

Survey of Traditional Orchards in the Forth Valley 2009

part of the

Forth Valley Orchard Regeneration Initiative

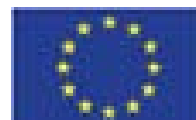


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Report to Forth Environment Link

January 2010

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Education and Action towards Sustainable Living

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Finally we would like to acknowledge the use of 'out of copyright' Ordnance Survey 1st Edition maps in this report.

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Contents

1	Introduction	4
2	Orchard History in the Forth Valley	4
2.1	Early History & Monastic Connection	4
2.2	Later Evidence on Extent and Scale of Orchards	7
2.3	Contemporary Evidence	11
2.4	Summary of Conclusions from Literature Review	12
3	Deskstudy of Likely Orchard Sites	12
3.1	Mapping & Aerial Image Assessment	12
3.2	Engaging with Communities	12
3.3	Information from Forth Environment Link	14
3.4	List of Prospective Sites	14
4	Survey Methodology	15
4.1	Data Collection	15
4.2	Photographic Records	16
4.3	Location Information	16
4.4	Data Protection	17
5	Survey Findings	18
5.1	Headline Summary	20
5.2	The Best Remaining Orchards	20
5.2.1	The Orchards of Blairlogie	21
5.2.2	Bowtrees, Airth	24
5.2.3	Orchards at Drumdrills Farm	24
5.2.4	Ferry Orchard, Cambuskenneth	27
5.2.5	Howkerse, Bothkennar	28
5.2.6	Teindyard, Bothkennar	29
5.2.7	Kennetpans	30
5.2.8	Harviestoun House Walled Garden	32
5.2.9	The Pineapple at Dunmore Estate	32
5.2.10	Wester Spittalton	34
5.3	Biodiversity Aspects of Orchards	35
5.4	Orchards on Former Industrial Sites	38
6	Conclusions	39
7	Recommendations	40
8	References	41
	Appendix A: Location Grid References	42
	Appendix B: Printout of Database	43

1 Introduction

The Forth Valley Orchard Regeneration Initiative is a project of Forth Environment Link, a charity working in the local authority areas of Stirling, Falkirk and Clackmannanshire. The initial phase of the project began in 2009 and has a number of set objectives¹.

The objectives have been met in part by letting 3 contracts:

- Survey of traditional orchards (reported here)
- Green mapping workshops focussing on local orchards (reported elsewhere)
- Workshops in schools focussing on school orchards (reported elsewhere)

The area being covered by Forth Environment Link is quite extensive. From the borders of Grangemouth in the south to Killin and Crianlarich in the north. From Dollar in the east to Loch Lomond in the west. It amounts in total to around 2500 square kilometres and over 100,000 households². The scope and budget of the survey contract have not allowed this piece of work to be exhaustive. It is likely other orchards will come to light, in part as a result of the publication of this report.

2 Orchard History in the Forth Valley

A review of the literature was carried out in order to locate likely orchards sites.

2.1 Early History & Monastic Connection

The establishment of orchards in the Forth Valley, as in much of Scotland³, was closely related to the establishment of abbeys and other religious houses. The religious houses were places of knowledge transfer and acted to introduce new cultural traits. One of these traits was pomoculture, that is the culture and techniques of growing orchard fruit.

In the context of the Forth Valley, Cambuskenneth Abbey, appears to have been the primary centre. The Abbey is located on a loop of the River Forth, just north of the river from, but adjacent to, Stirling. Cambuskenneth Abbey was established in 1147 by King David, and was subsequently an Augustine Order⁴. The Augustinians were drawn from various parts of Europe, but were centred in northern Italy. Down the River Forth, other nearby religious

1 Forth Environment Link (25 May 2009) *Forth Valley Orchard Regeneration Initiative. Invitation to Tender for Consultants' Role – Tender Details.*

2 <http://www.trp.dundee.ac.uk/data/councils/maplist.html> Consulted June 2009.

3 Hayes, C.W. (2008) Ancient Orchards on the Banks of the River Tay. *Landscape Archaeology and Ecology*, 7, 63-75.

4 anon. (1872) *The Cartulary of Cambuskenneth*. Grampian Club, Edinburgh.

houses existed: Culross Abbey (Fife), Inchcolm Abbey on Inchcolm Island, and the Isle of May Priory. There also appears to be a strong connection with Holyrood Abbey; it held lands in the Falkirk area.

In an article in a 1913 edition of the newspaper *Stirling Journal*, there is some discussion of the history of orchards at Cambuskenneth Abbey⁵ and indeed the history of orchards in general. There are specific historical instances cited, for example: “*In Instrument of Sasine in favour of Sir John Erskine, dated 2nd November 1696, the lands of Cambuskenneth are described as including gardens and orchards.*” However, later in the piece, it is stated that “*In 1709, when Cambuskenneth was conveyed there was no mention of gardens or orchards . . .*” This perhaps merely highlights the inconsistency of the historical record. It may also indicate the relatively low importance attributed to orchards at that time. Unfortunately no references are given in the piece to verify the various assertions.

The *Stirling Journal* article also mentions the current existence (in 1913) of the Brig Orchard beside the old bridge in Stirling. It is mentioned in the context of a reported dispute about rights to fruit in 1520. This indicates that the Brig Orchard may have existed for at least 400 years.

A final piece of interest in the same article is the introduction of an export tax in 1601 of £3 per ton on apples from Scotland to various ports in France, and later in the same year the introduction of an import tax of 40s per ton on the same goods⁶.

Apart from the early references to orchards at Stirling and Cambuskenneth, there are also reports of orchards on the carselands of the Forth. Reid⁷ states that “*Orchardland at Halls of Airth is on record in 1489*” and goes on to state that “*The presence of orchards is recorded in placenames on the carse such as Orchardhead [1526], Orchard of Bothkennar [1630] and Crawford's Orchard [1669].*”

In 1707, Sibbald⁸ describes the property Stonehouse in the Parish of Bothkennar, “. . .with a fine orchard of very good fruit trees belonging to it”.

During the 1790s, the *Statistical Account*⁹ was created by the Ministers of the respective parishes. The Account has been consulted for all the parishes in the present day districts of Stirling, Falkirk and Clackmannanshire. The review of this extensive document shows that orchards did not feature as a key part of parish life in the Forth Valley – at least as far as the Ministers were concerned.

5 Chapman, M. (1913) The Early History of Apple, Pear and Plum. *Stirling Journal*, 20th February 1913 p9.

6 *ibid.* Stated source is the ‘Records of the Convention of Royal Burghs’

7 *Acta Dominorum Auditorium*, i, p137 cited in Reid, J. (1993) The Carselands of the Firth of Forth. *Calatria*, Spring, No. 4, pp1-31.

8 Sibbald, R. (1707) *History and Description of Stirling-shire*. p47-48

9 Sinclair, S.J. (Ed.) (1799) *The Statistical Account of Scotland 1791-1799*. Vol IX. Dunbartonshire, Stirlingshire, Clackmannanshire. p135, 185

The only parishes to mention orchards were:

- Bothkennar. 12 orchards totalling 3 acres
- Airth. 9 orchards

The *General View of the Agriculture of Stirlingshire*¹⁰ published in 1812 provides a number of useful insights in a chapter on orchards. It states that many sorts of orchard fruit are grown on account of the mildness of climate. It also asserts where orchards were chiefly to be found:

“It is well ascertained that, in ancient times, orchards were cultivated, on an extensive scale, in the carses of Bothkennar and Airth.”

“Whilst the monks of Cambuskenneth had orchards in the rich plains of Bothkennar, which produced pears and rennets of France, . . . These luxurious clergymen passed winter in the Abbey, whilst they spent the summer in Airth and Bothkennar, where the reliques of these orchards may still be traced.”

Some interesting observations regarding cultivation practices are made. An example of the revival of an old orchard at Westerton in Bothkennar Parish was carried out by the addition of dung and quicklime. The trees responded by new growth and giving large quantities of fruit. Another interesting practice was reported:

“To prevent the roots from shooting down perpendicular into the cold soil, to which the influence of the solar heat never reaches, and to direct the roots to seek their food in a horizontal direction, they placed large flags under every fruit tree. These flags are still to be found in all their orchards”

The author is somewhat effusive in his enthusiasm:

“Indeed, no soil seems to be more favourable for fruit trees than the Carses of Stirlingshire.”

On pears, Graham states *“The pear tree particularly thrives in this soil. The ‘golden knap’, or ‘gouden nap’, as it is here called, seems peculiar to this part of Scotland. This trees bear astonishing crops. The produce of many single trees of this kind has been known to sell for ten guineas. It is equal in beauty to any fruit tree whatever; it is never known to canker”*

He goes on to lament that but for greater attention to the orchards, *“the grateful beverages of perry and cyder might be produced at home”*.

The excellence of the Golden Knap as a pear variety is perhaps subjective; seventy years later Hogg describes it in his definitive work, the *Fruit Manual*¹¹ as *“of no great merit. It is grown extensively in the orchards of the border counties of*

10 Graham, P. (1812) *General View of the Agriculture of Stirlingshire*. Board of Agriculture and Internal Improvement,

11 Hogg, R. (1884) *The Fruit Manual: A Guide to The Fruits and Fruit Trees of Great Britain*. Journal of Horticulture Office, London.

Scotland, and in the Carse of Gowrie, and being a prodigious and constant bearer, is well adapted for orchard planting where quantity and not quality is the object.”

Graham goes on to give a useful insight into the value of orchards to the relative stakeholders and why there was a lack of maintenance and investment:

“It is to be regretted that orchards are not more generally cultivated in this district. The cause of this neglect is not far to seek. An orchard makes no return for ten or twelve years after it is planted, which, in almost every instance, exhausts two-thirds of the period of lease; and most people prefer a lesser present advantage to the greater one at a distance. From the same cause, orchards are much neglected by tenants. When a tree is blown down, they do not think of planting another. To keep the orchard in good condition, and especially to improve it, would, at the renewal of the lease, be to raise the rent on their own heads. Some scheme of remedying this evil would be of great advantage in the Carses.”

In contrast to this report for Stirlingshire, a latter report¹² on Clackmannanshire has no mention of orchards and their produce. There is also no mention of apples, pears or plums in the Board of Trade Returns (1881) for these counties, as quoted in the report.

In respect of the Grangemouth area, that adjoins Bothkennar parish, there is also little early evidence of orchards, despite lands in the area being owned by the Abbey of Holyrood. Rental lists¹³ are detailed even recording ‘2 wild geese’, but no mention of orchards or their produce is made.

2.2 Later Evidence on Extent and Scale of Orchards

While we have seen that the larger and well known ancient orchards appear to be restricted to the carselands of the Forth, it is likely that smaller non-commercial orchards were to be found throughout Stirlingshire and Clackmannanshire; in private gardens, walled gardens and small farm orchards. These orchards are probably well characterised as being primarily for the use of the owner’s household together with some local sales.

As the Victorian era progressed, country seats were improved or built anew. The new works often included new walled gardens and elaborate facilities to grow exotic fruit. Perhaps a slightly competitive culture of fruit growing emerged between wealthy gentry – as they vied with one another to produce exotic status symbols. However, their interest and finance was not restricted to exotic fruit. The breeding of indigenous species was a focus of attention and fine private orchards were established or improved.

¹² Tait, J. (1883) The Agriculture of the Counties of Clackmannan and Kinross. In *Transactions of the Highland and Agricultural Society of Scotland. Fourth Series. Vol.XV*, Blackwood, Edinburgh, pp. p50-64.

¹³ Quoted in: Porteous, R. (1967) *Grangemouth’s Ancient History*. Burgh of Grangemouth, p107

A report of the Exhibition of Agricultural Production¹⁴ at Stirling in 1833 demonstrates this renewed interest. From Dunmore Gardens came exhibits of 76 named varieties of apples, “including the best and most approved new sorts” and 38 best new varieties of pears. Local apple exhibits also came from Kennet and Alloa in Clackmannanshire; and in Stirlingshire: Corntoun, Buchanan, Coldoch and Stirling.

