14 HISTORIC CHARACTER AREAS

After creating and defining historic landscape character types an exercise to map broader historic character areas (HCA) was carried out. This aimed to map the dominant historic character of broad areas and look at the interrelation of the component HLC types. The process was carried out using a spatial analysis tool in ArcInfo in order to make it objective and created a rough and ready outline. The boundaries that have emerged are therefore not intended to be hard and fast lines drawn across the landscape, but are rather fuzzy transition zones leading from one character area to another.
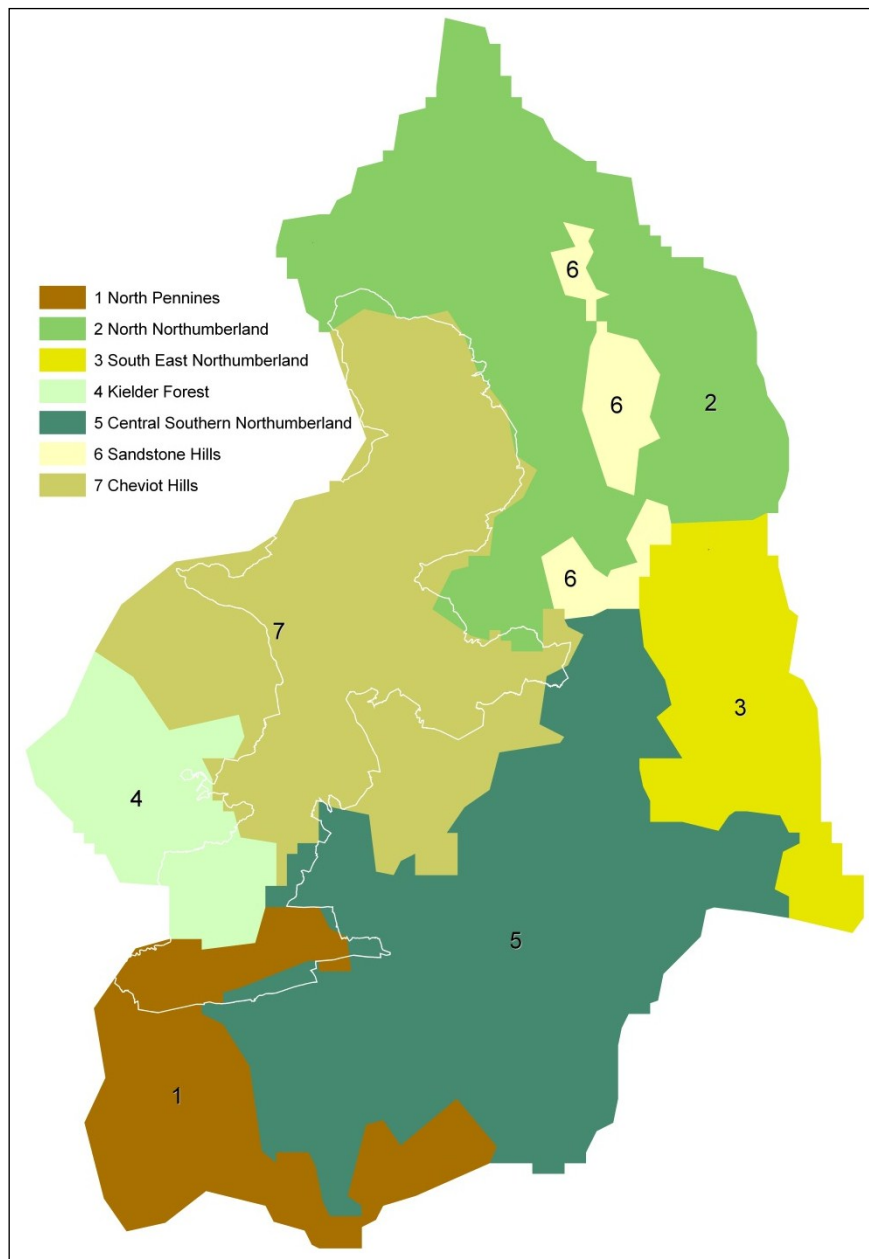

Figure 41: Historic landscape character areas from merged polygons, with National Park boundary (white).

