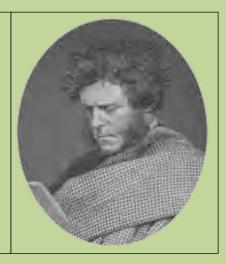
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Hugh's News

Newsletter of The Friends of Hugh Miller



ELIZA MILLER REMEMBERED

"AWA' FROM OUR HEARTS THOU'LT NEVER BE"

by Martin Gostwick

An expert and most caring work of restoration has been carried out on the headstone of Eliza Logan Miller, Hugh and Lydia's first born child who died tragically of a fever aged only 15 months. Conservator Karolina Allan of KK Art & Conservation, Elgin, performed the task over two days in September, and it should preserve the monument in an enhanced condition for many years to come.

The project was a heartfelt initiative of two Friends members, Dr Lillemor Jerngvist, a retired child psychologist, and her partner, Mr Derek Lancaster-Gaye. Every year, when they faithfully attend our annual meetings, they make a pilgrimage up the steep hill to the old St Regulus churchyard, to lay flowers on Eliza's grave. This commemoration is part of Lillemor's special feeling for the Miller family. She also got a mention a few years ago for Lydia in our Scottish Parliament, on the plaques honouring 100 Scotswomen who have made a mark on the nation's history.

Lillemor and Derek became concerned at the rapid fading of the lettering on the headstone in the years since their first visit. After some research, we found a specialist in stone care, Dr Mary Markus of Glasgow, who came up to Cromarty and compiled a detailed report on the headstone's condition. She noted some individual letters had become chipped, or perhaps broken during freezing weather. Granular erosion had occurred on the main face due to weathering, and in the hollows of the scallops at the top due to water collection. She recommended removal of lichens and moss with brushing methods. She also advised that the lichens on the stone be checked to ensure none of them were rare, protected varieties. We in due course received confirmation from two British Lichen Society members that no such species were present. Their observations included, to our surprise, a quote from the Victorian aesthete John Ruskin on the natural beauty of lichens!

THE HUGH MILLER WRITING COMPETITION 2015-2016

Writing competition - see page 3



Karolina Allan

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Karolina Allan came recommended as a practising conservator by Historic Scotland, whose experts had some years previously carried out protective treatment of Hugh's sundial pedestal at their South Gyle workshops in Edinburgh. She diligently cleaned off the biological growth soiling, and did some repairs close to the letters A and E, and over the cracks at the base and at the very top. She also cleaned off some paint splash at the back. It was about 10 cm on 5 cm big. Her repairs and cleaning have made the lettering much clearer and more legible. Cracks and cavities were filled in with acrylic mortar, and the surfaces all consolidated with solutions of a diluted chemical known as Paraloid B72.

She brought a very personal, touching note to the assignment. She is the happy mother of her first child, a three month-old boy, Alex, whom she of necessity brought to Cromarty with a carer to look after him while she worked. She told me that while Alex is still very young, she is generally not accepting commissions from outside her home area, but "I am making an exception for this one."

Another connection to the Millers is that her husband is a stonemason, Andrew Allan, currently working on a project at Castle Duart on Mull. Karolina said: "We both run our own businesses, but our skills are complementary, and we are always bouncing ideas and information off each other."

It is worth recounting here, the story behind the headstone. After their marriage on the 7th January 1837, the three years in which the Millers resided in Miller House were filled with momentous events, in all Scotland, in little Cromarty and in the family's own life. They must have felt like every single day was punctuated with new drama. Hugh toiled wearisome hours accounting at the Commercial Bank. Lydia taught classes of young girls in the parlour. The scientific world was beginning to take note of his fossil discoveries, and modest success greeted his great book of folklore. He helped with his open Letter to the Lord Chancellor to bring the "ecclesiastical controversy" to a head - the dispute in the Church of Scotland over patronage known as the Ten Years' Conflict - which in a few short weeks led him and family away from Cromarty forever, to the editor's chair at the newly-founded Witness newspaper in the capital.

Hugh was both himself the agent of big change, and the instrument of others who recognised his talents. One of the newspaper founders was his own boss at the Commercial



Top: Karolina Allan Middle: Lillemor and Derek Above: Eliza's gravestone, restored

Bank, general manager Robert Paul, no doubt advised by Hugh's immediate superior, the Cromarty agent, Robert Ross. Prompted by help from Moray Society luminaries, he sent specimens of his Devonian fishes to the world-renowned naturalist Louis Agassiz in Paris, who in turn broadcast his discoveries to the leading earth scientists of the day.

Hugh and Lydia relieved the pressure of events making sailing jaunts round the Sutors, fishing for their supper in his little yacht. Hugh wrote articles for magazines while Lydia taught, to supplement their meagre income. They started a family, and the arrival of Eliza Logan Miller on 28th November 1837 was their greatest joy, and her death of a fever 15 months later on 25th April 1839, heartbreaking. This is movingly described in Hugh's autobiography, in Lydia's journal, and a memoir written by one of Lydia's pupils, Harriet Ross. Extracts from the latter two documents can be read in the parlour today.

Modern readers might consider their recollections maudlin, but there is no doubting their sincerity. Hugh remembered her in her nurse's arms, waving to him from an upper window as he approached the house, and the way she said "awa," which came back to them after her death "like an echo from the grave." The void she left "it seemed as if the whole world could not fill." He wrote of the deep rich woods all round the old chapel of St Regulus, where daisies "mottled, starlike" the mossy mounds, and the air was filled with birdsong. To cap it all, Hugh concluded (*My Schools and Schoolmasters, Chapter XXIV, Edinburgh 1993, ps 513-5*), with a poem, seemingly written by Lydia while in the churchyard, of which we reprint the first verse.

Thou art "awa, awa," from thy mother's side, And, "awa, awa," from thy father's knee; Thou'rt "awa" from our blessing, our care, our caressing, But "awa" from our hearts thou'lt never be.

However, they soon gained consolation with the birth of their second daughter, Harriet, on 25th November 1839, just weeks before Hugh departed for Edinburgh.

It is pleasing to record that all three of the main protagonists in the headstone's rescue arrived here from other European countries. Lillemor Jernqvist is Swedish by birth, Mary Markus is Hungarian-born, and Karolina is from Poland. What a happy reflection of Scotland's history and contemporary culture that they could make such a significant contribution.

Lillemor and Derek paid for Mary's preparatory report out of their own pockets, a marked proof of their love and respect. Karolina's estimate is for just short of £700. We would invite Friends' members to contribute if they like towards the cost of this most worthy project. Please make payments out to The Friends of Hugh Miller and send to me.

NEW WRITING COMPETITION

EMULATE HUGH'S POWER WITH THE PEN

ONE of the most exciting and dynamic initiatives ever to celebrate and build on Hugh Miller's legacy, a new national writing competition, is being organised by the Scottish Geodiversity Forum (SGF), in association with us, and other partners.

And we, The Friends, have the honour of hosting the awards ceremony for the winners, during our next AGM, at around 2.30pm, 14th May 2016, at The Stables, Causeway, Cromarty IV11 8XS.

This is "Testimonies of the Rocks: the Hugh Miller Writing Competition 2015-16," which has been devised and promoted by the Forum's chairman Angus Miller, and freelance science writer Lara Reid.

They say: "As a poet and prolific writer, the wealth of potential inspiration that Miller provides in his work is worthy of widespread public engagement. We hope that this writing competition, open to all ages, will encourage both a renewed interest in Miller's work, a catalogue of new writings inspired by one of Scotland's greatest nature writers, and awareness and appreciation of Scotland's geodiversity."