Local pear exhibits came from Kennet, Westertown, Corntoun and Culross Abbey gardens.

In the 1840s a new *Statistical Account*¹⁵ was compiled, again by the Ministers of the respective parishes. It is a rich work and gives an valuable insight into life at that time. All the parishes within Stirling and Falkirk Districts, and Clackmannanshire have been consulted for information of relevance to this study. The Account gives the following details in regard to the parish of:

St Ninians¹⁶

“ We have very little natural wood in this district and though there are numerous fruit trees scattered through the parish as well as in the gardens there is hardly in it any thing that deserves the name of an orchard “

Drymen¹⁷

“ In the old orchard at Duchray there are some aged filbert trees which produce a nut of a larger size and higher flavour than the common nut of the wood. They were brought originally from the Monastery of Inchmahome in the Isle of Men teith to which they had been conveyed from foreign parts.”

Clackmannan¹⁸

“The reverend and venerable Thomas Boston of Ettrick whose memory and writings are embalmed in the hearts of so many of the Scottish people did in his youth officiate for a time at Kennet in the capacity of tutor. Under the shadow of a particular pear tree in the retired orchard, he was in the habit of engaging in those exercises and of enjoying that communion by which he might be fitted and prepared for working that work which his Heavenly Father might give him to do. By those individuals about the place who sympathised with the spirit which animated Boston, the pear tree was long viewed with a peculiar interest. When at length the symptoms of decay and dissolution became strikingly apparent the present proprietor resolved to cause a chest to be made of the timber of its root that he might present it with a suitable inscription to the Presbytery of Stirling as an appropriate repository for their records.

14 anon. (1833) *Report on the Exhibition of Agricultural Production at Stirling. From November 16th 1832 till 16 March 1833.* W Drummond & Sons, Nursery & Seedsmen, Stirling, p76-77. PD155/1

15 Parishes, T.M.o.t.R. (1845) *The New Statistical Account of Scotland. Dunbarton, Stirling and Clackmannan.* Society for the Benefit of the Sons and Daughters of the Clergy,

16 *ibid*, p314

17 *ibid*, p233-234

18 *ibid*, p127

But on examination the whole was found to be in such a state of decay that the design could not be executed.”

It is interesting to note the use of the term ‘retired orchard’.

Cumbernauld¹⁹

“In some favoured spots, apple, plum, pear, and cherry trees, yield occasionally fair crops. The climate, however, seems not to be adapted for orchards, the finer kinds being liable to blight, and all sorts to canker and rust. The frosts and cold east winds in April and May often destroy the blossom, and render fruit in this place but a very precarious crop.”

Polmont²⁰

“An attempt has been made to introduce some of the varieties of the Canadian apple, viz. the Pomme grise and the fumeuse, by Mr Logan of Clarkstone, but not with much success, in consequence of our summers being generally too cold to bring the fruit to maturity.”

Alloa²¹

Discussions regarding the fruit tree pest *Coccus*, and its remedy.

Dollar²²

“The insects most destructive to fruit trees and fruits in the parish are: . . .” and there follows a lengthy discussion on the subject. This is followed by the summary:

“Fruit trees have been planted with variable success. The apple for a few years grows with vigour and bears fruit but as soon as the roots penetrate the subsoil which is in many places a retentive clay the trees begin to canker and gradually decay. The soil appears more adapted to the growth of the pear even the oldest trees are for the most part healthy and in favourable seasons produce fruit in abundance. The plum and the cherry are seldom planted.”

Bothkennar²³

“Agriculture. In no part of Scotland is agriculture better understood or pursued with more eagerness and success than in this small parish. The soil is so favourable for the production of grain that there is not in it one acre of natural grass. Tile draining has for several years past been carried on to such an extent that almost every acre of it has been subjected to this most important improvement, so important that the farmers assert that they are paid all their outlay by the additional produce of the two first

19 *ibid*, p136-137 Note: Although not in the Forth Valley area, the piece demonstrates how unfavourable nearby conditions could be.

20 *ibid*, p194

21 *ibid*, p15

22 *ibid*, p90-91

23 *ibid*, p202

years. The mode of cropping is that of a six years rotation; 1 naked fallow 2 wheat 3 beans 4 barley 5 grass 6 oats. Perhaps the ingenuity of man cannot discover a more important rotation for carse land than this as a green crop intervenes between every two white ones.”

“There are fourteen orchards in the parish and the first of them appear to have been planted by the monks of Cambuskenneth who understood gardening better than any other part of the community at the period in which they lived. The soil is particularly adapted to pear trees which bear more abundant crops than in any part of Great Britain. The golden nap which appears to be indigenous, grows with all the luxuriance of a forest tree and never cankers. Its value is so great that single trees have in some particular years brought from L 10 10s to L 12 12s and a single acre has in some years given L 100.”

Airth²⁴

“Produce: The average produce of grain of all kinds may be estimated at about 6 bolls per imperial acre. The culture of potatoes turnips cabbages &c in the fields is exceedingly limited. The average crop of hay per imperial acre is 200 stone. Produce of gardens and orchards is in general very abundant. The thinning of the plantations rarely amounts to more than what is required for paling Total yearly value of raw produce raised in the parish is about L 100,000.”

Logie²⁵

Cambuskenneth is vaguely mentioned. Otherwise, no orchard or fruit produce mentioned in whole parish account. This must be a reflection of the author, for it is clear from other sources²⁶ that many large orchards existed in the area: Tower Orchard, St James Orchard, Ferry Orchard, and Lady’s Neuk Orchard at Cambuskenneth alone.

The first edition of the Ordnance Survey map²⁷ was compiled from 1843 to 1882. It provides an excellent and detailed resource, including evidence for orchards, usually given as distinctive style of rows of deciduous trees. Sheets that cover Stirlingshire were surveyed 1859-1862 and published 1864-6. Sheets that cover ‘Perthshire and Clackmannanshire’ were surveyed 1859-1862 and published 1864-7. These sheets were consulted extensively in preparation for the fieldwork. This period is highly appropriate in terms of orchards as the mid Victorian era is generally seen as the zenith for larger orchards²⁸.

Elsewhere in the literature, Mains of Bothkennar and Dunmore Park are mentioned in terms of apple breeding and David Trotter of Alva reports on

24 *ibid*, p285

25 *ibid*, p214-233

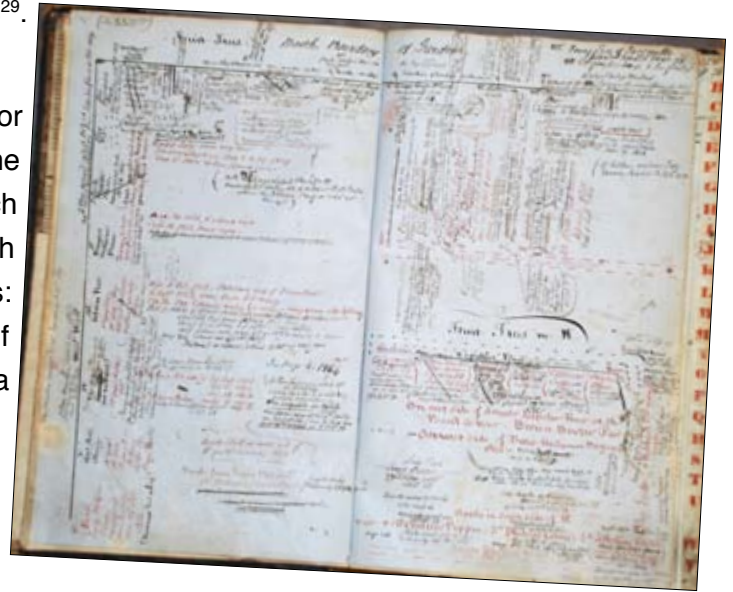
26 such as the 1st edition of the Ordnance Survey around 1850

27 Ordnance Survey (1843 - 1882) Six Inch 1st Edition Scotland.

28 Hayes, C.W. (2008) Ancient Orchards on the Banks of the River Tay. *Landscape Archaeology and Ecology*, 7, 63-75.

peaches and nectarines being grown on heated walls²⁹. The latter practice became quite widespread³⁰.

An anonymous late Victorian gardener's diary³¹ for a large house in Bridge of Allan provides a fulsome insight into the significance of growing fruit. Sketch plans show the walled garden is lined with trees, each labelled as to variety, and there are lists of varieties: the entry for 1872 gives 18 varieties of plum, one of peach, 2 varieties of cherry, 11 of apple, 18 of pear; a total of 70 trees.



Excerpt from
Gardener's
Diary

2.3 Contemporary Evidence

The *Inventory of Gardens and Designed Landscapes*³² was searched for sites with comments relevant to orchards. The Inventory was originally compiled in the late 1980s. It has now been extended in an online version which is administered by Historic Scotland. Unfortunately, the presence of orchards and fruit trees is not one of the specific criteria that was recorded. There are however comments regarding various aspects of the gardens, and these sometimes indicate fruit trees or orchards.

In their 'Assessment of Significance: Horticultural', orchards appear not to carry much weight. For example, The Pineapple is reported to have "no horticultural significance" despite having a large 200 year old pear tree and several dozen other fruit trees of around 50 years of age at that time. Thus, though the Inventory was consulted, it subsequently became apparent that it was of limited use for this survey. However a list of properties likely to have orchard remnants was collated from the Inventory.

Turning to Clackmannanshire specifically, most of the large country houses have been demolished since 1945³³ and many of their walled gardens now have alternative uses or have been built on. There appears to be little literature on the contemporary situation of orchards at the former large houses of the county. One recent guide³⁴ makes no mention of orchards or walled gardens in connection with the former country houses.

29 Robertson, F.W. (2008) Orchards, Fruits and Gardens of Early Nineteenth-Century Scotland. *Review of Scottish Culture*, No. 20, pp 45-56.

30 From contemporary evidence collected by the author during this survey and others in the east of Scotland.

31 anon. (1906) *Gardeners Diary of 121 Henderson Street, Bridge of Allan*. 1862-1906. Stirling Archive Accession No. 1408.

32 anon. (1987) *An Inventory of Gardens and Designed Landscapes in Scotland. Volume 4: Tayside, Central, Fife*. [updated and enlarged Inventory now at <http://www.historic-scotland.gov.uk/index/heritage/gardens.htm>]

33 Personal communications with Archive Section Staff, Alloa Library. September 2009.

34 Swan, A. (2001) *Clackmannan and The Ochils. An Illustrated Architectural Guide*. The Rutland Press.

2.4 Summary of Conclusions from Literature Review

The review of the literature shows that the likely sites for large and ancient orchards are on the carselands, in the:

- Parish of Bothkennar
- Parish of Airth
- Parish of Logie

Smaller orchards are likely to be found throughout the Forth Valley area in private gardens, country house walled gardens and farm houses. The incidence of orchards diminishes at locations further away from the main river valley, further west and as altitude increases.

3 Deskstudy of Likely Orchard Sites

The purpose of the deskstudy was to create a list of orchards that were most likely to have interesting or significant remains, in order that they could be prioritised for survey visit. The foregoing literature review was the first broad stroke of the brush for the deskstudy. Following this, more detailed and site specific work was required. The following additional steps were taken.

3.1 Mapping & Aerial Image Assessment

For the three parishes of Bothkennar, Airth and Logie, a visual search of the OS 1st edition³⁵ maps was made to determine the location & presence of orchards in the 1850s. The sites that were identified were then carefully evaluated by viewing high quality contemporary aerial images³⁶. Thus an assessment was made of an orchard site, and a score attributed to it according to the likelihood of orchard remnants being present.

A number of specific sites outside these parishes were also evaluated using this method.

3.2 Engaging with Communities

Part of the rationale for the wider *Forth Valley Orchard Regeneration Initiative* is to engage with communities, to learn where their orchards are.

