



Biggar
Archaeology
group

Bringing the past to the present

Daer Valley and Clydesdale Mesolithic

Tam Ward. 2017

Abstract

The work of the Biggar Archaeological Group [BAG] has produced a significance corpus of data on the Scottish Mesolithic period. It has come from arable fieldwalking where lithic scatters have been retrieved and led to excavations, but more especially from excavations in Daer Reservoir and nearby forests which have produced in some instances complete assemblages of lithic, associated with charcoal enriched features and some C¹⁴ dating. Nearly all this voluntary endeavour awaits specialist study and further radio carbon dating, in the meantime some new thoughts on the subject are presented by the writer along with illustrations of sites and finds, the latter being mostly microliths. Some of the evidence suggest a link with the elusive Mesolithic-Neolithic transition.

Introduction

All the work by BAG is given in numerous interim reports published on their web site www.biggararchaeology.org.uk. By perusal of the Daer reports, the enormity of the entire Project will be appreciated. A previous report summarises their work on Mesolithic sites (Ward 2010) giving some detail not repeated here. Rather this paper gives an *illustrated* overview of the perceived importance of BAG work to Scottish Mesolithic studies, and gives further interpretations and ideas, since many aspects of the work are unique or unusual in the current knowledge of the hunter-gatherers, spanning four millennia between circa 10,000 and 6000 years ago. Throughout the paper, the need for professional input into BAG projects is emphasised to have a more succinct presentation of the data.

The place where it all began was Corse Law near Carnwath, where Lanark & District Archaeology Society organised the first major exercise in forestry walking in Clydesdale, and discovered a multi period scatter of lithic but which importantly contained a Mesolithic collection (Archer & Taylor 1987, Clarke 1989).

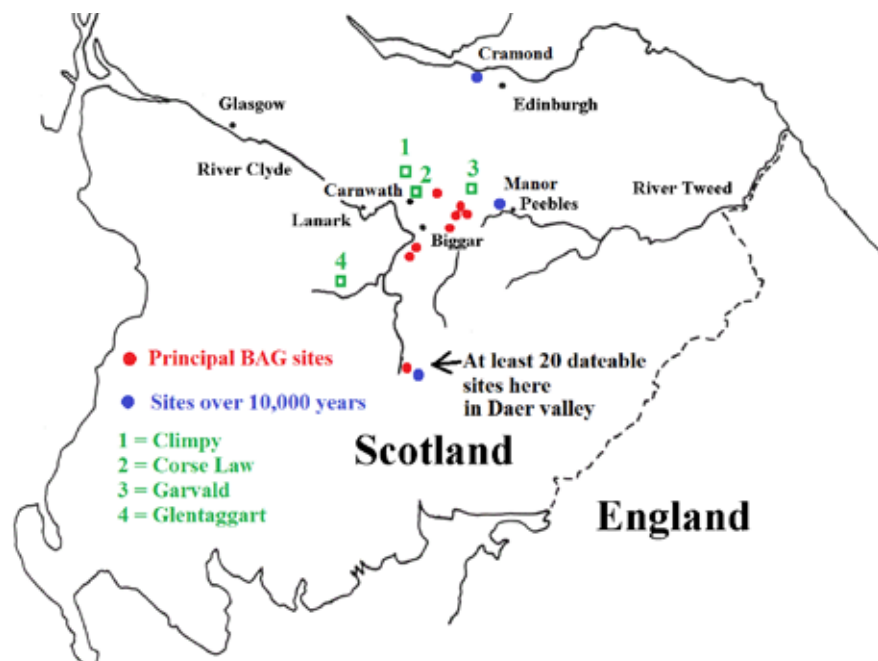


Fig 1

All the later BAG work has taken place in South Lanarkshire (formerly in part Clydesdale) and in neighbouring Upper Tweeddale in Peeblesshire (Fig 1) which has formed the fieldwork base area of the group, since its inception. Only a single Peeblesshire site is included; the important and uniquely C¹⁴ dated chert quarries of Burnetland Farm, near Biggar (PI's 1-3) (Ward 2012, Ballin & Ward 2013). The date was:

Burnetland Farm 2008	NGR: NT 03075 40116 Plates 1 – 3.	
SUERC-17876 (GU 16473)	Burnetland Hill Trench 1	Basal North End
<i>(Corylus)</i>	Radiocarbon Age BP	5220± 35
		$\delta^{13}\text{C} = -27.6\text{‰}$

Calibrated Age Ranges

68.2% probability	
4045BC (68.2%) 3975BC	<i>BC4010</i>
95.4% probability	
4230BC (3.5%) 4200BC	<i>BC4215</i>
4170BC (6.7%) 4120BC	<i>BC4145</i>
4080BC (85.2%) 3960BC	<i>BC4020</i>

NOTE: the C¹⁴ dates in this report are given as they were presented by the dating lab; Scottish Universities Research and Reactor Centre [SUERC], they vary in their format of presentation over time, the numbers in italics are the mean dates inserted by the writer, otherwise the data is, as received.



PI 1



PI 2



PI 3

Burnetland is important not least for the fact that Late Mesolithic people were searching out the best lithic resources in the area; the radiolarian chert which abounds along the Southern Uplands Boundary Fault Line, and were prepared to work hard to obtain it, but also because of the date (above). The equally unique set of hammer stones recovered, showed how the work was accomplished in cutting out the vein stone from the hill side. The often-cited Biggar Gap; the flood valley between Biggar and Broughton villages where the Biggar Water flows to discharge into the River Tweed, is often referred to as the major east/west through route connecting the Rivers Tweed on the east to the Clyde on the west. Prior to the work of BAG there has *never* been any archaeological evidence to support that idea, however appealing it would be on the topographical configuration of the landscape. The chert quarries at Burnetland show that the hunters were returning repeatedly to this and other locations in the Peeblesshire hills to re-stock on the locally available tool making stone; radiolarian chert.

The remaining principal sites are;

Weston Farm (PI's 4-6) (Ward 2005), where over 600 microliths of chert and flint were recovered from fieldwalking and excavation, along with features such as pits full of hazel nut shells, dates were:

Weston Farm 2004

NGR: NT 03476 4611

SUERC-3562 (GU 12117)

Weston Farm

Trench No 5

Feature 1

(Corylus)(Nutshell)

Radiocarbon Age BP

6035± 40

$\delta^{13}C = -24.5\text{‰}$

Calibrated Age Ranges

68.2% probability

4990BC (4.1%) 4970BC

BC4980

4960BC (61.0%) 4840BC

BC4900

4820BC (3.1%) 4810BC

BC4820

95.4% probability

5050BC (95.4%) 4800BC

BC4925



PI 4



PI 5

Weston Farm 2005
SUERC-6467 (GU 13037)
(*Corylus*)

NGR: NT 03476 4611
Weston Farm Trench No 1 Feature 6
Radiocarbon Age BP

7920± 40
 $\delta^{13}\text{C} = -26.1\text{‰}$

Calibrated Age Ranges

68.2% probability

7000BC (6.0%) 6970BC

Average 6985BC

6920BC (7.8%) 6880BC

Average 6900BC

6830BC (54.4%) 6680BC

Average 6755BC

95.4% probability

7030BC (95.4%) 6650BC

Average 6840BC

Weston demonstrated that inland Mesolithic sites need not be located beside river edges or even close to them, indeed, Weston, among other sites discovered by BAG show that the hunter's camps are often located on dry ground devoid of nearby springs.

Only two of several dateable features have been radiocarbon dated, however, a comprehensive study of the lithic from Weston is underway by Dr Dene Wright of Glasgow University, this of course will be a valuable contribution into a Mesolithic data set in terms of tools and debitage which span an extended period within the Mesolithic time frame. Further radiocarbon dates would supplement that, making Weston Farm one of the most important Mesolithic resources for archaeologists who study the Scottish hunter gatherers. It is important to realise that the evidence retrieved from Weston Farm is merely a *tiny fraction* of what obviously exists there. The density of finds, including 'clutches' of lithics recovered in the ploughed fields, speaks of untold thousands more, and most likely sites as well. The excavations merely sampled a relatively small area, and everywhere, sub plough soil features were in situ, including both EN pottery and further Mesolithic finds; most especially microliths, in abundance.



PI 6

The adjoining fields of the following three farms proved a lucrative area for fieldwalking which surrendered lithic from the Mesolithic to the Bronze Age, this work eventually morphed into the highly successful 'Pre-History North of Biggar Project' (Ward, various. See Ref's on BAG website) to test a hypothesis that *most* Neolithic evidence in Clydesdale came from north of Biggar while *most* dating to the Bronze Age, was south of the town, the records of sites discovered and recorded both by BAG and the RCAHMS show that the theory may well have some credence. One factor biased the theory significantly in favour of the BA in that all unenclosed platform settlements and all but two burnt mounds, are found south of Biggar (Ward 2013).

Howburn (PI 7), where fieldwalking produced cores and microliths and much debitage from fieldwalking. Of course, Howburn is now significant for its Late Upper Palaeolithic site (Ward 2009, Saville & Ward 2010, Saville A, Ballin T B & Ward T 2010, Tipping x3of 2010).

Brownsbank (PI 8 - 9), (Ward 2013) where fieldwalking produced cores and microliths and much debitage from fieldwalking. However, an Early Neolithic site was excavated and C14 dated.



PI 7



PI 9



PI 8

Melbourne (PI 10), (Ward 2013) where fieldwalking produced cores and microliths and much debitage from fieldwalking. It was here that the largest grouping of pitchstone was recovered from a single spot on the ground; Site No 1 with 104 pieces. The true date of the pitchstone at Melbourne remains uncertain. Several sites with Early to Late Neolithic pottery were C14 dated.

Cornhill (PI 11), (Ward 201) where fieldwalking and excavation produced cores and microliths and much debitage from fieldwalking. Random test pits produced lithic including a microlith.

Nether Hangingshaw (PI 12), (Ward 2005) where fieldwalking produced cores and microliths and much debitage from fieldwalking, the hilltop site overlooks the River Clyde. Nearby Early Neolithic pits with pottery and pitchstone were excavated and radio carbon dated.



PI 10



PI 11



PI 12

Daer Valley (see www.biggararchaeology.org.uk for numerous reports by Ward).

All the above are farms with arable fields, however the extraordinary concentration of sites in the Daer valley near the headwaters of the River Clyde, were all on undeveloped farming landscapes, being formerly unimproved upland pasture, before the massive reservoir and later the commercial forestry engulfed the area (PI 13). It is the Daer area which this report will concentrate upon. Many other diagnostically Mesolithic random lithic or small scatters have been retrieved from ploughed fields within the general area of Biggar, these are not included here since they do not compare in significance (as far as is known) with the sites given in this report, but all will eventually have to be considered. A few other sites in South Lanarkshire have been discovered by others in recent years through developer funded archaeology, these include Climpy near Forth (Innes & Duncan) and Glentaggart near Crawfordjohn (Ballin & Johnson 2005), and one location in Peeblesshire; Garvald, just over the border with Clydesdale, was discovered and excavated by Chris Barrowman (Ballin & Barrowman 2015).



PI 13

Note

Currently, endeavours by specialists are pursuing funding to have the BAG Mesolithic and other pre-historic work dealt with academically and it is hoped that a successful outcome will be the result. However, with or without the necessary professional input to finalise the work of BAG in Daer and other places, by 2018, all the assemblages recovered by them will be submitted for Treasure Trove allocation. It is imperative that these collections become legalised within Scottish Law and do not remain in limbo to it. Biggar Museum Trust (BMT) has thus far acquired all BAG assemblages already submitted by the local voluntary archaeologists, and it is assumed that the Mesolithic collections will be similarly acquisitioned by BMT.