They have chosen as an example of Hugh's potential to inspire, a quote from his science travel epic, *The Cruise of the Betsey*, which itself has generated two great voyages in the Inner Hebrides, last year and this.

"Every rock is a tablet of hieroglyphics with its ascertained alphabet; every rolled pebble a casket, with old pictorial records locked up within."

The competition was launched on the anniversary of Hugh's birth, 10th October. The closing date for entries is midnight on 18th March, 2016. Winners will be notified by 15th April, and the awards ceremony follows, as above at the Friends' AGM, 14th May 2016. Prizes will be announced shortly.

There will be two categories, one for young people under 16, and one for adults aged over 16. Entries for under 16s have been set up to a maximum of 200 words, for adults, 1000 words. It is hoped to receive batches of entries from schools.

They should be "directly inspired by the geological and landscape writings of Hugh Miller," rather than social history, although his excellence in this field is also recognised. Quotes from his writing can be included.

The judges will be naturalist Kenny Taylor, science writer Lara Reid, geopoet Norrie Bissell, and geologist Simon Cuthbert. Other competition partners include: Our Dynamic Earth, Geobus, the touring educational facility for primary schools, Lochaber Geopark, Edinburgh Geological Society and the Scottish Centre for Geopoetics.

So now's the time to reach for your pen, and have a go! Let your piece cover any aspect you choose of your experience of Hugh Miller, geologist and write, or which connects with what he did. Just as a few examples, you could recount your own adventures of fossil hunting, or in another field of the natural sciences; or re-

late your responses to passages in his books; or describe a visit to his Cromarty Museum and the Cromarty environs; or inform us as to how his example led to your own choice of career, or hobby. Do not be put off by not starting from great familiarity with Miller. Good new writing, including creative rather factual writing, about your own encounters with Scotland's natural riches and geodiversity will certainly be considered as a contribution in itself to his legacy.

For full rules and guidance about how to enter, go to: www.scottishgeology.com/hughmiller

MG

STOP PRESS

OLD RED: NEW EDITION NEAR

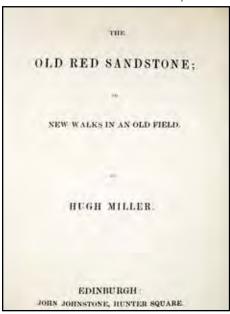
WE are delighted to be able to announce that a new edition of *The Old Red Sandstone* (ORS) has been completed and is now in process of submission to a publisher. Drafts have been circulated, including to members of the FoHM management committee who are eagerly reading it.

The new edition will reproduce in facsimile the First Edition published in 1841, with comprehensive notation and commentary by its two editors, Dr Mike Taylor and Professor Ralph O'Connor, two of Scotland's finest Millerian scholars. They have spent almost a decade on the most exhaustive possible research, and much new information is expected surrounding the compilation and writing of the original, and its references. Its layout is modelled closely on the magnificent Cruise of the Betsey edition produced in 2003.

Long considered Miller's greatest work, selling out edition after edition in the 19th Century, it has been out of print for more than a hundred years, although versions have become available in the online-ordering, print-on-demand format, which have no modern editing. The Friends are standing ready to give the publication financial support, as confirmed at our annual meetings.

COMETH THE "STONE MAN"

A full house enjoyed on 5th September a playlet in which a "tour guide" in Hugh Miller's image talked the audience through the dramas of his life. In a sunlit Miller's Yard: Garden of Wonders, actor Denys McNair, clad in a replica of Hugh's famous shepherd's plaid, spoke about everything, within the space of about 20 minutes, from his tragic childhood, and end, through his triumphs as geologist and national newspaper editor. He was the ultimate "stone man," from his days as a stonemason, through all his mighty fossil collecting forays.



Above: Title page of the First Edition Below: Denys McNair (left) with David Newman Bottom: "Elvis" Miller



Denys, of Evanton, Easter Ross, who trained at Eden Court Theatre Club, did not dwell much on Miller's part in the great schism known as The Disruption. This was perhaps surprising, given he was a Free Church minis-

ter of Kiltearn parish for ten years before getting into acting. However, he was using a script geared for a modern audience by Cromarty's web designer, David Newman, of IT company Plexus Media. This injected a note of surreal humour, when Miller was likened to Elvis Presley, based on a portrait of Hugh which used to hang over a fireplace in the Royal Hotel. The likeness, passed round an amused audience, was based on it possessing a big head of black hair, and enormous sideburns. Surely, neither Miller nor Presley ever looked so grim. The performance was one of several short playlets forming part of a Wee Theatre festival. Museum manager Alix Powers-Jones Denys McNair performs to a full house. The similarity in appearwas delighted to see another "living history" enactment, and ance of Hugh with rock star Elvis Presley was far-fetched, but said she hoped there would be many more.



entertaining.

OLLECTING THE WORKS OF HUGH MILLER

by Professor Nigel Trewin

Over the past ten years or so, I have acquired from auctions and book dealers a selection of British editions of Hugh Miller's books. This has led me to attempt to list the various 19th century editions, publishers and bindings of books bearing Hugh's name. There are also several American editions that I have not included in this survey. The books are only part of his output as an author and readers should refer to Michael Shortland's book Hugh Miller and the Controversies of Victorian Science for a detailed list including his many pamphlets, magazine and newspaper articles. On the accompanying chart I have attempted to summarise the information I have on editions of Miller's books up to the 1889 editions. Any corrections or additions from readers would be welcome. A selection of different spines of publishers' bindings is illustrated to aid recognition.

There are 15 of Hugh's works that can be described as books, originally published bound in hard covers. Two of these only occur in single editions, and thus do not appear in published 'sets' of Miller's works. The first is Poems, Written in the Leisure Hours of a Journeyman Mason published in 1829 and printed by R. Carruthers in Inverness, and sold at 4/-. This was not a success for Miller; indeed he later said it would have been better to put the poems in the fire! A scrap from a bookseller's advert pasted into a copy of Poems states that Miller bought up and destroyed copies, and that it was regarded as scarce in 1886, one copy selling for 25/- at that time. Hugh gained greater benefit from his friendship with Carruthers who

