

A Walk in the Woods, a Trip to the Tundra

A consideration of the late glacial history of the Hervie Valley.

Andrew Wainwright

The Hervie Burn is a north bank tributary of the River Don running down from Chapel of Garioch (NJ 716 242) to Burnhervie (NJ 732 195). Within the valley there are a number of glacial features which shed some light on the late glacial history of the area. At the north end of the valley there are a number of lake terraces, ranging from 160m OD at Chapel of Garioch to 125 at Bogmill. Some of these can also be recognised at the south end of the valley, on Gallows Hill (NJ 717 185). In the centre of the valley the Hervie Burn goes into a small “canyon” which may be the upstream limit of the last ice. In the Aquhorthies woods (NJ 724 204) there are a number of kame terraces marking the downstream limits of the last fragment of ice in the valley. Finally, along the west side of the valley there are a series of glacial overflow channels from the Don Valley ice, which throw some light on the relative amounts of ice in the two valleys.

At some time, the area was flooded by a lake producing the terraces well seen at the north end of the valley. At Chapel of Garioch there is a good one at 160m running through much of the village and particularly in the church yard. The highest seen around the valley is at 190m White Hill (NJ 700 194) along the base of Millstone Hill. These last two, plus another at 180m covering much of the policies of Pittodrie House Hotel (NJ 698 240), are at, or higher than, the watershed at the head of the valley and therefore the lake must have extended into the Insch valley to the north. It was probably damned up behind the Don Valley Glacier to the south, ice flowing out from Europe and up from Glen More in the east, and ice from the Spay Valley and the Northern Highlands in the north. The limits to these terraces are very eroded, to the extent that they are sometimes hard to separate without detailed levels or some other evidence. Where the sediments can be seen, they are silts or very fine-grained sands with rounded pebbles of hard igneous or metamorphic rocks.

