

### Far Sump Extension

#### Part 3 of Peak Cavern (Castleton).

*See Part 1 for an overview of the entire system, access and location.*

#### Introduction

The passages collectively falling under the heading Far Sump Extension used to be among the most remote in the Peak District. They were once only accessible by diving through the 385 metre long Far Sump, through which any rescue attempt would have been very problematic. Regular exploration in & beyond Far Sump began over 20 years ago with about 1.5 km of passages and over 400 metres of pitches being explored by cave divers between 12th January 1980 and 15th July 1996. Many of the pitches were explored by bolt climbing from bottom to top on trips which often went round the clock and well beyond. Some of these shafts provide the finest examples of Derbyshire vein cavities in the area. Throughout these years when the only route here involved Far Sump the area remained very much as when first found. Modern cavers are asked to do everything possible to preserve these fine passages in an unspoilt condition.

Since non diving access was established in 1996 (via the Speedwell Boulder Piles and James Hall's Over Engine Mine, or 'JH' for short) divers have continued to make a few discoveries. However, major digs such as that which broke through into the Titan shaft have been pursued by non divers when dry access made such projects logistically possible. Thus the most helpful references for exploration in this area up until 1996 are the detailed dive reports in Cave Diving Group Newsletters from No 55 (April 1980) onwards. However, as most of the divers involved are also TSG members, there are some useful longer articles and surveys in TSG Journals, especially No.12 (1986) pages 15-19, No.13 (1988) page 13, No.14 (1993) pages 14 - 19 and No.15 (1996) pages 21 - 22. Post 1996 exploration has been less well documented so far, various disjointed references having appeared in assorted publications. Certain new discoveries have yet to be properly described in print. However, CDG Newsletters continue to provide information and later editions of TSG Journals include useful notes.

It is perhaps worth noting from the outset that some writers in the past have referred to this area by incorrect names such as 'Far Peak' and the like. This has mostly been by people who were not involved in exploration of this area of the system at the time. Using the wrong name should be

avoided because it would cause confusion when future cavers are searching the literature. The correct name remains 'Far Sump Extension'. The description which follows is the first to give detail of Far Sump Extension from the modern cavers' entry point (via the dig from JH) as opposed to all others which start from the upstream end of Far Sump (i.e. from the divers' perspective).

**WARNING!** A lot of the ropes, bolts and other fixed aids in various parts of Far Sump Extension have been in place for many years. A significant number of these were only intended as exploration aids and NOT for regular caving 'traffic'. Do NOT use ANY fixed aids in Far Sump Extension without first discussing which are safe for use with those cavers involved in explorations past and present.

#### Stemple Highway Area

From the base of the **Leviathan shaft** in **James Hall's Over Engine Mine** (see separate guide) a short slope downwards reaches the formerly choked downstream sump. Thanks to water diversions about 30 metres of crawling or stooping through this, followed by an ascent of a gravel slope emerges from the old **Stemple Highway Inlet Sump 2**; you are now in **Far Sump Extension**. A Further 60 metres or so of rough hands and knees crawling on bedrock ends at a short flat out section (the former **Stemple Highway Inlet Sump 1**) entering the side of a handsome phreatic tube: **Stemple Highway**. The passages described so far are generally dry due to the JH water having been piped away elsewhere. However, in high water the JH stream reinvades this passage, sumping (and possibly also choking) the main dig. Thus it is essential that all cavers are aware of the **FLOOD RISK!**

The route to the left in **Stemple Highway** is described below under the heading "Higher Level System" (see below). To the right **Stemple Highway** takes the form of a beautiful echoing tunnel giving easy walking to the first of two pitches down, linked by a traverse. Various avens are passed beneath en route; all have been climbed and are blind. Over the top of the first down pitch the Stemple Highway tube continues (unexplored) to merge with the huge dark expanses of phreatic rift leading to **Salmon's Cavern**, access to which is gained as described below.

