

## Scottish Stone Liaison Group

# NEWSLETTER

## Natural Stone Institute

Issue No. 5 Summer 2003

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### Introducing Sarah Bailey, new Education Officer for the Natural Stone Institute

I am writing to introduce myself as the newly appointed Education Officer for the NSI. I started in post on 1st April 2003 and throughout the next 2 years I look forward to meeting and working with many of you.



My aim is to promote education and training that will meet the needs of specifiers, designers, students, trainees, teachers and the general public. I am looking to work with training bodies to deliver specialist knowledge to professionals. I am also looking at integrating understanding of the built heritage into the school curriculum. To these ends I have already been in contact with a number of organisations that have similar aims to the NSI - if I haven't been to see your organisation yet, it's only a matter of time!

Prior to joining the Natural Stone Institute I was an Education Officer at Dynamic Earth, one of Edinburgh's largest visitor attractions. As an Earth Scientist I delivered activities to children of all ages and I gained great insight into Scottish Education Policy and networks. I also worked as part of a team developing a pilot module for the new Chartered Teacher qualification. My finest moment however, was probably making an appearance with Barnaby Bear on Children's BBC!

Working as part the NSI, I look forward to combining my experience in the education sector with my background in Earth Sciences, to help develop services and disseminate information to both professionals and the general public.

*Sarah Bailey*

*Sarah Bailey*  
Education Officer  
The Natural Stone Institute

If you require more information, or have any comments contact me at [sarahbailey@nsiuk.org](mailto:sarahbailey@nsiuk.org)

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## Advance notice NSI AGM

### NSI Members please note:

This year's AGM will be held in Edinburgh on 18th September, from 5pm. The venue will be the Royal Overseas League.

The speaker will be confirmed at a later date but please note the date in your diary.

## NSI Membership

If you have not yet joined the NSI, you are reminded that the Membership is open to everyone who has an interest in Scotland's built heritage and its appropriate maintenance.

**Memberships** - for individuals (£25) or Companies (£100) is available and the NSI is looking to build a range of benefits for the latter. Unfortunately, for tax purposes, such benefits can only apply to the latter.

Please contact the NSI at the address at the bottom of the back page of this Newsletter for more details and a membership application form.

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## Improving materials testing and technical information in the UK roofing slate industry

The University of Paisley has been successful in the Department of Trade and Industry's 2002 Partners in Industry (PII) Open Competition. The partners in the project are University of Paisley, Scottish Stone Liaison Group, Historic Scotland, Terry Hughes, Slate Consultant, University of Dundee, Alfred McAlpine Slate Ltd, Burlington (Slate) and The Delabole Slate Company. The project is planned to start in September 2003 and will run for two years.

The aim of the research is to improve the prospects and competitive position of the UK roofing slate industry by the development and adoption of innovative methods of materials assessment for new and recycled roofing slates. This will demonstrate the quality and longevity of UK slate in comparison with imported slate in both new building applications and built-heritage conservation.

The project will build on the work which has been carried out at the University of Paisley on the weathering of slates. This research started in

As the name suggests, a key feature of the PII scheme is partnership with industry. All the principal UK slate producing companies; McAlpines, Burlington and Delabole, are supporting the project by supplying slates for testing, by providing data on the results of tests by traditional methods and information on performance under natural weathering conditions. Historic Scotland, who have initiated and supported the research from the beginning, will provide data on the performance of slates on historic buildings. The University of Dundee will provide expertise on the supply and demand for slates, while the Scottish Stone Liaison Group will be actively involved in the dissemination of results.

The project will be a run by a steering committee which will include Terry Hughes, Slate consultant, and representatives of the University of Paisley, Scottish Stone Liaison Group, Historic Scotland, the University of Dundee and the Burlington (Slate) company.

weathering of slates. This research started in 1995 when Historic Scotland commissioned Dr Joan Walsh, then at the University of Glasgow, to assess the resources of Scottish slate. In order to assess the properties of Scottish slate it was necessary to compare them with those of fresh slates from producing quarries. As there were no producing quarries in Scotland, these were obtained from elsewhere in the U.K. as well as imported material. An important aspect of the research was assessing the useful life of the slates. The limitations of the different national standards for testing slates for durability were recognised, and alternative testing methods were developed. These tests provided a procedure for assessing the relative durability of different slates, both local and imported, making it possible to demonstrate scientifically the longevity of British slates when compared with imported alternatives.

One beneficial outcome of the project will be the funding of a weathering chamber, which will allow the experimental weathering of slates. The University of Paisley is often commissioned to assess the durability of slates intended for use on historic buildings and in conservation areas. In addition, fresh samples have recently been obtained of slate from the Ballachulish area and Macduff slate from the Hill of Foudland. Testing the slates for durability involves subjecting them to lengthy experimental weathering regimes, which will be considerably accelerated by the use of an automatic weathering chamber, enabling results to be obtained in a shorter time frame.

