David Pannett's History of Bicton part 161

It's that dam again

How time flies. It was in 2005 and 2009 that Shropshire Council discussed and rejected the idea of combining a flood control barrage on the Severn with the North West Relief Road. Now the idea is being raised again.

Politicians generally have a poor understanding of natural processes, but like to be seen to be doing something about them for the sake of their constituents. Local MP Daniel Kawczynski demonstrated this in 2009 when arguing with Environment Agency over the treatment of islands by the English Bridge (he needed a lesson on how artificially enlarging a channel slows down the current and thereby encourages deposition until it is 'back to square one').

Now he is promoting the current discussion on curing floods throughout the Severn Valley, involving that barrage idea again.

Apart from the professionals, ignorance amongst the electorate is not much better either, thanks to the poor landscape and environmental interpretation available to them. Our local museum, for instance, concentrates so much on the Condover mammoth that the wider 'glacial' landscape is ignored.

To their credit, our local councillors have acknowledged that arguments and data collected for the debate have not been shared with the electorate, who, after all, will be paying for it. Meanwhile here in Bicton Village News we have been trying to make up for this by explaining the origin of the Severn Valley and behaviour of the river, prompted in the past by those one-off road/barrage discussions. (Essay offprints available)

In particular, we have explained how the river valley in Shropshire owes so much to its glacial history. Upstream of Shrewsbury is a 'textbook' pattern (available for all to read) seen in more famous places such as Loch Lomond in Scotland or Lake Garda in Italy i.e. a deep glacial trough in the upland blocked by end moraines on the plain. Here, however, Lake Melverley soon became filled with clay and silt, while being lowered by the river cutting its winding valley through the moraines towards Shrewsbury. From time to time, exceptional floods partially fill it again to remind us of its existence.

Throughout these reaches, the river has a very flat gradient, so that any blockage near Shrewsbury would pond back water far upstream into the lake basin, even as far as Four Crosses situated on the old delta at its head. One design of the barrage would allow water to be held almost up to 60m OD so just trace the 60m contour line upstream on the OS map. On the way Bicton stands safely high upon the moraine, but Montford Bridge should look out!

