

Troopers Hill and Crews Hole

by

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## INTRODUCTION

Troopers Hill (21 acres) and Crew's Hole (14 Acres) lie in the Parish of St George on the eastern edge of the City of Bristol. To the north the site is bounded by houses, allotments and a recreation ground, to the south by Crew's Hole Road, to the west by Lamb Hill, and the east by Troopers Hill Rd. Troopers hill rises to a height of 254 ft above sea level.

map ?





Trooper's Hill



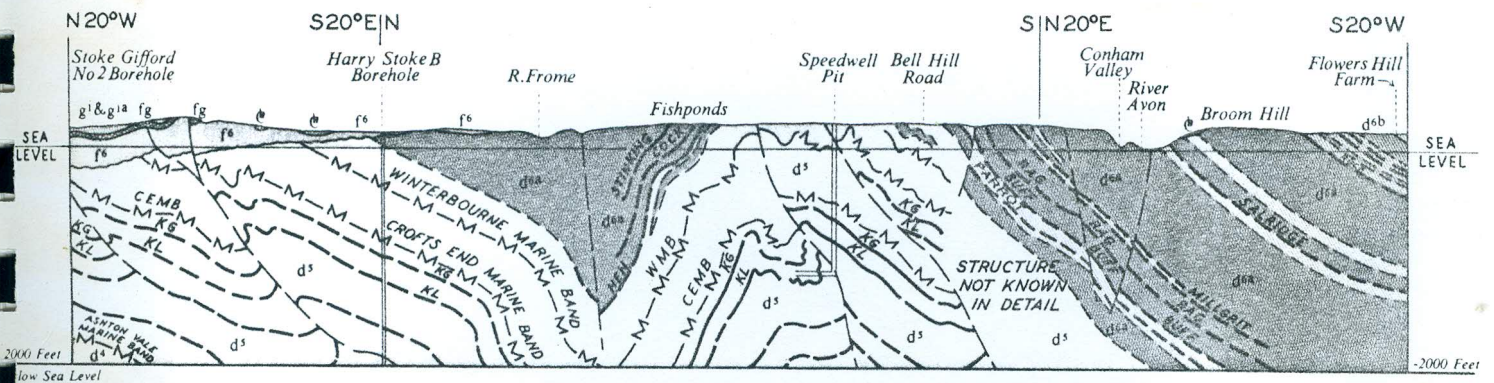
Crew's Hole



## The Hill

Troopers Hill is formed of Pennant Sandstone laid down as part of the Upper Coal Measures during the middle of the Carboniferous Period (360 - 290 Ma). The hill is on the southern side of the Kingswood Anticline and was formed by the cutting of the River Avon down through the sandstone. Running through the hill west to east are two seams of coal, one known as the Rag and the other the Millgrit. The Millgrit is in fact two seams very close together and split by a band of shale. The angle of the bedding of the sandstone is 30 degrees to the south. These coal seams extend to St Phillips Marsh in the West and to Bitton in the East. (see section below from Bristol Geological Sht 264.) ✓

### Kingswood Anticline





The hill is thus a prominent mass of Penn<sup>y</sup> Sandstone which can be seen as outcrops and exposed on the quarry faces, interbedded with mudstones, fireclays and coal seams. These coal seams can be located on the surface as the following photographs show. ✓



✓  
Soil.





### Industrial Influences

It's shape is not of a natural hill but highly irregular due to the extensive quarrying during the last several hundreds of years, albeit sporadically since medieval times (Cornwall J. 1989). The tythe map of 1842 shows only one quarry on Troopers Hill, (marked Old Quarry at the south end of the hill on the O.S. Sheets of 1883) but on that O.S. Sheet there are two further quarries marked. (Appendix 1) The photograph Fig 1 would indicate that there was also a further quarry which is not marked on the 1883 map, but is shown on the O.S Map ST 67 1951. (Enlarged Section Appendix 2).

