

**Chelsea  
Spelæological  
Society  
Records**



**Caves & Tunnels in  
South-East England**

**Part 10**

**Volume Twenty**



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RECORDS OF THE CHELSEA SPELÆOLOGICAL SOCIETY

VOLUME TWENTY

CAVES AND TUNNELS IN SOUTH EAST ENGLAND

PART TEN

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**Introduction**

*“If our eye could penetrate the earth and see its interior from pole to pole, from where we stand to the antipodes, we would glimpse with horror a mass terrifying riddled with fissures and caverns.”*

Thomas Burnet  
Telluris Theoria Sacre  
Amsterdam. Walters. 1694. p.38

A reluctance to waste the rest of this page allows me the opportunity both to write an introduction and to acknowledge the contributions of two groups of people without whose efforts this could not have been published.

The first group is the readers - that is the readers of earlier volumes in the series. Many have felt sufficiently inspired by the objective of recording interesting underground places to write giving details of sites which they know about; or to send news cuttings, photocopies and photographs dealing with them; or to carry out some archival research on their own initiative; or to go out and do some field work, including interviews or actual digging and surveying.

To them my collective thanks. I have acknowledged individual contributions in the text wherever appropriate, and hope that this volume will inspire further efforts.

The second group is the people who actually dug and built the places described. Their names are largely unrecorded. The accounts here pay a small recognition to the colossal effort of excavation required, often in unpleasant conditions and at personal risk.

H.P. Wapping 1992

*This version reformatted for online publication March 2025, primarily to replace the font with a modern, more readable typeface. Paging and indexing is unchanged. Missing page 64 index content added April 2025. MV.*

## SOME INTERESTING LOCATIONS

### West Wycombe 'Caves', Bucks.

see plan

(also known as The Hellfire Caves)

**Location**      Marked on Sheet 175 of the 1:50,000 O.S map 1982 edition at SU 829948.

Take the A40 west from High Wycombe. As you leave the town on a long, straight road, the Dashwood Mausoleum, with a golden ball on top, is seen ahead on the hill above the 'Caves'.

After West Wycombe village is passed, take the right hand turning towards Bledlow Ridge and Chinnor and immediately turn right again, up a short drive to a car park (20p.) The entrance, complete with cafe and turnstile, is one minute's walk up the path from the car park.

**Access**      Open to the general public as follows (1991)

5 Mar - 24 May	1300 - 1800	Mon - Sat
28 May - 8 Sep	1100 - 1800	Mon - Sat
1 Apl - 30 Oct	1100 - 1800	Sun/Bank hols.

Adults £2.00, Children and Pensioners £1.00  
Group rates and visits outside of these times by arrangement.

**History**      Now for a bit of spice: somewhat unusual in publication of this type! Quotations are from the guide book to the site published in the 1960s.

The 'caves' are an underground 18th century folly, excavated between 1745 and 1752 at the behest of Sir Francis Dashwood, Chancellor of the Exchequer, Lord le Despencer and Postmaster General 1708 - 81.

He employed local agricultural labour to do the digging at a rate said to be of a shilling a man a day. The excavated chalk was used for road making. However it is plain from the plan of the tunnels that the objective was to create a set of tunnels rather than obtain chalk.

Sir Francis was also a leading member of a group of rakes known as the Hellfire Club, which has been the subject of many publications. The club had a restricted membership and members were known under pseudonyms. They included the First Lord of the Admiralty, a Lord Mayor of London and an unfrocked priest.

Much of the club's activities took place at Medmenham Abbey where, dressed as Franciscan monks, "*they indulged in every conceivable form of vice and perversion*", including the practice of the Black Mass.

"Nuns" were often introduced into these proceedings, who were *"less reputable women procured from London."*

*'Whilst womanhood, in habit of a nun,  
At Medmenham, by backwood monks undone.'*

These orgiastic activities were said to have been transferred to the 'caves', which were designed with this in mind. The plan of the passages is said to be of pornographic significance, with the triangular section representing the pubic triangle, the inward passage from it a uterus and the River Styx chamber a womb.

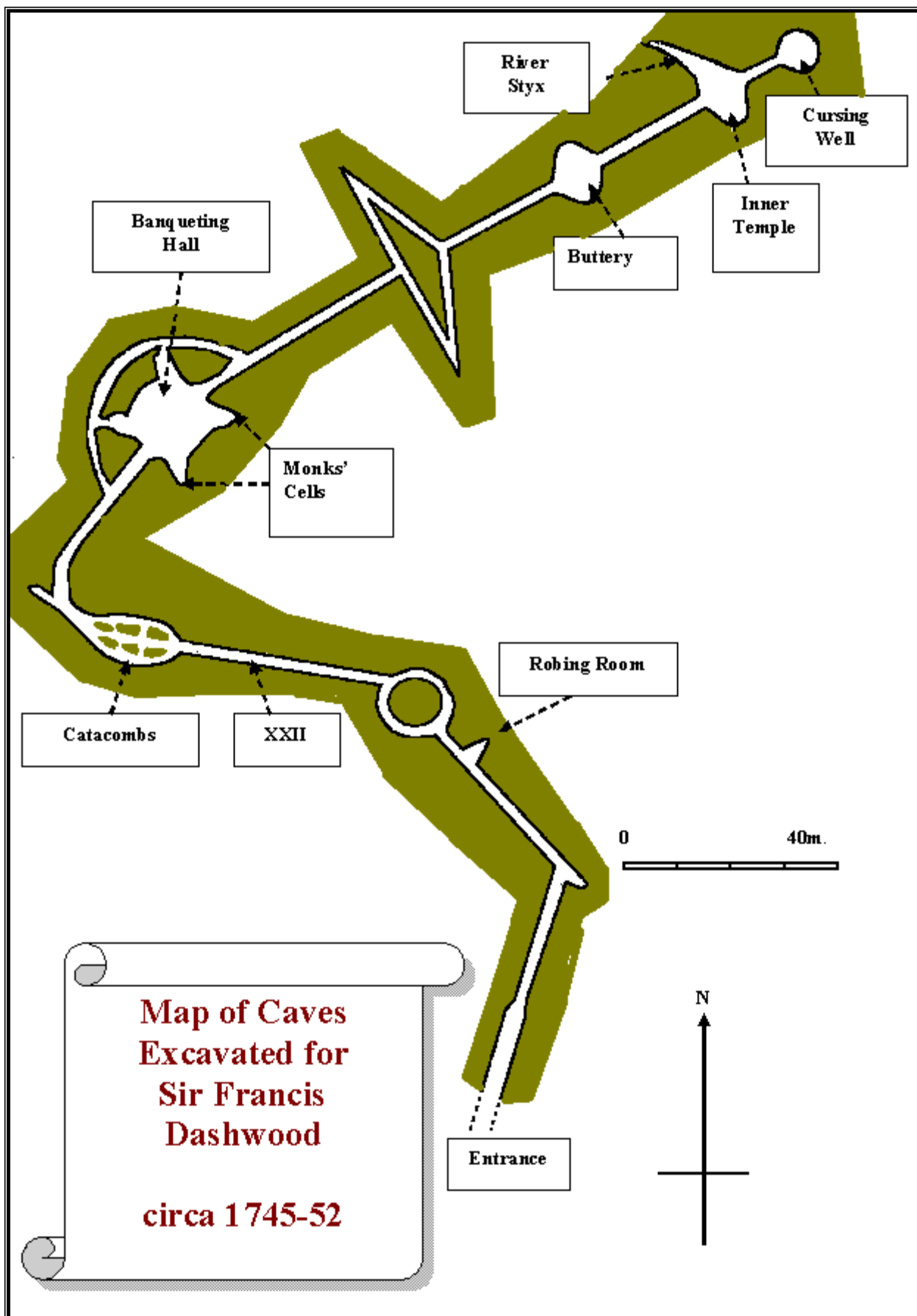
However it is worth commenting that, in common with most underground places, the atmosphere is damp and chilly and not at all conducive to arranging a comfortable orgy.

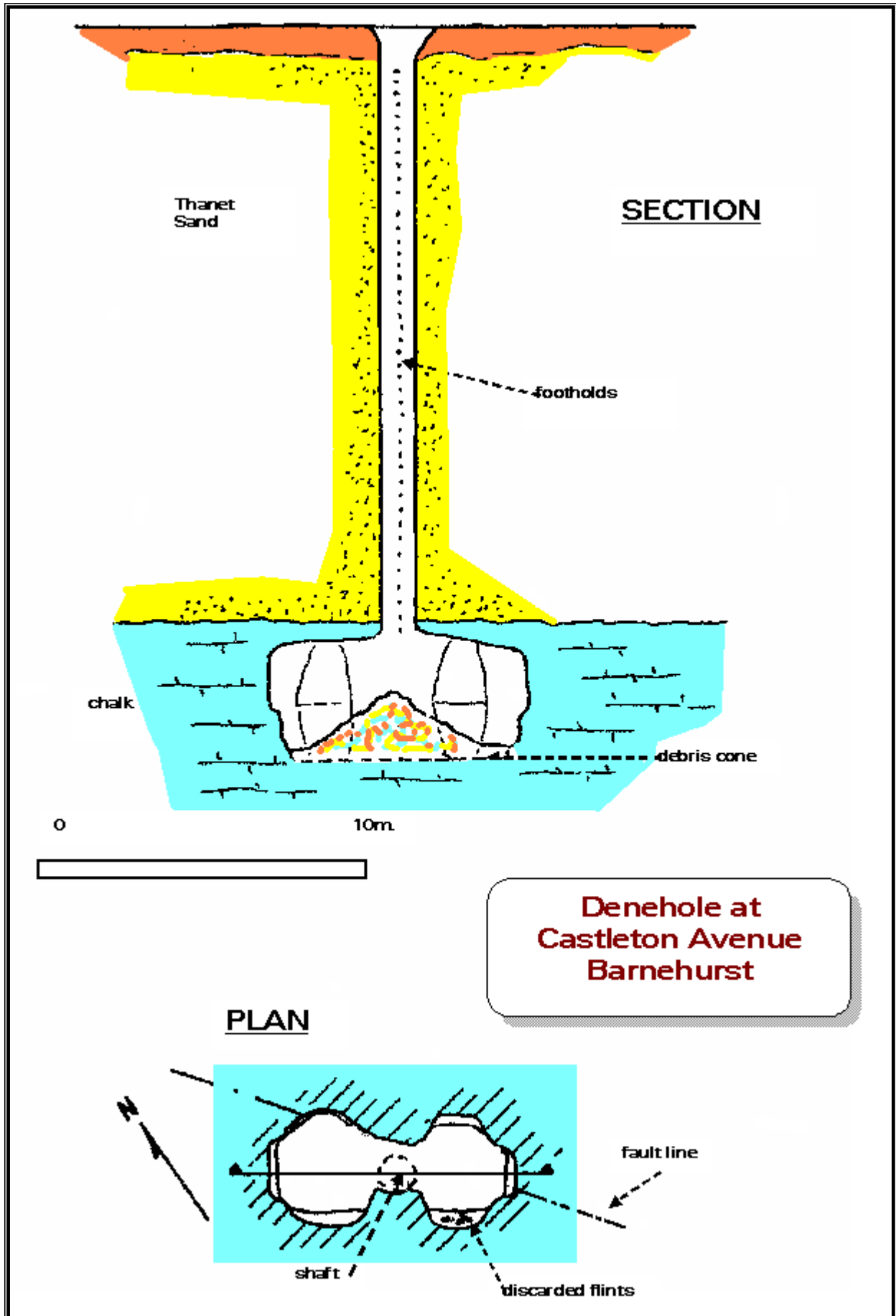
**Description** The tunnels are mostly of a pointed arch cross section of walking height. To accommodate the ingress of large numbers of 'punters' they have been fitted with electric lighting. The further additions of recordings, waxwork tableaux, gratuitous quasi-historical wall plaques and grottoes with garishly lit concrete stalactites may not be to everyone's taste, but visits are unguided and you can stay in as long as you like. Many of the tunnels and chambers have been lined with concrete cladding to stop bits of chalk falling onto the customers, but some attempt has been made to blend this in with the natural materials. Underground follies are something of a rarity and this one does have a well-authenticated and unusual pedigree.

The entrance is through a 'Gothic' courtyard with flint walls. The initial section of entrance passage is some 2m across and beyond this is a narrower passage which, like most of the tunnels, slopes downwards at an angle of about 10°.

The passage turns left, and on the right is a chamber called the Robing Room, where the club's members are presumed to have changed into monk's habit. (Disrobing Room in some accounts.) Beyond this some devil's heads are carved on the walls and the passage continues downwards after circling a large pillar. A short distance beyond, high on the left hand wall, are carved the numerals 'XXII' This has been linked with a rumour of a connection between the caves and the Mausoleum on top of the hill and the following poem has been handed down:-

*"Take 20 steps and rest a while;  
Then take a pick and find the style  
Where once I did my love beguile.  
22 in Dashwood's time,  
There to hide this cell Divine,  
Where lay my love in peace divine."*





The inscription is about 22 paces beyond the pillar.

After this comes The Catacombs, a bit of a misnomer as there is no sign of any burial niches. Then comes another grotto on the left, now packed with mock formations, which was the start of the alleged connecting secret tunnel. A sharp right turn leads to the Banqueting Hall.

*"This is approximately 40 ft. in diameter and 50 ft. in height and is the world's largest chalk chamber."* It is certainly an impressive chamber, with 4 alcoves, said to be used for assignations with 'nuns'. The actual dimensions given in the above account have been doubled and there are plenty of chalk cavities elsewhere which are considerably larger.

At one stage this chamber showed some signs of instability, so in 1954 some Yorkshire miners were employed to dig a by-pass passage. The judicious use of concrete has since stabilised the chamber so that both routes are now open.

Beyond this point the gradient levels off and, after a small chamber known as The Buttery, comes a bridge over a small lake called the River Styx. *"200 years ago the river was much deeper and a boat was used to ferry the monks across."* The chamber also features a Cursing Well on some plans.

Just beyond this is an Inner Temple - a small round chamber, *"where the Wycombe wenches left the last memories of their innocence."* It currently features two fully clothed wax ladies having a quiet drink. The act seems to have been cleaned up for family entertainment.

The survey reproduced here is based upon the one displayed at the caves, but tidied up as a result of some measurements taken on a visit at Easter 1991.

### References

- |                       |  |
|-----------------------|--|
| CRAWFORD, Harriet     | <i>'Subterranean Britain'</i> publ. John Baker, London.                              |
| DASHWOOD, Sir Francis | <i>'The Dashwoods of West Wycombe'</i> 1987<br>London Aurum Press ISBN 0 948149 77 9 |
| McCORMICK, Donald     | <i>'The Hellfire Club'</i>   |
| SQUIERS, G            | <i>'Secret Hiding Places'</i> 1934   |

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### Marlow, Bucks - Borgnis' Cave

Two quotations from McCormick's book (see above):-

p.102 *An interesting fact is that just by Guiseppe Borgnis' house at Marlow there is a curious cave, much smaller than that at West Wycombe, but suggesting that at some time or other it was used as a meeting place.*

p.183 *It is also claimed that Benjamin Franklin was a visitor to Borgnis' Cave at Marlow - apparently he was a keen speleologist.*

Marlow is at SU 3486.

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### Barnehurst, Kent - denehole

see plan

**Location** Beneath Castleton Avenue at TQ 50797640.

**Description** A shaft entrance opened up in the carriageway on Saturday 9<sup>th</sup> June 1990 shortly after a car had pulled into the kerb. Two days later Rod LeGear and S. Caiger visited the site and made a descent of a shaft 1.2m, in diameter and 20m. deep. Two sets of opposing footholds were visible in the Thanet Sand walls.

At the base in chalk were 6 chambers in the traditional double clover leaf pattern. They were some 3.5m. long, 2m, wide and 3.5m, high with miners' benches at the ends. The floor was covered with an estimated 0.5m. of debris.

The other observable features were numerous pick marks from short-headed iron picks, a pile of excavated flints in one chamber and the collapse of the base of the shaft on the north side along the line of a fault. It was surmised that the excavation, may have been abandoned prematurely because of this. The overall appearance was of a typical 13<sup>th</sup> C. denehole.

**Source** Rod LeGear

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### Henley-on-Thames, Oxfordshire - grottoes

The following extracts come from the *Guide to Friar Park*. 1909, "Admission sixpence. Caves threepence extra."

**TUNNEL AND ROCKING STONE.** On the S. side of the drive is a tunnel constructed of Pulhamite which, passing under the Badgemore Road, gives access to the S. field on the opposite side of the road.

At the mouth of the tunnel is a Rocking Stone (also of Pulhamite) which rocks after the manner of the so-called "Logan-stones" found in Cornwall and elsewhere.

**WATER CAVES** (Blue grottoes of Capri).

Near the N. Brook, as well as on the E. side of the S. Pool, are the two entrances to an underground waterway that leads to several caves, all lighted by blue glass skylights as well as by electric lamps. The preferable entrance is the one in the S. Pool.

The first cave reached from this entrance is the Small Cave, which has two recesses, in which are representations of swans, geese, ducks, frogs, toadstools etc.

Passing on the Middle Cave is reached, beautifully illuminated by day (more especially on sunny mornings) by the blue glass skylights, so that the most varied rainbow and other hues are thrown on the walls. Amongst the objects of interest are the stalactites, fossil trees, petrified birds' nests &c. with a "Nid d'amour" or "Nest of Love" near the central pillar, the occupants of which are not birds but babies.

Still further on is the Large Cave, which has the same general features as the Middle Cave. A special feature is the waterfall, which is strikingly illuminated by different coloured lights. The return journey can be made by the same route, or, if a shorter one is preferred, a passage on the E. side of the Middle Cave leads to the entrance near the brook mentioned above.

As it is not possible to pass any considerable number of visitors through the cave in a boat, the Middle and Large Caves have a footpath by the side of the water. This is reached by two sets of steps in the "Church Path", one set for descending, the other for returning.

The revelry on one occasion of some I.V.s at the group of swans caused us to think unconsciously of Coleridge's lines:-

*"Swans sing before they die: 'twere no bad thing  
should certain persons die before they sing."*

(In the Elizabethan Garden was a model of the Matterhorn, complete with a marked route and china chamois and topped with a piece of rock from the mountain itself. The guide at this point launches into a detailed description of the mountain and the history of its ascent, but does not give the dimensions of the model. There are however some underground features:-)

In the glacier itself is an Ice Grotto similar to those at Grindelwald and elsewhere in Switzerland, the ice showing in places its characteristic blue colour. At the end of the passage is an Ice Cave in the glacier reproduced from a photograph of the cave in the Glacier du Geant at Chamonix with very peculiar 'stalactites' of mixed snow and ice.

Two cavities show the blue colour of the ice behind in an intensified form. Where the water from the glacier enters the cave in a fall, icicles are formed of the ordinary shape.

Near the Icicles stands a Stork of china, which will drink the water of a vessel held to its bill. The idea was suggested by the arrangement of a swan drinking shown in a German work of 1615, but that was considered to be too complicated for use in the present position at any rate. The more simple device by which the stork was worked out in remembrance of an hydraulic principle learnt by the owner at school. The I.V. will of course say, "I see - a syphon!" But though of course the bill and neck of the bird are bent in syphon form, the principle upon which a syphon acts has no necessary connection with the arrangement, as is shown by the fact that it would equally work if the long leg of the syphon were in the water in place of the short, a condition which would oblige the syphon to "give up". It has been suggested by one of those wags who can't be kept away, and whom it is impossible either to strain out at the gates or to swallow afterwards, like the camel of old, that the supposed "principle" is a myth, as it is obvious that the water is taken up from the glass, not by any hydraulic action but mechanically "*by a Crane*". What some I.V.s take for a Stork's nest is a fossil Cycad or Palm-like tree.

