
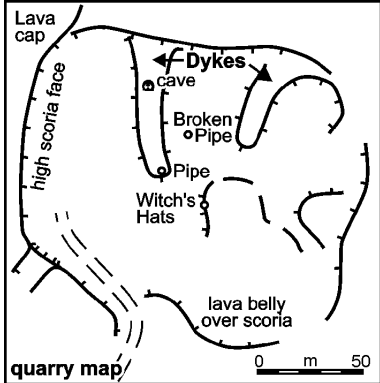


Ref:	Report Date 6-4-2001	Club: HFNC	Hours: 2 + 2	Name of Cave / Feature: Mt Fyans Lava Cave	Visit Date: 11-8-2000, 1-4-2001	Cave No: 3H.105
Names in Party (<u>Author</u> , <u>Leader</u>): <u>Ken Grimes</u> . Janeen Grimes, Glenys & John Cayley. (11-8-2000) Ken Grimes (1-4-2001)					If no number, tick reason New Cave [X] Unidentified Old Cave [] Can't tell which: []	
Purpose and result of visit: Exploration. New Cave discovered - formed in a dyke intruding the scoria cone. Interesting volcanic features also present.					Area Name: Volcanics (Mt. Fyans) Type of feature (if not Cave):	
<p>Description: The Volcano: This is a youthful eruption. Undated, but possibly less than 100,000 years old - judging by the well developed stony rises and minimum soil development. The stony rises extend in all directions and there are some particularly elegant and distinctive dry stone walls built on them (photo C0108-17).</p> <p>At the summit is a low scoria mound and possible crater - though the quarry has made the original form difficult to deduce! The scoria has a thin cap of basaltic lava, and ropy patterns on the underside are well-exposed on the southern margin of the quarry (photo C0011-11). The loose scoria has been intruded by at least two large dykes (up to 12 m across) and a number of smaller pipe or finger-like lava bodies, some of which are partly drained. The quarry operations have worked around the large dykes, but damaged the smaller intrusive features (which is why we know they are hollow!).</p> <div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;">  <p>Mt. Fyans quarry, looking north. C = cave, P = Pipe, W = Witch's hats. C0108-21.</p> </div> </div> <p>The cave: The lava cave is a small horizontal tunnel within the largest dyke. It lies close to the west edge of the dyke and runs parallel to it (see map). Entrance is via a small hole broken into the roof. The cave is about 17 m long and generally less than one metre high. The roof and walls have numerous lava drips. The floor is a horizontal ropy pahoehoe flow which rises gently towards the northern end - but the ropy structures suggest a flow direction from south to north. Both roof and floor have common pale cream coatings over the basalt - possibly fumerolic alteration? There are well-developed rolled benches (10cm diameter) along the edges of the floor (photo C0108-23). One small hole in the roof, near the entrance, opened into broken scoriaceous material. There are a few patches of small broken material on the floor, and one patch of coarse angular white grit (possibly derived from the pale wall coatings?) and one patch of red soil, presumably derived from the surface. The inflow and drainage points for the lava are not obvious.</p> <p>Related features: As well as the cave, the main dyke also has a drained vertical pipe at its southern end - this has been broken by the quarry operation and we found the upper part lying on its side 20m to the NE. This pipe had dribble patterns on its inside walls (photo C0011-5). Elsewhere in the quarry there are intrusive pipes and smaller fingers that have pushed up through the loose scoria. Several of these have drained back after the outside has solidified so as to leave a hollow core, some with lava drips. Probably the most unusual are the conical "Witch's hats" (see photo C0011-2&3).</p>						

Comments/recommendations (if any):

A small but unusual lava cave - developed within a large dyke that intrudes the scoria on the summit of the volcano. There are other drained lava features nearby in the quarry. The area has considerable geological interest. I have not heard of other reports of lava caves forming in dykes - so for the present this is a "unique" cave !!!

The quarry has extensively damaged the original landforms, and is quite messy. However, it has provided good exposures of a range of volcanic features, including the cave.

A sign says "Mt. Fyans Wildlife Reserve". I'm not sure what status this has. The area is poorly fenced, and the vegetation is in poor condition with many dead or dying trees. The locals have been cutting the dead trees for firewood. I did see one swamp wallaby though.

The cave is in good condition at present (little visited as the entrance is only obvious if you walk close to it). Some of the red soil has been tracked onto the lava floor (mea culpa!).

Topo Sheet: Woorndoo North 7422-2-N	Scale: 1:25,000	Best Grid co-ords: 573700E, 5807420N (map)	Parish/Hundred:	Allotment:
How to get there: Track (Doherty's lane) west from Darlington Road follows southern edge of Wildlife Reserve, then turn north into the reserve and it leads to the quarry at the summit. Cave is in top of the main dyke within the quarry (see photo & location map).			Equipment: Usual horizontal.	

