

Interim Report No 2

September 1997 & 2000

Legacy Reports 1

- Daer Reservoir - Kirkhope Tower
- Daer Reservoir - The Cairn Group
- Daer Reservoir – Burnt mound
- Daer Reservoir – Ring Cairns.
- Daer Reservoir - Chert Knapping Site.
- Daer Reservoir - Mesolithic Flint Knapping Site No 1, 1995.

Legacy Reports 2

- Daer Reservoir - Mesolithic Flint Knapping Site No. 1.1997, 2000
- Daer Reservoir - Burnt Mound deposit charcoal and date.
- Daer Reservoir - Mesolithic Site No 2. 2999 [NS 9847 0798].
- Daer Reservoir - Mesolithic Site No 3. 2999 [NS 9858 0829]
- Daer Reservoir - ?Mesolithic chert knapping site. Site No 4 [NS 9855 0795].
- Daer Reservoir – Lithic scatter - Site No 5 [NS 97150765]
- Daer Reservoir – Lithic scatter - Site No 6 [NS 97130760]
- Daer Reservoir – Lithic scatter - Site No 7 [NS 97120754]
- Daer Reservoir – Lithic scatter - Site No 8 [NS 96800715]
- Daer Reservoir – Lithic scatter - Site No 9 [NS 97150765]
- Daer Reservoir – Lithic scatter - Site No 10 [NS 97130760]
- Daer Reservoir – Lithic scatter - Site No 11 [NS 97120754]
- Daer Reservoir – Lithic scatter - Site No 12 [NS 96800715]
- Daer Reservoir – Lithic scatter - Site No 13 [NS 96770680]
- Daer Reservoir – Lithic scatter - Site No 14 [NS 96740710]
- Daer Reservoir – Lithic scatter - Site No 15 [NS 96780693]
- Daer Reservoir – Lithic scatter - Site No 16 [NS 96780686]
- Daer Reservoir – Lithic scatter - Site No 17 [NS 96770680]
- Daer Reservoir – Lithic scatter - Site No 18 [NS 96730660]
- Daer Reservoir – Lithic scatter - Site No 19 [NS 97050670]
- Daer Reservoir – Lithic scatter - Site No 20 [NS 97050678]
- Daer Reservoir – Lithic scatter - Site No 21 [NS 97330674]
- Daer Reservoir – Lithic scatter - Site No 22 [NS 96750643]
- Daer Reservoir – Lithic scatter - Site No 23 [NS 97050670]
- Daer Reservoir – Lithic scatter - Site No 20 [NS 97500708]
- Daer Reservoir – Cairn 1. [NS 98310794]
- Daer Reservoir – Cairn 2.
- Daer Reservoir – Cairn 3.
- Daer Reservoir – Cairn 4. [NS 98290786]
- Daer Reservoir – Burnt mounds`. [NS 98820797]
- Daer Reservoir – Stone building [NS 96830710]

Legacy Report 3

Fieldwork and excavations at Daer Reservoir, 2001 [NS 90 NE]
Daer Reservoir – Site No 2. finds 2001
Daer Reservoir – Site No 24 [NS 9852 0836]
Daer Reservoir – Site No 9 lithic finds 2001
Daer Reservoir – Site No 10 lithic finds 2001
Daer Reservoir – Site No 25 lithic finds 2001
Daer Reservoir – Site No 26 lithic finds 2001
Daer Reservoir – Misc lithic find 2001
Daer Reservoir – Site No 26 lithic finds not plotted 2001.
Daer Reservoir – Misc. Lithic found in 2001
Daer Reservoir – Lithic found @ Cairn Group
Daer Reservoir – Site No 27 Cairn [NS 9858 0808]
Daer Reservoir – Site No 27 Cairn NS 9858 0808
Daer Reservoir – Fire Site (A), Site No 28 (Near Site No 1)
Daer Reservoir – Site No 29
Daer Reservoir – Test pits Nos1 and 2 at main cairn group
Daer Reservoir – Other new sites
Daer Reservoir – Medieval sites

Legacy Report 4a

Field survey in Daer Valley Interim Report No 4a

Fieldwork, Excavations and Research in Daer Valley and Reservoir, Clydesdale OS Sheet NS 90 NE

Building No	Site name	Numbers	Numbers used Trenches
1	Coom post medieval	001 - 025	1, 2, 3
2	Coom burnt mound	026 - 050	4, 5a, 5b, 5c
3	Coom post medieval	051 - 075	6, 7
4	Coom post medieval	076 - 100	8, 9
5	Coom post medieval	101 - 125	10, 11, 12
6	Coom post medieval	126 - 130	13
7	Coom post medieval	131 - 135	14
--	Coom post medieval	Trench 14a not allocated a building number	
8	Coom BA stone circle	136 - 150	no excavation
9	Coom BA cemetery	150 - 200	15
10	Smithwood bastle	201 - 250	16
11	Wintercleuch bucht	251 - 275	17
12	Wintercleuch building	276 - 300	18
13	Wintercleuch bucht	301 - 325	19
14	Wintercleuch building	326 - 350	20, 21
15	Crookburn building	351 - 375	22
16	Hapturnell	376 - 400	23 (not completed)
17	Sweetshaw @ burn	401 - 450	24, 25
18	Sweetshaw @ burn	"	26
19	Sweetshaw @ burn	"	no excavation
20	Sweetshaw @ burn	"	27, 28
21	Sweetshaw @ burn	"	29, 30, 31
22	Sweetshaw on hill	"	32, 33
23	Shiel Burn	451 - 475 3	4, 35

Finds are catalogued in an alphanumeric system which gives the site location

Legacy Report 4B

Wintercleuch bucht and building	Trenches 17 - 21
Crookburn building Trench 22	
Hapturnell 376 - 400	Trench 23
Burnt mound No 69	
Burnt mound No 71	
Sweetshaw @ burn 401 - 450	Trenches 24 – 31
Sweetshaw on hill Trenches 32, 33	
Shiel Burn 451 - 475	Trenches 34, 35
Daer Reservoir Part 2 (of the 4th Interim Report)	
Sites 1-3, 5 – 10, 12, 31 – 33, 37, 39 - 43	
Daer Reservoir Site 82 Burnt mound discovered in 2004	[NS 97406 08399]
Daer Reservoir Site 83 Ring enclosure/cairn?	[NS 96695 06925]
Daer Reservoir Site 84 Chert lithic scatter	[NS 95292 10319]
Daer Reservoir Site 85 Chert lithic scatter	[NS 95196 10295]
Daer Reservoir Site No 85/1 Burnt mound	[NS 97438 08425]
Daer Reservoir Site No 85/2 Burnt mound	[NS 97374 08402]
Daer Reservoir Site No 85/3 Charcoal deposit	[NS 97405 08511]
Daer Reservoir Site No 85/4 Possible cairn site	[NS 97173 08372]

Abstract.

