Several decades of geoarchaeological research has shown that anthropogenic soils—those created and/or altered by human activity—retain in their physical and chemical makeup a wealth of cultural information valuable to archaeologist and historian alike. Micromorphological features, lipid biomarker traces and soil nutrients such as phosphorus all provide significant indicators for aspects of past land management, animal husbandry and arable cultivation.

Although such studies have generally been presented in the scientific archaeological literature, the growing perception of the historic past as preserved within a landscape, rather than individual archaeological sites or historical remains, has seen research into anthropogenic soils assume increasing prominence in interdisciplinary archaeological projects. In Scotland, these have ranged from multi-period pre- and proto-historic excavations (e.g. Dockrill and Simpson 1994; Simpson et al. 1998) to larger-scale characterisation of medieval and later rural settlement (MoLRS) landscapes (e.g. Chrystall 1998; Entwhistle et al. 2000; Turner 2003). All illustrate the potential of anthropogenic soil studies to complement a range of archaeological data sources, such as structural remains and surviving field systems, to become a valuable tool for historical geographical study.

More challenging has been the concept of relating more explicitly historical data, such as documentary sources, to the soil record. But although these may provide only indirect evidence for past soil modification, they can prove an equally coherent basis for enquiry. This paper discusses a project which used historical sources to investigate the distribution throughout Scotland and the Isles of a specific human-modified soil: the deep anthropogenic topsoil.

Deep anthropogenic topsoils are those which have been augmented by long-term, intensive manuring; to a minimum of 50 cm, although examples of over a metre have been recorded. Generically termed ‘plaggen soils’, these deep, dark soils are significant cultural features seen throughout Belgium, Germany, Denmark, Sweden, and especially
the Netherlands, from which the most extensive body of plaggen soil research comes (e.g. Pape 1970; Groenman van Waateringe and Robinson 1988; Spek 1992). The term is derived from the German ‘plagge’—‘sod’, and refers to a technique in which turf sods were pared from areas of waste land and either used as bedding in stock pens and stables until they became impregnated with dung, or composted with dung separately before the resulting bulky mix of mineral and organic material was applied as fertiliser to the fields.

Although there are some examples of prehistoric plaggen-type soils (Conry 1974, 322), the plaggen manuring system can be seen chiefly as a response to the challenges facing farmers in these regions through the key period of agricultural development and intensification of the twelfth to thirteenth centuries (Mucher et al. 1990; Spek 1992). Plaggen soils are found almost exclusively upon chemically poor, loose sandy soils, commonly associated with extensive wasteland areas of scrub and heath (Gormsen 1991, 105). The use of the latter in bulk manures transformed these sands into infield areas of fertile, moist, physically stable soils, essential to agricultural developments of the period such as the introduction of rye cultivation and permanent cropping. Likewise, the plaggen system assisted in the reclamation of moorland for cultivation (Poulsen 1997, 140).

The degree to which the plaggen system permeated aspects of agricultural life and civic organisation make for interesting study, and are frequently illustrated in the historical record. In the Netherlands, heath and especially grassland areas that supplied plaggen turf were governed by regulations which attempted to balance manuring and grazing concerns, with complex rotations in place to promote heathland regeneration between turf cuttings (Pape 1970, 239). Specific tools are associated with the practice (Blume 1998, 1), and a variety of ‘recipes’ for plaggen manure, citing preferred treatments for different dung and turf sources, survive (Pape 1970, 241; Mucher et al. 1990, 57). Even place-names reference the plaggen system: in the Netherlands, while field and farm names in the low-lying polders are commonly associated with water management, on the higher, sandy plaggen areas such names are chiefly related to soil fertility (Siderius and de Bakker 2003, 529). The legacy of the plaggen system remains an evocative expression of the particular concerns of rural life and agricultural practice in these areas.

Aspects of the agricultural systems in which deep anthropogenic topsoils played such an important role are mirrored in pre-Improvement rural Scotland (Widgren 1997, 186), which ran a similarly mixed farming