

South Downs Cross Ridge Dyke Project

Part 4: River Adur to River Arun



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Abstract

This report covers the section of the project between the rivers Adur and Arun. The area is divided by the Findon valley, a present and potentially prehistoric overland route from the coastal plain across the Downs to the Weald. To the east of the Findon valley the cross-dykes appear to limit access to high ground, to the west of the valley the cross-dykes cut across the ridge and spurs acting as obstacles to east/west transit. As with previous areas investigated visibility to the cross-dykes from either the rivers or the Weald appear to be a factor for many of the dykes.

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Introduction

This interim report is the fourth in the series of our project researching Cross Dykes on the South Downs, between Eastbourne and Winchester: this section covers the area between the rivers Adur and Arun. Previous reports have covered the area between Eastbourne and the River Cuckmere (Lea, et al., 2016), the River Cuckmere to the River Ouse (Lea, et al., 2017) and the River Ouse to the River Adur (Lea, et al., 2018).

Various terms have in the past been used to describe these earthworks, 'covered ways' was the term

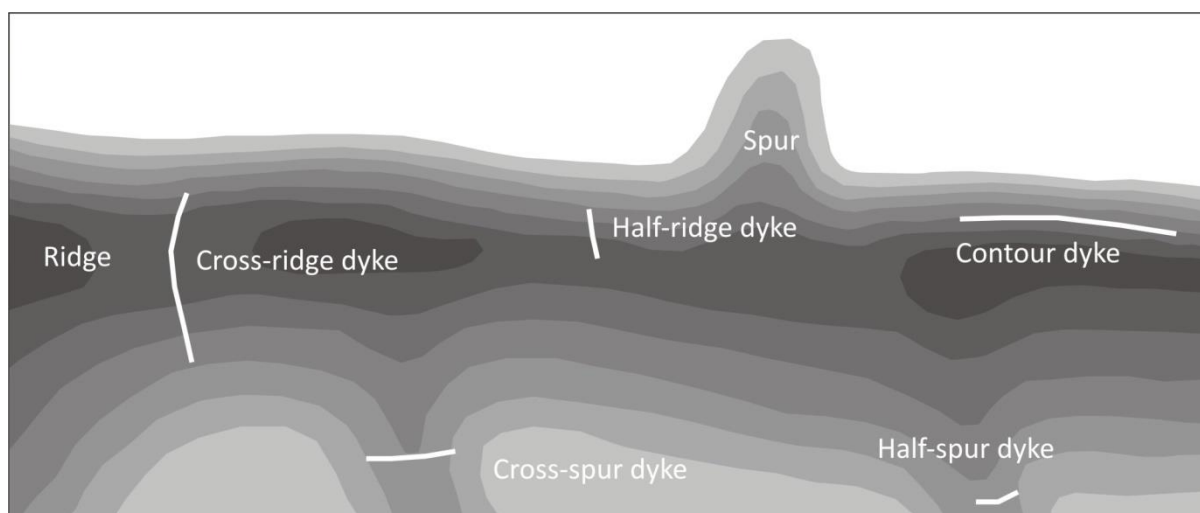


Figure 1. A contour diagram illustrating the relationship between the various types of cross dyke and the terrain.

used extensively by the Curwen's (1919, and 1929) and describes their use as animal droveways, though later E. C. Curwen attributed the origin of the term to Colt Hoare (Curwen, 1951) before changing to the more widely used term 'cross-ridge dyke' which has been used to cover all the ditched and banked features (English Heritage, 2005). To be more specific for this project we have used the following definitions which are illustrated in Figure 1:

- Cross dykes
 - General term covering prehistoric earthwork complexes, usually comprising a single bank and ditch, which cross the ridges and spurs of the South Downs. Variations exist where a single ditch may be flanked by two banks and *vice versa*
- Cross-ridge dykes
 - Cross dykes which span the entire width of either the main east/west ridge bounding the northern edge of the downs or the scarp between Willingdon and Eastbourne
- Half-ridge dykes
 - Cross dyke which only traverses a portion of one of the ridges, usually starting at approximately the highest point and running down one side
- Cross-spur dykes
 - Cross dykes which span the entire width of a spur running away from one of the ridges of the South Downs

- Half-spur dykes
 - Cross dyke which only cuts across a portion of a spur, usually starting at approximately the highest point and running down one side
- Contour dykes
 - Earthwork complex of bank/s and ditch/s which run more or less parallel to the contours along a ridge or spur



Figure 2. Pottery from the Glatting Down Cross-Dyke.

Photo. Seager Thomas

Dating cross dykes is problematic; few have been excavated, of those that have dating the evidence is seldom conclusive but gives a general impression of a Late Bronze Age/ Early Iron Age date. The excavations at Alfriston (O'Connor, 1976), Upper Beeding (Bedwin, 1979) and Upwaltham Hill (Curwen & Curwen, 1918) contained pottery of Late Bronze Age/Early Iron Age date from secondary fills, an exception is pottery from Glatting Down (Figure 2), in what was described as the primary fill (Curwen & Curwen, 1918). The pottery, sherds from possibly a single vessel, has been reassessed as 'Deverel-Rimbury, but for Sussex, the fabric is atypical' by Seager Thomas (Pers Comm 2018), c.1700-1150 cal. BC. (Seager Thomas, 2008).

Not all ditches that cross the ridges and spurs of the South Downs are cross dykes; ditches could have been dug for drainage, field boundaries, formed by erosion along trackways during any period or represent military features. As mentioned previously, cross dykes were once referred to as 'covered ways'; although sunken trackways up the scarp slope and crossing the ridge are common on the downs, the features we are looking at often originate at and/or end at extremely steep slopes that would be difficult for animals to be directed into or controlled on their exit (e.g. Fore Down, Lullington, MES2981) and are so narrow at their base that even people walking single file would find it difficult to progress (e.g. Long Down [MES703] [Drewett, 1982, p89]).

Parish boundaries and other administrative boundaries are another type of ditched and banked feature that can be confused with cross dykes, in some places cross dykes are re-used to form part of a parish boundary. Generally, the cross-section of a cross dyke tends to show greater signs of erosion and can be identified as separate feature.

The digging of cross dykes for drainage purposes is unlikely as the chalk geology and sloping nature of the terrain allows for natural drainage, even where dykes cut across areas of clay with flints, they would not necessary be drains due to the sloping nature of the terrain.

Both the First and Second World Wars saw the construction of many earthworks on the South Downs, such as practice trenches, slit trenches and anti-glider ditches. The military trenches tend to be dug parallel to the contours as seen on the slope to the west of the River Cuckmere near Cuckmere Haven (Carpenter, *et al.*, 2013); slit trenches tend to be only a few metres in length and are often found in clusters. It is the anti-glider ditches that can be confused with the cross dykes; these tend to be cut across flat areas of the ridge in series of parallel ditches or a V shaped configuration (Carpenter, *et al.*, 2013). While there are still some military earthworks in this area the large-scale anti-invasion defences like anti-glider ditches are absent.

The Area

The report covers the area of the South Downs from the River Adur to the River Arun (Figure 3); between the downs and the coast is the coastal plain much of which is urbanised, obscuring the archaeological evidence. The north edge of the downs consists of a steep scarp slope with short, steep-ended spurs protruding northwards and gentler southerly ones continuing down to the coastal plain. This block of downland is divided by the Findon valley, a dry valley providing a route between the Weald and the coast. The current land use changes emphasis from grazing, seen in the areas to the east of the river Adur, to arable; consequently, the action of ploughing has obscured parts of or the entirety of some of the cross-dykes.

The area contains a greater number of known settlements and hillforts than the previous three areas covered during this project (Eastbourne to Cuckmere, Cuckmere to Ouse and Ouse to Adur), it is not clear whether this is an accurate reflection of the position or subject to the randomness of archaeological discovery. Our view is that due to the extensive coverage of field systems the length of the downs there should be a larger number of sites indicating the places where those tending the fields resided.

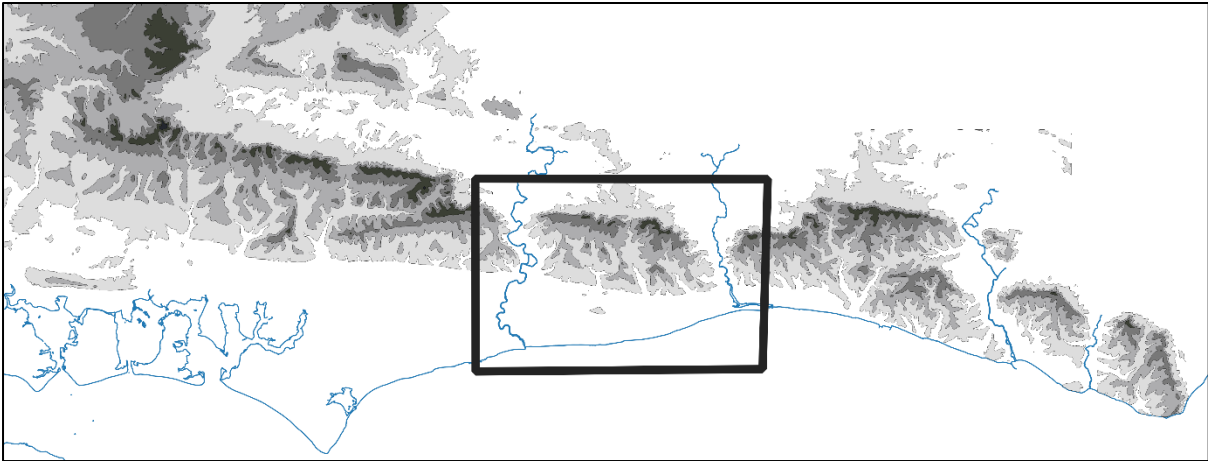


Figure 3. The area between the rivers Arun and Adur covered by the interim report.

The Cross Dykes

Table 1. is a list of recorded cross-dykes taken from the HER and NMR records with their associated monument number. Table 2. is a list of possible cross-dykes observed during the project, Figure. 4 illustrates the distribution of the dykes.

