

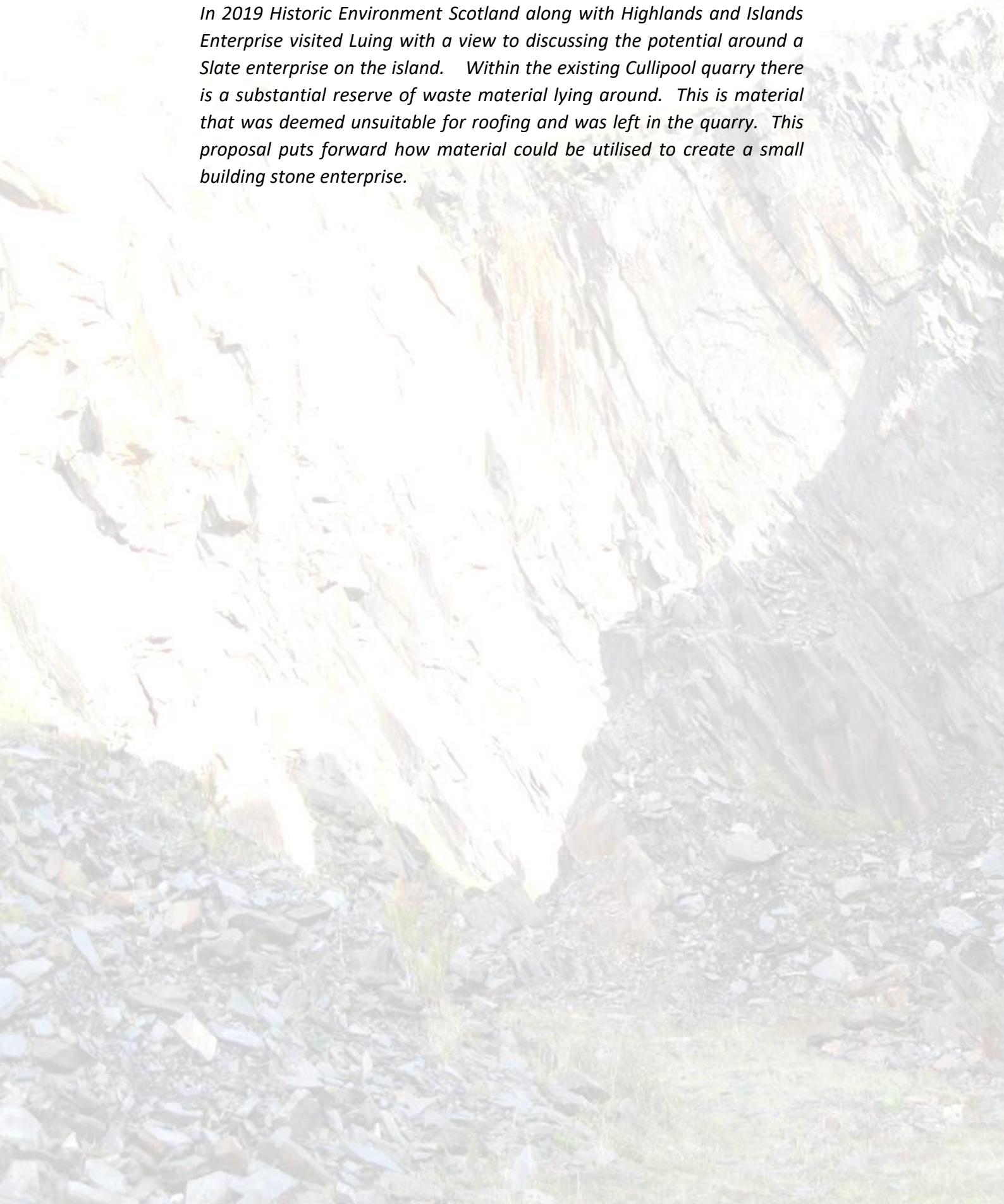


Luing Slate

Circular Economy Project

Abstract

In 2019 Historic Environment Scotland along with Highlands and Islands Enterprise visited Luing with a view to discussing the potential around a Slate enterprise on the island. Within the existing Cullipool quarry there is a substantial reserve of waste material lying around. This is material that was deemed unsuitable for roofing and was left in the quarry. This proposal puts forward how material could be utilised to create a small building stone enterprise.



