some aspect of the industry including ore processing and smelting. However, Table II only describes those which supplied openworks, although some others are marked on the map diagrams (Figs. 2, 3, 4 and 5).

These leats should not be compared in either size or capacity with the Devonport Leat which is such a major land feature in this locality and still flows today. The Devonport measures up to 2 m wide in places and the channel is often 1 m deep; whereas the openwork leats rarely exceed 1 m in width, 60 cm being a more likely average, and they would only have been up to 60 cm deep.

Most of the leats are easily traced today, but some others have not survived so well. Various factors have contributed to the decay of the channels, the worst being enclosed pasture; leats rarely survive where land has been put to this use after their demise. The planting of conifer forest has also disguised much evidence, and in areas where leats run through boggy ground the channels have become overwhelmed by vegetation. Most leats however may be traced from their source to their point of delivery, even if only short stretches may be recognised at a time.

The leat channels sometimes meet and intersect farm enclosure walls, and in some cases provision has been made for the water to pass beneath the wall. This can give some clues as to the historic order of construction and use of openwork and enclosure, although it cannot give any exact dates. It does, however, prove that both openwork and enclosure were used contemporaneously at some point. Leats 1, 7 and 9

TABLE II

Leats

No.	*Source*	*Grid Ref. of Headweir*	*Purpose of Supply*	*Reservoirs (if any)*	*Condition of Channel and comments*
1	Meavy	577 720	Openworks 1 & 2	—	Clear over moorland section but hard to trace in forest
	Hart Tor Brook	577 715			Headweir of Hart Tor Brook branch is best preserved example in the area. (see text, Fig 2)
2	Hart Tor Brook	584 718	Openwork 4	A	Traceable over entire course. (Fig. 3)
3	Hart Tor Brook	589 721	Openwork 3	C & D	Generally poor; destroyed at point of intersection with Devonport Leat. (see text, Fig. 3)
4	Hart Tor Brook	592 721	Openworks 3 & 6	E & D	Easily traced over entire course. (see text, Fig. 3)
5	Nun's Cross Stream	606 695	Openworks 10 & 11	—	Clear in places though destroyed near Eylesbarrow track. (Fig. 4)
6	Newleycombe Lake	597 704	Openworks 12 & 13	—	Clear channel over most of the course, although it fades out in enclosed pasture. Openwork 13 is logical destination. (Fig. 4)
7	Newleycombe Lake	59427000	Openworks 14, 15 & 17	N	Easily traced over entire course. (see text, Fig. 5)
8	Newleycombe Lake and rainwater	597 699	Openworks 14, 15 & 17	N	Main channel easily traced over entire course; Combeshead branch 8a not so clear. (see text, Fig. 5)
9	Combeshead Brook	59206925	Openwork 18	P	Clear channel travelling through several enclosures becoming faint at SX 57926920. (Fig. 5)
10	Outcombe Brook	57776830	Openwork 19	—	Clear over surviving section.
11	Outcombe Brook	not known	Openwork 20	—	Traceable only in patches. (Fig. 5)
12	Deancombe Brook	58606823	Openwork 20	—	Traceable only in patches. (Fig. 5)

