The Survey and Report: Built Heritage & Archaeology

This report is the product of both field survey and desk-based research. The body of the report was produced by EASE Archaeological Consultants. The gazetteers which accompany the Hinterland Geology & Coastal Geomorphology and Erosion Class maps, along with other (marked) contributions to the text are by Alan Stapf, Arkensol. The following notes explain the terminology and short hand descriptions used throughout the report.

Site Description Entries

The gazetteer entries comprise a set of characteristics for each site. The categories are as follows:

Category	Example
Island	Trondra
Map	'6
Site Code	T26
Grid Reference	HU 3898 3694
Site type	Broch
NMRS no.	HU33NE1
Status	S (scheduled)
HS Index	'2062
Place name	Burland
Location to the coast	On the coast edge
SMR	N/A
Condition	Poor
Recommendation	Survey
Date Range	1st Mill BC- 1st Mill AD

Site Code

Each site has been given a unique reference code for the purposes of this survey. The two letters which begin each code refer to the survey area: WB = West Burra, EB = East Burra, T = Trondra.

Site Type

While the categories of site types was not restricted (i.e. types were not selected from a predetermined list), efforts were made to standardise the labels given for this report. For example, ruinous buildings of 18th/20th C date which could be positively identified were divided into categories such as dwelling houses, mills, or outbuildings; where their use was not apparent, they were labelled as 'structures'. The use of 'croft' and 'farmstead' and 'smallholding' has been avoided where possible, since it was often not apparent whether the 'structure' was associated with a parcel of land.

Prehistoric sites, and mounds in particular, are frequently difficult to date and characterise from the visible remains. The identification of mounds as chambered cairns, burial mounds or more recent refuse or farm mounds, for example, was made on the basis of previously recorded information, or where this was not available, the most probable explanation of the visible remains.

Date Range

The date ranges set out for various site types within this report are based on comparison with similar sites in the area which have already been dated or characterised. These ranges represent a general consensus; it must be noted that there is much debate about the date ranges of specific sites (such as brochs, for example). It is also likely that there are many local variations which provide exceptions to the rule. The date ranges used are as follows:

- 4th-3rd millennium BC
- 3rd-1st millennium BC
- 1st millennium BC-1st millennium AD
- 10th century AD-14th century AD
- 14th century AD- 18th century AD
- 18th century AD- 20th century AD

Condition

The condition of each site entry was labelled using the following criteria:

▪Good: This label was applied where a site exhibited either high potential or had sufficient visible elements surviving to properly characterise it. An archaeological site was considered to be in 'good' condition where it was undisturbed or only slightly disturbed and retained obvious archaeological potential. Further work at such sites could reasonable be expected to provide information regarding date, nature, extent and complexity. Buildings (especially the large category of 18th/20th C structures) were considered 'good' where there were multiple site elements represented and survived in a reasonable enough condition to provide information regarding their construction, development and use.

▪Fair: This label was applied to sites considered to have some potential or where limited elements remained and the site could be generally characterised. Archaeological sites of this type were generally somewhat disturbed but retained some potential; a sufficient part of the site remains that it could be more fully characterised via excavation. Standing buildings were considered 'fair' when, although ruinous or disturbed, sufficient of the site remained that it could be generally characterised.

▪Poor: Sites described as 'poor' have visible elements which are very disturbed and offer little potential for further characterisation. This assumption was made on the basis of the evidence available at the time of this survey and it must be noted that, without recourse to full assessment, the true potential of many sites can only be estimated.

Recommendations

Three types of action have been recommended:

▪Survey: This has been used as a general term covering all forms of further archaeological investigation or site protection. It includes topographical survey, section recording, trial trenching and open area excavation.

▪Monitor: This is recommended either to keep a site of known potential under surveillance or to check for new exposures on sites currently considered to be of low or unknown potential. This will

entail regular site inspections and include cross-checking of known information against new exposures and should be carried out by an archaeologist.

▪Nil: No action has been recommended where a site is not immediately vulnerable to change, or is of very low potential.