Fig 1





The largest quarry lies east - west in the hill and the photographs fig 2 and 3 show the north side and west end of the quarry.

Fig 2



Dip of rocks?

Fig 3



The following photographs fig 4 and 5 indicate the sandstone being interbedded with narrower bands of mudstone.

Fig 4



*Indicate in the photographs by means of overlap*

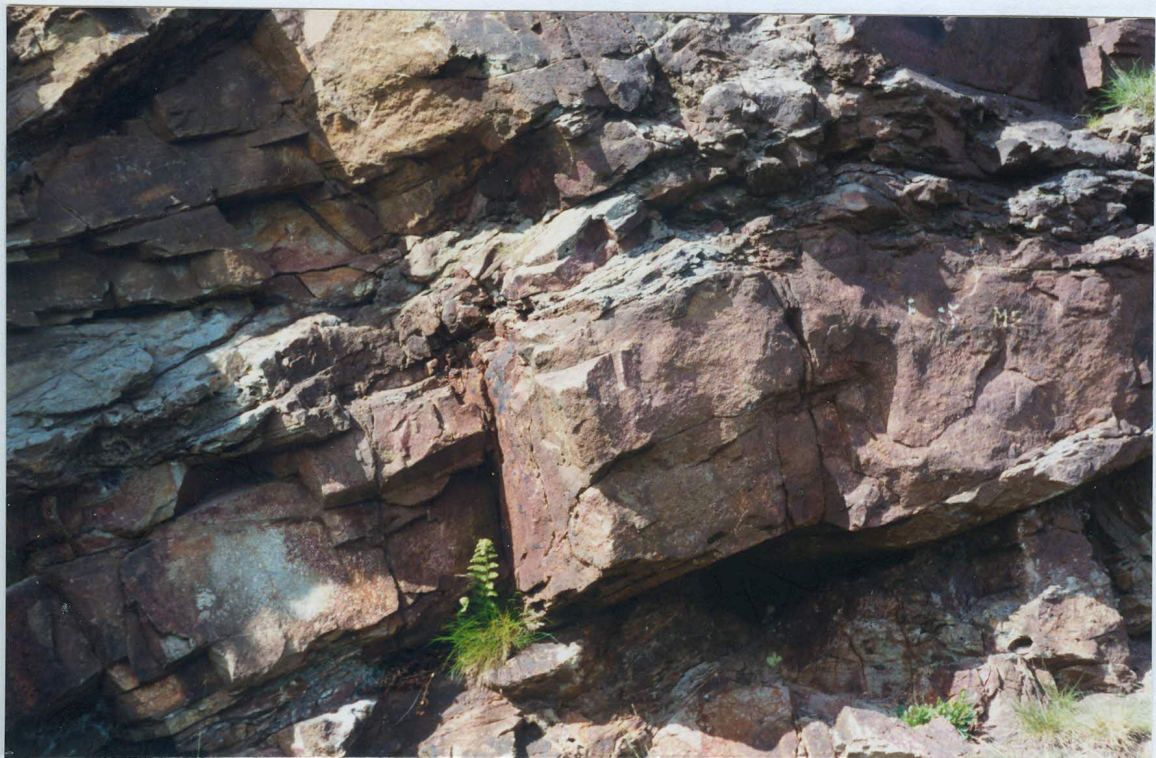


Fig 5



This mud stone is quite extensive in some sections and produces  
screens with the effect of weather upon it photographs fig 6 and 7  
show this.

Fig 6



Fig 7





It has been put forward by Cornwall <sup>date</sup> that due to its ~~large~~ suitable position adjacent to the river, it is a possible site for the provision of sandstone for the building of Bristol Castle. ~~which~~ <sup>with the</sup>

Several deep coal mines run under the hill and under Crews Hole but the mine entrances lie off the the site, one being just to the west of Crews Hole the other being slightly to the north (Bristol Geo. Survey Map 264). There has been some evidence of open cast mining between 1890 and 1900 but this was not successful (Cornwall 1989). There was however some drift mine working during the depression of the late 1920's (see print of photograph fig 8).