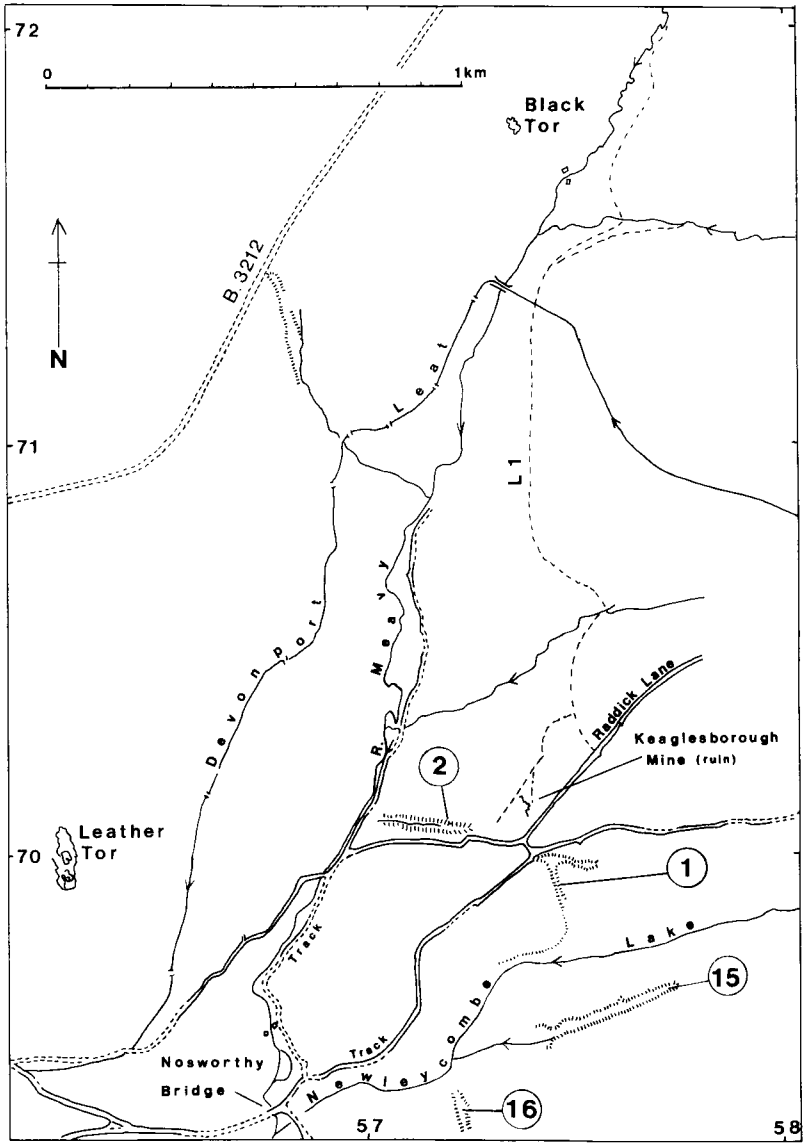

FIG. 2. *Openwork sites in the area of Nosworthy Bridge and Raddick Hill.*

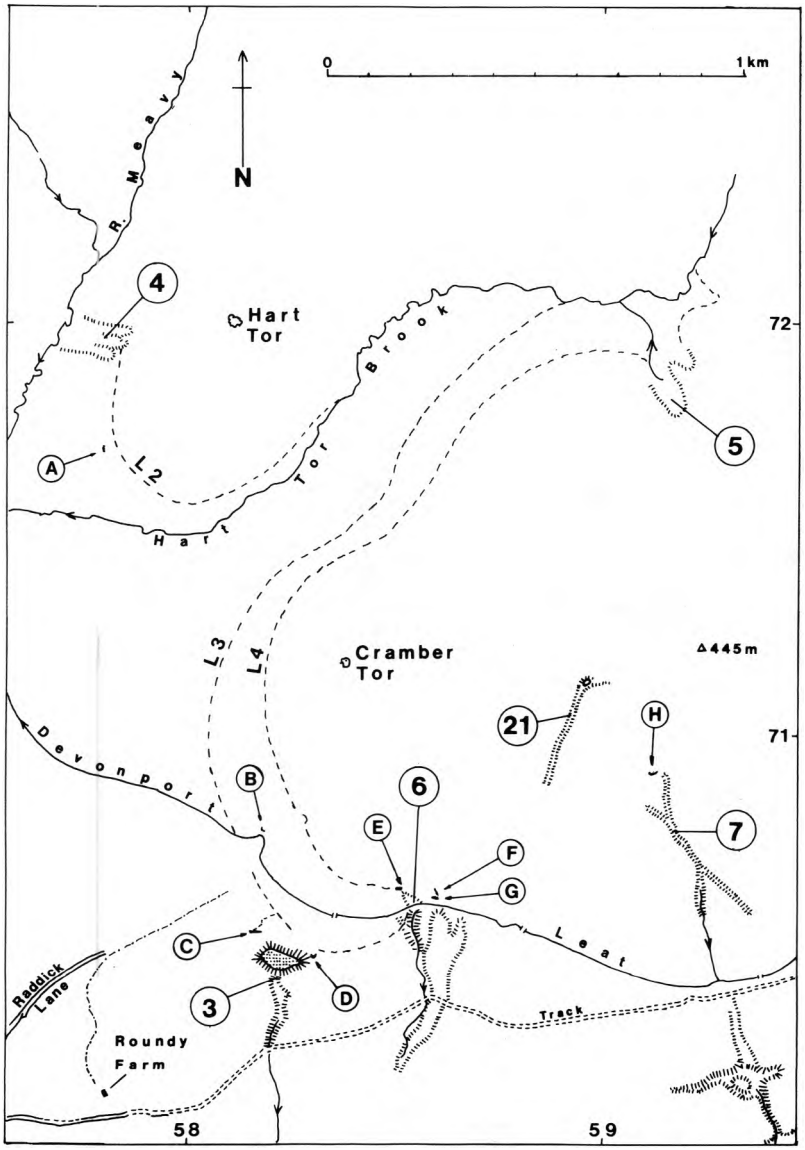

FIG. 3. *Openwork sites in the area of Hart Tor Brook and Cramber Tor.*

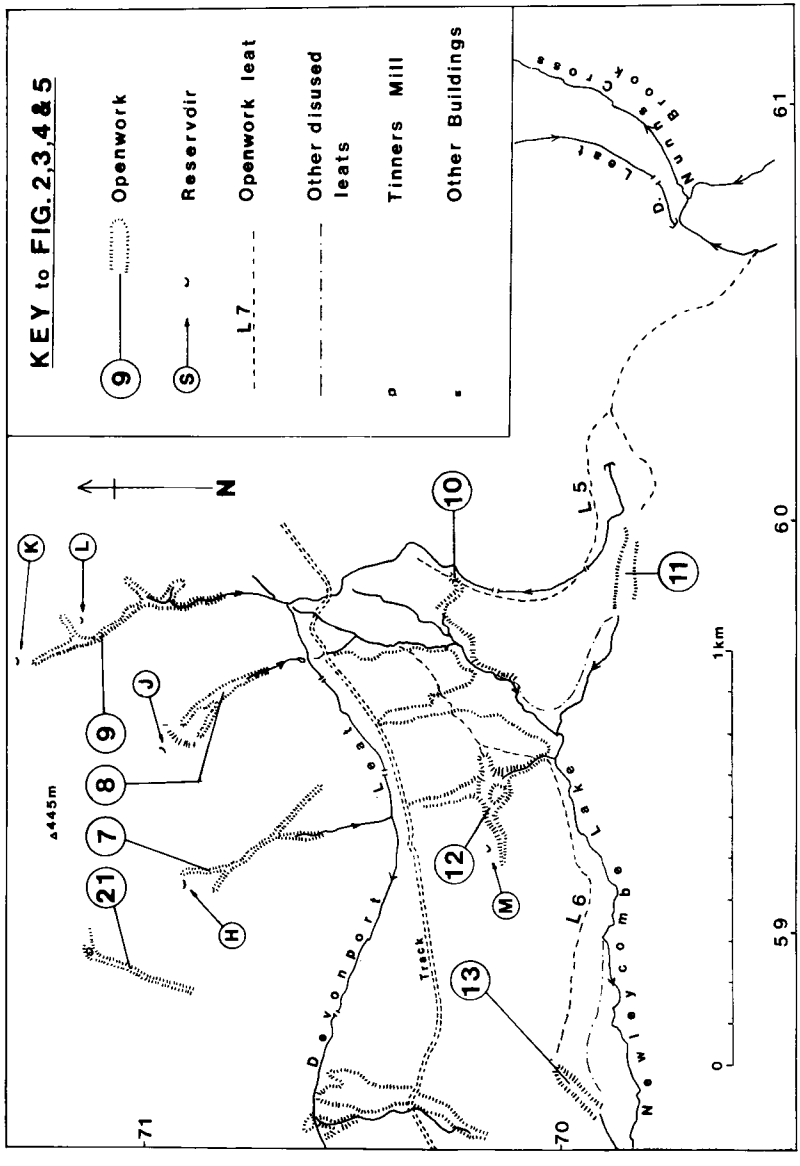

FIG. 4. *Openwork sites within the area of upper Newleycombe Lake.*

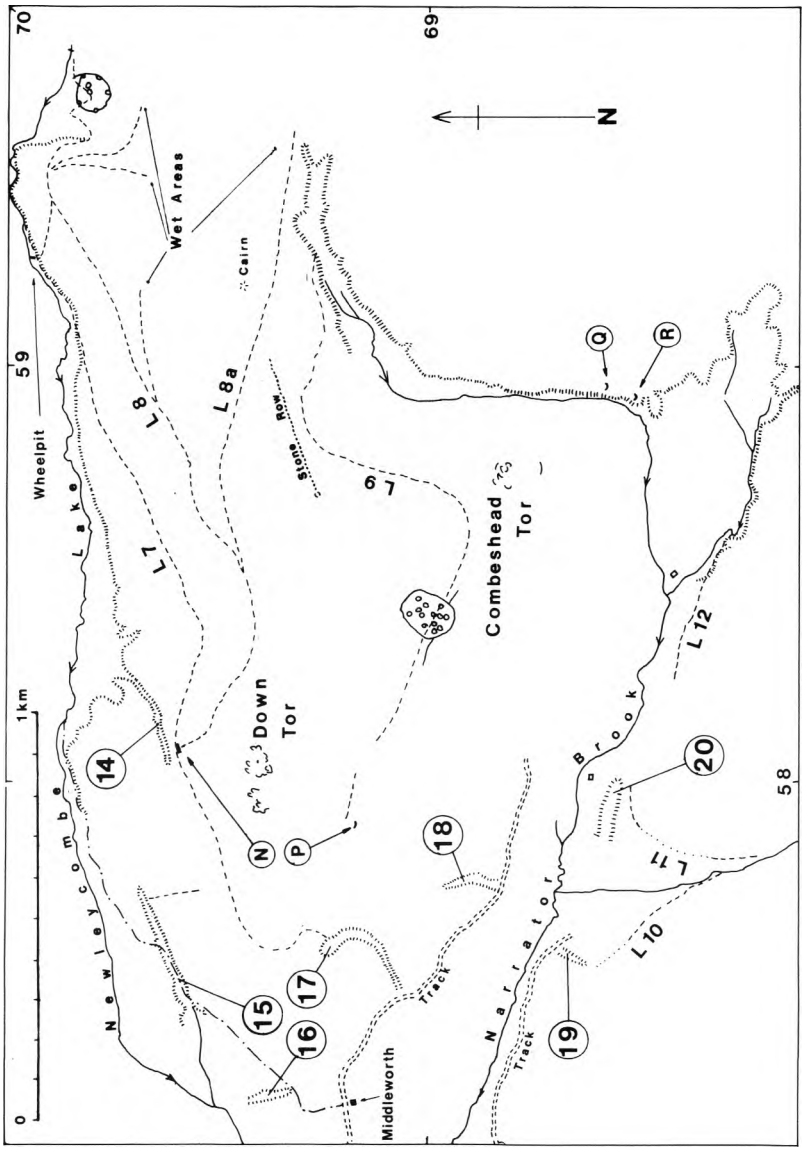

FIG. 5. *Openwork sites in the area of Narrator Brook and Newleycombe Lake.*

TABLE III
Reservoirs

Code	*Grid Ref.*	*Type*	*Water Supply*	*Length**	*Purpose of Reservoir and Comments*
A	578 717	Crescentic	Leat 2	23 m	A reservoir in fair condition which supplied a small openwork below. (Fig. 3)