Table 1. List of cross-dykes from the West Sussex HER and Monument No.

| Name | HER No. | NMR No. | Monument No. | Type | Project Number |
|----------------------|----------|-------------|--------------|-------------|----------------|
| Barns Farm Hill East | MWS 1168 | TQ 11 SW 20 | 396498 | Cross-ridge | 123 |
| Barnsfarm Hill West | MWS 1169 | TQ 11 SW 21 | 396501 | Cross-ridge | 122 |
| Barpham Hill | MWS 6398 | TQ 00 NE 46 | 392612 | Cross-spur | 143 |
| Chanctonbury East | MWS 6455 | TQ 11 SW 23 | 396505 | Cross-ridge | 65 |
| Chanctonbury West | MWS 6454 | TQ 11 SW 22 | 396502 | Cross-ridge | 64 |
| Chantry Hill | MWS 6432 | TQ 01 SE 32 | 393110 | Cross-spur | 135 |
| Highden Hill | MWS 1167 | TQ 11 SW 19 | 396495 | Cross-ridge | 124 |
| Lions Bank | MSW 1209 | TQ 11 SE 32 | 396354 | Cross-spur | 80 |
| New Hill Barn | MSW 5610 | TQ 10 NE8 | 395404 | Cross-spur | 83 |
| Pepperscombe | MWS6457 | TQ 11 SE 13 | 396281 | Cross-Spur | 77 |
| Perry Hill | MWS 657 | TQ 00 NE 18 | 392560 | Cross-spur | 149 |
| Rackham Banks | MWS 6422 | TQ 01 SE 6 | 393074 | Cross-ridge | 137 |

| Name | HER No. | NMR No. | Monument No. | Type | Project Number |
|--------------------------|----------|--------------|--------------|-------------|----------------|
| Rackham Hill | | TQ 01 SE 118 | 1457113 | Half-ridge | 170 |
| Springhead Hill | MWS 6438 | TQ 01 SE 34 | 393116 | Cross-ridge | 138 |
| Steep Down North | MWS 1059 | TQ 10 NE 10 | 395412 | Cross-spur | 81 |
| Steep Down South | MWS 1057 | TQ 10 NE 5 | 395395 | Cross-spur | 82 |
| Steyning Round Hill East | MWS 445 | TQ 11 SE 108 | 1444245 | Cross-spur | 79 |
| Steyning Round Hill West | MW S6458 | TQ 11 SE 15 | 396287 | Cross-spur | 78 |
| Sullington Hill | MWS 518 | TQ 01 SE 9 | 393079 | Cross-spur | 134 |
| The Burgh | MWS 2761 | TQ 01 SW 16 | 393242 | Cross-spur | 66 |
| Tolmare | MWS 7109 | TQ 10 NW 13 | 395621 | Cross-spur | 40 |
| Wepham Down | MWS 6400 | TQ 00 NE 53 | 392621 | Contour | 144 |
| Wiston Barn | MWS 1209 | TQ 11 SE 16 | 396290 | Cross-ridge | 76 |

Table 2. Possible further cross-dykes

| Name | National Grid Reference | Type | Project Number |
|--------------------------|-------------------------|------------|----------------|
| Muntham Court | TQ 11124 09362 | Contour | 39 |
| Muntham Court Well House | TQ 10840 09515 | Cross-spur | 176 |
| Chanctonbury Hill | TQ 12956 11799 | Cross-spur | 174 |

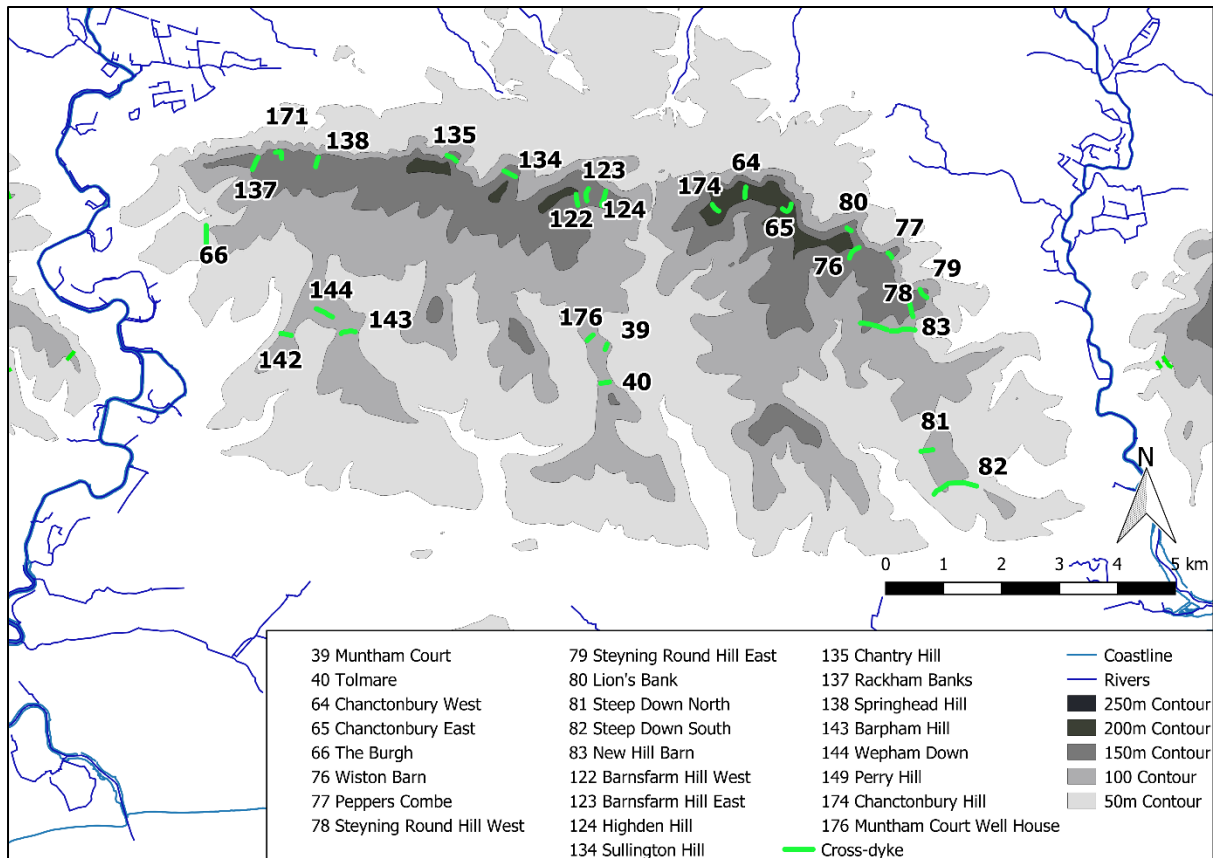


Figure 4. Distribution of the Arun-Adur cross-dykes.

Dyke descriptions

Barns Farm Hill East (123)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|----------------|--------|
| MWS 1168 | TQ 11 SW 21 | 396501 | TQ 10766 11995 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 232m | 12.0m | 6.0m | 0.1m | 0.1m |

The Cross-ridge dyke has been ploughed out and is only visible as a slight dip as it crosses the South Downs Way, the measurements used have been taken from this area; Curwen's note book in the Sussex Archaeological Society's library (Curwen, n.d.) gives the measurements prior to the destruction of the cross-dyke as: Length-925ft (281m), Overall width-25ft (7.6m), Width of bank-15ft (4.6m), Width of ditch-4ft (1.2m), Height of bank- 3ft (0.9m).

Barns Farm East is the central dyke of three closely grouped dykes that cross the ridge impeding movement along the ridge, the others being Barns Farm West (122) to the west and Highden Hill (124) to the east (Curwen, 1951). The cross-dyke runs alongside a now ploughed out barrow (MWS 1162), the exact relationship between the two features is unclear. A length of the cross-dyke has been reused and now forms part of the current parish boundary.

Barns Farm Hill West (122)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|----------------|--------|
| MWS 1168 | TQ 11 SW 21 | 396501 | TQ 10602 11988 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 232m | 12.0m | 6.0m | 0.1m | 0.1m |

The western most of the group of three cross-ridge dykes, (123) and Highden Hill (124), like the others it too has been ploughed out and is only visible on the ground as a slight depression as it crosses the South Downs Way but is visible as a crop mark on aerial photos. The cross-dyke runs north-south on the southern slope of the ridge; 85m away on the top of the ridge is a possible settlement site dated to the 'Iron Age' (MWS 5640).



Figure 5. Barpham Hill cross-dyke looking west.

Barpham Hill (143)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------------------------------------|
| MWS 6398 | TQ 00 NE 46 | 392612 | TQ 06540 09580 - TQ 06784 09614 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 258m | 20.5m | 11.5m | 2.0m | Up Hill 2.4m Down Hill 0.5m |

This cross-spur dyke (Figure. 5) is sited in a saddle between two high points on Barpham Hill and is the eastern one of three cross-dykes (Perry Hill (149) and Wepham Down (144)) that surround the top of

the valley that leads up to Barpham Hill/ Wepham Down. The cross-dyke straddles the spur which runs down to Angmering, in doing so restricts movement along the spur. The eastern end of the cross-dyke is cut by a sunken trackway leaving a clear cross-section of the dyke, on the western side of the spur the feature becomes a large lynchet with a small ditch and bank.

Chanctonbury East (65)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 6455 | TQ 11 SW 23 | 396505 | TQ 14310 11820 - TQ 14143 11746 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 268m | 10.0m | 6.0m | 0.8m | 0.5m |

This is an unusual cross-ridge dyke in that it is constructed in an arc around several barrows situated on a slight rise on the top of the ridge. An easier place to build a cross-dyke would be just to the west of the barrows, across the narrowest point of the ridge, instead the cross-dyke runs around and between the barrows (Figures 6 & 22), including some of the barrows within the Chanctonbury area and excluding others. A lynchet run southwards, along the side of a spur, from the southern end of the cross-dyke, at the intersection the ground has been disturbed by an old trackway. The lynchet is recorded in the HER as part of the cross-dyke but is probably a separate feature.



Figure 6. Curved section of Chanctonbury East cross-dyke.

Chanctonbury Hill (174)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| | | | TQ 12949 11812 - TQ 13057 11698 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 165m | 6.0m | 3.0m | 0.1m | 0.1m |

A possible cross-spur dyke that is the westernmost cross-dyke of the three dykes at Chanctonbury. The bank and ditch are very slight and are best seen from the track below the feature, showing up as a crop mark. This cross-dyke would not be visible by travellers approaching from either side until close but would be visible from across the valley.



Figure 7. Chanctonbury West looking north to top of ridge.

Chanctonbury West (64)

| HER | NMR | Monument No. | NGR | | | | | |
|--------------------|---------------|---------------|---------------------------------|------|--------|------|------|--|
| MWS 6454 | TQ 11 SW 22 | 396502 | TQ 13527 12112 - TQ 13511 11933 | | | | | |
| Approximate Length | Overall Width | Ditch Width | Depth | | Height | | | |
| 180m | 13.0m | 5.5m | 1.0m | 0.1m | 0.6m | 0.1m | 0.1m | |
| | North 6.0m | North 2.5m | | | | | | |

This cross-spur dyke, together with the Chanctonbury East (65) cross-dyke bracket an area of the ridge that includes the Chanctonbury 'hillfort' (MWS 7319) (Figure 22). As with the Chanctonbury East cross-dyke this dyke is not sited at the narrowest point but positioned slightly to the west and divides a barrow cemetery (Tibble, 2008) to those within the 'hillfort' area and those excluded from the area.

The siting of the cross-dyke makes it clearly visible from all direction except the east, the dyke to the north of the ridge abruptly decreases in size. The section across the dyke excavated in 1977 (Bedwin, 1980) produced a sherd of Romano-British pottery. The cross-dyke (Figures 7 & 22) and surrounding areas exhibit evidence of extensive disturbance.

Chantry Hill (135)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MW S6432 | TQ 01 SE 32 | 393110 | TQ 08456 12639 - TQ 08491 12606 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 202m | 15.0m | 4.5m | 0.5m | 0.9m |

This typical cross-spur dyke is situated on a spur that protrudes northwards from the scarp slope and overlooks the Sullington Warren Barrow cemetery and the Weald. Iron Age pottery and iron slag found on the ridge above the cross-dyke has been interpreted as locating an occupation site (MWS 2838).



Figure 8. Chantry Hill cross-dyke looking east to Sullington Hill.

Highden Hill (124)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 1167 | TQ 11 SW 19 | 396495 | TQ 11115 12046 - TQ 11039 11788 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 260m | 18.8m | 1.8m | 0.7m | 0.7m |

This now ploughed out cross-spur dyke was surveyed by Curwen E. and Curwen E.C. (Curwen & Curwen, 1918; Curwen, 1951) and is now only visible in aerial photographs. The measurements are taken from the Curwen's survey. The Highden hill cross-dyke is the eastern most of a group of three cross-spur dykes that cut the ridge, the others being Barns Farm Hill East (123) and Barns Farm Hill

West (122), As with Barns Farm East runs close to a now ploughed out barrow (MWS 1161) their relationship is also unclear.