Describes further work on Mesolithic sites, the discovery other lithic scatters and of burnt mounds and cairns within and around the Daer Reservoir, South Lanarkshire.

Introduction.

During 1995 a survey and excavation project was carried out by voluntary archaeologists from Biggar Museum Trust (see Interim Report 1995. Ward 1995). The excavation of a Mesolithic knapping site was uncompleted due to the sudden re-filling of the partially drained reservoir.

In August and September of 1997 the water level was again reduced due to dry weather conditions and the opportunity was taken to resume work on the Mesolithic site (Site No 1) and also to conduct excavations on the second Mesolithic site (Site No 2).

In August and September 2000 the water level was once again reduced due to dry weather conditions and the opportunity was taken again to resume work. The intention this time was monitor the condition of previously discovered sites and to carry out a systematic and detailed search of the shoreline to detect other lithic scatters.

Results 1997 and 2000

Mesolithic Flint Knapping Site. Site No 1. NS 98600827

The 1995 assemblage of lithic material is being studied by Alan Saville of the National Museums of Scotland. The soil samples retrieved from small pits have been described and analysed by Jennifer Thoms and the identification of the charcoal contained within the pits has been completed by Shiela Boardman. The environmental work was achieved through a grant from the Society of Antiquaries of Scotland and a private donation.

Lithics.

The lithic assemblage was recognised at the original time of excavation as being of an unusual nature regarding the types of material which are represented. Four lithic types were found; the local radiolarian chert, a siltstone, flint and another, at present unidentifiable rock type. Only the chert is known to be available locally in the Southern Uplands (but not in the immediate environs of the Daer), it is possible that the siltstone was also obtained nearby but the flint and the other lithic type are somewhat problematic concerning their original source and indeed their exact mineral identification.

The flint has no known parallel in Scotland (A Saville, pers comm), the colour of the majority varies only slightly, most being in pink/purple hues and are present in some pieces which appear to be a type of chalcedony different from flint. Much of the material retains a creamy coloured cortex which is not smoothed by erosive action, rather it is freshly pitted with rough surfaces and cavities and some examples appear to have traces of fossilised cavities. A few examples of darker flint are present and also a split pebble of orange colour.

A range of diagnostic types of artefact have been identified by Alan Saville which apparently are stylistically indicative of a late Mesolithic assemblage (but see dates below).

The second unusual lithic type is a mottled blue-grey stone which is a material suitable for high quality flaking. The sample retrieved is small compared to the more abundant flint from the site. Inspection of the extensive collections of the National Museums has provided a parallel for this lithic type, a single example from Airhouse in Berwickshire, found in 1937 by fieldwalking. This particular piece has retouch. Both the Daer and Airhouse samples were submitted to Mr Jim Floyd of the British Geological Survey for identification, Mr Floyd is a specialist in the geology of the Southern Uplands of Scotland where radiolarian chert is found as both solid and drift geology. The assemblage retrieved at Daer appears to have no parallel with any Southern Uplands types which have so far been identified and/or sourced, although the blue coloured stone may prove to be a previously unrecorded type of Southern Uplands chert {this is shown later not to be so}. Eventually a petrological examination will be undertaken to identify this mysterious stone type. [This is now included here for the sake of completeness]

Report by Dr James Floyd, British Geological Survey

Report on two flint-like artefacts from Daer Reservoir and one from Fortune Airhouse (1939)

Descriptions of specimens

Daer Grid 1:

Regular, bi-laterally symmetrical partly oval-shaped flake (21x17x4mm) of grey-buff chalcedony with numerous irregular dark grey patches and small black specks. These are also small irregular areas which are filled with clear chalcedony around their rims, white chalcedony centres and with agate-like growth rings. No irregular joints or veins visible. This specimen is of the size and shape which might suggest its use as an arrow-like tool or weapon. It may therefore be significant that the pointed end of the specimen is broken and therefore blunt in comparison with the other edges of the flake. However, the surface of the specimen is fresh and not scratched. Original rock source could have been a flint nodule.

Daer Grid 21:

Less regular (than Grid 1) oblong-shaped flake (25x14x5mm) of pale grey chalcedony with numerous interconnecting semi-regular linear zones of semi-clear chalcedony, some with white groundmass. Some of the clear linear zones contain smaller fragments of pale-grey groundmass of the rock, the larger fragments giving the appearance of brecciation of the original rock, and the smaller of sedimentary fragments. The surface of the specimen is fresh and not scratched. Original rock could have been a silicified sedimentary rock.

Fortune, Airhouse (1939):

Bi-laterally symmetrical roughly oblong-shaped flake (24x18x3mm), wider at one end, of mid-grey chalcedony with a few small angular areas of white chalcedony with agate-like growth rings. A few small black specs are also visible in the groundmass. Some narrow cracks cross the specimen but these appear to have been sealed or annealed such that they apparently do not form zones of weakness. The surface of the specimen appears polished and scratched. Original rock could have been a flint nodule, but different from Daer Grid 1.

Comment:

None of the above look like Southern Uplands cherts I have seen, which are usually very brittle with numerous dark regular joints such that they do not readily form strong flakes. I would therefore suggest that the three artefacts above are not sourced from the southern uplands bedded chert sequence. However, I should point out that I have not done a systematic study of the Southern uplands cherts to compare them with the submitted specimens or to judge them from the point of view of their suitability for working as flint-like artefacts. The above conclusion is therefore only an opinion based on very limited evidence.

Dr James D Floyd

12 July 1996

We are grateful to Dr Floyd for this report.

Further research is required to identify the possible sources of these two strange lithic types which, along with other factors make this particular site unique and intriguing. [This aspect is ongoing with no success as yet].

1997 excavation, Site No 1.

Upon initial inspection of the site in early September 1997, more lithic material was noted lying on the surface of the previously excavated trench and on the immediate surrounding area. The trench had silted with a light covering of mud since 1995, the excavated pit features, were still visible although filled with silt, but there was no deposition of stone or gravel over the trench since 1995. This observation will be of some value towards a better understanding of the dynamics of erosion and deposition within a reservoir, a factor which has important consequences for archaeological sites and their chances of survival in such circumstances. In future the site will be monitored when possible to build a picture of such effects.

The few lithics found in 1997 within the '95 trench were not re-deposited objects from elsewhere on the site, but were previously unexcavated due to the speedy resumption of high water level which caused cessation of work in 1995. However, a small amount of erosion must have taken place for those items to be exposed as they were, and the other lithics found in 1997 initially as surface finds around the trench must have similarly been washed out, presumably from near the surface. It is however most likely that this recent erosion, although slight, may only have been caused by the previous removal (in 1995) of the large boulders on top of the site thus allowing greater water turbulence on the surface of the cleared ground.