B	58187076	Crescentic	Rainwater	25 m	Good condition; clear sluice opening and one diversion channel, probably built to supply stream working below. (Fig. 3)
C	58187052	Linear	Leat 3	70 m	Earthwork still standing to about 1 m in places. Masonry lining of sluice opening has survived particularly well. Supplied openwork 3. (see text, Fig. 3)
D	58307047	Crescentic	Leat 4	18 m	Poor condition; sluice opening and one diversion channel still visible. Supplied openwork 3. (Fig. 3)
E	58527063	Linear	Leat 4	20 m	Fair condition, masonry lining of sluice still partly in place. Supplied openwork 6 (Fig. 3)
F	58607062	Linear	Rainwater	25 m	One of a pair set one above the other on the E. side of openwork 6. Built in a natural basin creating a reservoir 35 m in diameter. (Fig. 3)
G	58607060	Linear	Rainwater	25 m	Set below F and of similar appearance. A channel diverted water from F into G. (Fig. 3)
H	59127090	Crescentic	Rainwater	35 m	Earthwork very eroded but masonry lining quite well preserved. Supplied openwork 7. (Fig. 3)
J	59447096	Crescentic	Rainwater	30 m	Best example in the area. Earthwork still stands to 1.3 m. Sluice opening is clear as are diversion channels. Four collecting gutters above the site, one reaching several hundred metres. Built to supply openwork 8. (Fig. 4)
K	59657130	Crescentic	Rainwater	25 m	Small badly eroded earthwork. Supplied upper end of openwork 9. (Fig. 4)