HES Strategic Aims

“The most critical area in the supply of traditional materials is Scottish slate. No new Scottish slate has been quarried for 60 years. The lack of a supply of new Scottish slate, and a serious shortage of second-hand Scottish slate, have brought about a crisis. The use of foreign slate is becoming increasingly common and a new supply of Scottish slate is an immediate priority. ”

Scotland’s historic environment is a significant cultural, environmental and sustainable economic asset. Traditional materials have shaped our historic environment over centuries and created the distinctive regional variations that are so characteristic of Scotland. These same materials are an essential resource for repairing and maintaining Scotland’s historic environment, and for retaining the special character of the environment around us which is so intrinsically linked to these materials.

Beyond the benefits to building fabric, the supply and use of traditional materials provides broader opportunities and benefits such as supporting economic development and enterprise, employment, skills training and apprenticeships, innovation and community engagement. We believe that the building traditions and materials available historically and currently, can teach us much and make a positive contribution to our cultural identity and a low carbon economy today.

As the lead public body set up to investigate, care for and promote Scotland’s historic environment, traditional materials are at the heart of our work. Stewardship of the traditionally built environment requires the appropriate knowledge, skills and materials to be available.

National Islands Plan

'The consultation process indicated that sustainable economic development is a common goal across all Scottish islands. We saw many great examples of initiatives, businesses and jobs, but it is clear that all islands could benefit from more opportunities for the people who live there. Sometimes, a small increase in jobs or income generating opportunities can have a huge impact on an island community.'

1. Promoting the voice of island communities;
2. Harnessing island resources; and
3. Enhancing the wellbeing of island communities.

****Extracted from the 2018 National Island Plan***

Luing Consultation

On the 11th of July 2019 a National Island Plan consultation event took place on Luing, which was attended by 28 people. The goal was to capture both what works well on the island and the challenges faced by the community on Luing. The consultation looked at the current challenges and concerns of the island community and are documented below.

Depopulation
Economic Development
Transport

Increased Population

Revision of local service funding to develop facilities that encourage the retention and integration of young families into the community.

Revisal of current housing policy taking into account the specific needs of the island community.

Explore ways to incentive second homeowners to integrate their homes into the local market when they are not in use.

****Extracted from the Luing Community Consultation report***

Economic Development

Recognise that boosting economic development on an island requires joint thinking with other policies and opportunities beyond those directly focusing on the island.

Provide support for island communities to explore economic opportunities both within their islands.

Explore the possibility of funding schemes to encourage the development of small, local businesses on the island.

****Extracted from the Luing Community Consultation report***

Where we are just now

In 2019 HES and HIE visited the community group on the Isle of Luing and we held a discussion around utilising the resource. Of the back of the meeting HES commissioned BGS to assess the existing slate quarries on Luing (as part of a wider slate report encompassing Ballachulish geology). The report was extremely positive about the opportunity in both areas. The focus now is on the Island of Luing and developing a community owned slate enterprise.

The Community owned enterprise would encapsulate many of the aims and objectives outlined in the National Island Plan 2018 and Historic Environment Scotland strategic objectives around the supply of indigenous material. A community owned slate enterprise on the Island of Luing has the potential to deliver create sustainable employment and encourage young people to go and live on the island with a career that would support the Scotland's built heritage.

Maximising Sustainable Development

- Local, low carbon sustainable materials?
- Produced to the highest ecological and ethical standards?
- Extracted, processed and built by local highly skilled and valued tradespeople?
- Buildings maintained properly to be warm, dry and safe?
- Infrastructure maintained properly to ensure economic growth?
- Investment that stays within the local area?

Circular Economy Project Luing Slate

Historically slate manufacturing was extremely wasteful, and, in the quarries on Luing, there remains a considerable amount of material that was not suitable for roofing slates. This material however would be suitable for building stone, landscaping aggregates and other purposes.

Craft Fellow Model.

