



## GREEN TOURISM AUDIT REPORT

Prepared By: Stuart Brain

## Jarlishof Prehistoric & Norse Settlement

Site Environmental Coordinator: Doreen Waller

Date of Visit: 16/06/2014

Site Address:

Sumburgh

Shetland

ZE3 9JN

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## HS - Jarlshof Prehistoric & Norse Settlement

A qualified assessor for the Green Tourism Business Scheme undertook an accreditation grading visit at the above named site. This is a summary of the activities being undertaken on site in relation to the Green Tourism criteria. This audit report is a statement on the performance of the business as a sustainable tourism operation

<i>Percentage achieved</i>	<b>75%</b>	Gold >80%	<i>Level of Award Achieved</i>	<b>SILVER</b>
		Silver 65-79%		
		Bronze 40-64%		
		Going Green <40%		

### What's Green about: HS - Jarlshof Prehistoric & Norse Settlement

Jarlshof Prehistoric and Norse Settlement is a long term member of the programme and retains and partially consolidates a strong SILVER Green Tourism award at this visit. Developments have been taking place both at the site itself and the organisation as a whole leading to better scoring throughout the report. Highlights from the visit include excellent visitor interpretation, local retail items, Shetland Soaps, use of green cleaners and in depth energy monitoring which is being related to overall carbon emissions. LEDs have been purchased for the main centre lighting but are not yet installed - these should make a significant reduction in energy consumption.

### Summary of general recommendations and observations

Many thanks Sue, for meeting with me at Jarlshof and for being so flexible when my flight was delayed. It was a real privilege to get a personal tour of the attraction! With the next visit in mind - likely on the new criteria, there are some area where developments and refinement can be made. Ensure that documentation is kept up to date and relevant with details of areas that are not easily seen on site. These would include purchasing policies, carbon management and other aspects of HS operation and how they apply to Jarlshof. There are some areas within the building that could be improved when budget allows. Primarily an upgrade to insulation to preserve what heat is generated by the quite inefficient storage heating, reduction in water flows and long term an alternative heating system.

Primary recommendations are listed below with further recommendations made throughout the audit report, which should be read in conjunction with the criteria document. Additional supporting information can be found in the members area on the Green Tourism website.

### Conditions for use of the Green Tourism Brand

The Member may use the appropriate Green Tourism logo at any publicly accessible location including signs, promotional and marketing materials, letterhead stationery and customer information. The logo should also appear on the Member's website, linked to the home page of [www.green-business.co.uk](http://www.green-business.co.uk), to enable consumers to understand its significance. A green/environmental page can also be included on the website explaining the actions taken toward gaining an award. The award relates ONLY to the named business and its management. The award must not be used in promotions involving any other named business which has not met at least the same overall grading. Please note that the percentage achieved must not be promoted, only the award level itself.

## FURTHER RECOMMENDATIONS & ACTIONS

Reference	Measure	Comment
2.01	Green Management File	Good management file. Continue to update the files with relevant information.
2.02	Establish a green action plan	Have an action plan which should be continually review and updated - consider adding some recommendations from this report.
2.05	Attendance at Green Training Event	Could look for more local green events although sometime limited in Shetland. Shetland Amenity Trust are active and may have relevant events.
2.08	Monitoring: Energy	Good monitoring onsite and sent to head office for analysis. Could keep more graphs in file - relating corporate goals to what can be seen/done on site.
2.10	Monitoring: Waste & Recycling	Could monitor bags recycled or to landfill/incinerator to identify areas where recycling rates can be increased. It may be visitor awareness or even team training requirements.
3.01	Responsible Visitor Charter	Good promotion of visitor charter on site and on line via main HS website. Could perhaps look at a site specific link from the Jarlshof page integrating more local issues as Shetland differs ever so slightly from mainland Scotland.
3.05	Green information for customers	Very good general info on energy and waste efficiency. Could update some of this and have info on Shetland Waste to Energy Plant and details of local initiatives and problems - sea going and micro plastics for example.
3.11	Local social community projects	Involved with community. Worth keeping a log of activity to aid scoring next time.
4.01	Use of A-rated air conditioners and refrigeration	C-rated. Could be beneficial short term to replace with high efficient A++ model, looking at a smaller unit as a fridge this large is really not necessary.
4.06	Internal lighting controls & sensors	Could be considered for toilet and display areas - potential for spells with no visitors - light may as well be off.
4.08	Individual room heating controls	Storage heaters, limited controls - slow response to variable weather conditions.
4.13	Roof Insulation	200mm fitted to roof spaces. Worth up grading to 300mm when funds are available. As heating is quite inefficient heat produced should be conserved better.
4.19	Renewable Energy for Heating and Hot water	Air source heating could be a real possibility at this site.
5.02	Water Flow through Taps – Basins and Sinks (8)	10 litres per min ave. Flow a little high - option here for an aerator or other devices. See <a href="http://www.greenbuildingstore.co.uk/page--water-saving-basin-taps.html">http://www.greenbuildingstore.co.uk/page--water-saving-basin-taps.html</a>