Built Heritage and Archaeology: Analysis

Total Number of Sites

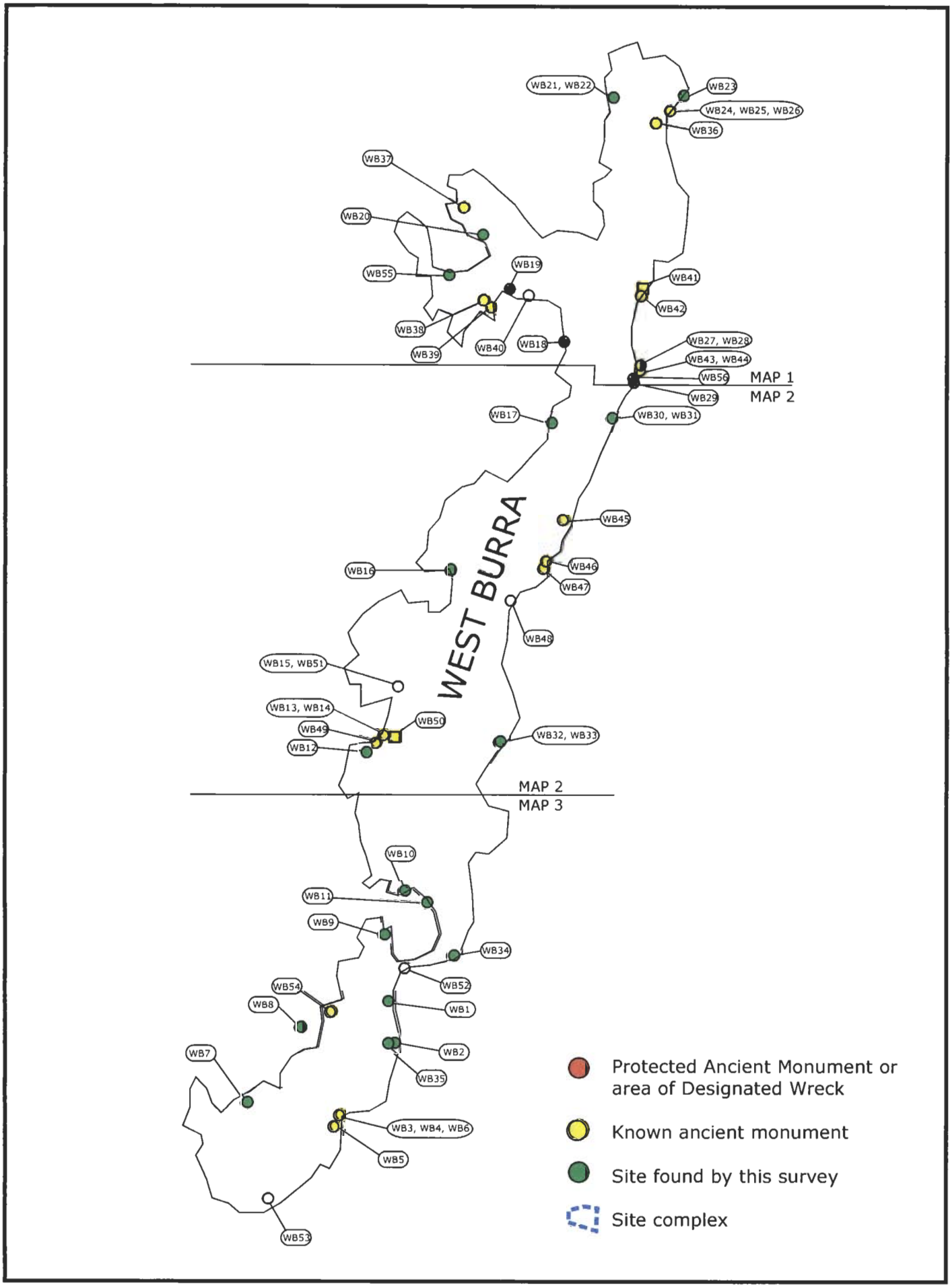
A total of 132 sites were found by this survey. Of these 40 had been previously recorded in the NMR and 92 were new discoveries. This represents an increase of almost 70%.

