

The Early Courses of the River Nene

by Robert Evans

Because of peat wastage many silted channels which formerly drained the coastal marshes of the Fens are now clearly seen on aerial photographs taken when the soil is bare of crops. The silted channels have a lower organic content and show up as light-toned, sinuous features. They form a complex net, reflecting the former drainage pattern of the marsh (Evans (1972)).

The Soil Survey has acquired aerial photographic cover of the Fens, mainly at a scale of 1:15000. Many of these good quality photographs were taken by the University of Cambridge Committee for Aerial Photography, and are a useful aid in mapping the Fen soils; for the tonal patterns seen on them can be related to the stratigraphy seen in pipeline trenches (Evans, Mostyn (1979)), cleaned drainage ditches and auger bores and so point to the distribution of soils (Seale (1975a)). By extrapolating soils from mapped to unmapped areas the successive stages in the formation of the Fens can be delimited, and the appearance of the landscape at different times can be reconstructed.

Evidence for the evolution of a part of the Fens can only be gained by looking at soils and stratigraphy and land-surface heights over a wider area. A map of surface heights was made by interpolating contours between spot heights plotted on 1:50000 scale maps from 1:10560 maps. The spot heights on major roads and banks were ignored, and the lowest heights were given greatest weight when drawing the contours. This hypothetical surface is probably slightly higher than the actual ground surface, and discrepancies will be greatest where spot heights were in areas of deeper peat, where wastage may have occurred since the heights were levelled. It is likely that the contours give a reasonable representation of the height of the ground, especially of those areas where peat was thin or did not cover coastal deposits. Contours have been drawn for a large part of the Fens and the maps can be consulted at Cambridge. The aerial photo-interpretation has been completed for an area larger than that dealt with here.

The courses taken by the Nene prior to the construction of Morton's Leam in 1478 can be described for three periods reviewed below.

Pre-Roman Course of the Nene

This course is clearly seen on the photographs from where it leaves Whittlesey Dike to where it joins a former course of the Ouse (fig. 4). The Nene/Ouse drained to the north, and north of Guyhirn was later covered by marsh clays. There is no other evidence of a former channel across the skirtland, linking the Nene at Peterborough to the Fen Clay channels. Elsewhere in the Fens, before interference by man, the major river courses did not significantly shift their positions (Seale (1975b)) and this was probably true of the Nene.

With the rise in sea-level as the Devensian ice-cap melted the channel became tidal and gradually silted up. Silted creeks draining the Fen Clay lagoon (4500-4000 B.P. in the south) (Godwin, Vishnu-Mittre (1975)) drained into the Nene channel and were buried by later deposits. Silting of the channel probably continued to a level of about 1.2m O.D. in the south, rising to about 0.6m O.D. in the north. These heights relate well to those levelled by Godwin and Clifford (1939). On this surface peat formed.

The Roman Period

The early Roman course of the Nene followed the original channel, but by this time the former channel of the Nene/Ouse had silted up, as the Nene flowed south to Flood's Ferry (TL 356936) where it met the Ouse. On the aerial photographs these courses of the Nene and Ouse often have prominent light-toned banks, wider dark-toned channels and are straighter than the sinuous, thinner, dark-toned channels within the even-toned Fen Clay creeks. The courses appear to have been straightened and canalised. The Nene/Ouse canal went in a northerly direction along a distributory of the Ouse to Red House (TL 388982) where it crossed the peat to a northward draining tributary of the Ouse.

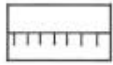
Near Lamb's Farm (TL 390999), north of Red House, the canal split into two branches. One section went north, the other to the east to unite with the Roman Rodham Farm canal and so to the Old Croft River (Cambridge Ouse) and the sea. The canal to the north may not have led to the sea, except circuitously across the silting marsh. It is likely that it reached the edge of the marsh where salt was being extracted; for a Roman saltern at about 1.5m O.D., dated between A.D. 50-200, was found about 400m north-north-west of the end of the canal (D. Hall, personal communication). The saltern was overlain by about 40 cm of marsh clay.

From just south of Lamb's Farm another canal led off west-north-west toward Eldernell. It crosses a number of south-north tending Fen Clay