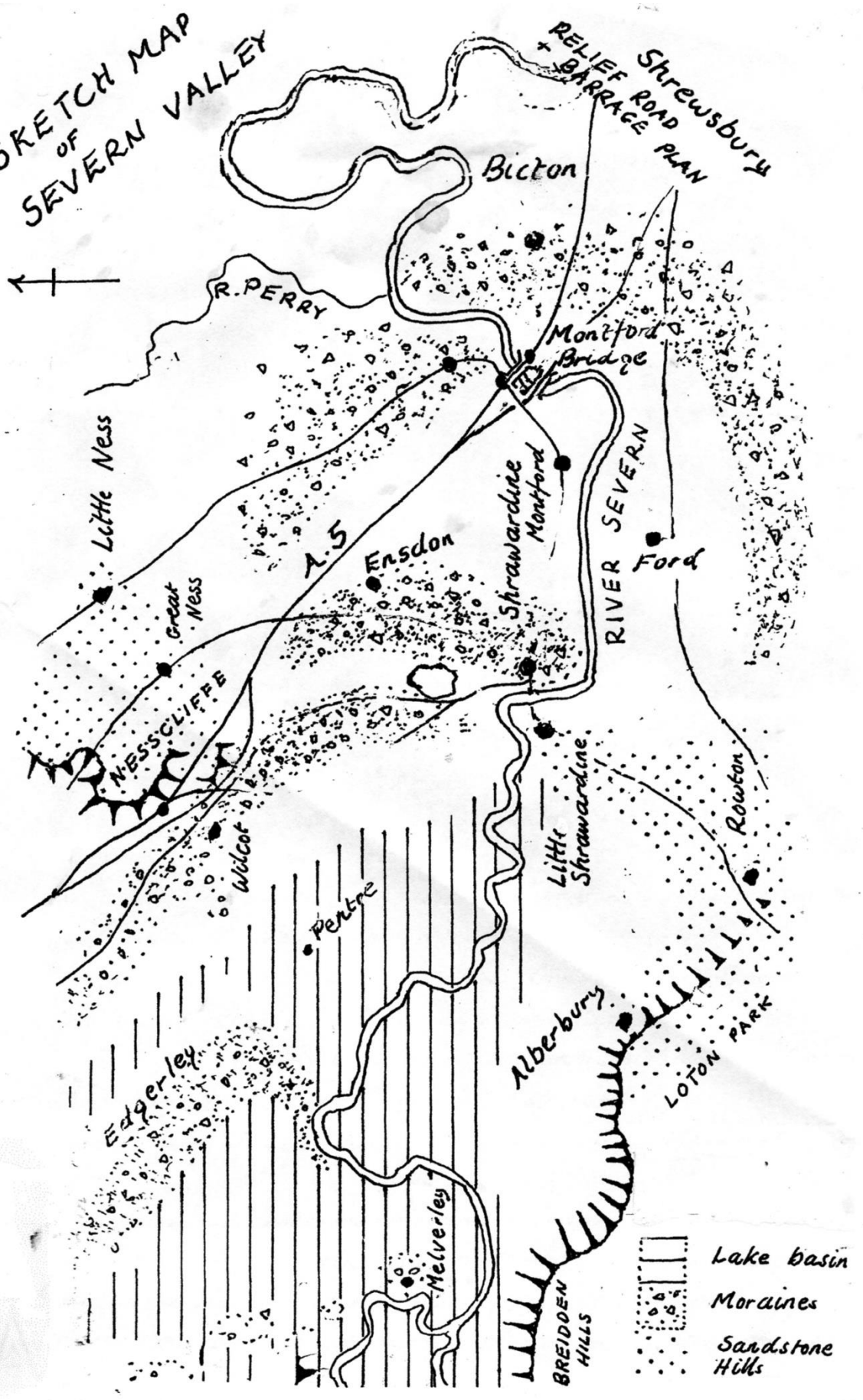
Within the Melverley lake basin, rural settlement has shown good adaptation to dry spots, but would be at risk if levels became artificially raised. This was confirmed by computer models in a 2009 report, so that they would need special protection, adding to costs and disturbing their landscape. Such rural communities would naturally feel that are being sacrificed to save urban areas downstream.

Other additional expenses may also arise from building on the soft glacial sands underneath the proposed site, which we illustrated recently in these pages. If such a barrage is absolutely necessary, geology and landforms point to a better site just below Shrewardine.

The natural regime of the Severn is dominated by rapid run-off from impervious high rainfall uplands, where centuries of deforestation, soil drainage and channel clearance have made the situation worse. Downstream the top layers in floodplains hold hints to soil eroded from up here during late Roman Dark Age times. More recently improvements downstream have been reducing the ability of wide floodplains to hold water. The outlet of Boggy Moor on the Perry for instance, was lowered by about 1 metre.

Modern approaches to drainage basin management are already reversing these trends. The value of upland peat and forests as 'carbon stores' now have an additional appeal. The wide floodplains of the welsh valley floors and the Melverley lake basin could be better exploited as 'wash lands' by breaching the 19th century flood banks (argae). All this, of course, needs cooperation with the farming industry, but could operate as part of grant aided environmental policies.

From Shrewsbury downstream, however, the main problem is not so much the natural behaviour of the river, as urban settlement on floodplains. Some old riverside settlements chose to line the banks when the Severn was an important 'highway', but many new developments should not be there at all! Planning controls must be much stricter about location of new developments, while the building details should incorporate flood tolerance. Local barriers are also improving, all making better use of funds available.


SKETCH MAP
of
SEVERN VALLEY
Shrewsbury
RELIEF ROAD
+ BARRAGE PLAN
Bicton
R. PERRY
Montford
Bridge
Little Ness
A.5
Ensdon
Shrawardine
Montford
RIVER SEVERN
Ford
Great
Ness
NESSCLIFFE
Wilcot
Pentre
Little
Shrawardine
Rowton
Alberbury
LOTON PARK
Edgerley
Melverley
BREIDDEN
HILLS
Lake basin
Moraines
Sandstone
Hills