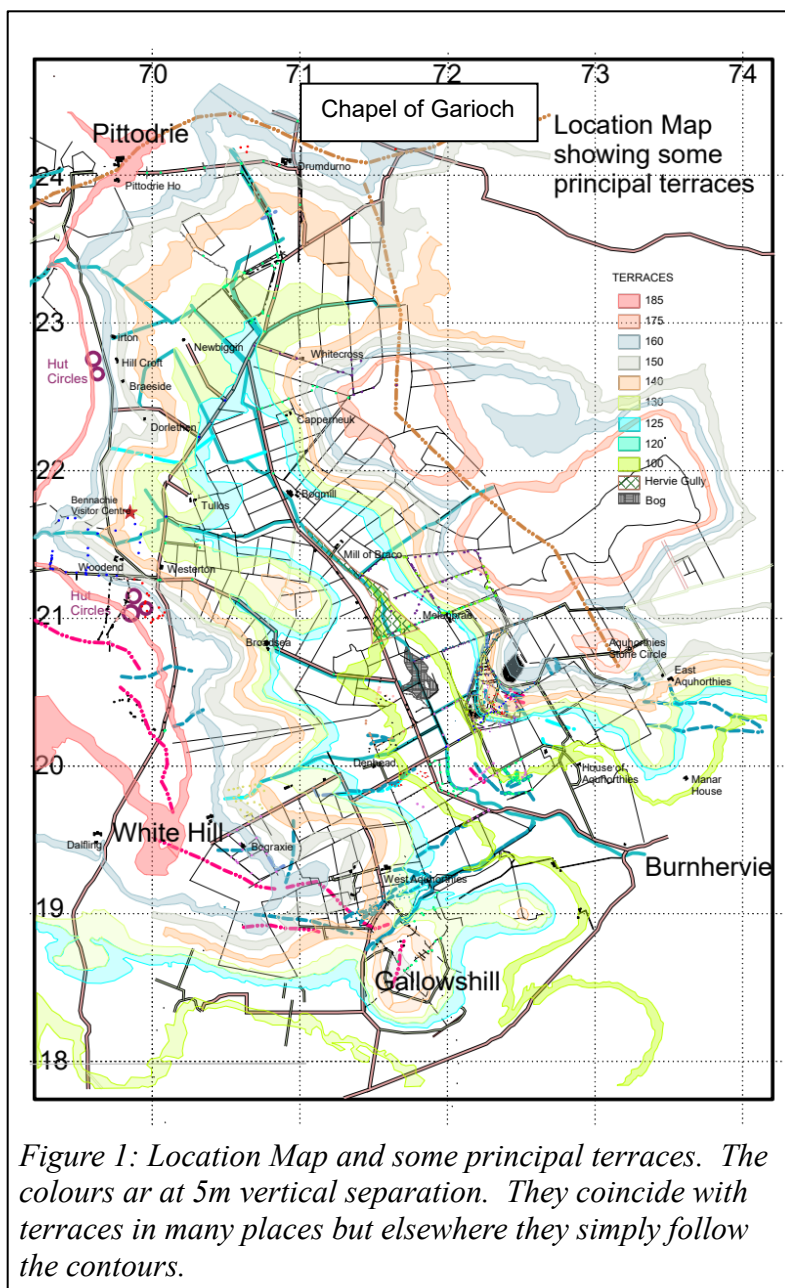


Figure 1: Location Map and some principal terraces. The colours are at 5m vertical separation. They coincide with terraces in many places but elsewhere they simply follow the contours.

In Aquhorthies Woods there is a series of small valleys cut in the side of the hill. These characteristically consist of a horizontal terrace running along the side of the hill, which becomes a valley less the 100m long running slightly downhill to the south; this suddenly becomes deeper and

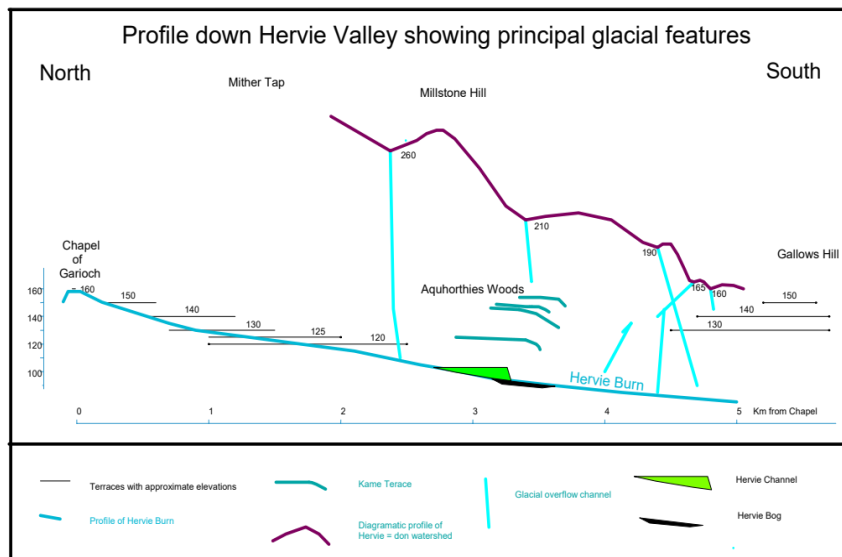


Figure 2: Profile down the Hervie Valley showing principal glacial features. Note that the watershed and glacial overflow channels are on the west side of the valley while the Aquhorthies woods are on the east.

turns sharply downhill to become indistinct after a few tens of meters. The ones at the highest elevations are on the south-east of the woods and lower ones are found progressively further north. These valleys are all well delineated with sharp boundaries. They range in elevation from about 160m down to 125m.