14.1 North Pennines and Hadrian's Wall

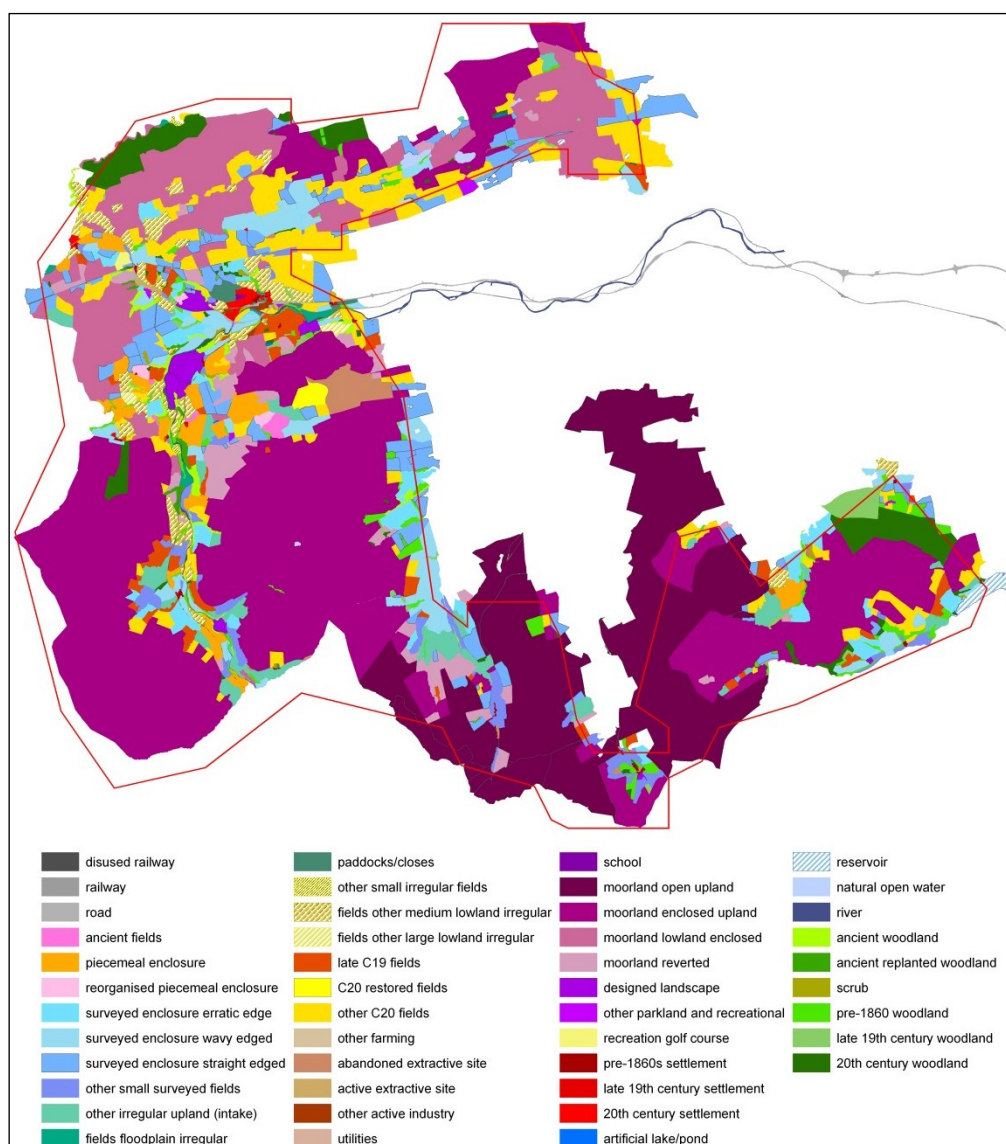|			
disused railway	paddocks/closes	school	reservoir
railway	other small irregular fields	moorland open upland	natural open water
road	fields other medium lowland irregular	moorland enclosed upland	river
ancient fields	fields other large lowland irregular	moorland lowland enclosed	ancient woodland
piecemeal enclosure	late C19 fields	moorland reverted	ancient replanted woodland
reorganised piecemeal enclosure	C20 restored fields	designed landscape	scrub
surveyed enclosure erratic edge	other C20 fields	other parkland and recreational	pre-1860 woodland
surveyed enclosure wavy edged	other farming	recreation golf course	late 19th century woodland
surveyed enclosure straight edged	abandoned extractive site	pre-1860s settlement	20th century woodland
other small surveyed fields	active extractive site	late 19th century settlement	
other irregular upland (intake)	other active industry	20th century settlement	
fields floodplain irregular	utilities	artificial lake/pond	

Figure 42: North Pennines and Hadrian's Wall historic landscape character area

This area stretches from the uplands of the North Pennines, across the western end of the Tyne Gap and along its northern edge down the Whin Sill towards the River North Tyne. It is dominated by moorland such as Hexhamshire Common, Whitfield Moor and Knarsdale Common in the North Pennines and Haughton and Thirlwall Commons on the north side of the Tyne Gap. The field pattern is a patchwork of regular and irregular fields including surveyed fields, piecemeal and reorganised piecemeal enclosure, although the West Allen valley is predominantly surveyed fields. Along the south-facing slopes of the Tyne Gap is a string of fields that have been improved from moorland in the 20th century. There are very few settlements in this area, with Haltwhistle the only one of any size, and woodland is also rare with small amounts in the valley bottoms and a few modern plantations on the moorland edge.
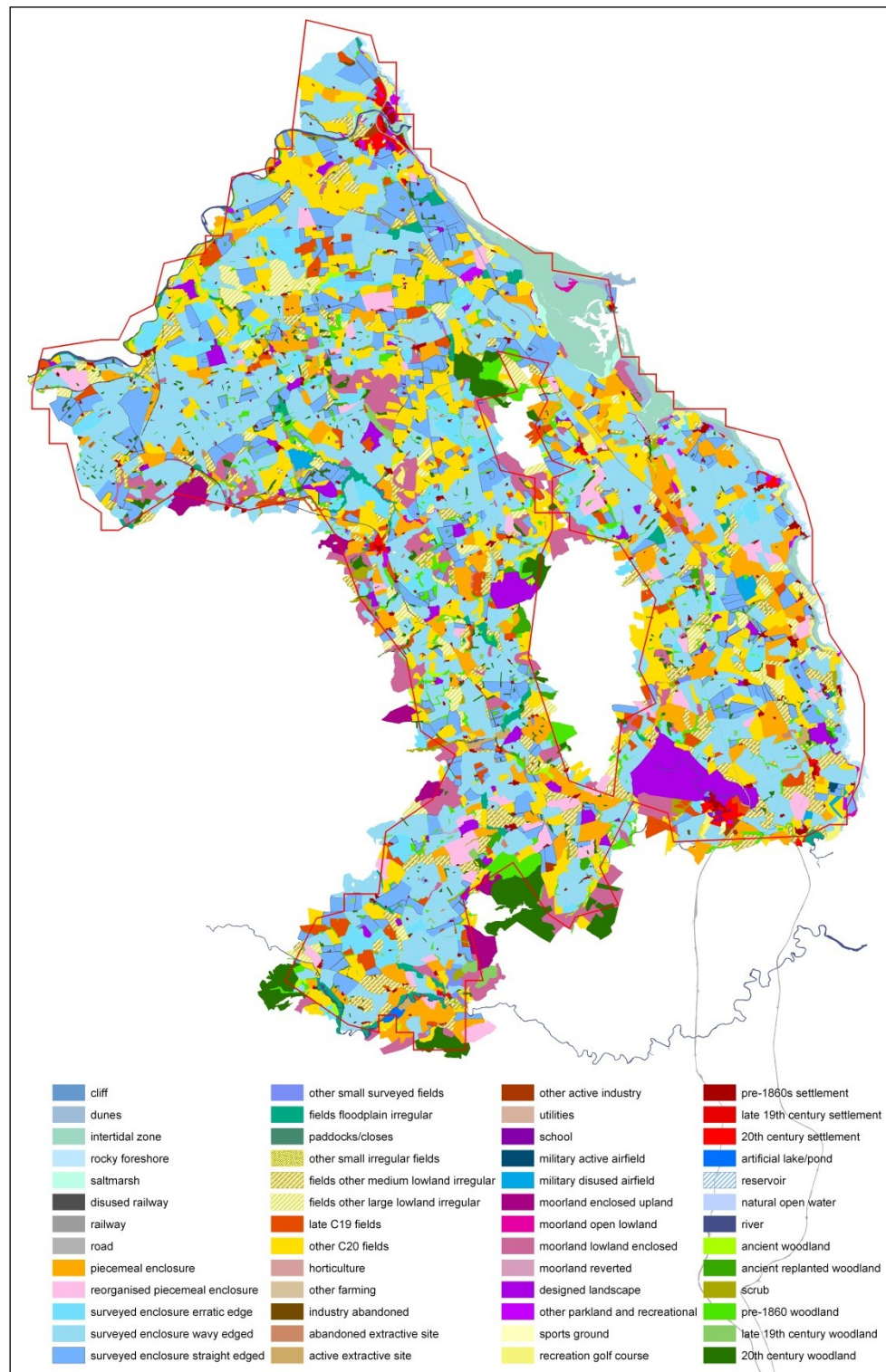
14.2 North Northumberland