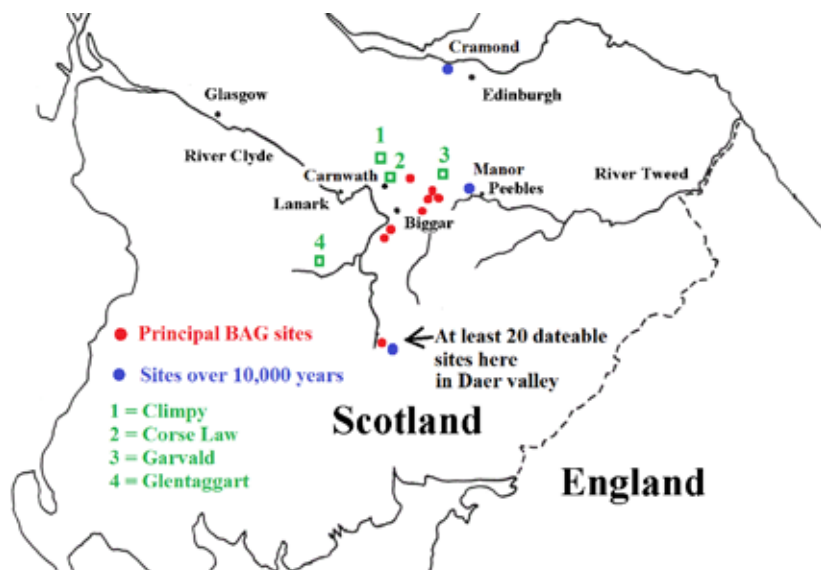


Fig 1. Distribution of Mesolithic sites discovered by BAG and others. Note the central and easterly bias.

The Daer valley

Due to the exclusive work of BAG over two decades in the Daer Valley, the area now has a palimpsest of the Mesolithic period with sites dating from c10,080 to c5727 years ago (Fig 3), and numerous sites which have been discovered and excavated and provided positive evidence in the form of lithic assemblages and dateable features such as hearths and charcoal filled pits.

It is particularly pertinent to note that the loss of archaeological sites of all periods but most especially of Mesolithic sites within the reservoir area must be a fact. Much of the land within the reservoir area and which was totally removed by construction and quarrying is known (PI's 14-15). Given what is now known regarding sites which have survived and been found, and the assumption that these can only be a few of what still exists below peat and silt, an inestimable number of sites must have been lost without record. Nevertheless, and on a more optimistic note, perhaps an even a greater number of sites still lie undisturbed along the 10km of the Daer valley, if ever an archaeological watching brief was necessary in Scotland, this must surely be it. Such work continues by BAG.

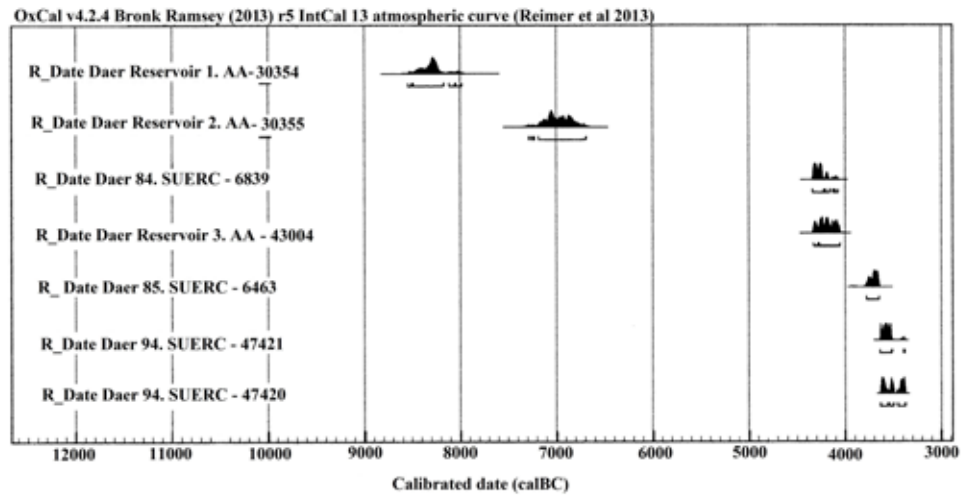


Fig 3



PI 15



PI 14

The range of activities on the recently discovered sites primarily appears to have been limited to re-tooling for the creation of microliths. Knapping on the earliest site (Site No 1) was by using a distinctive and unusual flint type (PI's 16-17) and, a yet unidentified lithic (PI 18); thought to be a silicified limestone, both rock types were used to make beautiful narrow blade microliths (PI's 19-20).

Other sites at Daer used the locally available *radiolarian* chert; hereinafter described as chert (PI 21), although mostly inferior in quality to flint, being less homogenous in texture, it nevertheless was used to fashion equally fine microliths and even tiny scrapers.

Because of the huge natural store of this chert in the Southern Uplands, only found along the fault line between Girvan and Dunbar, when it was discovered in antiquity as both the river pebble form and as outcrop, it was adopted in southern Scotland extensively throughout all pre-historic periods, including in the Late Upper Palaeolithic site at Howburn Farm. Mesolithic quarries in Peeblesshire have been discovered, and one has uniquely been excavated by BAG, showing the efforts, the hunters went to in getting the best material.



PI 16



PI 17



PI 18



PI 19



PI 20



PI 21

Daer Site No 1

The flint from Daer Sites No's 1 & 3 is perfectly preserved and sharp with no subsequent abrasion or wear since deposition. Clearly the ground was never disturbed in later periods. Nearby a prominent group of cairns probably dating to the Bronze Age and created as field clearance piles (although a funerary use for some cannot be ruled out) show how patches of the hillside were cleared of stone, the areas around the cairns being devoid of anything other than beach gravel (Fig 4) (PI 22). In direct contrast, at Sites No's 1 and 3 (PI 23), only 300m away, there is a boulder field upon which the Mesolithic hunters were camped. Both the cairns and boulder area are only seen at low water levels within the reservoir when conditions allow, but they have been extensively investigated and photographed by the writer.

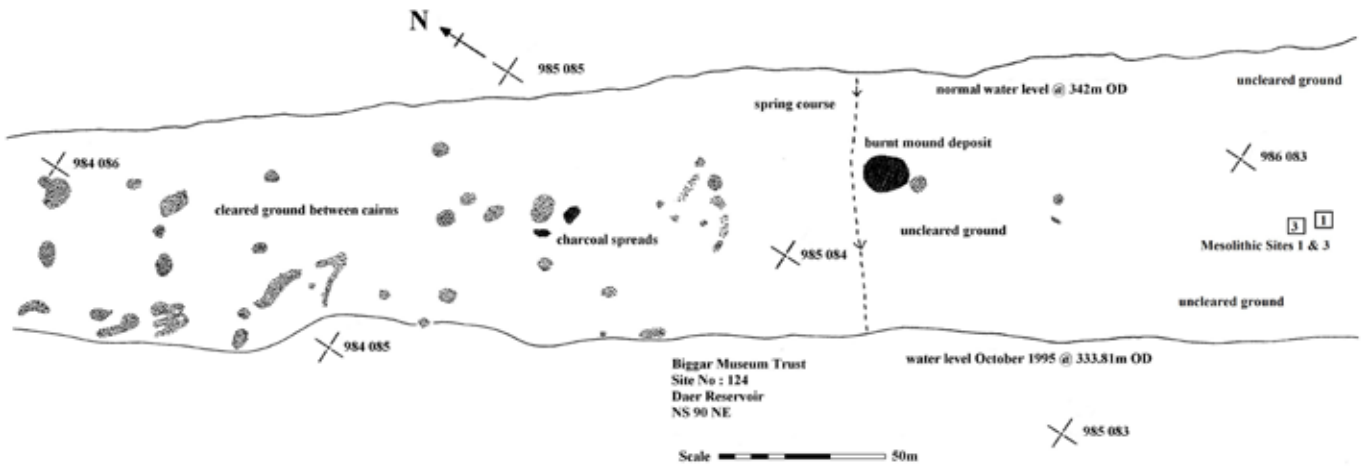


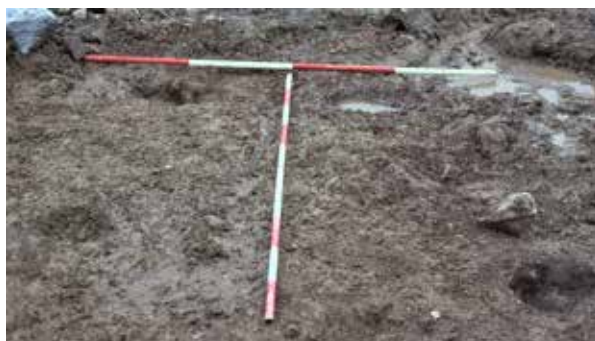
Fig 4



PI 23



PI 22



PI 24



PI 25

The features at Site 1 comprised of small pits and charcoal spreads, the former may have been post holes (PI's 24-25) and *tentatively* suggest a small structure of about 3m long, whether or not it was, the largest concentration of lithic on the site came from within the pit formation (Fig 5), the second dated feature; F7, is not given on the figure, it was located around the centre point of grids 25 – 28.

The flint from Sites 1 & 3 (e.g. PI's 16-17), because of its sharpness and the fact that it has been retrieved as a complete site assemblage, at least from Site 1, could, it is believed be re-fitted to some extent. A challenging task however, because the reduction process of fashioning such tiny microliths also produces small debitage. It may be possible that the two sites are one period of occupation, the three C¹⁴ dates from each are somewhat confusing, but the flint is the same, only expert analyses of this flint may help further with the matter, for example if the two assemblages can be connected by re-fitting?

The lithic was recorded to a 1m square grid system (Fig 5) over Site No 1, the location lies on one side of an ancient spring course. It may be possible to reconstruct the actual dynamics of the knapping process by examining the positions of refitted pieces. The many cores and core fragments would be the starting point for such an undertaking.

Most or perhaps all the Daer sites were single occasion events, probably for short periods of time. However, given the frequency of known sites in the area, it is now obvious that BAG have only discovered a small percentage of the total which must exist, still buried below peat – or water, and in some instances, both. Daer was a popular and frequently visited locale for hunter gatherers to stop and make camp, howsoever short the period of that stay was. Through the 'single sample' C¹⁴ dating of only 6 out of at least 20 dateable sites, we know that the place was used throughout the Mesolithic period, the earliest date being at Site No 1 at c8060 cal BC and the latest; neighbouring Sites 84&85 at c4280 & 3710 cal BC. Dates of c6911, 5755 and 4184 cal BC lie between the extremes which span c4350 years in time.

Of particular importance are the EN dates of c3596 & 3578 cal BC from Site 94, they are just over a century in time difference from the youngest Mesolithic dates above (see Fig 3).

However, it is admitted here that the dating of Sites 1 & 3 remains somewhat problematic because of the range of the three C¹⁴ dates (see below), the writer believes that clarification will only be achieved through expert lithic analyses and a comprehensive dating strategy of features which are currently available for such work, and this applies to the entire range of Mesolithic sites in Daer valley.