TABLE III—*continued*

Code	*Grid Ref.*	*Type*	*Water Supply*	*Length**	*Purpose of Reservoir and Comments*
L	59757114	Crescentic	Rainwater	28 m	One end partly destroyed by later activity, Has traces of collecting gutters and diversion channels. Supplied openwork 9. (Fig. 4)
M	59207015	Crescentic	Rainwater	14 m	Good condition. Earthwork still stands to 1 m in places. Masonry lining of sluice still partly in place. Built to supply openwork 12. (Fig. 4)
N	58066960	Linear	Leats 7, 8 & 8a	19 m	Fair condition. Built to supply openwork 14. (Fig. 5)
P	57906917	Crescentic	Springwater and Leat 9	13 m	Poor condition. Has very wide sluice opening (3.4 m) probably the result of later interference. Very likely supplied openwork 18, although there are other smaller openworks nearby. (Fig. 5)
Q	58956857	Crescentic	Rainwater	16 m	One of a pair set one above the other. They would have supplied the small openworks just below. (Fig. 5)
R	58936850	Crescentic	Rainwater	15 m	As above. Parts of masonry lining have survived. (Fig. 5)

*Length. The sizes given in this table are those of the earthwork remains only, and not the actual surface area of the water when the reservoir was full.

Some reservoir remains are to be found at sites where activity is of a 'streamwork' nature only. Water is known to have played a part in the streamworking process, and these remains would seem to indicate that reservoirs were built to supply these alluvial sites when there was no natural supply: Reservoir B is one example of this, and also possibly F and G.

Two other reservoirs worth mentioning may be found at Drivage Bottom (SX 599 699). They are both linear examples and are set one above the other. The upper is 38 m long and the lower is 29 m long. Their combined capacity would have been quite considerable and in no way commensurate with the small openwork (11); neither are they sited correctly to have served this working. They are more likely to have been built to supply one of the wheelpits at the nineteenth century mine known as Wheal Chance[2] whose dressing floors are to be found at SX 59507000; the head of the wheelpit leat lies just below the reservoirs.

all have examples of these openings, although most are collapsed; the most intact example may be seen on leat 7 at SX 57676945.

The leats which used water diverted from rivers and streams made an ideal supply for those openworks which were low in the valley, but in the case of workings which were above any divertable water, the only available water resource was rainwater, so small reservoirs were constructed to collect and store the water. Reservoir remains are usually found above or to one side of the openwork, and consist of an earth and stone bank. This bank may be semi-circular creating a crescentic reservoir: alternatively, the bank and reservoir may be linear. At the lowest point of the bank may be found an opening which very often has a masonry lining which would have accommodated the sluice gate.

Below the sluice opening there are diversion channels which directed water to the required working area, although these have not always survived. The rainwater was collected over a wide area of the hillside above where the collecting gutters—which take the form of shallow trenches—fan out on either side. There may be several of these gutters, and some of them extend quite a distance to collect available water. Although the majority of the reservoirs were filled by rainwater, there are some examples which were filled by leats. These reservoirs became necessary where a working was sufficiently low in the valley for stream water to be diverted, but at a height where the flow of water at the head of the leat would be slow and unreliable.

Reliance by the tinners on these somewhat irregular supplies of water would mean that the working progress would be very dependent on the weather, and the seasonal variations must have had an effect on productivity. Prolonged periods of dry weather would have been particularly undesirable; hot summers were probably a time of low production. The winter would also have brought problems with collecting gutters, leats and diversion channels, when severe frost caused them to freeze. The reservoirs (Table III), however, were a very efficient method of collecting water, and, even in their present eroded condition, some of them can still collect fair accumulations of water from small downpours. It is likely that a working reservoir, with fully functional collecting gutters, would fill to a workable level fairly quickly. Therefore, the months of late spring and early autumn, in average Dartmoor climatic conditions, could have been worked through quite successfully, as well as the wetter months of the year. However, in the absence of any detailed contemporary account of working practices, one cannot really speculate on this point, as it is just as likely that working activity took place during only the wettest months, when the water supplies could be relied upon.

