# SS2 Viewshed analysis

The viewsheds which make up the bulk of this chapter were calculated using G-Sys 5. Their points of origin are the Raunds monuments and the concentrations identified in the almost ubiquitous scatter of struck flint identified by fieldwalking survey, details of which are provided by Parry (2006) and Humble (2006). One site, the Cotton 'Henge' (Fig SS2.30), is a monument lying within the most extensive of these concentrations, otherwise the two groups are distinct. The concentrations themselves are mapped against the total distribution of struck flint from fieldwalking in Figure SS2.31. Where unexcavated round barrows have no other name they are identified by their SMR numbers (eg 1344/1/4), or, where no SMR number has been allocated, by their references in the records of the National Mapping Programme (eg Ap id 038700090001).

The height of the viewer was taken as 1.7m, the rounded mean for those adult early Bronze Age inhumations listed in Appendix SS7.1 for which stature has been estimated. Where an earthwork was present the estimated height of any bank or mound has been added to this. The estimated height for each point of origin is to be found in Appendix SS7.4, which lists the points for which viewsheds have been calculated, together with their locations. Recalculation with a universal viewer height of 1.70m and with an arbitrary viewer height of 2.5m resulted in no perceptible differences.

Conclusions can be summarised as follows. All of the Neolithic monuments on the terrace, over a distance of 1.90km, from the Long Mound in the north (Fig SS2.1) to the Long Barrow in the south (Fig SS2.4) could have been intervisible. It is unclear how far this was actually the case for the widely-spaced monuments of the early fourth millennium cal BC (the Long Mound, the north part of the Turf Mound, the Avenue and the Long Barrow – Figs SS2.1–4), because the nature of the vegetation between them is unknown. Even if the first three were intervisible, the Long Barrow may have been obscured from its construction or soon after-

wards, since it was built in a recent clearing, and regenerated scrub was growing over it before the middle of the fourth millennium (Campbell and Robinson 2007). The erection of a substantial post in front of the barrow and on its long axis, perhaps during the currency of Peterborough Ware (SS1.4, Fig SS1.54: F203/206), may have enhanced the visibility of the monument.

It is possible to be fairly confident that the monuments of the later fourth millennium cal BC (the Long Enclosure, the Causewayed Ring Ditch and perhaps the Southern Enclosure - Figs SS2.5-7) were indeed intervisible, and thus that at least a corridor along the terrace was then clear, because of their alignment on each other and on older monuments. The alignment of the north part of the Turf Mound was extended by the Long Enclosure and the Causewayed Ring Ditch and the burial of a contemporary cremation (F47087, later at the south edge of Barrow 5) between these two monuments suggests that it was possible to sight to both. The long axis and the entrance of the possibly contemporary Southern Enclosure were oriented on the south-west end of the Avenue.

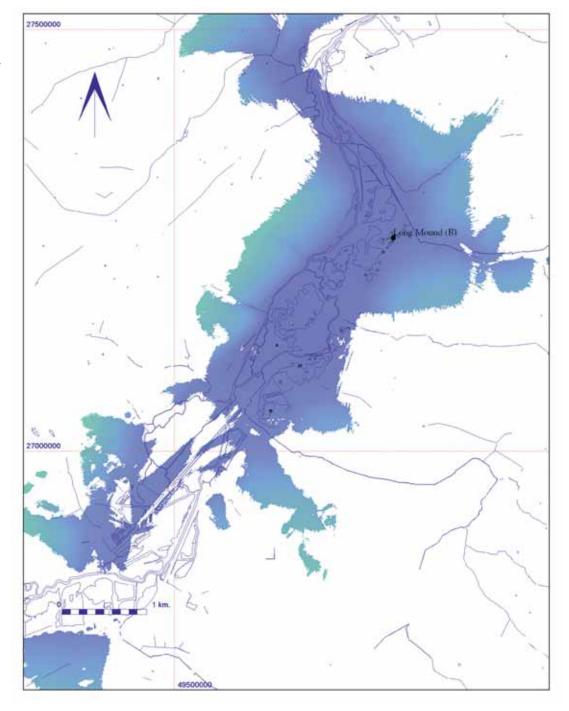
In the early third millennium cal BC the Riverside Structure would have stood in an at least partly wooded environment (Campbell and Robinson 2007), and may have been far more secluded than Fig SS2.8 suggests. By the time the early Bronze Age barrows were built, there is every indication that grazed grassland pervaded on both terrace and island (Campbell and Robinson 2007), so that all the upstanding monuments on the terrace, along a distance of 2.80km, from Ring Ditch 1344/1/4 in the south (Fig SS2.10), to Ring Ditch 5 in the north (Fig SS2.24) were probably intervisible. The exception is the Segmented Ditch Circle. All the other monuments could have been seen from it (Fig SS2.3), but it would have been only marginally visible or invisible from the West Cotton monuments (Figs SS2.1-2, SS2.5, SS2.9, SS2.18-24). It may be relevant that the Segmented Ditch Circle seems to have been built and backfilled very quickly (SS1.11), and may never have been intended as a landmark. The earthworks of the Avenue, over the end of which it was built, would have been so exiguous, especially in a weathered, silted state (SS1.2), that, while they were apparent as slight hollows at close quarters, their location may not have figured in the positioning of more remote later monuments.

Visibility to the north of the West Cotton monuments is constricted by a bend in the river, and visibility to the south of the Redlands Farm monuments is constricted by rising ground. This effect is most marked from the monuments near the centre of the investigated area (Figs SS2.3, SS2.6-7, SS2.14-17, SS2.25-29), but it still apparent from the extremities (Figs SS2.10-11, SS2.20–24). The constrictions correspond to apparent low points in round barrow and ring ditch distribution (Harding and Healy 2007, Fig 5.15), and the area which they define may have formed an arena. When the terrace is viewed looking upstream from the most northerly monuments, not only do the Avenue and Segmented Ditch Circle lie at or beyond the edge of the field of vision, as described above, but an area south of the Southern Enclosure falls from view. This dead ground extends for c 450m when viewed from Ring Ditch 5 (Fig 2.24), diminishing from more southerly monuments (Figs SS2.1, SS2.5, SS2.8-9, SS2.18-23). When the terrace is viewed from the south, on the other hand, looking downstream from slightly higher ground, all of the valley bottom and all of the known monuments are visible (Figs SS2.10–12). To arrive from this direction would be to see the full extent of the terrace and the monuments ahead. The monuments would have become more closely spaced and more clearly aligned as they neared West Cotton, culminating in the complex there and the space which it defined. It is tempting to think that this was the most-used route.

The early Bronze Age barrows on Irthlingborough Island would have been intervisible with each other and with all the other monuments. On the valley side, the Cotton 'Henge' and the long-frequented area within which it lay (Fig SS2.30) were intervisible with monuments at West Cotton, on the terrace to the south as far as Ring Ditch 192143, and on Irthlingborough Island (Figs SS2.1-2, SS2.5-6, SS2.8-9, SS2.16-24), but not with the Avenue and Segmented Ditch Circle, the Southern Enclosure, the Long Barrow or any of the round barrows at or around Redlands Farm SS2.3-4, SS2.7, SS2.10-15). A relation to the West Cotton monuments seems plausible, especially given their location on the same tributary.

The remaining flint concentrations ranged from those only slightly elevated above the valley floor, like West Cotton at 34m OD or Redlands Farm and Westfield Spinney, both at 37m OD (Figs SS2.32–34), to those high on the sides of the valleys of the Nene and its tributaries, like Upper Darsdale (east) at 72m OD (Fig SS2.49). In general, lithics were densest on the sides of the Nene valley itself (Fig SS2.31). The sites of these concentrations all command extensive tracts of the valley (Figs SS2.32-42). Even the highest, Crow Hill at 67m OD and Nether Field at 68m OD afford visibility over only limited extents of the interfluves to either side (Figs SS2.41-42). The Crow Hill viewshed is exceptional for its completeness, with little dead ground within its limits (Fig SS2.41). Concentrations in the valleys of tributaries similarly command views of the valley bottoms and opposite slopes, sometimes extending to the Cotton 'Henge' and/or the bottom of the Nene valley and some or all of its monuments (Figs SS2.43–49).

Figure SS2.1
Viewshed for the
Long Mound.
The areas potentially visible
to an observer standing on
the east end of the mound,
vegetation and other
obstacles permitting, are
shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.



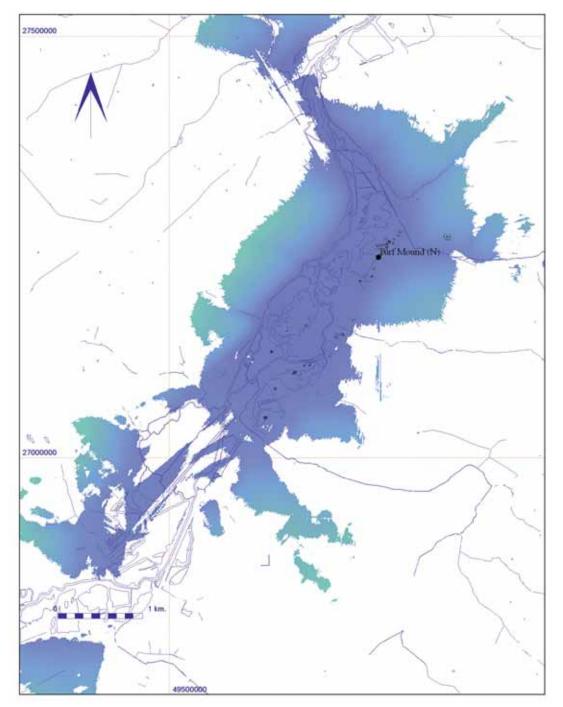
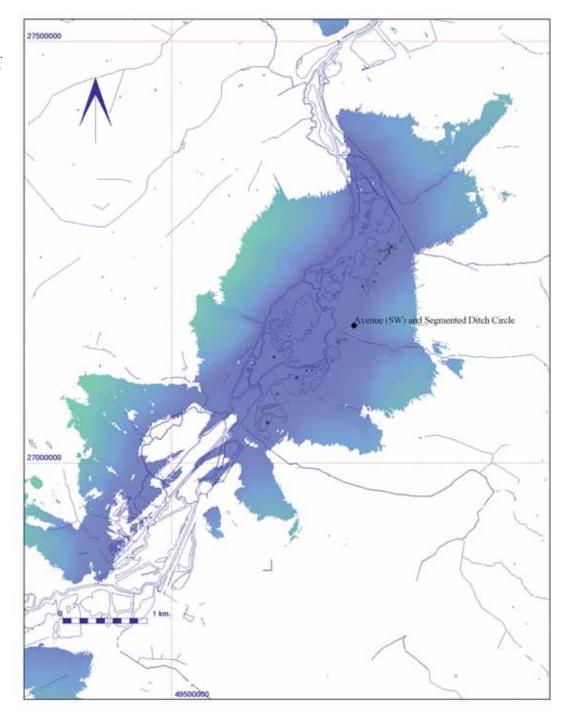