Fig 5

The late Alan Saville, a long-time (voluntary) supporter of the work of BAG, was in the process of analysing three assemblages (Sites 1,2 &3) and managed to describe some of the lithic, especially tool types. The pics which follow (PI's 26-41) are mostly in groupings arranged and numbered by Alan and are produced here to show the quality of the collections. They also show the range of lithic which included agate and mudstone although these stones were in a tiny minority. Of interest is the greywacke hammer stone (PI 41) which, if it is Mesolithic, was the only example from Daer, although see Burnetland above. As stated above, further attempts are being made to have BAG Mesolithic Projects completed professionally, any outcome to that should be known by 2018.

Details of Site No 1 dates are:

Daer Valley 1995 NGR: NS 9860 0827
AA-30354 Daer Reservoir: Site No 1 Feature 2/ Sample 003
(Pomoideae) Radiocarbon Age BP 9075± 80
 $\delta^{13}\text{C} = -26.7\text{‰}$

Calibrated Age Ranges
1 σ cal BC 8095 (8080) BC 8026 **BC8060**
2 σ cal BC 8333 (8080) BC 7962 **BC8147**

Daer Valley 2002 NGR: NS 9860 0827
AA-47770 (GU 9755) Daer Reservoir: Site No 1/F7
(Corylus) Radiocarbon Age BP 6865± 60
 $\delta^{13}\text{C} = -24.9\text{‰}$

Calibrated Age Ranges
68.2% probability
5840BC (2.9%) 5820BC **BC5839**
5810BC (56.9%) 5700BC **BC 5755**
5690BC (8.4%) 5660BC **BC5675**
95.4% probability
5880BC (95.4%) 5630BC **BC5755**



Plate 26. Site 1 microburins.



Plate 27. Site 1 microliths.



Plate 28. Site 1 microliths.



Plate 29. Site 1 microliths.



Plate 30. Site 1 microliths.



Plate 31. Site 1 microliths.



Plate 32. Site 1 microliths.



Plate 33. Site 1 microliths.



Plate 34. Site 1 microliths.



Plate 35. Site 1 cores.



Plate 36. Site 1 various.



Plate 37. Site 1 'bluestone'.



Plate 38. Site 1 agate.



Plate 39. Site 1 'Bluestone' micros and mudstone.



Plate 40. Site 1 flint and chert scrapers.



Plate 41. Site 1 greywacke hammer stone.



Plate 42. Site 2 excavation in progress



Plate 43. Site 2 bags of lithic per square metre.

Site No 2 Fig 6 & Plates 21 & 44 - 47

Site No 2 was completely different in character from No 1 in that the lithic assemblage was almost exclusively chert (Pl 21 & 44-47). A single feature (Fig 6), a stone filled pit was C¹⁴ dated (below) and is possibly the earliest C¹⁴ dated use of radiolarian chert in Scotland. The entire lithic assemblage is believed to have been retrieved in the excavation, and good spatial distribution was obtained showing the relative positions of the finds, this should allow for more competent comment on the actual knapping process which obviously took place there. Since the excavation further erosion has been recorded at the site, this continued monitoring shows that more sites may appear – or disappear as time goes on.

Details of Site No 2 date is:

Daer Valley 1995 NGR: NS 9842 0802
AA-30355 Daer Reservoir: Site No 2 Feature 1/ Sample 005 base
(Betula) Radiocarbon Age BP 8055± 75

$\delta^{13}C = -25.1\text{‰}$

Calibrated Age Ranges

16 cal BC 7044 (7030) BC 6779 BC6911
26 cal BC 7255 (7030) BC 6754 BC7004

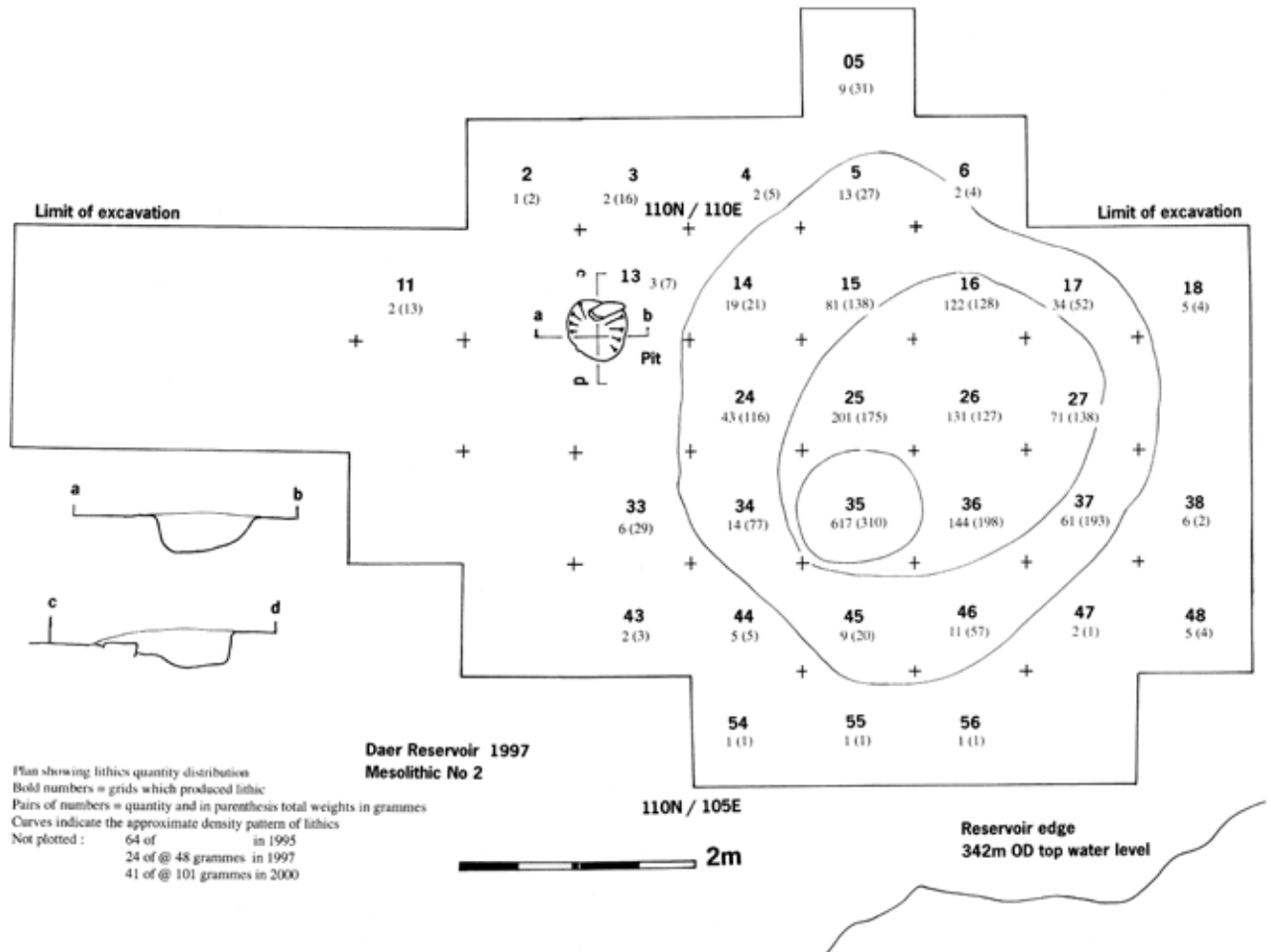


Fig 6



Plate 44. Site 2 chert.



Plate 45. Site 2 microliths.



Plate 46. Site 2 microliths.



Plate 47. Site 2 microliths.

Site No 3 Fig 7 & Pl's 48 - 53

Site No 3 was nearly adjacent No 1 and the lithic here was almost exclusively flint and identical in geology to that from Site 1. The bluestone at Site 1 was entirely absent at Site 3 and because there was a lithic free gap of a few metres between the two locations, and the absence of the bluestone, it is believed that the same people were involved, but on the separate visit they did not have the bluestone with them.

Details of Site No 3 date is:

Daer Valley 2001 NGR: NS 986 083
AA-43004 GU-9356 Daer Reservoir Site No 3, Sample 002
(Corylus) Radiocarbon Age BP **5355± 45**
 $\delta^{13}C = -25.9\text{‰}$

Calibrated Age Ranges

16	cal BC 4318-4050, cal BP 6267-5999	BC4184	BP6133
26	cal BC 4331-4042, cal BP 6280-5991	BC4185	BP6135

The dates from Sites 1 and 3 may therefore be viewed as inconsistent, and to resolve some or any of them will require the flint from each location to be analysed to show whether it is indeed the same material and the knapping identical as is suspected by the writer. Further C¹⁴ dating could also be done.

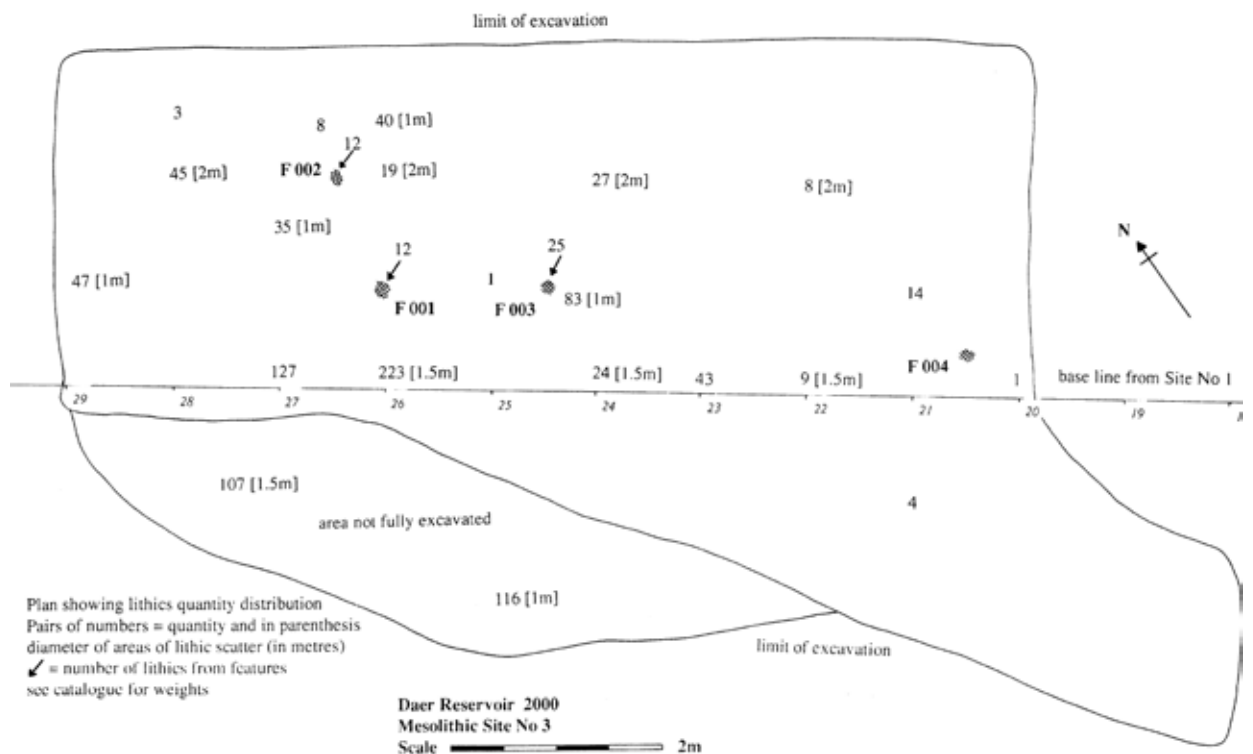


Fig 7



Plate 48. Site 3 microliths.