(The face of the large rock on the S. Side of the passage to the Ice Cave from the W. ravine is described by experienced mountaineers as presenting all the "roughness" that is wanted for climbing - "glad to have nothing worse". Apparently it would hardly furnish a foothold for a bird.)

### CAVES

These consist of a communicating series of five caves, excavated and then covered in and lined with what looks like Tufa. The Principal Entrance is from the Alpine Garden.

The inscription over the entrance "Cave" "Time" on each side of a spiral may at first sight be supposed to have reference to some form of sundial. The spiral is however a copy of an Etruscan rock inscription, while "Cave" is simply the Latin for "Beware!" and "Time" of "Fear", words appropriate to the entrances of gloomy recesses.

(1.) The "**Vine**" **Cave** is distinguished by the glass bunches of grapes of different colours holding electric lamps (In this case it is "In Vino non Veritas!")

The Mirrors afford various optical illusions, which can only be effectively shown to a limited number of persons at a time. In one mirror the spectator's profile can be seen, but it is impossible to see the full face, turn as he may: while in another the reflection of the spectator is not in the near glass, but in one apparently a long distance off.

The side cave is lined with tin ore from Dakota, in the United States, and illustrates the common proverb in a somewhat different form, as it demonstrates that "*All is not tin that glitters*," the black mica spots being tin, while the glittering substance is mica. The withered and chained hands at the extreme end may (or may not) be those of a walled-up Friar of a long past age, who was thus punished for some infraction of monastic rules. (The hands themselves are not in fact seen, but only a reflection of them.)

(2.) **The Wishing Well Cave** has a Well in which can be seen such male or female faces as the visitor may wish for, dark or fair according to taste. It should be remembered however that what is wished for will remain to be seen by others, so that some restraint should be imposed on the character of the wish. Thus a married lady should not wish to see her second husband, nor a married man a future wife, and so on.

All around are various kinds of Bats and Owls (with electric lamps), Crocodiles, Toads, Frogs and other forms suitable for such an uncanny place...(If convenient it would be obliging if the illuminated eyes of the adjoining "Ghost" owl were not poked out. Being of thin glass they will not bear a heavy knock with a stick or umbrella, and much time has been lost in replacing them on different occasions.)

(3.) The **Skeleton Cave** is so called from the representation of a Skeleton, which is reflected in an apparently inexplicable manner. It is ordinarily shut up in the cupboard, in which all respectable families usually endeavour - sometimes with indifferent success - to keep them.

Smaller skeletons are attached to some of the lamps.

...On the walls are seen many Fungi of different forms, their growth, as might be supposed, being favoured by the atmosphere of the caves.

Two mirrors distort the figures of persons standing before them, one in breadth and the other in height...

In a recess at the back of the cave is an optical illusion showing Mephistopheles following Marguerite from Church; the former however is not really seen, but only his reflection, the original having to be sought for.

(4.) The **Illusion Cave** has an optical illusion showing the upper part of a friar who instantaneously passes from life to death, after the manner of an American "electrocution", i.e. execution by electric shock instead of hanging.

The Tiger in the distance will, if a lady closely approaches it, change from one of the most ferocious of creatures into what she will readily agree to be one of the most charming forms ever seen.

(5.) The **Gnome Cave** is so called from the representations it contains of Gnomes of all sizes and conditions (and for whom when they were turned out of their own home "an home" had to be found.)

Of the various groups the principal are (1) The Gnomes trying to take a young bird, with the mother bird attacking the would-be robbers; (2) the Gnome trying the contents of a snuff box, with his companions in doubt, fear and amusement as to what will happen; (3) the small Gnome with toothache, made fun of by his fellows, who offer iced water and other mock remedies in the derisive manner not unknown to the human race; (4) the Gnomes behaving disrespectfully to a cockchafer; (5) two Gnomes examining a fly; (6) the Gnome coming up from below and startled by a snake; (7) the Gnome alarmed at the possibilities of an explosion of the champagne bottle he is carrying; (8) the giant Gnomes, sung to by small Gnomes and their cats; (9) the group of Gnomes tantalising a giant frog with a crab; and (10) two Gnomes amused at a nondescript animal...A Special mirror at the E. end of the cave turns the visitor himself into a gnome. (At this point we arrive again at the Rock Garden entrance to the Caves.)

A second entrance to the Caves is found in the veranda outside the drawing room, down a flight of steps, so that from the house the Greenhouses can be reached on a rainy day without the visitor having to go in the open air.

Over this entrance is a Tautogram in the form of a play upon the word Cave in connection with the Latin Cave = Beware. The dog's head in conjunction with the cave forms 'Cave Canem' (Beware of the Dog), while the seven lines below, (composed by the Rev. J.H.Merriott) contain as many Latin words beginning with 'cav' as could be brought into the sense.

*Cave! Ecce Caveam!  
Ne Cave Canem Caveatum  
Neu Cavannos Cavaticos  
Cave extra caveam  
Cavum Cavillatorem  
Cavernae Cavernatori  
Cavillulus Cavillantem*

*Beware! Behold the cave!  
Fear not the dog in the cave.  
Nor the owls inhabiting it  
Fear outside the cave  
The empty-headed punster  
Who has perpetrated these little puns  
For the maker of the cave.*

The author of the guide, the full version of which matches the eccentricity of the constructions, remains anonymous. The 1909 edition is the Third 'much extended' and says that the grounds were open on Wednesdays from May to September from 2 p.m. to 6 p.m.

'Follies' a National Trust guide, contributes the information that the entire edifice was constructed in 1896 by a solicitor, Sir Frank Crisp, aided by his architect M. Clarke Edwards. "*Gradually the monstrous jokes fell into decay.*" Up to 1969 the Order of St. John Bosco used Friars Park as a Roman Catholic School. It was then bought by George Harrison, a former member of the Beatles pop group, who is rumoured to have spent some £1.25 m. in renovating it.

The location is a '42 acre spread behind the Town Hall.' Henley is at SU 7682.

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### High Wycombe, Bucks - bunker

**Location** Presumably a state secret, although it receives regular Press coverage. The 1:50,000 O.S. map shows aerial masts at SU 878912 and SU 869915, which may have some connection.

**Description** The bunker took 7 years to build and was completed in 1988. It cost some £80m., half of which was funded by NATO. It was designed with the possibilities of war with Russia in mind but came into use unexpectedly when the Gulf War started in January 1991.

The bunker is a 4-storey underground structure, which is 89 yards long, 50 yards wide and 15 yards deep. It is not far from the now redundant World War 2 Bomber Command bunker. The construction consumed 250,000 tons of concrete and 2,000 miles of steel rods. It is designed to house 500 people.

The top floor is entered through 7" thick doors. This leads to the domestic level, with sleeping accommodation for 450 people, a restaurant and an operating theatre.

The next floor down has a central feature called the Battle Management Room or B.M.R. This is surrounded by a number of specialist rooms, of which the key one is the 'Intelligence Citadel'. Large numbers of VDUs connect to the Air Staff Management Aid System.

The third floor houses communications and computers and the fourth, life-support systems. The structure is known to the staff who work there as The Concrete Submarine,

**Sources** Standard 16<sup>th</sup> Jan 1991. Telegraph 2<sup>nd</sup> Nov 1991

**Gatwick, Surrey - airport tunnel**

**Description** At TQ 286413. Visited by a group of rail enthusiasts on 9<sup>th</sup> June 1990 on the occasion of the 60th anniversary of the airport. They went to the original air terminal known as The Beehive and...

*“Something not previously realised by at least some of the party was that the terminal was directly linked by a wide subway to the then Gatwick Airport station of the Southern Railway. After an inspection of the tunnel, somewhat damp in places, a walk on the surface took us about 5 minutes to reach the station.”*

**Source** Bulletin R.C.H.S. 307 pp2-3 1990

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**Emmer Green, Berks. - chalk mines**

see illustrations

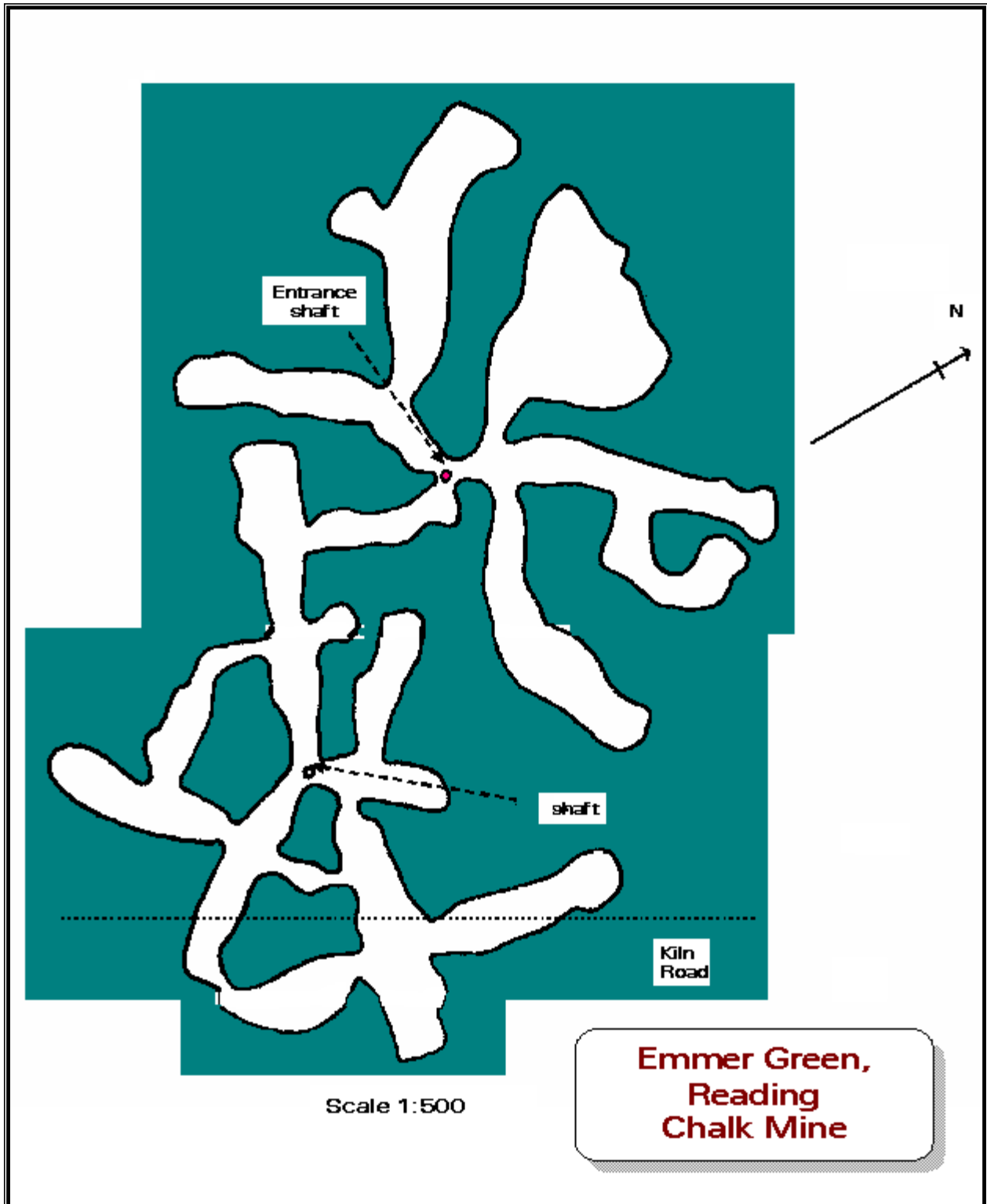
**Location** First Mine - at SU 73347715. A track off of Kiln Road past the Hanover Trust sheltered housing project leads to a Scout Hut. At the rear of this is a cutting into an earth bank, lined with concrete slabs. It is about 3 ft. wide and 10 ft. long. A locked metal door gives access to a 6 ft. diameter, 70 ft. deep brick-lined shaft in perfect condition. The shaft has been provided with all of the fittings required for both S.R.T. and wire ladder descents. It is in use monthly as a cave training centre by Berks. Scouts. Visits can be arranged by prior notice.

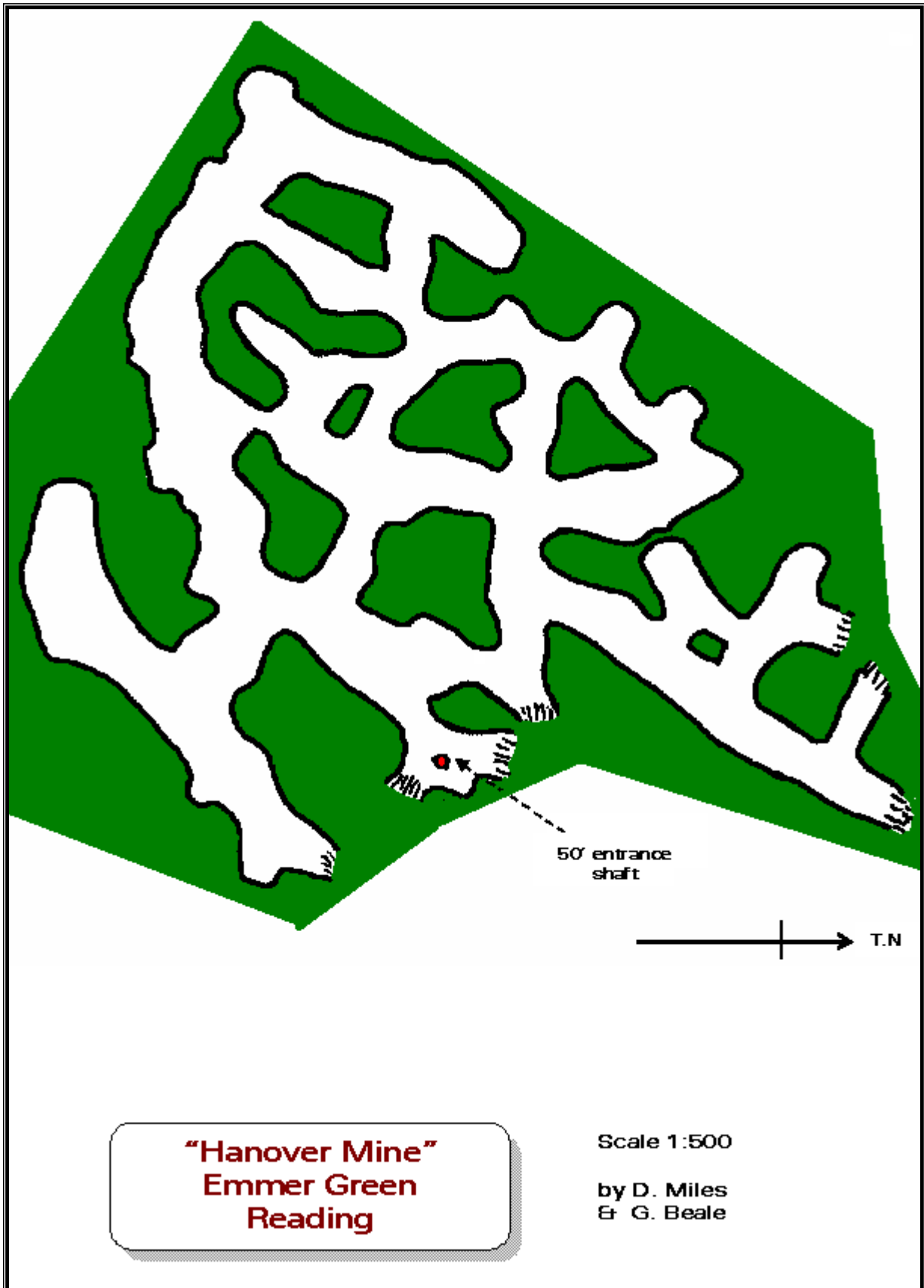
The Second Mine (now called Hanover Mine), is at SU 73257694. In the southern corner of land owned by the Hanover Housing Trust is a locked metal plate and the top of a projecting rigid metal ladder. This leads to a 50 ft. brick-lined shaft, 3 ft. in diameter and now lined with curved, corrugated metal sheets. The ladder extends to the bottom. A nearby tree provides a useful lifeline belay.

**Access** At the time of publication occasional access has been granted for visits on Friday nights. Contact Geoff Beale Tel. 0734 7222510.

**Description** The first mine has been known about continuously since abandonment, but has lain dormant for long periods. In World War 2 it was used as an archive store by Reading Council and the rotting remains of numerous tea chests and two corrugated iron structures testify to this period of its history.

The passages are up to 20ft. high and average 15 ft. across. Piles of chalk and flint debris cover much of the floors. In some places these have been consolidated to make trackways. Most of the flint has been left behind, the chalk being used in the brick and tile works, which once flourished on the surface. The actual method of working is unclear as there are no chalk steps at any of the work faces. Possibly some kind of staging was used.





A brick fireplace and chimney at the base of the shaft may have been to provide forced ventilation, or to dry out the archives. There are a few miners' artefacts, such as spikes, and the remains of a shoe: more could no doubt be recovered by sifting the debris. Dates and names on the walls go back to the 1890s. Ledges for candles can be found in the walls throughout the mine, about 5 ft. from the floor, with soot marks and candle wax. However overall the chalk surfaces are quite clean and free from carbon. An inscription on the walls records the names of 3 mushroom growers in 1908 and spent mushroom spoor is still in evidence

A second shaft at SU 73367711 beneath the garden of 43, Kiln Road, is covered and contains the remains of wooden staging. The evidence is that there were once two distinct mines with passages radiating from central shafts, which have become accidentally joined. It is conceivable that similar mines exist nearby.

The second mine was rediscovered in 1977 during site clearance work and the first descent then was by a 16 year old building worker called Nigel Holt. It was first thought to be a well shaft, but large volumes of surface water pumped down it simply disappeared. A 3ft. water mark can be seen at the extreme southern end of the mine.

There are large, irregular chambers on more than one horizon, so that the floor is very uneven. Several passages end in piles of earth and, given that the shaft is not centrally located, it is likely that more passages exist to the east and north. The most north-easterly of these has been sealed off with bags of concrete and fly-ash. The oldest wall date found is 1776. A list of miners' names dated 1836 is written and in some cases carved on the walls.

A contractor (Wimpey) has been employed to spray many of the ceilings with concrete as a stabilizing measure, and has also fixed numerous glass tell-tales to the roof to warn of any subsidence beneath Peppard Road (B481)

**Surveys** The survey of the first mine is an update of the one which appeared in C.S.S. Records vol. 11. A second survey of Hanover Mine in that volume was taken from a newspaper and is now shown to be severely deficient. Instead we have a new plan by Dan Miles and Geoff Beale of the M.C.G. printed with their kind permission.

**Sources** Reading "Evening Post" 5.5.1977;6.5.1977;12.5.1977;  
13.5.1977;16.5.1977;12.7.1977;  
"Reading Chronicle" 6.5.1977;13.5.1977;2.1.1981;5.10.1990;  
12.10.1990.

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### **Brighton - The Warren Farm Well**

**Location** TQ 352057 In the grounds of the Fitzherbert R.C. School. Unoccupied but scheduled as a 'City College'. The current condition of the well is unknown.

**Description** The depth of the well is 1,285ft., making it one of the deepest in the U.K. Its sinking marks a story of foolhardiness and fortitude unique in the annals of shaft sinking.

In 1860 the Guardians of the Brighton Workhouse found that owing to the prevailing social system, generations of paupers were being born into their care with little hope of ever being rehabilitated into society.

They came to an intelligent decision to build a special school to educate the children of the poor to enable them to break out of the poverty trap and so relieve the parishioners of the burden of their maintenance.

However common sense seems to have fled when it came to the question of providing the school on the chosen site with water. The professional advice of Mr. Braithwaite, an engineer, was that water could be found 421ft. below the surface: a remarkably precise prediction. With this information the Board sanctioned the sinking of a well, the task being entrusted to a Mr. Samuel North.