	SINGLE EDITION BOOKS													
Date														
1829	Poems R Carruthers, Inverness													
1839	Memoir of William Forsyth Stewart and Murray, London													
	MULTIPLE EDITION BOOKS													
	DATE RANGE	1835	1841,7	1849-55	1853-4	1857	1857-9	1860-6	1869-71	1869-71	1869-71	1874-83	1889+	
1835	Scenes and Legends	\times	2	2	X	1	X	X	X	X	X	X	X	
1841	The Old Red Sandstone		X	X	2		X	X	X	X	X	X	X	
1847	First Impressions of England		X	2	X	1	X	X	X	X	X	X	X	
1849	Footprints of the Creator			X	X		?	X	\boxtimes	X	X	\boxtimes	X	
1854	Schools and Schoolmasters		1		X		X	X	X	X	X	X	X	
1856	Miller died December 24 th , having corrected	proof	s for	festin	nony	of the	Rock	s.			1			
1857	Testimony of the rocks		111		11	X	X	X	X	X	X	X	X	
1858	Cruise of the Betsey			1			X	X	X	X	X	X	X	
1859	Sketch Book of Popular Geology		1.00		11		\mathbf{X}	X	X	X	X	X	Ń	
1861	Headship of Christ							X	X	X	X	Ŵ	X	
1862	Essays					-		\otimes	R	X	X	X	\leq	
1863	Tales and Sketches			111				\mathbf{X}	X	X	X	X	X	
1864	Edinburgh and Neighbourhood	-	1					\mathbf{X}	\mathbf{x}	X		X	\mathbf{x}	
1870	Leading Articles		1 <u>_</u> 1	1.1					X	\boxtimes	X	X	\geq	
	FORMAT-PAPER SIZE Foolscap Octo 170mm high, Post Octo 195mmm Crown Octo 190 mm	Fs Octo	Fs Octo	Fs Octo	Post Octo	Post Octo	Post Octo	Crn Octo	Cm Octo	Crn Octo	Crn Octo	Crn Octo	Crn Octo	
	PUBLISHER	<u>u</u>						-					Mitchell	
	First publisher named on title page	A & C Black	John Johnstone	ohnstone & Hunter	Johnstone & Hunter	Shepherd & Elliot	Constable	A & C Black	W P Nimmo	W P Nimmo	W P Nimmo	W P Nimmo	Nimmo Hav Mitchell Crn Octo	
	BINDINGS					1						ine		
	Original publishers' bindings	Pink or green boards, paper label								Red-Brn boards, logo on front	Ornate green boards, gold top	Ornate red-brn boards, logo on spine W P Nimmo	Oarth him hoards impressed for	
	Notes and Key	en boards,	n boards,		Red or Brown boards			Brown or red boards	Red or green boards	calf	, logo	oards,	board	ds, imp
-	Exists				n b	1.7	12	Q P	n bc	alf	ards	qu	Pra	and a
	? Does not exist	ree	rds	LOW	rds	rds	L re	ree	Publishers half calf	poq	gree	-pa	4	
	* Cheap softback ed 1860	org	Red boards	DrB	Red Boards	Red boards	0 LL	Drg	she	Brn	te	ter	4	
	Cheap softback eds 1869 Same date for both publishers	¥	pa	pa	pa	pa	NO	Pa	Ipi	-pa	rna	rna	34	
	pointe date for boor publishers	D D	1	E C	1 CC	1 CC	1 00	1 ac	10	1 m	0	0	1	

published his *Letters on the Herring Fishery in the Moray Firth* in the Inverness Courier. These letters were then published as a pamphlet which brought Miller's excellent prose to the attention of the public. None other than Sir Walter Scott requested a copy after the issue was sold out. The *Letters* were later published in *Tales and Sketches* (1863).

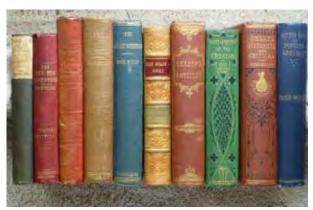
The second volume of Miller's that only has one edition is *Memoir of William Forsyth Esq of Cromarty* (1839, Stewart and Murray, London). This appears to have been written as a favour for his friend Isaac Forsyth of Elgin who had tried to sell Miller's *Poems* through his bookshop. Hugh and Lydia Miller also stayed in Elgin with Forsyth on their honeymoon in 1837. By this time Miller's *Scenes and Legends of the North of Scotland* (1835, Adam and Charles Black) was making a big impression, and in 1840 he moved from his bank job in Cromarty to Edinburgh as Editor of The Witness newspaper.

It was *Scenes and Legends* that brought Miller a mass audience for his writing style, and this was cemented by his seminal work on *The Old Red Sandstone* (1841, John Johnstone) that introduced him to the geological scientific community of the day. Miller was now 'box-office' with excellent sales, and publishers would have been keen to produce his work.

John Johnstone also published *First Impressions of England and its People* (1847), but for *Footprints of the Creator* (1849) and *My Schools and Schoolmasters* (1854) the publisher was Johnstone and Hunter. It seems that Johnstone and Hunter acquired the publishing rights for all Miller's works in about 1849, and by 1854 and had five titles in print until Hugh's death at the end of 1856.

The early editions of Millers works are in a small format (Foolscap Octo, page 170 mm high), but this was changed to a larger format (Post Octo, page c. 195 mm high) by Johnstone and Hunter in 1853-4 for *Scenes and Legends, First Impressions* and *Footprints.* The first edition of *Schools and Schoolmasters* is in the larger format, but *The Old Red Sandstone* is the exception, remaining in the smaller format for the first six editions (6th Ed 1855).

Testimony of the Rocks was in proof stage at the time of Hugh's death, indeed he spent his last hours correcting and adding to the proofs. When a few pages of these corrected proofs are compared with the published edition it is apparent that further minor changes were made prior to publication. The book was published posthumously in 1857 by Shepherd and Hunter and also by Thomas Constable and Co. together with Shepherd and Hunter. Both versions carry the same date, and only seem to differ in the publisher's imprint on the title page. The Shepherd and Hunter version is probably the first edition, since the copies I have seen with a dedication from the publisher are this version. There is also a rare variant that has a photograph of Hugh Miller by the Edinburgh photographer J. G. Tully as an extra frontpiece. This is reputed to be the first time a photograph of



Above: selection of bindings of Miller books.Described from left to right:

First edition (1841) of The Old Red Sandstone by Johnstone in green pebble-texture cloth with paper label.

Fourth edition (1850) of The Old Red Sandstone by Johnstone and Hunter in foolscap octo format with red boards with gold titles on spine.

Fifth edition (1853) of Footprints of the Creator by Johnstone and Hunter in post octo format and red boards.

The Cruise of the Betsey first edition of 1858 by Constable in brown boards.

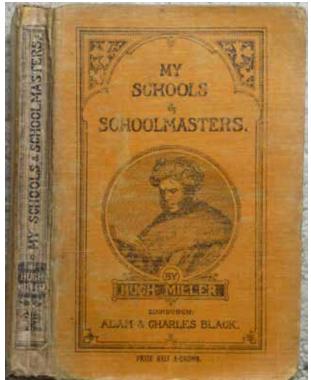
The A & C Black 10thedition (1865) of The Old Red Sandstone in Blue boards.

A fine custom-bound copy of The Old Red Sandstone in full calf, bound by Maclaren of Edinburgh. The spine of the Nimmo half calf binding of 1869 is probably similar.

The 1869 W F Nimmo binding in red-brown cloth of Leading Articles. The Nimmo logo of a cherub on a globe is on the front cover. Footprints of the Creator in the ornate green W P Nimmo binding of 1869. The top edge of the pages is gold. Trimming of the original sheets results in a shorter page.

The later (1874) red-brown ornate Nimmo binding of Essays with the Nimmo logo on the spine.

The 1889 Nimmo, Hay and Mitchell binding in blue boards of Sketch Book of Popular Geology. The Nimmo logo is impressed on the front cover.



The 'cheap edition' of Schools and Schoolmasters published in softback by A & C Black in 1860, and sold at 2/6.



Nimmo 1869 ornate green binding



Nimmo 1874 ornate red-brown binding

an author was included in a book, and so has a place in the history of photography.

Constable and Co. published the first editions of *The Cruise of the Betsey* (1858) and *Sketch Book of Popular Geology* (1859). The earlier titles (apart from *Footprints*?) were also published by Constable and were available in brown or red embossed boards with gold titles on the spine at 7/6 each. Thus a Constable 'set' in 1859 comprised 7 or possibly 8 volumes (If anybody has seen a Constable version of *Footprints* please let me know. (A publisher's advert of 1858-9 omits '*Footprints*').