Lion's Bank (80)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|-----------------------------|--------|
| MSW 1209 | TQ 11 SE 32 | 396354 | TQ 1535 1136 - TQ 1528 1139 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 56m | 6.0m | 3.0m | 0.5m | 0.5m |

This short cross-spur dyke is situated on a spur that protrudes northwards from the scarp slope. Sited below a very steep slope with good views to the Weald, this cross-spur dyke further restricts access up a very steep spur and would be clearly visible when approaching from the Weald, warning that this spur was not suitable to access the downs. The Wiston Barn (76) cross-ridge dyke is situated to the east of the high point on the ridge above the spur. Pepperscombe (77) cross-spur dyke is situated on the adjacent spur to the west.



Figure 9. Muntham Court looking south.

Muntham Court (39)

| HER | NMR | Monument No. | | NGR | | |
|--------------------|---------------|---------------|---------------|---------------------------------|---------------|--------|
| | | | | TQ 11132 09400 - TQ 11096 09308 | | |
| Approximate Length | Overall Width | Ditch Width | | Depth | | Height |
| 98m | 14.0m | Lower 4.0m | Upper 5.0m | Lower 0.3m | Upper 0.10 | 0.4m |

A previously unrecognised contour dyke crossing a field system and several trackways. Situated on the eastern slope below the Early Iron Age settlement site of Muntham Court (MWS5598) and looks towards Cissbury Rings 'hillfort' and the Findon valley. Excavations took place on the settlement site by Holleyman & Burstow (1955; 1957) and are described by Historic England on their web site as a "defended settlement" (2018). The dyke appears to consist of two ditches with a central bank but may not be a single feature. (Figure 9).

Muntham Court Well House (176)

| HER | NMR | Monument No. | | NGR | | |
|--------------------|---------------|--------------|--|-------|--|--------|
| | | | | | | |
| Approximate Length | Overall Width | Ditch Width | | Depth | | Height |
| 140m | | | | | | |

A possible cross-spur dyke cutting the spur to the north of the Early Iron Age settlement site of Muntham Court (MWS5598) limiting north-south movement between the scarp ridge and the Muntham Court settlement. This possible cross-dyke was not seen on the ground due to extensive disturbance in the area but seen on aerial photographs (CPE/UK 1751 21SEP46 F/20"//541 SQDN 4113).

New Hill Barn (83)

| HER | NMR | Monument No. | | NGR | | |
|--------------------|---------------|--------------|--|-----------------------------|--|--------|
| MSW 5610 | TQ 10 NE8 | 395404 | | TQ 1623 0965 - TQ 1637 0965 | | |
| Approximate Length | Overall Width | Ditch Width | | Depth | | Height |
| 965m | | | | | | |

A long, ploughed out, cross-spur dyke that crosses two north-south spurs, the apparent break in the dyke as it crosses the intervening valley might be the effect of colluvium covering that section. Together with the Steyning Round Hill West (78), Pepperscombe (77) and Wiston Barn (76), cross-dykes enclose a high point on this corner of the downs. The segment of the dyke that crosses the western of the two spurs separates the LBA/EIA settlement at Park Brow (MWS 5177/MWS 5178/MWS 5120) from the ridge. The western section is also known as Elliot's Dyke.

Pepperscombe (77)

| HER | NMR | Monument No. | | NGR | | |
|--------------------|---------------|--------------|--|---------------------------------|--|--------|
| MSW 1209 | TQ 11 SE 13 | 396281 | | TQ 16045 10899 - TQ 15979 10973 | | |
| Approximate Length | Overall Width | Ditch Width | | Depth | | Height |
| 140m | 8.0m | 8.0m | | 0.8m | | 0.50m |

This is a large cross-spur dyke that spans the entire spur at its narrowest point and is directed towards the Weald. Part of the cross-dyke is being eroded by recreational activities. Together with the New Hill Barn (83), Steyning Round Hill West (78) and Wiston Barn (76) cross-dykes, it encloses two high

points on this corner of the downs, the highest point is situated on the ridge above the Pepperscombe cross-dyke and is the site of a barrow cemetery.

Perry Hill (149)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|----------------|--------|
| MWS 657 | TQ 00 NE 18 | 392560 | TQ 05770 09570 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| | | | | |

Another ploughed out cross-spur dyke only visible on aerial photos, so we were unable to take any measurements. The Perry Hill cross-dyke inhibits movement along the spur to and from the River Arun and together with the Barpham Hill (143) and Wepham Down (144) cross-dykes surround the top of a valley known as ‘Loagden’ (Curwen & Curwen, 1922) that also runs down to the river Arun. These cross-dykes would not become visible to travellers from the south until close to the feature but are visible from the north.



Figure 10. Rackham Banks looking south towards the coast.

Rackham Banks (137)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 6422 | TQ 01 SE 6 | 393074 | TQ 05105 12616 - TQ 05025 12457 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 232m | 22.0m | 13.0m | 2.0m | 2.0m |

Rackham Banks is a large and wide cross-spur dyke that could fit the description of ‘covered way’ as it is wide enough to drive a cart along (Figure 10) (it may have been widened in later years). At its northern end is a mound identified as a “siege castle thrown up by Henry I” (Curwen, 1932) (Figure

11), against the southwest section is a, Late Bronze Age/Early Iron Age, Itford Hill type settlement excavated by Curwen and Allcroft, it appears that the bank of the cross-dyke overlies part of the settlement (1932, p. Fig. 4&5) (Figure 12). The cross-dyke can be clearly seen from across the river Arun at Bury Hill but not when approaching from the east, it is also visible from the coastal plain by the mouth of the river Arun.



Figure 11. Mound at northern end of Rackham Banks.



Figure 12. Approaching Rackham Banks from the west with settlement at the south end.

Rackham Hill (170)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|--------------------------------|--------|
| | TQ 01 SE 118 | 1457113 | TQ 05514 12622- TQ 05471 12734 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 215m | 10.5m | 6.0m | 0.7m | 0.7m |

This is a half-ridge dyke running down the northern side of the hill and starts down the scarp slope before turning westwards along the contour. Part of it forms part the eastern side of an enclosure that is not visible on the ground but shows on Lidar. Castle Hill (156) is another example of the reuse of a cross-dyke being used or reused as an enclosure boundary. The cross-dyke has clear views to the west with the cross-dykes at Glatting Down and Tegleaze visible and to the north the barrow cemetery at Rackham Plantation and the Weald are clearly visible (Figure 13) and the cross-dyke would likewise be visible from these places.



Figure 13. Rackham Hill from the top of the ridge looking north to the Weald.

Springhead Hill (138)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 6438 | TQ 01 SE 34 | 393116 | TQ 06099 12468 - TQ 06122 12546 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 144m | 9.5m | 6.5m | 0.8m | 0.8m |

A cross-ridge dyke in the ridge of the downs, controlling east-west movement. The dyke has good views across to the Weald and while the southern end is currently in woodland it would have good views to the south. The north end of the cross-dyke ends just over the scarp edge as two ditches with a central bank (Figure 14), the area where the single ditch divides into two separate ditches is ploughed out so obscuring the join. This cross-dyke is visible from the coastal plain by the mouth of the river Arun.



Figure 14. Springhead Hill's two ditches with a central bank extending over the edge of the scarp slope.

Steep Down North (81)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 1059 | TQ 10 NE 10 | 395412 | TQ 16558 07556 - TQ 16748 07581 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 200m | 12.9m | 5.5m | 0.6m | 0.3m |

Steep Down North as it is visible today, is a half-spur dyke emerging from below a large lynchet near the top of Steep Down running westwards downhill (Figure15); the six-inch 1842-1952 Ordnance



Figure 15. Steep Down North looking west down the slope.

Survey map (Sussex LXIV.NE surveyed 1860-75, revised 1896) (National Library of Scotland, n.d.), shows it starting on the eastern slope of the hill then arcing around the summit before turning westwards down the hill as the section we can see today. The entirety of the dyke is described in Curwen's notebooks (Curwen, n.d.):

- 'An earthwork runs south-westwards along the NW slope of Steep Down, starting on the north-east above the Steyning / Lancing road, opposite the head of the valley above Coombs. In this part of its course it consists of a bank downhill and a ditch uphill. After 900ft it turns sharply downhill towards the west, and here presents a bank on either side of the ditch, the northern bank being continuous with the bank belonging to the first part of its course, while the southern bank starts abruptly at the corner. Its westwards course extends for from 500ft to 600ft and fades away. If it is a covered way it evidently led from the valley above Coombes on the east to the valley in which Lychpole Farm is situated on the west'
- Sketched section gives measurements:
 - Univallate portion
 - Overall length 900ft (274.3m)
 - Overall width 33ft (10.1m)

- Bank width 12ft (3.6m)
- Ditch width 21ft (6.4m)
- Ditch depth 3ft (0.9m)
- Bivallate portion
 - Overall length 550ft (167.6m)
 - Overall width 41ft (12.5m)
 - Northern bank width 17ft (5.2m)
 - Southern bank width 20ft (6.1m)
 - Ditch width 4ft (1.2m)
 - Ditch depth 3ft (0.9m)

Steep Down South (82)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|-----------------------------|--------|
| MWS 1057 | TQ 10 NE 5 | 395395 | TQ 1673 0677 - TQ 1742 0697 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 771.m | 14.5m | 6.0m | 1.0m | 0.4m |

Lies on the south side of Steep Down at a point where the steep slope from the summit of the hill levels out along the ridge, as with Steep Down North (81) above only the western half of the original feature as illustrated by the 1842-1952 Ordnance Survey map (Sussex LXIV.NE surveyed 1860-75, revised 1896) (National Library of Scotland, n.d.) is visible today Figure 16), and is described in Curwen's notebook (Curwen, n.d.):

- 'Extending from the valley near Titch Hill Farm (Sompting) on the west, an earthwork runs across the SW shoulder of Steep Down, dips down into a small valley between that and the SE shoulder, rises onto the SE shoulder and runs along it to a point 1200ft short of Lancing Clump, where it turns to the left at right angles, and after 100ft disappears where it is cut by the hard greenway which runs along that ridge. Beyond this point the brighter green of the grass betrays its ditch another 200ft or so as far as the brow of the hill above Cow Bottom'

- Overall length 4200ft (1280.2m)
- Overall width 60ft (18.3m)
- Depth of ditch below N bank 7ft (2.1m)
- Depth of ditch below S bank 5ft (1.5m)



Figure 16. Steep Down South looking west.

Steyning Round Hill East (79)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 445 | TQ11SE14 | 396284 | TQ 16530 10350 - TQ 16640 10210 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 200m | | | | |

As with many of the archaeological features in this area the Steyning Round Hill East cross-spur dyke is now only visible on aerial photographs. The eastern one of two cross-dykes on this spur, is constructed to avoid a barrow, in doing so appears to exclude the barrow from the area enclosed by the New Hill Barn (83), Steyning Round Hill (78/79) Pepperscombe (77) and Wiston Barn (76) cross-dykes.

Steyning Round Hill West (78)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 6458 | 396287 | TQ11SE15 | TQ 16340 10290 – TQ 16410 09880 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 380m | 10m | 6m | 0.5m | 0.5m |

Another of the ploughed out cross-dykes in the Round Hill area, this one is uphill from the Steyning Round Hill East cross-dyke and cuts across the entire width of the top of the spur, forming one of the cross-dykes enclosing the top of the hill (see above).

Sullington Hill (134)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 518 | TQ 01 SE 9 | 393079 | TQ 09494 12329 - TQ 09373 12384 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 176.0m | 16.0m | 9.6m | 1.4m | 1.2m |

Sullington Hill is a cross-spur dyke on the adjacent spur to the Chantry Hill (135) (Figure 17) also overlooks the Sullington Warren Barrow cemetery below the spur (Figure 18) and has clear views of the Weald. The spurs running southwards from these two cross-dykes lead to the settlement sites of Blackpatch Hill, Cock Hill, Harrow Hill and New Barn Down.