Plate 49. Site 3 microliths.



Plate 50. Site 3 microliths and scrapers.



Plate 51. Cores.



Plate 52. Core



Plate 53. Burin.

Site No 4 NS 9855 0795

Site No 4 within the reservoir area was a surface scatter of chert flakes and chunks. Since the spot appeared to be under only minimal scouring, the peat cover having been removed, the site was not excavated, rather it has been designated as a watching brief area from which to monitor any future erosion.

The following three sites lie on the western shores of the reservoir and were later discoveries of actual sites among a series of find spots involving pre-historic lithic.

Site No 8 NS 96783 07176

This was an area which had a surface scatter of lithic, clearly of different periods of pre-history, however, trial pits produced eight microliths showing that the Mesolithic era was represented.

Site No 39 NS 96868 07188

The site lies immediately on the north side of a drystone dyke which runs down (in a ruinous condition) along the steep north bank of the former Kirkhope Burn, all of which are now submerged within the reservoir. Kirkhope Burn flows into the reservoir from the west. An area of gravel is exposed by reservoir erosion having been scoured of peat cover, some of which still survives nearby on the W, N and E sides of the site. The site was marked out for excavation but only eight 1m grids were opened, five microliths of chert and two pieces of pitchstone were recovered along with over two hundred pieces of chert.

The site may be described as being in a 'classic' location in former times, as it lies beside a water course, albeit a subsidiary one to the main valley river; Daer Water.

**Site No 44 NS 96991 07402
Plate 54**

This was the location of a small scatter of chert lithic, about 10m in diameter, an excavation of a few square metres produced twenty-two microliths of chert, a dateable pit with charcoal lay in the centre of the scatter (Fig 8 & PI 54).

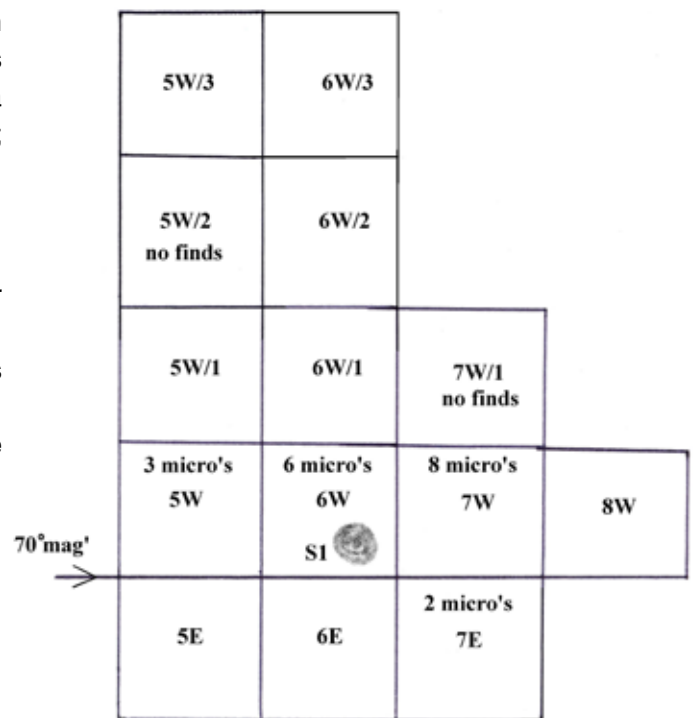


Fig 8



PI 54

Sites in Watermeetings Forest on Coom Rig. Plate 55

The remaining sites considered here are on Coom Rig which lies to the NW of the reservoir; it is an area known as Watermeetings Forest and which is a sitka spruce commercial forest.

Here we see a spectacular range of find types from single locations, and all pointing to something rather dramatic in terms of Mesolithic studies. Each site evidence is presented in full with illustrations in the Daer Interim Reports, here they will merely be summarised to emphasise and imply a meaning long sought in Scottish archaeology – the Mesolithic/Neolithic transition.

Two sites, No's 84 and 85, are in close proximity to one another but are slightly removed from the others on the hill; they were discovered and excavated in 2004 during clear felling on Coom Rig. They are extraordinary for their location high on the side of a hill at 340m OD, making them possibly the highest Mesolithic sites in Scotland.



PI 55



PI 56



PI 57



PI 58

Both sites were C¹⁴ dated (below), and originally it was thought they must be closely associated in time because of their proximity, however the C¹⁴ dates set them almost six centuries apart. On that basis, one has to assume the choice of these locations are purely co-incidental to one another.

Both sites provided a series of microliths and site 84 also had larger tools such as knives and scrapers (PI's 56 – 60). These two sites are included in a Thesis by Dene Wright (Wright 2012) are additionally published on BAG website by Dr Dene Wright of Glasgow university (Wright 2016).



PI 59



PI 60

Details of Site 84 date is:

Daer Valley 2005	NGR: NS 95292 10319
SUERC-6829 (GU 13035R)	Daer Site No 84 Feature No 6 East
(<i>Corylus</i>)	Radiocarbon Age BP 5390± 35
	$\delta^{13}\text{C}=-25.6\text{‰}$

Calibrated Age Ranges

68.2% probability	
4330BC (36.8%) 4280BC	BC4305
4275BC (31.4%) 4230BC	BC4252
95.4% probability	
4340BC (76.3%) 4220BC	BC4280
4210BC (11.7%) 4160BC	BC4185
4130BC (7.4%) 4070BC	BC4100

Details of Site No 85 date is:

Daer Valley 2005	NGR: NS 95196 10295
SUERC-6463(GU 13036)	Daer Site No 85 Feature No 2
(<i>Corylus</i>)	Radiocarbon Age BP 4930± 35
	$\delta^{13}\text{C}=-25.7\text{‰}$

Calibrated Age Ranges

68.2% probability	
3760BC (10.3%) 3740BC	BC3750
3720BC (57.9%) 3650BC	BC3685
95.4% probability	
3780BC (95.4%) 3640BC	BC3710

While Site No 84 is at the cusp of the traditional end of the Mesolithic, Site No 85 is coming well into the traditional Early Neolithic period, however the assemblage of finds is clearly Mesolithic (Wright 2016 *ibid*). Compare with the dates from Site No 94 where two almost identical dates are just over a century younger than Site 85.

Other sites on Coom Rig.

During 2010/2011 a further part of the hill (PI 55) was ploughed for forestry, here a phenomenal number of lithic locations was discovered, including many which turned out to be Mesolithic sites. The Project placed BAG under almost unbearable pressure to salvage what they could, and considerably more could have been accomplished had further support in the form of volunteers been got. However, while admitting to the constraints they were working under, an extraordinary achievement was the outcome.

At least a further eight sites with complete lithic assemblages and charcoal contexts can be dated if funding for this can ever be acquired. Of particular importance would be the dates of those sites on Coom Rig lower slopes, which are closely located to one another, in some instances almost conjoined. Here would be the opportunity to date several sites with characteristic lithic assemblages, including some with faceted haematite, clearly used as a colouring agent.

Site No 86. Figs 9 -11, & Pl's 61 – 64.

On this excavated location measuring 15m by 11m in total, an extraordinary collection of chert, flint and other chalcedony, pitchstone, haematite, pottery, hazel nut shell and pits with charcoal enriched fills was all found on slightly sloping ground. The plots of finds and features (Fig's 9-11) are given here to show the methodology of working and recording and also the distribution of the above. The list of finds was:

Chert	9832of	of which there were at least 175 microliths.
Flint	1987of	of which there were at least 8 microliths.
Pitchstone	9of	of which at least one was a core.
Haematite	13of	mostly with faceted and striae on sides.
Pottery	2of	rim sherds, Early Neolithic.

Cremated bone was also found, some of which may be identifiable.

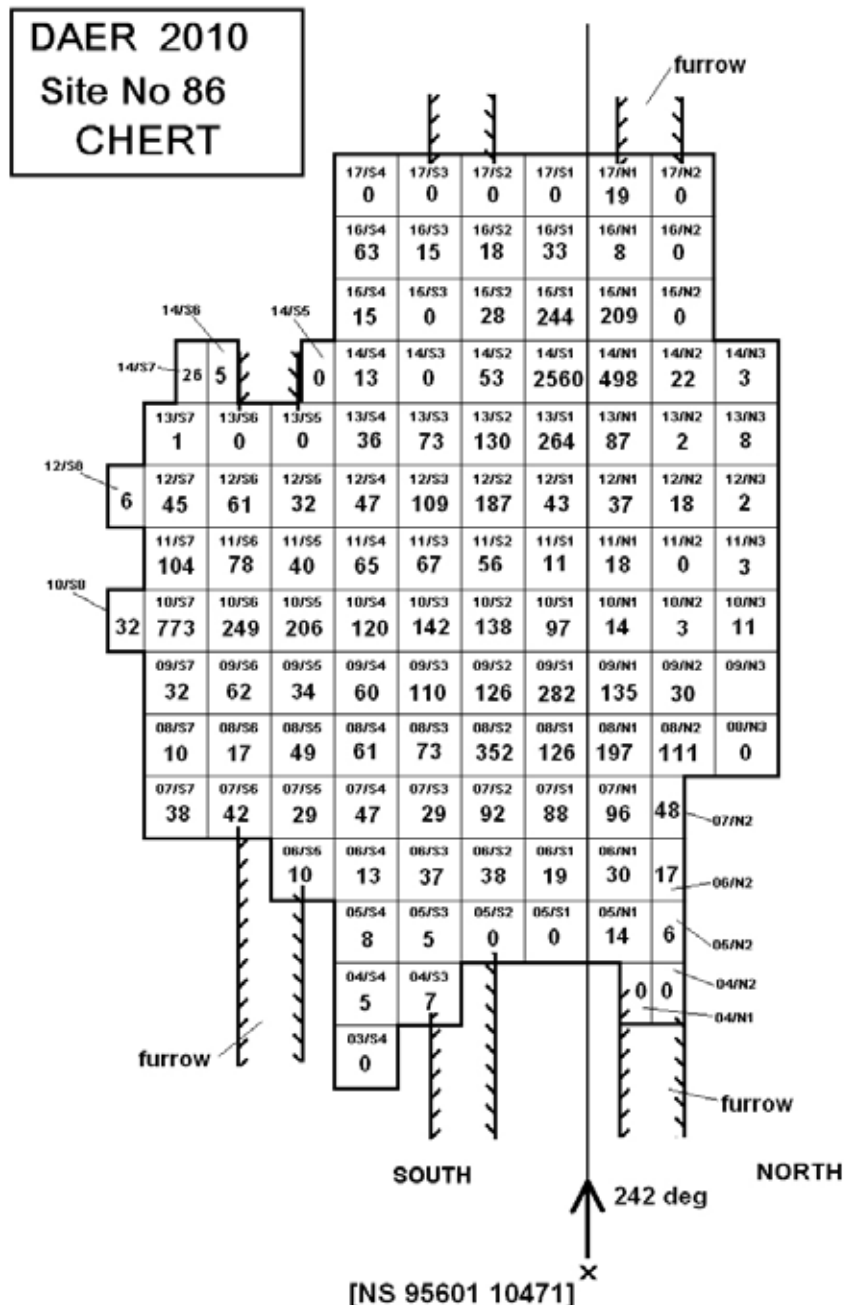


Fig 9

In one square metre grid [14/S1] (PI's 61 & 62) a phenomenal quantity of chert (2560of) was recovered including 47 microliths and the adjoining grids produced 2973 pieces of chert including a further 28 microliths. Without specialist analyses, it is unclear whether this represents knapping or dumping. If dumping, why throw away 75 microliths? Only two pieces of flint were found in the central grid and eleven surrounding it, however three pieces of pitchstone were also recovered there. The lower area of the site (as excavated) contained a dense scatter of chert and in this area flint was slightly more numerical than the rest of the trench. The plots show the distribution of pitchstone, haematite and the two rim sherds which were found in pit F5 along with hazel nut shell. Several large flint scrapers were found, indeed the two finds which originally pointed to the site were two flint scrapers lying in a plough furrow. Large flakes or blades of flint were either carelessly lost or merely discarded, either way, showing little regard for its apparent loss. A distinctive olive-green coloured type of radiolarian chert was found here, a lithic never seen in archaeology, the actual radiolaria (fossils) can be seen as speckles in the sample (PI 64).