Tick the boxes for selected headings, then write about each in sequence, using the correct numbers and headings.

4 Cave type	[X]	24 Hazards	[X]	38 Air temperature	[]	Geol. Strata names	[]
5 Rock type	[X]	25 Difficulties	[X]	39 Humidity	[]	Dip & Strike	[]
6 Other entr numbers	[]	26 Degree explored	[X]	40 Moisture level	[]	Main stream flow	[]
7 Total entrns	[]	27 Prospects	[X]	41 Discoverer & date	[X]	Inflow & Outflow points	[]
8 Entr type	[]	28 Owner category	[X]	42 Extension discov.	[]	Water composition	[]
9 Development	[X]	29 Present Cave Use	[X]	44 Contents	[]	Gases	[]
10 Decoration	[X]	30 Present surface use	[X]	45 Species	[]	Likely archeol. Site?	[]
11,12 Length & method	[X]	31 Damage	[X]	46 Important for	[X]	Age of archeol. material	[]
13-14 Vert Range/method	[X]	32 Management class	[]	47 References	[]	Age of paleontol. Material	[]
15 Largest chamber	[]	33 Protection	[X]	Entr Doline size	[]	Peak tourist count / day	[]
16 Pitches	[]	34 Permission from	[]	Watersheds	[]	Yearly tourist count	[]
17 Horizontal Extent	[]	35 % mapped	[X]	No. Of levels	[]	Conservation rating	[]
18,19 Latitude & Longitude	[]	36 Widest Map	[X]	Accidents	[]	Best area map	[]
23 Entr elevation	[X]	37 Entrance Marker	[X]	Rescue comments	[]	2 bearings & distances	[]

4: **Type** = Lava cave (but NOT a normal 'lava tube')

5: **Rock** = Basalt & scoria

9: **Dev** = Small horizontal tube.

10: **Decs** = good, unusual decs.

11,12: **Length** = 17m long, surveyed, +/- 1m.

13,14: **Vert** = 1.5m; surveyed +/- 0.5m

23: **Elev** = abt 270m ASL

24: **Haz** = sharp bits.

25: **Diff** = All crawling

26: **Deg Expl** = Totally explored, no leads.

27: **Prosp** = Nearby features

28: **Owner** = Govt (?)

29: **CUse** = none (wild)

30: **SUse** = Wildlife Reserve

31: **Damage** = minor muddying. Entrance is a quarry breach.

33: **Prot** = nill.

35: **%Map** = 100% mapped

36: **Map** = herewith (VSA 389)

37: **Tag** = Not marked

41: **Disc** = HFNC, 11-8-2000.

46: **Sig** = Important for Geology, Geomorphology, Minerals??



Dry-stone wall, 5 km south of Mt. Fyans. C0108-17.