Mr. North then sank a shaft 6ft. in diameter to a depth of 467ft. or 16ft. below the low tide mark. It was dry. So a decision was made to dig some adits in the hope of intersecting a water-bearing fissure in the chalk,

One drive was made northwards some 30ft. long, 7ft. high and 6ft. wide. Another 12ft. lower down was made to the west some 30ft. long, 9ft. high and 6ft. wide. These two chambers were then connected by a sloping passage 20ft. long, 6ft. high and 3ft. wide. Finally a third heading was driven eastwards some 20ft. long, 9ft. high and 6ft. wide. Together these did produce a supply of water.

The position at this point was that some £2,000 had been spent on the excavation and pumping machinery - a colossal sum at the then value of the Pound. The well was producing about 1,000 gallons of water a day, but 300 gallons of this was being consumed by the steam pump, leaving insufficient to service the needs of the school.

A trial boring of 4 ins. diameter to a depth of 50ft. from the bottom of the shaft proved inconclusive and so a second shaft was commenced from the eastern chamber. By November 1860 this had gained a depth of 80ft., when one of the Board of Guardians, evidently alarmed by the continuing expense, asked an engineer named Mr. Henry Catt for an opinion. Mr. Catt descended the shaft on 10<sup>th</sup> Nov.1860.

He described the initial shaft as being entirely in the Upper Chalk and 433ft. deep, at which point he entered the eastern adit. Eight feet along this was the second shaft, which by that date was 90ft. deep.

His recommendation was that this work should be discontinued since, as the second shaft was offset from the first, the winch at the top could not raise the spoil to the surface, and all hauling up the second shaft was being carried out laboriously by hand.

Given the pressing need to find larger quantities of water, he further proposed that a new shaft be commenced at the base of the original one, and the smaller shaft, the three adits and the connecting drive be used for packing the spoil, thus avoiding the need to haul much of it to the surface.

The Industrial Schools Committee received this report with some dismay and instead decided to continue with the existing lower shaft. They found a way of passing the winch rope from the surface round a dog's leg and into the lower shaft. They also installed an air pump. This saved £6 a day in labour and also the cost of quantities of candles and oil lamps, as well as having to hire eight men to support the dig. It also relieved the workmen of considerable discomfort. Carbon dioxide had been building up in the shaft and it had been difficult to keep a naked flame alight.

With these innovations, work continued by day and night. 980ft. from the surface the Upper Greensands were reached and the dig passed through these and entered the Gault Clay. Time was then lost in lowering bricks and mortar from the surface to wall up the sides of the shaft which began to crumble from pressure as they passed through the clay.

A depth of 1,250ft. was reached and the Gault Clay began to emit a sulphurous smell which was almost overpowering.

On Sunday 16<sup>th</sup> Mar. 16th 1861, at a depth of 1,285ft, a man, who was auguring at the base of the shaft, began to bring up red sand out of the bore. This was accompanied by an ingress of water. As it was nearly time for a change of shift, which took three quarters of an hour to accomplish, he set off upwards.

The first man descending for the next shift met rapidly rising water 400ft. above the base of the shaft. It was calculated that some 32,000 gallons of water had entered the shaft at a rate of 40,000 gallons an hour.

By April 110<sup>th</sup> the well contained 100,000 gallons of water and the level was 945ft. from the base of the shaft and 340ft. from the surface. The school thus obtained its water supply but at an incredible cost and risk.

**Sources** Paul Sowan for uncovering the story from the following references:-

Brighton ref. library SB040, Brighton pamphlets v.22

80 years reminiscences by F.J. Ogburn 1914.

The Brighton Gazette 17.4.1862

**Leeds Castle, Kent - grotto**

**Location** In the grounds of the Castle near to the greenhouse nurseries at TQ 838528

**Access** Open to the public and entry included in the price for entering the grounds and estate. Telephone enquiries to 0622 765400 for current prices and times of opening.

**Description** The art of building grottoes died out with the Victorians, but has now been resurrected by Mr. Simon Verity. He was engaged by the owners of the Castle to build a new grotto as a public attraction.

The entrance is at the base of a concrete mound, but to reach this you first have to traverse an intricate maze of trellis and some 2,400 yew trees planted in 1987. I will deliberately give no guidance on threading the maze other than to say that the route is not the obvious one. At the foot of the mound is an arched entrance and two steps down lead to a vestibule with running water. You then turn right and after 2 metres descend a spiral staircase anti-clockwise.

This leads after 9 steps to a most elaborate room which, like the rest of the grotto, is encrusted with mosaics of shells, pieces of wood, minerals and bones. This room is lit by a skylight at the top of the mound and openings in the wall from the vestibule, which can now be seen to form the apertures of a huge face on one wall. There is also a waterfall.

A further 8 steps to the right leads to a room under the vestibule from which a snaking passage leads to an exit beneath the entrance to the maze. This passage is some 30m. long on an east/west bearing. The final exit chamber is decorated with moss.

Mr. Verity has also restored a grotto originally built for Lady Hertford on her estate at Marlborough, Wilts. and the Painshill Park Grotto at Cobham, Surrey, which was described in C.S.S. Records vol. 13 p33.

**Reference** International Herald Tribune 20<sup>th</sup> Aug.1988

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**Bassingbourn, Cambs. - Coprolite mine**

**Location** TL 3445

**Description** The excavation of the phosphate-rich coprolite beds in Cambridgeshire was described in C.S.S. Records vol. 13 p11. The major workings were by open-cast methods or bell pits. However Bernard O'Connor has uncovered reference to actual mining methods being employed.

The 'Cambridgeshire Chronicle' for 10<sup>th</sup> Feb. 1866 p.51 says :-

*"New System of Works - A new system of works has just been introduced into this country for the recovery of fossils of coprolites from the deep beds of the earth by Mr. C. Cooper of Bassingbourn."*

*"The principle is that used in mining operations, a shaft being sunk to a considerable depth and headings formed to run diagonally from the main shaft by tramways, so that an immense amount of labour is saved by bringing the stone up by steam power. The engines are fitted by Mr. Cooper on the most modern and approved plans, and are well-adapted for the purpose."*

Bernard O'Connor has also located a farmer who remembers, as a young man, playing in the entrance of a waterlogged mine with wooden supports. He also notes that when a gas pipeline was laid across 11-acre Field on Home Farm Bassingbourn it broke into the roof of a mined passage one metre below the surface. *"It had been dug out of the Gault Clay and was about 1m. wide and 2m. high with, unusually, a gabled roof. It was explored for a number of metres in a dog-leg, but deep water precluded further search. These sites have been filled in but the tunnel still exists beneath the area."*

A further reference to the mining of coprolite is to be found in the "Geology of the Neighbourhood of Cambridge" by Pennings & Jukes-Brown, Mem. Geol. Survey 1881 p.126.

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### **Birchington, Kent - Access tunnels**

**Location** TR 302698 (But TR 402695 has a rival claim).

**Description** "The 39 steps." was a thriller, published in 1915, which, more than any other, brought deserved fame to the author John Buchan. The key to the plot was a set of steps in an access tunnel leading from the cliff top to the beach at the Ruff of Bradgate, a fictional chalk headland in Kent.

John Henderson has located the tunnels which marked the origin of the story at the "Tower Bungalows", in Spencer Road at Epple Bay Road, Birchington. They were designed by J.P. Seddon. There were six sets of steps described in the book but only four survive and are 'listed' for preservation.

John writes:- *“In recent years, a sea defence wall and promenade have been built at the base of the cliff, so it is no longer a private beach. All six tunnel entrances can be seen from the promenade, but three are now blocked up.”*

*“Two are closed with doors, though the mountings of the gates mentioned in the book can still be seen. The sixth tunnel is open to all as it leads to a recent housing development; incidentally it has 52 steps.”*

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**Crystal Palace, London - railway tunnel**

see drawing

**Location** TQ 3470

**Description** This is about an unresolved mystery, almost a piece of modern folklore, which goes that there lies somewhere beneath Crystal Palace a 600 yard long railway tunnel, sealed at both ends, 10 ft. high and 9 ft. wide, and containing a railway carriage of unique and unusual design. The location of this has been the goal of and the source of much effort by both railway historians and tunnel enthusiasts.

The origins of this story go back to 1864. London, as it is now, was completely jammed up with traffic; the only difference being that thousands of horse-drawn vehicles were the cause. However tunnelling technology was well developed and the railway systems were expanding, so that it required little imagination to conceive of a system of underground railways as the solution to the capital's problems.

However the early trains were steam driven, which meant that the tunnels had to be near the surface and provided with vents at regular intervals. There was the possibility of asphyxiating the passengers if a train got stuck for any length of time. This prompted a search for alternative means of locomotion and the idea for an atmospheric railway was put forward by the Samnuda brothers and experiments made with the West London Railway and the London and Croydon Railway.

Atmospheric railways take two forms. In one a continuous hollow cylinder is laid between the rails with a slit along the top masked by a seal such as pieces of soft leather. A piston is then fastened to the bottom of the carriages and a stationary engine used to suck air from the cylinder, creating a vacuum in front of the train, which is then drawn forwards. If at the same time a second engine increases the air pressure behind the train it also blows the piston along.

The second method was even more ingenious. A skirt was fastened vertically around the carriage to seal the gap between it and the tunnel wall, and by the same principle the entire carriage was converted into a cylinder. It was this method which was tried out at Crystal Palace and the drawing reproduced here shows the carriage with its vertical skirt.

The logistics of atmospheric railways tend to make them self-defeating when applied to passenger transport. Large, expensive, fuel-hungry engines have to be installed to move the air about. Since there is movement around the seals they can never be fully airtight; and there are added complications at the termini or at junctions. However without someone prepared to mount a full scale experiment the possibilities could not be explored.

That person was a Thomas Webster Remmell, who persuaded the Crystal Palace Company to let him build a 600 yard tunnel between the Sydenham entrance to the park and the armoury near to the Penge Gate. The tunnel incorporated a sharp bend of 8 chains radius and at one point a 1:15 gradient. It was opened to the public on 31<sup>st</sup> Oct.1864. A charge of sixpence was made for the return journey.

A very detailed account appeared in a contemporary edition of *'The Times'*, part of which follows:-

*"A brickwork tunnel, about 10 ft. high by 9 ft. wide, and capable of admitting the largest carriages used on the Great Western Railway, has been laid with a single line of rails, fitted with opening and closing valves at each extremity, and supplied with all the apparatus for propelling passenger trains on this principle, by a strong draught of air behind the train when it travels in one direction, and pumping away the air in front of it when it travels the other way....*

*...At the departure point a large fan wheel with an iron disc, concave in surface and 22 ft. in diameter, is made to revolve by the aid of a small stationary engine, at such speed as may be required...The disc gyrates in an iron case resembling that of a huge paddlewheel; and from its broad periphery the particles of air stream off in strong currents....*

*...When the disc is exhausting the air in the tunnel with the view of drawing back the up-train, the air rushed out in a perfect hurricane from the escape valve. When the down journey is to be performed the breaks (sic) are taken off the wheels, and the carriage moves by its own momentum into the mouth of the tube, passing in its course over a deep air well in the floor covered with an iron grating. Up this opening a gust of wind sent by the disc, when a valve, formed by a pair of iron doors hung like lock gates, immediately closes firmly over the entrance to the tunnel, confining the increasing atmospheric pressure between the valve and the rear of the carriage.*

*The force thus being brought to bear upon the end of the train, the latter shut up within the tube, glides smoothly along towards its destination....*

*....The return journey, on the contrary, is effected by means of the exhausting process. At a given signal a valve is opened, and the disc wheel set to work at withdrawing the air from the tube. Near the upper end of the tube there is a large aperture or side vault, which forms the throat through which the air is exhaled, the iron doors at the upper terminus still being kept shut. The train....moved off on its upward journey, and, rapidly ascending the incline, approached the iron gates, which fly open to receive it, and emerged once more into daylight...*

*....Instead of a train being used at Sydenham, there is a very long, roomy and comfortable carriage, accommodating some thirty or thirty-five passengers. Passengers enter this carriage at each end and the entrances are closed with sliding glass doors....*

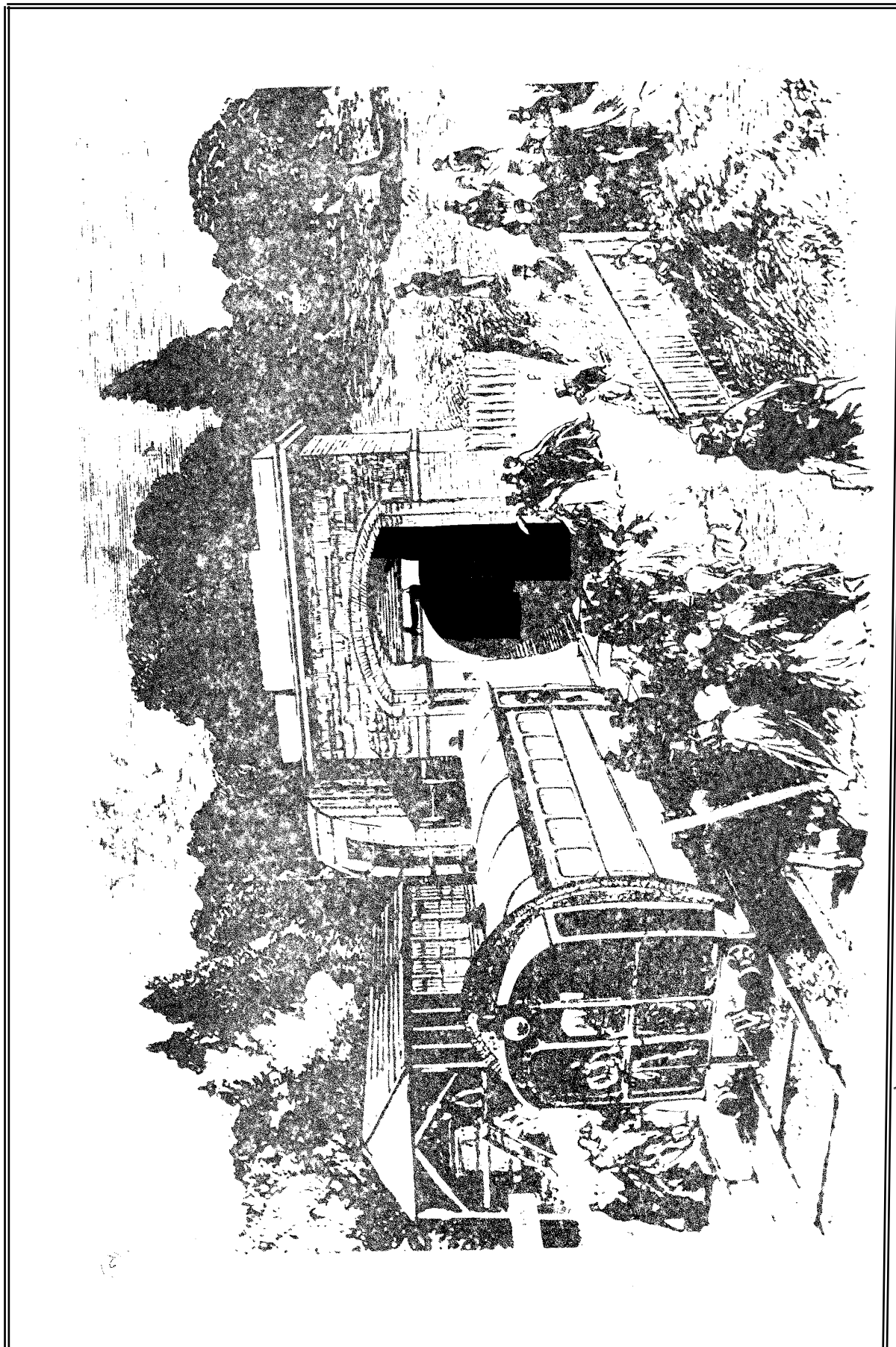
*....Fixed behind the carriage there is a framework of the same form, and nearly the same dimensions as the sectional area of the tunnel, and attached to the outer edge of this frame there is a fringe of bristles forming a thick brush. As the carriage moves along through the tunnel the brush comes into close contact with the arched brickwork, so as to prevent the escape of air....*

*....The motion is much pleasanter and steadier than ordinary railway travelling. The journey of 600 yards is performed either way in about 50 seconds, with an atmospheric pressure of only two ounces and a half to the square inch; but a higher rate of speed, if desirable, can easily be obtained."*

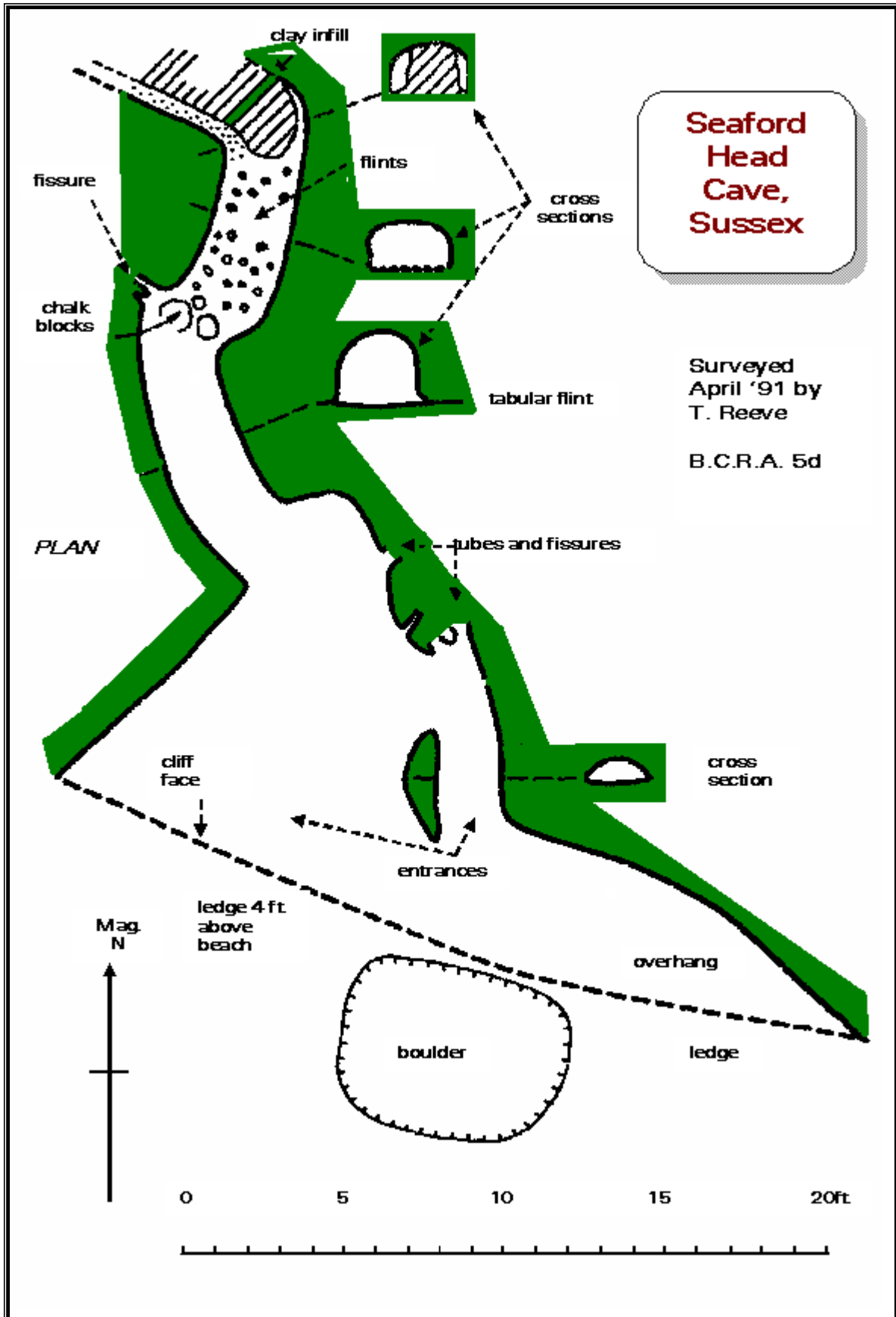
This cutting is undated but was printed some two weeks after the tunnel opened.