A thorough search was made around and away from the '95 trench and from the surface lithics which were found in 1997, for further lithic material, but none was found, indicating the material was confined to that area. The strategy was then to excavate until the lithic material was exhausted, this was thought to have been achieved (but see below) by the excavation of about a further one metre around the previous trench. No further features were located but charcoal flecks were seen in the leached clayey podsol, especially on the north side where it had been noted in section in 1995.

A further amount of lithic material was retrieved which was similar to that previously found, this time finds were plotted to 10cm accuracy. Debris as small as 2mm was retrieved. All spoil was wet sieved through 4mm sieves to obtain the smallest debitage (but see below). Two concentrations of lithic were noted which are likely to be significant; a clutch of cores and a dense occurrence of flaked material, lying as discrete scatters between the angular boulders (see plan).

The lithics are recorded to the 1995 grid (which survived on site) and are given as East or West of the base line where zero is at the southern end (see plan).

For convenience they are listed from south to north.

Quantity	Weight	Baseline	Offset	E / W	
2	1	2.5	0.9	W	
2	19	2.8	2.3	W	
3	2	3.0	0.1	E	
2	4	3.7	1.5	W	
1	1	3.8	2.0	W	
12	7	3.9	0.2	W	
27	186	4.0	0.0	---	this a cluster of chunks, flakes, cores

Quantity	Weight	Baseline	Offset	E / W	
2	6	4.0	1.7	W	
3	12	4.0	1.9	W	
4	44	4.1	0.3	W	
1	26	4.4	0.2	E	
2	25	4.6	1.2	E	
4	5	4.6	1.5	W	
10	33	4.6	1.9	W	
1	1	4.6	2.0	E	
2	2	4.8	1.5	W	
5	3	4.8	1.8	W	
1	25	5.1	2.4	E	
1	3	5.6	2.3	E	
14	7	5.7	1.3	W	
1	4	5.8	1.8	E	
45	31	5.8	1.8	W	this a scatter of c 0.35m diameter
1	4	6.0	3.0	E	
1	1	6.1	1.8	E	
1	2	6.1	3.4	E	
16	11	6.6	1.7	W	this a scatter of c 0.35m diameter
1	1	6.9	2.1	E	
1	3	7.1	1.7	E	
1	1	7.4	2.0	E	
1	6	7.4	2.9	E	
97	91	7.5	1.7	W	this a scatter of c 0.35m diameter
1	15	7.5	3.1	E	
1	11	7.5	3.3	E	
2	11	8.5	0.3	E	
88	86	8.5	1.3	W	this a scatter of c 0.35m diameter
1	1	8.6	0.4	W	
2	3	8.7	0.3	E	
1	2	8.7	2.6	E	
1	15	8.8	0.2	E	
1	8	8.9	0.9	E	
1	5	9.1	0.0	---	
1	28	9.9	1.9	E	
1	3	10.2	0.2	W	
1	1	10.2	0.4	E	
1	17	10.2	2.0	E	
1	2	10.2	0.2	E	
1	3	10.3	1.5	E	

Quantity	Weight	Baseline	Offset	E / W	
1	3	10.3	1.9	E	
1	1	10.4	0.6	E	
383 total	784gms				all types lithic down to 2mm in size

The area of the relict stream bed previously identified on the south side of the site was investigated in order to clarify if knapping material had been deposited there. The results show that the knapping was probably confined to the northern bank of the burn although seven pieces had found their way into the stream bed. A test pit of 1 metre square on the south side of the stream bed produced no lithic. The exact position of the stream bed was delineated by tumbled cobbles which had formed the base of the stream, these were lying slightly below the clayey till, the cobbles and rounded pebble stones were still covered in a thin lens of peat of about 100mm deep and which came to the same level of the surviving clayey till adjacent and on each side of the stream bed.

2000 excavation, Site No 1

It had been reckoned in 1997 that the site had been effectively cleared of lithic, suspecting that only a few peripheral pieces might remain. In both the previous campaigns the rising water levels caused the cessation of work within the reservoir. In 2000 more lithic was noted lying around the edges of the excavated site, this included chert, flint and the mysterious blue stone. Further trowelling was done around the former trench and although no further features were located, the following lithic was recovered;

Further lithic found on Site No 1 in September 2000

GRID	NUMBER	WEIGHT (grammes)
27	84	65
28	162	120
29	6	10
34	8	4
35	5	10
Site Grid		
5.0 base line / 2.0 east	3	2
7.0 base line / 2.0 east	32	31
7.0 base line / 3.5 east	7	18
east side of site, not plotted	29	59
east side of site, not plotted	14	10
random finds not plotted	9	18
Totals	359	347
Add 1995 totals	1736	>1700
Add 1997 totals	383	784
Grand total	2478 of	>2831

These finds include cores, microliths and scrapers. Materials include flint, siltstone, blue stone and chert.

Fragments of hazel nut shell were also found in year 2000 for the first time at Site No 1.



