

Early Plants in the Nene Valley: an Interim Report

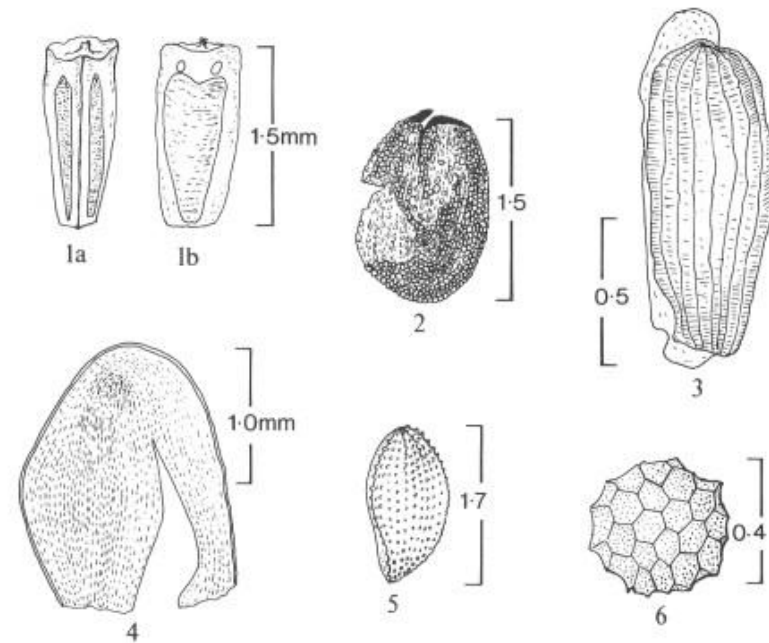
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The Roman farm at Longthorpe yielded a few sediments suitable for botanical study, from the gravel terrace close to the fortress (fig 9). The area was quite well drained, despite a higher water-table than at present, and only the water meadows can have been as wet as at Fengate. Fengate by contrast provided an embarrassment of organic deposits. It lies at the Fen margin, where the water-table is high and drainage poor. Some ditches became filled with peat and inwashed silt, and the fen itself would have been flooded seasonally. When research is complete, we hope to correlate changes in land use with fluctuations in fen development.

At Fengate, 20% of the species found as fossils are aquatic plants or can only grow in very wet conditions, compared with 11% at Longthorpe. Wetland plants common to both sites include *Alisma plantago-aquatica* L. (water plantain), *Eleocharis palustris* (L.) Roem. & Schult. (spike rush), and *Typha latifolia* L. (reedmace). These all grow in muddy places by slow-flowing or still water. Only at Fengate do we find species restricted to still water, e.g. *Characeae* (stoneworts), *Lemna* spp. (duckweed) and *Bidens* sp. (bur marigold).

There is evidence at Fengate for the exploitation of fen woods. A pit was lined with oak wattle on alder uprights, while brushwood from a drain consisted of coppiced or pollard willow poles. The poles were all between seven and eight years old. We may envisage managed woodland with 'mixed fen' developing after each clearance (Tansley (1965)). Species of this community found at Fengate include *Lythrum salicaria* L. (purple loosestrife), *Eupatorium cannabinum* L. (hemp agrimony) and *Filipendula ulmaria* L. (meadowsweet). *Urtica dioica* L. (stinging nettle), *Solanum dulcamara* L. (bittersweet) and sedges would have moved in later.

At Longthorpe hedgerow or open scrubby woodland is indicated



1. Achene of *Tripleurospermum maritimum* ssp. *inodorum* (L.) Koch: a. dorsal view, b. ventral view (drawn from a fresh specimen).
2. Fossil seed of *Capsella bursa-pastoris* L. from Fengate.
3. Fossil seed of *Odontites verna* (Bellardi) Dumort from Longthorpe.
4. Split fossil seed of *Legousia hybrida* (L.) Delarb from Longthorpe.
5. Fossil seed of *Saxifraga granulata* L. from Longthorpe.
6. Fossil seed of *Centaurium* sp. from Longthorpe.

Fig 9 Plant fossils from the Nene Valley

rather than thick forest. Oak appears only as the upright of a ladder, the rungs of which were of birch. Apart from alder, catkin scales and one fruit, all the remaining tree or shrub fossils are the seeds of edible fruits such as raspberry, hawthorn and elder. These occur also at Fengate and are typical hedgerow species (Wilson (1968)). *Umbelliferae* were probably a feature of the Roman hedgerow just as they are today, with *Anthriscus caucalis* Bieb. (bur chervil), cf. *Heracleum sphondylium* L. (hogweed) and *Torilis japonica* (Houtt.) DC. (upright hedge parsley). There was also *Arctium* sp. (burdock), *Hypericum perforatum* L. (St John's wort) and *Myosotis sylvatica* Hoffm. (wood forget-me-not).

Most of the Longthorpe fossils are weeds of disturbed ground, grassy waste, arable and pasture. The arable weeds are mostly characteristic of dry soils, while the pasture species indicate wetter conditions. Stock was probably grazed on water meadows, with higher ground under cultivation. Four weed species at Longthorpe are rare or previously unknown as fossils (Godwin (1975)). *Centaureum* sp. (centaury) and *Saxifraga granulata* L. (meadow saxifrage) grow in grassy places on calcareous soil. Meadow saxifrage is an uncommon plant nowadays. The other rare fossils are seeds of arable weeds. *Odontites verna* (Bellardi) Dumort. (red bartsia) is common today, whereas *Legousia hybrida* (L.) Delarb. (Venus's looking-glass) occurs infrequently. Twenty-four seeds of *Legousia* were found in the Longthorpe samples, suggesting that it was fairly common there.

Fengate has so far yielded fewer weed species than Longthorpe, although thistles and docks were common in several samples. Seeds of *Capsella bursa-pastoris* L. (shepherd's purse) and *Tripleurospermum maritimum* ssp. *inodorum* (L.) Koch. (scentless mayweed) occurred at Fengate. Both are rare or new to the fossil record, despite being common arable weeds nowadays. Another rare fossil is *Geranium molle* L. (dove's foot cranesbill), one of the few dry-ground species at Fengate. Others include *Erophila verna* (L.) Chevall. (whitlow grass) and *Papaver argemone* L. (long prickly-headed poppy).

Few cereal grains have yet been found at Longthorpe or Fengate. Spelt and oat occurred at Longthorpe, while Fengate yielded two-row barley, oat and possibly wheat. Other food plants include *Brassica* sp. (cabbage or mustard) and *Daucus carota* L. (carrot) at Fengate; *Valerianella locusta* (L.) Betcke (lamb's lettuce) and cf. *Pastinaca sativa* L. (parsnip) at Longthorpe; and *Apium graveolens* L. (celery) at both sites. *Stellaria media* (L.) Vill. (chickweed) is nowadays thought of as a weed, but is well known as a former food plant. It might even

have been cultivated. In 1606 gardeners were instructed to sow it at full moon in February and 'in ye old moone' during March. Several aromatic or medicinal species occur, though sparsely, at Longthorpe. They include *Anethum graveolens* L. (dill), *Hyoscyamus niger* L. (henbane), *Linum catharticum* L. (purging flax), *Calamintha ascendens* Jord. (calamint), *Humulus lupulus* L. (hop), *Marrubium vulgare* L. (horehound), *Origanum vulgare* L. (marjoram) and *Papaver somniferum* L. (opium poppy).

Bibliography

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