What happened to the tunnel after the experiment; how was it constructed, and exactly where was it situated? The answer to all of these questions was lost in the great Crystal Palace fire of 1936. Such plans as were saved were transferred to the British Museum and were finished off by an incendiary bomb in World War 2.

Many attempts have been made to locate the tunnel by dowsing, echo-location and so on. The most recent dig occurred in August 1989 when the Marquis du St. Empire obtained permission to conduct an excavation. This revealed brickwork at the base of a 6 ft. trench, which was consistent with the base of a tunnel. It seems then that this part of the tunnel was definitely collapsed. The rest awaits the invention of superior methods of detection.



*Pneumatic Railway for Passengers 1864 Crystal Palace*



Part of the land was sold off and may now lie beneath a residential area. Given the apparent speed of construction it now seems likely that the tunnel was built in a trench, half above and half below ground. It would then be easy to collapse it into the trench when no longer needed.

**References** "Crystal Palace Matters" 34,pp.21-25 1989  
 "Atmospheric Railways" by Howard Clayton 1966, published by the author pp 126-8.  
 "Atmospheric Railways" by Charles Hadfield, publ. David & Charles 1967 p100.  
 "Evening Standard" 21<sup>st</sup> Jul. 1975  
 "Croydon Advertiser" 15<sup>th</sup> Sep. 1989

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### Seaford Head Cave, Sussex

see illustration

**Location** At TV 514976, on a 4 ft. high ledge in the chalk cliffs some 50 yards south of the new steps leading to the beach at the Seaford Head Nature Reserve by the mouth of the River Cuckmere.

**Description** Not a sea cave but a fossil phreatic streamway ending in a clay choke. The passage can be seen to continue for a few yards into the blockage.

**Source** Terry Reeve.

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### East Horsley, Surrey - flint mines

**Location** On the edge of a wood, the property of Mr. B.A. France at Greendene. TQ1052.

**Description** A hollow containing saucer-shaped depressions. Commander K.R.U. Todd excavated the eastern depression to a depth of 11 ft. and estimated the total depth to be 16 ft. A carved spiral staircase led to a platform at 9 ft. where there were two possible lower extensions.

**Source** Surrey County Journal 2 (3), 71-3. 1950  
 See also C.S.S. Records vol.3 p12

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### Claygate, Surrey - machine-bored tunnels

**Location** TQ 155645

**Description** The area of interest is Hinchley Wood, where there is evidence of clay pits related to 19th Century brickmaking. The Royal Engineers took over the brickfields during the First World War and used them for trials of a boring machine, intended to facilitate military mining operations in trench warfare.

The first of six electrically driven machines with a 5 ft. bore was developed from plans by Messrs. Mott, Price and Markhams by Captain Sankey, Norton Griffiths and Captain Hind, who reported that it was *“put through a fair trial commencing 15<sup>th</sup> Apl. 1916 at Claygate. Much difficulty was experienced in keeping to a straight line, either vertically or horizontally.”* However with practice it would do 40 ft. a day and after a trial to which the Inspector of Mines sent two representatives, it was sent overseas on 9<sup>th</sup> Jan. 1917.

A later machine could bore for 60 ft. a day, but a tunnel bored for 125 ft. below the front line in France with one of the machines was reported to have collapsed before it could be shored up.

General H.Q. then ordered a 5'6" diameter machine for offensive mining, a 7'2" diameter machine for communications tunnels and a 6'2" diameter machine. The first *“was tried out at Claygate at the end of 1917 and gave very satisfactory results... 123 ft. of finished, lined tunnel was cut in 51½ hours. The machine was sent to France and did a little work before hostilities ceased...”*

The precise extent of these Claygate tunnels is unknown as the entrances were dynamited by the military at the end of their tenure. However the remains of timbered entrances are sometimes found and there are occasional surface collapses. At the time of writing the wood is owned by the College of Estate Management.

**Sources** Paul W. Sowan and Tery Gale for research.  
MULLEN K.J.M. “Tunnelling machine trials by Army Engineers - 1916-19.” Claygate C/1338, C/3873, C/3192, C/4375 - unpublished.

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### **Greywell Canal Tunnel, Hants**

**Location** On the Basingstoke Canal. West portal at SU 708518 East portal at SU 719515.

**Access** Current position not known

**History** In 1778 an Act of Parliament was passed to permit the construction of a 37 mile long canal from Basingstoke to the River Wey near Weybridge. Cutting was delayed by the American War of Independence and the opening took place in 1796.

Initially the canal prospered but suffered a series of economic blows, firstly from the opening of the Kennet and Avon Canal in 1810 and later from the growth of the railway network. The company finally went into liquidation in 1869. After this it had a chequered career, but most of it has survived and is now the subject of a vigorous preservation campaign.

The tunnel was a key feature. It was driven in a straight line through chalk and was the source of two of the three springs which fed the canal with water. It was possibly the action of these springs which also brought about the collapse of the tunnel close to the western portal in 1932, cutting off the last six miles of the waterway to Basingstoke and leaving an impressive crater on the surface.

In 1990 the tunnel was designated a Site of Special Scientific Importance by the Nature Conservancy Council owing to the presence of some 550 Natterers Bats.

**Description** This trip report is taken from the Newsletter of the Chelsea Speleological Society v.10 no.5 p.47 1968.

Following an invitation from the Surrey and Hampshire Canal Society, Pete Cousins, Harry Pearman, Brian Hillman and Clive Calder did a rubber dinghy trip into the Greywell Tunnel to report on its condition.

The tunnel is dead straight through Greywell Hill near to Odiham, Hants. We started at the east portal with Harry and Brian in individual dinghies and Pete and Clive apparently sitting on top of the water but in fact sharing a third boat.

The tunnel is about 12 ft. wide with a 10 ft. high arch. It is brick-lined through chalk, which can be seen through occasional drainage holes. The water is between 6 and 8 ft. deep, clear and, on our visit, icy cold. Progress was slow, damp and uneventful.

Chalked consecutive numbers on the walls were found to occur every 100 ft. At No. 25 we grounded on a sticky mud slope which met the roof after 30 ft. Bits of masonry littered the clay surface, which was strongly marked with deep extrusion channels. The clay had been propelled along the roof of the tunnel like toothpaste.

After a pump up of the dinghies we paddled back, emerging after two hours. Brian and Pete then explored the tunnel from the west portal for 400ft. to a similar blockage.

Harry and Clive toured topsides to see the site of the collapse. There are two; one from the early part of the century is represented by a wide, deep pond, the other, a short distance away, is a steep-sided clay pit some 20 ft. deep. This turned up overnight some 20 years ago. Apart from these two collapses the tunnel is in good condition and handy for anyone wanting a 5,000 ft. dinghy practice

**Brightling, Sussex - stone pits**

see illustration

**Some Herts. And Beds. deneholes**

The following information is derived from DAWSON, Charles "Ancient and modern deneholes". Geol. Mag. 1898 pp 293-302

The author describes the deneholes of Kent and Essex and mentions that he and a Mr. John Lewis C.E., F.S.A. descended two very fine ones at Brighton, Sussex.

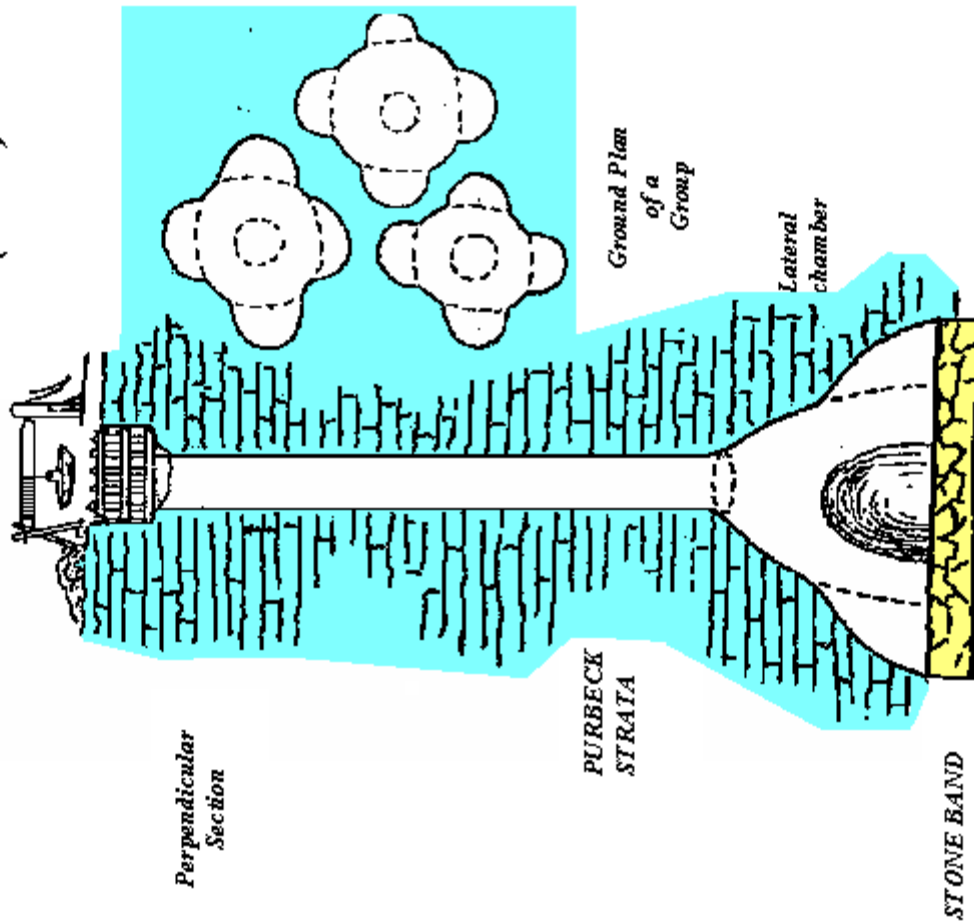
He then turns his attention to Brightling, Sussex (TQ 6821) where the Purbeck Beds (of limestone) are exposed in a strip some 8½ miles long by 1 mile wide. Some beds are called 'The Greys' and others 'The Blues'; and up to the 19<sup>th</sup> century this stone was quarried for lime burning. *"The whole of this area is covered with countless thousands of pits."*

He describes the digging of a shaft 3 - 4 ft. in diameter and 40 to 55 ft. deep *"The cavity above the stone is then belled out on all sides...sometimes 12 or 16ft. in diameter sometimes considerably more. The stone is then removed and four small, lateral bell-shaped chambers are dug at four equidistant points... Three men are employed in and about the hole when in full working order."*

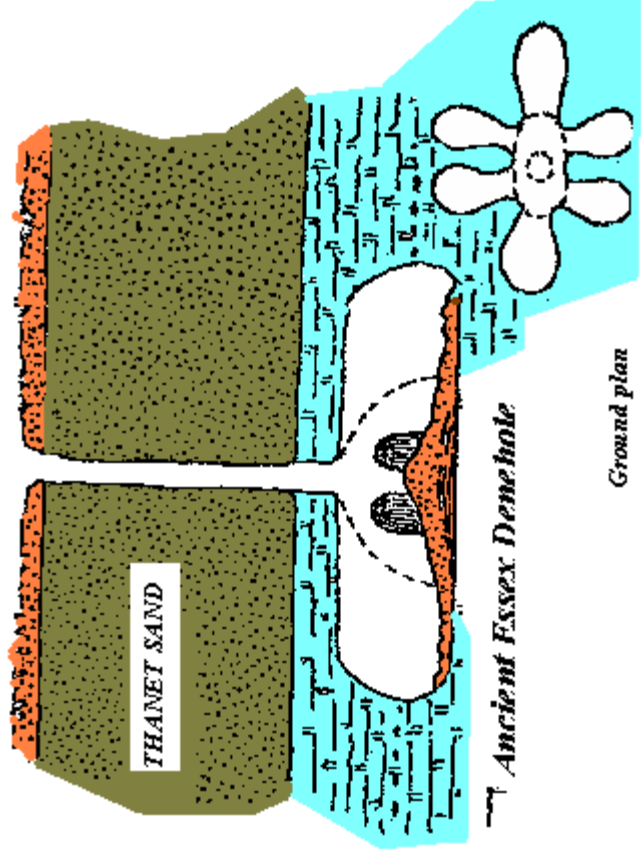
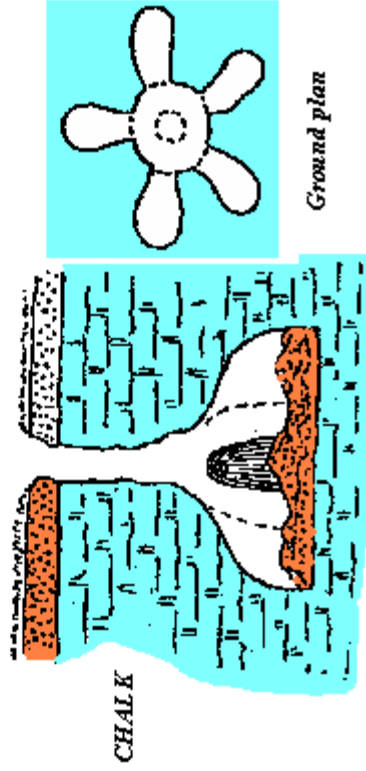
Hauling was done with a very primitive windlass and trug basket *"The writer made the usual descent into the pit, which is performed by placing the toe on the hook of the cord and holding the rope above, the windlass being carefully unwound by the man at the surface. With a frayed rope not an inch in diameter this may seem dangerous; but few accidents have been known to occur."*

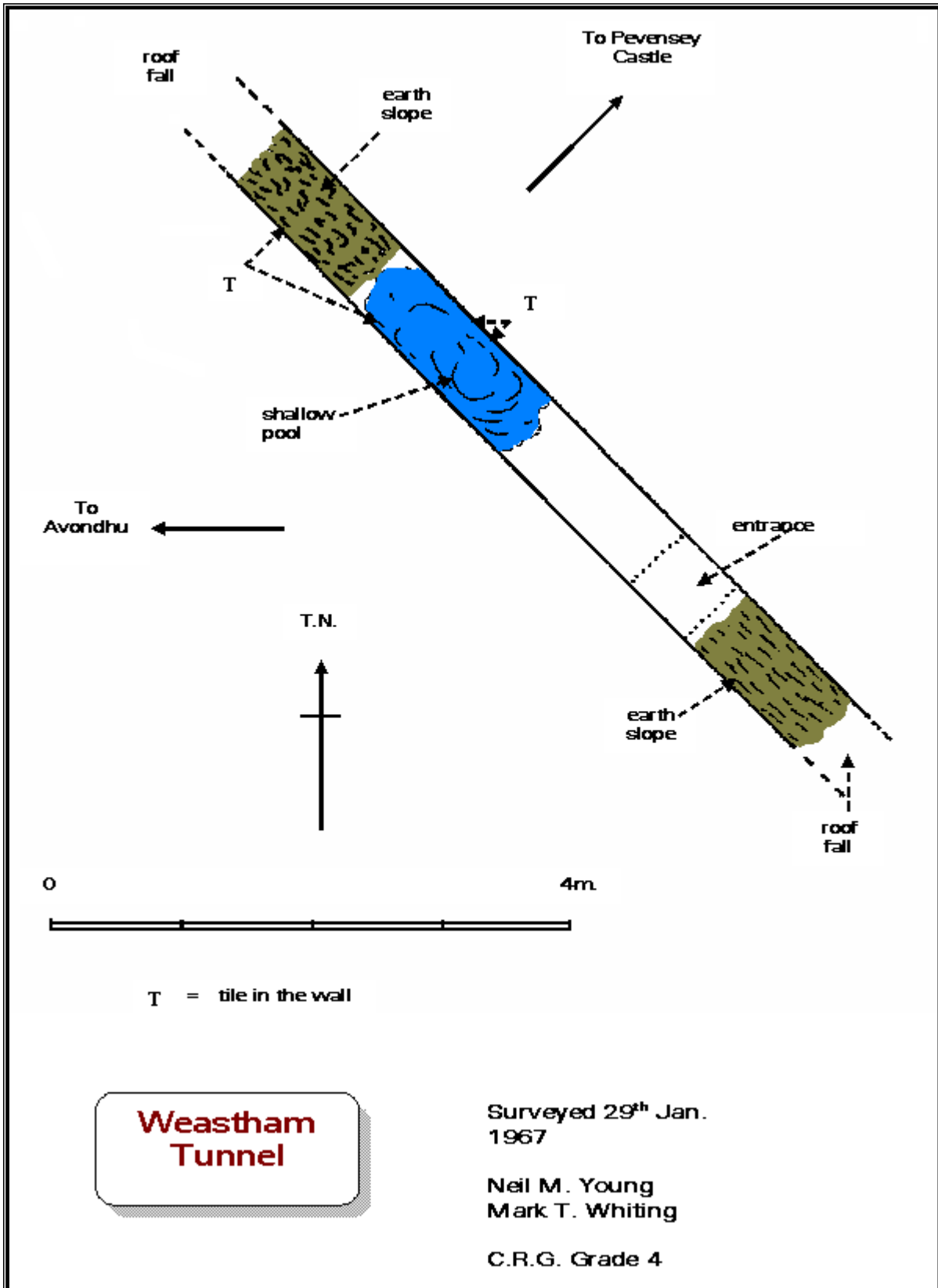
The next shaft would be dug 6 yards away. *"When asked why they do not run galleries and mine the stone with timbered and propped sides, they say that the way they do it occupies less time, is least expensive, and they always work in the same general design because they know by experience that it is a safe one. Indeed the whole operation of digging a well and getting out the stone is only a matter of a few days... 'A foot of stone to an inch of dirt - that pays.'"*

**"BELL PITS"  
at BRIGHTLING  
(Sussex)**



**Ancient Kent Denehole**





Specific locations mentioned are Perch Hill Farm TQ 6622 and Forge Farm TQ 6621, and there is a photograph showing an excavation in progress.

*“The pits usually occur in clusters... On all sides one may see circular pits caused by subsidence of the old pits having been insufficiently filled up.”*

After making reference to similar Sussex bell-pits for the excavation of iron ore and quoting Pliny on the subject of chalk mining, he quotes Mr. Walker’s report on the Agriculture of Hertfordshire (1794), describes the method of excavation and notes in passing the following locations:- Mackery End Farm, Harpenden, Herts (TL 1515); Hyde Farm, Luton Beds. (TL 1317); New Mill End Farm, Luton, Beds. (TL 1218)...” *and many others”*.

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### **Pevensey, Sussex - drainage tunnel**

see illustration

**Location** At TQ 6432104622 in Leg of Mutton Field south-west of Pevensey Castle

**Access** Present position unknown

**Description** A subsidence occurred in the field and was noticed in January 1967. The owner, Mrs. E. Stuart Hogg of Avondhu, Westham, Pevensey first called in the bomb disposal squad. However it soon became apparent that the collapse was due to part of the roof of a tunnel falling in. It was examined by Mr. J. Manwaring Baines of the Hastings Museum and later entered and surveyed by Neil Young of the C.S.S. together with Mark Whiting on 29<sup>th</sup> Jan 1967.

Neil’s measurements placed the tunnel on a magnetic bearing of 323.5° with a width of 58 cm. and a height of 105 cm. Parts of the tunnel contained a few inches of water.