Figure SS2.2
Viewshed for the north
part of the Turf Mound.
The areas potentially visible
to an observer standing on
the mound, vegetation and
other obstacles permitting,
are shaded. The watercourses and areas of water
are modern ones, included
to help locate the image in
the landscape.

Figure SS2.3 Viewshed for the Avenue and Segmented Ditch Circle. The areas potentially visible to an observer standing on the slight bank at the south-west end of the Avenue (later the site of the Segmented Ditch Circle), vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in  $the\ land scape.$ 



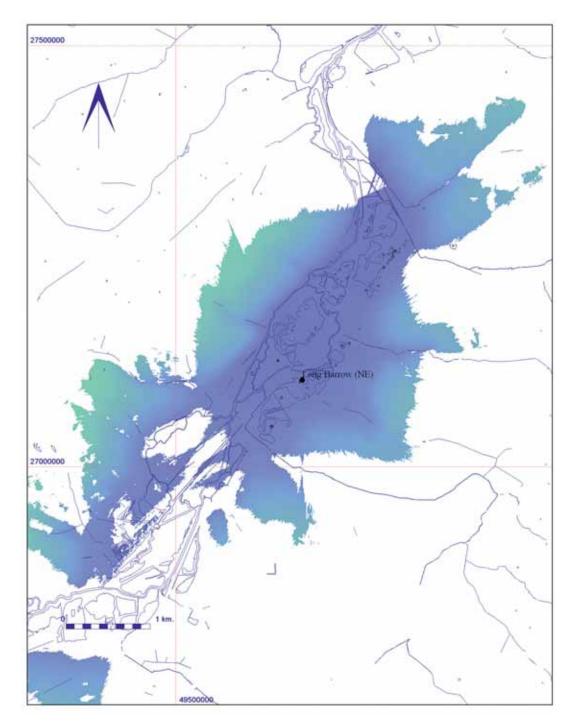


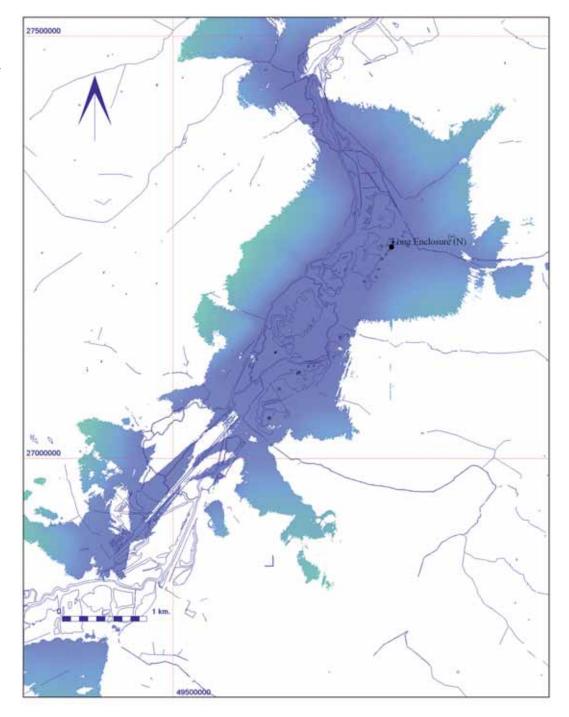
Figure SS2.4 Viewshed for the Long Barrow. The areas potentially visible to an observer standing on the north-east end of the mound, vegetation and other obstacles permitting, are shaded. Visibility would have been considerably less in some periods, since the barrow was built in a clearing and was the site of scrub regeneration both soon after its construction, and at the turn of the third and second millennia Cal BC. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.5

Viewshed for the

Long Enclosure.

The areas potentially visible
to an observer standing on
the bank near the north
end of the monument,
vegetation and other
obstacles permitting, are
shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.



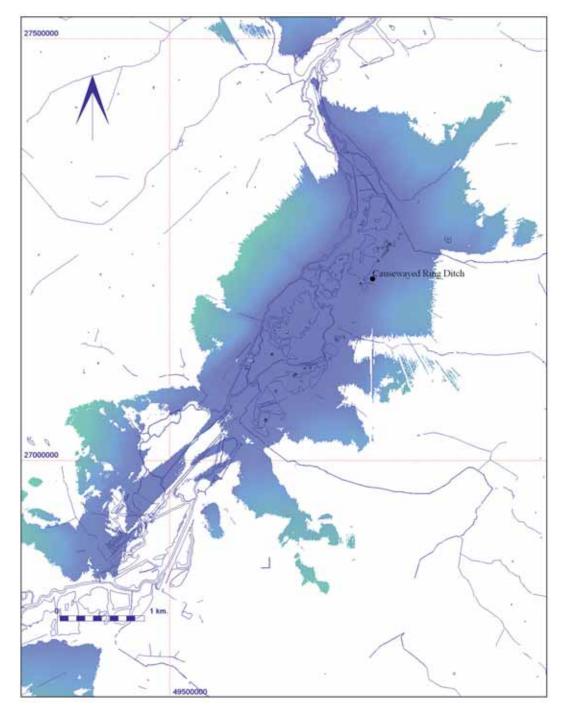
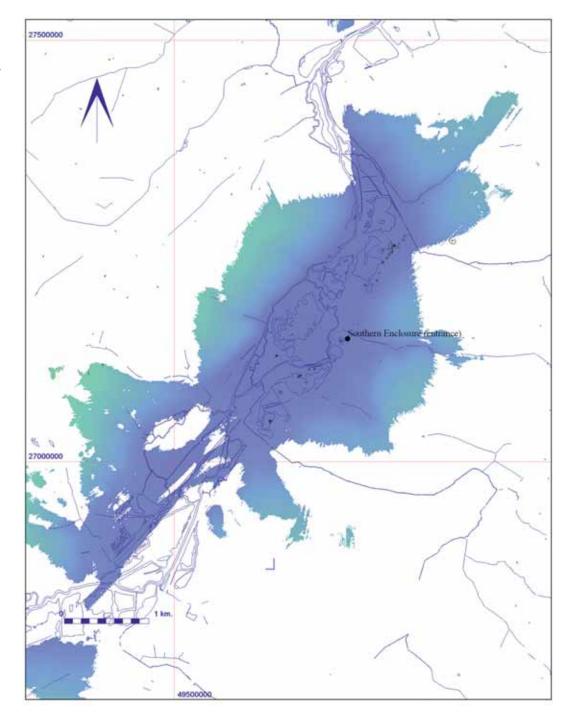


Figure SS2.6
Viewshed for the
Causewayed Ring Ditch.
The areas potentially visible
to an observer standing on
the north-east end of the
mound, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.7
Viewshed for the
Southern Enclosure.
The areas potentially visible
to an observer standing on
the bank by the entrance,
vegetation and other
obstacles permitting, are
shaded. The vatercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.



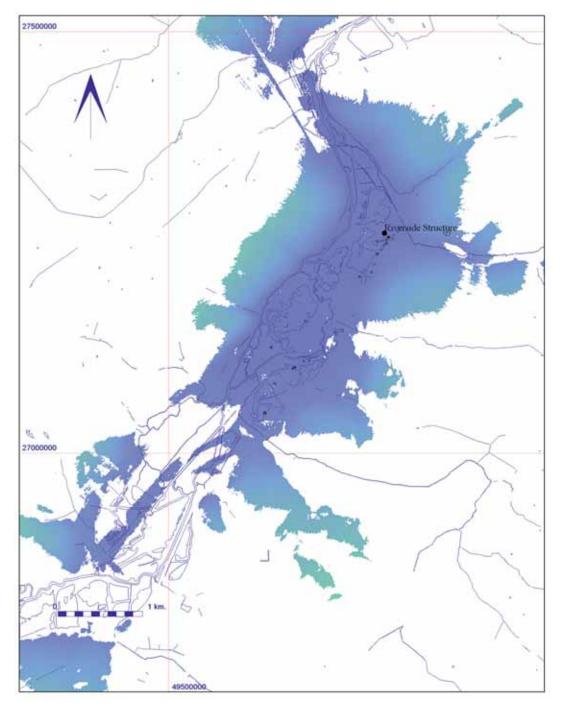
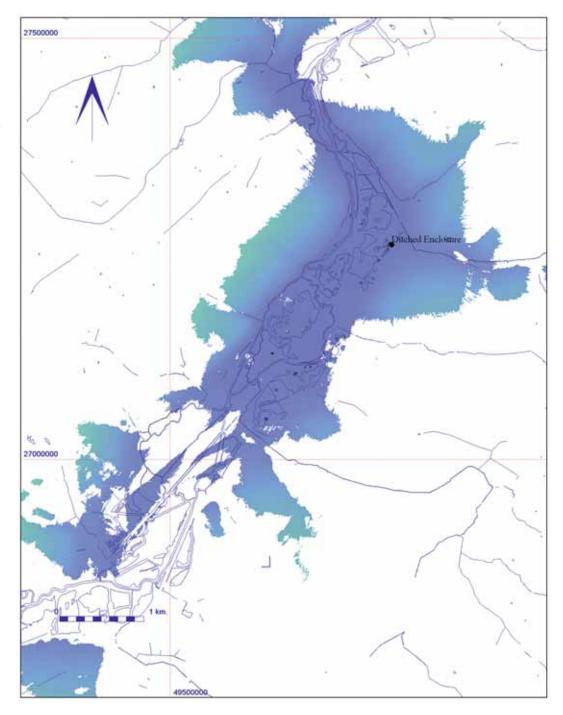


Figure SS2.8 Viewshed for the Riverside Structure. The areas potentially visible to an observer, vegetation and other obstacles permitting, are shaded. The structure stood in an at least partly wooded environment so that it would have commanded a less extensive prospect than is shown here. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.9
Viewshed for the
Ditched Enclosure.
The areas potentially visible
to an observer standing on
the bank, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.