Adam and Charles Black took over as publishers in 1860, published the first editions of *Headship of Christ* (1861), *Essays* (1862), *Tales and Sketches* (1863) and *Edinburgh and its Neighbourhood* (1864). Thus by 1864 'sets' of Miller's works had expanded to 12 titles. Page size is Crown Octo (c. 190 mm high). They are usually bound in red or green cloth boards with gilt titles on spine, and were priced at 7/6 each. They seem to be rather scarce in original publishers binding, most surviving copies having been rebound. A 'cheap' edition of *Schools and Schoolmasters* was published (see illustration) in pictorial soft covers for 2/6, but buyers needed to have good eyesight to read the small print.

The next publisher to take over was William P. Nimmo who offered sets of 12 volumes in Crown Octo size with three different bindings in 1869, extending to 13 in 1870 with the publication of *Leading Articles*. The 'cheap popular edition' was priced at 5/- per volume and is probably the binding of red-brown boards with gilt lettering and ornamentation on the spine. The front cover bears the Nimmo logo of a cherub on top of a globe. Another binding is in ornate green boards with black and gold decoration, and gilt top to pages. This appears to be the binding described as 'imitation Roxburgh' in adverts and a set of 12 cost £3/12/-, hence 6/- each. The top class set is advertised as being in 'half calf extra with gilt back', and cost £4/10/-, hence 7/6 each. I have not been able to identify this binding with certainty, since many people had books rebound in calf for their libraries in personal styles (see illustration).

The Nimmo sets are made of mixed editions of the individual works, and

each volume may bear an edition number or a note such as '25th thousand'. Thus in 1869-70 Testimony of the Rocks was in the range of 25th to 38th thousand, and by 1883 in 47th thousand. For *The Old Red Sandstone* 1869-70 sees editions 10-13 published, with the 24th edition in 1884. It seems probably that each 'edition' generally represents a thousand copies. This was certainly the case with the Johnstone and Hunter editions of *Footprints of the Creator* since a copy dated 1853 and 'Fifth Thousand' on the title page, is labelled 'Fifth Edition' on the spine. Buyers need to be aware that booksellers' descriptions can be misleading. For example, a copy of *Footprints of the Creator* dated 1849 may be assumed to be a first edition, but if it is inscribed '2nd thousand', and still with the 1849 date it should be considered a second edition. Hence a description saying 'first edition, second thousand' is a bit misleading.

It seems that large numbers of Nimmo volumes were sold around 1869-71, but demand continued and around 1874 another binding was introduced by Nimmo. This binding is similar to the cheap edition of 1869, but the red-brown boards have black ornament and embossing on the cover and spine with the Nimmo logo of 'cherub on globe' in gold on the spine. The earliest example of this edition I have seen is dated 1874, and the latest 1883. Around 1870 Nimmo also published cheap softback editions at 2/6 each of *First Impressions* and *Schools and Schoolmasters*. I have not seen copies of either of these softback editions.

From 1889 a new edition in dark blue cloth boards was published by Nimmo, Hay and Mitchell. Titles on the spine are in gold, and the old Nimmo logo is impressed on the cover. There are no edition numbers in this set, thus one sometimes see them described as 'First Editions' by amateur sellers! The binding is rather weak and whilst copies are common they are not easy to find in good condition. Publication continued with Nimmo, Hay and Mitchell into the 20th century but volumes are generally not as attractive. I have not attempted to follow the story beyond the 1889 edition.

I have gleaned the above information by scouring booksellers lists, where there can be 'untruths' that could trap the innocent, and descriptions so poor that it is not possible to tell what edition is for sale. Maybe somebody will be moved to fill in the gaps in my summary. I am sure there is more detail to add to the story.

If you are moved to collect Hugh Miller books your strategy will depend on the purse strings! If you want first editions in original bindings you will need deep pockets and a lot of patience to find copies in good condition: a first edition of The Old Red Sandstone would cost £100-200 depending on condition. Other Miller first editions are generally cheaper, particularly The Cruise of the Betsey which seems to be common as a first edition, raising the possibility that the initial run was more than 1,000 copies. Alternatively a collector could try and find the same title in different editions and bindings, or try and collect a set in a particular binding. It is generally cheaper to buy a set or group than buy them individually. Condition is very important with books, particularly first editions. Collectors generally prefer original bindings, and sometimes a damaged copy can be rescued by a good bookbinder. Beware of grossly overpriced items that appear from time to time on websites, I have recently seen Miller's Poems advertised at prices up to £650, and the Memoir of William Forsyth at £400. I have bought both these titles at around £100 each recently at auction. The 'Holy Grail' for any collector is to find 'association volumes' which contain a dedication from the author to a known person, the more famous the better! A first edition copy of *The Old Red Sandstone* with a dedication in Miller's hand to Louis Agassiz, Charles Lyell or Roderick Murchison would be the ultimate prize, and the price would be eye-watering! At the cheaper end you can find Nimmo editions at under £20 and the later Nimmo, Hay and Mitchell edition at £10 or less per volume. Something to suit every pocket, - Good hunting!

LEARNING TO READ FROM The Rocks

Cromarty Arts Trust's Artist in Residence during September was Ilana Halperin, geological artist, born in the USA and now living in Glasgow. She gave a truly inspiring talk with the above title to a packed audience at the Lighthouse Field Station on 3rd September. We can unfortunately only provide a brief extract here, but hope it gives you a sense of her imagination and vision. If you wish to request the full version, contact her on geologicnotes@hotmail.com.

When I was 15, I trained as a stone carver. I got my first set of tools when I graduated from high school - hammer, chisels of various size and shape, sharpening stone. I made a sandbag to shift each stone to an optimum angle. Letting the chisel hang loose in my hand, hours evaporated, and there was only stone and some particular kind of geological conversation - what should stay, what should go, when to end.

I began my time in Cromarty with a walk on the beach with the geologist Peter Scott, who said by looking down you can understand more of what you see when you look up. So we went to examine the myriad pebbles and rocks, the larger boulders of Moine Schist and Augen Gneiss. The folded rocks and ancient pockets of mud in sandstone.

Augen Gneiss - from the German word for EYE. Eye shaped crystals Solid sparkling deep black rocks - Amphibolite - lava which has been cooked

Conglomerates - 400 million year old glue surrounding 600 million year old pebbles

Smooth pink sections of rock - metamorphised Feldspar

Black Spurs in gneiss, metamorphised mica.

How to recognise the difference between schist, gneiss, granite.

Peter said here - with the exception of the disused Mica mine near Contin, you don't really find many minerals - but in another way, here they are - mica, hornblende, garnet. I have encountered cousins of these minerals before - in the stores of the Natural History Museum in New York, when open-



Ilana Halperin



Ilana's pen-and-ink sketch of Miller's mason's mallet, showing hard, but caring use.

ing drawers of minerals formed beneath the streets of New York City, in the urban landscape we know now as Manhattan. I have been drawing minerals formed in New York City up in the Game Store, while thinking about fossils from Eathie, gravestones in the East Church, and back again down on the beach.

I wrote the main body of this talk in Cromarty, during my last visit, which was my first - not too many months ago. This talk came to mind as David Alston recounted amazing and visceral stories during a walk we took around the East Church Graveyard, which were in turn - stories recounted by Hugh Miller in Scenes and Legends of the North of Scotland - of a gravedigger who recognised a man from his skull, as there was a groove in his teeth from the exact place he always held his pipe, and - to read another story in its original form:

"She saw the woman looking anxiously at the bones, and there was one skull in particular which seemed greatly to engage her attention. It still retained a few locks of silvery hair, and over the hair there were the remains of a linen cap fastened on by two pins. She stooped down, and drawing out the pins, put them up carefully in a needle case, which she then thrust into her bosom. "Not death itself shall part us!"