Both the pitches (6 and 9m) are fitted with iron ladders and a short crawl beyond enlarges at a junction. Straight ahead is the base of a large aven (where the **Ride Of The Valkyries** (see below) pitch lands) beyond which is a further short crawl (or climb through a window) to a 9 metre upward

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pitch. The latter reaches a col with a 6 metre downward pitch immediately beyond into the lofty **Salmon's Cavern**. The main aven here is the base of a pitch some \*\*\*m deep reached by traversing over the top of the **Ride Of The Valkyries** in the high level passages (see below). The smaller aven near the far end of Salmon's Cavern once had many old miners' stemples jammed across it; this is 27 metres high and is totally blind. The ropes here are very old and should not be used. At the far end of Salmon's Cavern is a low arch leading to a slippery 6 metre ascending tube gaining a short crawl and the tiny **Hypercapnia Sump**.

The other passage (from the junction just beyond the Stemple Highway pitches) is a crawl of about 50 metres in length which gradually increases in size and emerges into the impressive **AI Passage** opposite a mud ledge which was once the site of the divers' camp, the start of the 'Lower Level Passages' for the purposes of this description.

### Lower Level Passages

Turning left at this junction allows easy walking, stooping and a short crawl ending at some boulders, where the route leading (eventually) into **Titan** leads off upwards. Crawling through these boulders at floor level for a few metres leads to the upstream end of **Far Sump** (see Peak Cavern part 1). In Normal winter conditions this is a large pool sumping under the far wall but in drought the water level falls such that the first 150m of the sump can be followed via various pools without breathing apparatus. The low inlet on the right 15 metres into the 'sump' is the sumped **Far Sump Inlet Sump**, also known as 'Far Sump Left Hand Branch'. This emits a very strong flow of water in wet conditions and is in fact the main Peak Cavern stream seen downstream of far Sump. The passage above the 5m cascade at the upstream end of Far Sump is some 30m long to a choke of huge boulders - the lowest known point of the choke at the base of the Titan shaft (see below).

From the boulders just upstream of Far Sump (described in the above paragraph) a 4 metre scramble upwards enters a large rift passage with a sloping silt floor. The far end of this is terminated by an easy but slippery 5 metre climb (care!) at the top of which is a monumental choke with ways along the left and right walls, both having been dug previously. To the left soon ends in dribbly cavities located probably above the choke terminating the passage above the 5m cascade at the upstream end of Far Sump (see above). To the right is an uneven crawl via various digs to an narrow upward slot emerging into a chamber (**Blarney's Breakdown**) with a floor of sloping boulders. At the head of this slope is an extensive dig upwards

through boulders (care!) which suddenly emerges part way up the sloping floor of a gigantic aven - this is **Titan** (see separate Titan guide).

The opposite direction from the divers' camp (in **AI Passage**) continues upstream in fine style. The water is normally static but in flood there is a very large stream here. Easy walking leads to an obvious T junction where the left hand option involves stooping and crawling (generally downhill) in a tube which ends at the normally static **Minor Sump**. This is the source of the floodwater referred to above. There is an interesting draughting tube on the right near the start of this passage, unfortunately too tight to follow after a few metres. If the water is very low then **Minor Sump** recedes, exposing another low crawl at roof level on the right. This gives 60 metres of flat-out, sharp and wet going emerging in **The Rasp**, a slightly larger streamway associated with a minor pipe vein. To the left is a choked sump but upstream to the right is a few metres of jagged epiphreatic passage to a further sump. This has been emptied after some difficult bailing and leads to two more sumps, passed by round the clock pumping operations to a fourth sump impenetrable sump. The whole of this area is very flood liable, in fact for long periods it remains sumped.

Back at the T junction in **A I Passage** the other way is a major tunnel floored with fine sediment and gypsum crystals (care!) - i.e. this now never carries a stream. Easy walking leads via fine cracked mud floors (care!) and the not so easy **Lake Of A Thousand Banana Skins** (you have been warned!) to a large canyon section, terminating at a boulder pile. Scrambling up through an obvious hole leads to a large platform looking down into the impressive **Major Sump**, 7.5m deep and solidly choked. A small tube in the left wall just before this point is the site of an abandoned dig.

### The Higher Level System

The brief description below follows a circular route, starting from the entry point into **Stemple Highway** (from JH as described above), with detours to other sections of passage along the way. On emerging from the old (now dry) **Stemple Highway Inlet Sump 1** turn left at the T junction in **Stemple Highway** to follow a phreatic rift passage of comfortable walking size. For a few metres this is downstream as far as an immature sink under the right wall (tested to a submerged impenetrable inlet on stream left in Far Sump about 240m from base).

