Case Study produced by the A+DS Sust. Programme.

Architecture+DesignScotland Ailtearachd is Dealbhadh na h-Alba



∧ Location: Isle of Raasay

A multi-purpose community building for an island of less than 200 people, who raised over $\pounds 1m$ to create it.

BACKGROUND

Raasay is a small community on a 13 mile long island reached by ferry from Skye. In 2002 the Raasay Community Association (a registered charity and a company limited by guarantee) began a new attempt to build a village hall; its predecessor organisation the Raasay Village Hall Association had raised £40,000 over many years to commission a design for a new hall and make a bid for a Millennium Halls grant, but the bid was unsuccessful. This disappointing experience, and the resulting waste of funds, led to the resignation of the Village Hall Association committee. But in 2002 the population of the island was on the increase (it stood then at 200), incomers brought new skills to the new committee, and there was a new determination to create a facility that would stimulate and support the growing community.

At that time the only space on the island that could be used for community events was the old billiard room on the first floor of the west wing of Raasay House. Built in the 18th century by the Clan MacLeod, the former owners of the island, the house had operated as an outdoor activity centre since 1984; the room was difficult to access, cold, leaky and draughty, and completely unusable in winter months. A site for a new hall had been earmarked nearer the main settlement at Inverarish by Highlands and Islands Enterprise, who bought certain key properties on the island in 1979.

The majority of the island now belongs to the Scottish Government Environment & Rural Affairs Department.

The community had looked at other new village halls in the Highlands; they knew they wanted a hall that could accommodate ceilidhs, meetings and clubs and both arts events and sports uses, with a full-size badminton court being a key early aspiration. At the time the children from Raasay Primary School had to make a long ferry and bus journey to Portree for PE classes and it was envisaged that these could be held in a properly equipped new hall. At one stage discussions were held with the NHS about locating the Raasay medical centre in the new hall.

APPROACH

In the summer of 2003 the Community Association, working through a tightly focused committee of 5, approached 9 firms of architects to gauge their interest in designing a hall to be built on the sloping site at Inverarish. The Association wanted a modern, sustainable building with low running costs and with advice from The Highland Council and the Big Lottery Fund they set an outline budget of £500,000. In the spring of 2003 three firms of architects submitted proposals: two proposals were in the form of drawings, but one firm submitted drawings and a model. At the open event held for the community to look at the proposals, most people

gathered around the model and it was this proposal, from the Skye-based firm of Dualchas, which continued to attract the most positive comments, and emerged as the proposal that pleased both the committee and the majority of the community.

From their visits to other halls, the committee knew about the importance of providing a village hall with enough storage facilities for equipment required by all the different users. They also identified the advantages of having under-floor heating, to avoid having the inconvenience of radiators in a hall that was used for games. For Dualchas this was their first building of such a nature, but they were aware of the principal challenge of such buildings - finding a way to create a building that satisfactorily met the needs of both 'hard' sports uses and 'softer' recreational uses such as arts or music events. Dualchas were keen to fully explore the potential of renewable energy and to find a method of keeping heating costs as low as possible for the Community Association. With a £5000 grant from Community Energy Scotland they were able to visit other halls, look at the operation of other comparable buildings and commission some analysis from a mechanical engineer. This procedure also led the client to flesh out and improve their brief to the architect, particularly in the form of drawing up a daily timetable of how they envisaged the building being used.

Dualchas's basic concept of the building – tucked into the sloping site, providing access on two levels to remove the need for an expensive lift, and exploiting the magnificent views out to the Sound of Raasay and the mountains of Skye beyond – were the core of their very first proposal. Despite the building changing in size and scope during the design process, these remained key aspects of the building as finally created.

PROCESS

In May 2005 the Community Association received their first big contribution to the hall - a grant of £201,000 from the Big Lottery Fund. By November other successful applications increased their total fund to £500,000. When Dualchas had their first designs costed, the figure came to £620,000, but as the design developed and was re-costed, estimates of final costs continued to rise – at this time building costs generally were rising on a continuous basis. As this happened the building was progressively simplified and costs reduced. Dualchas's initial proposal for a timberframed building was dropped in favour of a (less sustainable) steel-frame building. The idea of having two connectable halls was dropped in favour of a single hall, the specification was reduced on the glass windows and doors, and lighting in the hall was simplified. When the scheme had been revised the architects held a further open day in the community to gauge views on the latest plans.

