NEW USES FOR FORMER MINERAL WORKINGS IN SOMERSET

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The vast majority of small local pits and quarries have disappeared without trace. However, the public have benefited from the rehabilitation of some former mineral workings in Somerset where a number of clay pits, peat workings and stone quarries have taken on a new life with public access. Their diverse uses are reviewed.

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INTRODUCTION

Former opencast mineral workings are often viewed by local authorities and the public as both eyesores and places to dump inert landfill. Yet the Broads in East Anglia remind us that former pits left by medieval peat digging can provide opportunities for recreation and the enhancement of wildlife. The recent emphasis on geodiversity, has raised the profile of geology with the result that local authorities should be much more aware of the need to consult the geological community with respect to future reclamation schemes.

FORMER MINERAL WORKINGS IN SOMERSET (FIGURE 1)

Vallis Vale

Vallis Vale (ST 757 488), 2 km NW of Frome, is part of the incised drainage system flowing northeast-wards in steep-sided narrow valleys. Conybeare and Phillips wrote in 1822 'an uniform and elevated plateau of the Inferior Oolite spreads over its whole surface, furrowed by valleys about 150 or 200 feet deep which expose the Mountain Limestone. The character of many of these valleys (particularly of that between Mells and Frome and its lateral branches) is highly romantic: the streamlets that flow through them being skirted by bold and rocky banks overgrown by feathery woods.' Vallis Vale is lined with abandoned quarry faces and is becoming very much overgrown. A stream, car park and footpath make it a popular, peaceful venue for walkers. The famous De la Beche section shows the unconformity where the Upper Inferior Oolite (Doulting Stone) overlies Carboniferous Limestone (Vallis Limestone) and is a Site of Special Scientific Interest (ST 756491). The exposed ledge of the unconformity shows a bored surface and oysters. There appears to be minimal management and vegetation is taking over some of the faces.