35 Ordnance Survey (1864-1867) Six Inch 1st Edition Scotland. Sheets for Stirlingshire and Perthshire & Clackmannanshire. These paper map sheets are now out of copyright.

36 Various sources; mainly Google Maps 'Satellite' which appear to date from early 2000s

This engagement took various forms:

- a press release from Forth Environment Link published in various local papers including the *Stirling Observer*³⁷.
- a web survey created & hosted by Forth Environment Link in consultation with the author.
- a postcard survey created & despatched by Forth Environment Link in consultation with the author.
- a series of five Green Mapping Workshops carried out between 18th November and 9th December 2009 by Mike Trevett, Action for Change³⁸, which are reported elsewhere.
- a series of school workshops carried out by Margaret Miller, which are reported elsewhere.

Information emerging from this engagement of the community was fed into the survey, where timescales allowed this to happen.

In addition to the project-level engagement described above, survey specific engagement was also carried out. The following groups that may have had an interest or knowledge of orchards in their area were contacted.

Table 1: Community Engagement - Organisations Contacted

Organisations	Contact successful ?
Balfron Heritage Group	yes
Buchlyvie Garden Society	yes
Callander and District Heritage Society	unsuccessful
Callander and District Horticultural Society	yes
Cental Scotland Forest Trust	yes
Clackmannanshire Field Studies Society	yes
Clackmannanshire Horticultural Society	yes
Clacks Council; Biodiversity Officer	yes
Dollar Horticultural Society	yes
Dollar Museum	yes
Drymen and District Local History Society	yes
Dunblane Local History Group	yes
Falkirk Biodiversity: Landscape Officer	yes
Falkirk Local History Society	yes
Forth Naturalist and Historian	yes
Killearn committee contact	yes
Killin Heritage Society	yes
Kilmadock Society	yes
Port of Menteith Heritage Group	yes
Scotlands Garden Scheme	yes
Stirling Biodiversity: Ranger	yes
Stirling Field and Archeology Soc.	unsuccessful
Strathblane Heritage Society	yes
Tillicoultry Allotment Association	yes
Tullibody History Group	yes

37 *Map our Orchards Plea*. 7th October 2009

38 <http://actionforchange.net/>

These contacts together with others made during the literature review process, for example as a result of discussions with librarians and archivists, were used to determine the likely location of orchards.

3.3 Information from Forth Environment Link

Forth Environment Link provided a contact list from previous work, and identified a number of sites known to them, for potential inclusion in the survey.

3.4 List of Prospective Sites

The process described above created a list of prospective sites together with a score of the probability of orchards remaining. The list of sites was not exhaustive, and it is likely that knowledge of other orchards will emerge. The list provided a basis for fieldwork that is described below. It was not possible to include all prospective sites in the survey.

4 Survey Methodology

The deskstudy provided a list of the archaic and other sites where orchards could be expected. This list was complimented by additions gleaned anecdotally from local people and people with a professional, academic or personal connection. Various editions of Ordnance Survey and other maps were used.

For fieldwork, the following contemporary editions of the 1:25,000 OS Explorer series were used as working maps:

No. 364	Loch Lomond North (Edition A1 - 2007)
No. 347	Loch Lomond South (Edition A1 – 2006)
No. 348	Campsie Fells (Edition A1 - 2007)
No. 365	The Trossachs (Edition A1 - 2007)
No. 366	Stirling & The Ochil Hills West (Edition A1 - 2009)
No. 349	Falkirk, Cumbernauld & Livingston (Edition A1 - 2007)

Prospective locations were marked on the map.

The fieldwork for the survey was conducted over seven days between 13th October and 12th November 2009.

Since 12th November 2009 there have been various additions to the survey database, as a result of new information and through telephone conversations with orchard keepers.

4.1 Data Collection

A wide variety of data was collected. In addition to photographic records that are discussed below, a database was used to record information collected.

Several categories of data contribute to each record of an orchard:

- Location data
- Keeper use and knowledge of orchard
- Size & content
- Survey management data
- Biodiversity criteria, including condition of trees
- Historical notes
- Survey notes including anecdotal material from keeper and others

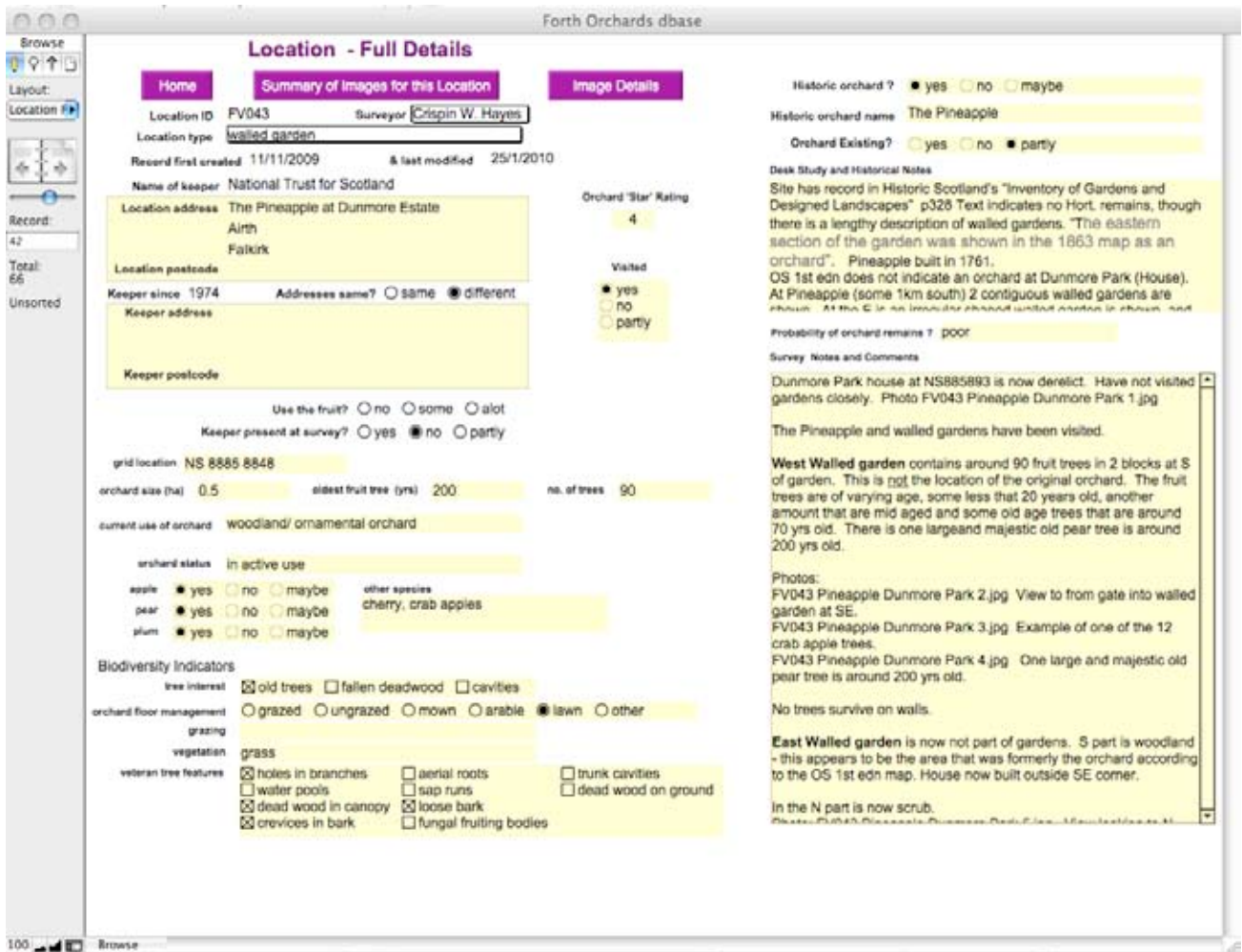
The biodiversity criteria recommended by PTES³⁹ were used in a modified format for this survey.

The software used for the database is FileMaker Pro v7, which is a versatile cross-platform application⁴⁰. It can export data in a number of formats including MS Access and XML. An anonymised example of a record for one orchard is shown in the adjacent figure.

Data was recorded on site, directly to laptop computer. This was for accuracy, speed and to avoid transcription errors.

The database was designed and intended as a foundation and ongoing, evolving resource. As such it constitutes a major output from this initial phase of the project to secure the future of the Forth Orchards.

Database form as used for recording data for deskstudy and field work



4.2 Photographic Records

Photographic records constituted an important method of recording orchard condition and extent. In some cases they also assisted in recording location. As such they are one of the cornerstones of this survey.

39 PTES is a London based NGO that has been working on traditional orchards in the south of England. www.ptes.org
 40 www.filemaker.com

Digital still photos formed the basis of the photographic record. These images are 3.2 Mega pixel, a resolution with appropriate detail for screen and print reproduction. They are stored as jpeg files.

Most locations have a number of images that help to build a picture – a historical snapshot – of the orchards as they existed in autumn 2009. Photo filenames and descriptions are given in the Survey Notes field of the database.

4.3 Location Information

A handheld GPS unit (Garmin GPS 72) was used to record the grid reference of locations. The unit was set up to give a 10 digit reference in British National Grid format – thus providing an apparent resolution to the nearest metre. However, GPS systems in the UK do not have a generally available ground station calibration (such as WAAS in USA), and nor was a specialist differential system employed. Thus accuracy is stated to be within 15 metres. Consequently in most cases, the data recorded has been rounded to a realistic 8 digit reference.

A conventional 6 digit grid reference, read off the OS Explorer map has been used as a backup, and for locations where it was not possible to use the GPS unit. This provided the location to the nearest 100 metres.

It was anticipated that this and other data could be exported to a GIS application in the future.

The use of GPS to map the boundaries of orchards was considered. It was concluded that the limitation in accuracy of GPS meant that it is not a useful tool for these fairly small areas.

4.4 Data Protection

A cautious approach has been taken in regard to data protection requirements. Firstly the data is stored as a computer record. Secondly, the data contained information that may be considered of a personal nature such as a person's name and associated address. Therefore, permission was sought from those named on the database, and they were asked to sign a form showing their consent. There were some exceptions, most commonly when the person was not available to sign the form – and their name had been given by a third party, such as an employee. The original signed data protection form is held by the client.

The data protection form does not constitute permission from individuals for their details to be passed to third parties or for their names and personal data to be published. Additional permission would need to be sought for this. It is therefore intended that any publication of orchard records be in an anonymised form.

Ongoing data protection is the responsibility of the client.

5 Survey Findings

A total 45 sites were visited and individually recorded during the course of the survey. An additional 21 sites were recorded on the database but were not visited, either because the desk study indicated the low probability of orchard remains or in a few cases because no fieldwork time remained.

The location of orchards by map grid reference is given in Appendix A.

Full details of the survey are recorded in the database, and it should be considered as the primary repository of survey results together with the photo archive. Photos are described in the 'Survey Notes' field of the database. A printout of the survey forms from the database is given in Appendix B.

Table 2 below shows all the sites included in the survey. The table is split into three sections:

- The top section lists sites that were visited: orchard remains exist.
- The middle section lists sites that were visited: no significant orchard remains or it was not possible to verify existing remains.
- The lower section lists sites that were not visited.

Where 'partly' is shown in the 'Visited' field, this indicates that an attempt was made to visit the site, but that it was not possible to personally verify the existence of the orchard.

Of the 45 sites visited, 25 are considered to have orchard remains, and 20 have little or no remains. The findings presented below summarise the data collected. For full details of individual orchards the database should be consulted.