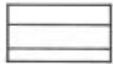
Key



Land above 3.6m (12 feet) OD



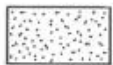
Land covered by peat



Clayey marsh deposits probably not covered by peat



Silty or fine sandy deposits, coastal alluvium, probably not covered by peat



Former meres



Skirtland

R

Roman settlement



Roman roads

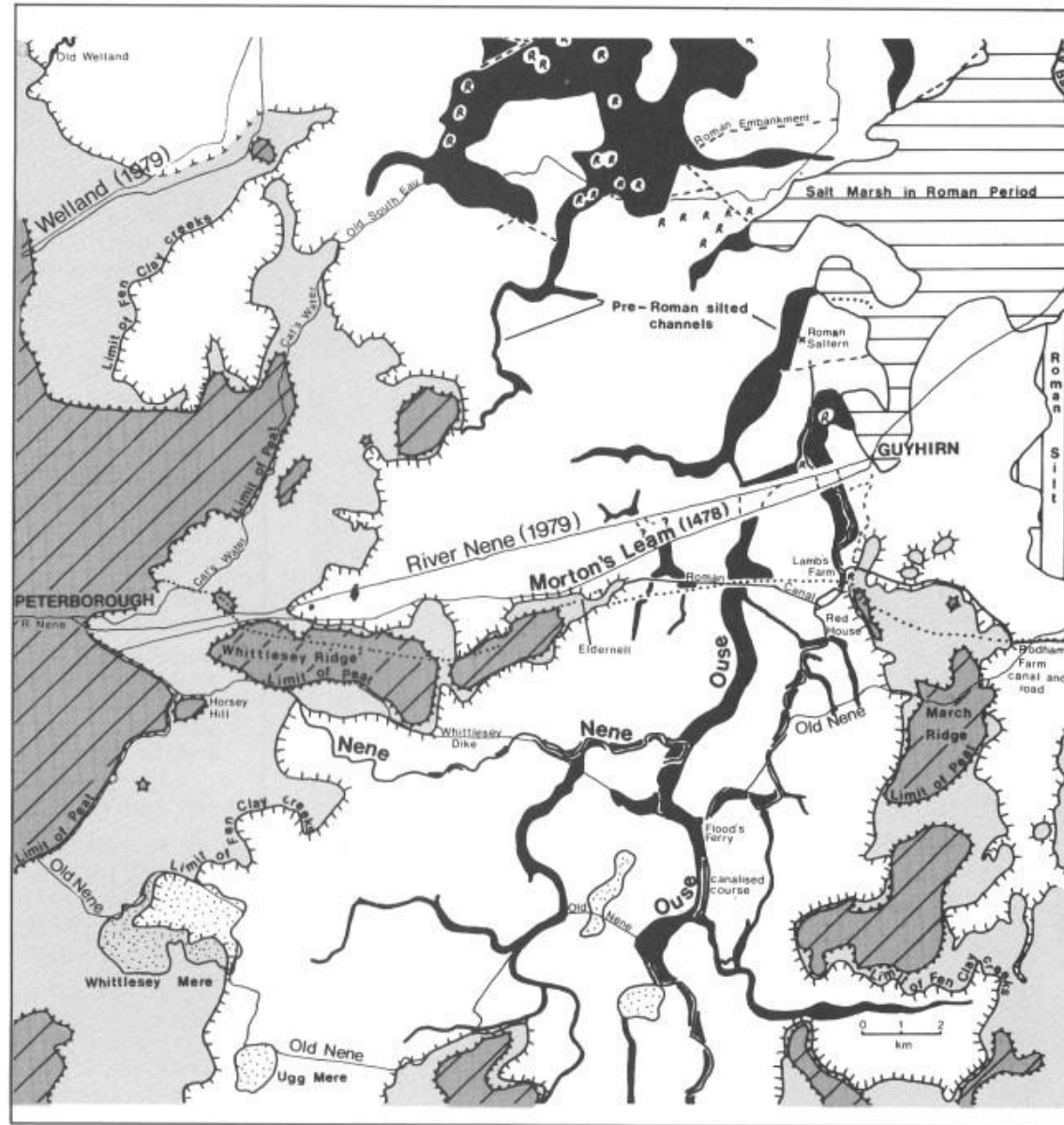


Fig 4 Early courses of the River Nene between Peterborough and March

channels, including the earlier course of the Nene/Ouse, and probably silted up from the east; for the light-toned channel is broader and more conspicuous in that direction. The canal may have been built in response to the continual silting of the Nene/Ouse canal. It seems probable that this canal, cut through peat, silted to a level of 1.5-1.8 m O.D.

There is little evidence on the aerial photographs for the Fen Causeway, and much of its route is plotted from Ordnance Survey maps. Between the Whittlesey ridge and Fengate it took a northerly course to take advantage of higher ground and to avoid crossing the Nene. But a causeway had to be built on fluvial clays to cross the wet depression at about 2.4 m O.D. Since alluviation of river-borne clays continued, the causeway had to be raised up.

Whilst the coastal marshes and creeks (and inland, the Nene) were silting up, peat was probably growing to the south, stopping the encroachment of the channel silts and marsh clays. If these had been deposited further south, the Fen Clay creek pattern would be obscured on the photographs.

By the end of the Roman period it is likely the tidal marshes and creeks had silted to about 1.8-2.4 m O.D., with the adjacent peat at a similar level.

Post-Roman Period

The course via Farcet (the 'Old Nene') linking Whittlesey and Ugg Meres and March to the Ouse at Upwell was probably cut when the level of the peat was about 3.6-3.0 m O.D. These are about the levels at Horsey Hill (TL 220960), south-east of Peterborough, and Upwell respectively. Whittlesey Dike, going east from Horsey Toll, may have been cut at the same or a later date to give a more direct course to March.

The highest level of the peat was about 3.6 m O.D. (Seale (1975a)). Cat's Water, north-east of Peterborough, coincides fairly closely with this contour in mid course and was probably built at, or near, the landward margin of the peat. It drained via the Old South Eau to the Nene/Ouse at Tydd Gate.

Conclusions

The Pre-Roman and Roman courses of the Nene can be traced on aerial photographs. Probable Roman settlements and embankments can be seen, especially in the north where the surface was not covered by later marsh clay deposits. Although the land-levels given here can only be approximate, they help in reconstructing the landscapes adjacent to the Nene in successive archaeological and historical periods. It seems likely

that silting, related to rising sea-level and the growth of peat, was a continuing rather than an intermittent process.

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