Fig 8



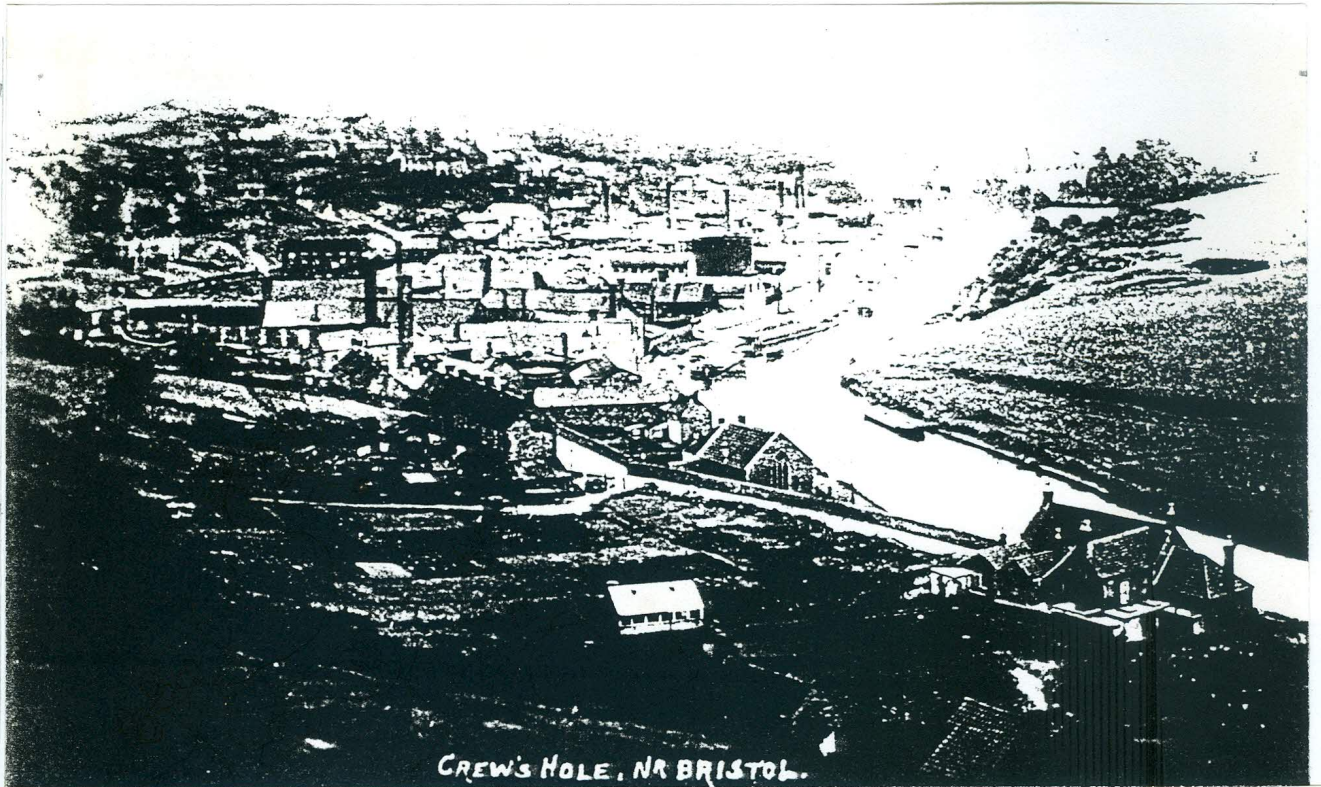


Further minings were for fire clay which took place between 1900 and 1908(Cornwall 1989). But there could well have been workings prior to this as there is shown on the 1883 OS. Map a Brick Making works to the west of Troopers Hill, which with the Fire Clay and Coal could well have been producing fire bricks for potteries in the area. ie Crown Pottery at Hudds Vale being the nearest. There are no known surface features of these workings, but plotting of the geological formation has indicated that the clay workings could well have broken through into the quarry area on the east side of the hill.(Cornwall. Bristol Coalmining Archives). There are also archive records indicating that the hill has been worked for iron at some time although a date cannot be fixed for this.