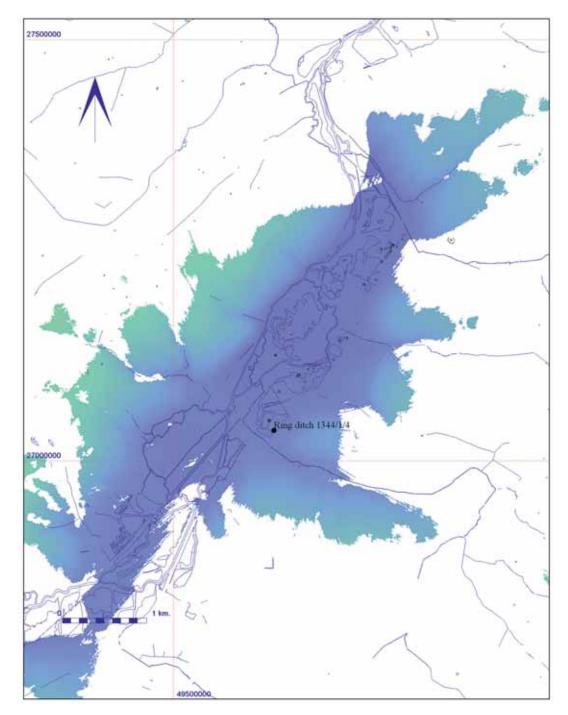
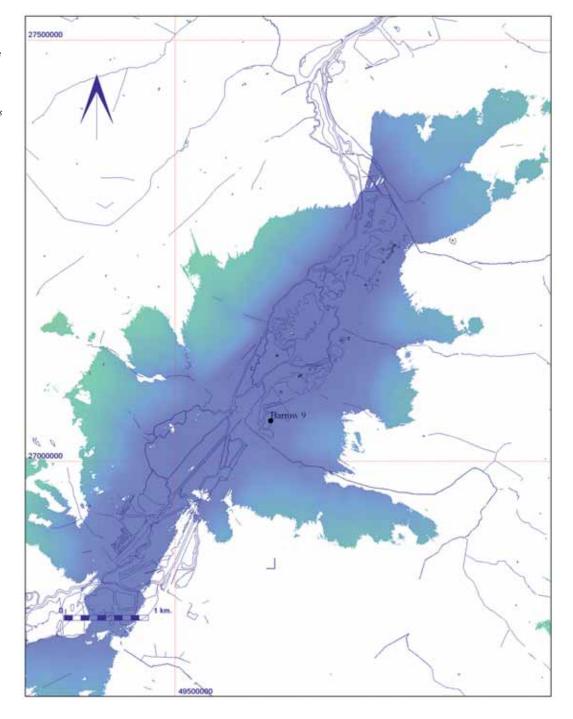


Figure SS2.10
Viewshed for
Ring Ditch 1344/1/4.
The areas potentially visible
to an observer standing on
the mound, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.11
Viewshed for Barrow 9.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape



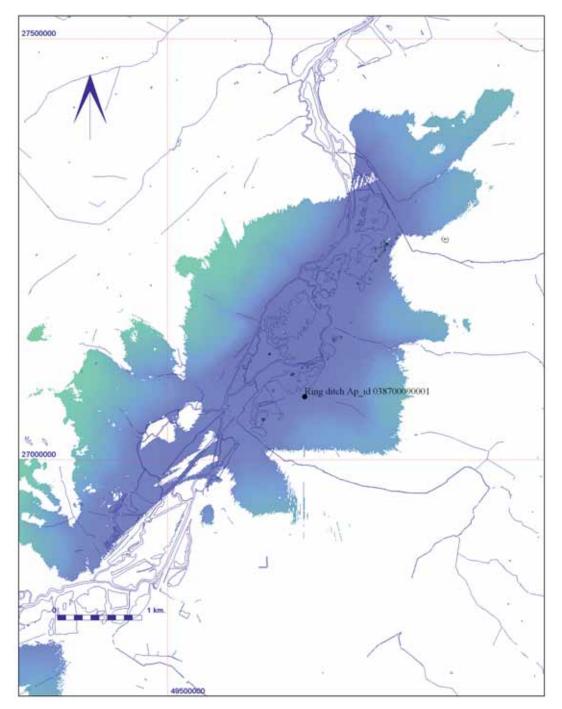
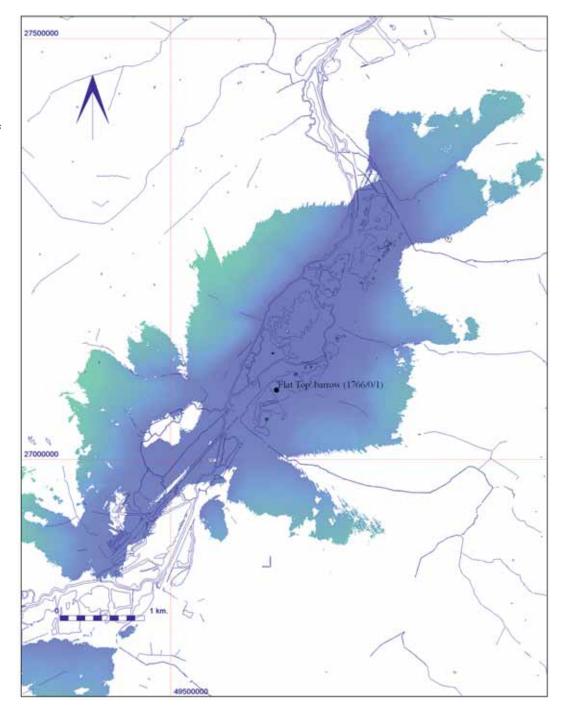


Figure SS2.12
Viewshed for Ring Ditch
Ap\_id 038700090001.
The areas potentially visible
to an observer standing on
the mound, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.13
Viewshed for 'Flat top'
barrow (1766/0/1).
The areas potentially visible
to an observer standing on
the mound, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.



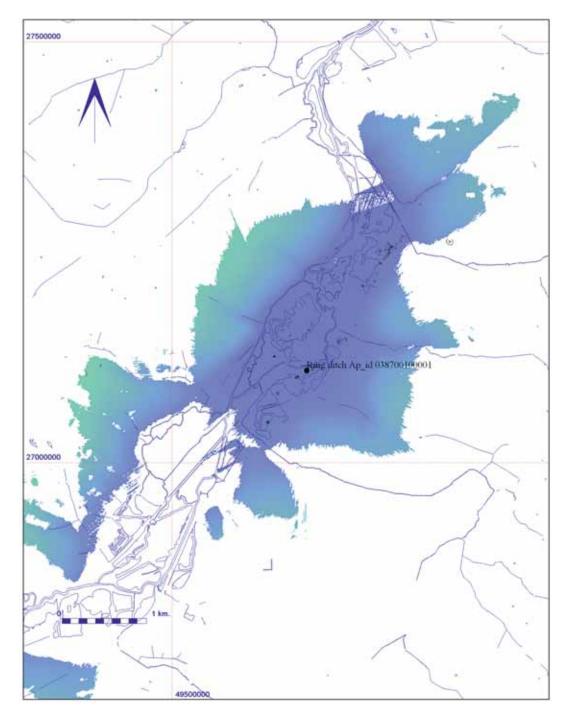
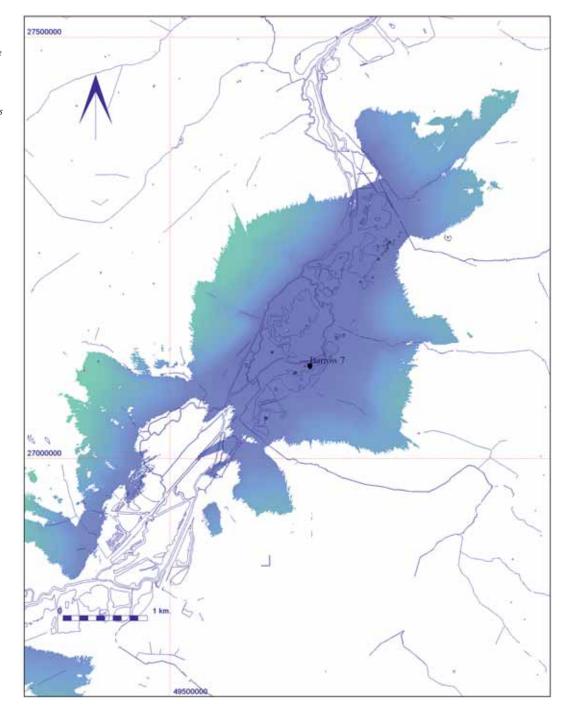