The largest number of new sites were found on East Burra, where 46 sites were recorded for the first time, and on Trondra, where 20 new discoveries were made. On West Burra, which had already been comprehensively surveyed in 1977 by Parry (Hedges 1984) a total of 26 new sites were found.

	East Burra	West Burra	Trondra	Total
New sites found by this survey	46	26	20	92
Previously recorded sites	3	30	7	40
Total	49	56	27	132

Date Range

A total of 56% of all sites recorded by this survey were ascribed a dated in the 3rd-1st millennium AD category. The next largest group were sites of unknown date, which accounted for 22%. Sites of 18th-20th C date formed 15.2% of the total, while sites of 10th-14th C constituted some 3.8%. Sites of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MAP 2
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WB53
Protected Ancient Monument or area of Designated Wreck
Known ancient monument
Site found by this survey
Site complex

1st millennium BC-1st millennium AD made up only 3.8% and no sites of 14th-18th C date were identified by the survey.

Site Density

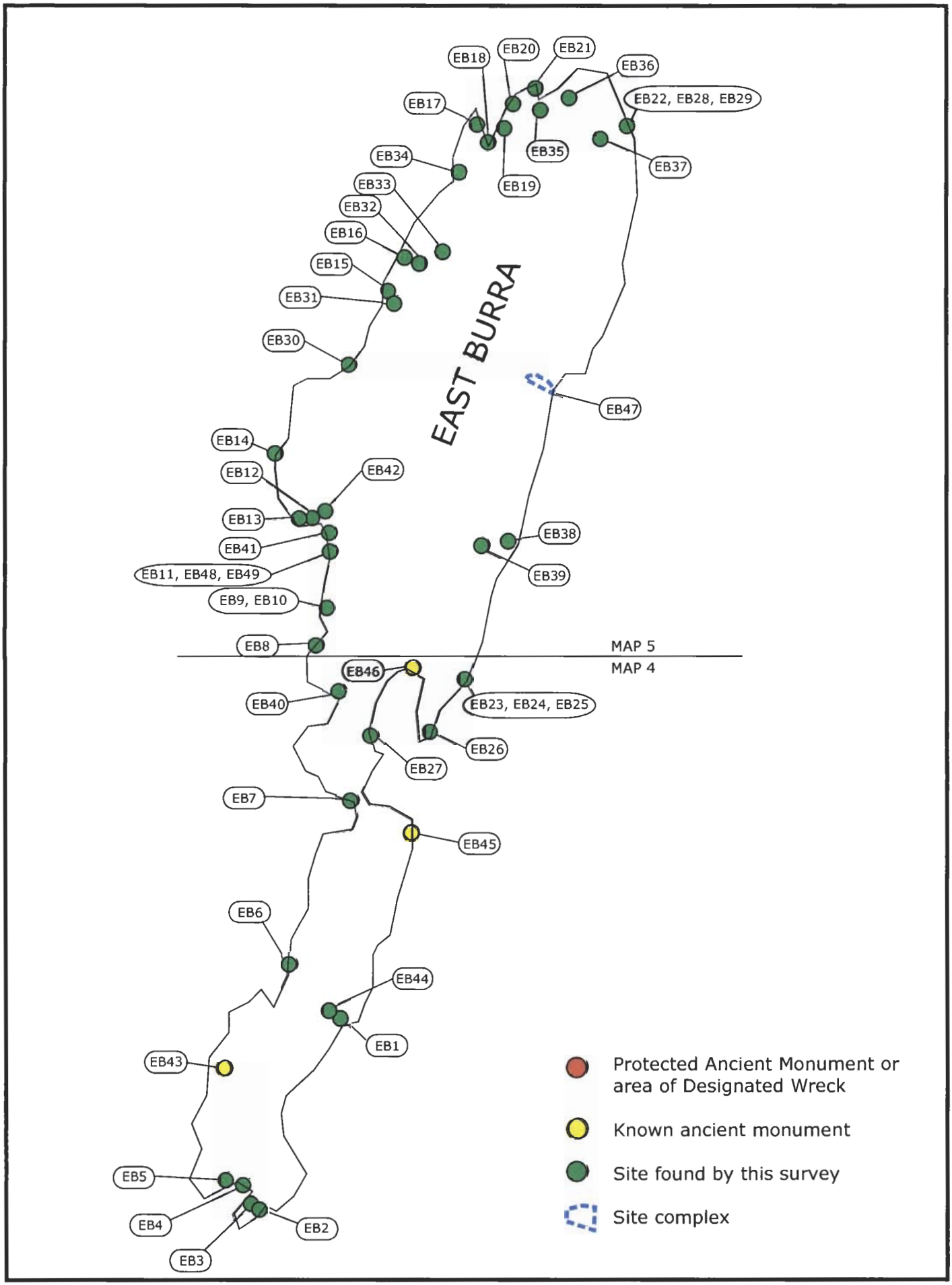
East Burra has the most dense concentration of sites within the coastal zone: there are 2.7 sites per kilometre. On Trondra there are some 2.4 sites per kilometre of coastline, while on West Burra the frequency is 1.5 sites per kilometre.