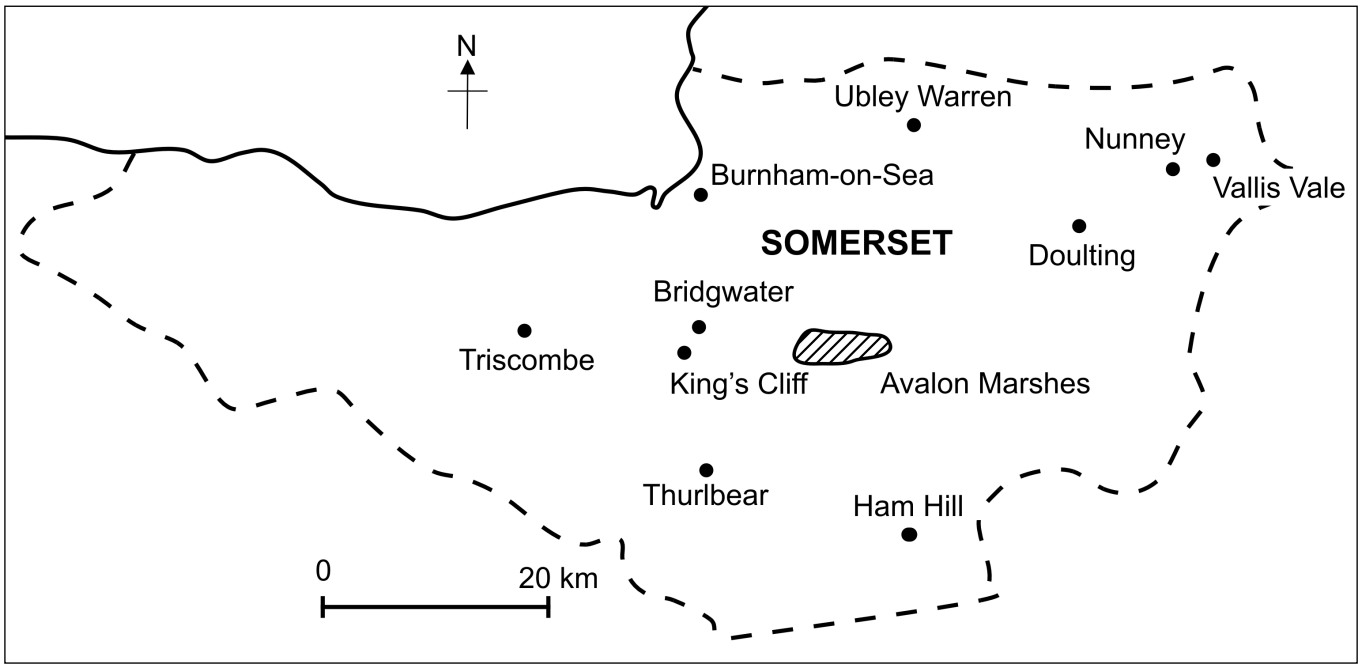

Figure 1. *Map of Somerset showing locations of the former mineral workings.*

St Andrew's Quarry Doulting

The site is a former quarry where Doulting Stone was quarried (ST 648 435). Doulting Stone belongs to the Upper Inferior Oolite; it is a freestone largely composed of crinoidal debris and has been widely used for building since the Middle Ages. The quarry was donated by the Bishop of Bath and Wells for use by the parish; the project aimed to improve the local environment by enhancing the old quarry. The total cost was £65,000. A grant of £49,700 was awarded from the Somerset Aggregates Levy Sustainability Fund (SALSF) and allowed for the provision of a large grass area together with a skate park. It is lined on one side with large blocks of Doulting Stone including one highly bioturbated block. SALSF funding is designed to help communities affected by quarrying.

Nunney Quarry

Nunney Quarry (ST 735 458) was once a small working on the edge of the village in Carboniferous Limestone (Vallis Limestone) dipping 20° to the east. SALSF funding via Somerset County Council enabled the old quarry to be drained and landscaped in order to turn an eyesore into a valuable village facility for many community events with all-abilities pathways for use by wheelchairs and pushchairs. The restoration has involved grassing over the main part; it is overlooked by a 5 m high, bland rock face. It makes a pleasant secluded area for local people.

Ubley Warren

Ubley Warren (ST 503 554) is on the Mendip plateau near Charterhouse and consists of shallow limestone rock gorges (rakes) and spoil heaps that are the result of centuries of lead mining. The main ore was galena and occurred as veins and fissure fillings in the Carboniferous Limestone (Black Rock Limestone). It is a nature reserve owned by the Somerset Wildlife Trust. Sutton (n.d.) describes it thus: 'In high summer Ubley Warren is a truly magnificent place for butterflies and other forms of wildlife, as well as providing a most enjoyable walk in beautiful scenery'.

Avalon Marshes

The Avalon Marshes are a complex group of former peat diggings to the west of Glastonbury. Access is by droves and there are a number of car parks. Among the reserves are Westhay Moor (ST 457 437), a National Nature Reserve belonging to the Somerset Wildlife Trust; Ham Wall (RSPB) which is another National Nature Reserve (ST 449 395) and the Peat Moors Centre (ST 426 413) on the Shapwick to Westhay Road. The latter has a display about life and work in the moors and especially about the formation of peat. The area is famous for the seminal studies by Harry Godwin which did much to elucidate the post-glacial history of vegetation and sea level in Somerset. Memorabilia includes details of the work of Arthur Bulleid in the peat moors. A recent field guide (Hunt and Haslett, 2006) provides a detailed account of the geology and archaeology of the Somerset Moors and Levels. There is wheelchair access to all of these locations which are rich wetland habitats and have important bird populations which can be observed from hides. There are opportunities for fishing. The Avalon Marshes concept envisages former peat workings of the peat production zones in the Brue valley becoming a restored wetland, with lakes and reed beds primarily for nature conservation; there are visitor facilities and compatible recreational activities, coupled to appropriate commercial activities, especially revived wetland industries.

Burnham-on-Sea

Estuarine grey, and grey and brown mottled, partly silty clays underlie large areas adjacent to the Parrett Estuary; they were deposited during the post-glacial rise of sea level. Apex Leisure and Wildlife Park (ST 308 481) has been reclaimed from clay pits in these deposits and which once served the Apex Brick Works (Figure 2). Its 42 acres includes nicely graded, grassy slopes, lakes and footpaths. On the south side there are views over the tidal mouth of the River Brue towards the Bristol Channel. The park is managed by Sedgemoor District Council and is a valuable local amenity.

Bridgwater

There are more former brick and tile clay pits to the north and south of Bridgwater. At Chilton Trinity (ST 297 395) there is an activity centre and an extensive network of lakes mainly devoted to fishing. Dunwear Lakes (ST 316 359) lie on the southern edge of Bridgwater wedged between housing estates, the M5 and the tidal River Parrett. Fishing and dog-walking are the main activities.

King's Cliff Quarry

King's Cliff Quarry (ST 278 327) is at the eastern end of a combe at the southeast corner of the Quantocks. Old quarry faces, 30 m high, lie on the southern side of the valley. They are now much overgrown but it is possible to access a few exposures of brownish grey cleaved siltstones and silty slates, interbedded with brown fine-grained sandstones of the Morte Slate Formation (Edmonds and Williams, 1985). It is the most easterly outcrop of Devonian strata in the South West Peninsula. SALSF has again been used to support improved access, on-site information and a small car park. Its main use appears to be dog walking and BMX riding.