Figure SS2.14
Viewshed for Ring Ditch
Ap\_id 038700100001.
The areas potentially visible
to an observer standing on
the mound, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.15
Viewshed for Barrow 7.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



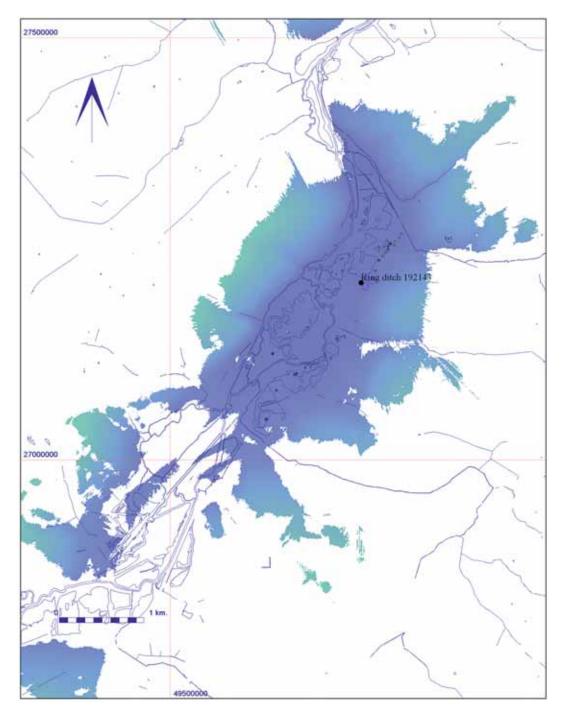
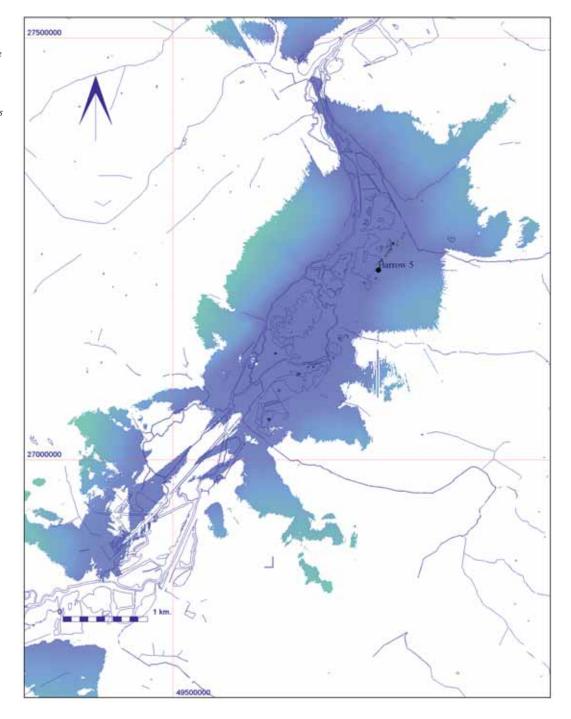


Figure SS2.16
Viewshed for
Ring Ditch 192143.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.17
Viewshed for Barrow 5.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



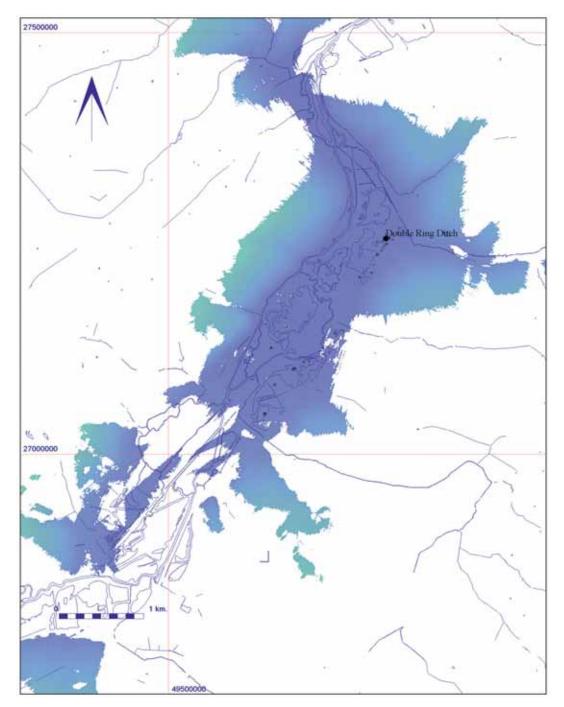
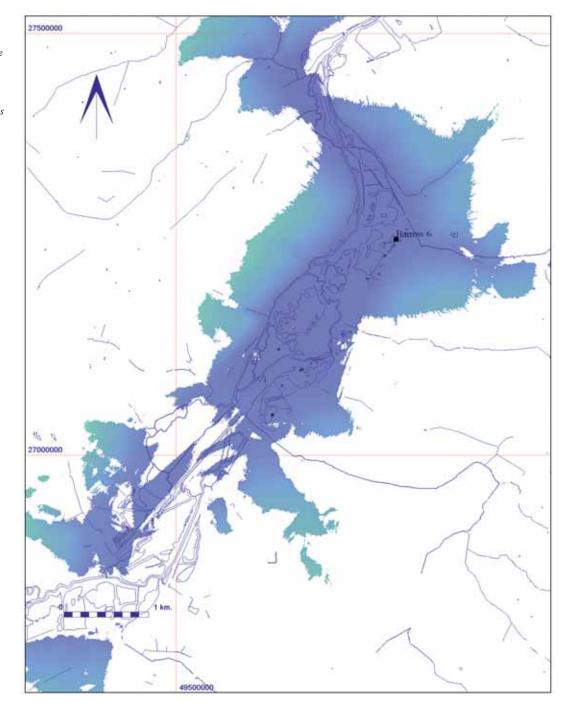


Figure SS2.18
Viewshed for the
Double Ring Ditch.
The areas potentially visible
to an observer standing on
the bank, vegetation and
other obstacles permitting,
are shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.19
Viewshed for Barrow 6.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



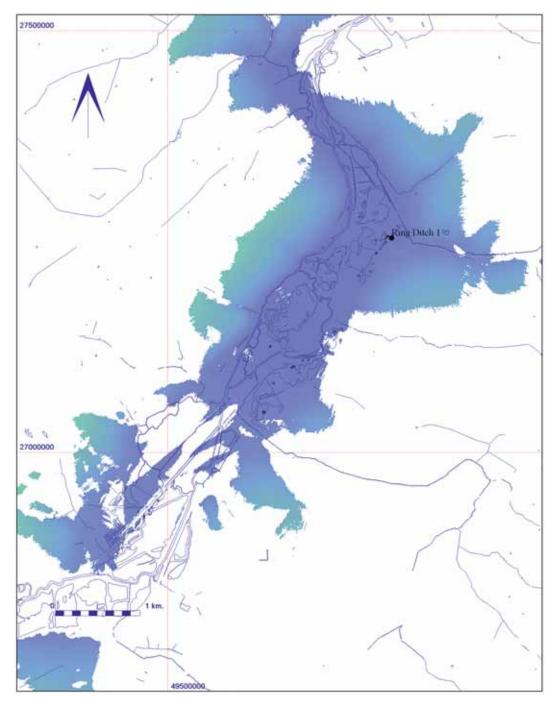
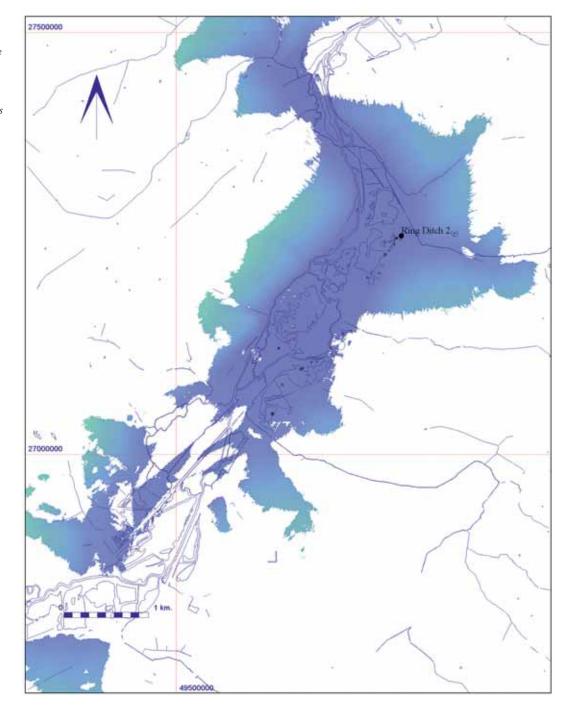


Figure SS2.20
Viewshed for Ring Ditch 1.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.21
Viewshed for Ring Ditch 2.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