Openwork Water Supplies in More Detail

Down Tor (N) No. 14, Down Tor (NW) No. 15, Middleworth (E) No. 17 (Fig. 5)

This system of waterways and workings exemplifies the extent to which the tinners would go to supply a working with water. Leat No. 7 (the lower leat) diverted water from Newleycombe Lake to form its main supply, but is also used water from the small spring which issues from openwork 12 (Fig. 4) on the opposite north side of the river; the water being carried across the river by a wooden aqueduct, and the small mounds which supported it have survived. A second leat (No. 8) brought in water from the head of Drivage Bottom Stream which collected behind a rough stone-built dam. This was augmented by several rainwater channels which reached up to collect water from the wet areas on the hillside above: a further supply was gained by diverting water via leat No. 8a down from above the head of Combeshead Brook, where a funnel-shaped embankment collected water from a marshy gully which runs down the side of Eylesbarrow. Leats Nos. 7 and 8 eventually meet up at the site of reservoir N, which is the storage facility for openwork 14. It is possible that openwork 14 had a further supply lower down the hillside where there are the remains of a channel running along the escarpment of the valley floor; unfortunately it has been adopted as a footpath in more recent times and it is too badly eroded to make a conclusive judgement. After serving openwork 14, the combined leats, (7, 8 and 8a) continue as one and probably served openwork 15; the remains of the branch channel are incomplete, but in the absence of any other supply, there can be little doubt. The final destination of the leat is a third openwork (No. 17) on the south-west side of Down Tor and the entry point of the leat into the working may still be seen. Leats 7 and 8 were later re-directed to serve a wheelpit at a mine called East Hughes Mine,[2] SX 59276996, and it was probably during this later period of activity that the spring-water from openwork No. 12 was connected to leat No. 7.

Cramber Tor (southern slopes) (Fig. 3)

Along the southern slopes of Cramber Tor may be seen some of the best examples of reservoir remains. Openworks 7, 8 and 9 all had rainwater reservoirs, reservoir J being a particularly good example where the collecting gutters and diversion channels have survived well. Openwork 6, however, had a leat (No. 4) which diverted water from the upper reaches of Hart Tor Brook and would have filled reservoir E, which is sited just above the openwork. Two further reservoirs (F and

G) are to be found a short distance to the east of reservoir E: they are located in a natural depression in the ground and were most probably filled by rainwater. Leat No. 4 also served openwork 3, which is to the west of openwork 6. This large working later filled with water and is now well known as Claziwell Pool. Water from leat No. 4 was stored in a small reservoir (D) on the north side of this second working, which also had a further substantial supply on the north-west corner. This is a large linear reservoir (C), filled by water from a second Hart Tor Brook leat (No. 3).

The Devonport Leat, built in the 1790s, intersects leats Nos. 3 and 4 and has destroyed some of the evidence, particularly leat 3 where it crosses the head of a small stream at SX 58147076. Leat No. 3 is also difficult to trace on the western slopes of Cramber Tor, whereas leat No. 4 has survived well over its entire route.

Hart Tor Brook Head—Openwork 5 (Fig. 3)

Here is an example of a small, natural springwater supply being used, but without the use of a storage facility. The spring, which is to the south of the openwork, has one main, and three branch channels leading to various sections of the working.

Openworks 1 and 2; Leat No. 1 (Fig. 2)

Leat No. 1 drew water from both Hart Tor Brook and the River Meavy, although one of these sources may have been added later. After leaving the open moor and entering the dense forest, the channel can be seen leading to two wheelpits—remains from the early nineteenth century Keaglesborough Mine. This would have been a later adaption of the leat as it is most likely that is was originally constructed to serve the openworks 1, and possibly, 2, both of which are nearby. To have fed openwork 2, the channel would have followed more or less the same course as it does today to the wheelpits. The branch which fed openwork 1 runs up to, and meets the wall of Raddick Lane at SX 57557025, before completely disappearing under forest debris and heavy vehicle track marks; but the most logical course would be openwork 1. It was suggested by Eric Hemery that this leat was adapted to serve as a domestic water supply at Roundy Farm but the leat which enters the rear yard of the farm can be[3] traced up through some enclosures to the gate at the head of Raddick Lane, which is at greater altitude than any part of leat No. 1; from here it can be traced up the slope of Raddick Hill so it would seem more likely to be a branch of leat No. 3.

The installation of a large waterwheel (approximately 8 m in diameter) at Keaglesborough Mine in the early nineteenth century

could explain why the leat (No. 1) has two sources. The headweir of the Hart Tor Brook branch is in a particularly good state of preservation and is a very good example of the type.