6.01	Supplier screening	Do have sustainable purchasing policy, though cost and quality appear to be most important. Some detail on how this is applied to a remote site would be nice to see in the green file.
6.21	Natural shampoos and Hygiene Products	Sell Shetland Soaps - a social enterprise, formulation appears OK but maybe worth some investigation in line with purchasing policy. See <a href="http://safecosmetics.org/">http://safecosmetics.org/</a> for background on what to avoid.
8.15	Carbon management	HS Sustainability Report; 25% CO2 reduction by 2015. Potential to relay this target to visitors via green file or interpretation.
9.08	Wildlife Habitats	Some wildflower/ habitat margins - these could be managed more to produce a more varied habitat.

**Business Site Name:** HS - Jarlshof Prehistoric & Norse Settlement  
**Green Co-ordinator:** Sue Mellor  
**Membership Code:** V0548  
**Date of Visit:** 16 June 2014  
**Assessor:** Stuart Brain

**Key to symbols**

✓	Scoring measure (0-5) - included in the grading score
☑	Measure in place to some extent, but a sufficient number of relevant measures have already been scored to achieve award.
⊙	Recommended measure to focus on in future

No.	Measure	✓	Score	Action / Comments
<b>Compulsory</b>				
1.01	<b>Commitment to Sustainability</b>	✓	5	HS is committed to sustainable operations.
1.02	<b>Minimum Standards and Risk management</b>	✓	5	No issues noted at this site.
	No pollution risk from oil tanks and car parks			
	Suitable waste containment and disposal (including sanitary waste)			
	Proper chemical storage			
	Good general maintenance			
	Litter and visual impression			
1.03	<b>Annual Performance Information</b>	✓	5	Supplied electronically from HQ.
1.04	<b>Green policy</b>	✓	5	Policy is displayed onsite and on main website.
	<b>Total</b>	<b>4</b>	<b>20</b>	<b>Compulsory actions completed</b>

Management				
2.01	Green Management File	✓	4	Good management file. Continue to update the files with relevant information.
2.02	Establish a green action plan	✓	3	Have an action plan which should be continually review and updated - consider adding some recommendations from this report.
2.03	Staff environmental awareness	✓	4	Very good general awareness shown on both visit days.
2.04	Establish a green team	✓	5	Green champion is Sue. Worth extending communication between sites to share best practice.
2.05	Attendance at Green Training Event	☑		Could look for more local green events although sometime limited in Shetland. Shetland Amenity Trust are active and may have relevant events.
2.06	Green Business Network or Initiative			
2.07	Specialist Environmental Advice			
2.08	Monitoring: Energy	✓	3	Good monitoring onsite and sent to head office for analysis. Could keep more graphs in file - relating corporate goals to what can be seen/done on site.
2.09	Monitoring: Water			Monitor dripping taps.
2.10	Monitoring: Waste & Recycling	⊙		Could monitor bags recycled or to landfill/incinerator to identify areas where recycling rates can be increased. It may be visitor awareness or even team training requirements.
2.11	Monitoring: Travel and transport			
2.12	Monitoring Flora and/or Fauna	✓	4	Some on-going Coastal watch monitoring and bat surveys.
2.13	Green Marketing			
2.14	Green Events Package			
2.15	Joint marketing with other GTBS members	✓	4	Joint marketing through HS - could develop network with other Green Tourism members locally.
2.16	Visitor Feedback	✓	2	In file but no one is using. Could look at other ways to monitor e.g. electronically or through verbal means.
	<b>Total</b>	<b>8</b>	<b>29</b>	<i>Minimum of 3, 4, 5 ticks and 12, 16, 20 points required for Bronze, Silver &amp; Gold respectively</i>