This makes me think of my own experience of stones and graves. In Judaism, we learn that by placing stones on a grave, one participates in building a tombstone. It is a sort of calling card to tell the deceased that you have paid them a visit. Two geological epochs collide when we leave a rock on a gravestone. We facilitate personal orogenies. To illustrate, my father's gravestone is made of granite. I left a piece of lava we found together in Iceland on top of his stone the last time I was there - metamorphic rock in contact with new landmass.

When you visit a Jewish cemetery, such as the Weisansee Cemetery on the outskirts of Berlin, stones from every far corner of the earth delicately balance and trail along hewn rock ledges - every gravestone a geological event.

So many rocks...diverse in origin, thrown together, a convergence of epochs, of time and place and activity, of different rocks meeting in one new moment. A good solid rock sitting at the end of a bookshelf, holding up what or who came before.

There are stones in the East Church which are unfinished, the name of a wife, but not her husband, blank space left for the rest of the family, which remain uncarved for any number of tragedies or just from what can happen in the course of a life.

On many stones in Weisansee, commissioned by families in advance, ornately carved in magnificent Prussian style stretching through to Art Deco symmetries, sometimes there are only a few names, perhaps just one, or no name at all. Everyone vanished before they could be buried there.

As the present is the key to the past, I begin to his last stone - for his daughter. These stones - in his great discoveries in the 1830s. and of themselves a form of fossil - the trace of a



imagine Hugh Miller carving gravestones - and Ilana studied in detail the rocks and minerals on the same beach where Miller made

life in a rock, and a new fossil forming through the trace of a hand moving across stone, creating new river valleys which become peopled with lichen and moss, canyons the top ridge of a carved M.

I think about buildings carved of solid rock, and these are our hands which enact the geological process - a fast action incarnation of glacial activity, which previously heaved itself slowly along the surface of the earth 25,000 years ago, carving places we understand now as Glen Affric, Glen Coe.

When I look at the scalloped edges of a stone carved by Hugh Miller, I see Assynt, I see the ridges of a raised beach, the silhouette of the Sutors. And I know this is a flight of geological fancy, we are humans, we are bones and muscle and brains and blood, but as the iron in the Coalheugh Well is the same iron in my body, and the limestone nodules in Eathie are as carbonate my bones, I hope you will allow me this moment, and the ones that follow, to take you on a geological journey that found its origins in being here for the first time, in early winter, and now, imagining Hugh Miller, eyes down on the beach, looking for signs of life.

In the course of my work as an artist, I have celebrated my 30th birthday with a volcano born the same year; Traversed the interior of a lava tube inhabited by life-affirming bacteria; Talked about rocks over coffee with geologists on the crest of an erupting volcano; Formed sculptures in caves and hotsprings; Spent time with geology collections formed inside the body; and Held the Allende meteorite, the oldest known object in the solar system, between my two hands.

SECOND VOYAGE IN MILLER'S SPIRIT

"JOYOUS, ROSY, RAW"*

Themed as "Testimony of The Rocks," 17 passengers and crew sailed off the isles of Argyll from June 20-26th aboard the traditional ketch Leader. They touched at Jura, Oronsay, Colonsay, the Garvellachs, Shuna, and finally Luing, where they celebrated the very recent opening of the Atlantic Islands Centre. We publish here two reports by passengers sponsored by our affiliates, the Edinburgh and Glasgow Geological Societies, plus a summary of the geology by Simon Cuthbert.

The Passengers

Gillian Hind, teacher/artist; Emma MacLachlan, film-maker; Elizabeth Pickett, geologist/artist; Andrew Law, geographer; Dyfan Roberts, geology student; Kenny Taylor, naturalist; Jack Gillespie, geologist; Dr Caroline Paterson, biologist; Kate Langhorne, singer; Jenna Corcoran, artist; Bob Pegg, musician/ storyteller; Dr Simon Cuthbert, geologist; Nikki Cane, artist.

The Crew

Lara Caine, Skipper, Martin Stanfield (Stan), First Mate, Miranda Withers, Deckhand; Cat Hotchkiss, Cook.

The Ceilidh

At the ceilidh on Luing, Joyce Gilbert spoke at the start about Hugh Miller and the Leader/Betsey voyages. Simon reported on some of the Argyll geology they encountered. Bob Pegg told several stories and played some stones and percussion scallops. Kirsty MacLachlan from Luing sang and Kate Langhorne sang some Gaelic songs. Kenny Taylor roused everyone with some rip-roaring songs including Green Grow the Rushes O at the end. There must have been over 40 people there from Luing and elsewhere.



Top: Rock on rock Above: A rock mass

* "Joyous, rosy, raw" is the description of their travels taken from a shanty titled Song of the Leader, composed by Kate Langhorne



A FULL ARSENAL OF SAIL - BUT WITHOUT ANY WIND!

Saturday, June 20

After greeting the crew and my fellow passengers, we set sail for Mull. This first afternoon of our journey was spent getting to know my fellow shipmates for the week ahead, and perhaps most importantly, Leader herself.

Under the friendly instruction of first mate Stan, we were soon sweating and tailing our way past Kerrera and into the engulfing sea mist.

That evening we anchored off Mull. At dinner we realised just how well we were going to be fed during the coming week, with Cat

the cook performing culinary miracles in the tiny galley. Dinner was also an opportunity to discover the interests of our fellow passengers and learn just what they hoped to get from the journey. I think Andrew put it best: "An adventure". *Sunday*

After an evening of Simon and Lara consulting the charts and discussing a plan for the coming week, on Sunday morning we lifted anchor and set sail for Jura, passing through the sound of Luing and past the Isle of Scarba. Even from the

sea, it is easy to see the importance of geology for the people of the Islands. Great scars lie scratched into the cliffsides of the islands, memorials to the time when Easdale slate sat on the roofs of so many houses, keeping their inhabitants from the fickle Scottish weather.

Before anchoring off the east coast of Jura, we were lucky enough to witness porpoises not 50m from the boat. After this scene, and a walk along the island admiring her wildlife and barren peaks, I found myself wondering how George Orwell could have devised 1984 whilst staying on the island.

That evening, we skirted back to the mainland where we spent the night at Ardfern. This would be our last opportunity for showers till our return to Oban!

Monday

Waking to the sound of the engine chugging away, I poked my head above deck to be greeted with blue sky and a baking sun. Although the lack of wind meant that the sails would go unused, much to Stan's disappointment, it was with some relief that I saw the mill pond sea that lay before us.

We were dropped off at the south end of Shuna and spent the day exploring the island before being picked up by Leader in the evening. Highlights for me were the crumbling Edwardian mansion and beachcombing for exciting pebbles along the shore

Monday night was spent at Arduaine, with a jam session up on deck. Bob stole the show with his flute.

Tuesday

That morning the deck became full of excited faces looking out for a glimpse of the infamous whirlpool Corryvreckan. Thanks to Lara's expertise with navigation however, the maelstrom was averted, much to the disappointment of some of the crew!

To satisfy the seadogs' among us thirst for sailing, everyone got involved in unveiling Leader's full arsenal of sail on a morning with no wind! Leader must have looked quite a sight as we motored west. As Lara our skipper said, "If God had wanted fibreglass boats he would have made fibre glass trees".



A shore party



Detail of Gravestone, Oronsay



Gravestone, Oronsay

By the time we'd unfurled all of Leader's sails, we'd arrived at Oronsay's white beaches and it was time to hoist them in again. After a wet ride across to shore on the rib, we strode over to the medieval chapel and admired the intricate stone masronry on display. Around us we could hear an alien sound akin to a finger running along the teeth of a comb. Kenny explained that this was the call of the Corncrake, the reason for the RSPB's presence on the island.