Later Developments

The major disadvantage of exploiting a lode by the openwork method was that so much 'dead ground' i.e. ground which was devoid of ore, had to be removed to gain access to the lode. The introduction of the 'shaft and adit' technique solved this problem, as the vertical shafts, and their connecting horizontal adits, gave access to the lode without the massive effort of an openwork. The chronological details of the transition from openwork to 'shaft and adit' are unclear, but is is quite possible that in the early years, when the undergound technology was still developing, it was used as an alternative technique rather than a total replacement, and it was not until the technology became more advanced that it superseded the openwork completely. One immediate advantage of the new technique was that it enabled exploitation of sections of lodes which were high on the hillsides and had previously been inaccessible by openwork methods due to the non-availability of water at higher altitudes. Some of the earliest 'shaft and adit' sites are probably those which worked the upper sections of a lode whose lower sections had already been exploited by an openwork. Shaftheads of the earlier mines were usually—as is the case with later mines—arranged in rows, although they were more numerous and much closer together than at later sites. The adits are often barely recognizable, but their drainage gullies often give away their whereabouts. All openwork sites in this area—with very few exceptions—have been worked in this manner to some extent: the following examples are among the more interesting where adit positions are still visible:– openworks Nos 4, 6, 8, 10, 11 and 17. There are, in addition to these re-worked sites, many early shaft workings in the area where fresh lodes were exploited. Many of this category of remains are to be found in the areas of Hart Tor, Cramber Tor and Hingstone Hill.

Later mining remains are also very much in evidence at some of the sites. These mines took advantage of the later technical developments which gave the miners the ability to sink shafts and adits to greater depths, making it worthwhile to re-work the lodes for a second time. The shafthead remains have, not surprisingly, survived better than the earlier examples, and the adits are much easier to recognize (Table IV). These later mines date very approximately from the late eighteenth and early nineteenth centuries and the names of the sites have survived in some cases, thanks to old maps of the area.

TABLE IV

Eighteenth/nineteenth century mine sites (not illustrated)

Openwork No	*Name of Mine*	*Grid Ref*	*Documentary Reference*
2	Keaglesborough	SX 57357007	Plymouth water base map[2]
8	not known	SX 59507085	—
10	Wheal Chance	SX 59907025	Plymouth water base map[2] Proposed railway map[4]
13	Plym Consols	SX 58576988	Wood's map of Dartmoor[5] Proposed railway map[4] Plymouth water base map[2]
21	Not known	SX 58457350	Walkhampton Parish records[6]

CONCLUSION

This paper has mentioned only very briefly the later aspects of the mining industry within this study area and there is much potential regarding the study of the eighteenth/nineteenth century mine workings and dressing floors. The present writer hopes also to expand the study and recording of openworks and their water systems to other areas of Dartmoor.

ACKNOWLEDGEMENTS

I am extremely grateful to Dr T. Greeves, not only for his contribution of documentary evidence (see appendix) but also for his continued interest, encouragement and valuable advice. I am also grateful to Frank Newman for his assistance with the text, and to Mr and Mrs D. Brewer for their initial encouragement.

REFERENCES

1. French, H. and Linehan, C. D. 1963. Abandoned medieval sites in Widecombe-in-the-moor. *Rep. Trans. Devon. Assoc. Advmt Sci.*, **95**, 178–79.
2. Plan prepared for 'The Plymouth Water Base' Court of Common Pleas. Sir Massey Lopes and the Mayor and Corporation of Plymouth. 6 May 1873. *Roborough Documents*. Plymouth.
3. Hemery, E. 1983. *High Dartmoor*, p. 142. London.
4. Plan of proposed railway line from Plymouth to Exeter 1840. DRO D.P. 148.
5. Wood, W. 1850. *Map of Dartmoor Forest*, Re-published 1984, with introduction by T. A. P. Greeves (Devon Books).
6. Govier, L. 1984. *Walkhampton, the Story of a Parish*, p. 45.

APPENDIX

A note on the documentary evidence for the openworks described in P. Newman's survey, by T. A. P. Greeves

Documentary research on tinworking in the area covered by P. Newman has revealed the names of about sixty tinworkers with a date range spanning the mid-fifteenth century to the mid-eighteenth century.[1] A few locations are known to have seen some activity in the early years of the nineteenth century (see Table IV above).

The earliest specific reference yet found mentions a tinwork 'in Newelcombe', one third part of which was leased to John Selman on 12 April 1444 for a term of 21 years at an

annual rent of 6s. 8d. Part of the work had previously been in the possession of John Milward.[2]

Many references are undoubtedly to streamworks, but those that are most likely to be to the openworks mapped by Newman are listed below (the numbering follows Newman's).