Table 2: Orchard Sites Included in Survey

Location ID	Orchard	Location	Type of orchard	Visited	Apples	Pears	Plums
FV001	East Orchard at Drumdruids Farm	Bridge of Allan	orchard/ woodland	yes	yes	no	yes
FV002	West Orchard of Drumdruids Farm	Bridge of Allan	private garden	yes	yes	maybe	yes
FV007	Ferry Orchard	Ferry Orchard House	private garden	yes	yes	yes	yes
FV009	Tower Orchard	Cambuskenneth Abbey	public space	yes	yes	no	no
FV011	'Old Dump' Orchard	South East of Newton	agricultural field	yes	yes	yes	maybe
FV012	Area around former Island Farm	East of Skinflats	agricultural land	yes	yes	yes	yes
FV013	Teindsyard	by Skinflats	private garden	yes	yes	yes	yes
FV014	Howkerse	Bothkennar	agricultural field	yes	yes	yes	yes
FV016	Newton Road	by Skinflats	Rough Ground	yes	yes	no	no
FV019	Bowtrees	by Airth	agricultural field	yes	yes	yes	yes
FV028	Cardross House	Port of Mentieth	walled garden	yes	yes	maybe	yes
FV030	Gargunnoch House	Gargunnoch	walled garden	yes	yes	yes	yes
FV033	The Roman Camp Hotel	Callendar	walled garden	yes	yes	no	yes
FV034	Touch House	Touch Estate	walled garden	yes	yes	no	yes
FV043	The Pineapple at Dunmore Estate	Airth	walled garden	yes	yes	yes	yes
FV047	Wester Spittalton	by Thornhill	orchard/ woodland	yes	no	no	yes
FV048	Easter Poldar	Thornhill	private garden	yes	yes	no	yes
FV049	Parks of Garden	Kippen	agricultural field	yes	yes	no	yes
FV051	Tullibody House	Cambus	agricultural field	yes	yes	no	yes
FV052	Kennetpans Orchard	Kennetpans	agricultural field	yes	yes	no	yes
FV054	Cambus Orchard	West of River Devon	public space	yes	yes	no	yes
FV055	The Walled Garden at Dollarbeg House	Dollarbeg	walled garden	yes	yes	yes	yes
FV057	Blairlogie Lower Orchard	Blairlogie	agricultural field	yes	yes	yes	yes
FV058	Blairlogie Upper Orchard	Blairlogie	agricultural field	yes	yes	yes	yes
FV059	Blairlogie Carpark	by Blairlogie	agricultural field	yes	yes		yes
FV003	Walled Garden at Westerton Estate	Bridge of Allan	housing estate	yes	no	no	maybe
FV004	121 Henderson Road	Bridge of Allan	private garden	partly			
FV005	Home Farm Walled Garden	Airthrey Castle	horticulture	yes	no	no	no
FV006	Airthrey Castle Walled Garden	Airthrey Castle	horticulture	yes	no	no	no
FV008	St James Orchard	Cambuskenneth	buildings	yes	no	no	no
FV010	Ladyneuk Orchard	Ladyneuk Farm	agricultural field	yes	no	no	no
FV015	Newton Orchard	by Skinflats	private garden	partly	no	no	no
FV017	Orchardhead	Bothkennar	agricultural field	yes	no	no	no
FV018	Stonehouse Orchard	Bothkennar	agricultural field	yes	no	no	no
FV024	Powfoulis	Bothkennar	private garden	yes	no	no	no
FV029	Doune Park	by Doune	walled garden	yes			
FV032	Rednock House	Port of Mentieth	walled garden	partly			
FV035	Blairhoyle	by Port of Menteith	walled garden	partly			
FV041	Callender Park		walled garden	yes	no	no	no
FV045	Kings Knot		public space	yes	no	no	no
FV046	Craighead Farm	by Thornhill	walled garden	yes	yes	no	no
FV050	Mid Torrie Farm	Callendar		yes			
FV061	Old Brig Orchard	Drip Road	agricultural field	partly	no	no	no
FV062	Broom Farm	by Causewayhead	agricultural field	partly	no	no	no
FV063	Broom Farm Cottages, West Grange	by Causewayhead	agricultural field	partly	no	no	no
FV020	Cockspow	Fallin	agricultural field	no			
FV021	Westertown Orchard	Westertown	agricultural field	no	no	no	no
FV022	Orchards of South Mains & North Mains	by Skinflats	agricultural field	no	no	no	no
FV023	South Bellsdyke	by Skinflats	agricultural field	no	no	no	no
FV025	Carron House	Bothkennar	private garden	no			
FV026	Kinnaird House	Bothkennar	walled garden	no			
FV027	Blackness	Linlithgow	horticulture	no			
FV031	Walled Garden at Kippenross House	Dunblane	walled garden	no			
FV036	Duntreath Castle	Strathblane	walled garden	no			
FV037	Keir House	Dunblane and Lecropt	walled garden	no			
FV039	Blair Drummond House Walled Garden	Blair Drummond	walled garden	no			
FV040	Buchanan Castle	Drymen	walled garden	no			
FV042	Castle Campbell	Dollar	walled garden	no			
FV044	Inchmahome Priory	Port of Mentieth	private garden	no			
FV053	3 Alexandra Drive	Alloa	private garden	no	yes	yes	yes
FV056	Harvieston House Walled Garden	Harvieston House	walled garden	no	maybe	maybe	maybe
FV060	Alva House Walled Garden	Alva	walled garden	no	no	no	no
FV064	Airth Castle Orchard	Airth	agricultural field	no	no	no	no
FV065	Ochtertyre Farm	Ochtertyre		no			
FV066	Cashel Farm	Balmaha		no			
FV067	Gartmore House	Gartmore		no			

5.1 Headline Summary

Of the 25 sites found to have an orchard to some extent, the breakdown is as follows:

- 27 orchards have apple trees
- 15 orchards have pear trees
- 26 orchards have plum trees
- 7 orchards have fruit trees of other species; such as greengage or cherry

Where appropriate, the orchard keeper⁴¹ was asked if the fruit from the orchard was used. Of the respondents:

- 2 orchard keepers said they used 'a lot' of their fruit.
- 8 orchard keepers said they used 'some' of their fruit.
- 4 orchard keepers said they used none of their fruit.

These figures give some indication of the level of engagement and enthusiasm of the orchard keepers surveyed.

5.2 The Best Remaining Orchards

To provide a focus on the orchards with the finest remains, the visited orchards were further scored. This is recorded in the database as the field 'Orchard Star Rating' - with 5 being the best orchards.

The criteria for the best remaining orchards were:

- size & age of orchard
- number of mature trees remaining
- historical significance
- pomological significance – unusual varieties or forms of growth

Condition of orchard or trees was excluded as a criterion, as were biodiversity indicators.

There were 9 orchards considered as '5 star', and a further 3 orchards considered '4 star'. The table below shows all 12 of the best remaining orchards, together with a final group of '3 star' orchards which are not described individually here.

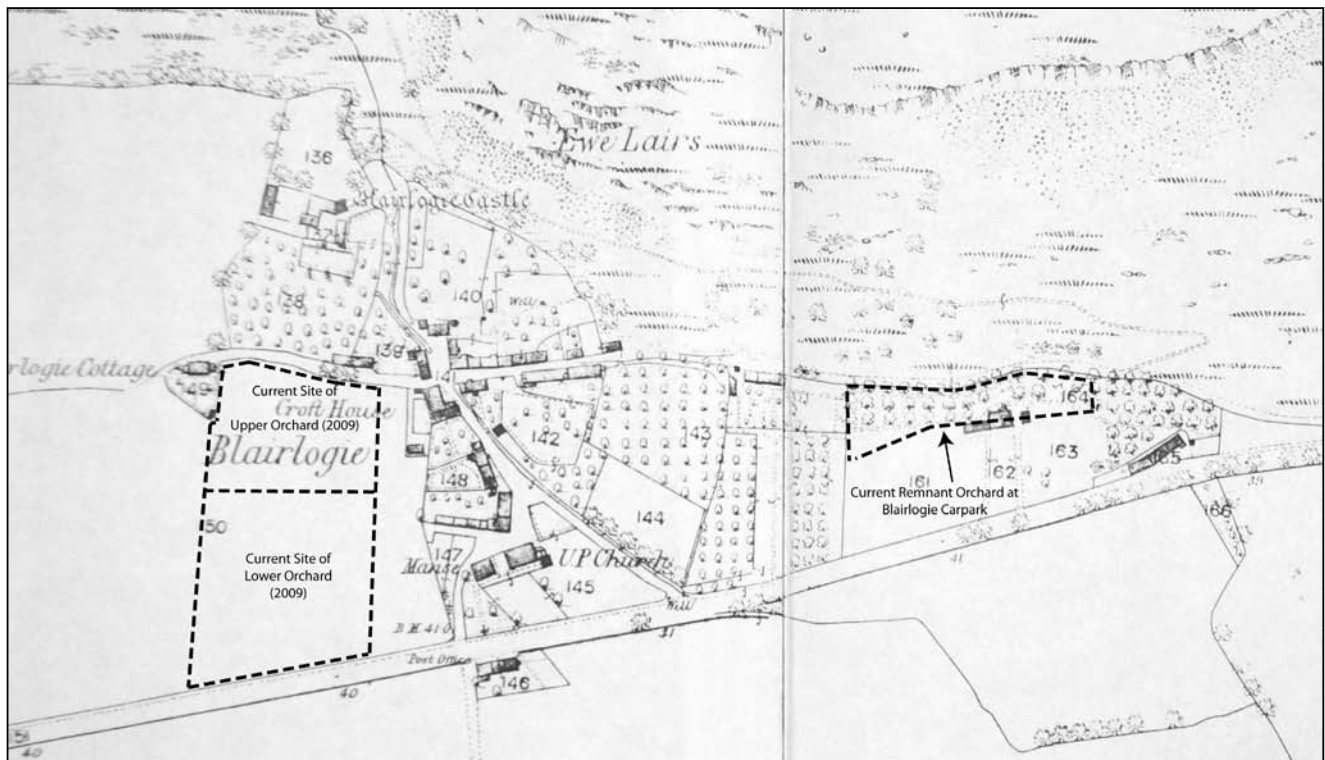
⁴¹ The term 'keeper' is used in preference to owner, tenant or proprietor. The longevity of a traditional orchard means that the person is often the transient party not the orchard.

Table 3: The Best Remaining Orchards

Location ID	Orchard	Location	Area	Star Rating
FV057	Blairlogie Lower Orchard	Blairlogie	Stirling	5
FV058	Blairlogie Upper Orchard	Blairlogie	Stirling	5
FV019	Bowtrees	by Airth	Stirling	5
FV001	East Orchard at Drumdruids Farm	Bridge of Allan	Stirling	5
FV002	West Orchard of Drumdruids Farm	Bridge of Allan	Stirling	5
FV007	Ferry Orchard	Ferry Orchard House	Stirling	5
FV014	Howkerse	Bothkennar	Falkirk	5
FV013	Teindsyard	by Skinflats	Falkirk	5
FV052	Kennetpans Orchard	Kennetpans	Clackmannanshire	5
FV043	The Pineapple at Dunmore Estate	Airth	Falkirk	4
FV047	Wester Spittalton	by Thornhill	Stirlingshire	4
FV056	Harvieston House Walled Garden	Harvieston	Clackmannanshire	4
FV053	3 Alexandra Drive	Alloa	Clackmannanshire	3
FV054	Cambus Orchard	Cambus	Clackmannanshire	3
FV028	Cardross House	Port of Mentieth	Stirling	3
FV049	Parks of Garden	Kippen	Stirling	3
FV033	The Roman Camp Hotel	Callendar	Stirling	3
FV034	Touch House	Touch Estate	Stirling	3

5.2.1 The Orchards of Blairlogie

The orchards at Blairlogie were numerous and extensive, and significant parts remain today. The map below is the Ordnance Survey 1st edition map dating from 1864. To it has been added approximate boundaries of existing orchards that are included in the survey.



Blairlogie Orchards: OS 1st Edition Map of 1860s. Annotated with current extent.

Local resident and historian Robin Kelsall says “Historically, Blairlogie’s orchards formed an important part of its 19th century reputation as a health resort - the other parts being whey from the large(ish) herd of villagers’ goats and good fresh hill air”⁴².