Figure 43: North Northumberland historic landscape character area

North Northumberland is a large area bordered by the coast on the east and Cheviot Hills on the west; within this area is a smaller area of moorland, the Sandstone Hills. The area is dominated by fieldscapes, most of which are regular surveyed fields with wavy or erratic external boundaries, which may lie in the framework of former open fields. There is also a patchwork of piecemeal enclosure with dog-legs and reverse S-shaped boundaries, and a reasonable proportion of fields created in the 20th century either improved from moorland or

laid out anew. A scattering of woodland occurs, with a few plantations on the moorland edge, and a greater number of coverts and shelters planted along field boundaries, especially in the north of the area around Glendale. The coast is dominated by the sand and mud flats of Budle Bay and the rocky headlands and sandy bays that lie further south. The settlement pattern is a mix of planned farmsteads and small villages together with the towns of Alnwick and Berwick.

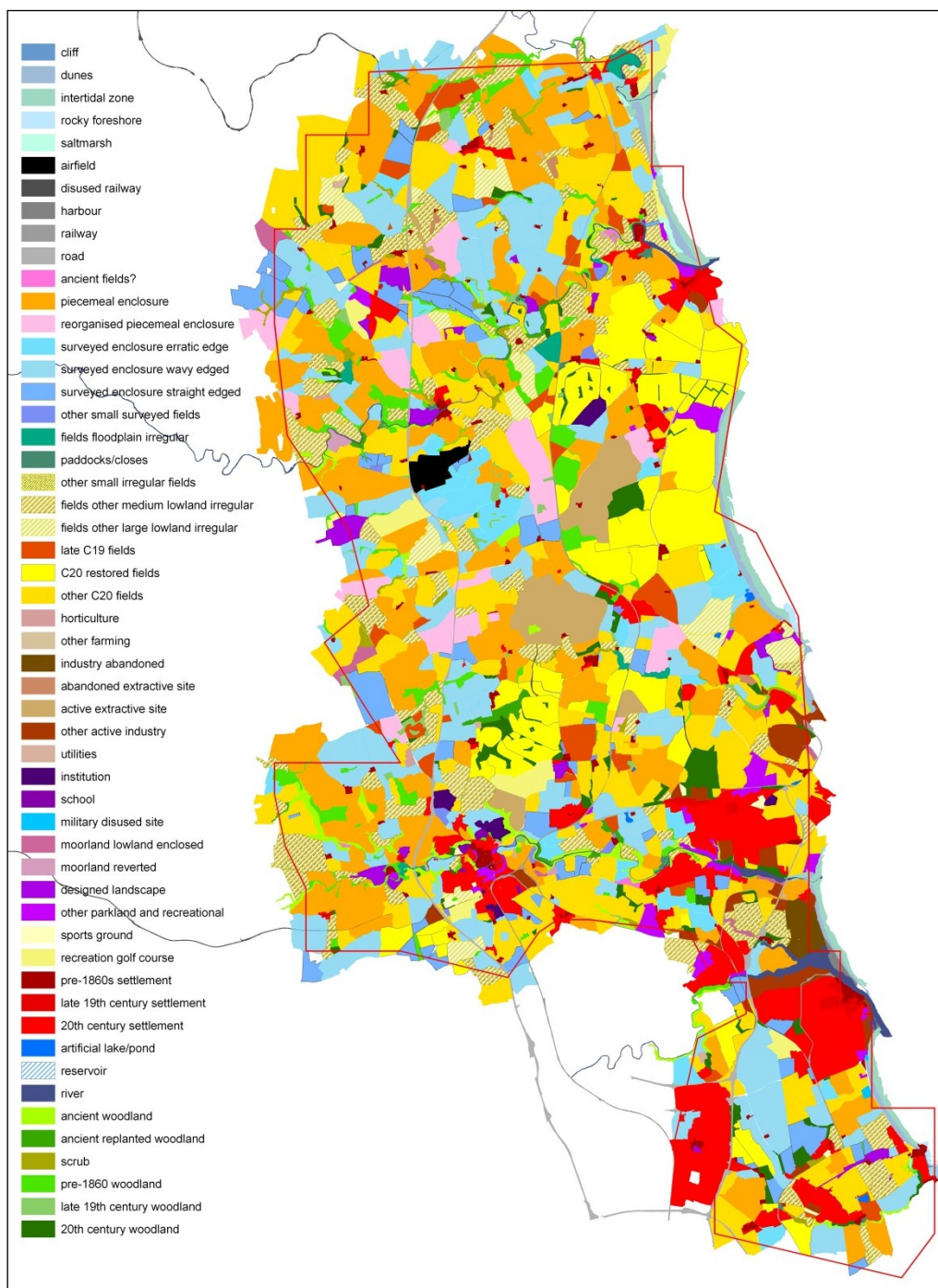## 14.3 South East Northumberland

Figure 44: South East Northumberland historic landscape character area

The South East Northumberland area is dominated by the 20th century HLC types. Modern expansion of Blyth, Ashington, Bedlington and Cramlington are concentrated in the south-east arm of this character area, industry lies around its fringes and beyond are vast opencast

