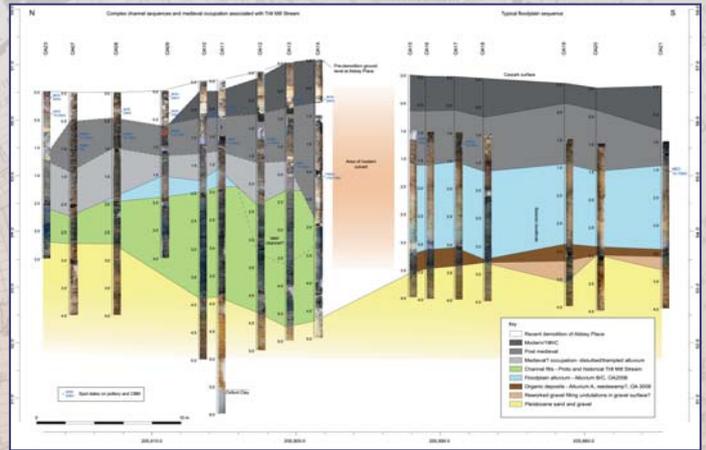


THE CHANGING LANDSCAPE OF THE THAMES FLOODPLAIN

Much of the site of the Westgate Oxford development is located within the floodplain of the Thames which has been reclaimed by several centuries of water channel management and ground raising to form the landscape of today. Buried beneath this modern urban environment lies evidence of a previous, very different, and constantly changing landscape with a succession of ancient meandering natural river channels and hidden islands dating back to the end of the last ice age, some 10,000 years ago.

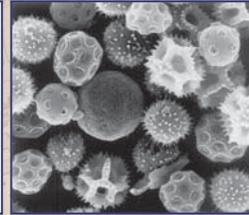


The area of the Westgate probably looked like this 10,000 years ago



A profile across the Trill Mill Stream

Geoarchaeologists from Oxford Archaeology will gather data from the site which will allow them to piece together the changing nature of the Thames floodplain environment over this epic timespan. We will be able to identify and plot the old silted up channels and islands, and discover the effects of the rising and falling water-table, and the cycles of flood and dry periods. This work will help to identify locations where people



Some initial investigation of the open car parks was carried out by drilling boreholes down to depths of over 6 metres, and extracting sediment cores. The information has been used to generate a 3D



Extracting boreholes in February 2015

model of the prehistoric topography, showing the line of the pre-historic channel later to be called the Trill Mill Stream (the pink and purple area), with a possible island to the south (the green area). Other drilled sediment cores then provided a profile across the original course of the Trill Mill Stream revealing the various channels and silting episodes of its 10,000 year life before it was eventually buried in a pipe and hidden from view.

Each change in the nature of the river would have created its own unique habitat of plants (flora) and animals (fauna). Some of those animals and plants will have been preserved in the buried soils and sediments. Geoarchaeologists will take samples of these deposits and extract the preserved fragments of the plants, such as seeds or pollen grains, which along with preserved insects will provide information on the changing environment. Changes in water levels and the strength of the water-flow in the river (whether a stagnant pool or slow flowing stream for example) can also be deduced from the shells of aquatic snails and microscopic algae such as diatoms.



Taking soil columns