Plate 18



Plate 19



Plate 20



Plate 21



Plate 22



Plate 23



Plate 24

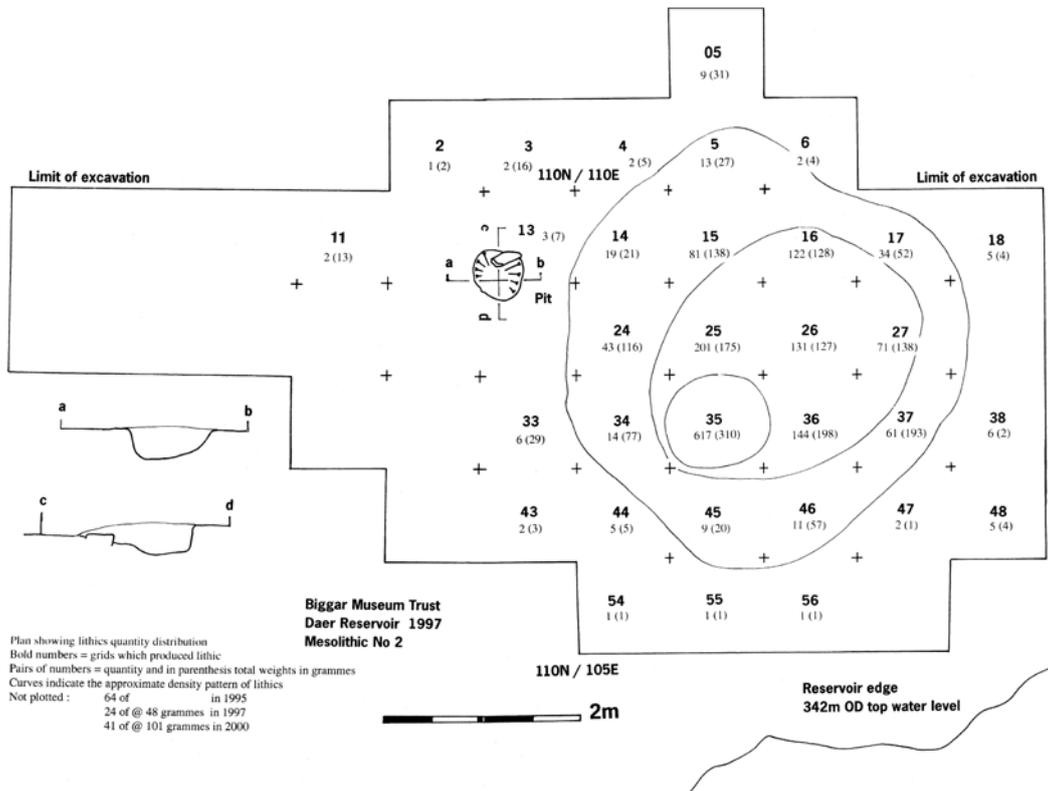


Fig. 11

Soil Samples.

Jenny Thoms

Features were sectioned and bulk sampled, of these, sub samples were submitted for routine tests and descriptions.

Charcoal.

The soil samples from the 1995 and 1997 seasons were wet sieved by the writer and flotation of organic material was collected in 1mm and 300micron sieves. The 1mm flots of charcoal were submitted for identification and preparation of samples for radio carbon dating.

Mesolithic Site No 1 charcoal and date.

The range of charcoal species from the pits is unknown at present as the specialist, Miss Shiela Boardman cannot be traced to supply information, or to return the samples! However, a sample from Feature No F2 (lower) which was identified as pumoideae, and was returned, was radio carbon dated:

(AA-30354) 9075 +-80 one sigma cal BC 8095 (8080) 8026

two sigma cal BC 8333 (8080) 7962

This single C14 date is the earliest evidence of people in Scotland, pushing human occupation past the 10,000 year barrier for the first time, and by a factor of about 500 years. If the return from the specialist of the samples from the other contexts can be obtained, further corroborative dates will be undertaken; the writer recognises that a single date may be problematic for the purposes of site interpretation.

Note: neither the samples nor a report were ever received from Shiela Boardman despite repeated request.

Burnt Mound deposit charcoal and date.

The sample retrieved in 1995 from the dispersed burnt mound was identified as being comprised of mixed species of charcoal. The dominant type was *Alnus* (Alder) which was selected for dating and returned to the writer. The other species identified are presently unknown to the writer for the same reasons given above! The alder sample was radio carbon dated however:

(AA-30356) 3195 \pm 55 one sigma cal BC 2484 - 2342, cal, BP 4433 - 4291

two sigma cal BC 2575 - 2210, cal, BP 4524 - 4159

This C14 date makes the burnt mound one of the earliest dated examples in Scotland.

In year 2000 the opportunity was taken to obtain another charcoal sample from the dispersed burnt mound deposit. The reason for retrieving another sample is that the original material gathered in 1995 has not been returned from the charcoal specialist, only the remainder of the *Alnus* dating sample is with Biggar Museum.

The new sample was obtained by sieving on site through 4mm sieves. The retained material was then dried and the charcoal hand picked from the stone residue. No smaller material was retrieved and the same location for sampling was chosen. The final sample of charcoal weighs 173 grammes. This will allow for re-examining the contents of the deposit if necessary.

Mesolithic Site No 2. NS 98470798 Fig 11 Plates 18 - 24

This location was first noted in 1995 when a small assemblage of 64 chert flakes was picked up from the surface. At that time it was tentatively described as Mesolithic material by Alan Saville.

The site lies on the lower east flank of Watchmans Brae and is only just within the reservoir at 342m OD (PI 18). It lies on the edge of a fairly level terrace which falls down into the reservoir on the north, east and south sides. The terrace on the west side of the reservoir is still overlain by a 0.75m depth of peat which gradually rises westwards; therefore a large expanse of fairly level ground must underlie the peat. The site occupants were active just above a break of slope down towards the Daer Water; it is possible that other sites of the Mesolithic period may lie undetected below the peat on the west and south sides of this branch of the reservoir. On the sloping ground immediately below the site, the ground is covered in boulders, but about 50m to the east and further down into the reservoir, on a gentler slope, there is a residual cover of about 0.3m of peat. Within about 30m to the north and south of the site there is a similar peat cover, through which the remains of pre-peat birch scrub protrude.

Prior to excavation in 1997, areas on the terrace of about 2m to 4m across and relatively free of stone were tested for archaeology (PI 19). The first trench produced the results given here while the second provided no archaeological evidence. It is possible that these areas were originally cleared of protruding stone to form a more comfortable working or sleeping surface.

The lithic material which had not been washed to the surface was found to be laying in a relict soil horizon which itself formed the matrix between and above natural cobble sized stones and which were embedded into the clayey till. Occasionally there were thin lenses of peat still overlying the old ground surface. The area which was finally excavated was fairly level overall

Methodology

The excavation strategy was to establish the true extent of the lithic scatter and to determine if any features and dateable contexts survived. A base line (PI 24) was established on the reservoir bank and all the finds were plotted numerically and in bulk to 1 square metre blocks (PI 20), a total of 57 blocks were excavated by hand trowelling, but only the blocks numbered on the plan, produced finds. All the spoil was wet sieved on site through 4mm sieves.

The only feature, a charcoal filled pit was sectioned on a N/S alignment through the centre and the pit profiles were recorded on the N/S and E/W axis. The contents of the pit were bulk sampled but in arbitrary batches to cover the upper and lower level of the pit. A sample from the pit base was chosen for dating.

The site Plates 21 - 23

The staggered trench measured 11m by 6m overall, its shape being dictated by the distribution of lithic material being located. The finds free extension to the N was an attempt to discover further features.

The circular pit (PI's 22 & 24) measured 0.55m N/S by 0.5m E/W, it was 0.35m at its maximum depth. The sides were gradual on all sides excepting the W where the side was steep, almost vertical. The base was fairly level. The fill contained very compacted dense clean charcoal intermixed with small angular stones. There were no finds within the pit fill but a chert microlith was found lying on top of the pit, possibly having been re-deposited there by the surface erosion on the site.

The finds distribution plot shows the denser concentration of lithic in block 35 with two further areas around this where the lithic numbers tailed off, hardly any finds were made around the pit and the ground to the north of the trench produced no finds. It would almost appear that the material was being struck over block 35 and in a SE direction.

Mesolithic Site No 2 charcoal and date.

Charcoal report by Dr Jennifer Miller, University of Glasgow. (Paraphrased)

The charcoal from sample 005, being the basal deposit of a pit which was the only feature located in the excavations, was of a decent size and in good condition. 70 fragments were chosen at random ensuring a representative sample of fragment shapes and sizes from the total dried weight of 209 grammes, which itself was only part of the total charcoal retrieved from the pit (see table).