Following speculations about possible romantic origins of the tunnel Neil did some archival research and found that it was mentioned in the Sussex Archaeological Collections v. 6 pp276-7, 1853 as follows:-

*“A foolish tradition connects Pevensey Castle with the ancient house in Westham called Priesthawes, by a subterraneous passage. As the two places are between two and three miles apart, such a preposterous idea could not be for a moment entertained; but since an elderly inhabitant of the neighbourhood vouched for the fact of his having in his youth accidentally discovered some kind of passage a few perches to the southwestward of the great gateway, we thought it worthwhile to examine the ground.*

*The locus in quo is a small field belonging to the Rev. John Grace, vicar of Westham, who kindly permitted us to dig there. Openings were therefore made...where at the depth of two and a half feet, we succeeded in exposing a large drain, carefully constructed with large stones. It runs about north-west and south-east, but of its purpose or its period of construction I cannot hazard any conjecture."*

The location is marked on an accompanying plan of the castle and matches the 1967 discovery.

**Sources** Eastbourne Herald Chronicle 25.1.1967 and 16.2.1987  
 Evening Argus 27.1.1967 and 13.2.1967  
 Sussex Express and County Herald 3.2.1967  
 The Sun 27.1.1967  
 Sussex Life April 1967

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### **Larner Road, Erith, Kent**

**History** In 1968 the London Borough of Bexley decided to build additional tower blocks on an estate at Larner Road. The site lies between Slade Green and Erith and is in an area which, at the turn of the century, was the scene of a massive brick-making industry supplying London Stock Facings.

Although the area is now largely residential, it is still possible to trace the depressions and quarry edges left by the brickmakers. Evidence from Plumstead and Dartford indicates that it was often the practice to dig extensive mines for chalk, which was added to the brick slurry to produce a characteristic yellow colour to the bricks.

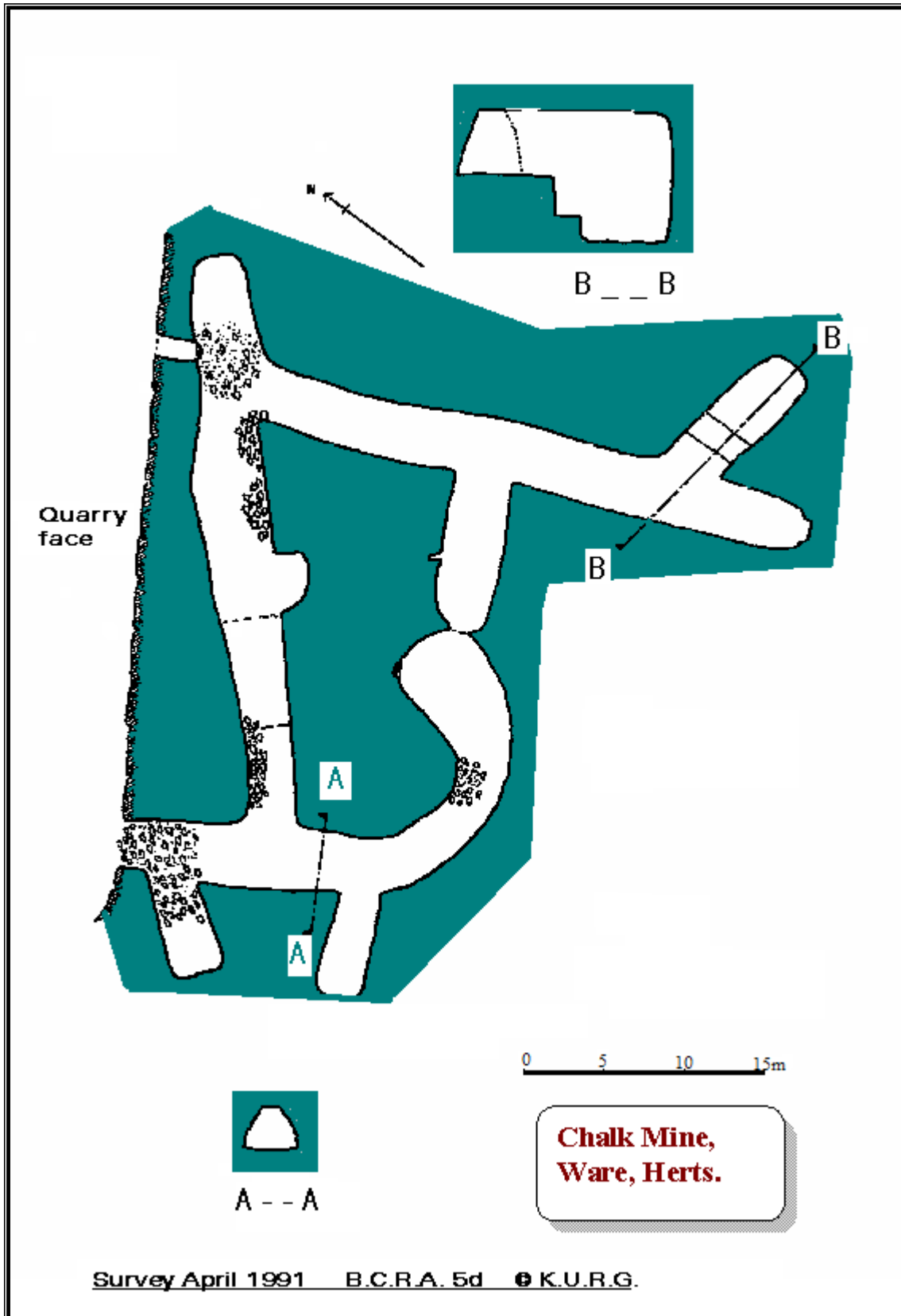
This seems to have been the case at Larner Road. Wimpey was called in to carry out test bores and found that of 21 pile holes drilled for block 5, the three in the south-west corner reached cavities in the sand and gravel overlying the chalk.

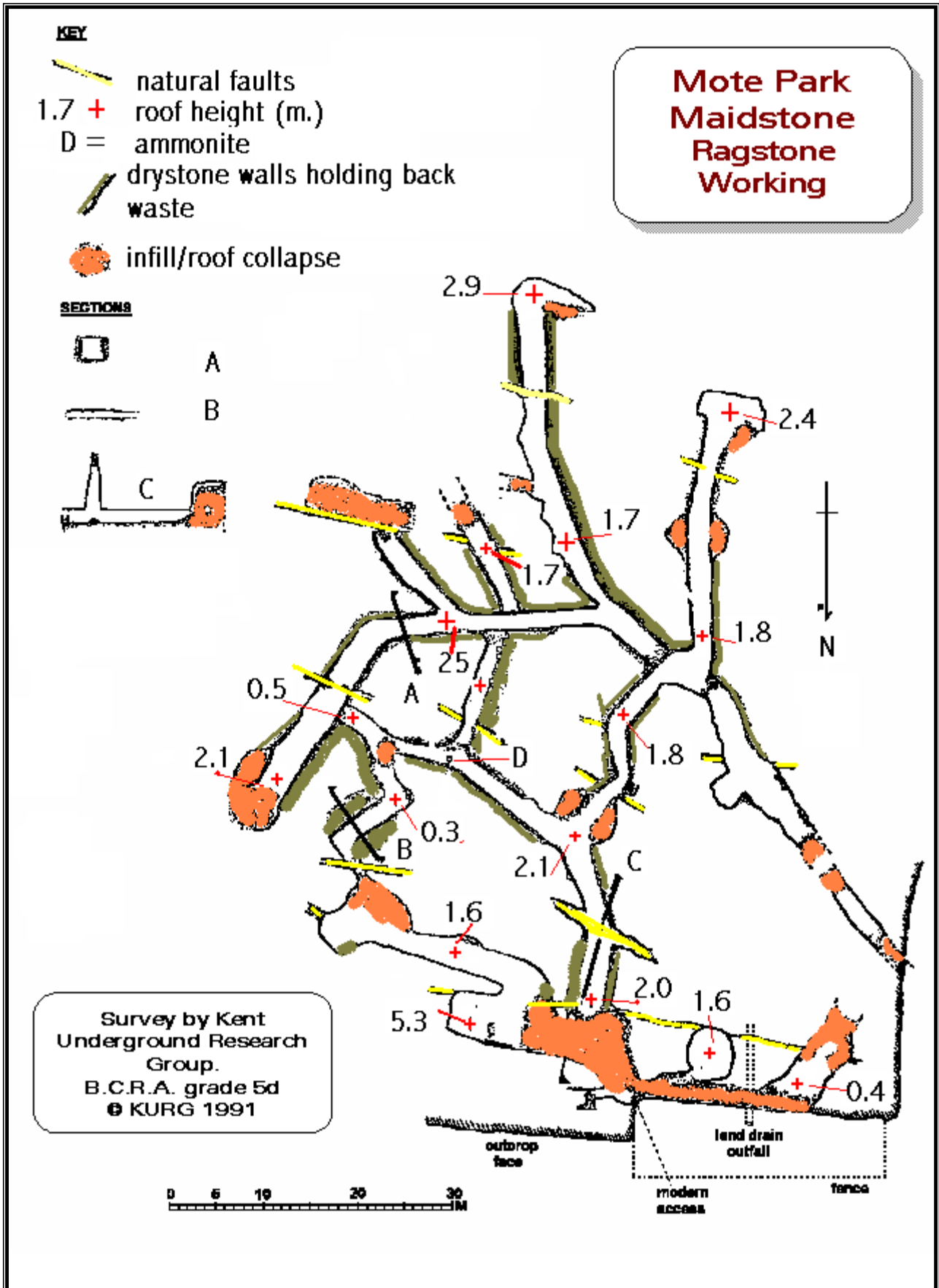
More test bores were then carried out and 17 of these, in the vicinity of block 5, entered cavities either in the chalk or the overlying gravel. A television camera was lowered into the borings and photographs taken. It was plain that the block was being built on top of an old chalk mine.

The 1897 O.S. map of the area shows an active clay pit on the site and an engine house with a rail track which branches and terminates at the base of a quarry. It was Wimpey's view that the westernmost of these lines led into a drift entrance into the mine.

This entrance is at TQ 513325771551. There is no record of anyone entering the mine in modern times and it may have been in part filled and stabilised before the building work proceeded.

**Reference** C.S.S. Newsletter v.33 no.7 p.103





**Chadwell Mine, Ware, Herts.**

see illustration

**Location** TL 352135 In an old chalk quarry to the rear of 'Fairways', Hertford Road, Ware, Herts. SG12 9LE

**Access** There is no general access. However visits can sometimes be arranged through the good offices of John Huston a local caver of 11, Barnard Green, Welwyn Garden City, Herts.

**History** This mine was recorded in C.S.S. Records vol.14 p50 and it was described briefly by H.M. Inspector of Mines as 'Chadwell Mine, Ware'. The owner was a Mr. H. Parker of Chadwell Hill. It was being worked for chalk and flints in 1897. In the mine the earliest wall date found was 1893.

It was relocated by chance by Mr. Barry Sibthorpe when landscaping the floor of an abandoned chalk quarry.

**Description** A dug out slope at the right hand corner of the quarry face leads to a duck beneath a wide entrance. After a short scramble over chalk debris it is possible to stand up and thereafter the passages average some 3m. wide and high.

To the right, a steep downwards slope leads to a dead end. This was a passage subjected to secondary excavation from the mine floor. It is now half full of debris. This and most of the other passages is roofed with a band of tabular flint.

A long drive opens up on the left, and a short distance along this is a large alcove which was the start of a new drive but was abandoned because of a clay intrusion into the chalk.

At the end of the passage in quick succession is a turning on the right, which forms part of the main traverse of the mine; an opening on the left at roof level, which admits daylight via a passage shaped like a laundry chute; and then a dead end. The daylight opening was the route by which the mine was rediscovered.

The right hand passage is another long drive which, like the rest of the mine, is in an excellent state of preservation. There are two openings: one on the right, which continues the traverse; and beyond it another on the left, which has another re-excavated floor. It is possible to climb down into this over intact workbenches of chalk.

The traverse continues to complete two more sides of a crude rectangle to arrive back at the original entrance. One side of this shows clear evidence of having been dug from each end with an 'accidental' join in the middle. There is just one other side passage to a dead end.

The mine is in clean condition with a few piles of excavated chalk and a bit of wall spalling near one of the junctions. There are just a few initials and dates and two small carved heads near to the entrance.

The survey is reproduced by kind permission of Rod LeGear.

~oo00oo~

### Mote Park, Maidstone, Kent - Ragstone mine

see illustration

**Location** At TQ 776542. Heading south along Willington Street turn right into School Lane and almost immediately turn right again through the gates of Mote Park, where there is a car park on the left.

Follow the left path which runs parallel to the Park boundary until a keeper's cottage is reached. The path runs close to the boundary here, and within 50 metres a low cliff is seen on the left hand side with an area fenced off by iron railings.

This is an abandoned ragstone quarry. In the centre of this a large land drain debouches into a soakaway in the quarry floor, which was probably once a mine entrance. To the left and up a small slope is an overhang with a round opening at the base and a locked gate. This is the entrance.

**Access** This can vary but at the time of writing access to people used to underground exploration can be gained on the last Sunday in each month by contacting Rod LeGear of 18, Bladindon Drive, Bexley, Kent, DA5 3BP. The entrance is regularly vandalised and it may become necessary to seal off the mine to protect it from intrusion and avoid accidents.

**History** Apart from being marked as 'caves' on a map in 'Ightham' by F.J. Bennett, 1907 there is no published information on the history of the mine. There are sets of survey marks in the mine but no other published plan has been located. The mine is mentioned in C.S.S. Records vol. 6 p77.

It appears that the mine was an underground extension of the surface quarry dug to obtain building stone, most likely to build the wall that surrounds Mote Park. Extensive piles of "deads" below ground indicate that the miners were very selective as to which rock was to be removed.

The mine was open in the 1950s and was visited once by myself and a C.S.S. party on a trip arranged by the late Charles Quarrell. It was then sealed to prevent the incursions of local children. At this time at least two entrances were open at the foot of a slope at the base of the quarry face. Builders' rubble was bulldozed down this slope and levelled off. Shortly after this the land drain was installed to capitalize on the mine's potential as a soakaway.

In 1989 the Kent Underground Research Group obtained permission to re-open the mine. Over several weekends a natural rift in the left hand wall of the quarry was enlarged by members of various caving groups including K.U.R.G., Unit 2, and C.S.S. One visit was rained off when heavy rain produced flood conditions with water running through the dig and a lake forming at the base of the quarry. The mine should not be entered if it is raining or rain is forecast.

The dig revealed a crawl behind the quarry face back to the right which led via a low chamber to a vertical natural rift. A traverse along this comes to a point where it is possible to descend the rift through the roof of one of the mined passages. Later an easier entrance was dug directly down from the entrance and some wood shoring installed.

**Description** From the entrance, a crawl westwards through rubble leads to a large, low, round, mined chamber. At the back of this a narrow, natural rift runs east-west, one of many such natural features in the mine. A tight squeeze along the western leg of this gives access to a substantial chamber which was once an entrance passage.

The eastern leg is not quite so tight; just awkward. First you climb up, then along, then down to drop through the ceiling of a mined passage.

The regular way in from the entrance is now via a short, low crawl straight into the rock at ankle level. This gives access immediately to a large entrance chamber rising to 5.3m at one point. An obvious opening on the right of this leads to a continuation of the chamber terminating in a dig. Before the end is reached, a sandy slope can be climbed on the right to give access to another high rift. A tight hole in the floor of this leads to the rest of the mine. However it would not be difficult to get stuck here and there is an easier alternative.

From the original entrance chamber continue inwards and drop down 2m. to a hands and knees crawl. The entry from the original dug entrance comes in through the roof at this point on the right. Almost immediately a big natural rift is entered, which might repay digging (Section C on the plan).

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The passage continues beyond this to a junction marked 2.1 on the plan. The left hand passage leads to a fork and at this point a spectacular ammonite fossil can be seen in the roof over a metre across. The right hand passage at this junction is not recommended. It is low and tight and the roof is alarmingly cracked. It is better to go straight ahead and after a short hands and knees crawl you drop down into a passage of walking height. Just before this is reached another crawl goes off on the left which connects with the base of the tight hole referred to in the description of the entrance chamber (Section B).

The walking height passage tends north east and terminates in a large chamber blocked with debris - another possible dig. In the other direction Section A is passed and the dangerous crawl from the Ammonite Chamber comes in at ceiling level on the right. Another passage is then reached on the left. It is easily missed as it is behind a pile of deads. This goes to a dead end. Another passage is then passed on the left also leading to a dead end and then a 4-way junction is reached.

The right hand route leads back to the entrance. The left hand route leads to a large chamber and a dead end. Ahead is a passage which sometimes has water entering down the left wall and which terminates in a rubble choke. This matches a short, mined passage which can be entered from a neighbouring back garden,

There is no obvious dating material in the mine, but the piles of deads have not been sifted and no work carried out as yet on the natural history. It may be possible to encourage bats to hibernate in the mine in winter.

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### Ware, Herts. - Chalk adits

**Location** TL 345134 Close to the flyover on the A10 across Ware Road. Travelling east-west along the A119, after passing under the flyover, a pub called 'The Nag's Head' is passed on the left hand side (or not according to your disposition). Beyond is a depot of the Herts. County Council set in an old chalk quarry. A brick-framed opening is found in the left hand corner of the quarry.

**Access** At the time of writing the Council has given permission to the Herts. Bat Group to turn the tunnels into a bat sanctuary and appropriate grilles are being fitted. Enquiries to Patty Briggs 0181-950 1755.

**Description** Walking height passages form 3 sides of a rectangle.

There must have been a second entrance, which is now buried beneath debris at the foot of the quarry.

Several wooden props are present although they are now no more than decorative. This was probably dug as a store for quarrymen's use. Total passage length 15m.

**Reference** C.S.S. Newsletter vol.33 no.7 p105 Sept.1991.

~oo00oo~

### **Radar Stations**

see illustrations

Radar came into use in the early stages of World War 2 and the first sites were located on the surface. However it soon became apparent that these locations would become the targets for German bombing, and therefore underground bunkers were built to house staff and equipment. The radar chain which emerged was code-named ROTOR and continued in use to the 1960s, when it was superseded by more advanced systems. The old installations have been sealed off, abandoned or used for other purposes.

The sites had a variety of designations such as Chain Home stations (C.H.); Chain Home Low (C.H.L.); Chain Home Extra Low (C.H.E.L.); Ground Control Intercepts (G.C.I.) and Sector Operational Centres (S.O.C.)

Although the main aerials could not be readily concealed, attempts were made to conceal the bunkers. In many cases a bungalow called Type R3 was erected over the main entrance. The garage next to this was a dummy and enclosed a ramp leading to the underground radar station.

The installations also varied according to the number of levels. Our illustrations show a typical bungalow and one and two level stations.

A list of some of the sites in the south east region follows, together with notes on their current status.

### **R.A.F. Wartling G.C.I. Sussex TQ 661087**

The bunker was built in the early 1950s and closed in April 1964. In 1976 it was sold by the Public Services Agency on behalf of the Ministry of Defence to the Marquis of Abergavenny. It is now a private leasehold. The underground features are normally sealed off and visitors are not encouraged.

However the following notes compiled by Paul Sowan record a visit in August 1987:-

“The structure is on two floors, with a main corridor on each floor aligned approximately north-south. Little of the lower floor was seen as there is approximately 75cm. of flood water. The upper floor was part concrete slab, but also had iron grilles or wooden boards, some of which are now either missing or rotten. There are numerous places where one could fall through holes or a weak floor into the lower area.

The emergency escape shaft has a set of iron steps in good condition. Foul/waste water ejection pipes exit by this route. Most of the fittings, machinery and cable throughout the structure have been removed.