The continuation of the rift is now upstream and leads (via a slightly narrower section) to the base of the very fine **Calcite Aven**. Great sheets or hydrothermal calcite are in evidence here as are house brick sized calcite rhombs littering the floor (evidence of the proximity of **New Rake**). A fixed rope leads up a slightly wet pitch of about 45m (the large void on the opposite wall is blind) to a short walking canyon streamway and a junction. To the left is **Cascade Aven**, a 30m upward pitch in three steps entering the 15m high **Donatella's Aven**. A smaller passage at the top is the source of most of the stream; after a further 4m aven this ends at a mud sump about 130m above the level of Far Sump. A few metres up in the wall of **Donatella's Aven** is a washed out bedding plane; following the trickle emerging opposite the entry point from **Cascade Aven** soon becomes too low. In the opposite direction (i.e. back over **Cascade Aven**) is a dry crawl becoming too low very close to **The Total Perspective Vortex** (see below). This bedding plane is believed to be the same as that forming the upward limit of major development elsewhere in Far Sump Extension, in the roof of the first Miners' Workshop of JH and also the large passages above Speedwell's Cliff Cavern.

From the base of **Cascade Aven** the other route is a dry walking sized rift passage then a short climb up flowstone into the boulder strewn **Fingernail Chamber**, with various routes leading off. To the left, just after entering is an unclimbed aven, some 12 metres high, connecting with a ledge on Balcombe's Way Aven (see below). A circular window at floor level part way along the left wall gives direct access to **Fingernail Chamber Pitch**, a 12m descent into the impressive **Balcombe's Way** (one of two main routes on the round trip back into the lower level series). Straight ahead is a 6m pitch up a LOOSE (!) wall of boulders to gain the start of **Western Highway**, at first almost 15m high.

Proceeding upslope in **Western Highway** soon encounters a rope hanging out of the roof - this is **Vortex 2**. Beyond the foot of this pitch is a large, still rising passage which then descends maybe 30m to end ignominiously at a sand choke. This may be the other end of the main development in the nearby Joint Effort choke above Speedwell's Cliff Cavern, or it may lead elsewhere..... The **Vortex 2 pitch** is a vertical then traversing section of rope (totalling about 23m) emerging in the horizontal development of **The Total Perspective Vortex**. To the left from the pitch head is **Vortex 3**, a wet 30m pitch (with an awkward take off) past dangerously poised boulders to where the water is lost in a floor choke. To the right from the top of **Vortex 2** a short crawl leads past a deep pit to the right (**Vortex 1** - a 45m pitch dropping into **Balcombe's Way**) to a boulder strewn chamber. Straight across this (care - the floor is jammed rocks over fresh air!) enters

a short low crawl visually connected with that leading out of **Donatella's Aven** (referred to above). However, immediately to the right at the entry to this chamber is the loose take off for **Balcombe's Way Aven**, a 30m pitch down into **Balcombe's Way**. Just over halfway down is a ledge, the back of which overlooks the 12m aven in **Fingernail Chamber**.

**Balcombe's Way Aven** touches down at the head of a boulder slope entering the side of **Balcombe's Way**, a very fine phreatic trunk route. To the right passes below a high aven (the base of **Vortex 1**) then ends soon after at the bottom of the 12m **Fingernail Chamber Pitch**. Shortly before this point is a dig low down on the left where stones can be thrown down a narrow shaft - though this is right over the avens in **Stemple Highway**.

In the opposite direction a short pitch down over some boulders is followed by uneven going in a large passage. Soon a trench begins to cut down in the floor - this is the head of **The Ride Of The Valkyries**, a fine airy shaft of about 60m landing between **Salmon's Cavern** and the crawl from **Stemple Highway** into **A I Passage**. Perhaps 15m down this a small window enters an alternative shaft via which stones fall into the aven where the **A I Passage** crawl leaves **Stemple Highway**. By continuing in **Balcombe's Way** a rising traverse over **The Ride Of The Valkyries** reaches another large shaft some 72m deep which enters **Salmon's Cavern** (referred to above) directly via the main aven in its roof - another magnificent descent. Shortly before the end of the traverse (i.e. rising from Balcombe's Way level) is a smaller aven in the roof which has been partially climbed but the existence of what looks like a passage at the top has yet to be confirmed.