All the identified charcoal was *Betula* (birch) and suspected to come from the same tree. There was no definite round wood indicative of branches; the degree of curvature on the rings of fragments found was very slight, suggesting a fairly large trunk. Rings were also close together in many cases which is further evidence of a tree with a large diameter.

There was also indeterminate bark which had a smooth outer layer in the sample. One remnant had *Betula* wood still attached, this was very similar in morphology to the other indeterminate bark and, given the rest of the sample, it is likely that they are also *Betula*.

The rest of the total sample was scanned to check for any obviously different species of which none were observed.

Results:

65 fragments of Betula 21.95 grammes
5 fragments of indeterminate bark 5.3 grammes

The charcoal was radio carbon dated as follows:

(AA-30355) 8055 \pm 75 one sigma cal BC 7044 (7030) 6779

two sigma cal BC 7255 (7030) 6654

This single C14 date ranks among the earliest evidence of people in Scotland.

The function of the pit is unknown but it may be associated with cooking. However, the greywacke stone which was found packed into the feature was in a severely bleached condition and much weathered, similar to the stone found below the peat elsewhere around Daer. Normally, greywacke stone which has been subject to severe heat has a reddened or pink hue which grades to the interior of the stone depending on the severity of heat. This oxidisation and change of colour usually makes interpretation as heated stone very easy in the Southern Uplands of Scotland. It therefore seems unlikely that the stone in the pit has been subject to heat, similarly, the gravelly till in this area takes on reddened or orange hues from the iron oxidisation caused by heat, for example as a hearth, the pit edges showed no sign of heating. At this stage it is concluded that the pit was filled with cold material.

List of finds which are all stone including siltstone and flint but predominantly chert.

The following surface objects were retrieved but not plotted in 1995. Preliminary identification is by Alan Saville.

64 pieces in total including the following types:

Numbers	Types	Weight gms
1 -2	Cores	25
3 & 5	Scrapers	9
9 - 14	Unretouched flake	22
4, 7 & 8	Misc' retouch	7
6	Edge trimmed	2
50 of	Misc'	91

In 1997 a further 21 lithics were retrieved from the surface, mostly blue chert including one small scraper. Some chips were found at the reservoir edge at the base of the peat. None of these are plotted.

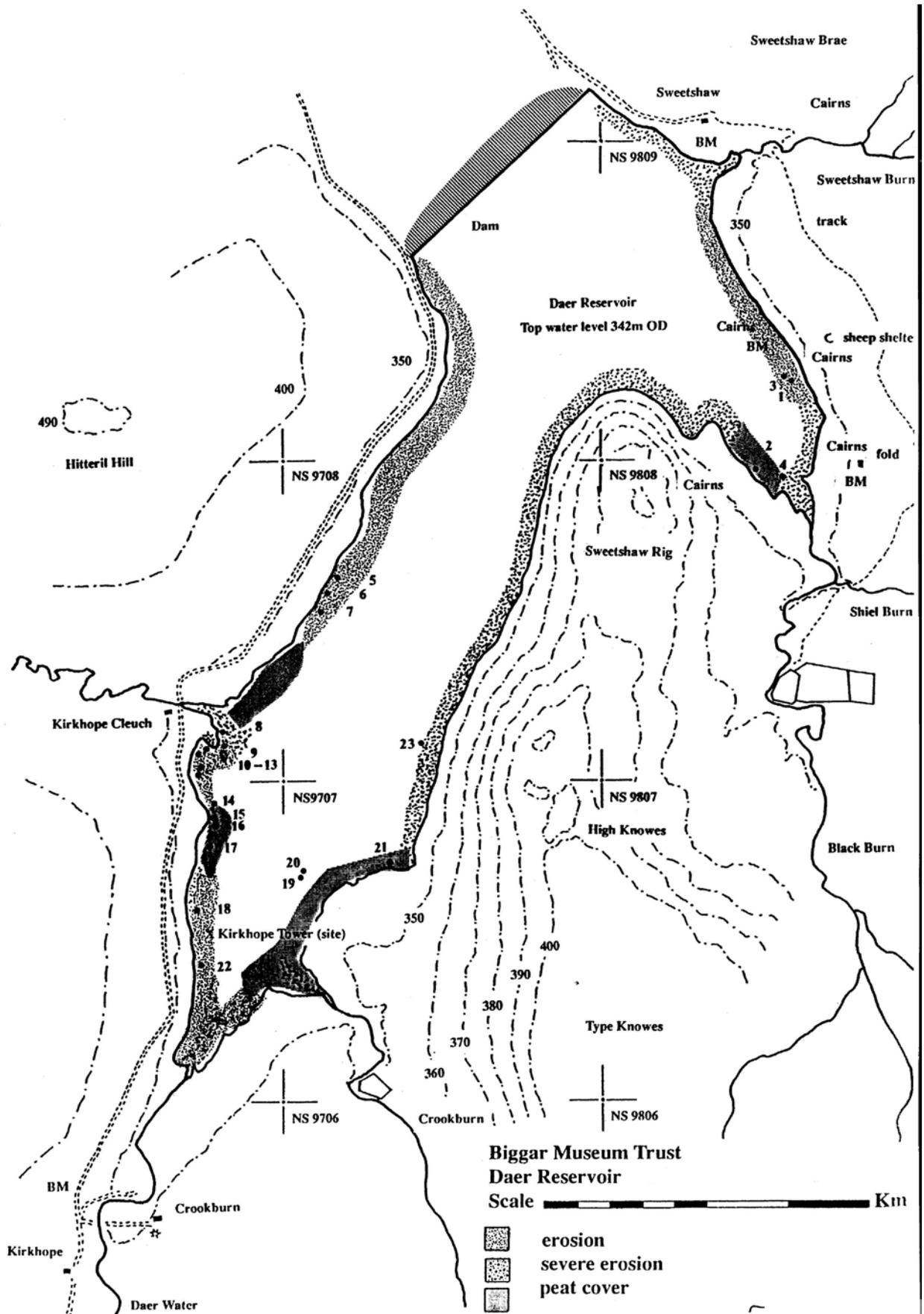


Fig. 12

Objects retrieved in 1997

GRID NO	QUANTITY	WEIGHT (grammes)
Surface scatter		
not plotted	22	47
Trench A		
05	9	31
2	1	2
3	2	16
4	2	5
5	13	27
6	2	4
7 - 8	----	----
11	2	13
12	----	----
13	3	7
14	19	21
15	81	138
16	122	128
17	34	52
18	5	4
19 - 23	----	----
24	43	116
25	201	175
26	131	127
27	71	138
28 - 32	----	----
33	6	29
34	14	77
35	617	310
36	144	198
37	61	193

38	6	2
39 – 42	----	----
43	2	3
44	5	5
45	9	20
46	11	57
47	2	1
48	5	4
49 – 53	----	----
54	1	1
55	1	1
56	1	1
Above F1	2	1
Totals 1628	1907	

Grand totals of all lithic retrieved from Site No 2 to year 1997

1718of

2114 gms

Further lithic found on Site No 2 in September 2000

Some of this material, which is all chert, was found eroding from between stones on the previously excavated area, while other pieces were washing out of the ground between the site and the reservoir edge. There is a total of 41 pieces (101 grammes) of which a core fragment and a microlith are present.