1. *Keaglesborough*

In 1625 this was described as 'lieing between Clasawill and Reedapitt beame streaming into Peikes parkes'.[3] Its earliest documentation, as 'Keggelysburgh' is in 1505 when it was stated to have been 'long tyme before' in dispute involving Thomas Whyte, Abbot of Buckland, plus a man and wife called Edward and Johan as plaintiffs, and William Coke and William Fote as defendants.[4] Other references occur in 1538, 1600, 1611, 1623 and 1639.[5]

2. *Riddipit*

'Riddipit als Reedapitt Beme' is recorded in 1611 when Windyeats of Deancombe and Middleworth conveyed one-sixth part to John Elford.[6]

3. *Claziwell*

This is one of the most impressive and best-known of Dartmoor's tinworks. It is documented in the early seventeenth century,[7] and in 1638 was specifically mentioned as a primary cause of the silting up of the harbour of Cattewater in Plymouth, 'by the great quantity of sand and earth which dyvers tynners working in a Tynneworkes called Clasiewell and other works and Tynne Milles neare the rivers of Plym and Mewe . . . convey out of their said workes and Mylles into the said rivers'.[8]

8. & 9. *Newleycombe Head* (W) & (E)

One of these openworks may well be identified with 'Great Newlacomb als Newlacome Headd'. In 1607 John Werryn, a tinner of Walkhampton, conveyed a one-sixteenth part in the work to Hugh Elford, gent, of Sheepstor.[9]

12. *Willabeam*

This site is documented as 'Willabeame' or 'Wilbeame' in the early seventeenth century.[10] The complete list of partners, with their shareholdings, in 1625 was as follows: Sir Richard Strode (1/8), John Woollcombe (1/8 and 1/16), William Woollcombe (1/8), Richard Woollcombe (1/8), John Dunning (1/8), Richard Peike (1/8), Thomas Windiate (1/8) and Edmund Dunritiche (1/16).[11]

19. *Roughtor*

A tinwork called 'Rowtorr' was conveyed by the Windyeats of Deancombe and Middleworth to John Elford in 1611.[12]

20. *Outcombe*

This was documented in 1577 as 'Oldebeame otherwise Outhombeame otherwise Liteltorsworke',[13] John Lytiltor, a tinner of Sheepstor, was probably working it, for in 1567 he conveyed to Thomas Elford the younger one quarter part of 'Pokeparkebeame otherwyse Styleworke adioynyng to Owtehome Beame in the est syde'.[14] It may well be that the large excavation here was divided into two 'beamworks', separately owned or worked.

21. *Cramber Pool*

This may be identified with a tinwork called 'Cramberwarke' mentioned in 1496 when John Andrew conveyed a one-ninth part to Richard Strode.[15] However, other tinworks called 'Cramburgh Downe' (1538), 'Crambro' (pre-1557) and 'Cramberplena' (1611) are also possible candidates.[16]

Many other possible but less certain equations exist between the field evidence and the documentary record, and the examples given above are those we can be most sure about. In summary, the evidence implies that most of the openworks with their associated leats and reservoirs can be confidently placed within the fifteenth to seventeenth centuries. Some may well be earlier.

References

1. Greeves, T. A. P., 1981. *The Devon Tin Industry 1450–1750: an Archaeological and Historical Survey* (Unpublished PhD Thesis, University of Exeter), 302–50.

2. British Library/Additional 24771 Dartmoor & Stannaries fol. 116–17.
3. West Devon Record Office 72/1034.
4. Public Record Office/SC 2/168/13 membr. xi.
5. Greeves, T. A. P., 1981, *op. cit.*, 327 no. 438.
6. Devon Record Office/DD 1342.
7. Greeves, T. A. P., 1981, *op. cit.*, 311 no. 162.
8. *Devon & Cornwall Notes & Queries*, 12, 1922–3, 238–9.
9. Devon Record Office/DD. 4353.
10. Greeves, T. A. P., 1981 *op. cit.*, 348 no. 805.
11. West Devon Record Office/72/1034.
12. Devon Record Office/DD 1342.
13. West Devon Record Office 72/990.
14. Devon Record Office/DD 2620.
15. West Devon Record Office/72/990/3.
16. Greeves, T. A. P., *op. cit.*, 313 nos. 191–4.