*Dr Joan Walsh*  
 Advanced Concrete and Masonry Centre  
 University of Paisley  
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## NSI web site

A dedicated NSI website is now available. The address for the site is <http://www.nsiuk.org>



## Visit to Caithness by members of the Natural Stone Institute

The inaugural excursion of the Natural Stone Institute took place between the 23rd and 25th May. Organised by members of the Highland Council, the weekend in Caithness provided the opportunity to view a number of diverse, local projects and discuss a wide range of issues.



*Members of the Castletown Heritage Society make a presentation of a book to Mr A McMillan, NSI Convener.*

The first day's excursion was concluded with a visit to Wick. Members of the NSI were given a tour of Lower Pultneytown, where there are plans



*At the production yard of A & D Sutherland Ltd.*

The programme of events began with a visit to Spittal, to see the quarries of A & D Sutherland Ltd (above photograph) and Caithness Stone Industries Ltd. The start of full scale commercial quarrying in Caithness began almost 200 years ago.

In today's quarries the production of Caithness flagstone combines these old techniques with new technologies.



*Steps for the Scottish Parliament, produced by Caithness Stone Industries Ltd.*

The quarry visits were completed with a tour of Devonian House in Halkirk. The house, constructed by John Sutherland, is a showcase for the wide range of Caithness quarry products available.



*Devonian House, a showcase for materials produced by Caithness Stone Industries Ltd.*

Leaving the quarries at Spittal the NSI party journeyed to Castlehill, Castletown, to meet with representatives of the Castletown Heritage Society and view the site proposed for a Flagstone Heritage Centre.

The works at Castletown were extensive, comprising flagstone quarries, a cutting yard with machinery powered by water and steam, a wind powered water pump and workers housing. The site adjoins historic Castlehill harbour, used to

to use Caithness flagstone in a large conservation initiative.

Elizabeth Marshall, Caithness Area Development Manager, outlined the plans for a breakwater in Wick harbour. The breakwater has been proposed in response to the increase in extreme weather events seen in Wick. Construction would require a large quantity of flagstone, with the potential to use waste stone from the local quarries. As well as improving the prosperity of the harbour itself, construction of a breakwater at Wick would highlighting that what we view as waste is really just a matter of definition.

The final day of the excursion provided the opportunity of visiting Camster Cairns (see below), a magnificent pair of chambered tombs, which have been re-excavated and re-constructed. The Cairns provide early illustrations of building in the local stone.



*Members of the NSI group visit the round cairn at Camster Cairns.*

In addition to the Camster Cairns, there are many other structures that show the historic use of Caithness stone. The Bronze Age peoples used slabs of the local stone to set up their enigmatic stone rows, stone circles and many isolated monoliths and during the Iron Age Caithness flagstone was used in the construction of the defensive towers known as brochs. Over 500 broch sites have been established in Scotland, with one-third of them in Caithness.

The first excursion of the NSI was completed with a trip to Red Point SSSI (site of special scientific interest). Clive Auton, Principal Geologist, BGS, gave a tour of the area which lies around 18km west of Thurso on the North coast of Caithness. The site provides a unique illustration of lake margin environments and is of crucial importance to any attempt at a regional understanding of the Orcadian basin lake.

export flagstone from the Castletown quarries.



*Flagstone used in the harbour at Castlehill.*

The works were disused by 1914 and much of the quarry has now been backfilled, but in 1988 the Highland Regional Council began a programme of environmental improvements to the derelict Castlehill site. Today, the Castletown Heritage Society wish to develop a Flagstone Heritage Centre at the site, to interpret the flagstone industry, which first developed and exported in a significant scale at Castletown.



*Group meeting with Lord Thurso MP.*

Overall, the first excursion of the NSI was a great success, thanks to those members of the Highland Council who worked so hard to organise the visit - they even managed to organise glorious weather for the duration of the trip!

The programme for the excursion was extremely varied and provided much food for thought, as well as an insight into the production and use of the local Caithness flagstone. In addition to the scheduled visits, there were opportunities for members of the NSI to meet with local experts and officials including Jamie Stone, MSP for Caithness, Sutherland and Easter Ross and also Lord Thurso, MP.

Following the success of the Caithness visit, the NSI is looking to arrange future excursions. If you would like to suggest a site or area, please contact the NSI using the address at the bottom of the page, alternatively contact Sarah Bailey at [sarahbailey@nsiuk.org](mailto:sarahbailey@nsiuk.org)

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