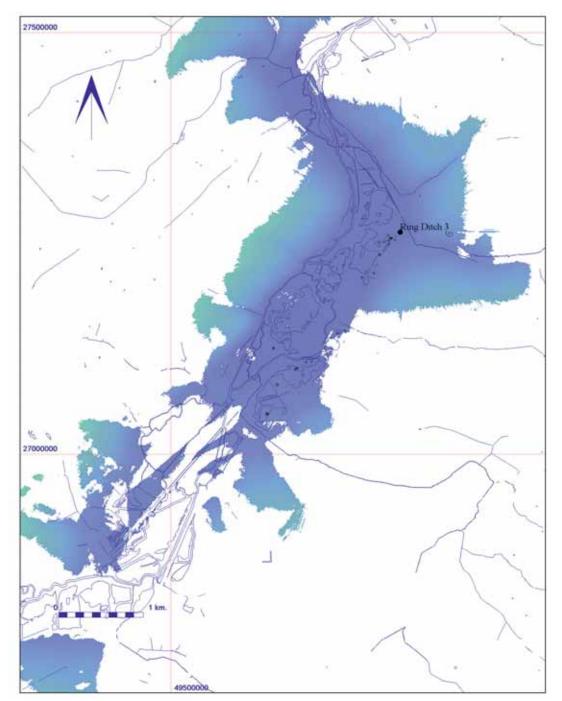
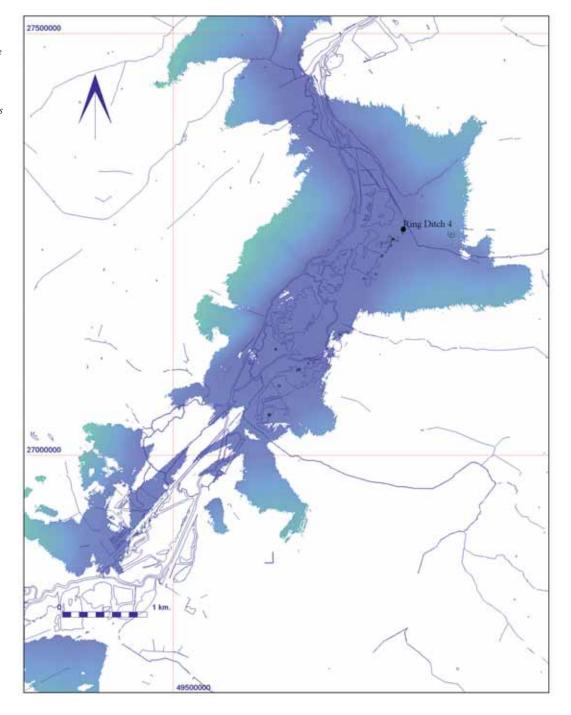


Figure SS2.22
Viewshed for Ring Ditch 3.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.23
Viewshed for Ring Ditch 4.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



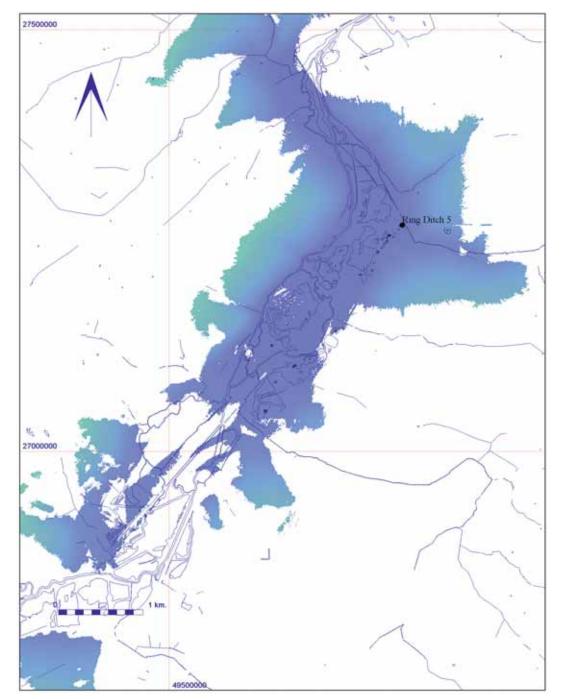
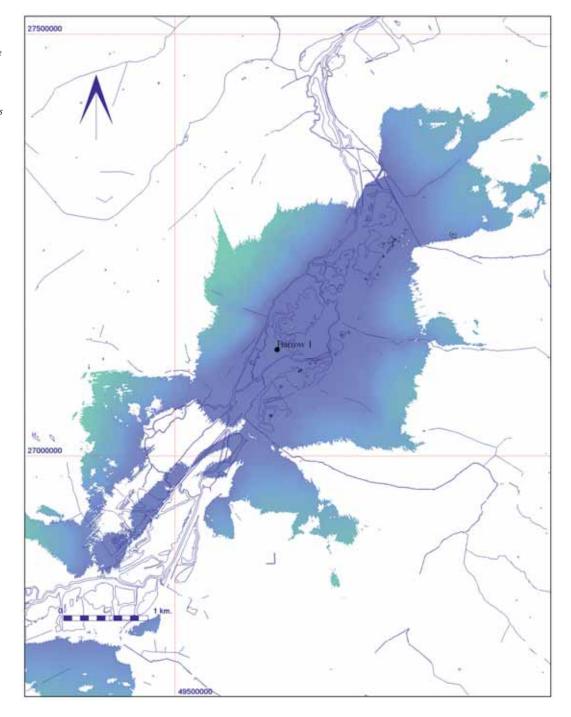


Figure SS2.24
Viewshed for Ring Ditch 5.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.25
Viewshed for Barrow 1.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



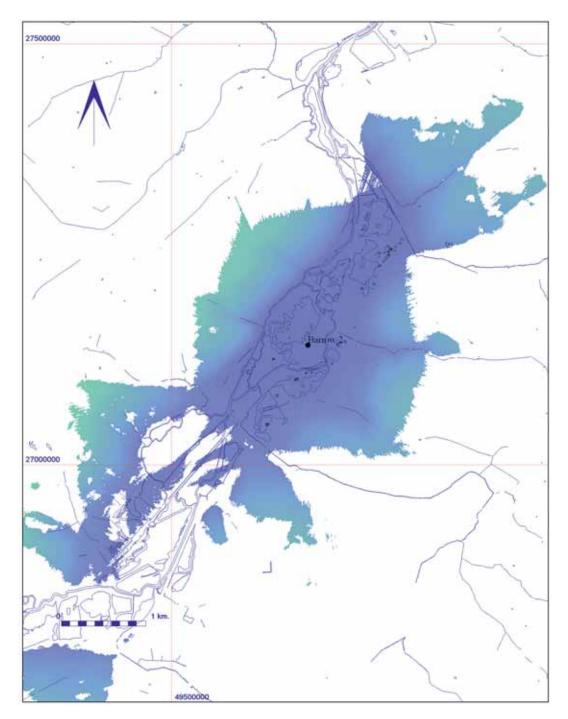
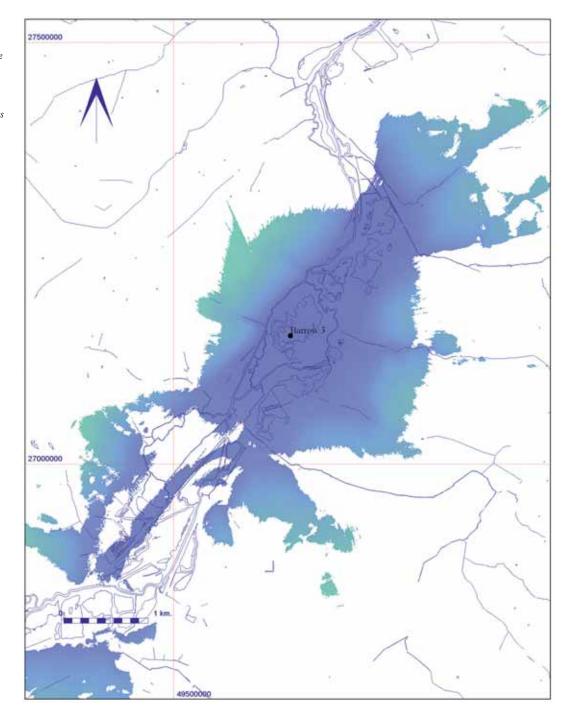


Figure SS2.26
Viewshed for Barrow 2.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.27
Viewshed for Barrow 3.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



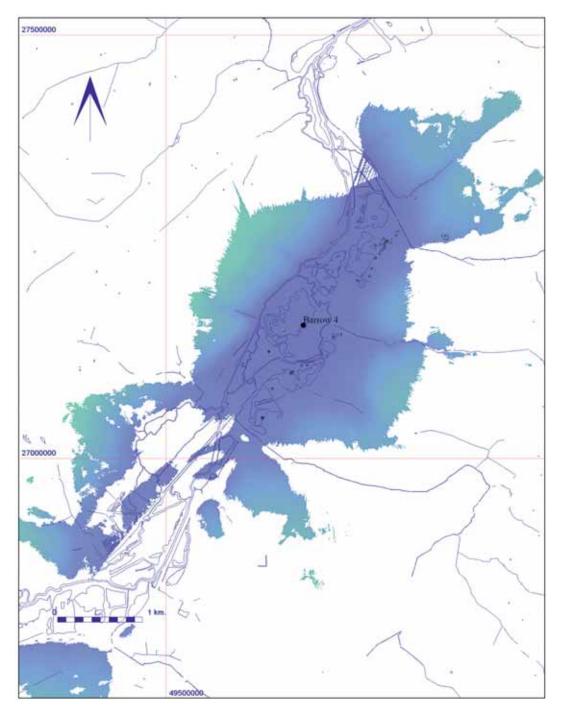
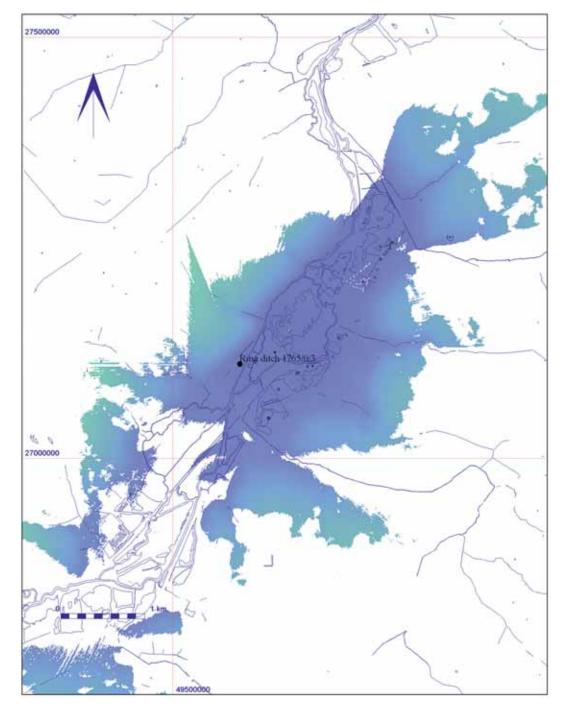


Figure SS2.28
Viewshed for Barrow 4.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.