Figure 17. View from Sullington Hill to the Chantry Hill cross-dyke.

The Burgh (66)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 2761 | TQ 01 SW 16 | 393242 | TQ 04270 11090 - TQ 04210 11450 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 415m | | | | |

This cross-spur dyke has been completely ploughed out and is not visible on the ground, the details are from the West Sussex HER.



Figure 18. View from the Sullington Cross-dyke to the Sullington Barrow Cemeteries on the Greensand.

Tolmare (40)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 7109 | TQ 10 NW 13 | 395621 | TQ 11020 08720 - TQ 11170 08750 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 156m | | | | |

Sited on the northern slope of Church Hill overlooking the Muntham Court LBA/EIA settlement. This cross-spur dyke divides the spur restricting movement between the Muntham Court settlement and the barrow cemetery on the summit of Castle Hill.

Wepham Down (144)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|--------------------------------|--------|
| MWS 6400 | TQ 00 NE 53 | 392621 | TQ 06140 10010 - TQ 06410 0980 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 316m | 17.5m | 9.0m | 1.0m | 2.0m |

Described in the HER as a linear boundary Wepham Down exhibits all the features of a contour-dyke for most of its length (Figure 19), the eastern end changes form and appears to be a separate lynchet. Sited above the end of the valley known as 'Loagden' above a field system, it is one of three cross-dykes (Barpham Hill (143) and Perry Hill (149)) that ring the end of the valley.



Figure 19. The Wepham Down Cross-Dyke, Looking West.

Wiston Barn (76)

| HER | NMR | Monument No. | NGR | |
|--------------------|---------------|--------------|---------------------------------|--------|
| MWS 1209 | TQ 11 SE 16 | 396290 | TQ 15340 10980 - TQ 15480 11070 | |
| Approximate Length | Overall Width | Ditch Width | Depth | Height |
| 180m | | | | |

A cross-ridge dyke that crosses the ridge between the spurs that contain the Lions Bank (80) to the west and Pepperscombe (77) to the east. This dyke forms the western end of a group of cross-spur dykes delimiting the high point, with a barrow cemetery on the north-eastern corner of this block of the downs.

Cissbury

HER MWS 3176, NMR TQ 10 NW 6, Monument No. 395606, refers to a cross-dyke extending out from the southwest portion of the outer rampart. The HER questions the accuracy of the original designation, having identified the position of the feature we were unable to see any sign of a cross-dyke on the ground but noted that the land is disturbed by animal activity, consequently we have not used it as part of our project.

Discussion

This area can be divided in two with the Findon valley as the division (Figure 4), each area appears to have different characteristics. East of the Findon valley the cross-dykes appear to form groups defining either high points and/or barrow cemeteries. While west of the Findon valley, several cross-dyke could be formed into groups, there is no clear evidence of any attempt to surround any settlement/high point/barrow cemetery, although several cross-dykes can be associated with settlements and barrow cemeteries.

East of the Findon valley

The group of cross-dykes around the northeast corner of the downs above Steyning, Pepperscombe, New Hill Barn, Steyning Round Hill West and Wiston Barn, enclose a number of barrows sited on a high point above Pepperscombe, so restricting access to the barrows (Figure 20). New Hill Barn also cuts the spur leading to the Late Bronze Age/Early Iron Age settlements and associated field system on Park Brow (MWS5177), it is unclear how this cross-dyke interacted with the settlement.

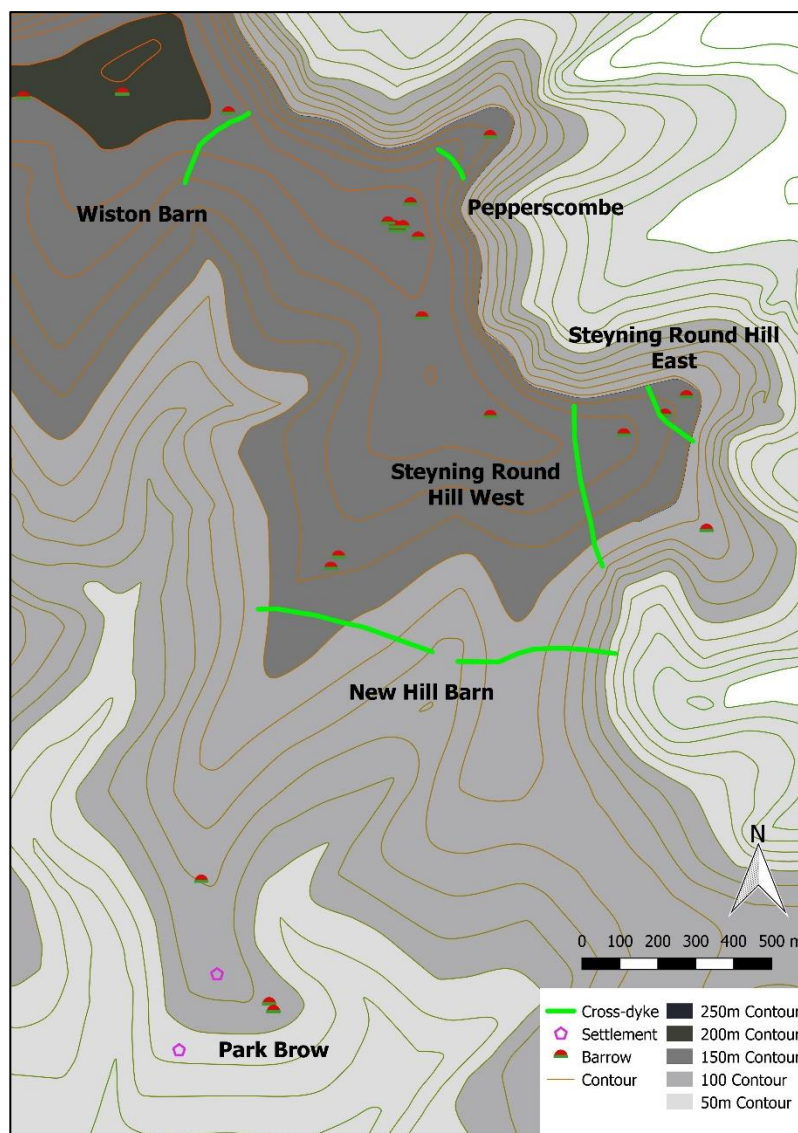


Figure 20. Cross-dykes restricting access to Barrow Cemetery.

A clearer assumption can be made about the cross-spur dykes ringing this corner of the downs; Lions Bank, Pepperscombe, and both Steyning Round Hill East and West are directed outwards from this corner and restrict access up these spurs. While the Steyning Round Hill cross-spur dykes would not be visible from directly below the spur, the dykes would be clearly visible from the Weald and the northern ridge of the downs across the river Adur (Lea, et al., 2018). This pattern seen elsewhere along the scarp ridge (Lea, et al., 2016; Lea, et al., 2017) suggests that these cross-spur dykes serve as markers in the landscape indicating unsuitable or prohibited routes directing travellers to approved access points as seen on the ridge overlooking Eastbourne (Lea, et al., Accepted for publication in SxAC). Lions Bank situated below a very steep section of spur that would certainly not be a suitable route up onto the downs, while the others restrict access to the barrow cemetery.

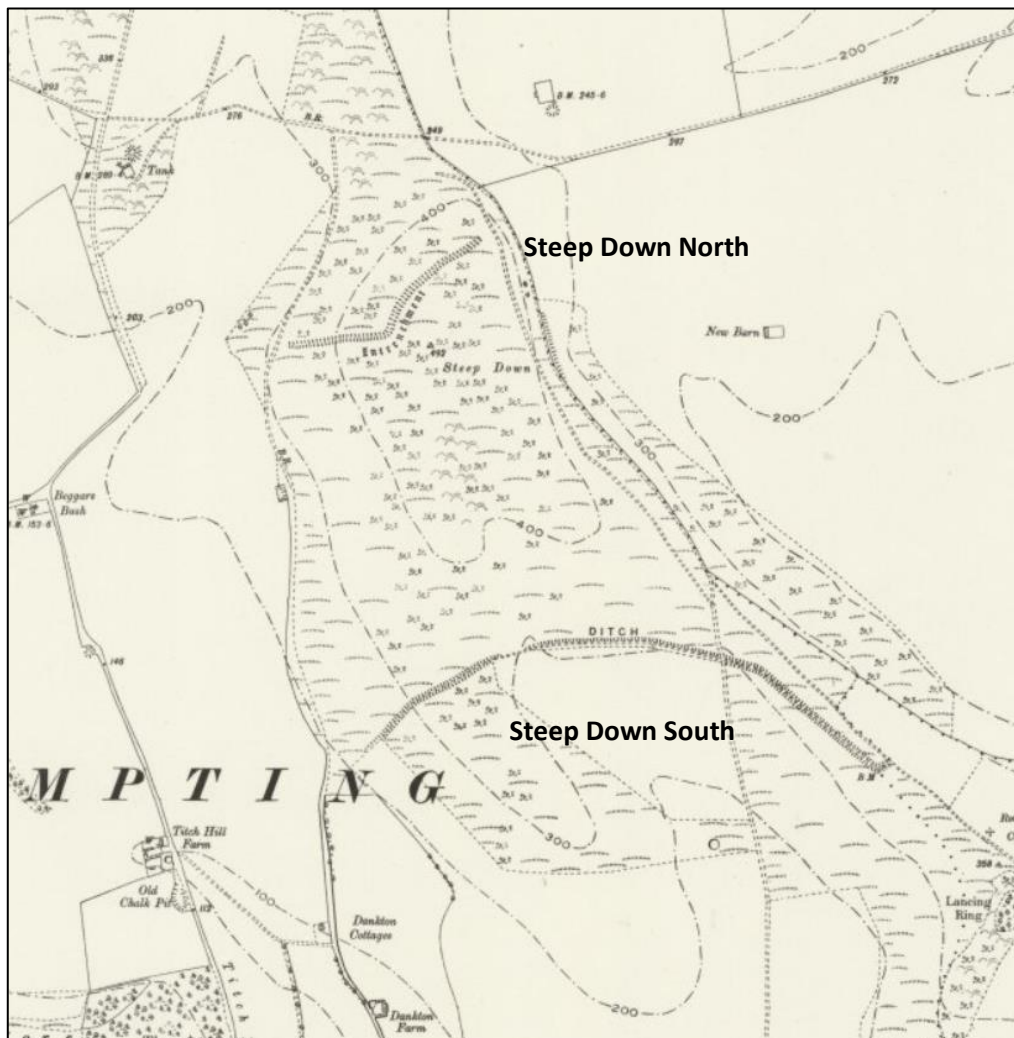


Figure 21. Steep Down North and South cross-dykes on the 1896 Ordnance Survey map. Reproduced with the permission of the National Library of Scotland

South of the Steyning group, the two Steep Down cross-dykes are positioned to enclose the summit, south and western slopes of the hill, these cross-dykes predominantly overlook the valley to the west rather than be visible from the river Adur or from the downs to the east. Only the western portions of the cross-dykes survive today, the full extent of the features are depicted in the 1842-1952 Ordnance Survey Six-inch map of England and Wales (Sussex LXIV.NE surveyed 1860-75, revised 1896).

Two cross-ridge dykes enclose the area around Chanctonbury; to the east Chanctonbury East (65) crosses the ridge not across the adjacent narrow point but makes an exaggerated arc around a slight high point and cuts a barrow cemetery (Figure 22). The southern end of the cross-dyke starts at a lynchet that runs parallel to a southerly spur runs in an arc excluding the spur from the enclosed area but cutting through a barrow cemetery so including some of the barrows within the enclosure, before swinging northwards to the scarp slope. Is this a deliberate move to discriminate between different sets of ancestors?