	East Burra	West Burra	Trondra
Length of coastline	19km	36km	11.5km
Total number of sites	49	56	27
Sites per km	2.6 sites per km	1.5 sites per km	2.4 sites per km

Hedges noted that West Burra was known to contain a larger number of sites than was the norm for the rest of Shetland. He calculated that even prior to Parry's survey there were three prehistoric sites per square kilometre on West Burra, as compared to less than one site per square kilometre elsewhere (1984, 45). Parry's survey then went on to treble the number of known sites on the island. The data produced by this report is not directly comparable with Hedges' figures since the calculations here are based on a linear, rather than square, kilometre and take sites of all periods, rather than only prehistoric sites into account; they do, however, serve to demonstrate the variation in site frequency which exists between the islands. Perhaps surprisingly, they also reveal that West Burra, considered by Hedges to be extremely rich in prehistoric sites, has actually fewer sites overall per linear kilometre than either East Burra or Trondra.

In comparison with site densities found in other coastal survey areas, the figure for West Burra is closer to the average and is the same as that for both Northmavine and Westside. The figures for East Burra and Trondra, however, are considerably higher than any of the other survey areas.

In part, the high site frequencies may be accounted for by better survival conditions pertaining on East Burra and Trondra, due to the low density of post-medieval and modern settlement on the islands. The Lunnasting area is similarly lacking in post medieval and modern settlement, however, and yet the site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EAST BURRA
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MAP 5
MAP 4
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EB4
EB2
EB3
Protected Ancient Monument or area of Designated Wreck
Known ancient monument
Site found by this survey
Site complex