During 2006 the Association were continuing to fund-raise as they went out to tender for the costs of constructing the hall. The lowest tender came from a company who had no experience of managing a project of this scale, although they had worked with Dualchas before. With building



Exterior entrance to first floor.

 \wedge



costs still escalating and major firms busy, this was the only one of the three tenders received that was sufficiently well worked out and at a price that the Association could afford. To reduce the risk of working with an inexperienced contractor the Association gave some of the package of work (including site preparation and erection and cladding of the steel structure) to nominated sub-contractors and in March 2007 signed a contract with K2S (Scotland) – a company of Polish builders based in Fort William – with an expected completion date of December 2007.

The Community Association could not get funding to hire a project manager for the job; the Chair of the Association agreed to devote time to fund-raising and helping to keep the project going in the right direction. Costs of building on islands are always higher and programmes more vulnerable. Quite apart from their frequent need to switch workers to jobs elsewhere K2S, for example, found it difficult to secure accommodation for their workers when they were on Raasay. Work went reasonably well but although the frame of the building was erected and clad by the summer of 2007, poor contract management by K2S led to Dualchas having to provide more supervision to the overall contract than they would have expected for a contract of this type. Progress on the building slowed down, and with the dropping value of the pound reducing the value of the pay to the Polish workers and demand for their skill increasing in Poland, the Association began to sense a struggle to get the building finished. As time limits for its spend were being reached, the funding of some bodies such as the ERDF had to be re-negotiated. In the summer of 2008, with their contract 90% completed K2S announced that they were going back to Poland for the summer and would be back to finish the building in the autumn. But despite a brief appearance they never came back to finish the job and the Community Association terminated their contract in September 2008. The sudden disappearance of the main contractor left the Association with no documentation for much of K2S's work, some of which turned out not to have been done to the right specification, although much of it was excellent.

The Association had to establish how much of the work remained to be completed or had to be re-done to a higher standard, and to re-tender all of this within a budget that was now severely limited. Some further costcutting happened at this stage, such as deciding not to tarmac the access road and car parking areas, and postponing the implementation of the landscaping plan.

Already strained by the extended timetable and the delays in completing the hall, stress on the committee was further increased in early 2009 when the Chair of the Community Association left Raasay to a new job in Edinburgh, although he remained fully involved with the project. The accidental destruction by fire in January 2009 of the other major community project on Raasay, the £3.5m restoration of Raasay House, further lowered community morale.

Temporarily open in the spring of 2009 to accommodate two events originally planned to be held in the now severely damaged Raasay House,

Interior of main hall.



∧ Main entrance to hall and community facilities.

the Hall was functioning fully by autumn 2009. There remained a long snagging list, and with no contact with the main contractor, continuing uncertainty over how to resolve some of the defects. Newer members of the Association committee felt it particularly hard to take ownership of a building which had had such a difficult 'birth', and lacked its usual handover documentation. They were also frustrated by any faults which, however small (for instance doors fitted with inadequate hinges), were difficult to pin down to any particular person's responsibility or, particularly for people unfamiliar with construction projects, to be sure how to resolve.

RESULT

The Hall is set into the slope between the sea shore and the road that runs from the new ferry pier to Inverarish. From the beginning the architects wanted the building to 'use the landscape rather than fight against it.' Approaching from the north, the hall appears as a single storey wooden building, with the only opening in a 34m long timber-clad side a single entrance door. Approaching from the south, and along the short access road that leads to the hall from the main road, the full two-storey, 9m height of the hall is visible, and its tall, long south-west facing timber face. This side of the hall is dominated by the four-bay frame that contains the glass windows and doors giving light to the 9m high hall, and to the kitchen and upper and lower level lobbies/meeting areas that are located on this side of the building. There is another entrance into the building at the ground level on this side.