Communication				
3.01	Responsible Visitor Charter	✓	5	Good promotion of visitor charter on site and on line via main HS website. Could perhaps look at a site specific link from the Jarlshof page integrating more local issues as Shetland differs ever so slightly from mainland Scotland.
3.02	Use of GTBS brand in on-site promotion	✓	4	Could update list of local Green Tourism members, Good use of plaque.
3.03	Use of GTBS brand in off-site promotion	✓	5	
3.04	The GTBS supply chain			
3.05	Green information for customers	✓	3	Very good general info on energy and waste efficiency. Could update some of this and have info on Shetland Waste to Energy Plant and details of local initiatives and problems - sea going and micro plastics for example.
3.06	Green laundry practices			
3.07	Natural & healthy Living spaces			
3.08	Totally no smoking			
3.09	Education on Sustainability	✓	3	School groups visit. Sustainability element to most visits.
3.10	Community work on Local Environment	⊙		Could get involved and promote green events e.g. Da Voer Redd up. Potential PR benefits. Could even look at <a href="http://www.mcsuk.org/what_we_do/Clean+seas+and+beaches/Campaigns+and+policy/Microplastics">http://www.mcsuk.org/what_we_do/Clean+seas+and+beaches/Campaigns+and+policy/Microplastics</a> as quite relevant to location.
3.11	Local social community projects	✓	3	Involved with community. Worth keeping a log of activity to aid scoring next time.
3.12	International Social Responsibility Projects			
3.13	Visitor Payback Schemes			
3.14	Family focused Green Activities	✓	3	Several. hands on activities for kids at this site.
3.15	Physical & Spiritual Health & Wellbeing			
3.16	Social Responsibility Reporting (CSR)			
	<b>TOTAL</b>	<b>7</b>	<b>26</b>	<i>Minimum of 3, 4, 5 ticks and 12, 16, 20 points required for Bronze, Silver &amp; Gold respectively</i>

Energy				
4.01	Use of A-rated air conditioners and refrigeration	✓	2	C-rated. Could be beneficial short term to replace with high efficient A++ model, looking at a smaller unit as a fridge this large is really not necessary.
4.02	Refrigeration: Condition and Positioning	✓	4	Turned off.
4.03	Mini kettles	⊙		Consider a Eco kettle. See <a href="http://www.ecokettle.co.uk">http://www.ecokettle.co.uk</a> .
4.04	<b>Use of low energy lighting</b>	✓	3	Good use of fluorescent lighting.
4.05	Use of Light Emitting Diode (LED) lighting	✓	2	LED units purchased but not fitted yet - partial credit given.
4.06	Internal lighting controls & sensors	⊙		Could be considered for toilet and display areas - potential for spells with no visitors - light may as well be off.
4.07	External Low Energy Lighting and controls			
4.08	Individual room heating controls	✓	2	Storage heaters, limited controls - slow response to variable weather conditions.
4.09	Whole-system heating and cooling controls (HO/VA/CO only)			
4.10	High Efficiency Boiler			
4.11	Boiler Maintenance and Burn Efficiency			
4.12	Heat Recovery			
4.13	Roof Insulation	✓	3	200mm fitted to roof spaces. Worth up grading to 300mm when funds are available. As heating is quite inefficient heat produced should be conserved better.
4.14	Glazing and draught proofing	✓	2	Green Business accepts that double glazing will not always be appropriate. Shutters in place at this site for winter.
4.15	Other Insulation and low energy design			
4.16	Thermostatic settings on heating air conditioners and hot water			
4.17	Hot water storage	✓	4	Instant hot water system.
4.18	Solar Hot Water Heating			
4.19	Renewable Energy for Heating and Hot water	⊙		Air source heating could be a real possibility at this site.
4.20	Renewable Energy for Appliances and Lighting			
4.21	District heating systems and CHP			
	<b>TOTAL</b>	<b>8</b>	<b>22</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>



