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A REPORT ON POLLEN SPECTRA FROM CROMWELL GREEN, LONDON

J.R.A. Greig, 7th February 1979

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Two pollen spectra have been counted from the Cromwell Green section of sediment, and the following main vegetational types can be deduced from these first results:

Wetland Vegetation; alder/oak carr.

oak is the most abundant tree pollen, and with the record of alder would be likely to have grown in rather boggy woodland which by its very nature tends to be well represented in pollen diagrams taken from the remains of such bogs. The predominanc of oak rather than of alder in this case suggests that the conditions may not have as wet as some alder/oak carr deduced from pollen records. The vegetational understory is represented by plants like sedges, which are abundant in one sample, Sparganium (bur-reed), water lily and possibly Iris (yellow flag). Damp grassy vegetation is also probable, with grasses and Filipendula (meadowsweet).

Dry land vegetation; meadows and arable land.

The records from Gramineae (grasses), Compositae (e.g. daisies and dandelions), Plantago (plantain), Rumex (dock) and Trifolium (clover) suggest that there was grassland somewhere in the vicinity, although it is not possible to tell from the pollen record how much of the land was taken up by this, or how close to the sampling site it was. This grassland would almost certainly owe its presence to grazing pressure from animals preventing the regeneration of woodland, and such grazing would most probably have come from domesticates such as cattle.

More disturbed land is suggested by the presence of weed records such as Chenopodiaceae (goosefoot), Polygonum convolvulus (bindweed), Urtica (nettle), and disturbance for cultivation by the presence of cereal type pollen and a possible record from Centaurea cyanus (cornflower).

Dry land vegetation; woodland.

There are some signs of the original woodland of Tilia (lime) Quercus (oak) and Ulmus (elm) that would have clad most of the British landscape, but these are rather slight showing that the woodland present at the time in question is only a relic of the original forest. There is also a record of Carpinus (hornbeam), and the Corylus (hazel) noted would probably have been an understory to the forest, or growing at its margins.

Another type of woodland represented is Fagus (beech), a relative latecomer to Britain which is not part of our original forests, suggesting that by this stage there was beech woodland growing in some suitable places into which it had spread, perhaps encouraged by the clearance of the former impenetrable lime forests .

The record of Fraxinus (ash) is also indicative of regenerating woodland with the more open conditions in which the light-demanding ash trees would flourish, and the Sambucus (elder) is a shrub which also needs light, and often grows in places near settlements.

Date

The rather complete forest clearance, with secondary woodland like beech present deduced from these pollen spectra can be compared with the upper part of the pollen diagram from Hampstead Heath in which the whole succession can be seen clearly (Girling & Greig 1977). This stage appears to be reached about the time of the Iron Age, as seen in the dated pollen diagram from Crosby Warren, Lincs (Holland, 1975), but there are no comparable dated pollen diagrams from the south of England.

References:

Girling, M. & Greig, J. (1977), Palaeoecological investigations of a site at Hampstead Heath, London. Nature 268 45-7.

Holland, S.M. (1975), Pollen analytical investigations at Crosby Warren, Lincolnshire in the vicinity of the Iron Age and Romano-British settlement of Dragonby. Journal of Archaeological Science 2 353-64.