The somewhat enigmatic sub surface features of pits and possible stake holes (Fig 11) cannot be satisfactorily explained, but their charcoal enriched fills, sometimes with lithic; two pits had two microliths each, and in another, the two pot sherds strongly indicate they are contemporaneous with at least some of the artefacts.



PI 61



PI 62



PI 63



PI 64

The main question with this site and several others to follow is; do the multi period finds represent a single phase of occupation? In which case the Mesolithic/Neolithic transition is demonstrated, or, did the Neolithic people co-incidentally occupy the same spot as the hunter gatherers? Radiocarbon dates would help resolve the debate, the latter suggestion seems rather improbable, and the same questions are a recurring theme on other sites in this Project.

Then there is the question about the haematite (PI 63), its use on the site is unequivocal, but does it belong to one period or the other – or both? Specialist work on the finds and the charcoal samples, and C¹⁴ dating may go a long way to answering these questions.



PI 65



PI 66



PI 67

Site No 88. Plates 65 – 67.

Site 88 was the location of a fire but no dateable charcoal existed at it, only the heat affected ground. Microliths (5of), haematite pieces (5of), pitchstone (2of) and a leaf arrowhead were found in the small excavation. Here once more are elements of two cultures lying side by side.

Site No 89. Plates 68 – 71.

Site No 89 had a particularly interesting collection of finds and features. F3, a fire site had within its charcoal enriched fill, 22 EN sherds, 9 pitchstone, 8 haematite and 7 microliths. A peculiar mix of Meso/Neo finds – unless they could be seen as a single assemblage in time, which then would surely be interpreted as the missing Meso/Neo transition? Large and small scrapers may suggest the two periods. This site had the equal largest collection of pitchstone at thirty pieces (see No 94 below), and may be one of the best contenders for pitchstone at Daer being associated with the Mesolithic period, as well as the Early Neolithic.



PI 68



PI 69



PI 70



PI 71

Site No 94. Fig 12 & Plates 72 – 81.

Site 94 produced a series of pits, fire sites and other features (Fig 12), many with charcoal in their fills, two radiocarbon dates were secured from pits (below) both dates indicating the early Neolithic date of their origin and presumably much if not all of the finds which could be typologically associated in time, such as a significant collection of carinated pottery, leaf arrowheads, pitchstone (30of) and large scrapers(?). Burnt bone which has not been analysed was also found and may have been food residue. However, ten microliths; four flint and the others chert, pyramid cores and small scrapers were also recovered from the site, and these may typically be termed Mesolithic artefacts. Knives were also found which require specialist attention as to affinities. The seemingly tangle of find types again poses the question; are they from separate or a single event/s on the ground?



PI 72



PI 73



PI 74



PI 75



PI 76



PI 77



PI 78



PI 79



PI 80



PI 81

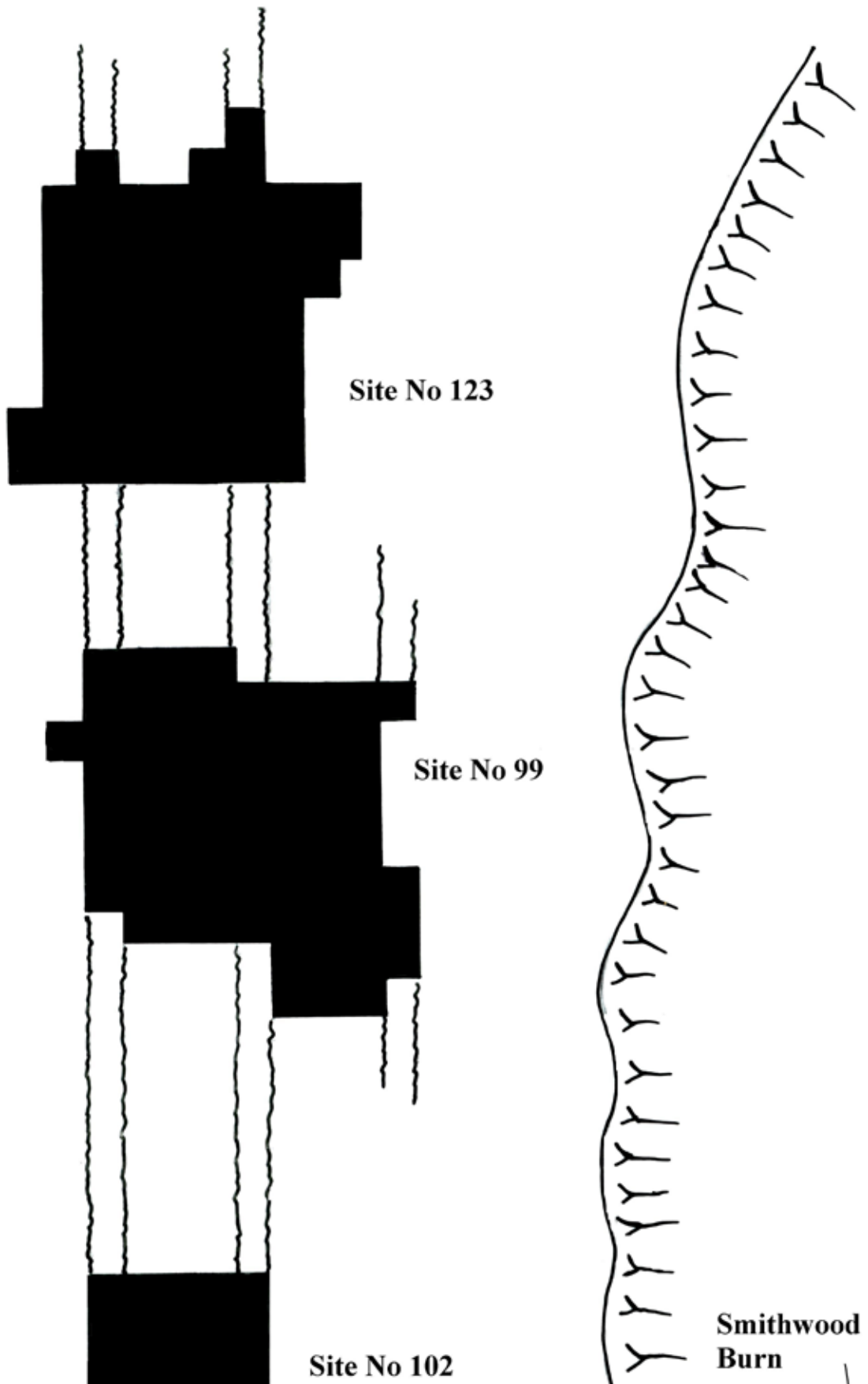


Fig 12

Details of Site No 94 date are:

Daer Valley 2013
SUERC-47420 (GU 30927)
(Betula)

NGR: NS 95930 10167
Daer Site No 94 Feature No 3
Radiocarbon Age BP 4721± 28

$\delta^{13}\text{C} = -27\text{‰}$

Calibrated Age Ranges

68.2% probability

3627 (25.5%) 3591 cal BC

BC3609

3527 (12.0%) 3509 cal BC

BC3518

3426 (30.6%) 3382 cal BC

BC3404

95.4% probability

3633 (35.9%) 3559 cal BC

BC3596

3537 (20.5%) 3497 cal BC

BC3517

3456 (39.1%) 3377 cal BC

BC3416

Daer Valley 2013
SUERC-47421 (GU 30928)
(Corylus)

NGR: NS 95930 10167
Daer Site No 94 Feature No 7
Radiocarbon Age BP 4764± 26

$\delta^{13}\text{C} = -26.4\text{‰}$

Calibrated Age Ranges

68.2% probability

3633 (7.4%) 3625 cal BC

BC3629

3601 (46.1%) 3554 cal BC

BC3577

3540 (14.6%) 3525 cal BC

BC3532

95.4% probability

3640 (93.4%) 3517 cal BC

BC3578

3396 (2.0%) 3386 cal BC

BC3391

The two dates are almost identical and should be compared with Site No 85 above, which undoubtedly is Mesolithic and only just over a century older than No 94 at cal BC 3710.

Site No 99. Fig 13 & PI's 82 – 84.

Site 99 produced an astounding 98 microliths, only 10 of were flint, the remainder being chert, however, a range of shapes and sizes are represented as one may expect from such a number. A single piece of haematite was recovered but no pitchstone or any other item which might be considered Neolithic. The location therefore appears to have been occupied only as a Mesolithic site. The abandonment of so many useable microliths is difficult to assess, unless they were regarded of little significance by being made in their hundreds on a single site. The location, taken along with Sites 102 and 123 (below) may be connected as they are all closely located, and somewhat more conventionally lying beside a burn, the finds from the three sites should certainly be considered together for any cultural affinities. Unfortunately, no features or dateable contexts were found here.

Site No 100. Plates 85 – 87.

This tiny site produced four chert microliths and three pieces of pitchstone. Two EN sherds were found nearby in another furrow.