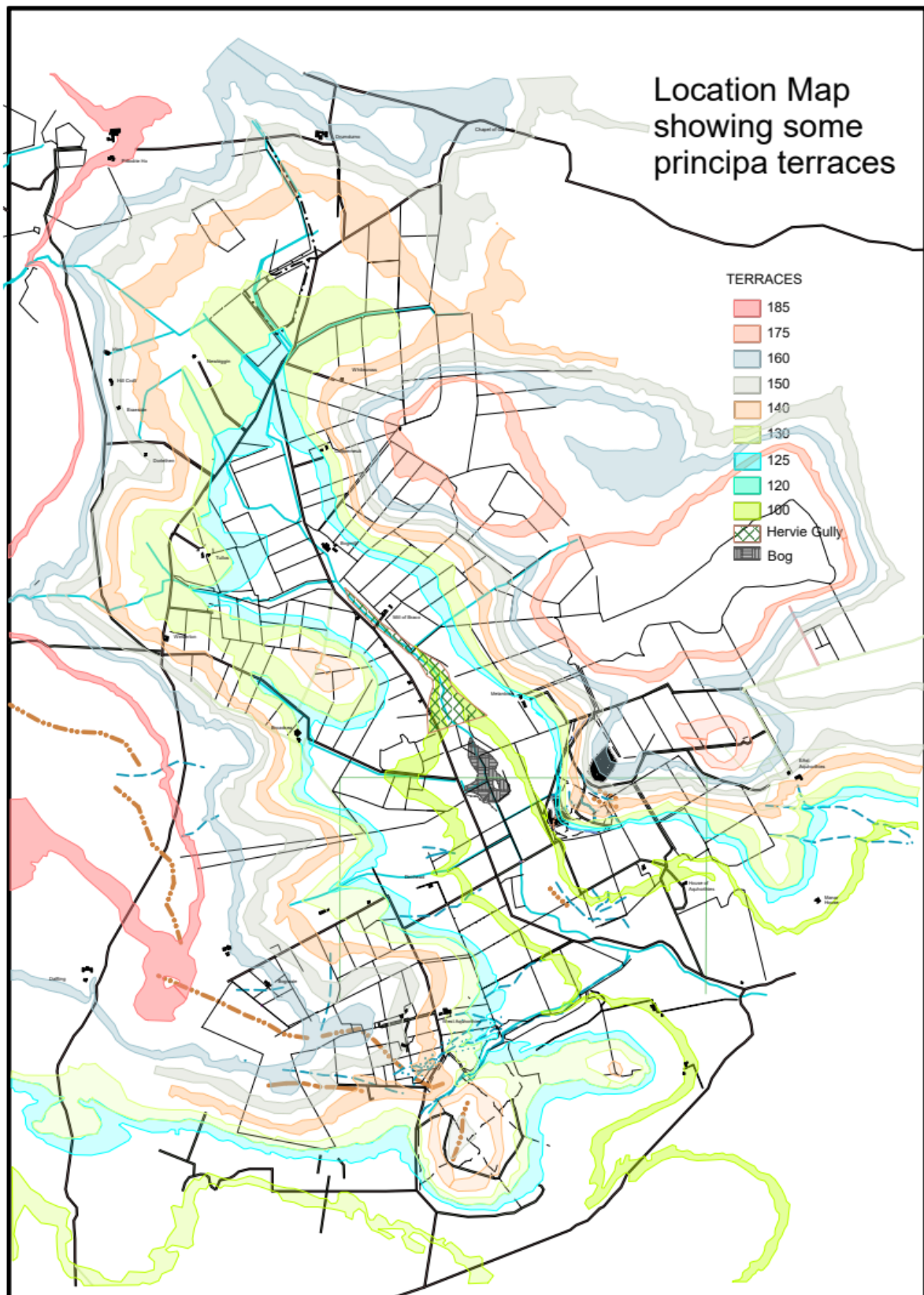
Mither Tap was de-glaciated at about 21ka, so until then the Hervie Valley would have been covered by 500m plus of ice. In a neighbour's field a four or five meter's deep hole was dug into very rotted

Aberdeen Formation of the Dalradian Group with an undisturbed but equally rotten pegmatite vein running through it. So, the ice was probably cold based and not moving. This slowly melted until only a small part was left in the lower part of the valley. The kame terraces in the Aquhorthies woods record the final positions of its snout as it gradually melted back up the valley. It probably terminated in a lake held up by the Don Valley Glacier.