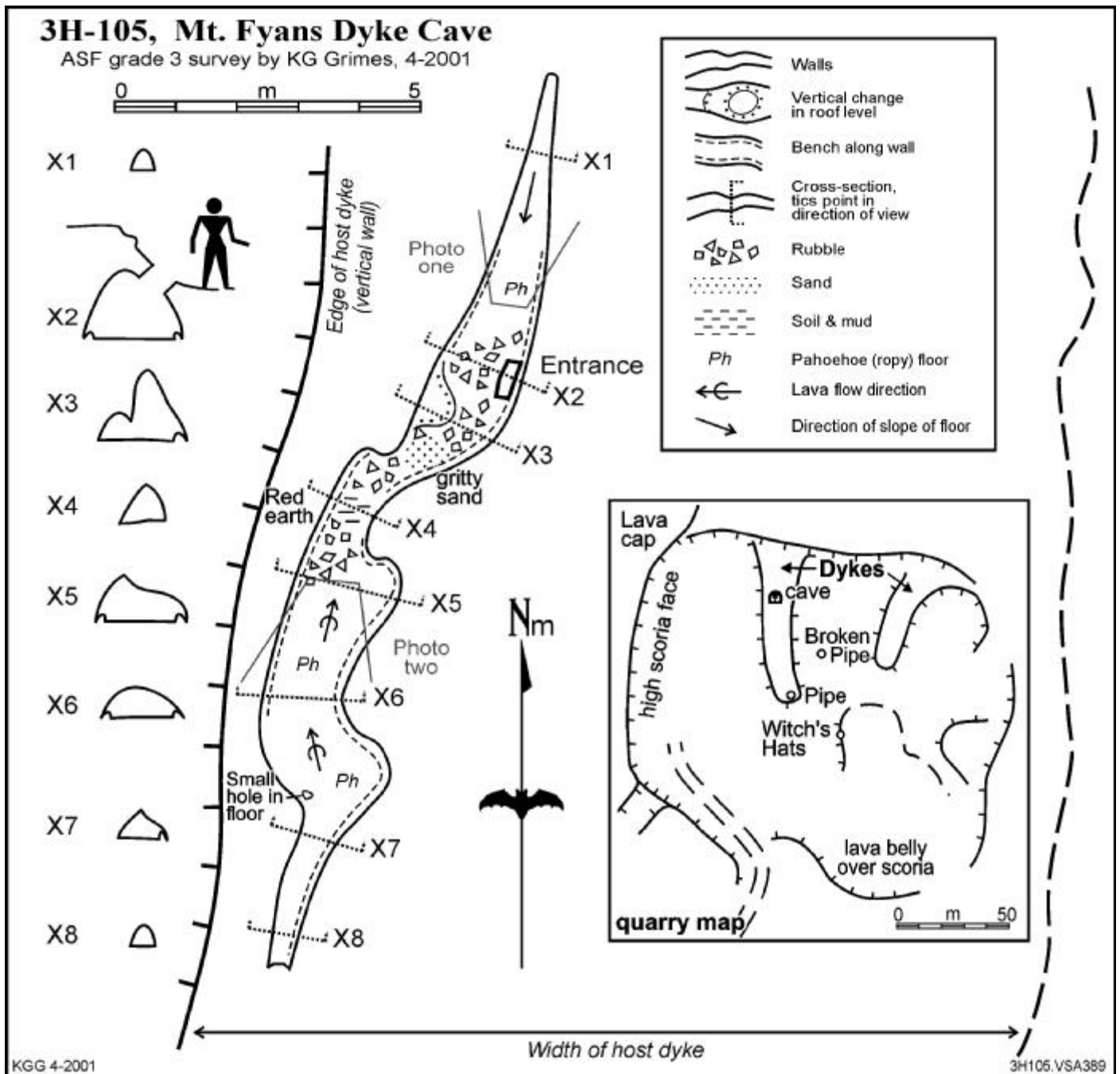
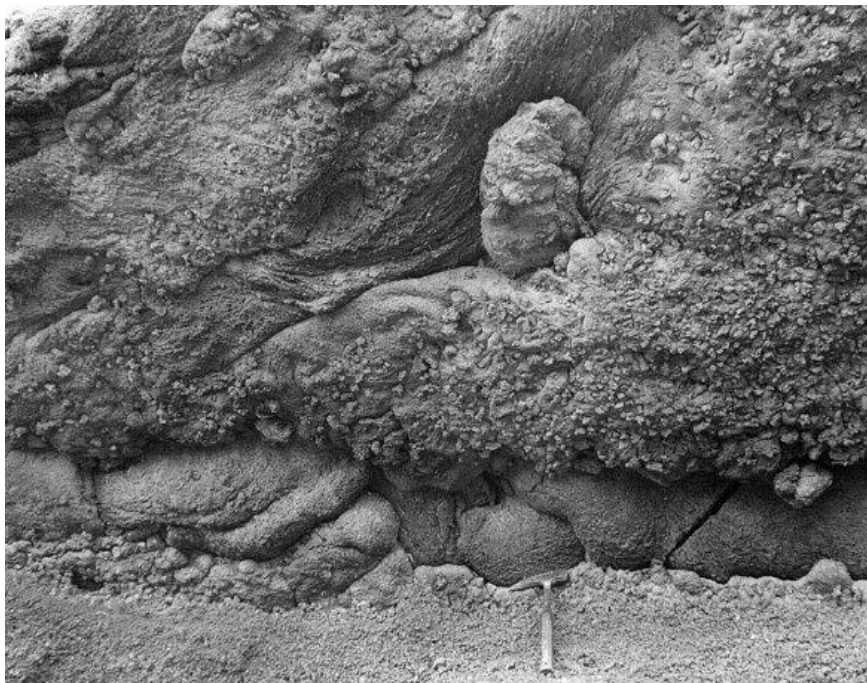


Photo one: Looking North from entrance. (C0108-22)



Photo two: Looking South from section X4. (C0108-23)



Looking up at ropy underside of a lava flow with attached scoria fragments. Southern wall of quarry. C0011-10.



Stereo-pair of a "Witch's Hat" - formed by a finger of lava that intruded the loose scoria, chilled at the edges, then drained back to leave a hollow cone. C0011-2 & 3.



Lava spatter and drips inside broken pipe. C0011-5.