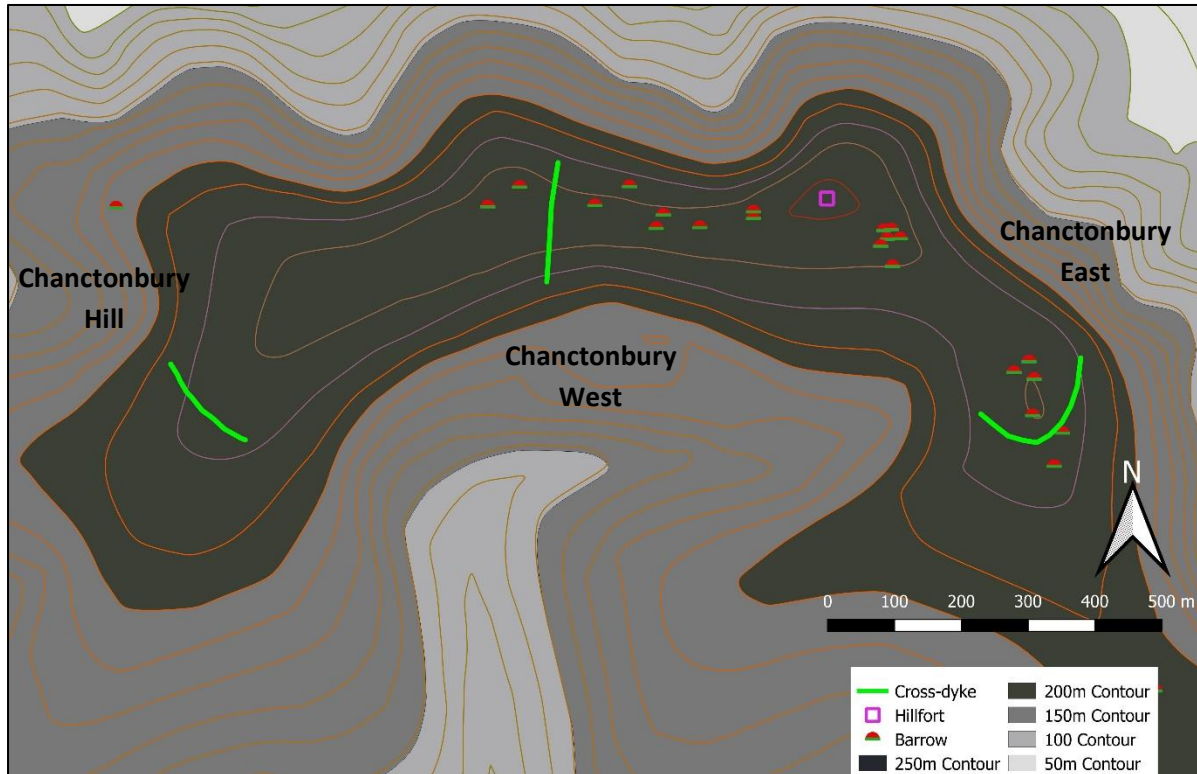


Figure 22. Chanctonbury Cross-dykes cutting barrow cemeteries/isolating high point/restricting movement along ridge.

To the west of Chanctonbury lies a very disturbed cross-dyke (Chanctonbury West (64)) running across the ridge, the centre section is substantially larger than either end and might demonstrate later activity. A trench across the dyke, excavated in 1977, produced a single sherd of Roman pottery from under the bank (Bedwin, 1980). This cross-dyke like the Chanctonbury East dyke is sited away from the narrowest point of the ridge and cuts a linear barrow cemetery echoing the possibility that the dykes are sited to include some barrows while excluding others from the enclosed area.

Two cross dykes hamper access to Chanctonbury along the spurs from the Findon valley, though they would not be visible from the valley itself, knowledge of the presence of the cross-dykes would be needed to prevent a wasted journey, access across these dykes would be necessary for the users of Chanctonbury to avoid a steep climb up the scarp slope or valleys.

West of the Findon valley

The nature of the cross-dykes between the Findon valley and the river Arun are totally different to those east of the Findon valley, while those to the east appear to enclose areas, those to the west are

confined to the periphery of the downs and appear to act to deter ingress except along permitted routes.

Proceeding westwards up to the scarp ridge from the Findon valley your progress would be hampered by a group of three cross-ridge dykes (Highden Hill (124), Barns Farm Hill East (123) and West (122)), the first dyke encountered covers the top of the ridge while the other two are biased towards the south side of the ridge and all three would probably have been visible to those travelling up the Findon valley from the coastal plain (Figure 23).

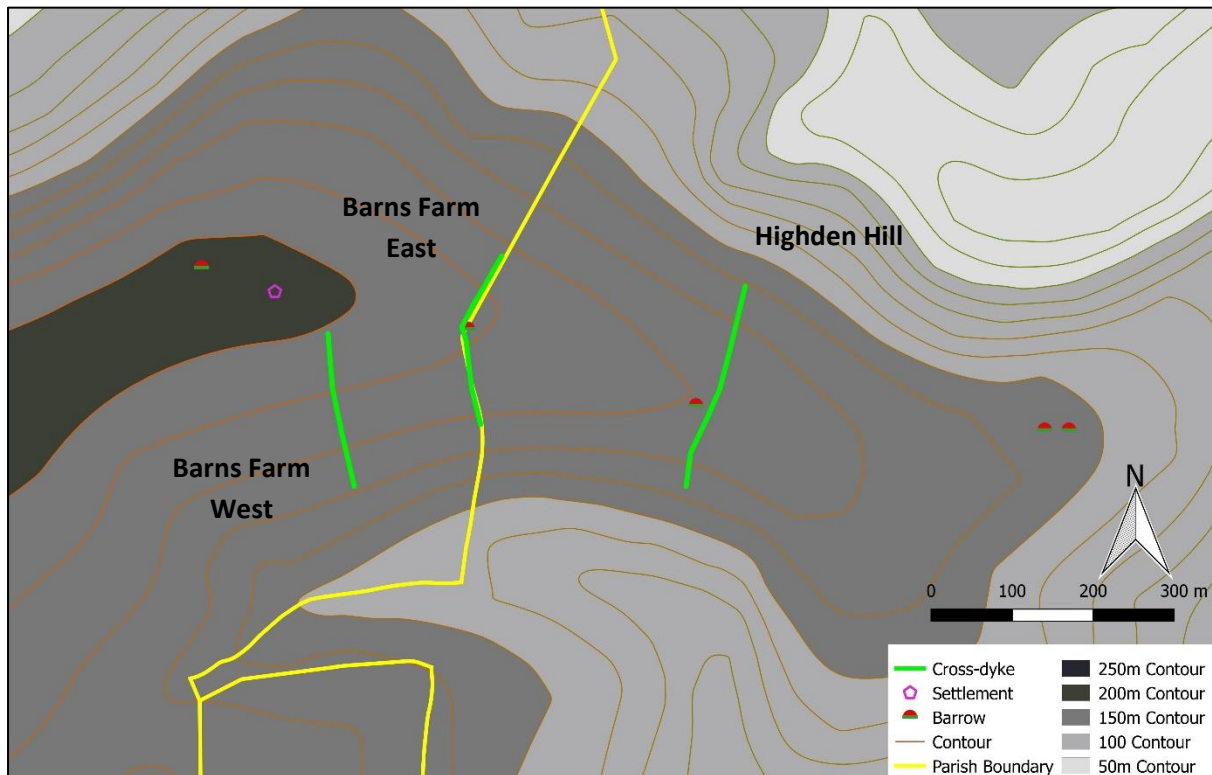


Figure 23. Cross-dykes hindering movement westwards from the Findon valley and illustrating reuse as a parish boundary.

Only two of the spurs protruding northwards from the scarp slope appear to have cross-spur dykes, Sullington Hill (134) and Chantry Hill (135), both dykes overlook the barrow cemetery at Sullington Warren (Figure 24) and the Weald. It is not known where the settlements on the greensand are located so we are unable to assess the relationship between the cross-dykes and any local settlement.

Further along the ridge lies Springhead Hill (138) that spans the top of the ridge and runs northwards to just over the edge of the scarp slope making it visible from the Weald and is far enough over the ridge to have good views to and be seen from the south and river Arun. By cutting the ridge the dyke forms an obstruction but whether it encloses anything or forms a tribal/clan/territorial/farm boundary is not clear.

Close to the summit of Rackham Hill a half-dyke runs down the northern side of the ridge and part of the way down the slope before turning westwards along the contour. This is the only half-ridge dyke in the area and part of which is used as the eastern boundary of an enclosure, the phasing of the two features is unclear as the enclosure was not seen but its existence is seen on lidar images and has been

reported by earlier investigators (pastscape.org.uk, n.d.). The cross-dyke has extensive views to the west through north around to the northeast and overlooks the Rackham Plantation barrow cemetery to the north and the Glatting Down cross-dyke is visible 8.6km to the west.

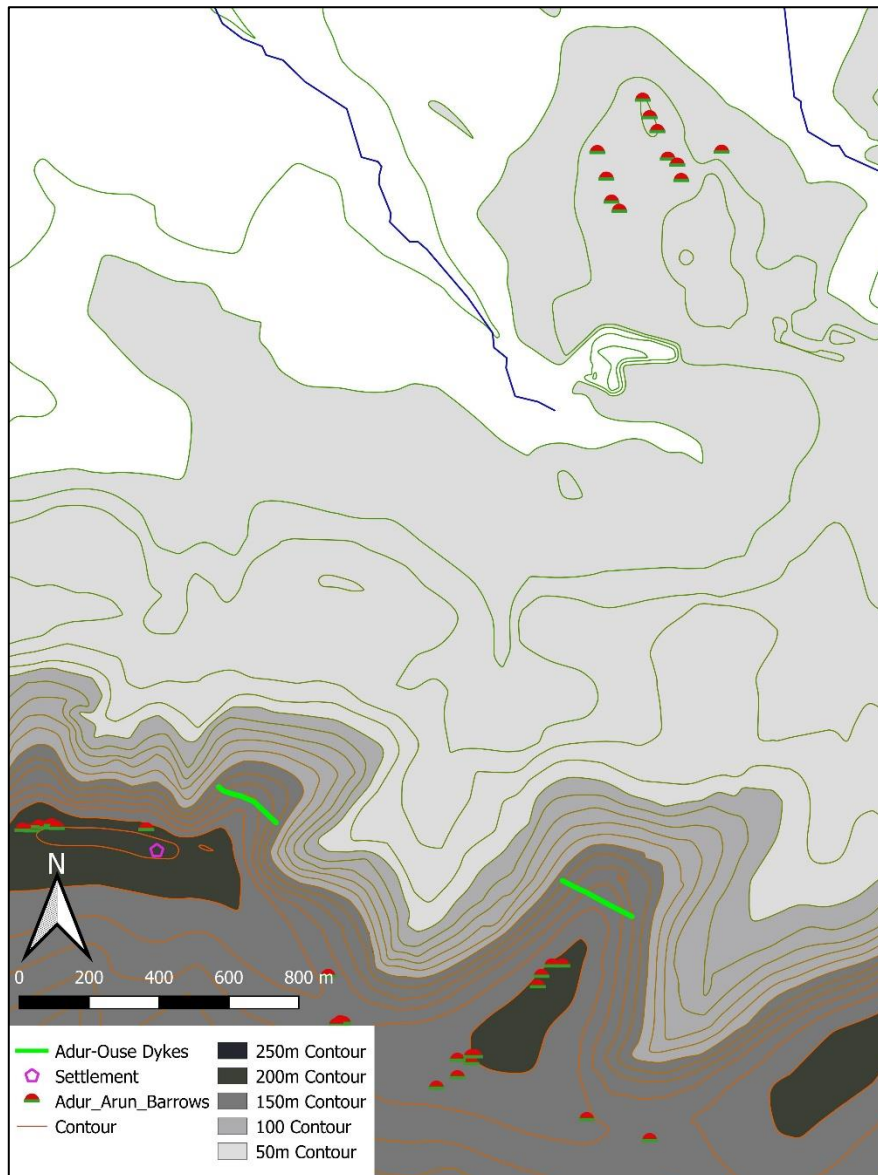


Figure 24. Sullington Hill (134) and Chantry Hill (135) Cross-spur dykes overlooking barrow cemetery at Sullington Warren.