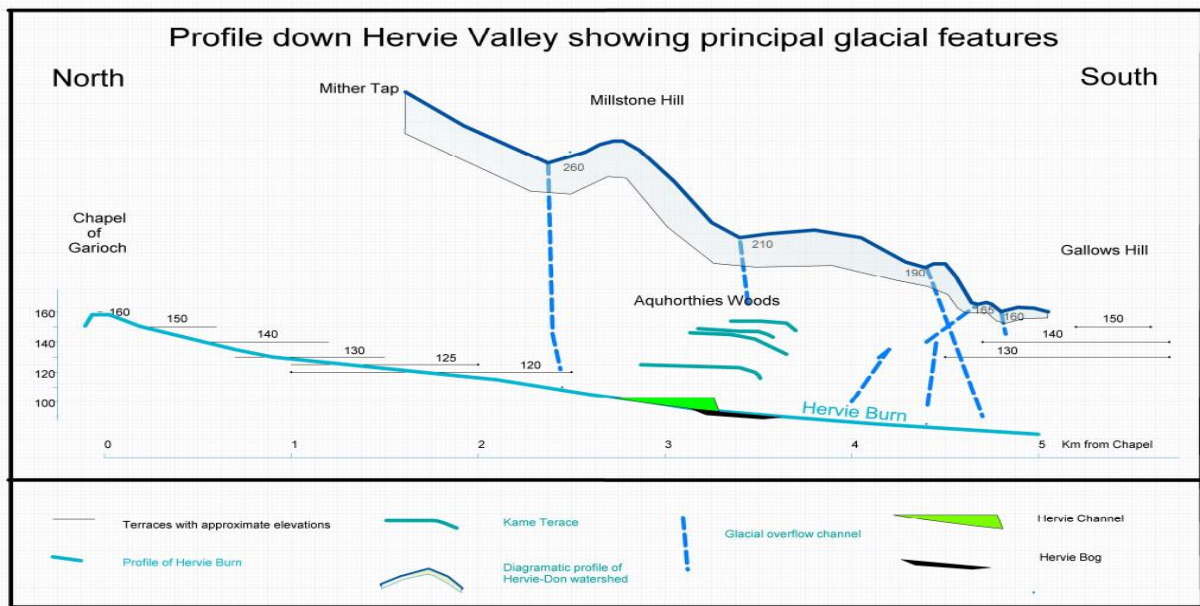
From the evidence seen here it is probable that we are dealing with two very different periods of glacial history. The lake terraces at the head of the valley are more eroded and at a higher elevation than the kame terraces in Aquhorthies Woods and therefore must be older. There is a sample of sands encountered in the archaeological diggings at Druminnor Castle near Rhynie, which are either fluvial or lacustrine, and have been dated to 71ka. and are resting on very weathered Devonian silts. These soft sediments are still present and so any subsequent ice must have been cold based and unable to remove these soft sediments. They may be related to the lacustrine stage in the Hervie Valley.

Plenty of room for discussion.