Three orchards at Blairlogie have been included in this survey. Two comprise the main orchards to the immediate west of the village; they stretch down to the Hillfoots Road, and up to the Croft House lane. Neither of these orchards are shown on the OS 1st edition map of 1864 (shown in the figure above), nor is it on the OS 2nd edition of 1898. Therefore we must assume that they were planted later. The older mature trees appear to be around 100 years of age and so it is likely they were planted at the beginning of the 20th Century. Currently the orchards are separately owned.

The lower part (termed Blairlogie Lower Orchard in this survey) is on flat agricultural land. It is understood the current owners have had the orchard since around 1990. It now mainly consists of pear trees with some apples. The orchard is currently undivided from pasture to the west and is grazed by sheep. The ground appears to be fairly wet – rushes in areas. The orchard contains some 30 fine old trees, many of which are pears. They are in an unkept condition.

Blairlogie Lower Orchard from south.



The upper part (termed Blairlogie Upper Orchard in this survey) is contiguous with the lower orchard, but is on a slope at the foot of the hills. It is understood that the orchard has been in the current keeper’s family since

⁴² Personal communications with Robin Kelsall. email October 2009.

1944. The keeper thinks that the orchard may previously have been part of the Blairlogie Castle grounds. The orchard contains apples and pear trees some of which are around 100 years old. Subsequent plantings have taken place in the 1930s and 1940s, and include some plum trees. Currently, there are a total of 16 trees in the orchard.



Blairlogie Upper Orchard from south.

At the east of the village, there are some orchard remnants in the area of the public carpark (termed Blairlogie Carpark in this survey). The map in the figure above, shows that a strip of orchard existed in the 1860s in this area, running at the foot of the hill, just below the old track. Today there are still a few fruit trees in this area – what appear to be crab apples and a damson thicket. This may one of be the oldest orchard remnants in Blairlogie. Though not considered one to the best remaining orchards, it is included here to give a fuller picture of Blairlogie as an orchard village.

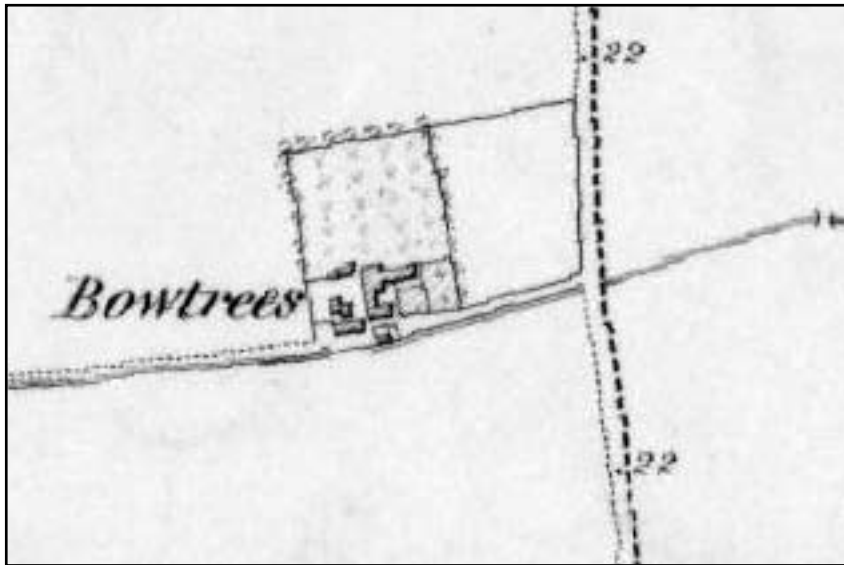


Crab apple trees at Blairlogie Carpark Orchard from south.

5.2.2 Bowtrees, Airth

Bowtrees Orchard;
OS 1st Edition Map of 1860s

This is a fine old orchard planted on raised 'lands'. Planting in this manner appears a typical practice on carselands in the east of Scotland. The



orchard is located to the north of the Bowtrees Farm steading. Bowtrees is situated near Halls of Airth. The OS 1st edition map shows the orchard in the figure below.

Bowtrees Farm is currently managed by a neighbouring farm. The orchard now occupies roughly the same area – though perhaps contracted a little – as that shown in the map. There are 9 old plum trees - the oldest of which is perhaps 200 years old. 3 old plums trees of approximately 75 years old and 1 old apple comprise the rest of the orchard. Thus the orchard is

much depleted from its former state and its current use is purely as grazing. It is understood that the fruit is not used by the keeper of the orchard.



Bowtrees orchard

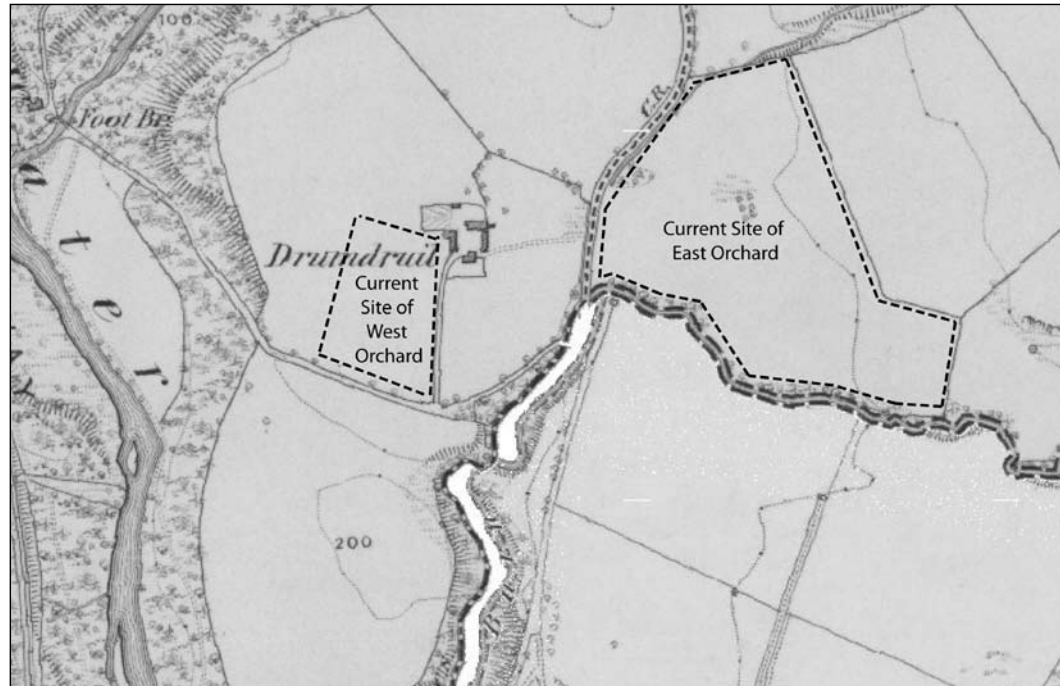
5.2.3 Orchards at Drumdrills Farm

There are 2 orchards at Drumdrills Farm. Drumdrills is situated on the Glen Road, which is the ancient route between Bridge of Allan and Dunblane. To the south-west of the farm steading and beside it, is the West Orchard. Several hundred metres to the east, and to the east of the Glen Road, is the East Orchard.

The OS 1st edition (below) shows neither of these orchards in existence in the 1860s. The 3rd edition map of 1912 shows that the West Orchard appears to be in existence, but not the East Orchard. Approximate boundaries for the orchards as they exist today are shown on the adjacent map.

Drumduills Orchards;
OS 1st Edition Map of 1860s.
Annotated with current extent.

The history of the orchards is interesting. Drumduills was in the ownership of the Bishops of Dunblane from 1442 to 1690. Local amateur historian and descendent of former owner Robert Scott states⁴³:



‘So for at least 250 years life at Drumduills, its tenants, and productivity were dictated by the Bishop from his splendid palace in Dunblane. It is the writer’s belief that it was during this “reign” that Drumduills was first planted as an orchard

- the distant and long since forgotten predecessor to the Scott Orchard of 1892! There is documentary proof that this orchard survived up until the early 18th century, indeed in 1723 Sir James Campbell’s son and brother jointly urged him to purchase the property of ‘Drumduills’ on the ground that it had: “One of the best fruit orchards in the shire, both as to kinds and quantities, and also contained a lime quarry of as good lime as ever they had seen.” ’

In 1894 and subsequently, orchards were planted by Robert Scott of Carluke, who was a jam manufacturer. He bought the property in 1892. Scott also had Kennetpans orchard (discussed below), and the now extirpated Cornton orchard.

Prior to Scott there appears to an intermission when orchards did not exist at Drumduills or were very small. It is likely that the trees that remain today were predominantly planted by Scott.

Both orchards are currently in state of abandonment, with undergrowth that is thick in parts. However they both still contain large number of trees – predominantly plum. It is understood that both are owned by the same keeper. The fruit is not much used.

The East Orchard is predominantly damson and plum, with some apple. It is estimated that there are approximately 250 fruit trees remaining. The oldest appear to be around 80 years old. Some lower parts of the orchard have

⁴³ Personal communications. Peter Gordon, January 2010. Email.

East Orchard at Drumdruids



been underplanted with broadleaf trees (ash, oak) probably between 2000 and 2005. This together with volunteer broadleaves means that parts of the orchard will be shaded out. There is a relatively new deer fence surrounding orchard/wood which will benefit the saplings of non-fruit species. Much of the orchard is covered in thick undergrowth; nettles and umbelliferae on lower part. Upper part (east) is bracken and brambles - and in other areas. The orchard is very extensive and goes up the hill some distance. Elevation varies from approximately 80 - 110m AOD.

The West Orchard is smaller and though overgrown is not quite so wild. It contains approximately 50 trees, predominantly damson and plum with some apple. The oldest fruit tree is approximately 100 years old. The orchard is situated on a flat, slightly sloping rectangular piece of ground. There are few broadleaf volunteers in this orchard, though there are old and fallen orchard trees.

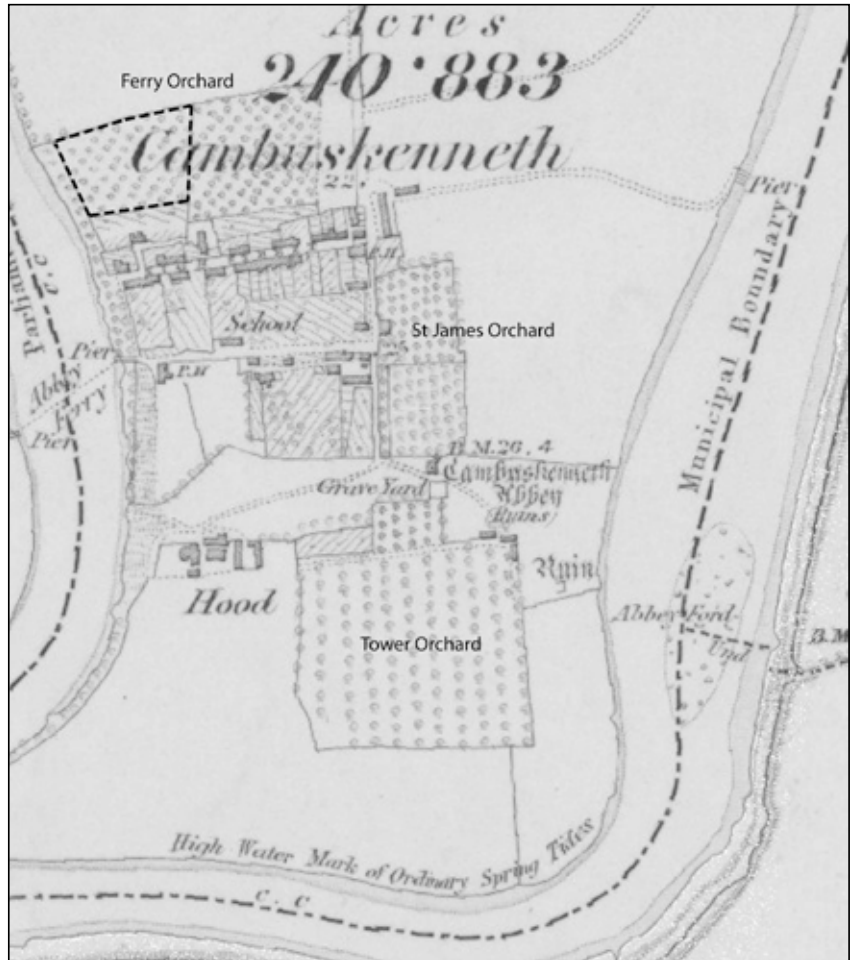
West Orchards at Drumdruids



5.2.4 Ferry Orchard, Cambuskenneth

The orchards of Cambuskenneth are deservedly well known – especially given the apparent role of the Abbey in developing pomoculture in the area. There were formerly 4 orchards of Cambuskenneth; Tower Orchard, St James Orchard, Ferry Orchard, and Ladysneuk Orchard around 0.5km north of the village. Today only part of one of those orchards remains, and that is Ferry Orchard.