In order to get the proposal moving it is proposed that a post is subsidised for 12 months (through the HES craft fellow scheme). HES would develop a bespoke training package that would see the individual(s) seconded to an external stone processor for training. The fellow would be incorporated into the organisation (while remaining employed by HES). They would spend an initial period working with a stone processor learning how to guillotine and bag stone. HES would also put the individual through various CSCS cards in relation to Health and Safety and operating plant required (i.e. Tractor/Digger etc).

The Craft fellow would then return to Luing and spend the rest of their time sorting the waste material in the quarry. Once their time with HES runs out the individual would then be employed by the Community Trust.



Image: Spoil left in the quarry



Image: Spoil left in the quarry



Image: Sifting through Waste material



Image: Bagged stone

Potential uses.



Image: Iona Nunnery Granite with slate pinnings



Image: Iona Village hall sample panel with Luing Slate and Tormore Granite.



Image: Garden walling stone



Image: Stone Cladding for construction



Image: Garden Centre opportunity



Image: Garden Centre opportunity



Image: Bulk bag of decorative aggregate retailing at £101.95.

<https://www.strawberrycorner.co.uk/building-materials/gravel-products/decorative-gravel.html>



Image: Welsh Rustic Slate Walling retailing at £102.00 per m2

<https://www.slate.uk.com/product/welsh-rustic-slate-walling/>



Image: Stone getting Guillotined



Image: Stone getting Guillotined



Image: Bagged stone ready for distribution



Image: Stone getting Guillotined



Image: Small truck to collect stone 2-3 times a week (based on 1 person processing material). Possibly with a hiab to lift the bagged stone onto the truck.



Image: Trailer to collect waste stone in the quarry and move to processing area.

Workshop

As part of the training a small temporary workspace would be built within the quarry utilising waste material. This would be delivered to create a workspace for the individual to guillotine and bag the stone as well as showcase and demonstrate the material. The building of the structure would be double garage sized single pitched structure and would serve as a working space.

The structure would have no services so temporary so facilities would need to be brought in. The workshop would be mass masonry construction made from waste material left in the quarry and the only material brought to the island would be Timber and Mortar.



Image: Ruins of slate workshop on Easdale



Image: Slate mass masonry construction



Image: Ruins of slate workshop on Easdale



Image: Potential slate workshop within the quarry on Luig.

Outreach and education

'If any regard is to be had to the general beauty of the landscape, the natural material of the special countryside should be used instead of imported material.'

(William Morris, On the external covering of roofs, 1890)

Having a small workspace would create a demonstration area would create a slate making and roofing outreach area within the quarry. For example, 6 days across the year schools across Argyll could spend a day on Luing learning about their slate heritage and make slates and put it on a roofing rig (Part funded by CAR Scheme through the school pilots). In the morning they get a talk about the history of slate making in the area etc and then they get the opportunity to make slates and put them on a rig. Much of this could be delivered at the Atlantic Island Centre and at a safe space in the quarry.

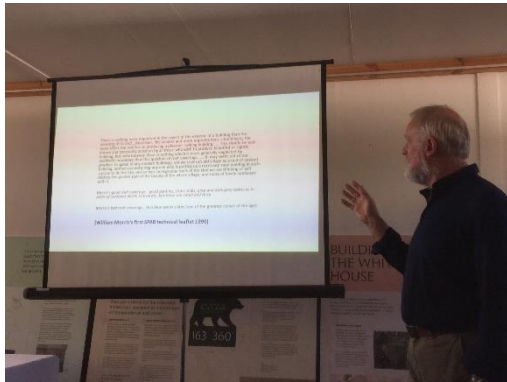


Image: (from Rockfield Event) Slate focused education and outreach potentially delivered at the Atlantic Centre.



Image: (From Scottish Lime Centre) Roofing rig for demonstration training etc.



Image: (From Scottish Lime Centre) Roofing rig for demonstration training etc.



Image: (From Bute roofing event) Argyll College students try their hand at slate making



Image: (From Bute roofing event) Interested adults try their hand at slate making



Image: (From Bute roofing event) Argyll College students try their hand at slate making



Image: Hand made slates from Bute



Image: Hand made slates from Bute



Image: Proud individual displaying their hand made slate



Image: Mini Rig set up for kids

Slate Arts and Craft Products

One issue highlighted in the NIP Consultation was the need for a set of creative industry studios for local artists and makers. There are a wide range of slate focused arts and crafts some of the opportunities for higher value items made on the island and potentially sold nationally. HES already support a range of local craft businesses in Scotland. The Luing Slate brand could potentially be supported through HES outlets also.



