THE VIKING ROOTS OF NORTH-WEST ENGLAND

The blood of the Vikings is still coursing through the veins of men living in the north west of England — according to Nottingham University's Professor Stephen Harding and Professors Judith Jesch and Mark Jobling of the University of Leicester. Of the 100 men they studied in the Wirral (Merseyside and West Lancashire) half proved to have DNA linked to Scandinavian ancestry.

Key to the study was the identification of men with long-standing family roots in an area that experienced a huge population influx at the Industrial Revolution. Members of the research team searched for people with old surnames distinctive to the region, gathering names from local documents. One was a list of men who had promised to contribute to the stipend of the priest of the altar of Our Lady at Ormskirk in 1366 and another records the names of households paying taxes in Wirral in the reign of Henry VIII. Surnames derived from local place-names were also included.

Professor Mark Jobling said: 'Surnames are unique cultural labels that link modern people with the past. Using old surname lists allows us to travel back in time, sampling from modern populations in a way that reflects pre-industrial ones.'

Publishing their results in Molecular Biology and Evolution (website: mbe.oxfordjournals.org/cgi/reprint/25/2/301), the team reported a high incidence of gene groups similar to those of men in modern Orkney and Norway. This suggests descent from Scandinavian settlers; the most likely candidates are the Norse Vikings led by Ingimund who landed along the north coast of the Wirral peninsula after being expelled from Dublin in AD 902.

Viking place names, such as Aigburth, Formby, Crosby, Toxteth and Croxteth, also reflect this legacy, as does the name of Tranmere Rovers football team. Wirral and Liverpool also have the only two occurrences of the place-name Thingwall, meaning 'parliament' or 'assembly' (Thingvellir in Iceland).

Thanks to a Wellcome Foundation grant, the team now plans to extend its work to North Lancashire, Cumbria, the Solway and Yorkshire in the hope of mapping the genetic contributions of Vikings in more detail.

THE CHANCES OF SURVIVING THE BLACK DEATH EXPLAINED

Why did some people survive the Black Death, and others succumb? At the time of the plague — which ravaged Europe from 1347 to 1351, carrying off 50 million people, perhaps half the population — various prophylactics were tried, from the killing of birds, cats and rats to the wearing of leather breeches (protecting the legs from flea bites) and the burning of aromatic spices and herbs.

Now it seems that the best way of avoiding death from the disease was to be fit and healthy. Sharon DeWitte and James Wood of the University of Albany, New York, have examined 490 skeletons from the East Smithfield plague pit in London and found that the Black Death was selective in picking off the already frail. Lesions (damaged bone) associated with earlier episodes of infection, under-nutrition or other forms of physiological stress were present in most of those buried at East Smithfield, where the dead were stacked five deep in the mass graves on a site hurriedly opened on land donated by the Bishop of London.

'This actually contradicts what many have assumed about the epidemic, says Dr DeWitte. 'The pattern we observed is of the Black Death targeting the weak, though it did also kill some people who were otherwise healthy. This is consistent with an emerging disease striking a population with no immunity'.

Left During the plague, physicians wore a beak-like mask which was filled with strongly aromatic herbs and spices to overpower the miasmas or bad air thought to carry the plague. The hat and the long, black overcoat was designed to minimise skin exposure. Exposed skin was also coated in wax or suet to protect against droplet contamination.

Above Viking fans: today's football club owes its name to its Nordic ancestors.