On the west side of the upper corridor are various small rooms, which seem to have been used for domestic purposes (toilets, canteen...) and two flights of stairs down to the lower level. On the east side are further operational rooms. One contains a circular structure, which appears to have been a light table or projection screen operated from below. The main operations room is impressive in size and extends the full two storeys of the whole structure. There were plate glass screens between this room and others. Most of these are now broken. Large pieces of glass could be seen sticking out of the flood water on the lower storey. Powerful lights (now defunct) are still suspended from the ceiling.

At the northern end of the main corridor is a vertical iron ladder, but any access by this route is now blocked by concrete. Beyond the northern blast doors is the blocked end of the main passage from the guardroom.”

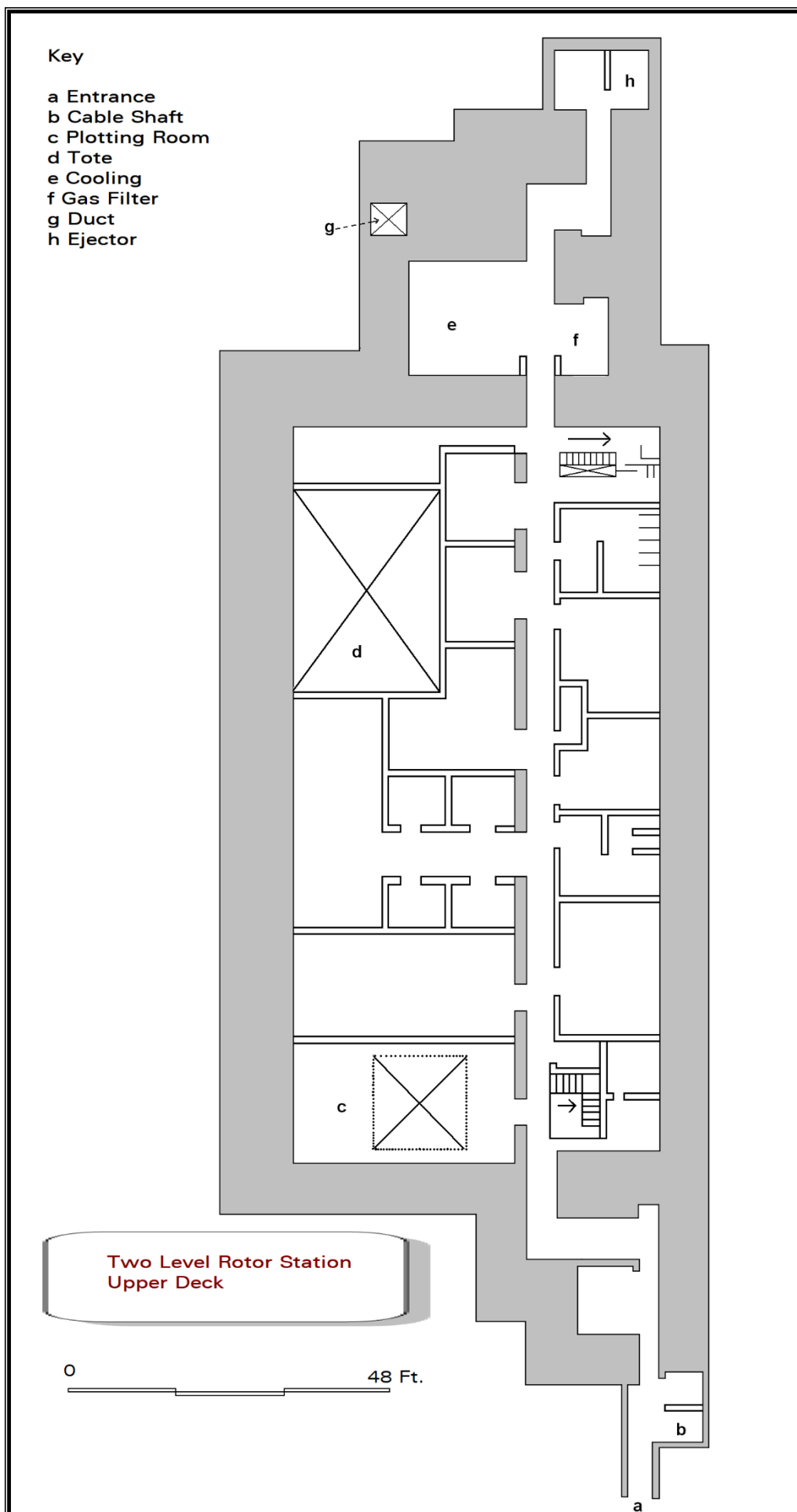
### **Kelvedon Hatch, Essex**

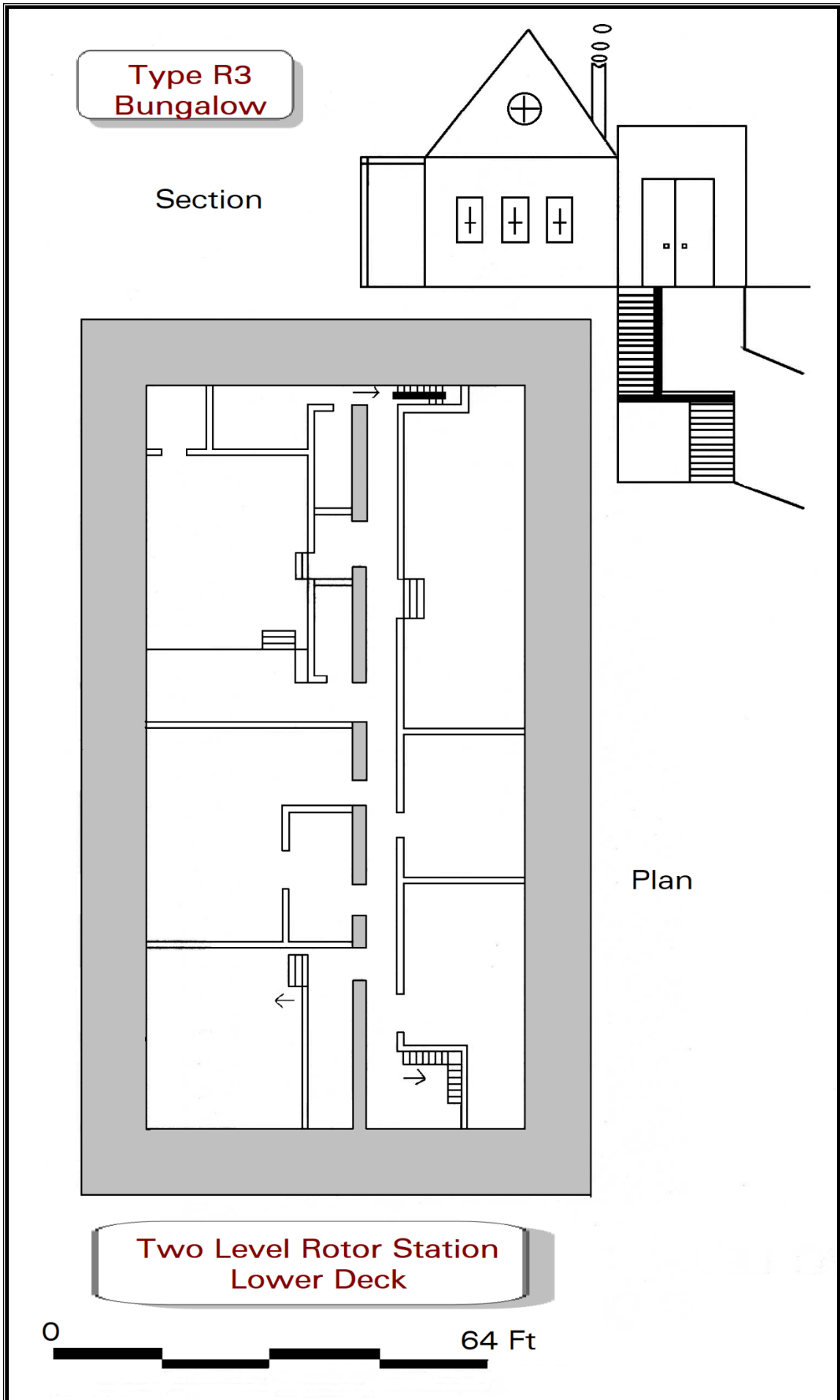
This was an S.O.C. on three levels with an R3 type of blockhouse. At TQ 561994 and entered from Kelvedon Hall Lane opposite the gate to Germain's Farm.

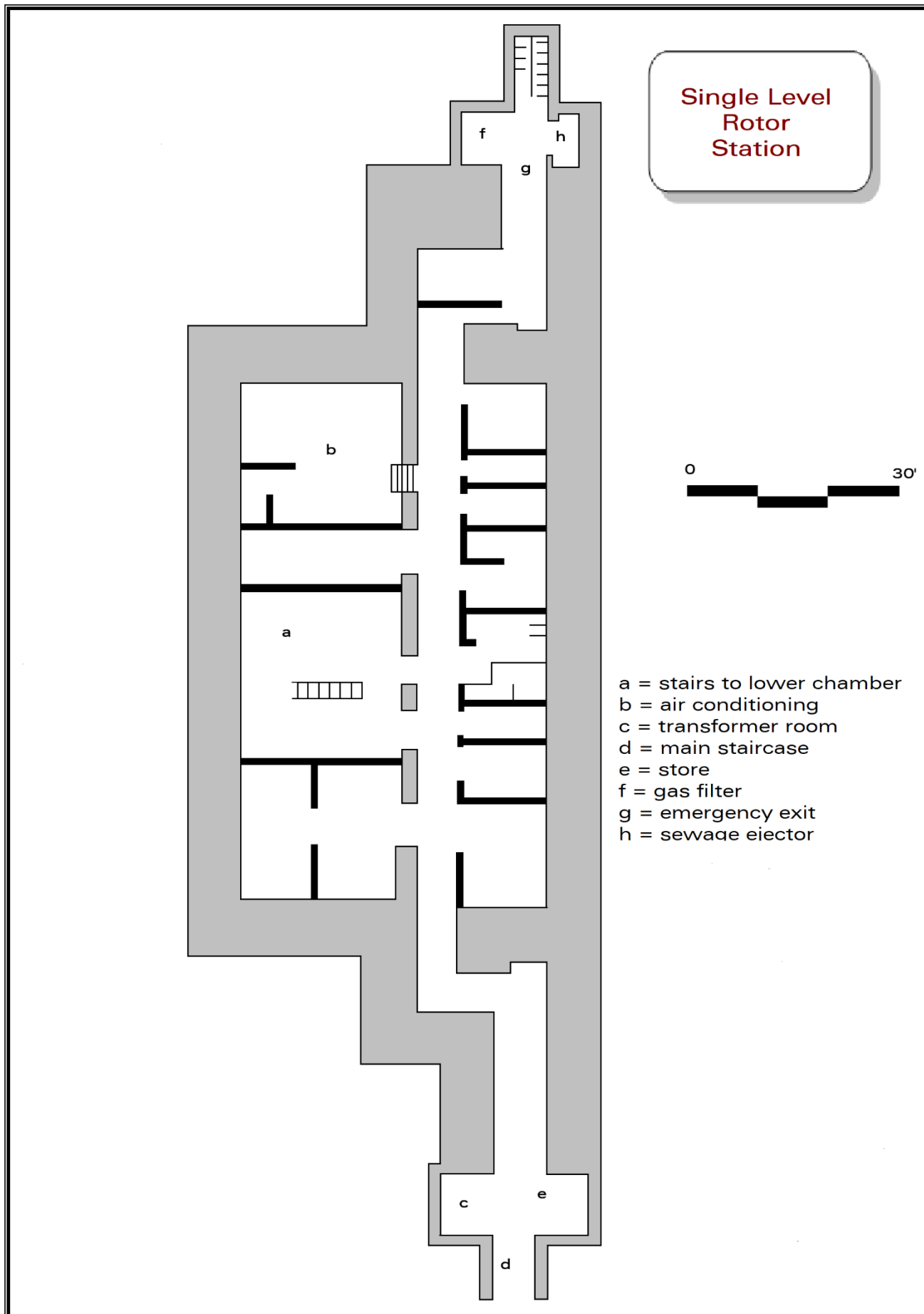
According to a report in the 'Daily Express' for 28.2.1980 it is one of the country's 17 nuclear bunkers designated as Regional Seats of Government. In 1989 notices prohibit entry. A massive UHF array was also noted at TQ 578992 on the opposite side of the village.

### **Beachy Head, Sussex**

This is now a coastguard station at TV 590957. It is a one-level C.E.W type which was abandoned around 1960. There is no current access but a description of a visit by Paul Sowan appeared in the Subterranea Britannica Secretary's newsletter no.2 1989 p.4.