coalmines behind Druridge Bay together with large blocks of restored land from former workings. But interspersed with these types are large remnants of earlier enclosure by agreement (piecemeal) which is more predominant than the later regular surveyed fields of the 18th and 19th centuries. There are few large areas of woodland and few modern plantations, instead there are lengthy tracts of ancient woodland along the valleys and tributaries of the Blyth, Wansbeck and Coquet rivers.

14.4 Kielder Forest

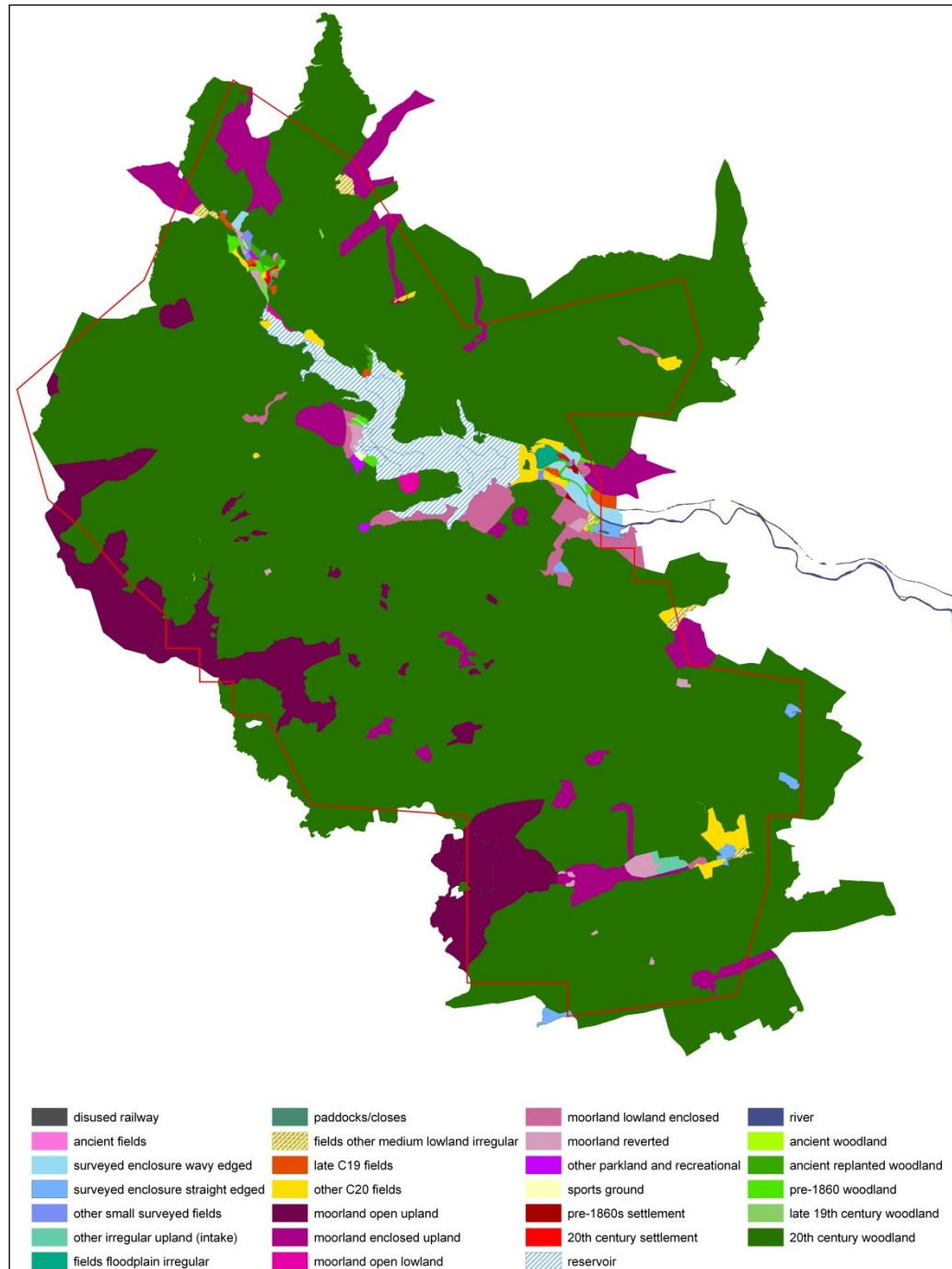|			
▉ disused railway	▉ paddocks/closes	▉ moorland lowland enclosed	▉ river
▉ ancient fields	▨ fields other medium lowland irregular	▉ moorland reverted	▉ ancient woodland
▉ surveyed enclosure wavy edged	▉ late C19 fields	▉ other parkland and recreational	▉ ancient replanted woodland
▉ surveyed enclosure straight edged	▉ other C20 fields	▉ sports ground	▉ pre-1860 woodland
▉ other small surveyed fields	▉ moorland open upland	▉ pre-1860s settlement	▉ late 19th century woodland
▉ other irregular upland (intake)	▉ moorland enclosed upland	▉ 20th century settlement	▉ 20th century woodland
▉ fields floodplain irregular	▉ moorland open lowland	▨ reservoir	

Figure 45: Kielder Forest historic landscape character area

This character area is predominantly of the 20th century with extensive conifer plantations of Kielder and Wark Forests and Kielder Reservoir. Around the edges of the woodland are

remote expanses of open and enclosed moorland. The settlement pattern is limited to the villages of Falstone and Kielder.