The OS 1st edition map is shown right. It is annotated with the orchard names. Tower Orchard is now grazing with a small area of recently planted fruit trees. St James Orchards is a small housing estate. Ladyneuk Orchard is now grazing. The eastern half of Ferry Orchard is now housing. Only the part of the orchard demarcated by the heavy dashed box remains as traditional orchard. This is now the private garden orchard of Ferry Orchard House.



Cambuskenneth Orcharas; OS 1st Edition Map of 1860s. Annotated with current extent.

Ferry Orchard originally extended some 7 acres. It is now much diminished to something like a quarter of that size. Ferry Orchard House dates from 1746. It is recorded that the Cambuskenneth was an ‘artist’s colony’⁴⁴ but there is also local anecdotal evidence is that artist William Kennedy, one of the ‘Glasgow Boys’ painted, and was painted, in Ferry Orchard – as shown in the picture from the keeper.

Purportedly William Kennedy painting in Ferry Orchard



The orchard is situated on a flat field set back from the bank of the river Forth. When the current owner came in 1957, the orchard was very overgrown - “a jungle”. The orchard had been tennanted before they bought it. There are

⁴⁴ for example in the Smith Museum, Stirling.

**Ferry Orchard at
Cambuskenneth**

now around 25 plums, 2 old pears and 6 old apple trees. 14 of the plum trees were planted in 1960s, and were sourced from England. All bar one are 'Victoria' plums. The known apples are 'Grenadier', and a 'Bramley'-like cooker. However there is one fine red apple that Brogdale have not been able to identify. The old pears are known as 'Hazel Pears'. The fruit is well used by the current keepers. Formerly there were also gooseberries, strawberries, raspberries, red and black currants growing in the understory. This was a common practice in orchards. Cambuskenneth itself was famous for its berry or 'Groset Fair' that came when the gooseberries were ripe.



5.2.5 Howkerse, Bothkennar

**Howkerse and Teindyard
Orchards; OS 1st Edition
Map of 1860s**

There are two substantial orchards at Howkerse Farm, which is situated just north of Skinflats. The property has been tenanted to the same family for several generations, by the same owners for several generations. The owner takes an active interest in the orchards. The orchards are shown in the



figure below, together with the neighbouring Teindyard orchard.

The North Orchard is a fine old pear orchard. The orchard is on flat, heavy carseland and is somewhat wet underfoot. With the exception of the central section, which is fenced off, the orchard is grazed by cattle.

It contains 26 old pear trees up to an estimated age of 200 years, and 3 apple trees of a century in age. Of particular interest is the new central section where there are 25 young pear trees – which are grafts of the older unusual varieties. The grafting was carried out in 1992 by John Geddes of Central Scotland Countryside Trust, and the young trees were grown on for a year at Lanark prior to being planted out. The work was grant aided. This is an excellent example of orchard replenishment.



Mature and young pear trees at Howkerse (north)

The South Orchard is also of substantial size though evidently much depleted from its former compliment of trees. It contains around 22 trees mainly apples and 1 plum. All are around 60 years old. There are several fallen trees at the east side. The east section is fenced for a chicken run, and this is where most of the trees remain.

Fruit from these orchards is used by the keepers.



Howkerse (south)

5.2.6 Teindsyard, Bothkennar

A few hundred metres south of Howkerse is Teindsyard. This is a smaller property, with the orchard surrounding the house on 3 sides. Teindsyard is shown on the OS 1st edition map for Howkerse above. No history for this orchard has emerged during the course of the survey.

The orchard is on flat ground and now forms an extensive garden. The ground is part mown garden and part rough grass. There remains 9 old

pears well in excess of 100 years old, together with 1 old apple, perhaps 100 years old. A number of older trees have been removed in recent years, but around 25 new apple and pear trees have been planted within the last 5 years.

Part of
Teindsyard Orchard

The trees are not maintained but some fruit is used. In general the keeper says there is too much fruit.



5.2.7 Kennetpans

The area of Kennetpans is situated on the north shore of the River Forth, 2km upriver from Kincardine. It has a rich history as a port for coal and cereals, and as an early commercial distillery. The adjacent orchards of Kennetpans once formed the gardens for a Mansion House. As with many country houses in Clackmannanshire, the House was demolished in around 1950 because of roof tax⁴⁵. An 1840s map⁴⁶ shows the Mansion House with adjoining walled garden. The walled garden is quartered by paths, and each quarter is further quartered. Surrounding the walled garden are areas described as shrubbery and pleasure grounds, the latter being shown scattered with trees. This map is probably associated with the apparent sale of the property in January 1841. An upbeat description of the property is given in a newspaper cutting of that date “... and the Garden is in the highest order – the

⁴⁵ According to verbal information from former owner.

⁴⁶ Shown in photo archive file ‘FV052 Kennetpans 1.JPG’ Source: Current owner. Used with permission.

*fruit trees have been trained and grafted with the best selection of fruits . . .*⁴⁷.

The OS 1st edition map shown below, depicts rows of trees within the walled garden and immediately outside of the walls.

Robert Scott of Carluke, who was a jam manufacturer, bought the property in the 1890s, and it is thought that he planted the main plum orchards around 1900.

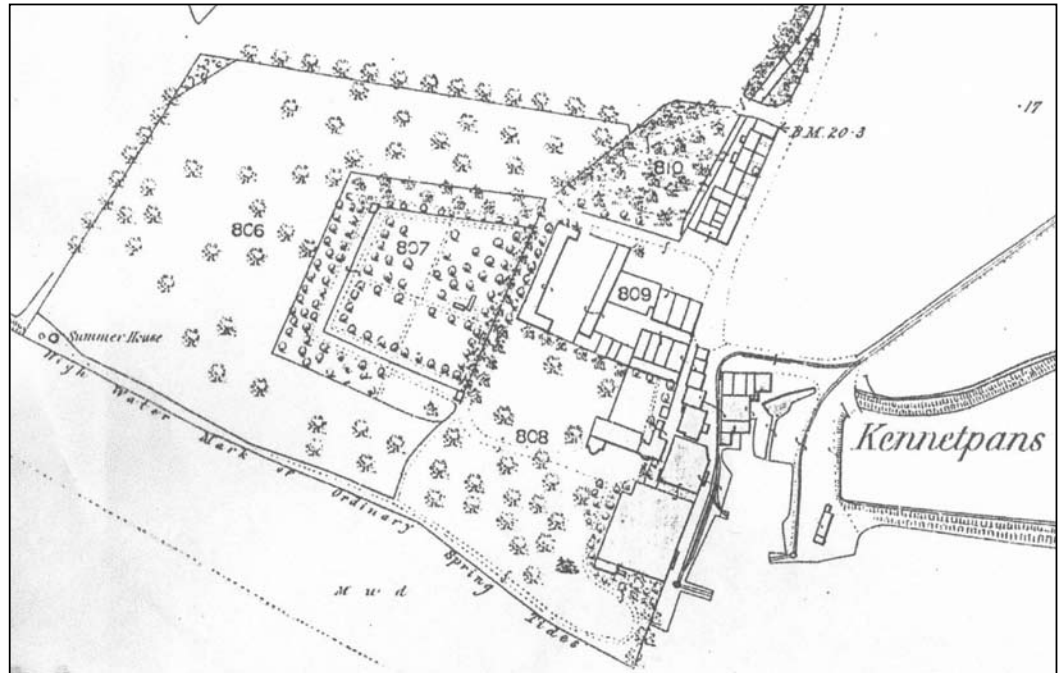
The neighbouring Old Distillery building, dating from 1700s, was thought to be used for a period by Robert Scott for jam production.

Daniel Drummond Senior bought the orchard in 1944 for commercial fruit production⁴⁸. In 1969, the strong gales took 50% of plum trees, after which the Drummonds grubbed out all trees in the walled garden and replanted with dwarf stock plums in 1970. Old trees have remained on the outside of the walled garden. The orchard occupied all the land surrounding the walled garden, and used to extend up to the back of the houses.

The orchard sold fruit to Glasgow Fruit Market in the 1950s, and later they retailed some through their own shop in Alloa, along with tomatoes and vegetables produced in their glasshouses. They also continued selling through wholesalers. In 1972 the Drummonds opened what they claim was Scotland's first farm shop, selling their fruit and vegetables at Kennetpans. This was successful for a while but the public gradually became more interested in plants, rather than fruit and vegetables. Eventually the shop sold mainly plants - ie. it became a garden centre. However the fruit trees still produced fruit. Latterly small fruit was difficult to sell because there was no longer a demand for jam making.

In 2004 the property was sold to the current owners. The orchard is now used for grazing a small herd of alpaca, who have the run of the walled garden and surrounding areas.

Today Kennetpans is mainly a plum orchard with a few old apples. It is still a substantial orchard with an estimated 350 trees. The oldest of these is around 100 years old. Old trees outwith the walled garden are greatly



Kennetpans Orchards; OS 1st Edition Map of 1860s

⁴⁷ Shown in photo archive file 'FV052 Kennetpans 2.JPG' Source: Current owner. Used with permission. Original source unknown.

⁴⁸ This history given verbally by former owner.



overgrown, and there is much undergrowth. Outside the walls, the numerous trees that remain are mainly located at the west and south of the walled garden. At the south-west corner, beside the River Forth, an area of trees has died - perhaps from exposure. To the north of the walled garden is mainly open pasture with no trees. Within the walled garden, the plum trees remain.

Though some fruit is used, the fruit trees are not currently maintained.