PI 82



PI 83



PI 84



PI 85



PI 86



PI 87

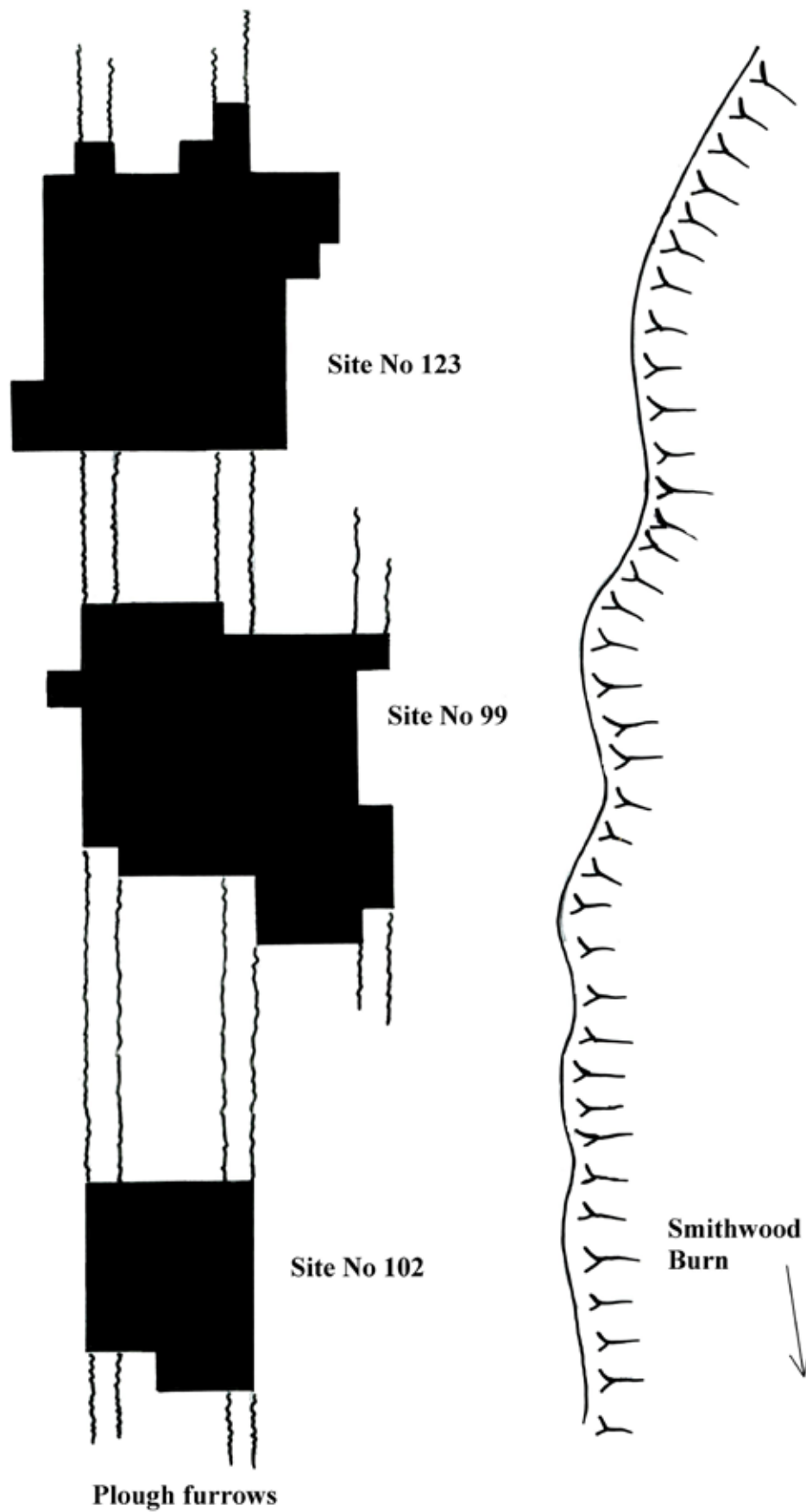


Fig 13

Site No 101. Plate 88.

This was really only a finds spot where a piece of faceted haematite and one pitchstone were found amongst a clutch of chert.

Site No 102. Fig 13.

The location formed a small excavation trench near to Sites 99 and 123, and beside the Smithwood Burn. Eight microliths were found with a single piece of haematite.

Site No 104. Plates 89 – 90.

This small excavation also lay beside the Smithwood Burn only a few metres away from Site 100, however its independence from there is shown by the lithic assemblage of flint unusually dominating over chert, as was normally found. The site was amazingly discovered by a single piece of flint on the surface of the ground. Features here may have been a cooking pit with stake holes suggesting a windbreak. Nine microliths came from the small assemblage and in this case only a single example was chert.

Site No 105. Plates 91 – 92.

This small excavation produced a mixed assemblage of microliths (18of), pitchstone (2of), scrapers > 5of and a single piece of haematite. A charcoal enriched pit will allow for C¹⁴ dating.



PI 88



PI 90



PI 89



PI 91



PI 92

Site No 108.

The site was located by finding a single piece of chert in the plough furrow, two charcoal filled pits were located and two microliths, two pitchstone and several fragments of pottery were among the finds.

Site No 114. Plates 93 – 102.

Site 144 was unusual in being on a relatively steep slope (PI 93), however it had been a busy place in the Mesolithic as it produced an abundance of microliths; 126 of which included 76 flint examples. A single piece of pitchstone was found but 14 pieces of haematite were recovered. Three small pits contained charcoal and will allow for C¹⁴ dating. Excavations here were filmed for the popular t/v series 'Digging for Britain' in 2012 (PI 94). This is a good example where less ambiguity arises between the haematite and microliths, and although larger flakes (PI's 101&102) were recovered and a single pitchstone, the cores (PI's 99 & 100) are clearly for narrow blade microliths, all showing a large bias at least towards the Mesolithic period.



PI 93



PI 94



PI 95



PI 96



PI 97



PI 98



PI 99



PI 100



PI 101



PI 102

Site No 120. Plates 103 – 105.

This location is between Site 86 & Site 89 and may be part of one, or both of them. Only a small excavation was carried out on the spot of a random test pit; one of 248 pits excavated between the scatter of sites on the east flank of Coom Rig. Four test pits revealed scatters of finds assumed to represent activity sites while 53 of the pits produced one or more lithics. Site 120 produced microliths and a single pitchstone, a large flint knife was also found. The location is C¹⁴ dateable by a patch of charcoal.

Also recorded on Coom Rig were 248 finds spots of which 32 were developed into excavations.



PI 103



PI 104



PI 105

Site No 123.

Figs 13 & 14, Plates 106 – 123.

Remarkably, two random test pits which were cut into adjoining furrows led to the discovery of Site 123. The excavated area of 72 square metres in total (Fig's 1 - 3) is separated from Site 99 by only 5.5m and is upslope from No 99 and encompasses the same furrows.

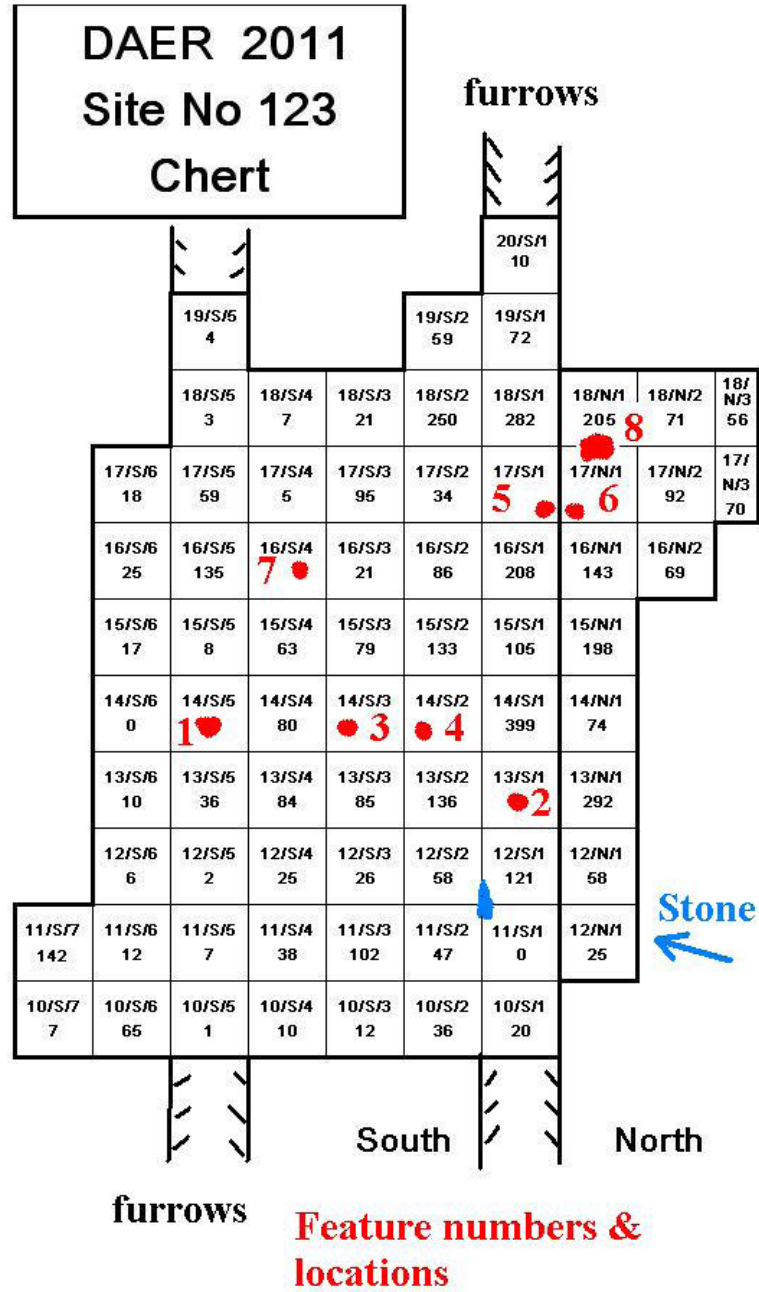


Fig 14



PI 106

However, judging by the finds assemblage this appears to have been a unique event howsoever close to some of the others. Firstly, as soon as the excavation got underway, a large stone (PI 106) was found, this is unusual and is the only large stone found in the entire Mesolithic/Neolithic aspect of this project, giving it significance in that respect alone. Secondly the disposition of lithic beside it strongly suggest a 'drop zone' for the many cores found, and that the rock was used as a seat by a knapper!

Both flint and chert were used here in large numbers, there being 84 flint microliths recovered and 75 chert examples. Large knives and blades were also numerous and at least two distinctive flint types were used for them, one being a honey coloured type. Various varieties or more properly 'colours' of chert were also used indicating the occupants had a wide range of lithic materials at their disposal here. The 40 pieces of haematite in the assemblage further corroborate that, but only a single pitchstone was found. Like Site 114 above, here is another strong case for making the haematite a Mesolithic find type.

Eight charcoal enriched features can allow for comprehensive C¹⁴ dating if funds can ever be secured for that.



PI 107



PI 108



PI 109



PI 110



PI 111



PI 112



PI 113



PI 114



PI 115



PI 116

The Coom Rig project was never suspended for season or for weather and Plates 120 – 123 show the rigours the excavators endured to salvage as much as would be possible, always ending the day with a smile (PI 123). Plates 120-121 show part of the method of working by removing peat to access the archaeological bearing surfaces below, backfilling had to be done as work progressed because of the weight of peat and the constraints of time available to a voluntary group working in their spare time. Winter work such as this meant that recording was a particular difficult, but actual excavation through hard frosty or snow covered and soaking ground - did not stop the work.



PI 117



PI 118



PI 119



PI 120



PI 121



PI 122



PI 123

Discussion

The Daer sites, taken along with sites in the Biggar area, perhaps for the first time in Scotland, show conclusively that inland and upland locations were desirable places to make seasonal camps, and that familiar or well-known places were frequently revisited. With so many sites now known, it must be evident that their existence cannot be laid at the door of co-incidence or serendipity, the hunters were knowingly returning to the same place over millennia and, it may be possible to argue that the transition between the Mesolithic and Early Neolithic is represented in some of the Daer sites where pottery was found in proximity to microliths, the pottery from Site 94 dating about 114 years after the youngest Mesolithic site which has so far been dated.