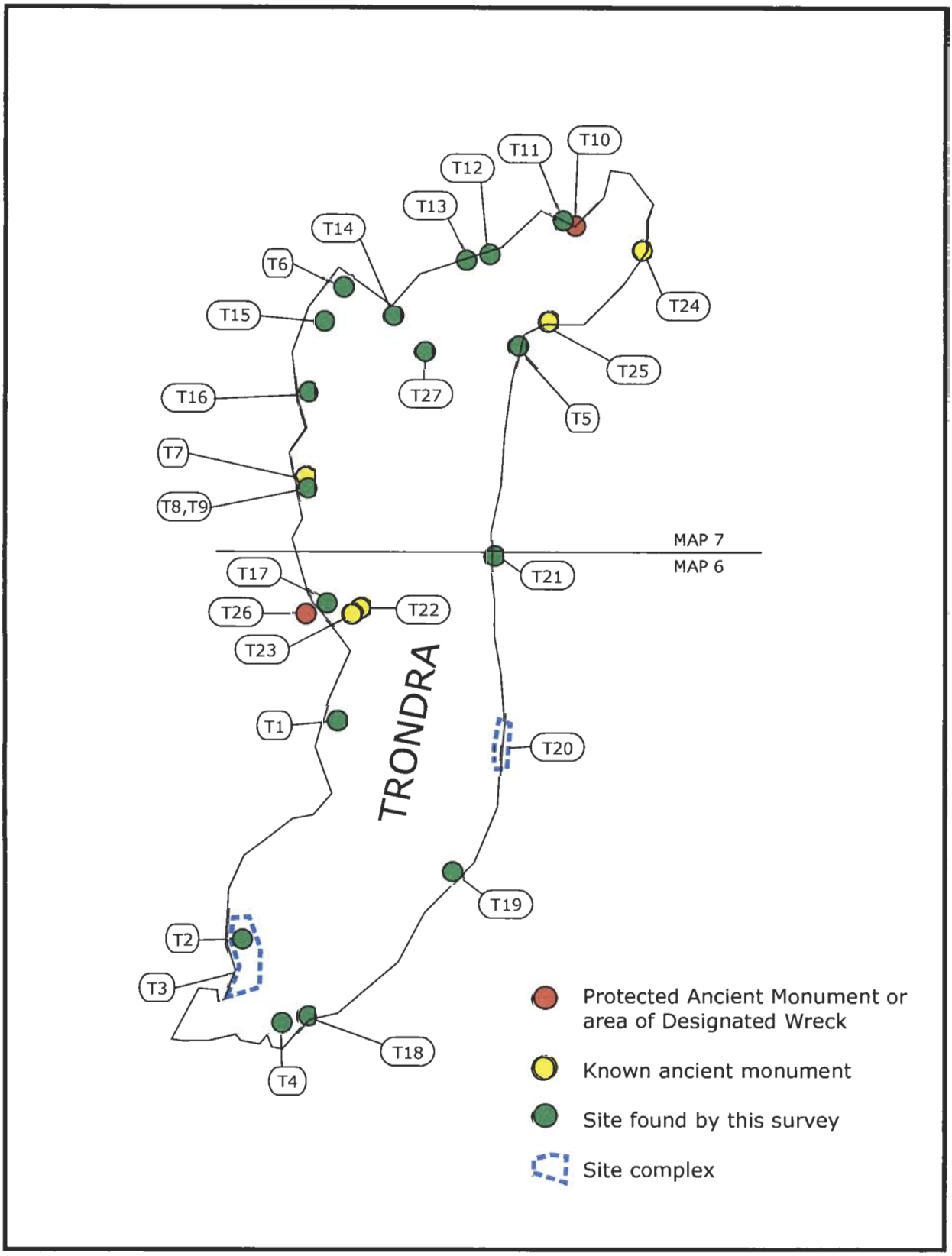
frequency here does not differ significantly from the average. Factors such as site visibility and the degree to which sites are likely to be located on the coast differ little between the three islands in this survey area, or for that matter, between Whalsay and Lunnasting and the greater part of Northmavine . It would appear, therefore, that the unusually high site frequencies on East Burra and Trondra actually reflect 'hotspots' of past activity.

Survey Area	Density of sites per km
Northmavine	1.5 sites per km
Westside	1.5 sites per km
Whalsay	1.6 sites per km
Lunnasting	1.7 sites per km
South Mainland	1.3 sites per km
West Burra	**1.5 sites per km**
East Burra	**2.6 sites per km**
Trondra	**2.4 sites per km**

Sites of Date Range 3rd-1st Millennium BC

A total of 74 sites recorded by this survey have been ascribed a date within the range 3rd-1st millennium BC. The largest number of sites occur on West Burra, followed respectively by East Burra and then Trondra. Over 63% of the sites within this date range on all three islands were not previously recorded.