The spur that runs from the north-western end of the ridge down to the River Arun is cut by the Rackham Banks (137) cross-ridge dyke, like the Highden Hill and Chanctonbury West cross-ridge dykes either side of the Findon valley, and the Steyning Round Hill dykes that overlook the river Adur at the east end of this section of the downs, Rackham Banks restricts movement onto or off the high ground. The siting of this cross-dyke gives it a good view of many the dykes sited above the far banks of the river Arun and is clearly visible from these sites, the grass covered bank of the cross-dyke is still impressive today when approached from the west (Figure 12). The size and width of the cross-dyke suggest that it has been recut (Figures 10 & 11), the site plan of the excavation of the settlement site at the southern end of the dyke suggests that the dyke's bank overlays part of the settlement (Curwen,

1932). The recut of the dyke may relate to the purported Henry I siege castle (Curwen, 1932) situated on the edge of the scarp slope.

The Burgh (66) cross-spur dyke cuts another spur that leads down to the river Arun, the spur would provide an alternative route to the possible crossing point across the river. This now ploughed out cross-dyke is easily bypassed and would not have acted as an effective barrier.

The Barpham Hill (143), Perry Hill (149) and Wepham Down (144) cross-dykes surround the head of Loagden valley but would not be visible to travellers coming either up the valley or along the spurs from the south until they neared the dykes but would be visible from Springhead Hill on the scarp ridge.

Settlements

The area between the rivers Adur and Arun has more recognised settlements than the areas covered by previous reports, this could be the result of a wider coastal plain, an expanding conurbation with the associated archaeological evaluations, while on the downs the larger area ploughed may have revealed the underlying archaeology.

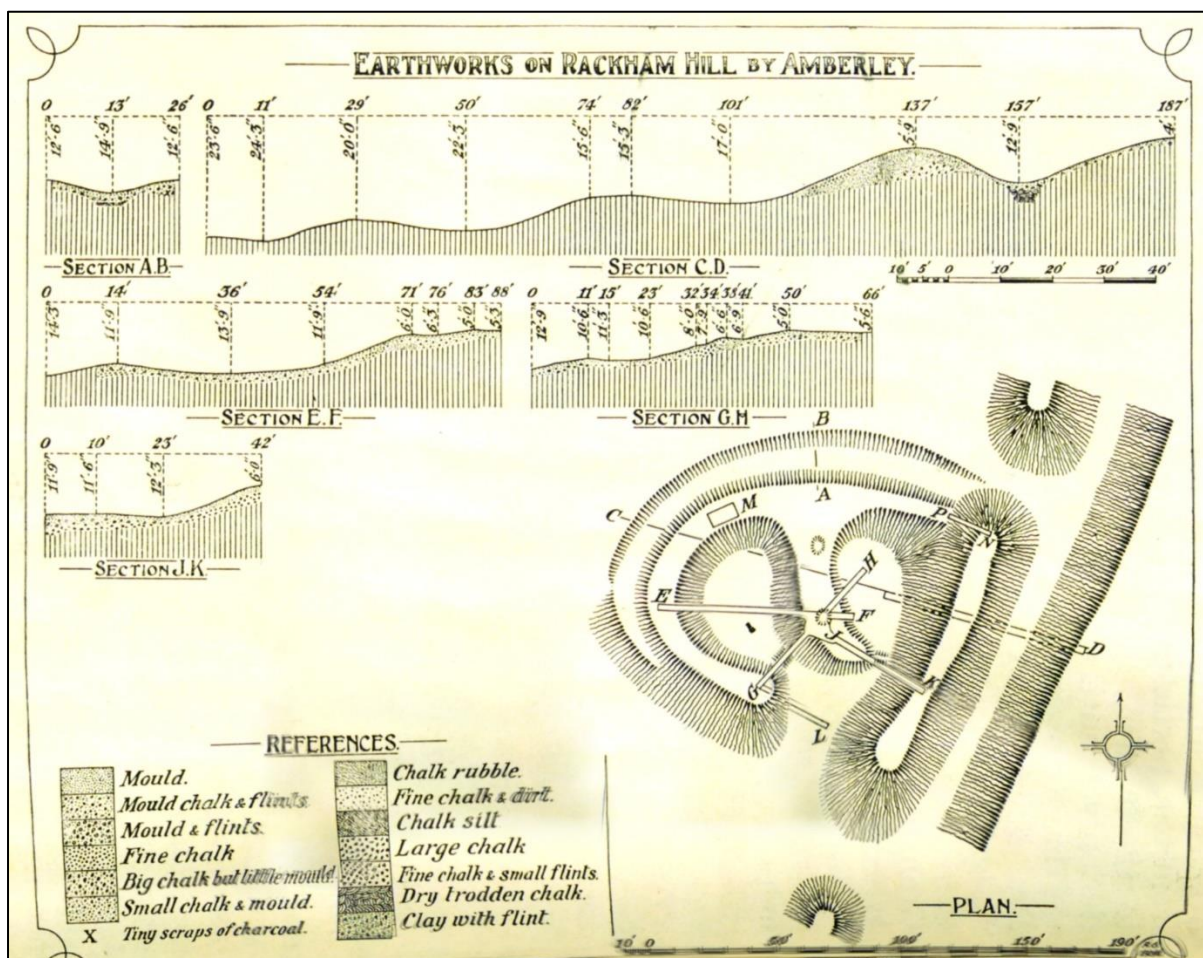


Figure 25. Curwen's plan of Rackham Banks Cross-dyke and settlement. (Curwen, 1932)

Of all the known settlements/hillforts between the rivers Adur and Arun only five may have an association with cross-dykes, Barnsfarm Hill West (122), Chanctonbury East (65) and West (64), Rackham Banks (137) and Muntham Court (39). The Barnsfarm Hill (NMR TQ 11 SW 27) settlement

sited in the top of the ridge is 85m from the south facing Barnsfarm Hill West cross-dyke, no other association is obvious other than its proximity to the occupation site. The Chanctonbury cross-dykes enclose and control access along the scarp ridge to the Chanctonbury 'hillfort'. The Late Bronze Age/Early Iron Age, Rackham Banks settlement (Curwen, 1932) is sited in an exposed position clearly visible from the coast and river, a similar position in the landscape as the Itford Hill settlement (Burstow, et al., 1958). Rackham Banks' associated cross-dyke appears to overlay part of the settlement (Curwen, 1932, p. Fig 4&5) (Figure 25), this may be the result of later widening of the dyke to act as a trackway. If the cross-dyke is a defensive feature relating to the settlement it leaves the settlement exposed to access from the river. The Muntham Court cross dyke, situated between the Early Iron Age settlement site of Muntham Court (MWS5598) (Holleyman & Burstow, 1955; 1957) and the Findon valley so as to be visible to travellers routing up the valley and also across the valley to the Cissbury Rings 'Hillfort'.

The other settlements are generally sited on high ground in the heart of the downs but with unfettered access to and from the settlements on the coastal plain via the Patching and Sompting valleys. The absence of the cross-dykes is not due to the lack of suitable sites for their construction, which would suggest that there was no need for cross-dykes or that access was a greater priority.

Barrows

In common with the other areas covered by this project, barrows are too numerous to make a general statement concerning cross-dykes and barrows, however there are specific instances where barrows have influenced the construction of cross-dykes.

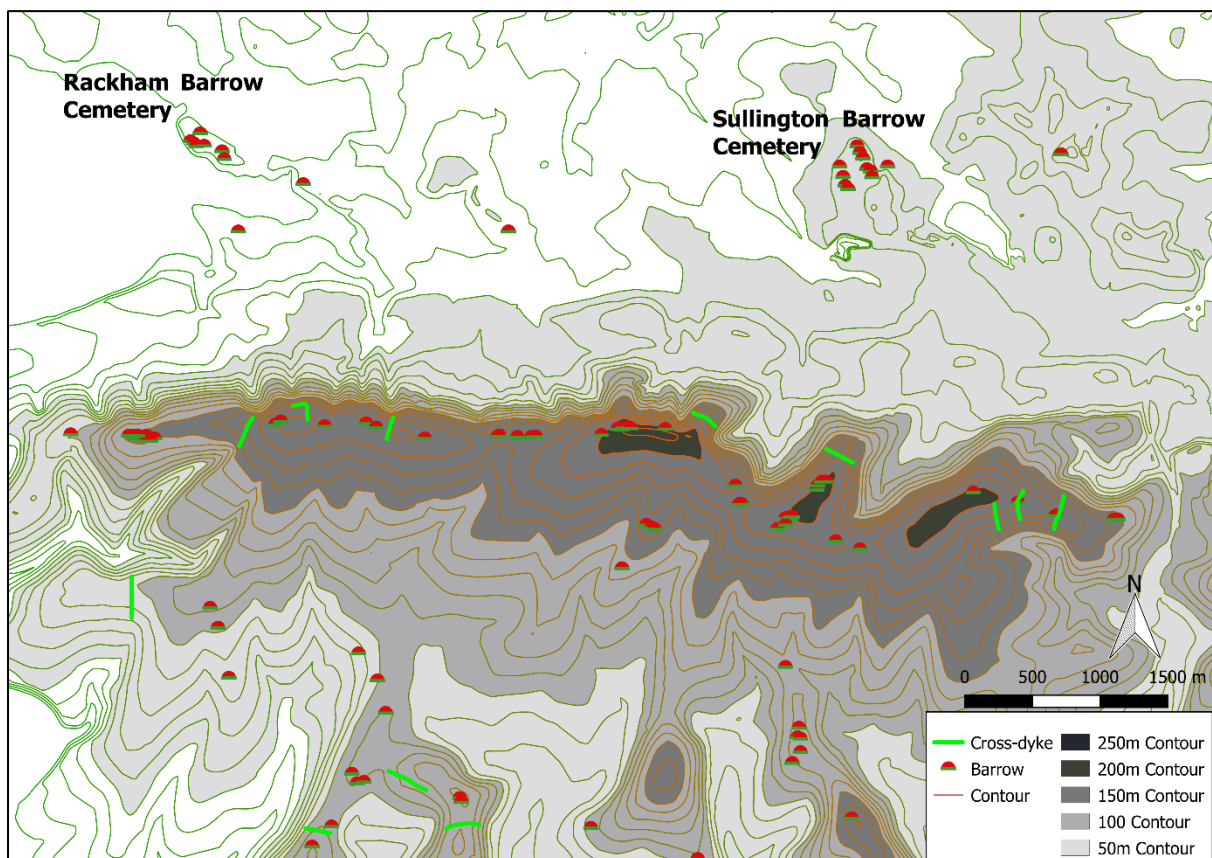


Figure 26. Cross-dykes overlooking barrow cemeteries.

Along the scarp ridge a number of cross-dykes overlook barrow cemeteries sited on the greensand ridge of the Low Weald, the Rackham and Springhead Hill cross-dykes overlook the barrow cemetery at Rackham Plantation (Figure 26). Directly below the Chantry Hill and Sullington Hill cross-spur dykes lies the Sullington Warren Barrow cemetery, a more likely factor is the Late Bronze Age settlement 5km northeast of Sullington hill at Ashington.