So, what was the attraction of the area? It lies at the heart of southern Scotland and is high in the uplands, over 300m OD and near one of the main sources of the River Clyde. However, while the Daer Reservoir sites lie in close proximity to the four main rivers; Daer Water, Crookburn, Kirkhope Cleuch and Black Burn, all of which now conjoin within the reservoir, the other group of sites, on Coom Rig nearby, are further from the river edges and are dispersed along the east face of a relatively dry hill side, some nevertheless being close by a spring course such as the Smithwood Burn. Neighbouring sites 84 and 85 are high on the dry hillside, these are possibly the highest Mesolithic sites in Scotland at c340m OD. These two sites and several others on Coom Rig were created on sloping surfaces which seems a bit odd when the hunters could easily have occupied more level pieces of ground below and only seconds away in time.

The choice of site therefore varied considerably, some being near water channels while others appear to have avoided them, some being on slopes while others, as one may have expected, are located on more level ground.

Mesolithic routes in southern Scotland have been considered by this writer (Ward 2010) and now, judging by the many sites of that age and discovered in Daer valley, and also the major grouping around the Biggar area, it seems very plausible to suggest that the River Clyde as well as the previously recognised River Tweed, formed the major corridors by which hunters moved north/south and east/west across southern Scotland. This writer believes the entire river network below the Clyde/Forth isthmus would have functioned in this way, allowing for knowledge based travel in all directions.

All the Daer sites appear to have been single event camp locations. Because of the threats the sites were under; either by reservoir erosion or commercial woodland activities, most locations were excavated until the lithic assemblages were exhausted, thus ensuring total recovery of at least those aspects of the sites, although it is accepted that further archaeological evidence may lie beyond the lithic scatters at each site. Some sites within the reservoir are unexcavated as a monitoring guide to future erosion. While several locations were found in close proximity, only at Sites No 1 and 3 were the stone components more or less adjacent. However, the makeup of each collection was distinctive enough to discriminate them; that being said, it is believed the same people were involved on each occasion at that spot. The flint and mysterious 'bluestone' lithic at Site No 1 was highly distinctive and has not been seen in any of the numerous and sometimes large collections by BAG from elsewhere in Clydesdale, indeed the national collections do not appear to have representative examples of either (the writer was employed for four years at NMS on the collections there). At the adjoining Site No 3 the same flint was used but with a total absence of the 'bluestone', and here a small percentage of the local chert was used, perhaps indicating its discovery on a subsequent visit, made without bringing the 'bluestone'.

When one of four charcoal filled pits at Site No 1 was radiocarbon dated, the early date surprised not only the excavators but also the few other pre-historians who took an interest in it. Conventional wisdom at that time was that narrow blade technology in the Mesolithic period in Scotland could only represent Late Mesolithic activity, and therefore, although an early date was obtained from the site, the charcoal and lithic could not be associated in time. BAG only had a single date for the site and the rather illogical “one date is no date at all” was given to dismiss any connection between the pits and the lithic beside them, the characteristics of which were undoubted fact. According to that view, co-incidence was the only explanation, an opinion never shared by the present writer, who was there. However, a second date was obtained from another feature and this compounded the problem somewhat, as it was much later in time.

Few archaeologists appear to wonder about both the manufacture and use of the tiniest microliths. From Daer there are perfectly triangular pieces of both flint and the local chert, measuring as small as 5mm long and 3mm wide. It seems incredible that once hafted, these could have been very effective and fixing to a shaft as is assumed, would have been very difficult in itself, if a workable proportion of the microlith were to be effective. Re-constructions of microliths in hafts always seem to appear in the form of broad blade technology, much larger than the exquisite narrow blade microliths, seen, it would appear all over Scotland. The writer has never seen examples of the smallest microliths hafted or demonstrated and described as to their effectiveness in use.

As an experiment, the writer, who has no skill whatsoever in lithic manufacturing techniques, managed to create the edge modification of tiny blades quite easily. Simply by pulling the freshly sharp blade edge across a rough stone creates the same effect seen on all microliths, that is the appearance of very fine knapping. Therefore microliths, no matter how tiny could have been made in seconds, the hardest part of the operation and the most skilled was the preparation of the blades, often taken from very small cores. In Clydesdale, these cores, many of them pyramids, are commonly found in both flint and chert.

Another lithic type which features prominently in the work of BAG and has been found in rather abundance in Clydesdale is Arran pitchstone (Ness & Ward 2001, Ballin & Ward 2008). The largest collections out with the National Museum (1839of) and Kelvingrove Museum (1208) (Ballin 2009) of archaeological pitchstone in Scotland, are recorded in BAG projects (over 700). Clydesdale is therefore the archaeological 'pitchstone centre' for the country, since the geographic area of recovery is a relatively small and compact one, in numerical terms that includes the Island of Arran itself which is the most likely source of all of the material.

In various BAG projects pitchstone has been adequately demonstrated to be dateable by pottery association and by C¹⁴ dates, by and large to the Early Neolithic period. Much less convincing is its association with the Mesolithic period, even though pieces of it are found on Mesolithic sites, for example most recently at Daer valley. However, it is now clear that pitchstone, as far as Upper Clydesdale is concerned, can be found almost anywhere, indeed, almost everywhere within BAG projects area of interest, some locations are clearly multi period, e.g. Daer.

The use pitchstone was put to is far from certain; regarding BAG work, over 690 pieces collected over various projects, 64 are tools, but only 20 are formal tools, being piercers 2of, scrapers 7of, knife, 1of, truncated/notched 9of and one chisel-shaped arrowhead (Ballin &Ward 2008). In the same report it is stated that only in Arran itself have pitchstone microliths been found, and that several other later pre-historic tools such as scrapers and arrowheads are also unique to the island. An excellent display of these pitchstone tools may be seen in the Arran Heritage Centre at Brodick.

The most recent work in Daer on Coom Rig has amassed a considerable collection of pitchstone, 58 pieces from 9 sites plus four other random pieces, and while some appears to be associated with pottery and C¹⁴ dating to the Early Neolithic, a new dimension is where it is found on sites with only Mesolithic material present, and Mesolithic plus Early Neolithic finds in the same feature (Site 89) could the pitchstone here be Mesolithic or even transitional in date?

For a long time, the search in Mesolithic Scotland was to find the Early Mesolithic given the assumption that narrow blade technology could not equate with the early period. Perhaps as time may show, an impossible quest. The two earliest dates before Daer were at Morton in Fife, and at Rhum where similar dates of around 8000 years ago were obtained. This 'record' stood for around 25 years, until BAG announced their early date in 2000 (Ward, DES), but which was dismissed orally as spurious at the time. In the event another two voluntary groups; Peeblesshire Archaeological Society and Edinburgh Field Archaeology Society, respectively pushed the Mesolithic in Scotland even further back in time. The important factors being that in each of the three cases, the typology of the finds, most especially microliths, was all narrow blade technology, and furthermore it was all produced through the efforts of volunteers.

In January 2016 Reading University published an article in Current Archaeology (CA 310) which claimed they had found "Earliest human activity in Scotland identified" and in a photo caption "has helped to push back evidence for human activity in Scotland by 3,000 years". Both comments can disappointingly be described in modern parlance as "fake news". The writers' protestation published in the letters page in the following issue (CA 311) pointed out that BAG had found a Late Upper Palaeolithic site at Howburn Farm and published full details in Current Archaeology (CA 243) among other places. The response was that they had been "assiduous in describing it as the earliest known dated site in Scotland" on the basis of tephrochronology and the "basis of technological and typological characteristics" of the finds, all placing them to around 12,000 cal BP, also that the finds lay below C¹⁴ dated deposits.

BAG's published account (e.g. CA 243) clearly gives details of the unambiguous typological comparison between C¹⁴ dated artefacts from the Continent and furthermore, and we believe unique in Scottish archaeology, our finds came not only from plough soil which would not have helped our case much, but from cryoturbated deposits below the plough soil where we found a range of tool types and debitage associated with what are undoubtedly the oldest artefacts from Scotland to date and from the oldest known site in Scotland to be found, all at over 14,000 years ago.

To explain to the non-specialist; the typologically dated tools were found throughout freeze/thaw deposits of silt laid down after the end of the last main Ice Age some 15,000 years ago. During the last Ice Age, popularly known as 'The Loch Lomond Re-Advance', the artefacts lying on the ground had slid down cracks in the permafrost ground during periods of thaw, sliding into softer silt deposits below. Which means that the objects were already lying on the ground *before* the mini Ice Age of that period. There are exact parallels for this on Continental sites, especially in Denmark.

Therefore, for Reading University to claim they have dated their sites and objects on "basis of technological and typological characteristics" of the finds, then so did we! They used other factors not directly related to their finds such as ash from an Icelandic volcano, we used the unique instance of finds found in cryoturbated deposits to say when they could have got there.

Two important points may be made of all of this: firstly, the denigration of other people's work, especially if they are not part of the 'establishment', but the most importantly as far as this writer is concerned, is that Reading have pushed back the Mesolithic period in Scotland, in Islay to c12,000 years ago. Perhaps showing that the far west was not so badly affected by the Loch Lomond glacier as more central parts of the country. Interestingly, another fact which emerged because of BAG's work at Howburn Farm was evidence of a larger extent to south of Scotland ice sheets during the Loch Lomond Re-Advance than was hitherto thought. This came through the work of Richard Tipping of Stirling University who cored a nearby kettle hole at Howburn and found tephra from Iceland, which dated the deposits within to an age of 12121 cal BP. Which means that there was a huge ice dam at Howburn and an ice sheet, at that time when people were living in Islay. **The full details of the Howburn Project including the work by Richard Tipping are given on BAG web site.**

The survival, or discovery of the Mesolithic in many parts of Scotland seems to be non-existent, impoverished, or at best rather sporadic in terms of distribution, the same cannot be said of Clydesdale where sites were, while BAG was more active, being found almost on an annual basis. Unfortunately, at the time of writing, little fieldwork is now done, however, the field resource is still there, but in future it may be a diminishing one to discover due to deeper arable ploughing, forestry and reservoir erosion, all of which, have adequately been demonstrated by BAG in recent years, to be taking a tremendous toll on south of Scotland archaeology. A national strategy is required to deal with this opportunity unless it is to be seen in future years as abject failure to act.

Several points about the Mesolithic sites which have been discovered and excavated by BAG can now be made with some conviction. Since the massive publication 'Mesolithic Scotland and its Neighbours' (Saville, Ed. 2004), being the proceedings of an international conference in Edinburgh in 1999, many aspects of Scottish Mesolithic studies have move on, and much new evidence has been supplied by BAG Projects. Some of BAG work was given credence at the conference, but perhaps with more suggestion than conviction, however, it was stated by the writer that BAG intended to continue with several aspects of Mesolithic Projects at that time. That has all now come to some fruition.

Narrow blade technology for microliths.

BAG, followed by Peeblesshire Archaeology Society and then Edinburgh Field Archaeology Society (EFAS), all voluntary groups, confirmed the magic 10,000-year supposition, that people had lived in Scotland before that time. What may have been increasingly uncomfortable reading by experts was the fact that each site which was radiocarbon dated produced microliths of narrow blade technology, then being described as typically Late Mesolithic in character and age. Despite the C¹⁴ date, BAG's site at Daer was generally dismissed as NOT representing the Early Mesolithic on the grounds of the lithic typology. The search was always for broad blade technology like sites in England such as Starr Carr, and which would meaningfully show the earlier hunter gatherers had been in Scotland.

This view was changed somewhat when the more convincing Cramond dates were released by EFAS; six C¹⁴ dates of hazel nut shell were enough to convince the sceptics that narrow blade technology *did* indeed exist in the Early Mesolithic (A Saville, *pers comm*, 2001), Cramond remains the earliest dated narrow blade microliths site in Scotland.