Figure SS2.29
Viewshed for
Ring Ditch 1765/0/3.
The areas potentially visible to an observer standing on the mound, vegetation and other obstacles permitting, are shaded. The watercourses and areas of water are modern ones, included to help locate the image in the landscape.



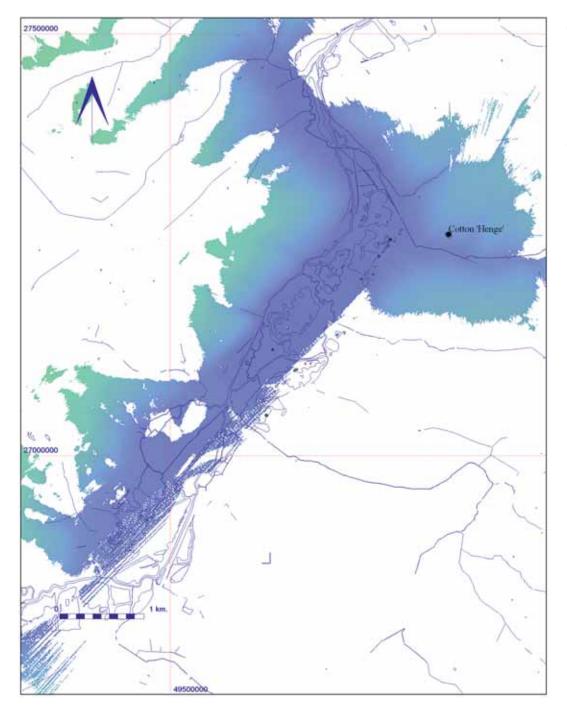
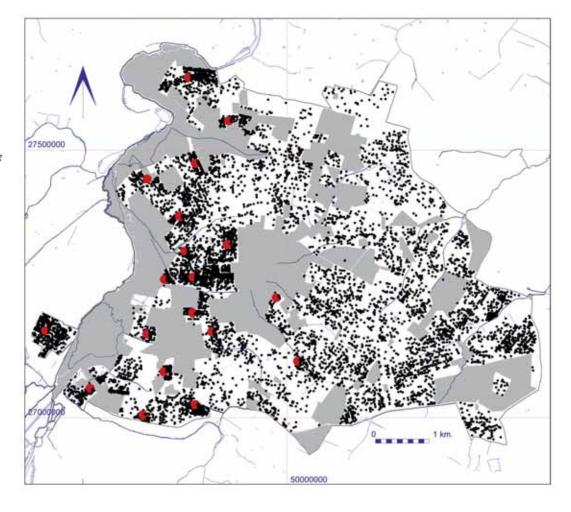


Figure SS2.30
Viewshed for the
Cotton 'Henge'.
The areas potentially visible
to an observer standing on
the probably central mound,
vegetation and other
obstacles permitting, are
shaded. The watercourses
and areas of water are
modern ones, included to
help locate the image in
the landscape.

Figure SS2.31

The centres of struck flint concentrations for which viewsheds have been calculated (red dots), against the background of the total distribution of predominantly late Neolithic and Bronze Age struck flint recovered during the fieldwalking survey.

Unwalked areas are shown in grey.



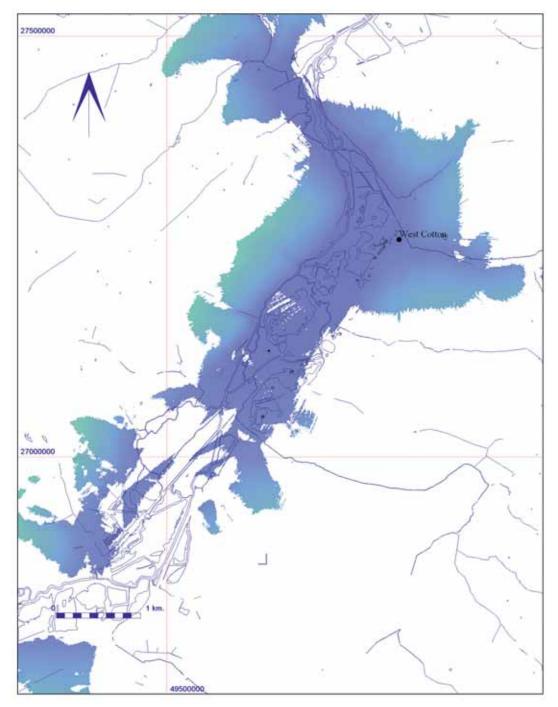
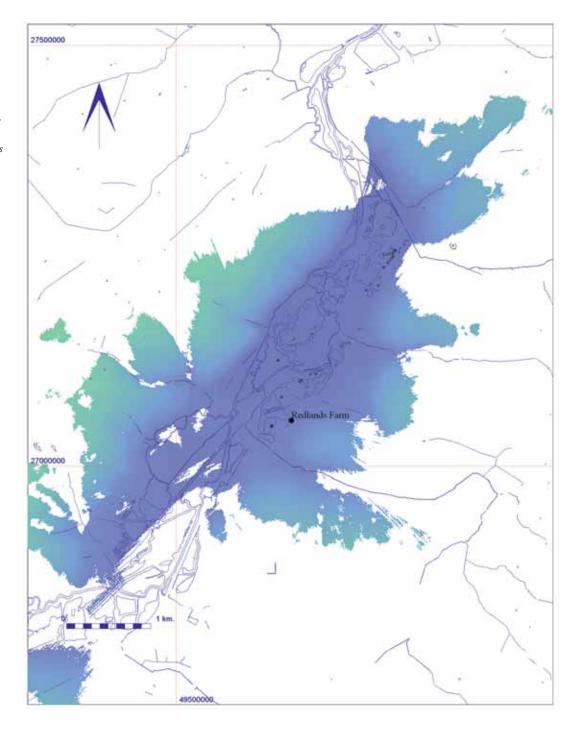


Figure SS2.32
Viewshed for the West
Cotton struck flint
concentration, rather higher
up the Cotton Brook than
the West Cotton monuments.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.33
Viewshed for the
Redlands Farm struck
flint concentration.
The areas potentially
visible to an observer,
vegetation and other obstacles permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



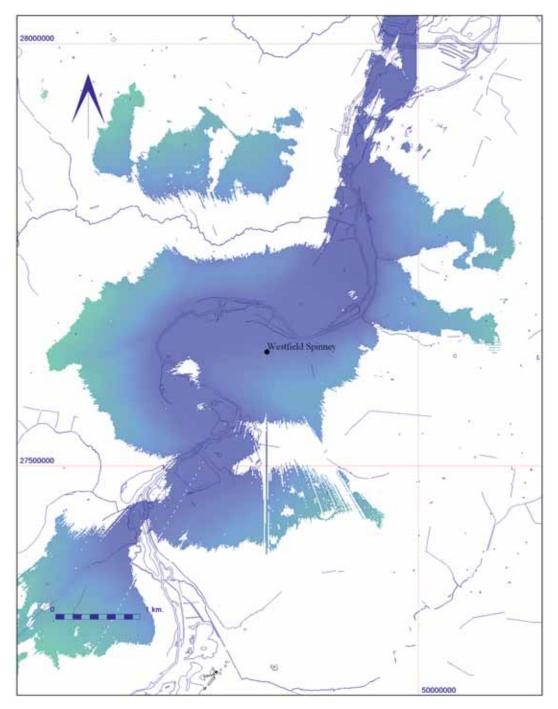
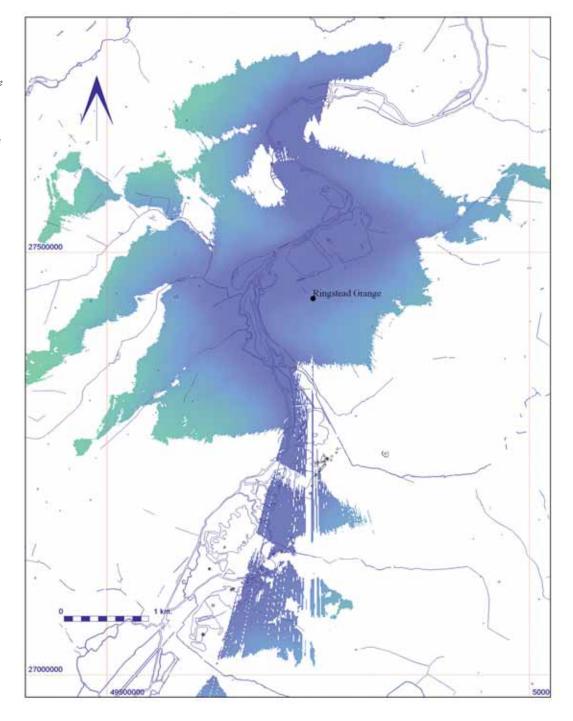


Figure SS2.34
Viewshed for struck
flint concentration 26 at
Westfield Spinney.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.35
Viewshed for struck flint
concentration 13 at
Ringstead Grange.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