3rd-1st Mill BC Sites	Total	Previously known	New
West Burra	33	22	11
East Burra	29	2	27
Trondra	12	3	9
Total	74	27	47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TRONDRA
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T2
T3
T18
T4
Protected Ancient Monument or area of Designated Wreck
Known ancient monument
Site found by this survey
Site complex

One third of the sites of this date on West Burra were discovered by this survey; the other two-thirds had been located by Parry (Hedges, 1984) or RCAHMS (1946). Sites of this date range account for some 58% of all the sites recorded on West Burra.

Some 93% of the sites of 3rd-1st millennium BC date on East Burra are recorded here for the first time. Sites of this date range make up 57% of all the sites recorded on East Burra.

On Trondra, 75% of the sites of 3rd-1st millennium BC date represent new discoveries. Sites of this date range make up over 44% of all sites recorded on this island.

Site Types

Within this date range, several types of sites were identified and examples of almost all types were found on each of the three islands. There was one exception to this: no burial mounds or cairns were identified on Trondra.

Settlements, with or without field systems formed the most numerous group. A total of 32 sites or 43% of all sites within this date range belonged to this category. The largest number of settlements occurred on West Burra, where they formed 42% of the sites in this date range. Many of the houses were associated with field systems. Houses varied in size and shape but the majority were oval and measured about 10m by 7m; in at least one case a structure included here as a house may alternatively be a cairn.

3rd-1st Mill BC	West Burra	East Burra	Trondra	Total
Burnt Mound	10	7	4	21
Settlement & Field System	14	10	7	32
Field System only	1	5	1	7
Cairn/burial mound	8	7	0	15
Total	33	29	12	74

On Trondra 58% of the sites within this date range were identified as settlement remains. This is the highest proportion of settlement over other types of site found on the three islands. Many of the houses were surrounded by the remains of field systems.

On East Burra, where a total of 10 houses were identified, settlement remains accounted for only 34% of all sites within this date range. This represents the lowest proportion of settlement over other types of site found on the three islands. The figures may be even lower than this since two of the sites included here as houses may actually be burial cairns.

Burnt mounds formed the second most numerous type of site of 3rd-1st millennium BC date. A total of 21 burnt mound sites were identified, representing over 28% of all sites within this date range. The largest number of burnt mounds were found on West Burra, where 10 mounds made up 30% of all site found on that island. One of the entries included here as a burnt mound also comprises of a field system and structural remains.

On East Burra a total of 7 burnt mounds were found, representing 24% of all sites within the 3rd-1st millennium BC date range. The mounds were found both in isolation and in clusters. The largest cluster was located on the east coast around Houlls. One of the sites has been assessed and is now the subject of a thermoluminescence dating project (Moore & Wilson, 1996, 1999, 2000, Anthony et *al* 2001)

Four burnt mounds were found on Trondra and this type of site represents over 33% of all of the sites found on the island. One entry included here as a burnt mound also comprises an enclosure and probable clearance cairns.

Burial cairns were only found on West Burra and East Burra. In total, 15 sites were identified. Of these, 8 sites were on West Burra and 7 on East Burra. In both cases, burial sites formed some 24% of all sites found within this date range. In several instances on both islands it was difficult to determine houses from cairns. Parry's survey found burial cairns in locations away from the coast edge and it is probable that further burial cairns also occur in the 'interiors' of both East Burra and Trondra.

A total of 7 sets of remains relating to field systems and land boundaries were identified. Of these, five sites were located on East Burra, with only one each on West Burra and Trondra. This type of site forms 17% of the total of all sites recorded on East Burra but only 3% on West Burra and just over 8% on Trondra. It is of interest to note that East Burra had proportionately less settlement than either of the

other two islands and apparently, more field system and land boundary remains. If the remains are contemporary, which is by no means certain, this might suggest that the settlements on East Burra were associated with more extensive lands. Alternatively, it might be that land on East Burra was farmed by people who lived on West Burra, a practice known to have occurred in the last century.