14.5 Central Southern Northumberland

Legend:

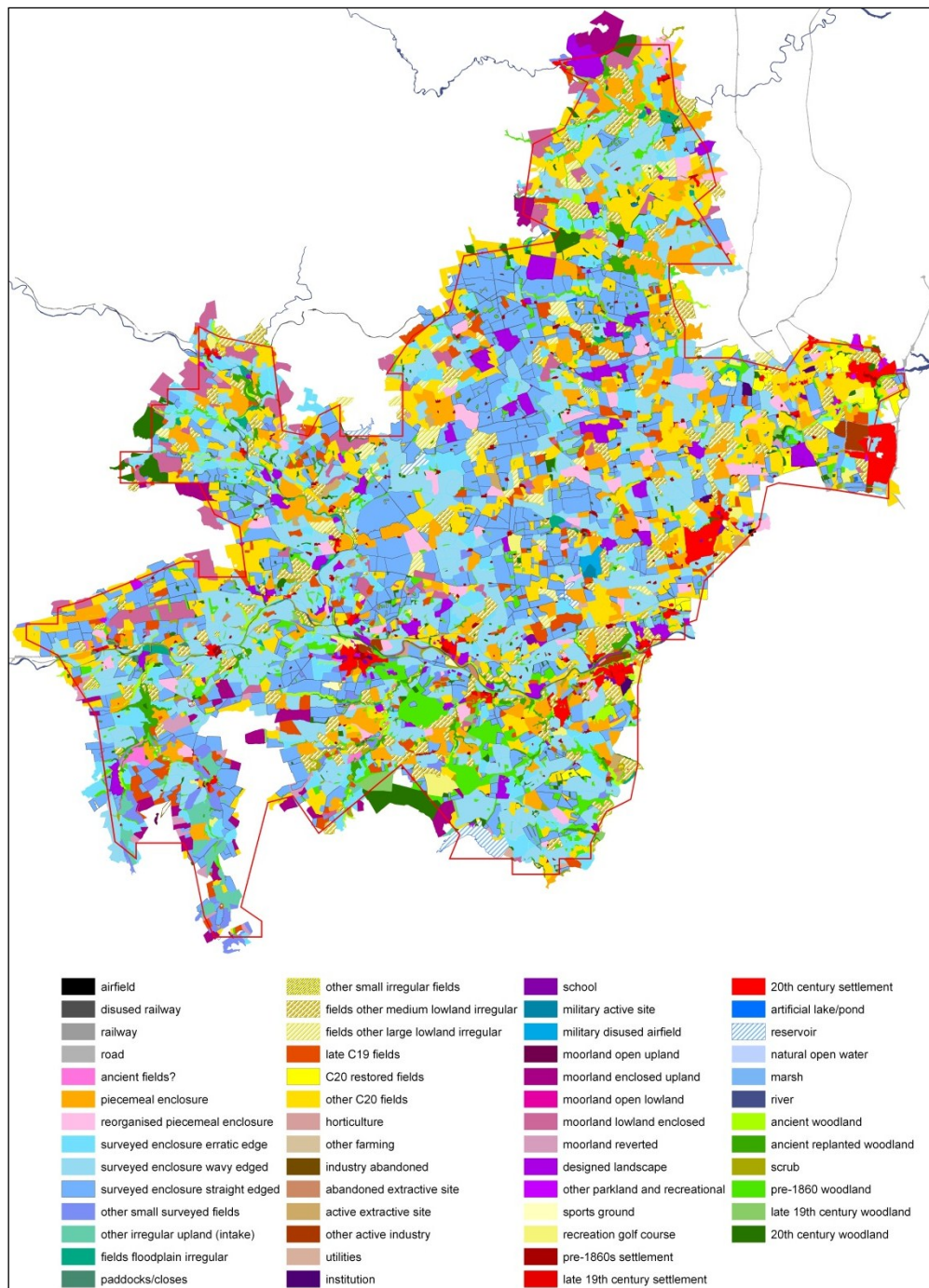|			
airfield	other small irregular fields	school	20th century settlement
disused railway	fields other medium lowland irregular	military active site	artificial lake/pond
railway	fields other large lowland irregular	military disused airfield	reservoir
road	late C19 fields	moorland open upland	natural open water
ancient fields?	C20 restored fields	moorland enclosed upland	marsh
piecemeal enclosure	other C20 fields	moorland open lowland	river
reorganised piecemeal enclosure	horticulture	moorland lowland enclosed	ancient woodland
surveyed enclosure erratic edge	other farming	moorland reverted	ancient replanted woodland
surveyed enclosure wavy edged	industry abandoned	designed landscape	scrub
surveyed enclosure straight edged	abandoned extractive site	other parkland and recreational	pre-1860 woodland
other small surveyed fields	active extractive site	sports ground	late 19th century woodland
other irregular upland (intake)	other active industry	recreation golf course	20th century woodland
fields floodplain irregular	utilities	pre-1860s settlement	
paddocks/closes	institution	late 19th century settlement	

Figure 46: Central Southern Northumberland historic landscape character area

The lowland area between the Cheviot Hills and the county boundary with Durham is a wide area of fieldscapes. It is bisected by the River Tyne and its tributaries (Allen and North Tyne) in the south and the Wansbeck in the north. The landscape is dominated by large blocks of planned enclosure, particularly the type with straight external boundaries which seems to have been placed in the landscape without regard for previous boundaries or field systems. Interspersed are some irregular fields and piecemeal enclosure as well as a more significant

number of 20th century fields reclaimed from moorland or amalgamated from smaller fields. A large number of designed landscapes exist in this area especially north of the Tyne around Belsay, Wallington, Kirkharle and Capheaton. Settlement in this area includes many planned farmsteads dotted amongst the planned fields, villages and towns including Prudhoe and Hexham. Little modern woodland occurs, although several late 19th century plantations exist south of Hexham, Corbridge and Riding Mill in the south of the area.