The excursion was completed with a dip in the sea, refreshing to say the least. That night was spent in the warmth of the Colonsay hotel with an ale in hand.

Wednesday

The next morning we sailed for the Garvellachs, home to an early Christian monastic enclave, predating even the arrival of Columba. With the now familiar call of the corncrake in the background, we examined the dry stone beehive structures left behind by the monks who once lived there.

Geologically, the islands are also significant, being home to the UK's best exposure of tillite; the lithified deposits of ancient glaciers. Amazingly, these glaciers were smothering Scotland at a time when she lay at a near equatorial latitude with ice stretching from one pole to another; snowball earth. One can only imagine what Hugh Miller would have thought of such a concept!

Thursday

Thursday was spent on Luing, an Island and community built on the Easdale slate. After a walk around the old slate workings, and a lesson on structural geology courtesy of Simon, we enjoyed lunch at the new Atlantic centre. The centre hosts a café, museum and performing space and looks set to be a valuable space for Luing for years to come.

After a hop back to Leader for tea, we returned to the Atlantic centre for a ceilidh to celebrate the opening of the centre. The evening was a chance to witness the talents of those of the crew aswell as the inhabitants of the Island. My personal highlights were Norrie's poetry, Bob's turn with his Neolithic instruments and the beautiful Gaelic singing of Kate. The night was finished with a rousing group rendition of "Green grow the Rushes".

Friday

Sailing back into Oban, we emerged from the mist we had entered 6 days ago with more than a tinge of regret. After one last delicious meal in the saloon, it was time for goodbyes as we all reflected on the impending return to normality and what had been a fantastic week spent in great surroundings with great company.

I would like to thank Joyce Gilbert for organising the trip and for so kindly surrendering her place on the boat along with Sarah, all of the Trinity crew for making our trip such an enjoyable and comfortable experience, as well as the rest of the crew for being so warm and interesting!

Diolch yn Fawr!

Top: Black water Upper middle: Sunset on deck Lower middle: Dyfan Roberts inspects fossils Bottom: Jack Gillespie











TESTIMONY OF THE ROCKS VOYAGE FEEDBACK

By Jack Gillespie

What were your hopes, fears and expectations from the week? 1.

On the trip I hoped to meet new people from all over the country, each with a passion that had lead them to the Testimony of the Rocks. I hoped to learn, share, and take part in a hands-on way, in a unique environment. I was also excited to be on such a unique vehicle, and to learn how to sail.

2. How important was it to be part of a group of mixed ages and mixed disciplines?

I was incredibly excited to be part of a team with a mix of ages, backgrounds and skills. I have always found that someone else will look, and see something completely different to yourself. This is an incredibly important thing to be reminded of, to take note of, and embrace. I think it was especially important to have a mix of science and arts on the boat; as when these two disciplines are wed, we find our most effective communicators of landscape, ecology and nature. It made the trip into something profound, beautiful, and rare in the world of academia.

3. How important was it to be journeying on an old sailing boat?

Very! It was one of the reasons that I was attracted to the project initially.I am fascinated by the sea's constantly changing personalities, colours, moods and expressions. It was fantastic to experience the feeling of stillness that sailing provides - the quite murmuration of water against the hull and the heave of the sails the few clues to movement. I loved it.

4. Is travelling for a week relevant or could something similar be achieved in a shorter time?

I think the almost-week that we spent together was vital to the trip; as each day we found new aspects of each other, new bonds, and by the end of the trip the ship worked as a team, in all aspects. It was a pleasure to be a part of, and I would have then liked to have sailed for another week afterwards!

Geology and in particular Hugh Miller, were important parts of the project concept. How did this influ-5. ence your perceptions of the landscape?

Sailing has played such a pivotal role in the history of the British islands, in our identity, and in the creation of geographical knowledge. Voyages such as those taken by Hugh Miller and James Hutton by boat along the shores of Scotland have led to huge shifts in the understanding in how our planet works, through keen observation, notes, and an inspired mind. Travelling by sea offers a unique perspective of the land - one of exposures and rock, and demonstrates the passage of time and geological processes. Faults, caves and beaches each remind us that we live in a world in flux, and one that has been since the dawn of time. The relationship between land and sea is presented as a series of raised beaches, cliffs and caves; exposed as much more transient that one might think at first glance.

As we travelled though the waters of Scotland, I was deeply moved by the connection to those that had made journeys like this before, and came to see the world around me though new eyes, to look at new detail, and see different things.

6. Did the week influence you professionally and personally, and if so how?

I think the voyage reminded me of how pace has changed, how important the act of slowing down, looking - really looking is. I was inspired by the deep pools of knowledges that others on the ship could dive into, and found myself newly determined to strive towards developing such an accessible knowledge of my own.

Most memorable moment? 7.

Sailing through the whirlpools of the south of Luing! And the sunset and still waters of Kilchoan Bay.

Something that surprised you? 8.

The welcome and reception that we received from the islanders on Luing. I have never visited the islands before, save for Skye, and now I want to do nothing else.

9. Something that could be improved?

Well, you can't help the weather - but would have loved to do some more sailing without the motor!

Any other comments? 10.

I feel that I have made lasting friends on the trip, and would love to come back and contribute again!

REVEALING THE DALRADIAN BEDROCK'S STORY

by Dr Simon Cuthbert, geologist on board

The Testimony of the Rocks voyage was a rather serendipitous journey, dictated by wind, tide and the geographical complexities of an archipelago on the Atlantic margin – a complexity dictated, ultimately, by its geology. We wove a route through the warp of geological time, threading between the Atlantic Islands and peninsulas of Argyll. These great fingers of land, flung out towards the coast of Northern Ireland, are separated by deep, sea-flooded indentations, a seascape – the negative image of the land-scape – that has been shaped by the structure and fabric of the rocks and the way they influence the forces of erosion that have sculpted them out. The sounds and sea-lochs - fjords - have funnelled and focused migration and trade from Ireland and the Atlantic for thousands of years, creating a cultural landscape that was, for many centuries, outward-facing, but with the development of modern communications, Argyll has turned to face inland and become, in many peoples' minds, a remote and wild landscape.

The bedrock foundation of Argyll and the Atlantic Islands is an assemblage of rocks known as the "Dalradian", a corruption of "Dàl Riata", the ancient Gaelic kingdom that encompassed Argyll, Lochaber and part of Antrim. This name not only reflects the early medieval cultural connections across the North Channel, but also the geological ones, as the Dalradian rocks underlie not only most of the Grampian Highlands of Scotland, but also large areas of Northern Ireland and northern Eire. We see them as an intensely folded assemblage of metamorphic slate, schist, quartzite, marble, gneiss and amphibolite, but they were originally a pile of sedimentary and volcanic rocks intruded by granite and dolerite that accumulated on the continental margin of what is now North America and Greenland ("Laurentia") between about 800-540 million years ago.

A world map would have been quite different then, with the modern Atlantic coast of North America facing the west coast of South America across a gradually widening ocean that we have given the name "lapetus". By 470 million years ago the ocean was closing again and Laurentia was colliding with a chain of volcanoes – an island arc – in much the same way as modern Australia is colliding with Papua New Guinea and Timor, or China pressing against the west Pacific volcanic island chains at Taiwan. The Dalradian strata were buckled into an enormous fountain of folds and transformed into metamorphic rocks. A great mountain range grew and decayed. Iapetus renewed its closure, and throughout the Ordovician and Silurian times its crust plunged slowly underneath the crumpled margin of Laurentia,

triggering the generation of magma that swelled into batholiths and erupted as volcanoes and lava plains. The iconic landscapes in Argyll's hinterland at Glencoe, Ben Nevis and the Moor of Rannoch are founded on their granites, andesites and rhyolites.