Image: Slate crafts opportunity

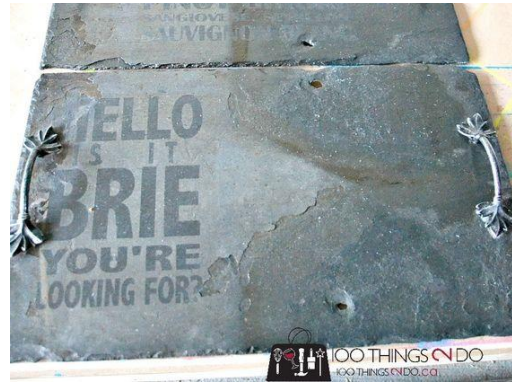


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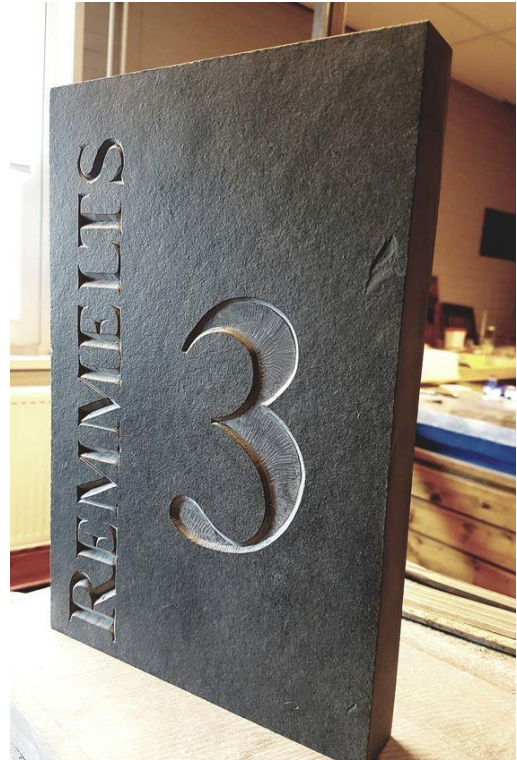


Image: Slate crafts opportunity



Image: Slate crafts opportunity(Dugald Macinnes).



Image: Slate crafts opportunity

Longer Term Aims

Slate extraction and processing for roofing slate.

The long-term aim would be for the Island to start extracting and processing roofing slate on a small cottage craft scale. This would see material extracted and split for higher value roofing material and the waste then used as building stone and aggregate (or for slate art and craft).



Image: Slate material to be processed (Image Supplied by Richard Jordan).



Image: Process slate from material on the left (Image Supplied by Richard Jordan).

Geo-tourism Offer (To be developed)

The rural economy historically played a pivotal role in producing material for the built environment. Part of the story that needs to be better understood is how busy these island communities were, and how the material they produced influenced and shaped the towns and cities. There is an opportunity for the Island to develop a unique Geo-tourism offer to show case slate making on Luing. There is growing interest in seeing how traditional materials are extracted and worked. To visit an actual working slate quarry and see how slate is won, while also having a go at making your own slate would be a unique visitor offer to Scotland.

The island is very easily accessed from Oban (A tourist hotspot). Slate making and history demonstrations could be run once a week across the summer months (linked to Slate Islands Heritage Trust). Developing this aspect is out with the scope of this project and further consideration would be needed to ascertain how this would work and to ascertain if the population on the island are keen to explore the opportunity broadly outlined above.

Housing (to be developed)

The ongoing issue around the shortage of the need for suitable slate worker's accommodation will need to be addressed. Further discussion with HIE and the Rural Housing fund would need to identify how best to take this aspect forward (Ideally a community owned model similar the housing at Ulva Ferry).

From a materials perspective, it would be desirable to utilise material from the island to produce any new build housing and show case it. This could be an exemplar project utilising waste material from within the quarry and would create a great training opportunity.



Image: Island Housing (WT Architecture)

Coastal Erosion Project (to be developed)



Image: Island Housing (WT Architecture)

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(William Morris, On the external covering of roofs, 1890)