<b>Water</b>				
5.01	Water Flow Through Showers (12l)			
5.02	Water Flow through Taps – Basins and Sinks (8l)	✓	1	10 litres per min ave. Flow a little high - option here for an aerator or other devices. See <a href="http://www.greenbuildingstore.co.uk/page--water-saving-basin-taps.html">http://www.greenbuildingstore.co.uk/page--water-saving-basin-taps.html</a>
5.03	Self-closing or sensor Taps			
5.04	Urinal Controllers or Waterless Urinals			
5.05	<b>Low flush toilets</b>	✓	3	Displacement bottles in cisterns. Consider dual flush for any refurb.
5.06	Water efficient washing machine			
5.07	Water Efficient Dishwasher and Kitchen			
5.08	Drip irrigation systems			
5.09	Chlorine-free water treatments			
5.10	Water Butts			
5.11	Rainwater and grey water harvesting			
5.12	Bag It and Bin It	<input checked="" type="checkbox"/>		In place. Could relate any information to shoreline pollution and microplastics.
5.13	Phosphate-free soaps and detergents	✓	4	Ecover only.
5.14	Chlorine-free cleaners	✓	5	Corporate policy. No bleach noted.
5.15	Natural based surface cleaners			
5.16	Natural cleaning recipes			
5.17	Ecological Water Treatment			
	<b>TOTAL</b>	<b>4</b>	<b>13</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Purchasing				
6.01	Supplier screening	✓	3	Do have sustainable purchasing policy, though cost and quality appear to be most important. Some detail on how this is applied to a remote site would be nice to see in the green file.
6.02	<b>Paper products in housekeeping</b>	✓	5	100% recycled.
6.03	Recycled content plastics and bio plastics	✓	3	Recycled sacks noted. Consider other recycled plastic products e.g. plastic seats and furniture for outside.
6.04	Recycled Glass Products			
6.05	Business Stationery & Marketing Materials	✓	5	Evolve printer paper. The paper in leaflets used is from managed sources. Could mark brochures with a "Please Pass this on or Recycle it" message to encourage reuse.
6.06	Home Produced Food & Drink			
6.07	Local Meat & Dairy	☑		As 6.10
6.08	Sustainably Sourced Fish			
6.09	Local Fruit or Vegetable Products			
6.10	Local Food (non-meat & veg) & Drink	☑		Good promotion of local shops and suppliers.
6.11	Drinking Water			
6.12	Local Organic Food			
6.13	Vegetarian and vegan Food options			
6.14	Local Food Network or club			
6.15	Fair Trade Food & Drink	✓	3	Could increase amount of Fair Trade used by staff. Do HS have a FT policy within purchasing?
6.16	Ethical and Organic Products (non-food)			
6.17	Local Craft Products	✓	4	Several Shetland items e.g. tea towels. Many other items are Scottish. Not much from other regions which is very good. Healthcraft Items.
6.18	Traditional Building Products & Techniques	✓	5	Core of the HS operation.
6.19	Building and Decorative Products			
6.20	Sustainable Timber	⊙		Could evidence any sustainable timber usage.
6.21	Natural shampoos and Hygiene Products	✓	4	Sell Shetland Soaps - a social enterprise, formulation appears OK but maybe worth some investigation in line with purchasing policy. See <a href="http://safecosmetics.org/">http://safecosmetics.org/</a> for background on what to avoid.
6.22	Green Energy Tariff	✓	5	SSE 100% renewable tariff.
6.23	Financial Services			
	<b>TOTAL</b>	<b>9</b>	<b>37</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Waste Minimisation				
7.01	Returnable Packaging (bottles crates etc.)	✓	4	Very good reuse of packaging for gifts. None bought in
7.02	Use less paper in marketing	⊙		Need details of the amount of paper saved through using VAS system. Would be interesting to know how many old brochures are recycled and if numbers printed can be reduced by using Apps and online methods.
7.03	Dosing and Dispenser Systems	⊙		Could buy more cleaning products in bulk to save on costs and travel impacts.
7.04	Food portion control			
7.05	Specialist waste reduction measures			
7.06	Garden waste – composting and peat free	✓	3	Grass cut by company and then removed.
7.07	Rechargeable Batteries and alternatives & eco gadgets			Many sites use rechargeable torches, two way radios, portable emergency lighting. Not much at Jarlshof
7.08	Electric and electronic equipment	✓	5	
7.09	Printer & Toner Cartridges (purchase & recycle)	✓	4	Consider professional refills to help 'close the loop'.
7.10	Textiles, Fixtures and Fittings			
7.11	Kitchen Waste Composting			Some tea bags composted.
7.12	Construction Waste			
7.13	Conservation of Buildings	✓	5	Core HS operations.
7.14	Paper reuse and recycling	✓	4	Shredded paper to Stephens chickens. Some to island incinerator for energy.
7.15	Cardboard Reuse or recycle	✓	3	Not much at this site. Any excess to incinerator. Ensure to prevent and reuse as much as possible.
7.16	Glass Reuse or recycle	✓	3	To aggregate on island. Consider some bins and info of fate for guests.
7.17	Aluminium and Steel Recycling	☑		Not really significant.
7.18	Plastics Reuse or recycle	☑		
7.19	<b>Hazardous waste disposal</b>	✓	5	Best practice disposal. See <a href="http://www.batrecycle.com/en/home.aspx">http://www.batrecycle.com/en/home.aspx</a> .
7.20	Dog Waste eco-treatment			
7.21	Compactors			
	<b>TOTAL</b>	<b>9</b>	<b>36</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Travel				
8.01	Information on Public Transport	<input checked="" type="checkbox"/>		Displayed to visitors onsite.
<b>8.02</b>	<b>Marketing Materials have Details of Public Transport</b>	✓	4	Traveline on webpage.
8.03	Car Free Activities (not VA)			
8.04	Public Transport Drop Off	✓	3	3 times per day. Could promote this on website.
8.05	Travel Incentives (not SSA)			
8.06	Information on Walking and Cycling	✓	3	Some Shetland Walking guides given out. Could look to personalise info more e.g. walks starting from the site and exploring south of the Island.
8.07	Cycle hire information	<input checked="" type="checkbox"/>		At hotel.
8.08	Walking and cycling organisations (HO/SSA/SC)			
8.09	Cycle Storage			
8.10	Coach Parking and Switch Off Policy	✓	3	Could send regular companies switch off policy
8.11	Staff Travel (not SSA)			
8.12	Public Service Vehicle (PSV) (Hotels/VA)			
8.13	Business Vehicles are Ecofriendly	⊙		Could consider an electric charge point. Free equipment is available from <a href="http://zerocarbonworld.org/free-charging-stations">http://zerocarbonworld.org/free-charging-stations</a> .
8.14	Pitches for Touring Caravans (HP)			
8.15	Carbon management	✓	3	HS Sustainability Report; 25% CO2 reduction by 2015. Potential to relay this target to visitors via green file or interpretation.
	<b>TOTAL</b>	<b>5</b>	<b>16</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>