Grand totals of all lithic retrieved from Site No 2 to year 2000

1759

2215 gms

A second trench measuring 1 metre square was opened on an area of apparently cleared stone to test for finds and features. Four pieces of chert were retrieved.

Further lithic found 5 - 10m south of Site No 2, in September 2000. This may be a separate site and is designated Site 2a. These fifteen lithics (14 grammes) were found eroding from the peat bank at the reservoir edge and are an indication that the area is under continuous erosion.

For future reference, two small piles of stone on the reservoir bank and the site grid pegs now mark the length of the lithic scatter at Site 2 and 2a. [These were inspected in 2012 and were dispersed into the reservoir as the peat bank had eroded a further two metres since the excavation, no further finds were made]

The lithic assemblages from Site 1 and 2.

By Alan Saville, National Museum of Scotland.

The recognition of these locations and their timely excavation has produced evidence with the potential to make a very significant contribution to the Mesolithic database for southern Scotland.

The locations are defined essentially by the extent of struck lithic material, though some small, enigmatic features were recognised within the areas of the lithic scatters. Both scatters were relatively sparse, one (Site No 1) of about 2000 pieces, the other (Site No 2) of about ----pieces, suggestive of limited, or perhaps even individual, episodes of activity. This activity seems primarily to have been the production of microliths, involving the knapping of small pebble cores with resultant flake and blade debris. Both locations are likely to have been in the nature of hunters' bivouacs that is short-term stopping places, where replacement and retooling of lithic equipment was undertaken while on hunting trips away from base-camp.

The typology of the microliths and microburins from these two scatters indicates the later Mesolithic period, but this period extended for several thousands of years from c8,500 to c5,000 BP. The recovery of contextualised charcoals in association with these lithic scatters allows for the possibility of dating them more specifically within the later Mesolithic period. This will be particularly interesting because, although the two locations are in many ways similar, they also exhibit significant differences, particularly in the raw material exploited, being predominantly grey chert at one, and a different "flinty" material from the other.

The two Daer Reservoir locations, once the assemblages have been analysed, and dated, will have a prominent role in the re-evaluation on the inland Mesolithic settlement of Scotland. Pre-Neolithic human impact on the environment, otherwise only detectable by such techniques as pollen analyses, is given more tangible definition by the recognition of such locations, the existence of which raises important questions for cultural resource management. [End quote]

Lithic scatters found along the shoreline in September 2000. Fig 12

The opportunity was taken in year 2000 to identify any other lithic scatters within the reservoir area. Meticulous searching produced a series of locations around the reservoir beaches. Experience now shows that a few lithics on the surface generally means a much higher ratio will be found below the visible ground. This was tested at Site No 3 below and found to be true in that instance. The numerous other new sites would doubtless prove the same.

It is probable that the lithic found at some of these new locations can be shown to be Mesolithic in character, however, the writer believes that some locations and scatters may be of a later date, especially Bronze Age, the date of the burnt mound and almost certainly the date of the groups of cairns abounding in the area. Early Neolithic may also be represented by the single tiny piece of pitchstone found near the cairn group within the reservoir, although this is by no means certain, the increasing evidence from other pitchstone finds in Clydesdale tends to be proving that period for pitchstone use in the district.

The altitude of all these sites within the reservoir is noteworthy, being around 335m OD. In 1995 and 1997 the water level was much more reduced than in year 2000, vertically by several metres in fact, this means a considerable linear distance. The ground within the reservoir and below 333m OD has not been seen by the archaeologists, although it is known that several cairns of the main cairn group lie below this height, being visible in 1995 but below the water.

The discovery of the sites so far located has therefore been dictated by the water levels and the areas least affected by erosion. It is highly probable that sites of all periods will still exist unrecorded below the levels quoted here. One may expect Bronze Age unenclosed platform settlements, enclosed cremation cemeteries and many more cairns. Further Mesolithic locations lower down and nearer the main river courses may also be anticipated.

Mesolithic flint knapping site. Site No 3 NS 98580829

This site lies 25m north of Site No 1 and is only slightly lower in level. Despite a thorough search for lithic in this area on previous occasions none were found. It would appear that this factor may indicate active erosion, having said that, finding lithic in the scenario at Daer, is like looking for the proverbial needle in a haystack. Three surface flakes indicated the site.

The excavation objective was to determine if the assemblage which emerged was an extension to Site No 1 or was it a separate event? Unfortunately, the water level was lapping the area throughout the work, and also rising and falling which made operations difficult.

The ground cover of boulders was exactly the same as for Site No 1, no soil surface was visible, and the small patches between the larger boulders were covered in smaller stones, much of these being embedded into the relict ground surface which interfaced with the creamy coloured boulder clay below.

Because of the vagaries of the water levels the excavation could not be conducted systematically. The original base line at Site No 1 conveniently aligned through the new site and this was extended and used to record the finds to fairly arbitrary groupings of about 1.5m diameter. After the ground had been disturbed, finds would wash out overnight; these have not been plotted and are described as 'random'.

All loose stone was first removed and the ground trowelled as far as was possible, the old ground surface where most of the lithic was present lay between and below some of the stone.

Four patches of charcoal were retrieved, but this lay over the underlying stone and did not constitute features which could confidently be described as pits under the circumstances, although they may have been the base of such features. Each was bulk sampled and produced small amounts of charcoal of which samples 001, 002 and 004 contained hazel nut shell and sample 004 contained roundwood/twigs. Samples 001, 002 and 003 should produce dateable fragments, their dried weights are 9.5, 6 and 5 grammes respectively, and sample 004 produced less than 1 gramme of charcoal.

Samples 001, 002 and 003 also produced flint. This was retrieved in the residues after flotation and material down to 1mm in size was collected. It is therefore evident that much tiny lithic material was being lost during the wet sieving on site, 4mm sieves were used at that stage.

It is likely that a peripheral scatter may extend down slope into the reservoir, especially at the northern end of the excavation; this could not be reached due to the water level.