14.6 Sandstone Hills
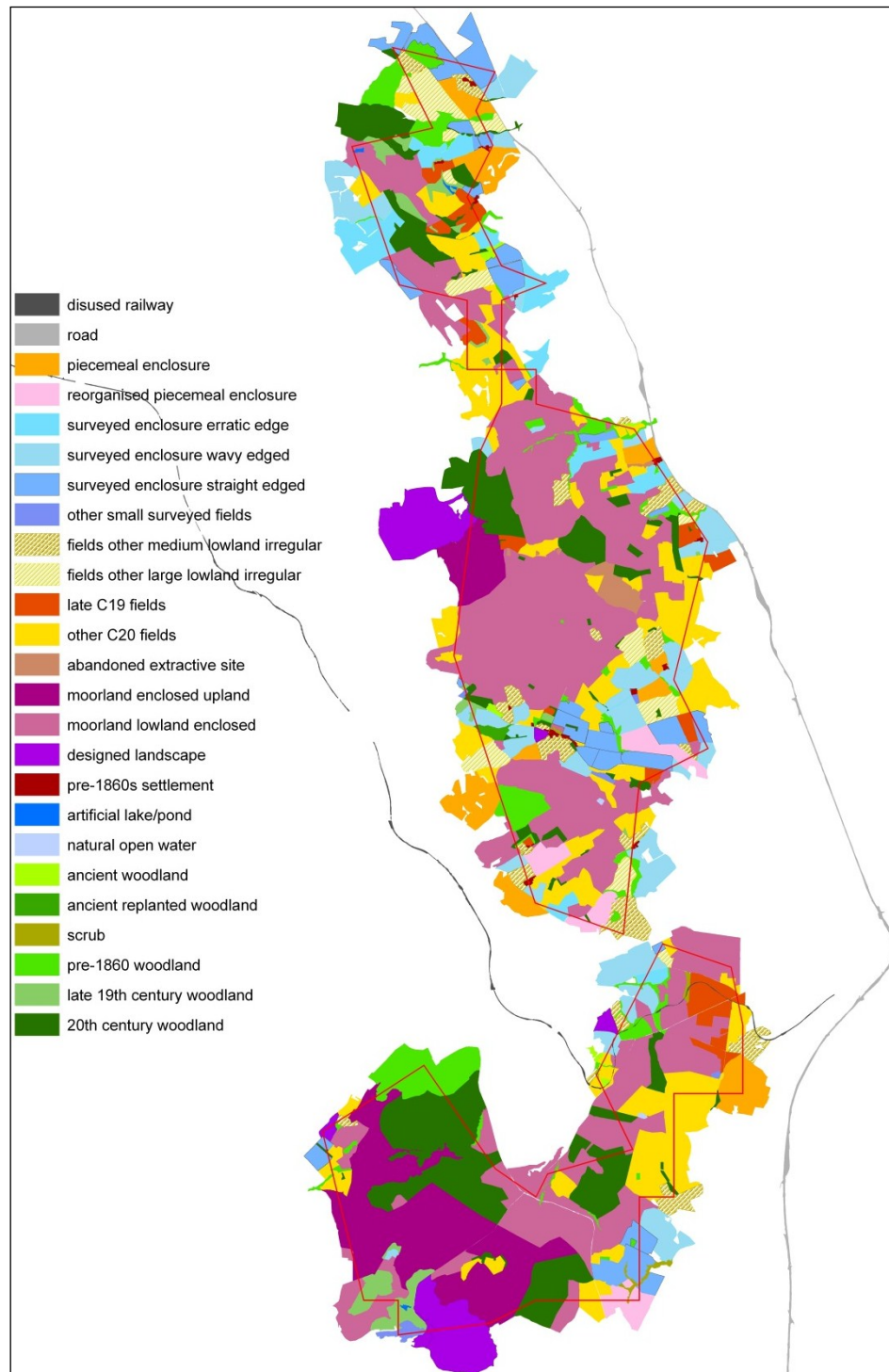
Figure 47: Sandstone Hills historic landscape character area