By early Devonian times Laurentia struck the seaboard of Scandinavia broadside to the north and north-east of Scotland, creating a mountain range on the scale of the modern Himalaya. A smaller continental fragment, Avalon, slid more gently into place alongside southern Scotland, bringing England and Scotland together for the first time. The rising mountains shed a blanket of sand and gravel across Scotland, creating a desert landscape that we might now recognise more easily on Mars than Earth, eventually consolidating to become the Old Red Sandstone so familiar on Kerrera and around Oban. From this time on much of Argyll remained a plateau, largely unmolested by the ocean except in the north at Morvern and in the south of Kintyre next to the Midland Valley, where the ground subsided enough to be inundated by the Carboniferous river deltas and



Dr Simon Cuthbert

coal swamps. The succeeding red Permian and Triassic desert sediments of Morvern, Mull and Ardnamurchan testify to the isolation of Scotland from the ocean in the arid heart of a single giant supercontinent – Pangaea. During Jurassic and Cretaceous times the ocean's influence returned as Pangaea adjusted to the tensional forces that would eventually rend it through when the Atlantic ocean opened. Jurassic and Cretaceous sediments, well known from Skye and popularised by Hugh Miller on Eigg, also lap around Argyll and Lochaber in eastern Mull, Morvern, Lochaline and Ardnamurchan.

The birth of the Atlantic ocean was heralded by a monstrous upwelling of magma that spilled out of thousands of deep ruptures in the crust 70 million years ago. It overwhelmed the subdued landscape with sheet after sheet of liquid basalt lava, punctuated by a row of shield volcanoes whose deep plumbing, long congealed to gabbro and granite, is now exposed at Arran, Mull, Ardnamurchan, Rum and Skye. The same suite of igneous rocks is also found along the eastern seaboard of Greenland, but it has



Dunollie Castle by Oban - Devonian conglomerate



The Paps of Jura (Jura Quartzite) from Oronsay with Leader at anchor.



Northern Jura from the Gulf of Corryvreckan – bedding in the Jura Quartzite clearly dips east (left) so the rocks get older to the right (west).

been carried away from its Hebridean counterpart as the Atlantic Ocean widened. Between them, in Iceland, the basalt still wells up where Scotland and Greenland were once joined, still builds its great volcanoes, and occasionally disrupts peoples' transatlantic travel plans.

The Dalradian foundation of Argyll also has a more intimate story to tell among its twisted strata – tales of the Neoproterozoic world where animals were no more sophisticated than jellyfish, plants were simple seaweeds, life on land was merely a thin coating of microbes and lichens and the climate swung wildly from hot-house to icehouse. The story is dimly discerned because of the erasing effects of metamorphism, but occasionally becomes startlingly clear because of some remarkable survivals. Leader's journey picked its way through parts of this story, which was written in the changing forms of the landscape we sailed through, where each ridge and island, each crag and gully, is the distant inheritance of events over half a billion years ago, and sometimes well over a billion.

You can easily explore the geology along our route online using the British Geological Survey Geology of Britain at http://mapapps.bgs.ac.uk/geologyofbritain/home.html . The Dalradian strata explored in our voyage have a complicated structure in detail, but in general show a fairly regular dip to the southeast, so that the rocks become younger southeastwards from Colonsay towards the Argyll coast southeast of Jura.

Oban, where we began, is founded upon the Easdale slate of the middle Dalradian (Argyll Group) that outcrops in a broad belt southwards through Seal Island, Easedale and Luing, where it is has been prized for its roofing slate. At Oban and on the island of Kerrera opposite, the slate is covered unconformably by tough Old Red Sandstone conglomerate and andesite lava that form the higher ground behind the town. Hugh Miller, in a brief trip ashore while waiting for his steamer to sail for Tobermory, examined the unconformity and saw how the Devonian conglomerate lay on an ancient erosion surface that cut across the upturned ends of the slate strata and, like Hutton before



Degnish Limestone (marble) at Shuna House, Shuna.



Craignish Phyllite, Shuna.



Port Askaig Boulder Bed, Eileachan Naoimh, Garvellachs.

him, marvelled at the spans of time required to explain the features he examined.

Our destination on the first day was Loch Spelve at the eastern end of Mull. This was, appropriately, the final mooring on the previous year's voyage "Following the Cruise of the Betsey". The loch follows the line of the Great Glen Fault and delves into the heart of one of the great Palaeogene Hebridean central igneous complexes, an exquisitely complicated array of concentric igneous intrusions that formed the magmatic roots of a large volcano. The bulbous eastern coast of Mull follows the form of the volcano. Along the shore of Loch Spelve are remnants of the red Triassic conglomerates, the products of desert flash floods that roared off a scarp made by movement along the fault.

The Isle of Jura, our next calling point, is a long, mountainous ridge of very tough quartzite that stands up above the softer slates and phyllites outcropping on either side. The Jura Quartzite is slightly older than the Easdale Slate and lies in the lower part of the Argyll Group. It represents a thick pile of sands deposited in a shallow tidal shelf where tides and currents winnowed out the mud and silt, leaving very pure quartz sand. Passing eastwards and upwards from the Jura Quartzite into the Easdale Slate the rocks record a deepening of the Laurentian ocean margin, with the tidal sands being replaced by fine mud settling in the deeper, quieter waters around 700 million years ago. Our mooring on northern Jura at the Aird of Kinuachdracht is at the top of the quartzites where the water began to deepen. The Scarba Conglomerate here is well known for its evidence of muddy debris slides where the sea floor steepened.

Sailing eastwards across the Sound of Jura that evening we passed up the succession over the Easdale Slate and into Loch Craignish. The loch is embraced to the west by the Craignish peninsular and underpinned by phyllite – a paler and satin-sheened variant of slate. From here eastwards into mainland Argyll the phyllites are densely interleaved with dark green, durable sheets of greenstone (the geological map looks like a calligrapher has gone mad with a green paintbrush). These were originally dolerite sills and dykes that were probably magma-feeders for the Tayvallich Lavas to the east, from another episode of continental rupture that prefigured the Palaeogenevolcanic events in the Hebrides by 600 million years. The greenstones stand up as distinctive ridges and islands, like Eilean MhicChrion in Loch Craignish that sheltered our mooring at Ardfearn. Our landing point the next morning on the island of Shunalay at the transition between the Easdale Slate and the Craignish Phyllite, marked here by a strip of marble, the Degnish "limestone", which has been used to feed a lime kiln. The marble speaks of a return to shallow, warm, tidal

ocean water, the curious corduroy weathering pattern of the marble picking out the tectonic cleavage imposed during the Ordovician arc collision.



Cullipol, Luing - a man-made landscape in the Slate islands.

Our journey through the Gulf of Corryvreckan and across the outer Firth of Lorne to Oronsay and Colonsay carried us back in time to the enigmatic origins of the Dalradian sedimentary basin and its old mid-Proterozoic basement. The blocky grey sandstone and slabby slate of the Colonsay Group, perhaps 800 million years old, probably takes the place of the more widely exposed Grampian Group of the Central Highlands. The curious stonework of the Priory at Oronsay, with large angular sandstone blocks in a matrix of small slatey flagstones, is influenced by the graded bedding of these deep-ocean deposits – turbidites - that were, themselves, the result of giant submarine avalanches. In the far north of the neighbouring island, Colonsay, is a small patch of gneiss – the Rhinns Complex, that may have formed the floor to the Colonsay Group and the Dalradian basin as a whole. The gneisses are about 1800 million years old, a tiny remnant of a broad belt of crust that once stretched continuously from eastern Canada through southern Greenland to Finland.