Earlier in the project we encountered cross-dykes aligned with barrows (Lewes Racecourse (127) and The Beeches (140)) (Lea, et al., 2018), while not aligned on a barrow the Barnsfarm Hill East cross-dyke a barrow acts as a pivot point around which the cross-dyke changes direction. The adjacent Highden Hill cross-spur dyke, initially heads towards a barrow before changing direction to keep clear of the barrow as it crosses the ridge routing to the edge of the scarp slope.

Another way barrows appear to influence the positioning and shape of cross-dykes is the way they either include or exclude barrows from certain areas. The Steyning Round Hill East cross-spur dyke arcs around a barrow excluding it from the enclosed area of the top of the ridge. This is more apparent with the cross-ridge dykes either side of Chanctonbury; the Chanctonbury West cross-dyke cuts a linear barrow cemetery, the Chanctonbury East cross-dyke forms a distinct semi-circle around a number of barrows including them within the Chanctonbury area while discriminating against other barrows. Had the cross-dyke been constructed either 100m west or 300m east the dyke would cut the ridge at points where the ridge narrows (Figure 27).

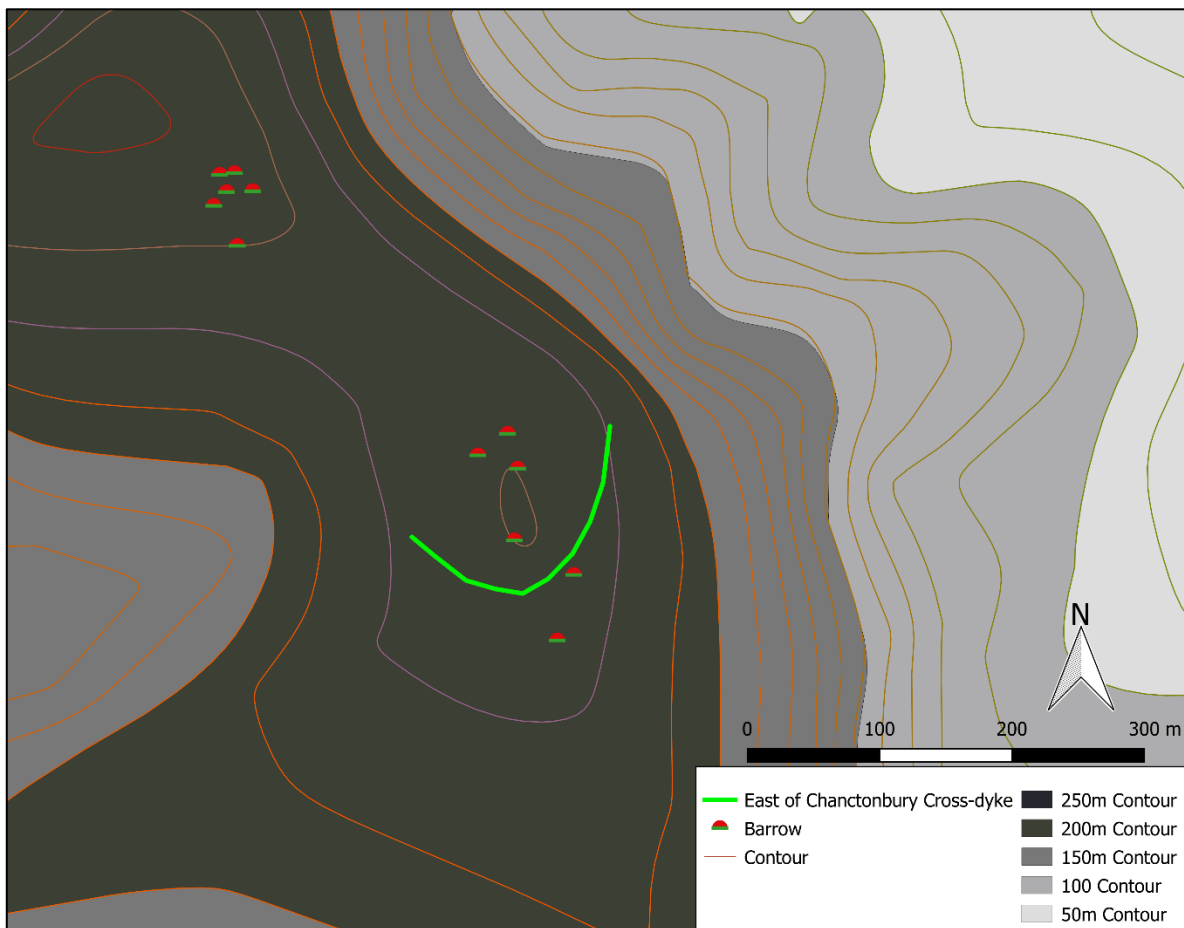


Figure 27. Chanctonbury East cross-ridge dyke dividing a barrow cemetery.

Land division

There are a number of areas that could be argued are defined by cross-dykes and which are all hilltops, i.e. Steep Down, Steyning Round Hill, Chanctonbury and Rackham Hill. What is noticeable is that the settlements are not enclosed although a few may have a cross-dyke that can be associated with them (see settlements above).

Routes along and through the downs

The first question is which way to go, do you travel up the spurs onto the high ground or do you route via the valleys? Travelling east-west, once you are on the ridge the going is fairly easy other than the cross-dykes, the rivers being the main obstacle. An alternative route to travel east-west is along the Greensand Way at the base of the scarp slope. Routing up the valleys would present you with the steep slopes that form the end of the valley. To transit from the coast to the Weald the choice is either via the rivers or along the Findon valley thus avoiding a climb up to the ridge. Figure 28 illustrates possible route way on the downs. Further research on prehistoric trackways on the South Downs has been carried out by Professor M. Bell (Forthcoming).

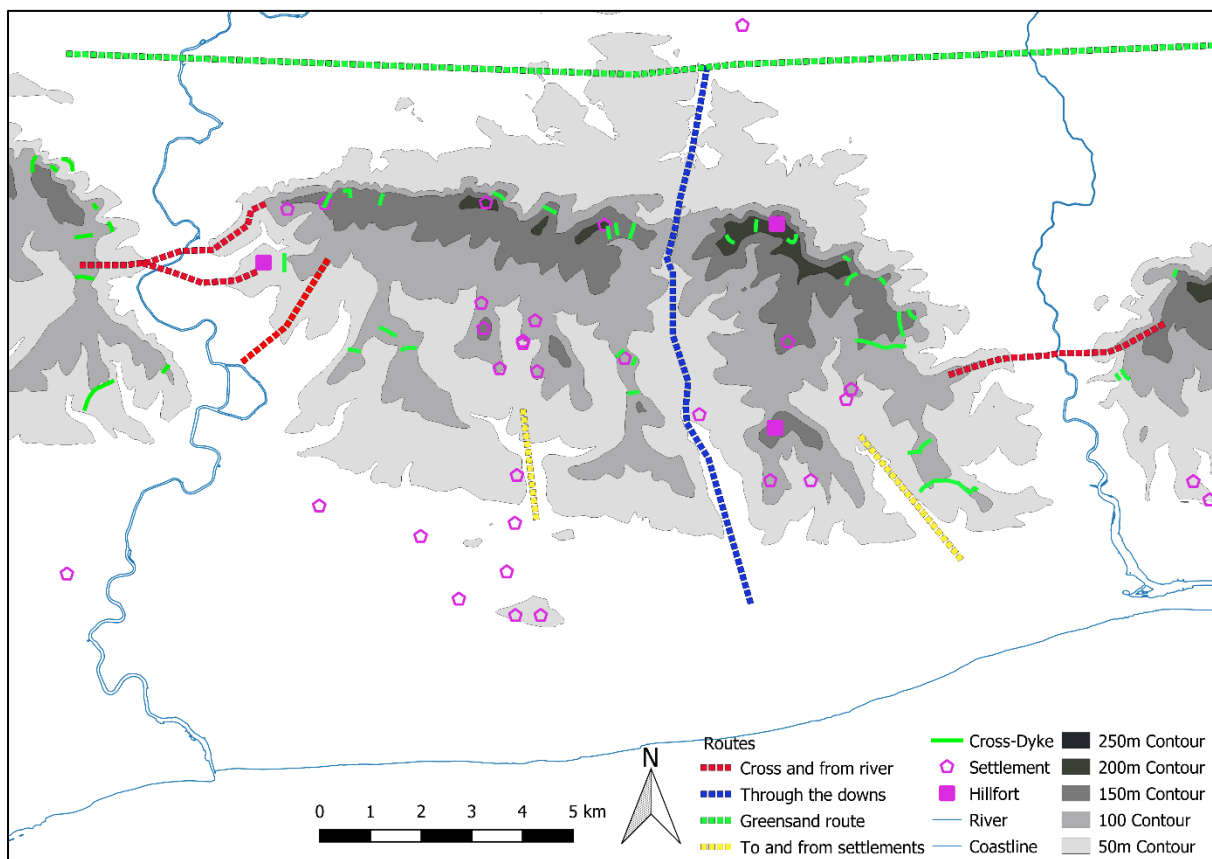


Figure 28. Possible Routes.

Burpham is a suitable landing point from the River Arun for access up the spurs leading to Coomb Head and Annington Hill as no cross-dykes were observed on this spur so may provide an unobstructed route to the heart of the area. In later periods a promontory 'hillfort' developed to regulate access both along the river and onto the downs.

Conclusions

As we have seen in the areas previously looked at the visibility to and from the cross dykes is an important factor in the siting of the dykes in relation to directing travellers to routes to and round the downs with the clean chalk contrasting with the green grass. A number of cross-dykes that would be expected to be visible from a distance along a route are only evident when close to the dykes, a degree of local knowledge would be needed firstly to know that the cross-dyke was there blocking the route and also to know the obstacle free route. These cross-dykes with restricted visibility may also act as a final reminder that this is not an approved access route.

The coastal plain has not been seen as a significant factor in the areas to the east, where present, this may be due to urbanisation obscuring the evidence. In this area the evidence of settlement on the coastal plain is greater and the lack of cross-dykes directly between the downland settlements and the coastal plain is notable.

A feature of the cross-dykes between the rivers Adur and Arun is the number defining high ground, the significance of these particularly dominant places in the landscape is not immediately obvious, some contain barrow cemeteries, while there are many barrow cemeteries in other locations not defined by cross-dykes. A feature not recognised in the previous areas covered by this research project (Lea, et al., 2016, 2017, 2018) is the way that some barrow cemeteries are divided by cross-dykes in a discriminatory way, in places the cross-dykes appear to be constructed to arc around and between barrows may suggest that those included are claimed to be 'our' ancestors as opposed to 'your' ancestors.

Each of the areas covered by the project has some unique features while retaining visibility as a constant theme.

Acknowledgements

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Bibliography

Bedwin, O., 1979. The Excavation of a Cross-Dyke at Old Erringham Farm, Upper Beeding, West Sussex 1976. *SAC 117*, pp. 11-20.

Bedwin, O., 1980. Excavations at Chanctonbury Ring, Wiston, West Sussex 1977. *Britannia*, Volume 11, pp. 173-222.

Bell, M., Forthcomming. *Prehistoric Trackways on the South Downs*. s.l.:s.n.

Bradley, R., 1971. Stock Raising and the Origins of the Hill Fort on the South Downs. *Antiquity Journal*, Volume 51, pp. 8-29.