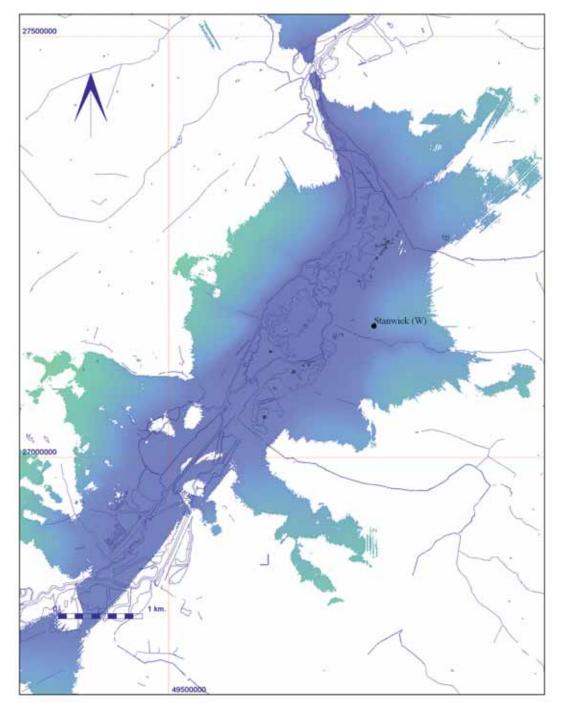
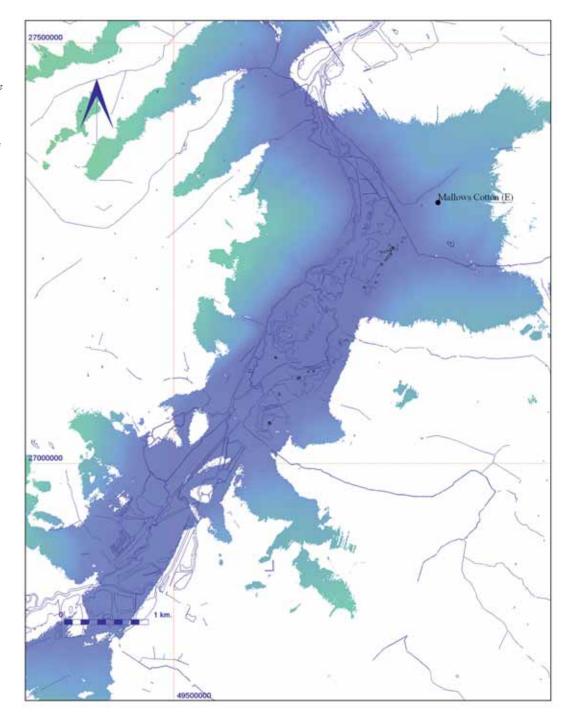


Figure SS2.36
Viewshed for the struck
flint concentration 8 at
Stanwick (west).
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.37
Viewshed for the struck
flint concentration 11a at
Mallows Cotton (east).
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



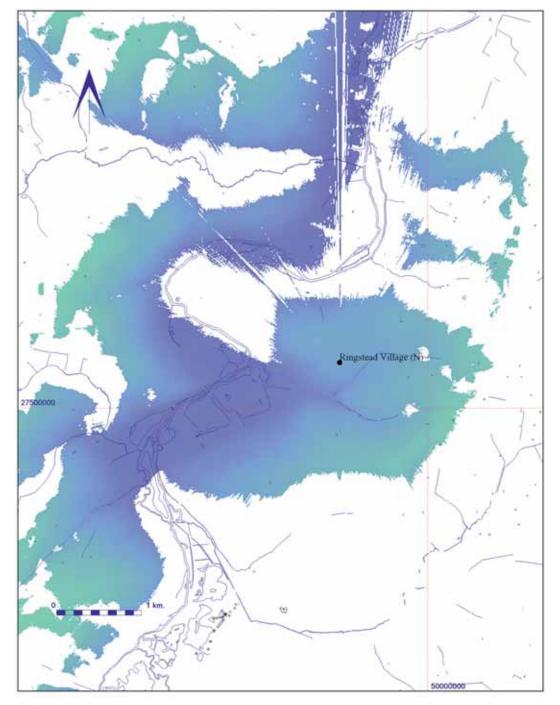
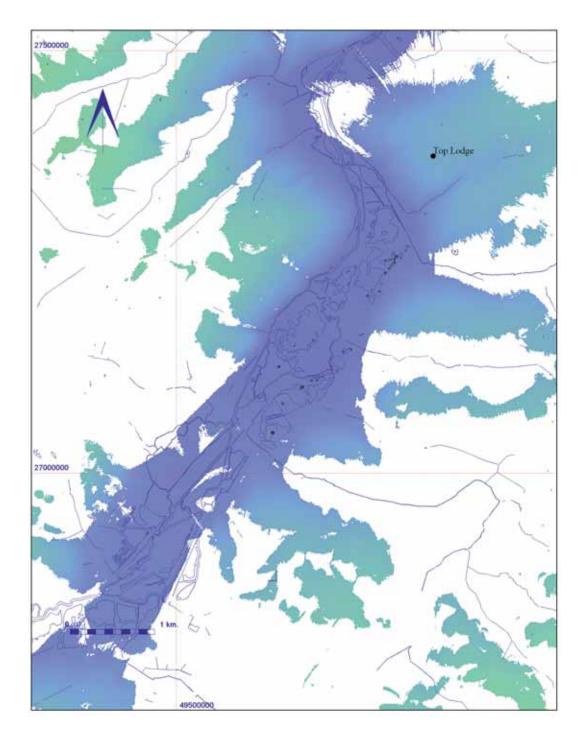


Figure SS2.38
Viewshed for the struck
flint concentration 24a at
Ringstead Village (north).
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.39
Viewshed for struck flint concentration 23 at Top Lodge.
The areas potentially visible to an observer, vegetation and other obstacles permitting, are shaded. The vatercourses and areas of water are modern ones, included to help locate the image in the landscape.



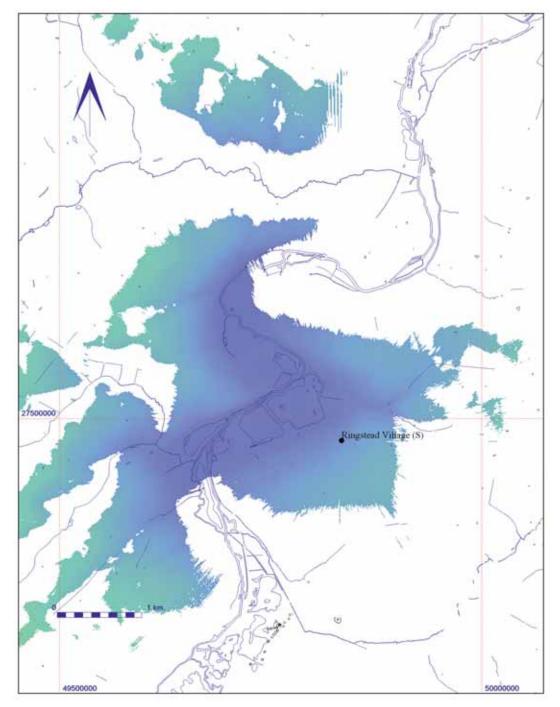
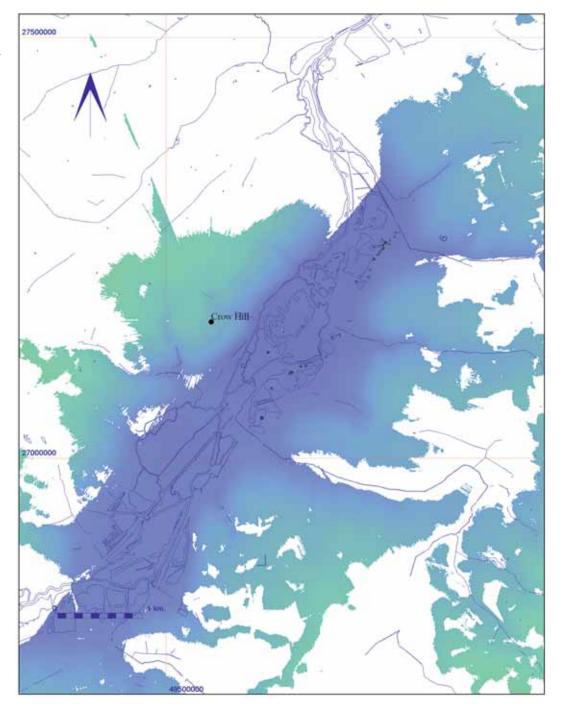


Figure SS2.40
Viewshed for struck flint
concentration 24b at
Ringstead Village (south).
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.41
Viewshed for struck flint
concentration 1 on Crow Hill.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



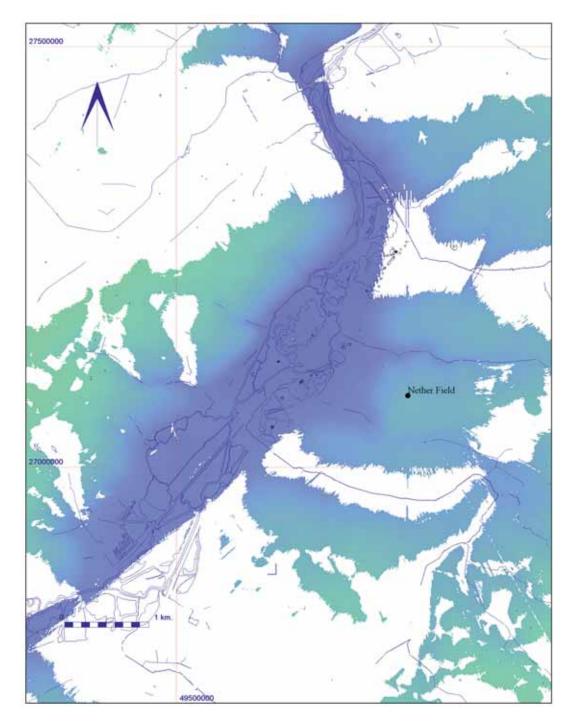
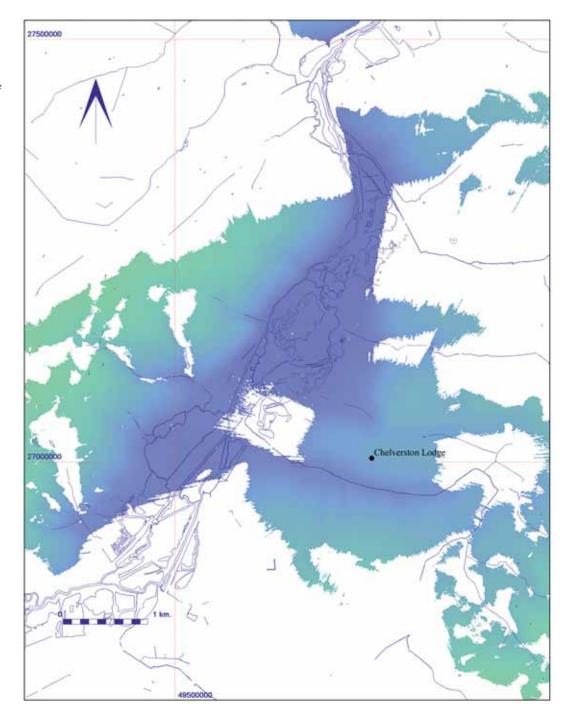