On Islay, it appears that a site with broad blade technological affinities has now been found and more discoveries have been promised from the site in future, which we all look forward to. Interestingly this earliest *Mesolithic* site is on the west side of the country while the other three early sites (above) have an easterly bias. Proving if nothing else, that current knowledge will not stand still, as future discoveries will no doubt show.

It seems difficult in any parlance to ascribe 10,000 years ago as "Late Mesolithic", if Islay is now Early Mesolithic in terms of Scotland, surely the 10k sites should be adjudged "Middle Mesolithic"?

Inland sites.

Inland 'sites' in southern Scotland prior to BAG work were generally field gathered items, e.g. those from the lower River Tweed locations, although excavations in Galloway produced evidence of the hunters from several places (Affleck 1986). The work of BAG has now produced a plethora of sites, some C¹⁴ dated, several with complete lithic assemblages and all in the Upper Clyde and Tweed areas. Added to what we may term a 'site' there are numerous locations where Mesolithic artefacts have been found in ploughed fields across a c20 mile area. Where an isolated object is found little may be deduced, however, many locations in the fields have multiple objects including microliths, cores and scrapers as well as debitage, obviously indicating a 'presence' on the ground. Several sites in South Lanarkshire have also recently been discovered by others during developer and private funded work in the area e.g. (Ballin & Johnson 2005, Barrowman 2000).

The new data on sites in south central Scotland allow for a total re-interpretation of where Mesolithic people travelled and, at least for some BAG sites, show when they travelled through the area.

The old coastal and western bias for Mesolithic sites in Scotland no longer holds true, and considering the gaps, in miles, between groups of known sites in the Biggar area alone, it surely follows there must be countless sites awaiting discovery. Could an equal scenario apply to other inland places in Scotland if the same rigorous fieldwork were done?

Upland sites.

Here also is a new data set on locations, while sites around the Biggar area are mostly situated above valley floors and looking down, the Daer valley sites can truly be described as ‘upland’, some being around 450m OD and all being over 300m OD. It seems perfectly reasonable to suggest that the hunters simply stopped for the night/s wherever they found themselves at a particular time of the day, or that they found a particular spot on the hill to be suitable for a myriad of reasons, now unfathomable to us today. That may be especially true if they were merely re-tooling beside a camp fire and nothing more, as some sites seem to imply.

Sites removed from water courses.

In this writer’s early enquiries into pre-history a great emphasis was placed by lecturers and authors about the need to be close to a water supply, that sounded quite a natural and logical statement to make. It initially led the writer to believe it, so that is where to look for such early sites in Scotland. Experience has now shown the theory to be totally untrue and indeed illogical. Discoveries dating from the Late Upper Palaeolithic, Mesolithic, Neolithic and Bronze Age dealing with settlement locations of differing types has shown almost the opposite, that people were deliberately keeping away from water sources, when they were camped or lived more permanently. An untruth repeated often enough – becomes the truth, if ever there is an adage that applies to archaeological studies, that is it.

So, it is that while some Mesolithic sites are indeed found beside river or spring courses, others are certainly not, perusal of various sites reports given on BAG web site can corroborate that, and indeed for other pre-historic periods also.

Use of haematite as a colouring agent.

The pieces of faceted haematite found on eight Mesolithic sites in Daer valley; with a total of sixty-six pieces overall, is certainly new evidence, at least from this part of Scotland. Most of the sites where it was recovered can be C¹⁴ dated by charcoal if funds were available, but a slight complication on some places is the fact that Early Neolithic pottery and some flint tools were also found, therefore the true date for the use of the ochre is in some doubt, regardless of the fact that some was found with classic Mesolithic assemblages and where no EN finds were made. Radio carbon dating and artefact analyses may help to determine the period of use for the haematite, and it is suspected that the date may well be the transitional stage between the two cultural epochs, of which more to follow. Interestingly from Glentaggart some 23km to the NW two small pieces of “ochre” were found on a Mesolithic site there (Ballin & Johnson 2005).

Sites No’s	Numbers of pieces of haematite
86	11
88	5
89	2
101	1
102	1
105	1
114	14
123	40

EN pottery on sites suggesting the transition between the Mesolithic and Neolithic.

Pottery was found on three sites; No's 86, 89 & 94, where microliths and other diagnostic Mesolithic artefacts were recovered, most especially cores and small scrapers. Only at one site was a date established; Site No 94 with two closely linked C¹⁴ dates given above, with pottery in pits. These dates are just over a century after the latest Mesolithic dates from Daer. The important aspect of the dates and finds assemblages is that there appears to be an overlap of finds or at least they are very closely associated in time, *and this could be further tested on other Daer sites with dateable contexts.* The other two sites produced only a few sherds each.

Potential for further dating.

The chart below was prepared by Dr Dene Wright of Glasgow University and shows the relativity of the dates so far achieved in the Daer Project for Mesolithic sites. Note the closeness of the dates from Sites No's 85 and 94 where about a century in time separates them. No 85 was exclusively Mesolithic but could be described as falling within the Neolithic period, while No 94 had EN pottery *and* microliths present on the same patch of ground.

At Daer, further sites could be dated by charcoal and presumably associated finds assemblages. A more comprehensive set of dates could further enlighten if there is a connection between the two periods on that basis.

At Biggar Common East near Biggar (Ward 1993), BAG have dated an Early Neolithic site to c 5749 cal BP, a significant assemblage of carinated pottery was recovered from that site and it is the earliest Neolithic date in the work of BAG. *This compares favourably with the latest Mesolithic date of c3710 cal BC from Daer Site No 85. Therefore, we have Neolithic dates which are older than Mesolithic dates in the same region of Scotland.*

The Weston Farm site also has the potential for further C¹⁴ dating of charcoal filled features currently assumed to be associated with Mesolithic finds and possibly also Early Neolithic finds.

Potential for lithic analyses in association with all of the above.

As stated above, Dr Dene Wright of Glasgow University has conducted voluntary analyses of some of BAG lithic assemblages; these are Weston Farm, Cornhill Farm (both in prep), Daer Sites No's 84 and 85, and Daer No 86 (in prep). This valuable work will of course push the Projects forward to a place not possible by the writer, and is basically what is required of *all* BAG Projects. The potential for analyses of the other lithic collections coupled with any future C¹⁴ dating of BAG sites, would be an enormous step forward in the field of not only local, but of National Scottish Mesolithic research.

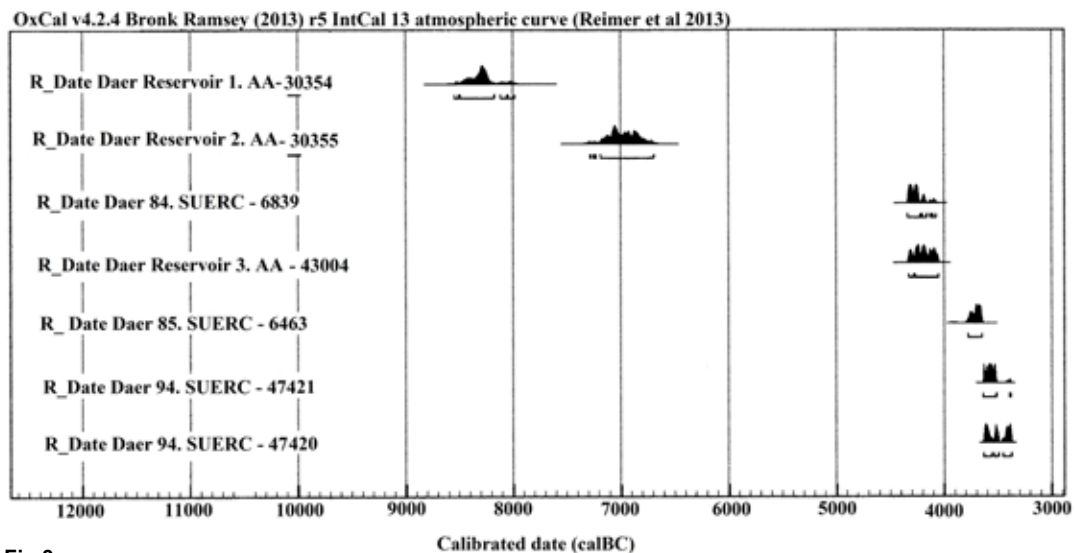


Fig 3

Finally – the thorny question – does a Mesolithic to Early Neolithic transition exist and can it be demonstrated in BAG Projects?

The data gathered in the last two decades principally by BAG in south central Scotland, and which clearly covers both periods, on several sites, all in relative close proximity, must surely be worth considering.

Most especially at Daer there are sites with both periods represented but still not dated by C¹⁴ despite the potential to do that. The amalgam of find types; microliths, pottery, pitchstone, diagnostic tools types *and now Haematite* in association with charcoal filled features offers a highly unusual opportunity to elucidate on each period, while dangling the carrot to unite them in some instances.

Some or all of the questions rehearsed elsewhere, may be possible to answer here; were they separate people with their individual lifestyles or the same people adopting new ideas and material culture? Where did they travel from and to, etc, etc. Much of the current debate relies on older data or is theoretical, but here at Daer especially there is *tangible* evidence to consider and develop, if further work on the present findings can be achieved. BAG now offers through its web pages a considerable amount of additional information, if only it could attract some interest beyond a few individuals.

A separate paper by this writer (Ward 2017) and published on BAG web site at the same time as this one, bewails the fact that little of the work of BAG is apparently considered by the professional fraternity in Scottish archaeology. Even more disturbing, is the fact that even less of the work and discoveries are even acknowledged as having happened, in professional papers and debates. Perusal of recent bibliography and references in reports will clearly show that, with only a few exceptions.

Conclusion

This paper has attempted to highlight the perceived importance of the work conducted by the voluntary Biggar Archaeology Group in the field of Mesolithic and Early Neolithic archaeology in Scotland, while bringing the subject matter up to date as far as the Group are able. The paper highlights the need for a more professional and integrated approach to be made specifically on the work of the Group and which cannot be accomplished by themselves, in the belief that BAG work *CAN* offer a way forward or at least a discussion of it, regarding the two periods of Scottish archaeology. Whether this is ever achieved remains to be seen although some professional individuals are trying to assist the Group in that objective. In the meantime, all of BAG work is given on their web site to which the reader is commended.

Certainly it seems difficult to argue with the weight of evidence (above) pointing to a link between the Mesolithic and Early Neolithic in BAG's work, if only it could be tested.

It has long been accepted that because of sea levels rising relative to the land, most especially on the west coast, many ancient and formerly coastal sites will now lie below the waves. The Mesolithic sites discovered in the west appear to be those which were higher up at one time. Therefore, inland sites will still exist and may still be discovered to fill the gaps and create a better data set of those locations and the story in general, allowing for a better debate on Scotland's 'second' oldest inhabitants and their demise. That said, the inland resource is under increasing threat by developments as BAG has consistently shown, the very evidence we are looking for, and know exists, is disappearing fast.

Postscript.

Sadly, one of BAG's most ardent supporters from the professional fraternity was the late Alan Saville, who was of course an early prehistorian specialising in the Mesolithic and Late Upper Palaeolithic in Scotland. The writer regarded him as a personal friend and colleague in matters discussed above and he will be greatly missed by BAG who will be forever indebted to him for his help, advice and encouragement on relevant BAG projects.

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