- Burstow, G., Holleyman, G. & Helbaek, H., 1958. Late Bronze Age Settlement on Itford Hill, Sussex. *Proceedings of the Prehistoric Society*, Volume 23, pp. 167-212.
- Curwen, E., 1932. Rackham Bank and Earthwork. *SAC*, Volume 73, pp. 169-186.
- Curwen, E. C., 1929. *Prehistoric Sussex*. London: The Homeland Association Ltd.
- Curwen, E. C., 1951. Cross-ridge dykes in Sussex. In: *Aspects of Archaeology in Britain and Beyond: essays presented to O.G.S. Crawford*. s.l.:H.W. Edwards.
- Curwen, E. & Curwen, E. C., 1918. Covered Way on the South Downs. *Sussex Archaeological Collections*, Volume 59.
- Curwen, E. & Curwen, E. C., 1922. Notes on the Archaeology of Burpham and the Neighbouring Downs. *SAC*, Volume 63, pp. 1-53.
- Curwen, E., n.d. *Curwen Papers Box 1 1/3*. Lewes: Sussex Archaeological Society Library.
- English Heritage, 2005. *Monument Class Descriptions*. [Online]
Available at: <http://www.eng-h.gov.uk/mpp/mcd/sub/crossd1.htm>
[Accessed March 2014].
- English, J., 2013. *Patern and Progress: Field Systems of the Second and Early First Millennia BC in Southern Britain*. BAR British Series 587 ed. Oxford: Archaeopress.
- Hamilton, S., 2003. Sussex not Wessex: A regional perspective on southern Britain c. 1200-200 BC. In: D. Rudling, ed. *The Archaeology of Sussex to AD2000*. King's Lynn: Heritage Marketing and Publications Ltd, pp. 69-88.
- Historic England, 2018. *Historic England*. [Online]
Available at: <https://www.historicengland.org.uk/listing/the-list/list-entry/1005850>
[Accessed 12 March 2018].
- Holleyman, G. A. & Burstow, G. P., 1955. Excavations at Muntham Court, Findon, Sussex Ritual Burials Found. *Archaeological News Letter Vol.5 No.10*, pp. 205-204.
- Holleyman, G. A. & Burstow, G. P., 1957. Excavations at Muntham Court, Findon, Sussex. *Archaeological News Letter Vol.6 No.4*, pp. 101-102.
- Lea, D., English, J. & Tapper, R., 2016. *South Downs Cross-Ridge Dyke Project, Part 1: East of the Cuckmere River*, s.l.: Privately circulated report.
- Lea, D., English, J. & Tapper, R., 2017. *South Downs Cross-Ridge Dyke Project, Part 2: River Cuckmere to River Ouse*, s.l.: Privately circulated report.
- Lea, D., English, J. & Tapper, R., 2018. *South Downs Cross Ridge Dyke Project, Part 3: River Ouse to River Adur*, s.l.: Privately circulated report.
- Lea, D., English, J. & Tapper, R., Accepted for publication in *SxAC*. Cross Dykes Project interim report I: The Cuckmere to Eastbourne. *Sussex Archaeological Collections*.

National Library of Scotland, n.d. *National Library of Scotland*. [Online]
Available at: <http://maps.nls.uk/view/101435652>
[Accessed 09 02 2016].

O'Connor, T. P., 1976. The Excavation of a Round Barrow and Cross-Ridge Dyke at Alfriston, East Sussex. *SAC 114*, pp. 151-163.

pastcape.org.uk, n.d. *MONUMENT NO. 1457113*. [Online]
Available at:
http://www.pastscape.org.uk/hob.aspx?a=0&hob_id=1457113&rational=m&maplat=50.90250000&maplong=-0.50740000&mapist=ll&mapilo=-0.5074&mapila=50.9025&mapiloe=w&mapilan=n&mapios=TQ049125&mapigrn=112570&mapigre=504942&mapipc=&mapisa=500&recordsperpage=10&sort=2
[Accessed 2018].

Pastscape, n.d. *Burpham Camp*. [Online]
Available at:
http://www.pastscape.org.uk/hob.aspx?hob_id=392654&sort=2&rational=m&recordsperpage=10&maplat=50.86700000&maplong=-0.52460000&mapisa=500&mapist=ll&mapilo=-0.5246&mapila=50.8670&mapiloe=w&mapilan=n&mapios=TQ038085&mapigrn=108598&mapigre=503812&mapipc=
[Accessed 10 May 2018].

Seager Thomas, M., 2008. From Potsherds to people: Sussex prehistoric pottery. *SAC*, Volume 146, pp. 19-51.

Tibble, M., 2008. A topographical survey of Chanctonbury Ring, West Sussex; An interpretation of the prehistoric landscape from the Neolithic to the Middle Iron Age. *SAC*, Volume 146, pp. 53-73.

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Appendix

Dyke Comparisons

| Identification | | | Configuration | | | | Description | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----------|---------------|-----------------|--------------|-------------------|-------------|------------|-------------|---------------------------|----------|--------|--------------------------|-----------|---------|-------|--------------|----------|------------|-----------|----------------|----------|-----------------|---------------|------------------|------------------|------|---------------------|---------------------------|-----|------|------|
| Site Name | Site Number | HER | Part of Group | Number in Group | Multivallate | Number of Ditches | Bank | | | Extends Down Side of Spur | Shape | | | Alignment | Crosses | | Extent | | | | Gap | | Dimensions | | | | | Distance from Ridge | Distance from End of Spur | | | |
| | | | | | | | Up Slope | Down Slope | Either Side | | Straight | Curved | Series of Straight Lines | | Spur | Ridge | Top of Ridge | One Side | Both Sides | Truncated | Gap in Feature | Length m | Overall Width m | Ditch Width m | Height of Bank m | Depth of Ditch m | | | | | | |
| Barnsfarm Hill East | 123 | MWS 1168 | Y | 3 | N | 1 | | Y | | N | | | Y | N-S | | Y | Y | Y | | | | | | | | | 16 | 9 | 0.1 | 0.1 | 0 | |
| Barnsfarm Hill West | 122 | MWS 1169 | Y | 3 | N | 1 | | Y | | N | Y | | | N-S | | Y | | Y | | | | | | | | 232 | 12 | 6 | 0.1 | 0.1 | 0 | |
| Barpham Hill | 143 | MWS 6398 | Y | 3 | Y | 1 | | | Y | N | | | Y | E-W | Y | | Y | | Y | | | Y | | | Y | 258 | 20.5 | 11.5 | 2.4 | 2 | 3020 | 2730 |
| Chanctonbury East | 65 | MWS 6455 | N | | N | 1 | | Y | | N | | Y | | NE-SW | | Y | Y | Y | | | | Y | | | Y | 268 | 10 | 6 | 0.5 | 0.8 | 0 | |
| Chanctonbury Hill | 174 | | N | | N | 1 | Y | | | N | | Y | | SE-NW | Y | Y | Y | | | | | | | | | 165 | 6 | 3 | 0.1 | 0.1 | 0 | 1750 |
| Chanctonbury West | 64 | MWS 6454 | N | | N | 1 | | Y | | N | Y | | | N-S | | Y | Y | | | Y | | Y | | | Y | 180 | 13 | 5.5 | 0.6 | 1 | 0 | |
| Chantry Hill | 135 | MWS 6432 | N | | N | 1 | | Y | | Y | | Y | | NW-SE | Y | | Y | | Y | | | Y | | | Y | 202 | 15 | 4.5 | 0.9 | 0.5 | 277 | 315 |
| Highden Hill | 124 | MWS 1167 | Y | 3 | Y | 1 | | | Y | N | | | Y | N-S | | Y | Y | | Y | | | Y | | | Y | 260 | 18.8 | 1.8 | 0.7 | 0.7 | 0 | |
| Lion's Bank | 80 | MSW 1209 | N | | N | 1 | Y | | | N | Y | | | NW-SE | Y | | Y | | | | | | | N | Y | 56 | 6 | 3 | 0.5 | 0.5 | 460 | 250 |
| Muntham Court | 39 | | N | | Y | 2 | | | Y | N | Y | | | N-S | Y | | Y | | | | | | | Y | Y | 98 | 14 | 5 | 0.4 | 0.3 | 2750 | 680 |
| Muntham Court Well House | 176 | | N | | | | | | | N | Y | | | NE-SW | Y | | Y | Y | | | | | | | Y | 140 | | | | | 2392 | 4000 |
| New Hill Barn | 83 | MSW 5610 | N | | | | | Y | | N | | | Y | E-W | Y | | Y | Y | | | | | | Y | Y | 965 | | | | | 690 | 4000 |
| Peppers Combe | 77 | MWS 1209 | N | | N | 1 | | Y | | N | Y | | | NW-SE | Y | | Y | | | Y | | | | Y | Y | 140 | 17 | 8 | 0.5 | 0.8 | 373 | 417 |
| Perry Hill | 142 | MWS 6567 | Y | 3 | N | 1 | Y | | | N | Y | | | E-W | Y | | Y | | | Y | | | | Y | Y | 215 | | | | | 3000 | 2800 |
| Rackham Banks | 137 | MWS 6422 | N | | N | 1 | | Y | | N | Y | | | NNE-SSW | | Y | Y | Y | | | | | | Y | Y | 232 | 22 | 13 | 2 | 2 | 0 | |
| Rackham Hill | 171 | | N | | N | 1 | | Y | | Y | | | Y | N-S | | Y | | Y | | | | | | Y | Y | 215 | 10.5 | 6 | 0.7 | 0.7 | 0 | |
| Springhead Hill | 138 | MWS 6438 | N | | N | 1 | Y | | | N | Y | | | N-S | | Y | Y | | | | | | | Y | Y | 144 | 9.5 | 6.5 | 0.8 | 0.8 | 0 | |
| Steep Down North | 81 | MWS 1059 | N | | N | 1 | | | Y | Y | | Y | | E-W | Y | | | Y | | | | | N | Y | Y | 200 | 12.9 | 5.5 | 0.3 | 0.6 | 2580 | 2910 |
| Steep Down South | 82 | MWS 1057 | N | | N | 1 | Y | | | Y | | Y | Y | E-W | Y | | Y | Y | | | Y | | Y | Y | Y | 771 | 14.5 | 6 | 0.4 | 1 | 3490 | 2000 |
| Steyning Round Hill East | 79 | MWS 445 | Y | 2 | N | 1 | | Y | | N | | Y | | NW-SE | Y | | Y | | | Y | | | N | Y | Y | 200 | | | | | 600 | 400 |
| Steyning Round Hill West | 78 | MW S 6458 | Y | 2 | N | 1 | | Y | Y | Y | Y | | | N-S | Y | | Y | Y | | | | | Y | Y | Y | 380 | 10 | 6 | 0.5 | 0.5 | 380 | 620 |
| Sullington Hill | 134 | MWS 5181 | N | | N | 1 | | Y | | N | | | Y | NW-SE | Y | | Y | | | | | Y | Y | Y | Y | 176 | 16 | 9.6 | 1.2 | 1.4 | 505 | 625 |
| The Burgh | 66 | MWS 2761 | N | | N | 1 | Y | | | N | Y | | | N-S | Y | | Y | | | | | | | | Y | 415 | | | | | 1400 | 1450 |
| Tolmare | 40 | MWS 7109 | N | | Y | 1 | | | Y | N | Y | | | E-W | Y | | Y | Y | | | | | | Y | Y | 156 | | | | | 3200 | 3880 |
| Wepham Down | 144 | MWS 6400 | Y | 3 | Y | 1 | | Y | | N | | | Y | NW-SE | Y | | | Y | | | | | | Y | Y | 316 | 17.5 | 9 | 2 | 1 | 2380 | 4140 |
| Wiston Barn | 76 | MWS 5765 | N | | | 1 | | | | N | Y | | | NW-SW | | Y | Y | Y | | | | | | Y | Y | 180 | | | | | 0 | |