Sailing back northwestwards across the Firth of Lorne we slid over the entire Appin Group to the base of the Argyll Group at the Garvellach islands, where the Port Askaig Boulder Beds stands up as a ridge emerging from the Firth. This striking rock, made up of round cobbles in a tough grey matrix, is a "tillite" or "diamictite", deposited from glacial ice just offshore from the seaward termination of a great Neoproterozoic ice sheet. These islands have world-class scientific status due to the remarkable survival of the fine detail in the tillites in spite of the intense metamorphic overprint seen nearby, which reveals the story of the Earth entirely frozen over by an intense ice-age – "Snowball Earth" - 750 million years ago, and an even more surprisingly sudden change to a warm "Greenhouse world" recorded in the Bonahaven Dolomite above the Boulder Beds (as seen to the southwest on Islay). Subtle changes in the resistance to erosion among the Garvellach rocks, along with their limey character, have created an intimate micro-landscape with fertile, sheltered spaces that made life in this apparently inhospitable place tolerable for Brendan's Gaelic brethren in their beehive monastic cells. The erosion that has shaped them was, of course, glacial. We see this in the landscape as the peaks and troughs of the western Highlands and the raised beaches cut into the Argyll coast. These are the mark of the great Quaternary Ice Age that we live in the middle of now, another of the Earth's occasional plunges into frigidity when Nature turns down the greenhouse effect.

Leader's arrival at Luing – one of the "Slate Islands" - marked our return to the Easdale Slate. Here, and all along its outcrop, is a landscape made by Man, carving away the roofing slate around the coast where the ships could take it to roof the Empire. Rainy Argyll and the Atlantic Islands, colonized from the sea and trading across the sea for untold generations, achieved global fame by sending its rock abroad to keep folks' houses dry. Now, the quarries are being gradually reclaimed by Nature or adapted for gentler pursuits.

We include on the final three pages a sea shanty composed aboard by Jack Gillespie; a song composed by Kate Langhorne; and three poems by Norrie Bissell - all of whom were active participants in the Leader event from June 20-26th.

Na H'In Ban

Long hours he would sit in his cell with the wind howling around him enclosed by the walls he had built tapering into the centre the only light from two slatted holes beamed into his blank space his calloused hands told him how thick those walls were but he preferred it here to the company of the other monks.

He had left the old land and the fishing to get away from the distractions of others and here on this rocky outpost of the white martyrdom he would not be changing his ways now he still fished and farmed in order to live and he would pray and sing with the rest of them but most of the time was spent here in solitude contemplating life and death or up there on the ridge with the gulls wheeling and crying above him peering over that sheer drop at the big surf that came crashing in from the west.

This is what he had come for just to be here alone on a rugged isle to live under that wide open sky to watch the stars at night and wonder at their wanderings to be with all of this and of all of this is what he had come for to this spare isle of the sea. Song of the Leader

Chorus

Had I met a likely crew On my travels that are many Would I have laughed, mused and dined As I did aboard the Leader O? Had I met a likely crew On my travels, always merry Would I have swung so readily 'gainst The seas that bore the Leader O?

Is it by this self-same wind That blaws the cloods cherished and dreaded? Stand apart, my feet apart, Saw deeper colours come tae me. Two and six, we'll lift the sail, We'll strut wur stuff through Corryvreckan! All for show, the lads a-glow; Dressed up to make Oronsay blush!

Cross the boom, pass up rope! Lizards slide through heaving fingers. Shrewd the gaze locked in the waves Each one a ragged soul outside. Spread out maps on Shuna's shore: Turn upside a land discovered! Use your minds and hearts entwined Or fly the rocks, your feet in tow!

A man will trade his eyes wi' you Close is a comrade that has shared wi' you. Peelin' off the mists of Mull Wi' a grin towards the sun on high. Jura machair, an Dorus Mòr Oronsay is pearly, sleepy When we've pulled her roun' again It's tae the garbhlaich 2 and 6!

Beehive cells, an egg, a fern Daft the lads that skim the harbour Wi' your boots and lens intact It's aff tae Luing tae tak' wur rest. Full o' drams and raucous cards. Who's the shit-head, who's the winner? Loyalty and wit and sport All learnt aboard this good old ship!

Take the leap when gi'ed the chance Somewhere in time you know you're made for this! We shall dock and soon take stock O' a voyage joyous, rosy, raw. Back in Glasgow, there's more swell Than we have had the week-long sailing! My own shadows striding bold With confidence and peace at heart.

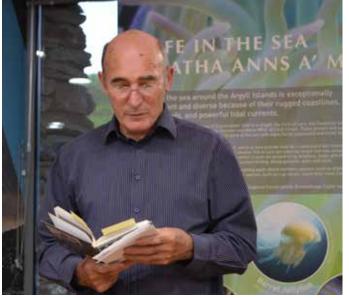
Norman Bissell

Written by Kate Langhorne

These Sea-Worn Rocks

These sea-worn rocks will be here long after me and you will see them with my eyes these black wet rocks will remain when we are long gone we see them with the eyes of those who beached their curraghs on this bay and sheltered under these cliffs and those who unlocked slate to make roofs and walls tonight we gaze in wonder at the ceaseless rush of sea on shore and you will think of us this night.

Norman Bissell



Norrie Bissell

Hoist and Grind - Leader shanty by Jack Gillespie

Two six heave and off we'll set Two six heave we're not done yet Two six heave in Miller's steps Upon the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader

In geology's path we find A link to art and all mankind Through deep time from mud to mine Upon the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader

Two six heave, we'll raise the fore Two six heave we'll raise one more Drive the ship forever for' Upon the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader On Oronsay some priories found Among white beaches and corncrakes loud Paps of Jura across the sound Upon the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader

On to Luing the ship does fly Though time to climb Garvaellachs high Below us gulls and gannets dive Upon the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader

Dreich rain and mist away we bear 'pon Sound of Kerrera too soon we fare Oban's Pier, All in good cheer Farewell the good ship Leader

We'll hoist the mizzen, we'll hoist the main We'll pull them down, then up again We'll sweat and tail, hoist and grind Upon the good ship Leader

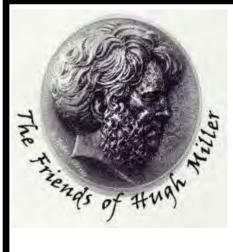
Slate by Norman Bissell

In this light slate appears dull even ugly from a distance when passing a quarry raw rock gouged out cliff face stretch marks on closer inspection gnarls and whorls exposed in all their beauty by clumsy scratchings glowing and blazing are softened by sea spurge thrift and marram grass.

After rain great flagstones of slate carved and coaxed into gardens gleam and shine grey diamonds waiting for this moment to explode into sparkling brilliance black silver polished by relentless tides from darkest fathoms.

In full sun slate seems flat sameness on a shore unless fool's gold winks a pyrites eye from smooth slab and a myriad of textures colours and forms fashioned by wind and wave are revealed to those who open themselves to all its slateness.





MEMBERSHIP FORM

I WISH to become a member of the charity, The Friends of Hugh Miller (SC 037351), in order to support its work in making Miller's life and work better known, and in particular to assist in the development of the Hugh Miller Museum and Birthplace Cottage in Church Street, Cromarty.

Name	
Address	
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Email address	

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