#### Description Notes:

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 **Surveys:** A complete survey of the Peak Speedwell System is published by John Beck, available from Hitch n Hike.

 **Surveys in Descent Magazine:**

- #85 Dec./Jan. 1988/89 p28-31 Stemple Highway & Salmon's Cavern. Vertical cross section.
- #86 Feb./Mar. 1989 p29 The Rasp.
- #181 Dec./Jan. 2004/05 p10 The Rasp.
- #192 Oct./Nov. 2006 p11 The Rasp.

 **Surveys in CDG Newsletters:**

- #86 Jan. 1988 p7 Stemple Highway & Salmon's Cavern. Schematic diagram of pitches.
- #116 Jul. 1995 p24-25 Major Sump.
- #122 Jan. 1997 p12 Major Sump.


 **Further reading:**

- Crewe CPC Rigging Guide (topo) .
- Caves of the Peak District, DW Gill & JS Beck 1991, now out of print ISBN 1-85568-034-3.
- Classic Caves of the Peak District, Iain Barker 1997, now out of print ISBN 1-86126-058-X
- The Peak Cavern System - a Caver's Guide, John Cordingley 1986, now out of print ISBN 0-948152-01-X
- Peak District Sump Index, R.L. Carter & J.N. Cordingley 1994, published by the Cave Diving Group.
- Rocks & Scenery of the Peak District, Trevor D. Ford 2002 ISBN 1-84306-026-4.
- Limestones and Caves of the Peak District, Trevor D Ford 1977, out of print ISBN 0 86094 004 1 (paper) & 005 X (cloth)

 **Entries in Descent Magazine:**

- #85 Dec./Jan. 1988/89 p28-31 Stemple Highway & Salmon's Cavern.
- #86 Feb./Mar. 1989 p14 Ride of the Valkyries. exploration update.
- #87 Apr./May. 1989 p12 exploration update.
- #100 Jun./Jul. 1991 p16 Stemple Highway Inlet Sump.
- #106 Jun./Jul. 1992 p18 Salmon's Cavern.
- #133 Dec./Jan. 1996/7 p13 Major Sump.
- #135 Apr./May. 1997 p19 Various including Western Highway.
- #136 Jun./Jul. 1997 p14 The Rasp.
- #143 Aug./Sep. 1998 p14 Calcite Aven.
- #160 Jun./Jul. 2001 p10
- #167 Aug./Sep. 2002 p14

- #181 Dec./Jan. 2004/5 p10 The Rasp.
- #188 Feb./Mar. 2006 p15 Western Highway.
- #191 Aug./Sep. 2006 p9 Coral Aven.
- #192 Oct./Nov. 2006 p11 The Rasp.

 **Entries in CDG Newsletter:**

- #60 Jul. 1981 p24-26 Far Sump & the discovery of FSE.
- #86 Jan. 1988 p6-8 Salmon's Cavern.
- #91 Apr. 1989 p17-18 Donatella's Aven.
- #91 Apr. 1989 p18 Balcome's Way Aven.
- #91 Apr. 1989 p19 The Total Perspective Vortex.
- #92 Jul. 1989 p18 The Total Perspective Vortex.
- #94 Jan. 1990 p20 Stemple Highway Inlet Sump. Total Perspective Vortex.
- #95 Apr. 1990 p17 what was to become the "Titan" choke. Stemple Highway Inlet Sump.
- #98 Jan. 1991 p21 Stemple Highway Inlet Sump.
- #100 Jul. 1991 p30 Stemple Highway Inlet Sump 1 & 2.
- #103 Apr. 1992 p44 what was to become the "Titan" choke. (Calcite Aven and Salmon's Cavern.
- #104 Jul. 1992 p19-20 Salmon's Cavern & p20 The Rasp.
- #107 Apr. 1993 p33-34 The Rasp.
- #115 Jan. 1995 p16 Muddy Aven.
- #116 Jul. 1995 p24-25 The Total Perspective Vortex.
- #121 Oct. 1996 p25 Salmon's Cavern.
- #122 Jan. 1997 p12 J.H. connection with Stemple Highway. Major Sump.
- #131 Apr. 1999 p11 The Titan Breakthrough.

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## **WARNING!**

Caving and exploring mines can be dangerous and fatal accidents can happen, especially if you are not sufficiently trained.

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In case of accident telephone 999 and ask for Cave Rescue.