Sites of Date Range 1st Millennium BC-1st Millennium AD

Only four sites were found which could be ascribed a date within the range 1st millennium BC - 1st millennium AD. Of these, only one site had been previously known. It is probable that a proportion of sites labelled here as 3rd-1st millennium BC may actually belong within this later date range. The 1st millennium BC - 1st millennium AD sites on Trondra are represented by a broch on a small holm at Burland and the Iron Age smithy building which lies close by. These sites have been the subject of recent assessment work (Moore & Wilson, 2001). It is instructive to note that neither site would have been readily identified within this category prior to detailed survey and excavation.

1st Mill BC- 1st Mill AD	Total	Previously known	New
West Burra	1	0	1
East Burra	1	0	1
Trondra	2	1	1
Total	2	1	1

Parry identified several further sites on West Burra, out with the coastal zone, which may belong to this date range (Hedges 1984). These include settlement mounds at Brough, Grunasound and Duncansclett which may be broch sites. Local sources tell of yet another broch which is said to have stood on a small holm opposite Ux Ness, between Trondra and West Burra (T. Isbister, *pers comm*). The broch was supposedly demolished to provided stone for the pier in Scalloway; the holm has now been joined to the south end of Trondra to support the bridge to West Burra.

If each of the probable broch sites were verified, this would amount to a total of five brochs in all, which would represent an unusual density of high status settlement, possibly reflected in the place name of Burra. The locations given for these brochs follows to either side of the narrow stretch of water which

runs between the islands. This 'chain' of broch sites can be extended northwards if the broch at Scalloway (HU 406 399) and that at Burwick (HU 388 405) are included.

Sites of Date Range 10th-14th C AD

A total of five sites of the period 10th-14th C AD were identified by this survey. A further possible site has been found through excavation at Burland on Trondra, although it is not included within the figures given here because its identity has yet to be confirmed. A second site, which is more definitely of this period, has been left out because it lies in the interior on Trondra, far outside the remit of this survey.

10th-14th C AD	Total	Previously known	New
West Burra	1	0	1
East Burra	3	0	3
Trondra	1	0	1
Total	5	0	5

The five sites found by this survey all represent long houses, four of which also have associated field systems. The three sites on East Burra and one on West Burra are actively eroding and are unlikely to survive in the long term. On East Burra, the long houses occur in a cluster and it may represent successive rather than contemporary buildings. The example on West Burra lies in a classic location for a Viking house, towards the end of a sandy bay, close to good cultivable land. The site on Trondra is very well-preserved and not vulnerable to coastal erosion.

Sites of Date Range 18th-20th C AD

18th-20th C AD	Total	Previously known	New
West Burra	8	3	5
East Burra	4	1	3
Trondra	8	3	5
Total	20	7	13

Sites of 18th-20th C AD date account for some 15% of all sites found on the three islands. On West Burra they account for 14.3% of all of the sites found, while on East Burra and Trondra they account for 8.2% and 29.6% respectively.

	West Burra	East Burra	Trondra	Total
Mill	5	1	2	8
Field system/boundary	2	3	2	7
Boats & fishing	1	0	4	5
Total	8	4	8	20

The sites within this date range fall into three broad groups: click mills, field systems and land boundaries and remains associated with boats and fishing.

Several of the entries for click mills include the remains of more than one structure; one click mill, at Burland, has been restored to working order. Within the boats and fishing category, the majority of entries represent boat noosts, although a fishery and a hulk are included on Trondra.

Sites of Unknown Date

A total of 29 sites on all three islands could not be ascribed a date range. In some case this was due to the fact that too little of the site was visible to attempt to interpret its type and date, in others it was due to the lack of diagnostic features visible.

Sites of Unknown Date	Total	Previously known	New
West Bu rra	13	3	10
East Burra	12	1	11
Trondra	4	0	4
Total	29	4	25

It is likely that the nature and date of the majority of these sites would be capable of being determined if invasive assessment techniques were applied. In the case of sites identified only on the basis of eroding deposits seen in the coastal section, it is seldom possible to determine date or, sometimes, nature. The solution may be assessment through section recording or, failing that, regular site monitoring.