Nature and Culture				
9.01	Natural and Cultural Heritage Initiatives	<input checked="" type="checkbox"/>		Jarlshof is a site of historical importance.
9.02	Information on local cultural attractions	✓	5	Very good specific folders with this information.
9.03	Cultural events and festivals	✓	5	
9.04	Information about nature-related attractions in the area			
9.05	Information on natural heritage	✓	3	Birds you might see poster. Could have more Shetland based wildlife information.
9.06	Nature Diary	<input checked="" type="checkbox"/>		Have tried. Perhaps a chalkboard or whiteboard could be a better way to get guests and staff to record what they have seen.
9.07	Native Tree Planting			
9.08	Wildlife Habitats	✓	2	Some wildflower/ habitat margins - these could be managed more to produce a more varied habitat.
9.09	Wildlife Refuges			
9.10	Specialist Heritage and Cultural Buildings	✓	5	Very good interpretation - some sae water/salt air damage beginning to show on some boards.
9.11	Light Pollution	⊙		Could have some basic star charts for guests. Dark Sky tours and star gazing is becoming more popular.
9.12	Accessibility to nature	<input checked="" type="checkbox"/>		Hearing Loop in main centre and audio guide. Access for those less mobile possible but not easy as steps at top of site could deter some visitors.
	<b>TOTAL</b>	<b>5</b>	<b>20</b>	<i>Minimum of 3, 4, 5 ticks required for Bronze, Silver &amp; Gold respectively</i>
Innovation				
10.01	Stonemason apprenticeships	✓	5	This information could be disseminated to visitors at each site. Some detail on website.
10.02				
10.03				
10.04				
	<b>TOTAL</b>	<b>1</b>	<b>5</b>	

<b>SCORING Summary</b>			
<b>Sections</b>	<b>Done</b>	<b>Score</b>	<b>Percentage per section for measures scored</b>
COMPULSORY	4	20	100%
MARKETING & MANAGEMENT	8	29	73%
COMMUNICATION	7	26	74%
ENERGY SAVING	8	22	55%
WATER ISSUES	4	13	65%
PURCHASING	9	37	82%
WASTE MINIMISATION	9	36	80%
TRAVEL & TRANSPORT	5	16	64%
NATURE & CULTURE	5	20	80%
INNOVATION	1	5	
<b>TOTAL</b>	<b>60</b>	<b>224</b>	<b>SILVER</b>

<b>Maximum No. of measures scored</b>	<b>60</b>	<b>300</b>	<b>Total Percentage based on 300 pts</b>
<i>Bronze award status</i>	40%	120	<b>74.7%</b>
<i>Silver award status</i>	65%	195	<b>Award achieved</b>
<i>Gold award status</i>	80%	240	<b>SILVER</b>