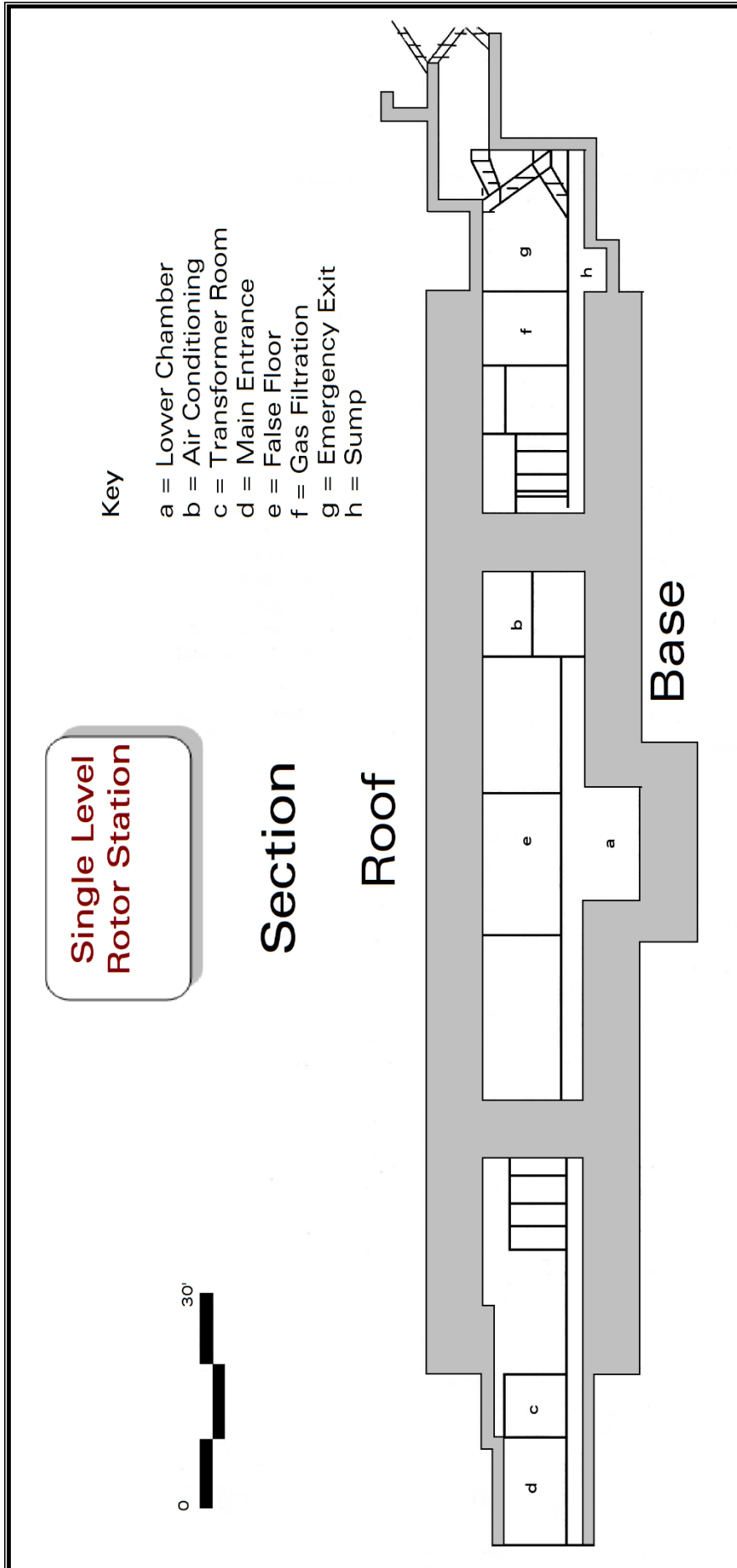


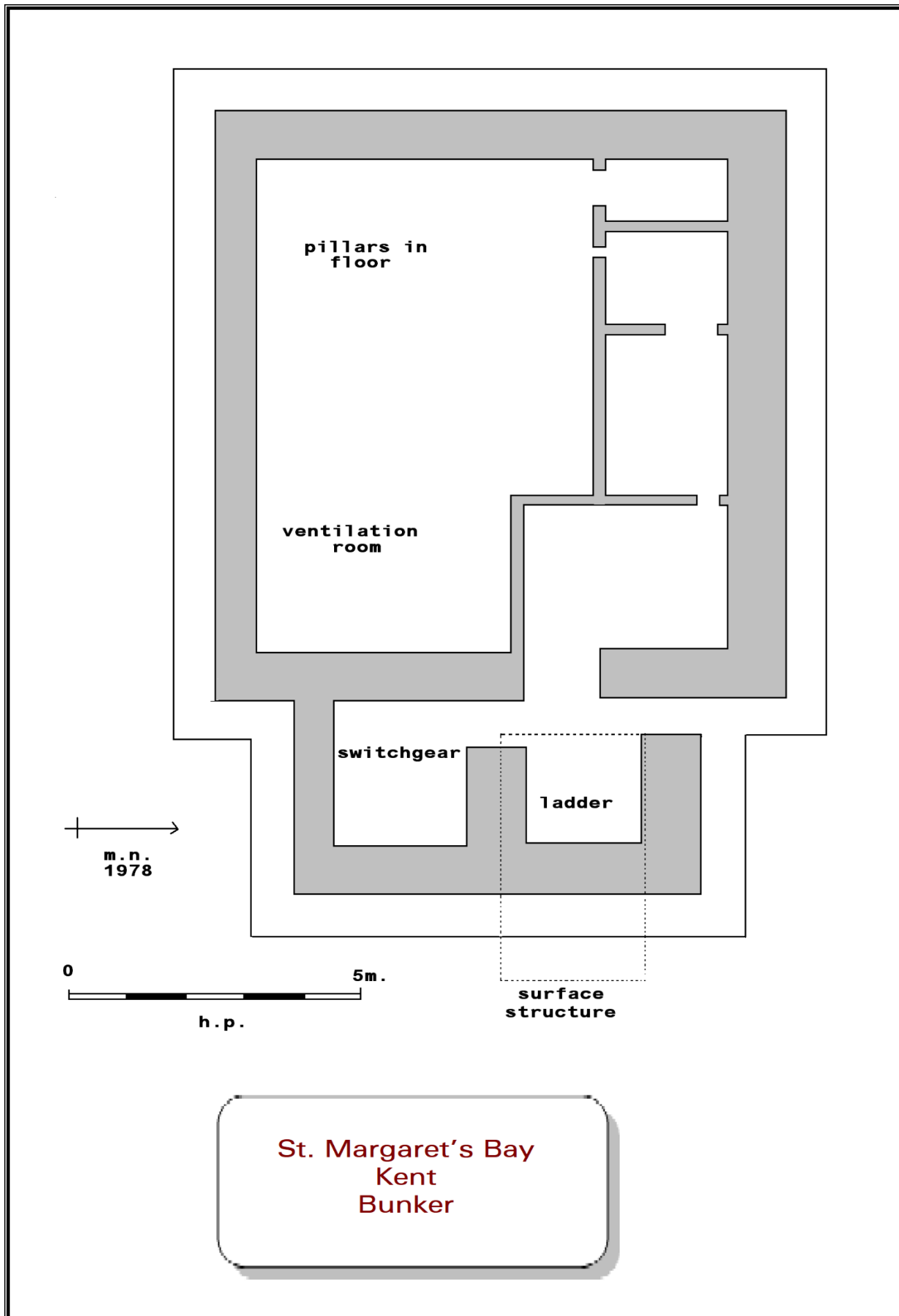


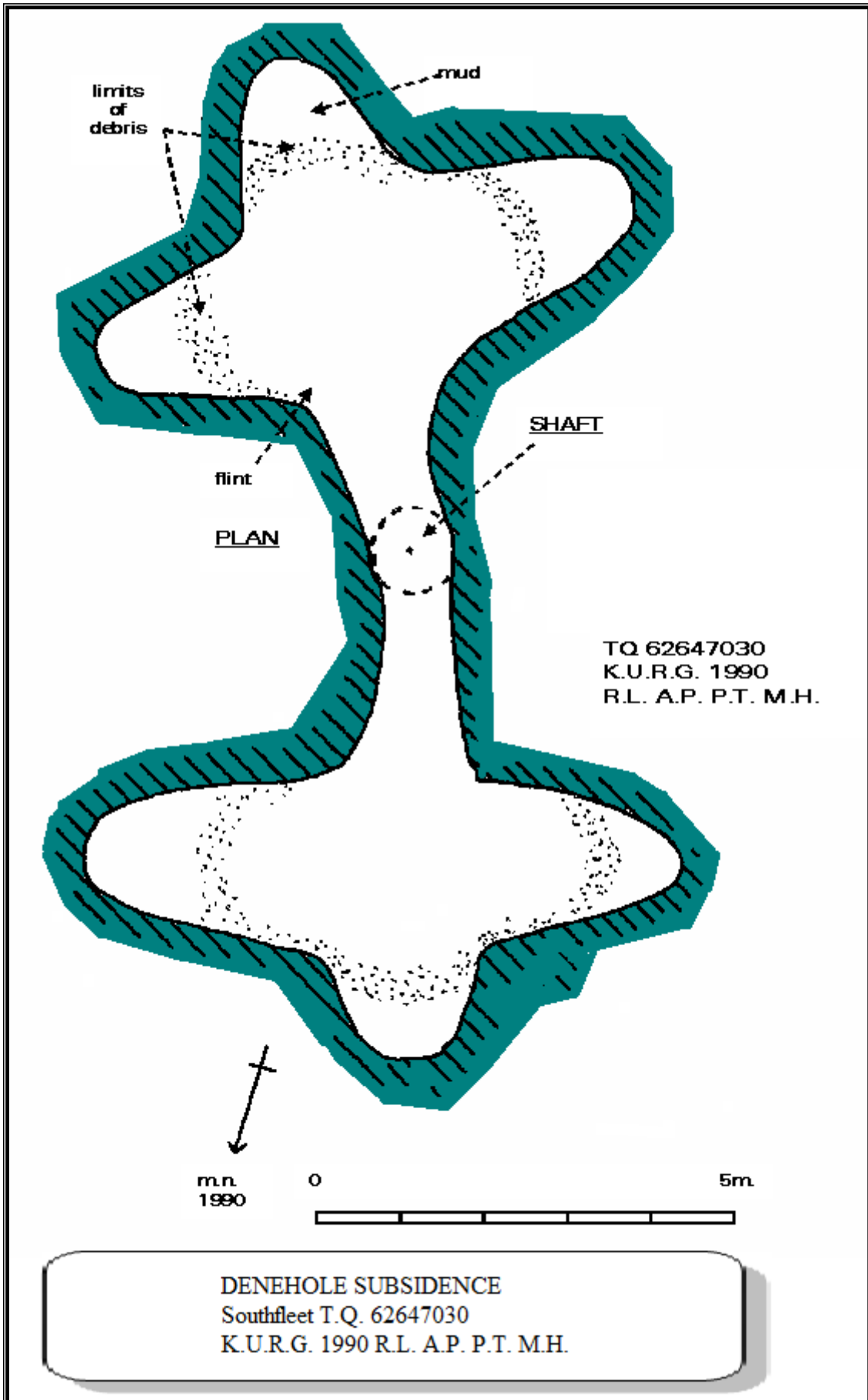
Single Level  
Rotor  
Station



- a = stairs to lower chamber
- b = air conditioning
- c = transformer room
- d = main staircase
- e = store
- f = gas filter
- g = emergency exit
- h = sewage ejector







This stated that access used to be under an extension of the guardhouse but this has been taken down. The entrance is now via a locked manhole in a concrete slab. A flight of steps leads to a gently sloping access tunnel. The main structure runs east/west at right angles to the tunnel. The plan comprised a central corridor with various operational rooms on either side. At the end, blast doors lead to a heating and ventilation area and there is a second exit, now sealed at the top with concrete. The whole place was in a very dilapidated condition.

### Other Known Sites

Neatishead, Norfolk TG 345188 G.C.I. Bungalow type R3 2- level. The site is still owned by the R.A.F.

Sandwich, Kent TR 299576 G.C.I Bungalow type R. Now believed to be operated by the Civil Aviation Authority as Ash Radar.

Sopley, Hants. SZ 162977 G.C.I R type Bungalow 2 levels. Still believed to be in RAF ownership.

Chenies, Sussex TQ 016000 R type bungalow G.C.I. Still believed to be owned by the R.A.F.

Bawdsey, Suffolk TM 345387 R3 Bungalow G.C.I. 2 levels. Site still believed to be owned by the R.A.F.

Trimingham TG 288383 R3 Bungalow 1 level. C.E.W. Now privately owned, possibly by the Civil Aviation Authority.

St.Margaret's. Kent TR 373452 C.E.W. Now completely destroyed but visited by C.S.S. before this happened and the plan published here.

Ventnor, I.O.W. SZ 569786 R3 Bungalow C.E.W. On St. Boniface Down and now believed to be owned by the Civil Aviation Authority.

Foreness, Kent TR 384714 R3 Bungalow, C.H.E.L. 1 level. This site has been completely demolished.

Fairlight, Sussex TQ 865115 C.H.E.L. 1 level next to the existing coastguard station. The site has been demolished. The underground feature may still exist.

Hopton, Suffolk TM 5399 R3 Bungalow, C.H.E.L. 1 level. Site sold to a local farmer and present condition unknown.

Truleigh Hill, Sussex TQ 224107 R3 Bungalow C.H.E.L. 1 level. Still in use as a radio station.

**Bawburgh, Norfolk** TG 166081 R3 Bungalow.S.O.C Still in use as a radio station.

**Acknowledgements**

John Harris, Barry Cain and Paul Sowan for valuable help.

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**Oxfordshire - underground streams**

I am grateful to David Dunford for researching the subject of conduited streams in this County.

**Abingdon** The River Stert (a small stream) goes underground at SU 49759737 and flows beneath the line of Stert Street to emerge into the River Thames by Abingdon Bridge at SU 49909695. The total distance traversed is 4/500 yards and the openings at each end are man-sized although no records of anyone actually making the journey have come to light.

**Oxford** The Trill Mill Stream leaves the Castle Mill Stream (itself a tributary of the Thames) in the grounds of Oxford College of Further Education at SU 50940597. It passes through a sluice, then under a brick arch into a tunnel. It flows underground for some 500m. and reappears through a stone arch in Christ Church meadow near Oxford Cathedral at SU 51460587. At one time it became a popular undergraduate activity to traverse the tunnel in a canoe, a process known as 'Shooting the Town Drain'.

Bernard W. Ottaway recalls making the journey in 1935 and 1936. On the first occasion two canoes, each with a crew of two, made the journey in both directions, taking only 15 minutes in the downstream direction and just over 30 minutes upstream. J.A. Coombs made the trip in the Hilary term in 1941 while a student at St. Catherine's. Gerald Reitlinger claimed to have made the trip 11 times in a single academic year. He said that interest could be heightened when the river was in full, spate necessitating lying flat out in the canoe. He also recalled an exit part way along into a cottage garden full of hollyhocks.

H.A.C James did the trip together with R.H. Jessop and entered the sluice at 2 p.m. on a hot Sunday afternoon. *"...and were swept along the culvert with considerable speed until we became wedged against a very low pipe somewhere under St. Aldate's. While navigating this hazard we were joined in the canoe by an astonished rat from a small side pipe, which was quickly followed by several gallons of obnoxious fluid."*

Alan G. Smith wrote a two page article on his visit to the stream in a canoe with two others. *“Two of us heaved the portcullis up a foot or two; the third had to lie down in the canoe and wriggle it underneath. Then we followed the stream into the darkness of the tunnel.”* He gave the dimensions as 4 ft. wide and 5 ft. high. *“It was strangely quiet. The only sounds were made by the water lapping against the sides and an occasional scratch as the canoe touched the sides of the tunnel. Once or twice there was a faint rumble of traffic from above as we passed under a road.”*

He also provides a map showing the course of the stream to be south of Paradise Square and Brewer Street and north of Friars Street. After travelling west it crosses under St.Aldate’s and then turns sharply south running parallel to the road to Folly Bridge.

The best bit of historical research was carried out by Michael A. Capon, although he does not seem to have Shot the Town Drain himself. He believes the stream may originally have been artificial and says that 700 years ago it turned a mill belonging to the Black Friars. In the 17th century it serviced the needs of local brewers, tanners and laundries but it deteriorated into an open sewer and was not clean again until the main drains were installed in 1877. By that time most of it had been covered over.

There are no contemporary accounts of visits, and it is thought that a bend, which was put in the stream when the foundations of the Westgate car park were laid, may now prevent the passage of a canoe.

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### Great Bookham, Surrey - vaults

**Description** The Lordship of the Manor of Great Bookham was granted to Lord William Howard in 1550 and this began a long association of the family with the parish. In time a large vault was built and successive generations buried in it.

This vault was mentioned by a churchwarden E.H. Sharp in 1910 who noted that 17 Howards were laid to rest on the south side of the church. Also when repairs were made to the church under the supervision of P.M. Johnston in 1913 he recorded the existence of a large vault, turfed over, to the west of the porch and containing many coffins of the Howards.

Nevertheless in spite of this authentication, the exact location of the vault was unknown in modern times until 1985 when the Gas Board laid a trench to convert the church’s central heating from solid fuel to gas.

Brickwork was struck in the grassed area between the church and the footpath running parallel to the south wall of the church. Probing the turf confirmed the outline and dimensions and this was surmised to be the lost vault.

An archaeological investigation was planned, a trench dug and the brickwork breached for four days in July 1990. The results were written up as Occasional Paper No.4 for the Leatherhead and District Local History Society by S.E.D. Fortescue and E.A. Crossland in 1991.

It was found that some of the bricks in the structure were different from the rest - evidence of an earlier accidental entry. These were removed to make an opening 1ft. 8 ins. wide. This gave access to a brick-lined chamber 24 ft. long, 14 ft. wide and 7 ft. high, with three 7 ft. alcoves on each side. It could be seen that the original entrance must have been at the eastern end.

Sixteen coffins were found and all but five bore plaques giving data on the deceased. A lot of the wood and material had rotted but in the main the coffins were intact.

The oldest coffin was occupied by the remains of Sir Charles Howard, who died on 20.3.1672, and the most recent by his great great great grand-daughter Georgiana Ann Vyse, who died in 1857. The family tree shows that this branch of the Howards ran out of male heirs.

Photographs were taken, plans made and the vault resealed and covered over once more to let the Howards rest in peace. The church is at TQ135546.

**Sources** John Henderson, Paul Sowan

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**Southfleet, Kent - denehole**

see illustration

**Location** TQ 62647030 on land worked by Stanhill Farm

**Access** Current position not known.

**Description** Visited on 27<sup>th</sup> Feb 1990 by Rod LeGear and Richard Kelsey of the Kent Underground Research Group, following a subsidence. Only part of the original 3.5m. shaft remained, the rest had subsided into the chambers below. The chalk roof to these chambers was 1m. thick and the chambers some 3.5m. high. It was all in a very dilapidated condition and although no dating evidence was found it was typical of a 13<sup>th</sup> century chalk working.

**Source** Rod LeGear.

Woodcote Hall, Surrey - tunnel

see plan

Location At Beddington, Surrey TQ 284614

Description A Mrs Patricia Clark lived at Woodcote Hall in 1910 and said that a door beneath the stairs led to cellars. A secret (smugglers?) passage was reached through an archway under the large hall, but nobody dared venture along by candlelight.

In later years a Costin Densham searched the cellars for the passage and found a bricked-up archway, but then left the cellars quickly *"because of a sinister atmosphere"*

Mrs. G.C.M de Konig once visited Carshalton House, then called St. Philomena's School, where she was shown the other end of the alleged tunnel.

Part of the legend of the tunnel states that diamonds are hidden in its door!

During building work at the Hall foundations were uncovered at the southern end of the east and west wings 'as well as the remains of an underground passage along the rear of the stables.'

John Henderson researched the site in 1983 and found that the oldest portion of the house was built in the mid-16<sup>th</sup> C. but it has since been subject to massive changes. Since 1935 it has been split into flats. Following recent renovations the sales brochure referred to the 'secret passage' in which there was a 'priest's hideout'.

There is now no trace of this passage but some interesting underground works do still exist:-

1) Outside the cellar walls of the older part is a brick-lined void, 2ft. wide and 5ft. high. Its ceiling is a half vault, with the crown against the house wall, and the floor is an invert with gradual falls to a drain. At intervals small air shafts lead to the cellar, and another opposite goes to the surface. Its purpose was to keep wet soil away from the cellar wall and to drain out seepage. Some 90ft. is preserved and there are two, wide, elegant entrances close together from the cellar. Remains of similar voids can be traced elsewhere on the site.

2) Under another part of the Hall is a hidden cellar. In 1912 the centre portion of the front of the Hall was demolished and the cellars, like the house, were divided into two.

Access into the east portion - the wine cellar - was by a new wooden staircase, which was covered over in 1935 and forgotten. It was rediscovered only recently by breaking into the cellar, and then up the stairs into the house. This wine cellar, a time capsule for nearly 50 years, was well preserved, with its stillage intact.

3) Under the front lawn, close to the house, there is a brick cistern, 10ft. in diameter, and 10ft. deep, with a manhole to the surface. It is full of water to within a foot of the surface.

**Source** John Henderson for the above account and with thanks to Grenille Builders Ltd., for granting access and Mrs. Margaret Cunningham, a local historian, who arranged a visit and provided much information.

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### **Sheldwich, Kent - denehole**

**Location** TR 01465624 in the estate wood yard.

**Description** Described in C.S.S. Records vol.10 p.91. The attached plan was made by Terry Reeve in 1977 and revised by Rod LeGear in 1980.

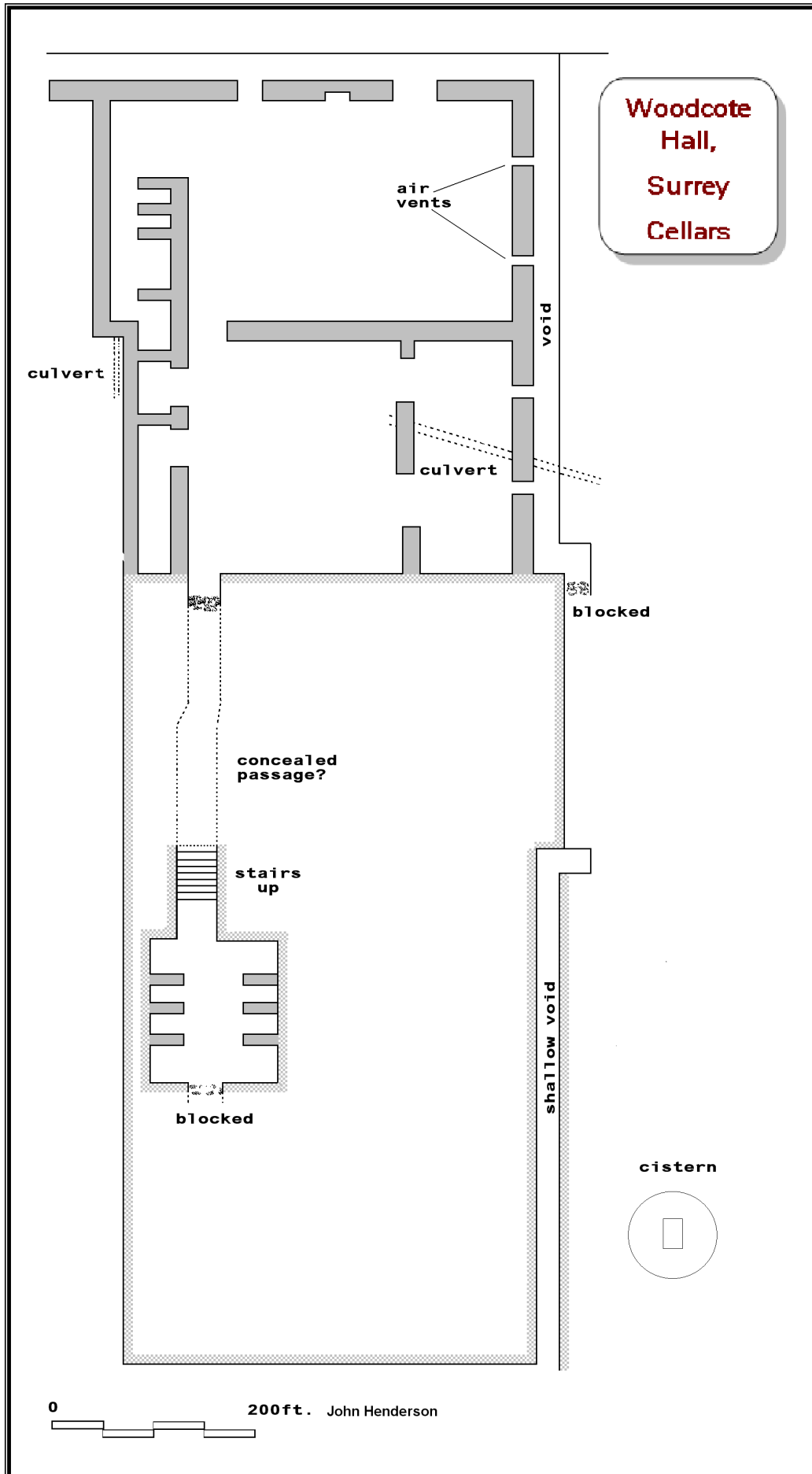
**Source** K.U.R.G. Newsletter no.25 June 1990

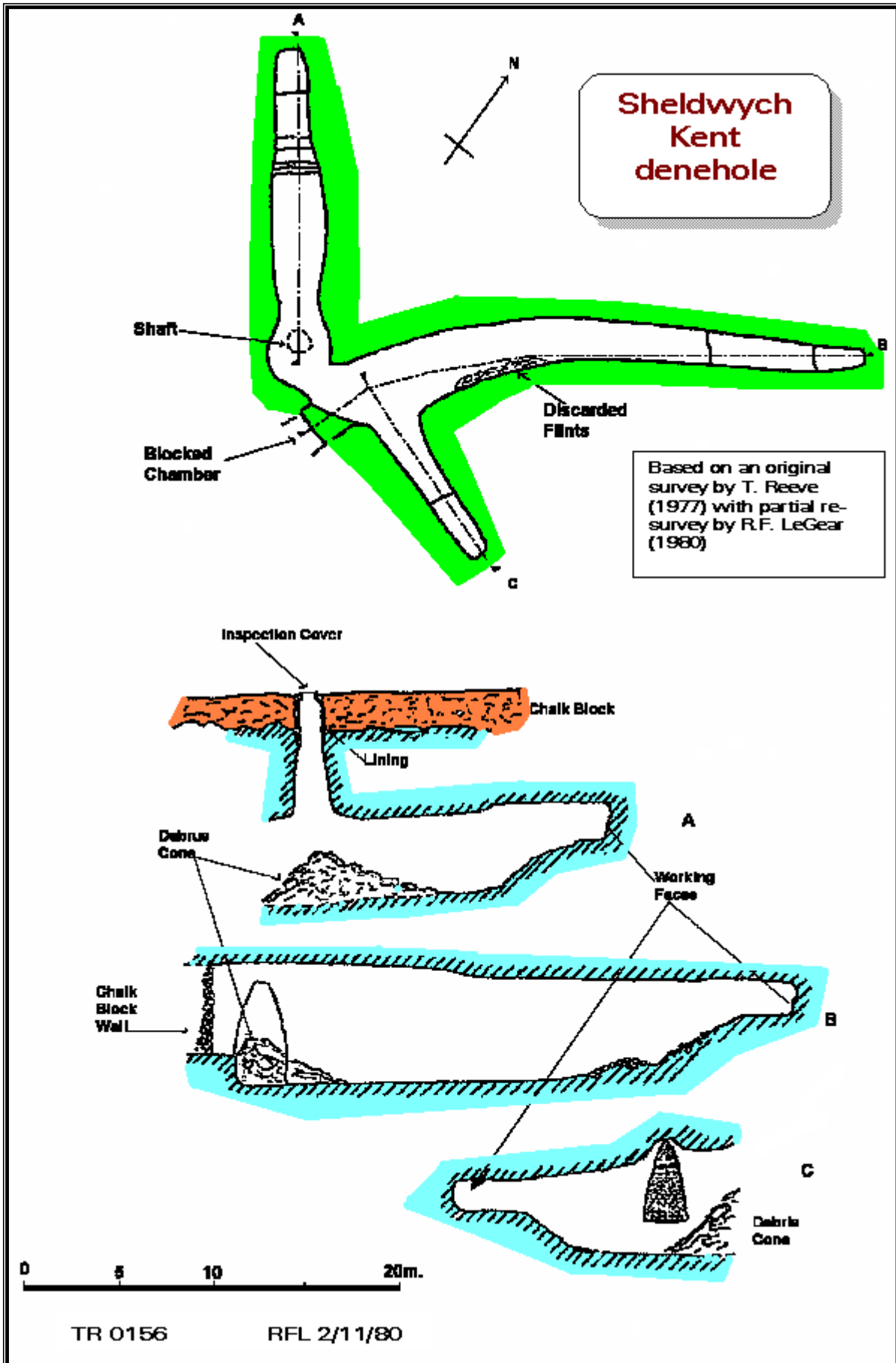
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### **TAILPIECE**

One of the regular contributors to this publication is engaged in the monumental task of compiling a bibliography of published works relating to miscellaneous British mines and quarries. The topic is any mineral excavated other than those used for fuel or reduced to a metallic state.