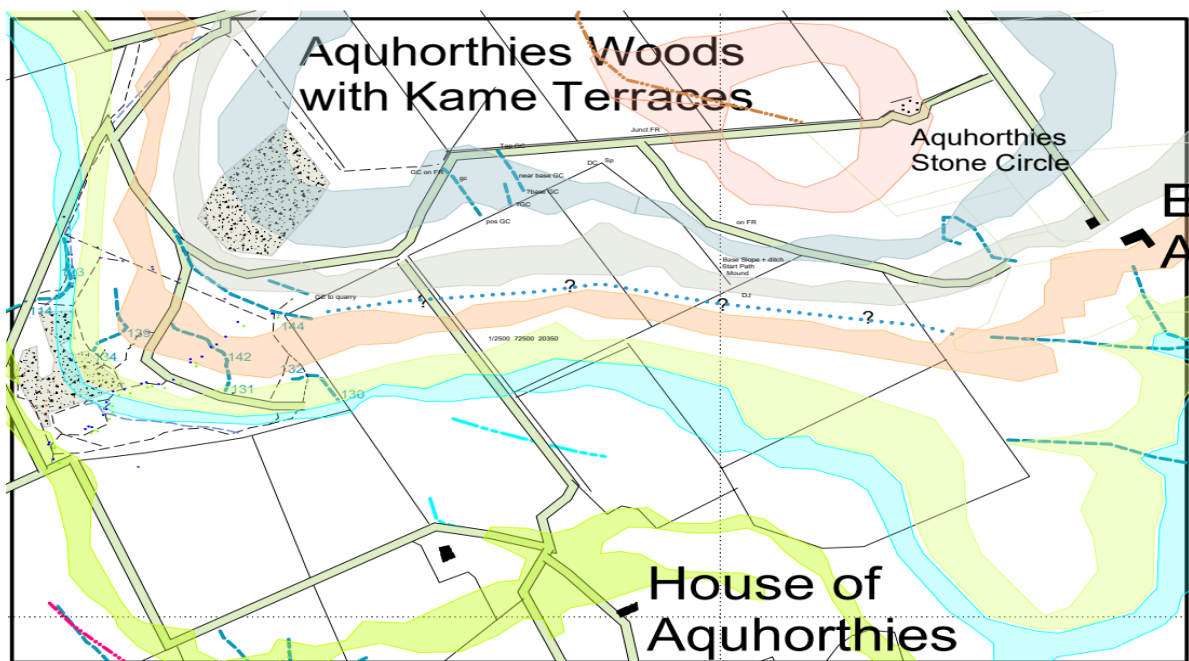
March 2026



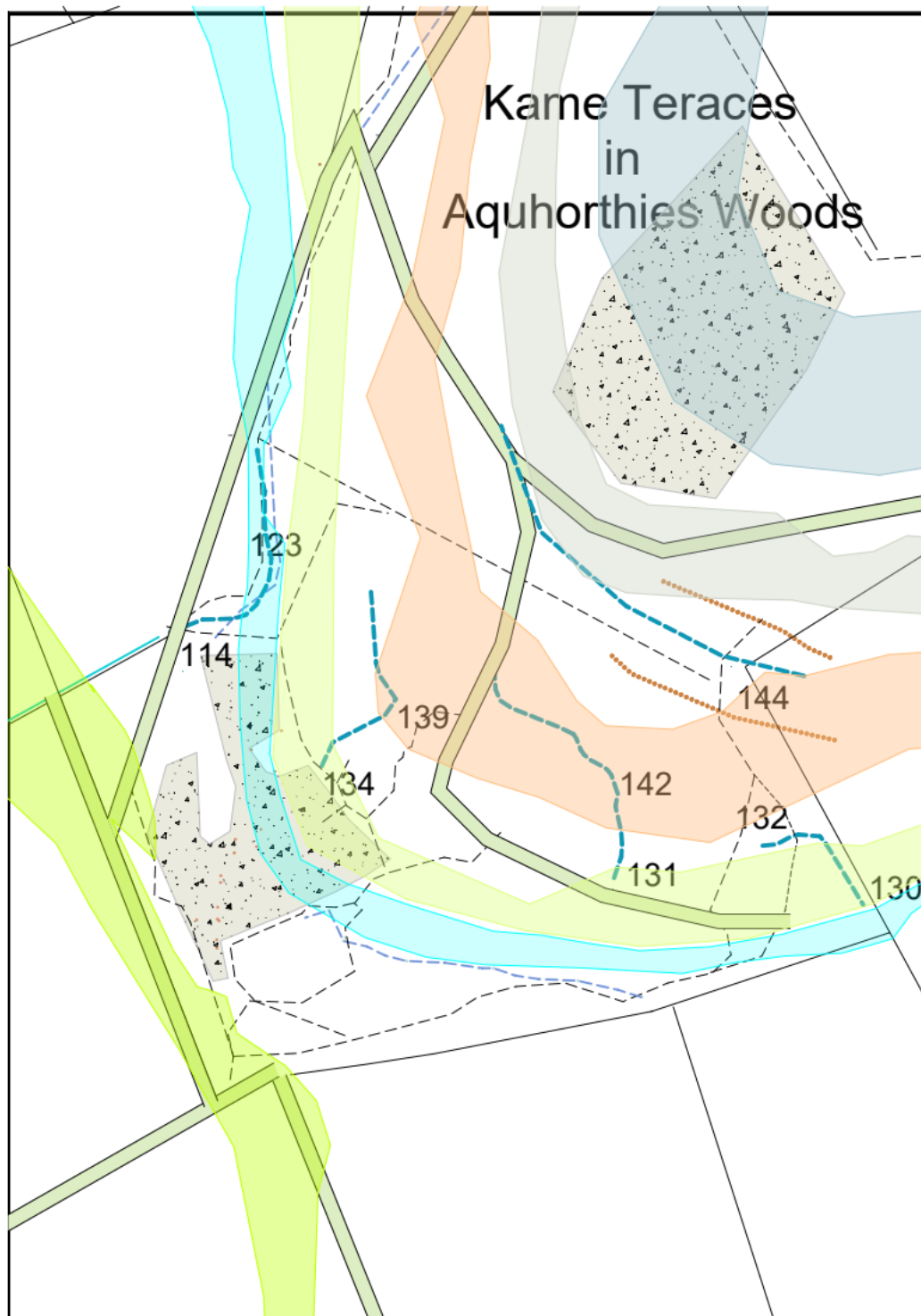
This was a working map. The coloured bands are five meters up from the indicated contour. They include areas of terrace but may go on round the hills at same level sometimes with a slight bench, other-times without.



Note that the profile of the Hervie-Don Valley Watershed, glacial outflow channels and Gallows Hill are on the west side of the valley while the other features are on the east side.



Aqhorthies woods up to Aquhorthies Stone Circle and Easter Aquhorthies (E A on map) showing possible connection between higher terraces and overflow channels below Easter Aquhorthies.



The blue dashed lines show the overflow channels running towards the south and suddenly turning right and falling downhill. At this point the channel becomes deeper and with many large stones. The numbers are elevations at significant points



Park at Dog Walkers Corner.



Park at Boghead.

Bales showing how flat the fields are. The bales are all four foot in diameter, so if the tops are level then the ground is level.