The lithic which was retrieved was predominantly flint with only a few pieces of chert. The flint is clearly the same type as was found at Site No 1 nearby, a type of flint which is unusual and has not been recognised from other sites in Scotland to date. However, the equally mysterious blue coloured stone which was found at Site No 1 and also the mudstone which had been worked there, was entirely absent at the new site. For this reason and the fact that the lithic scatter faded to zero finds in the area of the new excavations nearest to Site No 1, thus forming a discrete assemblage and, the close proximity to Site No 1, it is believed that this site was a separate event from Site No 1, but whether by a margin of days or years may never be refined. However, given the same unusual flint type at each location, it seems likely that the two events may have been associated with the same group of hunters.

Finds from Site No 3

The lithic was plotted to fairly arbitrary locations along the same base line which was extended from Site No 1. This was due to the vagaries of weather and rising and falling water levels. The material was clustered to circa 1m - 1.5m radius locations.

Location	Quantity	Weight
20.0 / 0.0	1	<1
20.5 / 1.0 E	2	3
21.0 / 1.0 E	14	19
21.0 / 1.0 W	4	16
22.0 / 0.0 c 1.5m ²	9	12
22.0 / 2.0 E c 2.0m ²	8	15
23.0 / 0.0	43	57
24.0 / 0.0 c 1.5m ²	24	43
24.0 / 2.0 E c 2.0m ²	27	77
24.5 / 1.0 E c 1.0m ²	83	76
25.0 / 2.0 W c 1.0m ²	116	123
26.0 / 0.0 c 1.5m ²	223	170
26.0 / 2.0 E c 2.0m ²	19	50
26.0 / 2.5 E c 1.0m ²	40	25
26.5 / 2.5 E	8	103
27.0 / 0.0 c 1.0m ²	127	83
27.0 / 1.5 E c 10.m ²	35	43
27.5 / 1.0 W c 1.5m ²	107	204
28.0 / 2.0 E c 2.0m ²	45	55

28.0 / 2.5 E		3	3
29.0 / 1.0 W	c 1.0m2	47	89
Random not plotted		4	8
From sample 001.	26.0 / 1.0 E	12	12
From sample 002	26.5 / 2.0 E	12	2
From sample 003	24.5 / 1.0 E 25	<1	
Totals		1038 of	1288gms

The finds include cores, scrapers and microliths.

Soil Samples

The four features; from which were taken the soil samples from site No 3, were indicated by flecks of charcoal causing the sub soil/clay to be a darker colour than that surrounding the features. Occasional flecks of charcoal were noted over most of the area but the samples retrieved were the only concentrations. Each feature was bulk sampled and hand processed to float charcoal off into 2mm and 300micron sieves. The samples all contained moss fibre. Charcoal fragments were then handpicked from the flots and cleaned of fibrous material as far as possible. The 300 micron samples contain much silt and fibre and will be retained for future reference if required.

No	Quantity	Charcoal Weight. gms	Size of feature	Location
001	c 2 litre	9.5	area of 0.3m by 0.2m deep	26.0 / 1.0 E
002	c 2 litre	6	area of 0.3m by 0.2m deep	26.5 / 2.0 E
003	c 1 litre	5	area of 0.15m by 0.2m deep	24.5 / 1.0 E
004	c 1 litre	<1	area of 0.15m by 0.15m deep	20.5 / 0.5 E

Mesolithic (?) chert knapping site. Site No 4 NS 98550795

This site lies 100m SE of Site No 2 and is about 2-3m below the high water level, being about 50m E of the high water level. It lies on the S side of a spring course which has a cover of peat up to 1m deep and extending for about 5m on each side of the stream. The actual water channel has a 0.5m depth of peat in it. The site lies 1.5m above the hard base of the stream. On the N side of the site there is a 3m wide bank of small boulders and stones which forms the upper edge of the spring course.

The site may have been cleared of stone as there is a 3.5m diameter, very slight depression which is stone free and which is surrounded on the N, S and W sides by small stones, although it is possible this feature may be a product of the movement of material within the reservoir. However, with the exception of a few flakes found nearby, all the lithic material was found within the depression which still retains the last vestiges of peat cover. A total of 48 pieces at a total weight of 34 grammes were retrieved as a surface collection and it is all chert.

It is most likely that this site represents another Mesolithic location. The site will be used to monitor the erosion taking place within the reservoir and will not be excavated unless there are clear signs that it is under immediate threat of being washed away.

To the S and SE of the site the ground still has a residual covering of peat up to 0.15m, this is however being washed away at an indeterminate rate. Such areas with peat being eroded could reveal other lithic scatters in the future.

A small cairn has been erected beside the site to indicate its position for future reference.

The following lithic scatters were found in September 2000 after a thorough search along the beaches of the reservoir. The weights given here are for the entire collections from each location (Fig 12).

Site No 5 NS 97150765

The site lies to the north of three prominent boulders which possibly may be seen at high water level. The scatter extends for about 30m but most of the lithic was found nearer to the boulders. The area appears to be under gentle erosion.

44 pieces of chert were recovered including a scraper and a brown coloured piece (211 grammes).

Site No 6 NS 97130760

This site is 50m south of No 5 above and is also at the high water level.

4 pieces of chert were recovered (36 grammes).

Site No 7 NS 97120754

This site is 60m south of No 6 above but it is 30m from the high water level.

2 pieces of chert were recovered (4 grammes).

Sites No's 8, 9 and 10 are located around the NE, SE and SW edges of the prominent knoll at the high water level of the reservoir and SE of Kirkhope Cleuch. The base of the knoll is being severely eroded on these sides. Because of the distinction of lithic types within the three collections of lithics, each scatter has been accorded a separate site number.

Site No 8 NS 96800715

This is a discrete scatter of about 5m in diameter.

12 pieces of chert and 8 of flint were recovered including a chert microlith and a split flint pebble of toffee colour (102 grammes).

See below for further finds and excavation at Site No 8

Site No 9 NS 96800710

This is a discrete scatter of about 20m in diameter.

16 pieces of chert were recovered (41 grammes).

Site No 10 NS 96750711

This is a discrete scatter of about 20m in diameter.

15 pieces of blue chert, 38 pieces of brown chert, 20 pieces of flint and a single piece of agate were recovered, plus three possible tools. The predominance of brown chert is unusual as it is normally only seen in Clydesdale sites as occasional pieces (225 grammes).

Site No 11 NS 96760705

This site lies 100m S of the knoll and is a discrete scatter of about 20m in diameter.

20 pieces of chert were recovered including a microlith and a scraper (45 grammes).

Site No 12 NS 96720702

This site lies about 120m S of the knoll and is a scatter of about 30m diameter.

58 pieces of chert and 2 of flint were recovered, including 8 chert and 1 flint scraper (402 grammes).

Site No 13 NS 96770680

1 piece of chert (7 grammes) was recovered.

Site No 14 NS 96740710

1 piece of chert was recovered (5 grammes).