Kennetpans Orchard. Old orchard outside walls at south (above), younger orchard within the walled garden (at right)



5.2.8 Harviestoun House Walled Garden

Harviestoun; OS 1st Edition Map of 1860s

The OS 1st edition map (below) shows a walled garden that was quartered, together with extensive gardens outwith the wall to the east and south. The



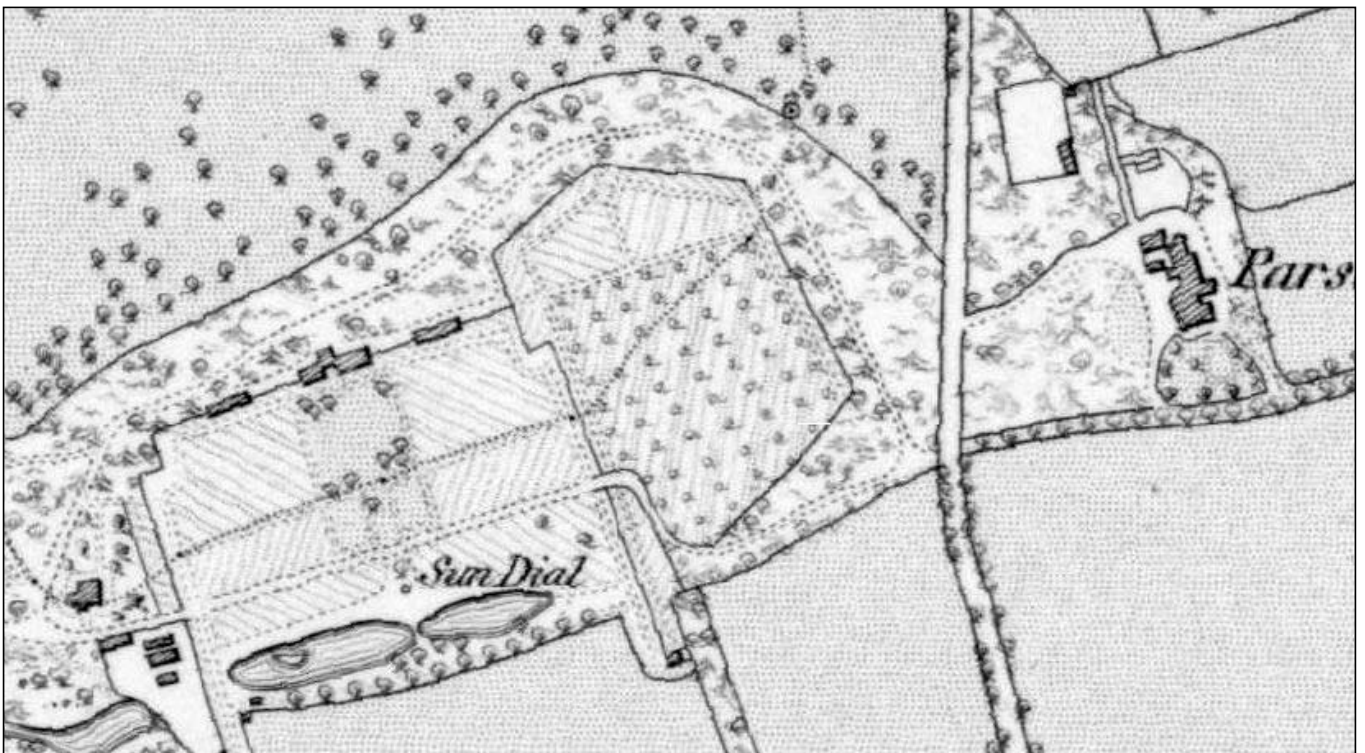
contemporary aerial image shows small trees – probably fruit trees – inside the walled garden. There is a row of trees against the west wall, further trees near the east wall and what appears to be a double row of trees at the south of the walled garden. Local anecdotal evidence supports this.

At this stage, the owner of the orchard has declined to be part of the survey. We respect this decision.

5.2.9 The Pineapple at Dunmore Estate

Built in 1761, the Pineapple is the colloquial name for a walled garden and folly located 1km north of Airth. Since 1974 it has been owned by the National Trust for Scotland. Historic Scotland's Inventory of Gardens and Designed Landscapes describes it as *"An extraordinary architectural folly built as a garden retreat in 1761 after the introduction of the pineapple into Scotland. There is a walled garden beside the folly."*⁴⁹

The Inventory goes on to indicate that there are no horticulture remains of significance (this is not correct within the context of this survey), but there is a lengthy description of walled gardens. "The eastern section of the garden was shown in the 1863 map as an orchard". The OS 1st edition map referred to is shown below.



Two contiguous walled gardens are shown. At the east an irregular shaped walled garden is shown, and to the west is a rectangular walled garden is shown. The east garden is shown full of lines of trees. The west garden is shown with a few trees at centre and two small lochans at the south side. It appears to be an ornamental garden. Trees line the south inside wall of the west garden.

The main house – Dunmore Park - is located 1km north. The OS 1st edition does not indicate an orchard at Dunmore Park (not shown on the map excerpt). Dunmore Park is now derelict and currently no orchard is evident in its surrounding gardens.

The Pineapple
Walled Gardens;
OS 1st Edition
Map of 1860s

⁴⁹ anon. (1987) *An Inventory of Gardens and Designed Landscapes in Scotland. Volume 4: Tayside, Central, Fife.* p328

Aged pear and younger trees at the Pineapple

The West Walled garden at the Pineapple is situated on a gentle south facing slope. It contains around 90 fruit trees in 2 blocks at the south of the garden. This is not the location of the original orchard. The fruit trees are of varying age, some less than 20 years old, another amount that are mid-aged and some old age trees that are around 70 years old. The trees are a mix of apple, pear, plum, cherry and crab apples. There is one large and majestic old pear tree that is around 200 years old.

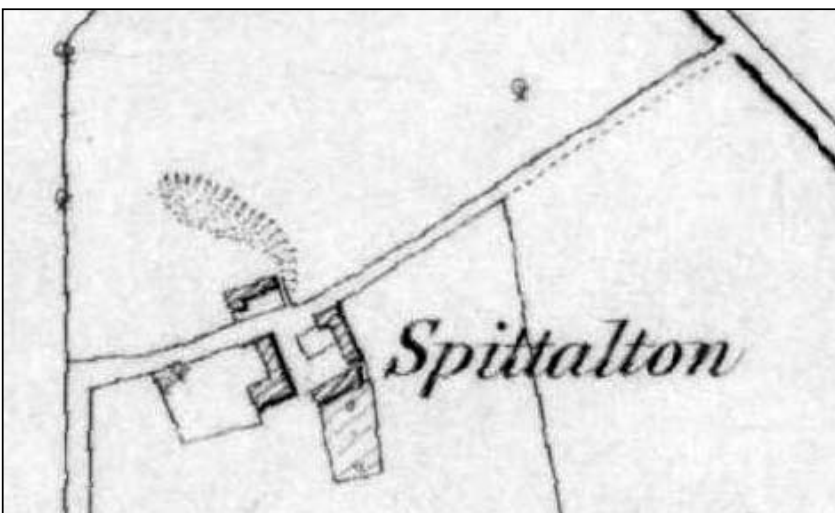


No trees survive on the walls.

The East Walled garden is no longer part of the maintained gardens. The southern part is maturing broadleaf woodland - this appears to be the area that was formerly the orchard according to the OS 1st edition map. The northern part is rough vegetation that appears to be cut annually. There are no fruit trees remaining.

5.2.10 Wester Spittalton

Information as to the existence of this plum orchard was given by another landowner in the area. It is a small steading 2km east of Thornhill. The history of the orchard is unknown. The OS 1st edition map does not show any orchard or trees in this location. Instead, a small quarry or pit is shown in the area.



The orchard is located adjacent to the small quarry site; north-west of and across the track from the steading. This fine old plum orchard is very overgrown and long abandoned. It consists of around 20 old plum trees of about 100 years of age. It is surrounded, and heavily encroached upon, by woodland including large conifers. It has become very shaded. Other broadleaves are also seeding into orchard.

Interior
of orchard
at Wester
Spittalton



5.3 Biodiversity Aspects of Orchards

Biodiversity aspects in the context of this survey, pertain to assessing the suitability of the habitat in terms of allowing a biodiverse ecosystem to exist, rather than any actual measurement of biodiversity. Thus a number of criteria were recorded that relate to:

- the presence of ‘veteran’ trees
- the condition of the trees
- likely niche habitats in the trees
- the vegetation on the orchard floor
- the management of the orchard floor

A summary of biodiversity related information held on the database is shown in the tables below.

The table shows that many orchards have significant numbers of veteran trees, fallen deadwood and trees with cavities. Cumulatively there is significant biodiversity value in these orchards.

Table 4: Orchard Size, Status and Features

Location ID	Orchard	Location	Type of orchard	Approx no. of	Status	Old trees?	Fallen deadwood	Cavities
FV001	East Orchard at Drumdruids Farm	Bridge of Allan	orchard/woodland	250	long abandoned	yes	yes	
FV002	West Orchard at Drumdruids Farm	Bridge of Allan	agricultural field	50	long abandoned	yes	yes	yes
FV007	Ferry Orchard	Ferry Orchard House	private garden	40	in active use	yes		yes
FV011	'Old Dump' Orchard	South East of Newton	agricultural field	24	long abandoned	yes	yes	
FV012	Area around former Island Farm	East of Skinflats	agricultural field	10	long abandoned	yes	yes	yes
FV013	Teindyard	by Skinflats	private garden	36	odd remnants	yes	yes	yes
FV014	Howkerse	Bothkennar	agricultural field	50	in active use	yes		yes
FV016	Newton Road	by Skinflats	rough ground	9	wild orchard			
FV019	Bowtrees	by Airth	agricultural field	13	odd remnants	yes	yes	yes
FV028	Cardross House	Port of Mentieth	walled garden	10	long abandoned	yes	yes	yes
FV030	Gargunnoch House	Gargunnoch	walled garden	6	odd remnants	yes		
FV033	The Roman Camp Hotel	Callendar	walled garden	21	odd remnants	yes		
FV034	Touch House	Touch Estate	walled garden	10	odd remnants	yes		
FV043	The Pineapple at Dunmore Estate	Airth	walled garden	90	in active use	yes		
FV047	Wester Spittalton	by Thornhill	agricultural field	20	long abandoned	yes	yes	yes
FV048	Easter Poldar	Thornhill	private garden	23	in active use	yes		
FV049	Parks of Garden	Kippen	agricultural field	8	odd remnants	yes		
FV051	Tullibody House	Cambus	agricultural field	30	odd remnants			
FV052	Kennetpans Orchard	Kennetpans	agricultural field	350	recently abandoned	yes	yes	yes
FV053	3 Alexandra Drive	Alloa	private garden	9	in active use	yes		
FV054	Cambus Orchard	West of River Devon	public space	10	long abandoned	yes	yes	yes
FV055	Walled Garden, Dollarbeg House	Dollarbeg	walled garden	10	no trace remains			
FV057	Blairlogie Lower Orchard	Blairlogie	agricultural field	30	odd remnants	yes	yes	yes
FV058	Blairlogie Upper Orchard	Blairlogie	agricultural field	16	in active use	yes		yes
FV059	Blairlogie Carpark	by Blairlogie	agricultural field	30	long abandoned			

Table 5: Orchard Floor Management

Location ID	Orchard	Location	Orchard Floor Management	Grazed by	Main floor species
FV001	East Orchard at Drumdruids Farm	Bridge of Allan	other		nettles
FV002	West Orchard at Drumdruids Farm	Bridge of Allan	ungrazed		nettles
FV007	Ferry Orchard	Ferry Orchard House	mown		grass
FV011	'Old Dump' Orchard	South East of Newton	other		brambles
FV012	Area around former Island Farm	East of Skinflats	ungrazed		
FV013	Teindyard	by Skinflats	mown		grass
FV014	Howkerse	Bothkennar	grazed	cattle	grass
FV016	Newton Road	by Skinflats			
FV019	Bowtrees	by Airth	grazed	cattle	grass
FV028	Cardross House	Port of Mentieth	ungrazed	other	nettles
FV030	Gargunnoch House	Gargunnoch	grazed	sheep	grass
FV033	The Roman Camp Hotel	Callendar			
FV034	Touch House	Touch Estate	other		
FV043	The Pineapple at Dunmore Estate	Airth	lawn		grass
FV047	Wester Spittalton	by Thornhill	other		nettles
FV048	Easter Poldar	Thornhill	mown		
FV049	Parks of Garden	Kippen	mown		
FV051	Tullibody House	Cambus		sheep	grass
FV052	Kennetpans Orchard	Kennetpans	grazed	alpaca	nettles
FV053	3 Alexandra Drive	Alloa			
FV054	Cambus Orchard	West of River Devon	ungrazed		brambles
FV055	The Walled Garden at Dollarbeg Hou	Dollarbeg			
FV057	Blairlogie Lower Orchard	Blairlogie	grazed	sheep	grass
FV058	Blairlogie Upper Orchard	Blairlogie	grazed	sheep	grass
FV059	Blairlogie Carpark	by Blairlogie			

As can be seen from the table, grass and nettles are the main species occupying the floor of many orchards. However some orchards have undergrowth, others a heavily shaded area with little vegetation cover.