Figure SS2.42
Viewshed for struck flint
concentration 7 at
Nether Field.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.43
Viewshed for struck flint
concentration 6 at
Chelveston Lodge.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



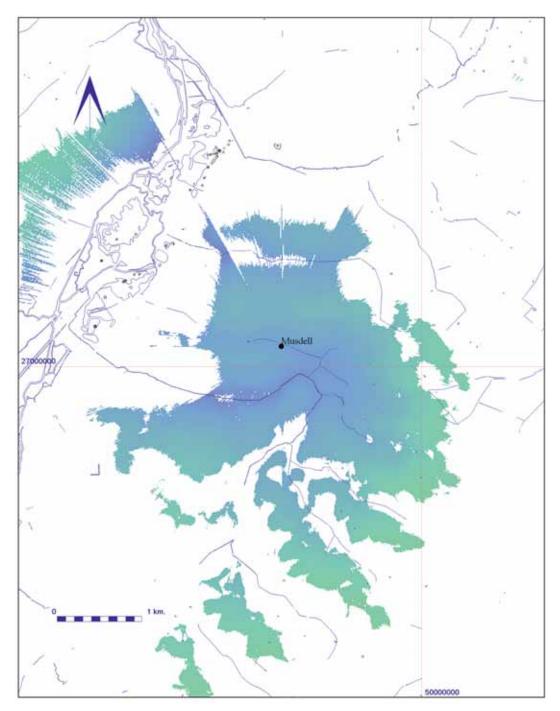
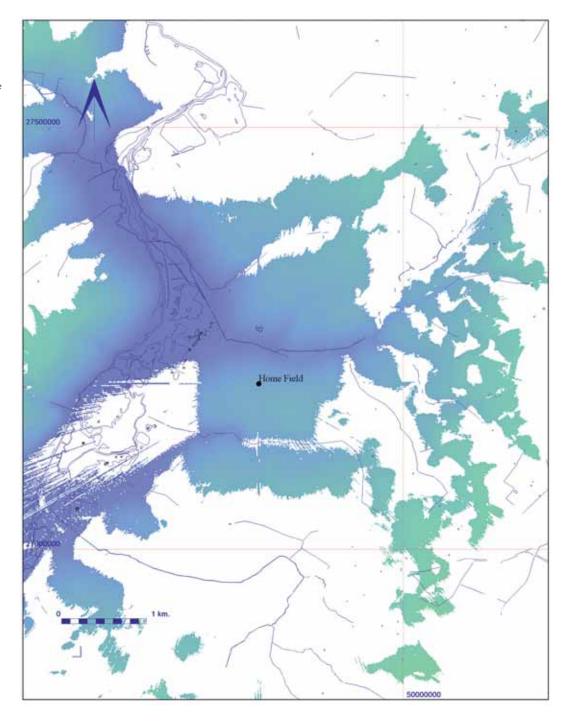


Figure SS2.44
Viewshed for struck flint
concentration 17 at Musdell.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.45
Viewshed for struck flint
concentration 19 at
Home Field.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



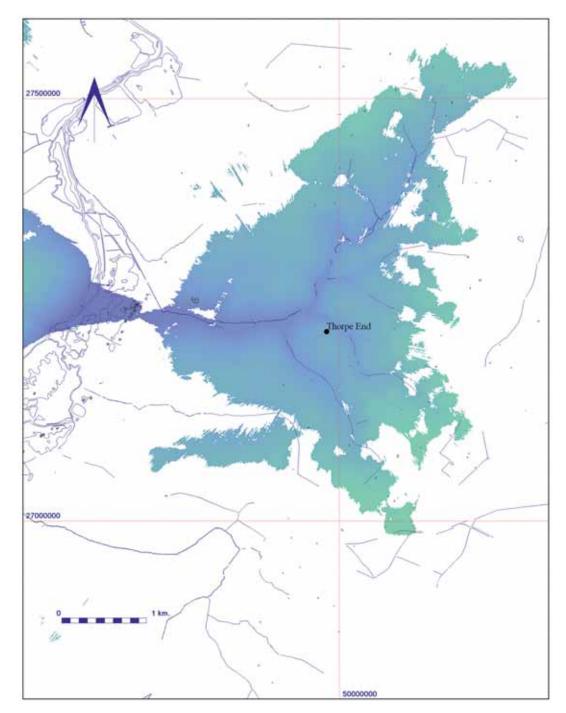
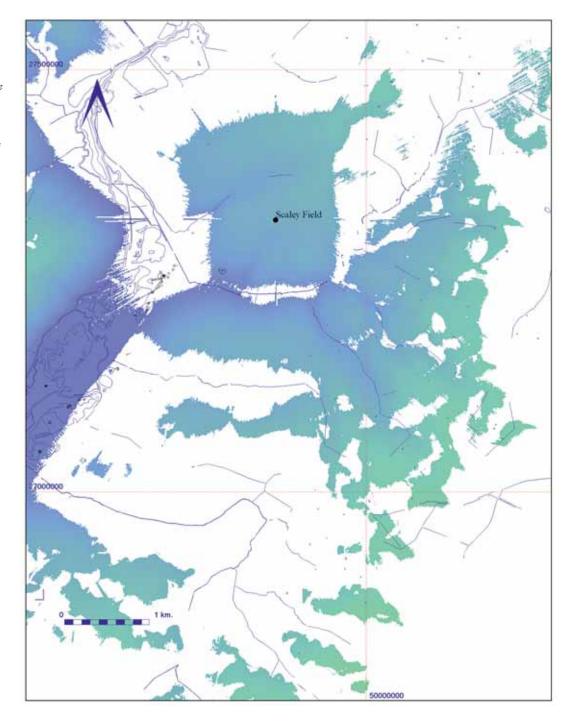


Figure SS2.46
Viewshed for struck flint
concentration 29 at
Thorpe End.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.47
Viewshed for struck flint
concentration 22 at
Scaley Field.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



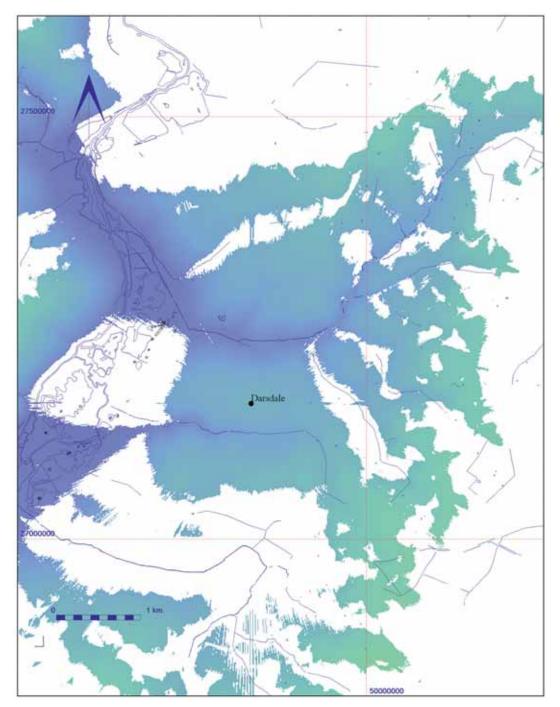
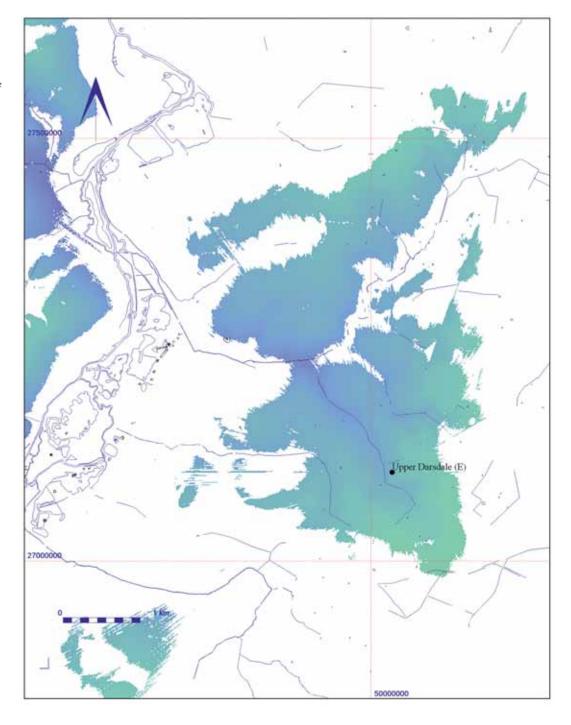


Figure SS2.48
Viewshed for struck flint
concentration 18 at Darsdale.
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.

Figure SS2.49
Viewshed for struck flint
concentration 34 at Upper
Darsdale (east).
The areas potentially visible
to an observer, vegetation
and other obstacles
permitting, are shaded.
The watercourses and areas
of water are modern ones,
included to help locate the
image in the landscape.



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