Site No 15 NS 96780693

2 pieces of chert (11 grammes) were recovered.

Site No 16 NS 96780686

30m from the high water line.

2 pieces of chert including a core (39 grammes) were recovered.

Site No 17 NS 96770688

30m diameter at high water line

11 chert and 1 flint were recovered (33 grammes).

Site No 18 NS 96730660

Near high water line.

2 pieces of chert were recovered (11 grammes). [2 sherds medieval pottery and fragment of whetstone were also found near this location].

Site No 19 NS 97050670 (see below)

This site is a prominent knoll which is nearly completely submerged at high water level; a few square metres remain exposed above the water. The material here is from the SE side of the knoll.

12 pieces of chert and 2 of flint were recovered (53 grammes).

Site No 20 NS 97050670 (see above)

This site is a prominent knoll which is nearly completely submerged at high water level; a few square metres remain exposed above the water. The material here is from the NW side of the knoll.

15 pieces of chert and 4 of flint were recovered (184 grammes).

Site No 21 NS 97330674

This site is a narrow exposed beach measuring about 40m long E/W by 10m N/S, it is at the high water line with peat hags forming the shoreline on the S and shallower peat deposits surviving to the north.

12 pieces of chert and 2 of flint were recovered (63 grammes).

Site No 22 NS 96750643

1 piece of chert recovered (< 1 gramme).

Site no 23 NS 97500708

1 piece of chert recovered (< 1 gramme).

Finds from cairn group area in year 2000.

Random finds not plotted from circa NS ----- about a 100m radius.

4 pieces of chert and 5 of flint including a tiny flint scraper were recovered.

From a 1.5m square trench at NS ----- opened on an area of a light charcoal spread (flecks only). The trench was hand trowelled about 0.1m deep to natural gravelly boulder clay.

11 pieces of flint, 1 piece of brown chert and a tiny flake of pitchstone were recovered.

Results of further inspection of the ground above the reservoir in 1997.

The following previously un-recorded sites were noted:

Cairn 1. NS 98310794

On the NE flank of Sweetshaw Rig at 360m OD and lying on a sloping terrace there is a cairn which measures 7.5m x 6.0m x 0.4m high. Its long axis is on an NW / SE alignment. The cairn is mostly vegetation free and is composed of boulders probably gathered from nearby scree, there is an apparent depression in the centre and it may be a type of ring cairn.

10m below and east of cairn 1 there is a 3m diameter pile of vegetation free boulders which may be a cairn.

28m below and east of cairn 1 and at the base of a slope there is a cairn or structure which measures 5.5m x 3.8m, the long axis being NW/SE. The hollow interior measures 3m x 1m and although there is no obvious gap in the apparent bank, this feature may be the remains of a hut.

Cairn 2.

85m to the NW of cairn 1 and at 365m OD there is a ring cairn which measures 5.5m x 4.5m x 0.6m high. There is a depression in the centre which measures 2m x 1m. Mature heather covers the banks of the structure which dominates a small sloping terrace on the flank of the hill. It is possible that the feature is a small hut but there are no gaps to suggest an entrance.

Cairn 3.

Between these cairns and 42m from cairn 1 there is a possible cairn which measures 6m x 4m lying on the slope of the hill. The concentration of boulders may be natural scree but they appear to be a deliberate deposition.

Cairn 4. NS 98290786

10m east of a ruinous stiel and lying just above the break of slope which drops down to cairn 1, there is a 6m diameter x 0.4m high cairn comprised of boulders.

Burnt mounds. NS 98820797

On the W flank of Bield Knowe (hill) and 17m SE of a corrugated sheeting sheep fold and at 355m OD, there are two burnt mounds. The larger of the two measures 7.5m long by 4.5m at the widest point, it is 0.75m high. Lying at a slight angle to the first mound the other measures 6m x 3m x 0.75m high, the gap between them is 1m. Both mounds were tested and they consist of red coloured heat fractured rock lying in a matrix of dark soil. They lie within an area of better quality grass than the surrounding bent grass which is growing on peat. Unusually, there is no spring course beside the mounds. 50m to the NW there is a prominent cairn lying on the same gently sloping ground, this has previously been recorded.

The following site is below the normal high water level

Stone building NS 96830710

On the N side of a gravelly ridge which is an extension to the prominent mound lying at the high water line of the reservoir and SE of Kirkhope Cleuch, there is a circular stone building comprised of loose boulders. It measures about 3m in internal diameter with a possible gap on the E side. The structure has been built on top of peat which still survives; this indicates it is probably of relatively recent origin. It was possibly a small sheep pen.

Acknowledgement

Biggar Museum Trust is grateful to the following for their support in this project:

West of Scotland Water Authority for permission to work on the sites.

Society of Antiquaries of Scotland for a grant of £1000 to process the charcoal samples from the 1995 work.

National Museums of Scotland Charitable Trust for a grant of £600 to assist with radio carbon dating.

Mr and Mrs Roberts of Elvanfoot for a donation of £100 to assist with radio carbon dating.

Mr Alan Saville of the National Museum of Scotland for advising on the lithic assemblage and providing the note contained here on the first two seasons work, as well as offering much support for the project to date.

The Lanark & District Archaeological Society assisted with equipment for the 1995 season of work and Biggar Museum Trust Archaeology Group have raised the balance of funds so far expended on the project.

The group of voluntary archaeologists who over the three campaigns have assisted at the sites has been inspirational, often in inclement weather and wet sieving in extremely cold water. Post excavation work and cataloguing the lithics by Denise Dudds, Joy McBain and Alison White has taken many hours, rendering the assemblages into a convenient order to allow specialist work to commence.

The writer managed the project and supervised all work, soil samples were processed by him. Any errors or omissions in this second interim report are his alone.

Erosion

Since 1995, more lithic material had been eroded which is now known to be an inevitable consequence of the shallow water location of the site. The in situ peat here at the reservoir edge is under active scouring but it is now clear that erosion within the reservoir is less on the two western shorelines than it is on the eastern sides. This is due to the prevailing westerly winds causing heavy wave action against the eastern shores while the opposite two shore lines receive less turbulence, the difference between the two sides is striking. (See addendum report on erosion Ward 2012).

Nevertheless, erosion is demonstrably active on the western shorelines but at a lesser rate and also less consistently. Unlike the eastern shores, those on the west are not subjected to redeposition of gravel; neither do they have the prominent beach lines indicative of scouring and dumping caused by the dynamic effects of the waves.

As far as can be seen from detailed inspection along the edges of the reservoir there is no naturally occurring chert lying on the ground, the inference is that the chert was being collected elsewhere in the Southern Uplands. There are outcrops of chert in Upper Clydesdale and consequently plenty of it lying in the soils and burns around the Crawford area, just north of Daer.