This character area is divided into two parts and includes the ridge of Fell Sandstone hills that run southward from Kyloe to Rothbury. They are dominated by moorland with modern forestry plantations. Around the fringes are late 19th and 20th century fields which have reclaimed moorland for more productive farming as well as a patchwork of fields enclosed piecemeal and planned enclosure.
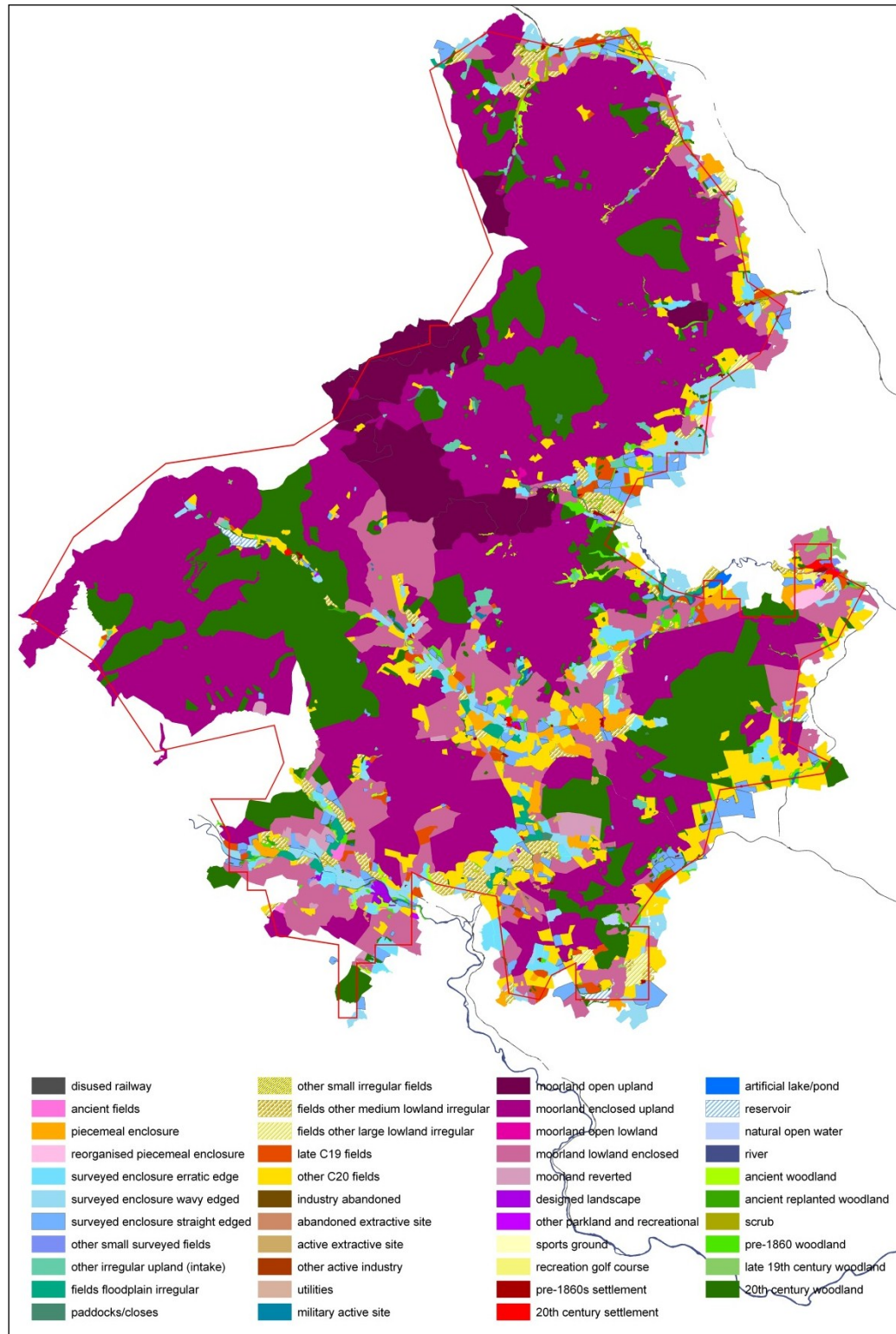
14.7 Cheviot Hills

disused railway	other small irregular fields	moorland open upland	artificial lake/pond
ancient fields	fields other medium lowland irregular	moorland enclosed upland	reservoir
piecemeal enclosure	fields other large lowland irregular	moorland open lowland	natural open water
reorganised piecemeal enclosure	late C19 fields	moorland lowland enclosed	river
surveyed enclosure erratic edge	other C20 fields	moorland reverted	ancient woodland
surveyed enclosure wavy edged	industry abandoned	designed landscape	ancient replanted woodland
surveyed enclosure straight edged	abandoned extractive site	other parkland and recreational	scrub
other small surveyed fields	active extractive site	sports ground	pre-1860 woodland
other irregular upland (intake)	other active industry	recreation golf course	late 19th century woodland
fields floodplain irregular	utilities	pre-1860s settlement	20th century woodland
paddocks/closes	military active site	20th century settlement	

Figure 48: Cheviot Hills historic landscape character area

The Cheviot Hills area includes the main northern massif and the foothills around Simonside and Bellingham; much of the area lies within the Northumberland National Park. This area is dominated by upland moorland with several large modern forestry plantations in prominent locations at Harwood, Redesdale and Kidland. Around the moorland fringe and up the Rede valley is a strong pattern of fields reclaimed from moorland vegetation, although a scatter of planned fields and fields enclosed by agreement also occur. Settlement is sparse with Rothbury the largest village and a handful of smaller settlements like Elsdon, Otterburn and Harbottle; a number planned farmsteads lie on the fringe of cultivated land and moorland in particular around Biddlestone but the hill farms are generally too small to have been recorded by the project.

14.8 Methodology

The generalisation function in ArcInfo gets rid of unnecessary detail for a more general analysis. By using a series of steps it was possible to establish discrete areas which shared certain characteristics. Although by using this tool it is accepted that certain dominant HLC types will come to the fore and others will recede or disappear in the subsequent mapping, by plotting the boundaries of these new areas the combination of features that characterise them can then be described. Generalisation incorporates a number of functions which are applied to a raster image and cleans up the data. It can be used in various ways and sequences and includes the functions: majority filter, boundary clean, and expand. By experimenting with these functions a series of maps was produced which enabled boundaries of seven historic character areas to be mapped and defined (see below). The analysis was carried out on the full set of HLC types, 63 in total, and not on a refined or grouped set.

Figure 49: Generalisation: cell size – raster image with cell size of 500 (left); raster image with cell size of 1000 (right)

The first step was to choose the resolution, or cell size, for subsequent analysis and convert the HLC shapefile to a raster. Figure 49 above shows the results of two different cell sizes – 500 and 1000. It was decided to proceed with the 1000 cell size because this reduced the number of subsequent steps needed to clean the data. To remove some of the smaller groups of cells from the 1000 raster image the 'majority filter' function was applied (see fig 50) using the parameters of eight nearest neighbours (number of neighbouring cells to use in the kernel of the filter) and the replacement threshold (the number of contiguous cells that must be of the same value before a replacement will occur) of half, for a more smoothing effect. The next stage weighted certain HLC types by using 'expand' so that the selected types were viewed as foreground areas and allowed to expand into the remaining, background areas. The number of cells allowed to expand into each specified zone was one and the zone values, or foreground types, to expand were chosen from the fieldscape and rough ground entry level types because they are already the most dominant HLC types in the county and this would further smooth the data; they included, surveyed enclosure (wavy, straight edged and erratic edged), piecemeal enclosure, enclosed lowland and upland moorland (see fig 50,