The availability of coal, clay, iron and the ability to transport the manufactured goods to Bristol down the River Avon was bound to attract industry. The concentration of this over the years was tremendous with the attendant pollution of such industries. The view in the print of the photograph fig 9 gives an indication of this concentration, it has been taken across Crew's Hole looking east. The church like building in the middle foreground next to the river, is the Methodist Chapel.(See Appendix 1) Beyond this is the concentration of factories in the small flat area between the hill and the river. These factories have now been removed and there is the start of some modern housing on the site. It is interesting to note from that print that there was no industrial development on the south side of the river at that point, although in later years a paper



manufacturing industry was established which has subsequently  
been demolished.



CREW'S HOLE, NR BRISTOL.

Fig 9



### Industrial Remains

Despite the high industrial activity that took place around Troopers Hill and Crews Hole over such a long period of time, there are very few indications that this valley rivalled that of Iron Bridge in the concentration of it's industry. There is no indication that any Industrial Archaeology has been carried out on this site and there may be far more in existence than is apparent at the moment.

There are two structures of this industrial past still observable, the chimney and part of it's attendant flue line at the highest point of the hill(fig 10),

Fig 10





and the chimney of the corner of the the Winding House at the south east corner of the hill.(fig 11)



Fig 11



Fig 12

*Comes  
Stones  
are made  
1 story  
1 block  
Pointy  
to  
connect in  
in this  
photo*

The chimney and flue is listed as a grade 2 building, with the other structure awaiting listing.



There is some uncertainty which of the industries the chimney served. The common opinion is that it vented the tar works. However, Cornwall(1989) states that the chimney was used to vent a chemical plant, while Mantell (personal communication) claims that a pottery was associated with the chimney. This is corroborated by the line of the flue shown on the 1883 OS Map which terminates it at the Crown Brick and Tile Works. (a pottery?) The closer view of the Winding House(fig 12) indicates a thought ahead of its time in that if you had a waste product it was advisable to find a use for it. The large black blocks shown in the building is the waste product of the Spelter Works. This was cast into blocks and used extensively throughout Bristol. It's good wearing and weathering abilities can be studied against that of the stone and the brick in the chimney. It is very much like many of the harder igneous rocks that have been formed under the effect of heat.



## Effects of Nature

Due to the vast interference by man in both the quarrying, mining and the effects of industrial pollution on the hill over the last two - three hundred years, one could wonder if the site could be reclaimed by nature. This statement also applies to the area of Crew's Hole. It must be stated here that Crew's Hole was not affected by the industrialization as much as the hill, but is an interesting study in the natural regeneration cycle that take place when an area of land is no longer cultivated or maintained. Being next to Trooper's Hill it has an influence on the regeneration there.

Up until 1960 the site had been used for stock grazing. Afterwards for a short while its hollows were used as a landfill site this being capped with subsoil and left undisturbed since that time. Thus for 20 - 25 years nature has been allowed to take its course. It is at the stage of secondary woodland and the present vegetative cover is of young trees, thickets of scrub and open grassy clearings.

There are one or two planted trees such as *Populus* 'Serotina' and *Salix britzensis* but the main trees are birch (*Betula pendula*), ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) vigorous pioneer species. There are also growths of oak (*Quercus petraea* and *Q. robur*). The presence of *Q. petraea* suggests acidic soil.

The thickets of scrub are dominated by bramble (*Rubus spp*) and hawthorn (*Crataegus monogyna*) but there are other species such as buddleia, elder and wild privet present. The open clearings



support the most diverse range of species, the most prominent being rosebay willow herb, teasels, golden rod, mugwort and dandelion, together with the open grassland species cocksfoot, white clover, black medick and creeping buttercup. The density and progress of this secondary woodland can be seen in the photograph at the beginning and in photograph fig 13. It is in a transitional stage between dominance by shrub species and the emergence of a tree canopy, the composition of the final tree cover is difficult to predict but it have substantial components of ash, sycamore and oak.