Thurlbear Quarrylands

Thurlbear Quarrylands (ST 274 212) is a Butterfly Conservation Reserve. The old spoil heaps, associated with former extensive working of the limestone beds in the Blue Lias Formation, have resulted in calcareous, infertile thin soils which encourage plant species which attract a wide range of butterflies. There are nightingales and one may be able to see the elusive Brown Hairstreak butterfly in August.

Ham Hill Country Park

Ham Hill Country Park (ST 479 166) lies 6 km west of Yeovil and is 400 acres of countryside managed by South Somerset District Council. The hilltop ridge has been extensively quarried for Ham Hill Stone which has resulted in a diverse pattern of old waste tips and quarry faces. There are several car parks, a ranger's office, pub and information boards. There are extensive views over much of Somerset and it is one of the

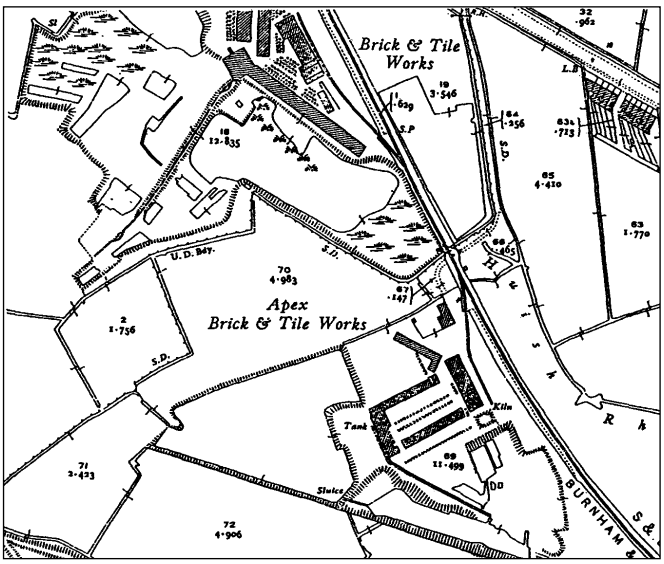

Figure 2. *O.S. 25 in sheet XXXVIII.3 showing the site of the former Apex works at Burnham.*

biggest Iron Age hillforts in Britain. In addition it is one of the best localities in inland Somerset to study a wide range of geological features (Prudden, 1995). Ham Hill Stone is a golden, cross-bedded, bioclastic limestone quarried since Roman Times. The old quarry faces are accessible and show good evidence for strike-slip faulting. There is much of interest for naturalists including 24 species of butterflies (Sutton n.d.).

Future developments

Former mineral workings clearly have a variety of uses: butterfly conservation, dog walking, rambling, fishing, bird watching and, in some cases, the study of geology. They also provide opportunities to enjoy access to the countryside and in Vallis Vale, for example, to find tranquillity.

It is important that all interested parties are invited to attend discussions about the restoration of former mineral workings. Unhappily, geologists have not always been consulted and it is important that their voice is heard in the future so that geological features can be conserved. A small quarry face may not seem important to a parish councillor or local authority official but may be of research potential, or ideal for exploration by local school children. In addition, rock faces add variety and local distinctiveness to the landscape.

There are bound to be more opportunities to restore old workings in the future. Triscombe Quarry (ST 160 355) on the side of the Quantocks lies abandoned. It contains massive and thickly bedded quartzitic sandstones of the Hangman Sandstone Formation together with Variscan folds and thrusts which await research. The public perception may still remain of a noisy eyesore in outstanding countryside. However, perceptions change. It is an impressive landscape feature which surely adds to the diversity of the landscape. It would be treasured if it was a rocky mountainside in Snowdonia. There are Health and Safety aspects to consider but surely it is no more hazardous than Langdale Pikes. Cheddar Gorge is visited by thousands of tourists each year to see similar steep-sided rocky hillsides. But perhaps the most impressive former mineral working lies just to the east of Wells, namely Dulcote Quarry. Arguably, Dulcote Quarry (ST 567 443) rivals Cheddar Gorge both in the height of its vertical sides and the clear exposures of overturned and thrusted rock formations. Triscombe and Dulcote display interesting features of Variscan tectonics and geologists would welcome the opportunity to visit both with field parties.

In the meantime there could be SALSF funding available for more quarry restoration schemes. Here is an opportunity for local people and groups to come forward with suggestions.

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