	West Burra	East Burra	Trondra	Total
Mound/cairn	2	4	0	6
Structural remains	4	4	2	10
Midden	1	0	0	1
Enclosed promontory	2	1	0	3
Cropmark	2	0	0	2
Field system/boundary	1	2	0	3
Noost	1	0	2	3
Indeterminate	0	1	0	1
	13	12	4	29

Site Location in Relation to the Coast

The majority of sites (46%) on all three islands lie on the coast edge; the next largest category of sites, forming over 25% of all sites recorded by this survey, lie less than 10m from the coast edge. Sites within both of these groups must be considered vulnerable to erosion in the short term and many are already actively eroding. Further inland, sites may be vulnerable to disturbance from housing or road development, and to a lesser extent, from agricultural or pastoral activities.

	West Burra	East Burra	Trondra	Total
On the coast edge	20	28	13	61
<10m from coast edge	20	10	4	34
<20m from the coast edge	5	2	3	10
<50m from the coast edge	11	5	4	20
<100m from the coast edge	0	3	3	6
<150m from the coast edge	0	1	0	1
	56	49	27	132

On West Burra over 71% sites lie on or within 10m of the coast and are vulnerable to erosion. The figure for East Burra is even greater; almost 78% of the sites on this island are at risk. On Trondra, 63% of sites are susceptible to erosion.

It may be considered unsurprising that such a large number of sites have been found to lie on or near the coast edge, since the survey area was specifically restricted to the coastal zone (defined as within 50m-100m of the coast edge). It should be borne in mind, however, that the evidence of Parry's survey on West Burra indicates that, with very few exceptions, most of the prehistoric sites found by him on that island were located close to the coast (Hedges, 1984, 47-51). Given the similarities in topography, the same is likely to be true on East Burra and Trondra. It is therefore likely to be the case that the vast

majority of sites, particularly of the prehistoric period, on all three islands both lie within the coastal zone and are vulnerable to coastal erosion.

Site Condition

On all three islands, most sites were considered to be in a fair (43%) or fair to poor condition (20%). On West Burra sites in fair condition made up 42% of all sites recorded, while on East Burra the figure was 44% and on Trondra it was 40%.

	West Burra	East Burra	Trondra	Total
Good	1	5	6	12
Good-fair	5	1	1	7
Fair	24	22	11	57
Fair-poor	14	8	4	26
Poor	8	13	4	25
Unknown	4	0	1	5
	56	49	27	132

On West Burra, the second most numerous category was that of sites considered to be in a fair to poor condition (25%). Over 14% of sites were categorised as being in poor condition, while less than 2% of sites were thought to be in good condition.

Over 26% of sites on East Burra were viewed as being in poor condition, with a further 16% considered as being fair to poor. A larger number of sites (10.2%) on this island were in good condition than on West Burra, however.

Trondra had most sites thought to be in good condition (22%) with almost equal amounts of sites in fair to poor condition (14.85) and poor condition (15%).

Recommendations for Further Work

Further assessment work has been recommended at a total of 93 sites, representing 70% of all sites recorded by this survey. At the most basic level, there is a requirement for detailed site drawings and accurate mapping. It must be borne in mind that this survey took the form of a rapid walk-over and did not therefore include the production of scale drawings or maps. In some instances, it was not possible to determine the true nature of a site because it extended far beyond the coastal zone as was frequently the case with both field systems and land boundaries.

	West Burra	East Burra	Trondra	Total
Survey	40	37	16	93
Monitor	8	5	5	18
Nil	8	7	6	21
Total	56	49	27	132

More intrusive assessment is likely to be required to determine the true nature and date of many of the sites found by this work and excavation of at least a proportion is to be desired. This might be prompted both by the fact that so many sites are threatened by coastal erosion and by the opportunity to discover more about the history and archaeology of the islands. Excavation of further sites such as Bronze Age and Viking period settlements can offer rare insights into site types and periods which are not well represented elsewhere.