Some orchards are cut mechanically, others are grazed, and some are rough ground,

Table 6: Veteran Tree Features

Location ID	Orchard	Location	holes in branches	crevices in bark	loose bark	trunk cavities	dead wood in canopy	dead wood on ground	water pools	fungal fruiting bodies	aerial roots	sap runs
FV001	East Orchard at Drumdruiills Farm	Bridge of Allan	yes	yes	yes	yes	yes	yes	yes	yes		
FV002	West Orchard at Drumdruiills Farm	Bridge of Allan	yes	yes	yes	yes	yes	yes				
FV007	Ferry Orchard	Ferry Orchard House	yes	yes	yes	yes	yes		yes			
FV011	'Old Dump' Orchard	South East of Newton	yes	yes	yes	yes	yes	yes				
FV012	Area around former Island Farm	East of Skinflats	yes	yes	yes	yes	yes	yes				
FV013	Teindyard	by Skinflats	yes	yes	yes	yes	yes	yes				
FV014	Howkerse	Bothkennar	yes	yes	yes	yes	yes	yes				
FV016	Newton Road	by Skinflats										
FV019	Bowtrees	by Airth	yes	yes	yes	yes	yes	yes				
FV028	Cardross House	Port of Mentieth	yes	yes	yes	yes	yes	yes				
FV030	Gargunnoch House	Gargunnoch	yes	yes	yes	yes	yes	yes				
FV033	The Roman Camp Hotel	Callendar	yes	yes	yes							
FV034	Touch House	Touch Estate	yes	yes	yes							
FV043	The Pineapple at Dunmore Estate	Airth	yes	yes	yes	yes	yes	yes	yes			
FV047	Wester Spittalton	by Thornhill	yes	yes	yes	yes	yes	yes				
FV048	Easter Poldar	Thornhill										
FV049	Parks of Garden	Kippen	yes	yes	yes	yes	yes					
FV051	Tullibody House	Cambus										
FV052	Kennetpans Orchard	Kennetpans	yes	yes	yes	yes	yes	yes	yes			
FV053	3 Alexandra Drive	Alloa										
FV054	Cambus Orchard	West of River Devon	yes	yes	yes	yes	yes	yes	yes			
FV055	The Walled Garden at Dollarbeg Hc	Dollarbeg Hc										
FV057	Blairlogie Lower Orchard	Blairlogie		yes			yes					
FV058	Blairlogie Upper Orchard	Blairlogie	yes	yes	yes	yes	yes	yes				
FV059	Blairlogie Carpark	by Blairlogie										

The table shows that the veteran trees in most orchards have multiple features of biodiversity interest.

5.4 Orchards on Former Industrial Sites

An unusual feature of this survey was finding orchards on former industrial sites. This occurred in the area to the east of the village of Skinflats and to the north of the River Carron. Here, there are a number of orchards that seem to have appeared in a haphazard and informal way.

At grid reference NS 9140 8350 is orchard site FV016 which has been called 'Newton Road' in this survey. It is a piece of rough 'made ground'⁵⁰ and woodland to the east side of Newton Road. It contains 9 apple trees of around 40 years age. Some remnants of industrial buildings can be detected. On the OS 1st edition it is shown as a 'Shaft for Coal Pit', and no orchard is shown thereabouts.

At grid reference NS 9180 8300 is a large unkempt orchard. The location ID is FV011, and it has been called 'Old Dump Orchard' in this survey. The site is extensive – perhaps 1 hectare in size - and looks like an old abandoned orchard. It contains at least 22 large apple and 2 pear trees – most around 40 years old. One apple is much older. However the history is a little surprising. The OS 1st edition shows no sign of an orchard; indeed the site appears to be located in a former bend of the River Carron – before it was straightened. Local information is that the site was for many years a dump for ICI Grangemouth. Another local anecdote is that it was the dump for Grangemouth Boat Yard. It is clear that this is made ground, though whether dump or fruit tree came first is unresolved. If as seems likely, the fruit trees as growing on a dumpsite, contamination concerns would dictate that it would be unwise for the public to consume the good looking and plentiful fruit here.



Orchard at 'Old Dump' near Island Farm, Skinflats

In addition to these orchards, there are collections of trees and even single trees along the footpaths, former farm roads, and the small ridge-like bank at the south east of

this area where a shaft is shown on the OS 1st edition. These sites are recorded mainly in location ID FV012 with site name 'Area around former Island Farm'. Grid references for each tree or group have been noted.

How these orchards came into existence is not known. The author speculates that many of these trees may be seedlings, from apple and pear cores dropped by mine workers or contained in the dumped detritus.

⁵⁰ made ground = man made, not natural

6 Conclusions

The Forth Valley has not been well known for its orchards for perhaps a century or more. The carselands were the location of numerous ancient orchards, and in the 19th Century large country estates also had significant private orchards. There was a revival in planting new orchards in the 20th Century, notably at Drumdrills and Kennetpans – but perhaps these were anomalies. While this survey was not exhaustive, for such a large area comprising 3 local authorities, it has shown that there are precious few significant traditional orchards remaining.

The following conclusions are drawn from this piece of work:

Orchard Status

- 18 remaining orchards have some heritage value.
- 9 orchards are considered ‘best remaining’ in terms of heritage interest.
- Orchards are still under pressure of total or partial loss.
- Orchards have been lost to large scale housing development, particularly in the Stirling area.
- Walled gardens and orchards have been lost following the demise and demolition of the country house, particularly in Clackmannanshire.
- There is currently no presumption in favour of historic orchards in the planning process.

Fruit

- No orchards are operated commercially.
- In general, fruit is not used to a great extent, though in a few orchards it is very actively used.
- Local people still make use of the fruit from some abandoned orchards.
- The culture of using local fruit appears weak, whereas previously it was strong; for example the popularity of the Cambuskenneth berry fairs.

Management

- Most orchards have been neglected in terms of their management for at least half a century.
- Neglected orchards often have high biodiversity value.
- Veteran trees in the orchards satisfy multiple criteria of a biodiverse habitat.
- A balance between tree health & productivity, and biodiversity aspects needs to be found.
- New plantings need to be made soon if orchards are to survive in the long term.

7 Recommendations

The following recommendations are made to the client.

1. **Awareness Raising.** Raising the awareness of the value of these orchards in terms of heritage, fruit, potential economic benefits, and biodiversity should be an ongoing theme. This awareness raising work needs to speak to various important communities: the public; professionals such as planners, developers and those involved in built heritage; and owners, landowners and farmers.
2. **Engagement.** The owner's of orchards should be engaged with, to explore management options and how they can be supported in maintaining the orchard and augmenting the current stock.
3. **Mode of engagement.** In engaging with owners, a carrot rather than a stick style should be employed. For example tree preservation orders may preserve trees but they will not preserve an orchard in the long term. Therefore, 'intrusive' instruments such as TPO should be avoided in all but the most extreme conditions, as they are likely to create a hostile relationship that will be counter-productive to the future of the orchard.
4. **Forth Valley Orchards Organisation.** The creation of an association or forum to foster discussion, share experiences and then go on to potentially develop orchard businesses, should be fostered.
5. **Management Best Practice.** Management best practice needs to be developed and disseminated. Best practice needs to take into account various factors that may be contradictory. For example maximising biodiversity may hinder fruit production. Best practice should be part of the engagement process.
6. **Fruit Days.** A series of fruit days should be organised – at which orchard related events are run; family fun days, cooking demonstrations, juice pressing and so on. Two days are the minimum required. A day in late August is ideal for plums and then a day in late September or early October for apples and pears.
7. **Blossom Days.** The beautiful spring blossom is another opportunity to raise awareness about orchards.
8. **Planning.** The remaining orchards – and especially those classified as the 'best remaining' need to be accorded a status that creates a presumption against planning permission being granted. It is possible that this may be achieved by heritage status such 'designed landscape' or by biodiversity status such as UK Biodiversity Action Plan priority habitat. Engagement with local biodiversity officers in order to upgrade the status of orchards will help to ensure further orchards are not lost. Local planning officers should be made aware of the best remaining orchards, and their rare status.
9. **Deeping Knowledge.** This survey, together with awareness raising and engagement, will bring more orchards and more local knowledge to light. A methodology should be established that catch this information in order that it is not lost. Together with ongoing survey work, this will actively deepen the knowledge base on orchards in the Forth Valley.

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Appendix A: Grid References of Orchards Surveyed

Location ID	Orchard	British National Grid Ref
FV001	East Orchard at Drumdruids Farm	NS 7928 9913
FV002	West Orchard of Drumdruids Farm	NS 7912 9898
FV003	Walled Garden at Westerton Estate	NS 7930 9780
FV004	121 Henderson Road	NS 715945
FV005	Home Farm Walled Garden	NS 8116 9693
FV006	Airthrey Castle Walled Garden	NS 8149 9691
FV007	Ferry Orchard	NS 8070 9420
FV008	St James Orchard	NS 8083 9409
FV009	Tower Orchard	NS 8081 9389
FV010	Ladyneuk Orchard	NS 8094 9493
FV011	'Old Dump' Orchard	NS 9180 8300
FV012	Area around former Island Farm	NS 922 831
FV013	Teindsyrd	NS 9080 8365
FV014	Howkerse	NS 9080 8395
FV015	Newton Orchard	NS 9145 8315
FV016	Newton Road	NS 9140 8350
FV017	Orchardhead	NS 9235 8410
FV018	Stonehouse Orchard	NS 9220 8450
FV019	Bowtrees	NS 9035 8610
FV020	Cockspow	NS 834920
FV021	Westertown Orchard	NS 9010 8350
FV022	Orchards of South Mains & North Mains	NS 9080 8440
FV023	South Bellsdyke	NS 8470 9060
FV024	Powfoulis	NS 9170 8565
FV025	Carron House	NS 8990 8300
FV026	Kinnaird House	NS 8835 8480
FV027	Blackness	NT 049799
FV028	Cardross House	NS 6059 9806
FV029	Doune Park	NN 731011
FV030	Gargunnoch House	NS 7131 9455
FV031	Walled Garden at Kippenross House	NS 783998
FV032	Rednock House	NS 600101
FV033	The Roman Camp Hotel	NN 6322 0744
FV034	Touch House	NS 753928
FV035	Blairhoyle	NN 610011
FV036	Duntreath Castle	NS 537811
FV037	Keir House	NN 770988
FV039	Blair Drummond	NS 731990
FV040	Buchanan Castle	NS 462886
FV041	Callender Park	NT 895790
FV042	Castle Campbell	NT 961993
FV043	The Pineapple at Dunmore Estate	NS 8885 8848
FV044	Inchmahome Priory	NS 573005
FV045	Kings Knot	NS 788937
FV046	Craighead Farm	NS 6903 9807
FV047	Wester Spittalton	NS 6850 9922
FV048	Easter Poldar	NS 6468 9729
FV049	Parks of Garden	NS 6008 9696
FV050	Mid Torrie Farm	NN 6540 0415
FV051	Tullibody House	NS 8607 9336
FV052	Kennetpans Orchard	NS 9122 8892
FV053	3 Alexandra Drive	NS 879 932
FV054	Cambus Orchard	NS 8531 9401
FV055	The Walled Garden at Dollarbeg House	NS 9723 9634
FV056	Harvieston House Walled Garden	NS 9319 9785
FV057	Blairlogie Lower Orchard	NS 8278 9676
FV058	Blairlogie Upper Orchard	NS 8278 9676
FV059	Blairlogie Carpark	NS 8312 9685
FV060	Alva House Walled Garden	NS 893973
FV061	Old Brig Orchard	NS 797945
FV062	Broom Farm	NS 8171 9461
FV063	Broom Farm Cottages, West Grange	NS 8140 9468
FV064	Airth Castle Orchard	NS 895868
FV065	Ochertyre Farm	NN 751978
FV066	Cashel Farm	NS 400940
FV067	Gartmore House	NS 523974

Appendix B: Printout of Survey Forms from Database

Printout omitted from this public edition of the report to preserve the privacy of participants.