If you have any references, no matter how obscure, which are relevant, then please send them to Paul W. Sowan, 96A, Brighton Road, South Croydon, Surrey CR2 6AD.





**Notes and Queries**

The following items, researched by Adrian Pearce, come from WHITAKER "*The Geology of the London Basin*" 1872.

1) **Kensworth Kiln, Beds.** TL 0318

"...A 3ft. bed of the rock (Chalk rock) was found about 30ft. down the shaft."

2) **Kensworth Brickyard, Beds.** TL 0317

"...at the brickyard about 3/4 of a mile south of the church a bed 1.5ft. thick occurred near the top of the Chalk, which was touched at a depth of 20ft." (may refer to a shaft)

3) **Winterbourne, Berks.** SU 4571

"...a mile to the south of Winterbourne is another small sand hill, at the northern part of which I saw the bottom bed in a chalk well."

4) **Turville Common, Bucks.** SU 7691

"At the Southend brickyard...in the more northerly pit the chalk was said to have been reached at a depth of 15ft.; in the other pit close by to the south, it was not reached after sinking 22ft."

5) **Ballingdon Kiln, Bucks.** SP 9814

"...at Ringshall, near Little Gaddesdon, were some masses of the Chalk rock, and at Ballingdon Kiln this bed, about 3ft. thick, was found in the shaft at a depth of 60ft."

6) **Hicknaham, Bucks.** SU 9387

"The depth of the chalk on the crest of the hill between Abbey Park and Hickenham is said to be 80 or 90ft. About 40 ft. down a mass of pink clay was found at one place."

7) **Starveall, Bucks.**

"...At the kiln about one third of a mile SE of Starevall were found, according to the workmen:- gravel 18ft.; Reading Beds (Clay) 12ft.; Reading Beds (Sand) 50 ft."

8) **Stockwell, Bucks.**

"...the Common below Stockwell. On the eastern side a few feet of Reading Beds were passed through in sinking for Chalk, which is worked here by means of a shaft and underground galleries."

9) **Ackhamstead, Bucks.** SU 8290

"...the wood W.S.W. of the ruined church of Ackhamstead...the streams all flow into a large and deep swallow hole at the eastern corner of the wood. "

10) **Ashwell Church, Herts.** TL 2539

"...On the southern side of a lane, nearly a mile westwards of Ashwell Church, are the remains of a large, old quarry, where apparently shafts have been sunk, most likely to get the (Totternhoe) stone."

11) **Northaw, Herts.** TL 2902

"...the chalk does not come to the surface in this inlier, but it has been worked by sinking through the Reading Beds."

12) **Potten End Kiln, Herts.** TQ 0009

"...about 1.5 miles E.N.E of Berkhamstead...I was told that in sinking a deep chalkwell close by, the Chalk rock 2 ft thick was found about 200ft. down (may be a misprint for 20ft.)

13) **Ruislip Wood, Middlesex** TQ 1287

"...high road near green lane leading to Ruislip Wood...15<sup>th</sup> milestone...on the common to the south shafts have been sunk through the London Clay to the Reading Beds, in order to get the white sand of the latter...."

14) **Binfield Heath, Oxfordshire** SU 7478

"...In sinking a chalkwell at the Binfield Heath brickworks, the Chalk was reached after passing through about 20 ft. of the Reading Beds. "

15) **Portobello, Oxfordshire** SU 7194

"...Between Portobello and Cow Leaze Wood, in some old chalkwells in the fields on the eastern side of the road, white and light brown sand lies beneath drift clay and loam..."

16) **Russell Water, Oxfordshire** SU 7089

"In the brickyard at Russell Water...the chalk has not been reached after sinking 18ft."

17) **Farnham, Surrey** SU 8448

"Many swallow holes have been observed near Farnham...there are 7 swallow holes between Clear (Clare) Park and Farnham Park... in Clare Park, Lower Old Park Gully, Clay Pit Gully near the Potter's clay pit, in the Hop Grounds above the turnpike a little west of the Odiham Road, near the entrance of the pleasure ground in Farnham Park, and near the end of the avenue at the east end of Farnham Park.

The water absorbed by the holes in Farnham Park is supposed to reappear at the Bourne mill-stream. On the south side of Farnham Beacon Hill...the rivulets pour down the Tertiary clays until they arrive at the Chalk, where they plunge into the ground and disappear, except during the heavy rain."

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### Combe, Surrey

From 'Brief lives and other selected writings' by J. Aubrey -republished in 1949.

*"William Harvey...had a house at Combe in Surrey,...where he had caves made in the earth, in which in summertime he delighted to meditate."*

**Source** Paul Sowan.

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### London Bunkers

The diary feature of the 'Guardian' for 20<sup>th</sup> Jun. 1990 records that the London Fire and Civil Defence Authority was asking consultants for a detailed design to modernise two of its five emergency centres. The consultancy was estimated to cost £18,000 and the actual work £1.2m. One of the bunkers in **Cheam High Street** was leaking and the other in **Northumberland Avenue, Redbridge** had been vandalised.

Cheam High Street is at TQ 245635 and the Redbridge location at TQ 415872.

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### Darland, Kent - chalkwell

**Location** TQ 790651. On the opposite edge of a wood from Pear Tree Lane, where a bank descends to a field. There is a track through the wood to the hole.

**Description** A shaft 2m diameter at the top and widening to a rubble cone at 13m. Discovered when a dumper truck and driver fell in as a contractor was making a sewer from Gillingham. Subsequently filled in.

**Source** KURG Newsletter no. 26 Sept 1990

**Loose, Kent - smugglers' tunnel**

**Location** TQ 7549 In a well at the Old Star Inn.

**Description** The well is 8 ft. in diameter. The tunnel branches off a little way down '*It is large enough to take a small pony and cart*'. The other end of the tunnel was said to be at the bottom of Linton Hill and next to a large tree.

The Inn has been demolished and was on land east of the A229 which is now part of Linton Park.

**Source** Newsletter of the Maidstone Group of the Kent Family History Society May 1990/

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**Gillingham, Kent - subsidence**

**Location** TQ 793633

**Description** A small void which appeared under a road at the Hempstead Valley Shopping Centre. Subsequently filled in.

**Source** KURG Newsletter no.26 Sept 1990

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**Itchen, Hants - bat cave** SU 5231

According to Urban Wildlife News vol.6 (1) p.9 for February 1989 an artificial bat cave was built in the Itchen Valley Country Park in October 1988. It consists of three tons of tunnels and chambers made out of large, concrete pipes. The site is 2m. below ground.

**Source** Paul Sowan

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**Frindsbury, Kent - chalkwell**

**Location** TQ 7470

**Description** A shaft was excavated by Rochester City Council and the work completed in July 1990. A four-chambered chalk well was revealed '*of a curious square cut design*'. It was then filled in.

**Source** KURG Newsletter no. 26 Sept 1990.

**Borstal, Kent - quarry tunnels****Location** TQ 731669**Description** Flint and brick-lined tunnels adapted for use as air-raid shelters in World War 2. They were originally access tunnels linking adjoining quarries. Obscured by infill in 1990.**Source** 'Bygone Kent' 1 (2)

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**Guildford, Surrey - Mine Shaft?****Location** Castle Cliffe Gardens SU 997493**Description** A training geophysical survey in 1990 indicated a feature which was interpreted as a possible filled-in mine shaft.**Source** Bulletin Surrey Archaeological Society 249 Jul/Aug 1990 p2. and Paul Sowan.

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**Streatham - tunnels****Location** Beneath a house called "The Shrubbery" whose grounds 'ran down to Tooting Bec Common'. TQ 2872**Description** *"The house has also three remarkable passages, one of which is said to lead to a vault in the churchyard, another supposed to connect itself with the priory on Bedford Hill, and a third leading towards Wood Lodge. Of the three tunnels one is still accessible for 30 or 40 feet, lined with bricks, which can hardly be of earlier date than the reign of Charles II, and may be much later. The legend runs that it was formerly a nunnery and the nuns found one of the passages useful...The tunnels rather suggest private access from the waste, possibly for smuggled goods."***Source** 'Bygone Styreatham' by J. Harvey Bloom M.A. 1926 Mitchell Hughes and Clarke, London, p.38.

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**Crockenhill, Kent - subsidences****Location** Willow Farm.

Probable sites of deneholes or chalkwells noted by Rod LeGear in Sept.1990 at TQ 50086682, TQ 49716698, TQ 50216673, TQ 49496639, and TQ 49856610. Also a 4ft. diameter 130 ft. deep capped well at TQ 50326675, dry at the bottom.

**Source** KURG Newsletter no.27 Dec 1990

**London - more bunkers**

Five regional bunkers known as group Emergency Centres have been constructed to cover north, south, east, west and central London. They will house key officials in the event of war. According to Home Office rules each occupant is entitled to 700 cu.ft. of air space.

**Source** 'Evening Standard' 18 Jan. 1991 p.36

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**Priory Farm, Lewes, Sussex - secret tunnel**

**Location** TQ 4109

*"There is still the tradition common to monastic buildings of an underground passage connecting Priory Farm to the church. A stone with a ring in it in the scullery was shown to me as the entrance."*

**Source** Sussex Notes and Queries v.6 pp82-5, 1836-7

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**Chilham, Kent - chalkwells**

**Location** TR 07375582

**Description** Vestigial remains of 5 chalkwell adits around the perimeter of a chalk pit at Lower Ensden Farm. Noted by Jim Bradshaw.

**Source** KURG Newsletter no.25 June 1990

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**New Addington, Surrey - subways**

According to the 'Croydon Advertiser for 10<sup>th</sup> Mar 1989, the London Borough of Croydon intended to fill five disused pedestrian subways with rubble from other developments. Local residents ceased to use the subways under Fieldway after they became vandalized. The expected cost was £57,000 and the location TQ 376635.

**Source** Paul Sowan

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**Sharsted, Kent - chalkwells**

A 1781 map shows chalkwells at TQ 77806410, TQ78076375 and TQ78056368.

**Source** KURG Newsletter no.25, June 1990

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**Wiltshire - road tunnel**

**Location** ST 917321 where the minor road from Tisbury to Hindon crosses a prominent chalk ridge called 'The Terraces'.

**Description** Some 30m. long and 11' 9" high with imposing masonry portals and parapets. Wide enough for a single vehicle. Probably built by the cut-and-cover method.

**Source** Sub. Brit. Newsletter no.5 Oct.1990 p2. Paul Sowan.

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**Puttenham, Surrey - 'Cave'**

**Description** A description and map appeared in CSS Records vol.3 pp.42,46. This is an unsurveyed sandstone working not entered in recent times. Paul Sowan has located a contemporary account of a visit on pages 182-3 of 'The Mills of Man' by George Long 1931. The location is SU 950475.

*"The caves are somewhat extensive and form a perfect network of chambers and passages. They are so near the surface that in one place I noticed that the roof had fallen in. At present there are two practicable entrances; one is cut with rude steps and provided with a wire rope to hold, while the other is a steep slope, which may once have been possible for pack horses if, as tradition insists, these were the inland depots of a smuggling gang.*

*...The caves appear to have been excavated by hand, as the walls still bear apparent marks of tools; and the place may once have been a quarry for building sand... some of the galleries have fallen in and it was impossible to make a thorough exploration."*

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**Shiplake, Oxfordshire - grotto**

**Location** SU 7280

From 'Follies - a National trust Guide' by Gwyn Headley and Wim Meulenkamp p.268

*“Another much finer grotto is in the grounds of Crowsley Park at Shiplake, now largely a wireless transmitting station but still retaining a gloomy yew walk to a hollow in the woods, where the flint facade of the grotto looms, like an ogre’s mouth. Inside it is plain and friendly, a vaulted roof with an oeil-de-boeuf centre and ribs running down to the corners, terminating in smiling faces. The four niches either side may once have held busts, but nothing now remains, not even a shell. The owner credits the building by the Earl of Uxbridge and Lord Dungannon, two dissolute members of Dashwood’s Hellfire Club...”*

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### **Kingston, Surrey - subsidence**

**Location** In the middle of Grove Crescent TQ 182686

**Description** A hole appeared in the middle of Grove Crescent early on the morning of Tuesday 24<sup>th</sup> Apl. 1990. It was 2ft. across at the top, 5ft. at the bottom and 4 ft. deep. It was filled in by workmen on the same day.

**Source** Surrey Comet 27<sup>th</sup> Apl.1990

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### **Bedfordshire - shafts**

Patty Briggs of the Herts. and Middlesex Bat Group has noted the following:-

At TL 026042 near Langcroft Farm, a shaft 9 ft. wide, belling out about 12 ft. into the chalk. The top overburden has slumped down onto the infill of rubbish. The total depth is about 15 ft. She interviewed Freddie Mitchell and Philip Clarke both aged 55 who used to visit the wood as boys. They used to drop stones a long way before they hit the bottom *“Old Pig Harry used to dump all his dead pigs in the shaft.”*

Freddie’s father also remembered large holes for chalk mining at Latimer TQ 0099.

At Luton south TL0717 TL0817, TL0917, TL0918, TL0819 was a large site with limekilns, brickfields, a Chalk Wood and maybe a collapsed shaft.

At Badgerdell near Kings Langley TL 0403 there is reference to a 32 ft. denehole with 3 chambers.

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Index

The index is in three parts. The sites described in the text are listed by the place name, the grid reference to the nearest kilometre square and the type of cavity. The classification of types of cavity used is the one given in full in Volume 18 of C.S.S. Records, which was a consolidated index of all previous volumes and other sources. Where there is a related entry in volume 18 (18) is printed alongside an index entry.

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Place	v.18	Type	NGR	pp
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<b>NGR</b>	<b>Place</b>	<b>pp</b>
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**2.5.2. - Air Raid Shelters/Bunkers**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 8791	High Wycombe, Bucks.	11
TQ 6608	Wartling, Sussex	39
TQ 5699	Kelvedon Hatch, Essex	40
TV 5995	Beachy Head, Sussex	40
TG 3418	Neatishead, Norfolk	47
TR 2957	Sandwich, Kent	47

**2.5.2. - Air Raid Shelters/Bunkers - continued**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SZ 1697	Sopley, Hants	47
TQ 0100	Chenies, Sussex	47
TM 3438	Bawdsey, Suffolk	47
TG 2838	Trimingham, Norfolk	47
TR 3745	St. Margaret's Bay, Kent	47
SZ 5678	Ventnor, I.O.W.	47
TR 3871	Foreness, Kent	47
TQ 8611	Fairlight, Sussex	47
TM 5399	Hopton, Suffolk	47
TQ 2210	Truleigh Hill, Suffolk	47
TG 1608	Bawburgh, Norfolk	47
TQ 2463	Cheam, Surrey	57
TQ 4187	Redbridge, London	57
	London	60

**2.5.9. - Other Military Uses**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 1564	Claygate, Surrey	25

**2.9. - Other Storage Uses**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 5231	Itchen, Hants.	58

**3.1. - Conduction of People/Goods**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 3763	New Addington, Surrey	60

**3.1.1. - Railways**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 3470	Crystal Palace, London	20

**3.1.2. - Conduction of Vehicles**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
ST 9173	Tisbury, Wilts	61

**3.1.3. - Canal tunnels**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 7051	Greywell, Hants	26

**3.1.5. - Access tunnels**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 2841	Gatwick, Surrey	12
TR 3069	Birchington, Kent	19
TQ 7366	Borstal, Kent	59

**3.1.6. - Secret Passages**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 2861	Woodcote Hall, Surrey	51
TQ 2872	Streatham, London	59
TQ 4109	Lewes, Sussex	60

**3.1.7. - Smugglers' tunnels**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 7549	Loose, Kent	58

**3.2.5. - Drains and Sewers**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 6404	Pevensey, Sussex	31
SU 4997	Abingdon, Oxf.	48
SU 5105	Oxford	48

**4.1. - Follies**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 8294	Hellfire Caves, Bucks.	1
SU 7682	Henley-on-Thames, Oxf.	6

**4.2. - Grottoes**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 8486	Marlow, Bucks.	6
TQ 8352	Leeds Castle, Kent	18
	Combe, Surrey	57
SU 7280	Shiplake, Oxford	61

**5.1. - Shafts**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TL 0318	Kensworth Kiln, Beds.	55
SU 7691	Turville Common, Bucks.	55
TL 2539	Ashwell Church, Herts.	56
TL 2902	Northaw, Herts,	56
TQ 1287	Ruislip Wood, Middlesex	56
SU 7089	Russell Water, Oxford	56
TQ 7965	Darland, Kent	57
SU 9949	Guildford, Surrey	59
TL 0204	Langcroft Farm, Herts	62

**5.2. - Subsidences**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TQ 7963	Gillingham, Kent	58
TQ 5066	Crockenhill, Kent	59
TQ 5066	Willow Fm, Crockenhill, Kt.	59
TQ 1868	Kingston, Surrey	62

**5.9. - Other features**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TL 0317	Kensworth Brickyard, Beds.	55
SP 9814	Ballingden Kiln, Bucks.	55
SU 9387	Hicknaham, Bucks.	55
	Starveall, Bucks.	55
TL 0717	Luton, Beds.	62

**6.1. - Caves**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
TV 5197	Seaford, Sussex	25

**6.2.- Swallets**

<b>NGR</b>	<b>Place</b>	<b>pp</b>
SU 8290	Ackhamstead, Bucks.	56
SU 8448	Farnham, Surrey	56

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