Fig 13

Troopers Hill, despite much interference has still the underlying geology that has produced acidic soils. This is unusual in the Bristol area in that most of the underlying rock is of limestone and this produces alkaline soils. Thus the hill has three different types of vegetation within its boundary,



secondary woodland and scrub, acid grass land and heathland. ✓

The close proximity of the developing woodland of Crews Hole is starting to have an effect on the lower slopes of the hill and as photograph fig 14 shows there is the invasion of brambles moving up the slope. ✓

Fig 14





This is being followed closely by young sapling of birch. Fig 15. Ahead of which can be seen the broom *Cytisus scoparius* a lover of sandy acid soils. This is slowly pushing out uncommon species that are found nowhere else in the wild in Bristol. These being Ling (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*). Other acid loving plants include Soft Knotted Trefoil (*Trifolium striatum*), Downy-leaved Rose (*Rosa tomentosa*), Bird's Foot (*Orithopus perpusillus*), Dwarf Elder or Danes Blood (*Sambucus ebulus*) and Field Sandwort (*Spergularia rubra*). These plants are classified as rare for the area. (White J. W. Flora of Bristol. 1912)

Fig 15





## Wild Life

The area is not vast or remote enough to support large of varied number of larger mammals. It is recorded that it does support one active badger set. Protected under Schedule 5 of the 1981 Wildlife and Countryside Act, and the 1991(Badger Act). There is also know to be fox movement within the site but no reported permanent group. Although the Crews Hole cover has not been extensively examinined in the last couple of years. Of the smaller animals, rabbits are present and 3 commom lizards have been recorded on the hill. This indicates that the site is large enough to support some of the heathland species of wildlife. The Crews Hole vegetation in the shape of berried trees and shrubs provides a good source of food for many birds, those seen during a visit include jays, great tits, wrens, blackbirds, thrushes, magpies and a sparrowhawk. For anyone with the interest there would no doubt be more to observe and record as observations of the site in the terms of wildlife have not been extensive.

Finally the butterflies, probably the most noticeable as their seemingly random erratic flight attracts the eye of the watcher. The most important butterfly from the locality point of view is that of the Grayling. Whilst not a rare species in it self, it is the only know breeding colony in the Bristol area. Other butterflies observed are Small Skipper, Large Skipper, Small White, Large White, Small Copper, Common Blue, Painted Lady, Small Tortoiseshell, Peacock, Gatekeeper, Meadow Brown and Small Heath.(Higgins R. 1985-86)



**Finally**

Trooper's Hill and Crew's Hole forms part of semi-natural vegetation in the Avon valley basin, and makes major contribution to an extensive wildlife corridor. (Landmark Report for Bristol Development Corporation 1990) The Greater Bristol Nature Conservation Strategy (1991), which sets the local policy for wildlife in the City of Bristol, identifies Trooper's Hill as a site of nature conservation interest. The whole of the Avon Valley within which both sites fall has been described as a priority nature conservation area in the Avon County Structure Plan.

Bristol City Council in conjunction with English Nature has proposed to designate Trooper's Hill as a local nature reserve (LNR). It is a requirement of LNR designation that a site is managed for the care and enhancement of its special interest (English Nature 1991).



## Appendix 1 & Appendix 2

Appendix 1 & Appendix 2 are reproductions of the 1883 and 1951 OS maps of the area.

These are not included within this pdf but the maps can be seen on Bristol City Council's [Know Your Place maps - https://maps.bristol.gov.uk/kyp](https://maps.bristol.gov.uk/kyp)

For Appendix 1 select Basemap '1844-188 OS 25" 1<sup>st</sup> Edition'

For Appendix 2 select Basemap '1949 1:2500'