right). Many of the smaller cells have now been absorbed by neighbouring cells and a distinct pattern is beginning to emerge: the upland moorland areas in turquoise and light purple, lowland moorland in burgundy, planned enclosure in green and purple and piecemeal enclosure in orange.
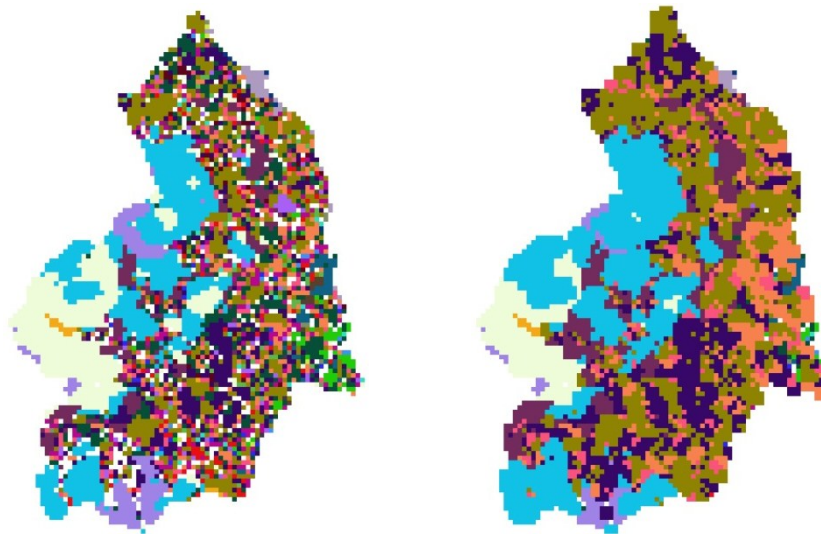

Figure 50: Generalisation: majority filter (left); expand (right)

There were still a number of single cells present so another 'majority filter' was applied using the same parameters as before (figure 51, left). Finally the 'boundary clean' function was run which cleaned the ragged edges between areas based on a descend sorting technique; this sorted zones in descending order by size so that zones with larger total areas have a higher priority to expand into zones with smaller total areas (figure 51, right).
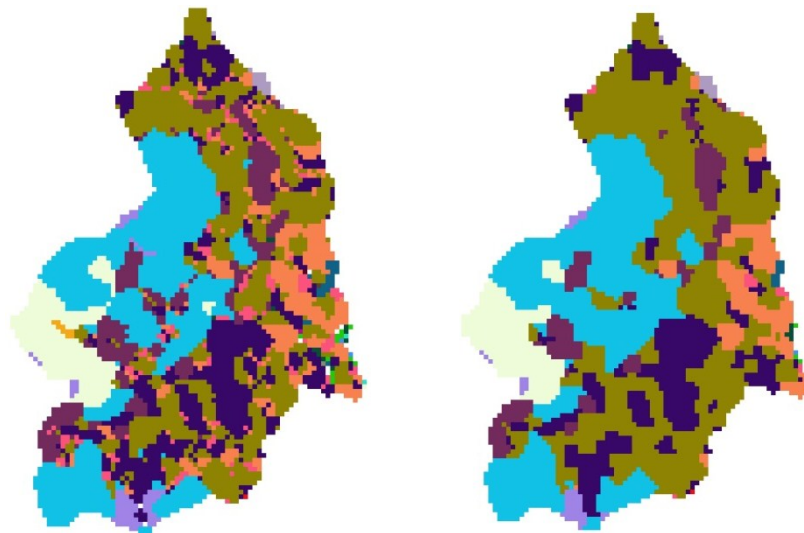

Figure 51: Generalisation: second majority filter (left); boundary clean (right)

The raster was then converted back to a shapefile and the historic character areas sketched out (figure 52). The groups of separate polygons within each new zone were then merged together to create the seven broad character areas (figure 41).
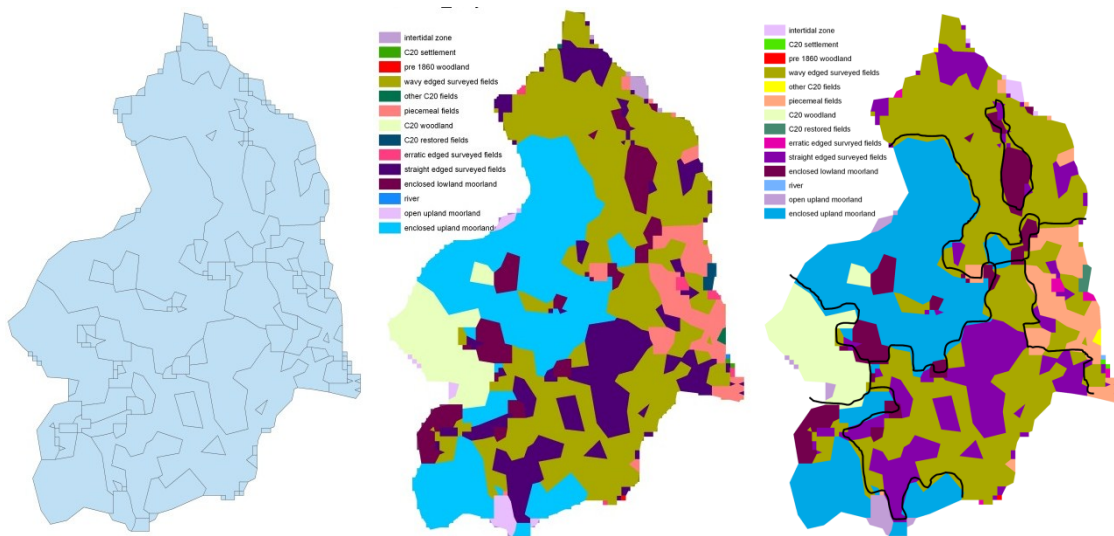
Figure 52: Shapefile created from conversion of raster data (left); keyed to raster colour scheme (centre); broad historic character areas sketched out (right).