The building is a steel-frame construction over-clad in foam-insulated corrugated sheets. The walls are clad in a rain-screen of larch strips; as the building was being erected, the architects persuaded the client to clad the roof in the same way. Some of the extra cost was saved by replacing the original specification for the Kingspan roof with one for a more basic steel cladding. By taking the timber cladding over the roof as well as the walls the architects hoped to lessen the degree to which the roof could dominate the building, and to let the building was grown and milled in the Highlands (by John Russell of Fort Augustus). The architects looked at using timber growing on Raasay, but it was not possible to organise the milling and drying of the timber.

At the lower level of the building there is a flat, partly grassed, area, on to which doors from the hall open directly. This area can be used for outdoor events or as an event overspill area for summer events in the hall. There is a drop-off area here for hall users arriving by car or bus, and to give level access into the hall for disabled users, who can also park their vehicles here. Vehicles are then meant to drive around to the top level of the hall to park in the main parking area behind the building at that level.

The entrance at the lower level leads into a small lobby, with the kitchen to one side, and showers, changing room and toilets to the other side. The showers were planned to be used by teams using the nearby playing-field,

but as yet have been rarely used for this purpose. The stairs to the upper level are directly ahead. The entrance to the hall is immediately to the left of the stairs. The hall measures 18m long, 6m wide and a height from 6m to 9m at its apex, with a sprung wooden floor; except where windows or glass doors are located, the walls and ceiling are panelled with sheets of 25mm plywood. The wall at the north-west end is clad in sports quality plasterboard, painted white so that it can serve as a projection screen. At the other (south-east) end of the hall windows look down into the hall from the lobby/meeting area at upper level, enabling this area also to be used as a control or recording area in conjunction with productions taking place in the hall, further extending the functionality of the building. Twelve of the 18 glass windows at ground level can be opened as doors. The 9 windows higher up on this face of the hall can also be opened for ventilation. Blinds on all of the windows in the hall facing south-west (and in the internal windows from the upper level lobby) provide black-out facility and solar shading in the summer. Fluorescent lights positioned behind the panelling at the top of the side walls and sports lighting hanging from the ceiling are the only sources of artificial light in the hall. Two doors in the north-west end of the hall give access to a 43 sg. m. single-height storage area.

A text from Scottish Gaelic poet Sorley MacLean (1911-1996), who was born on Raasay, is inscribed across the full length of the glass doors and windows of the south-west side of the hall.

Entering the building from the upper level, users arrive at the open lobby/ meeting area that looks over the hall in one direction and out over the sea to Skye in the other. Stairs lead from here down to the hall level. The lobby also gives access to the hall office, one meeting room and a disabled toilet. The lobby ceiling and stairs are again clad in the same golden ply. Underfloor heating throughout the whole of the lower level, and in the lobby/meeting room, office and meeting room on the upper level, is fed from a ground source heat pump, chosen partly because of its suitability for providing the constant low grade heat required by underfloor heating (a requirement of the client) but also because of concerns about corrosion from sea-spray on an externally located air source heat pump. The heat pump circulates a water/anti-freeze mixture (brine) through three boreholes drilled 100m into the rock below the upper level car park. On its return from the boreholes the brine is pumped through three NIBE heat-recovery units fitted to the air-extract outlets located in the south end of the building, before heating the underfloor circuits. These air-extract outlets provide the ventilation for the whole building, the intake units being in the northfacing end of the building. The ventilation system was also chosen to be appropriate for the exposed situation of the hall. The underfloor heating is kept on continuously, with different settings for summer and winter. At the upper level of the hall, two spaces at the north-west end of the building are accessed from the outside. One is an additional storage area originally designed for storing outdoor equipment. The second space was designed and first used as a 'messy' arts and crafts room. This room has a window to the north-west.



∧ South elevation

All external windows and doors in the hall are argon-filled double-glazed units. A higher specification was originally drawn up, but subsequently reduced to cut costs.

IN USE

Since opening in 2009 the building has developed a growing body of users; the community are glad to have such a warm and practical facility, and the committee (now newer members who joined after the project was well under way) agree that the building fulfils its intended function. The community seem to be in two camps as to whether the building is attractive to look at or not. Some feel that there is too much timber on the building's exterior, but in other cases the building is still regarded as unfinished because the landscaping around the building has not been completed.

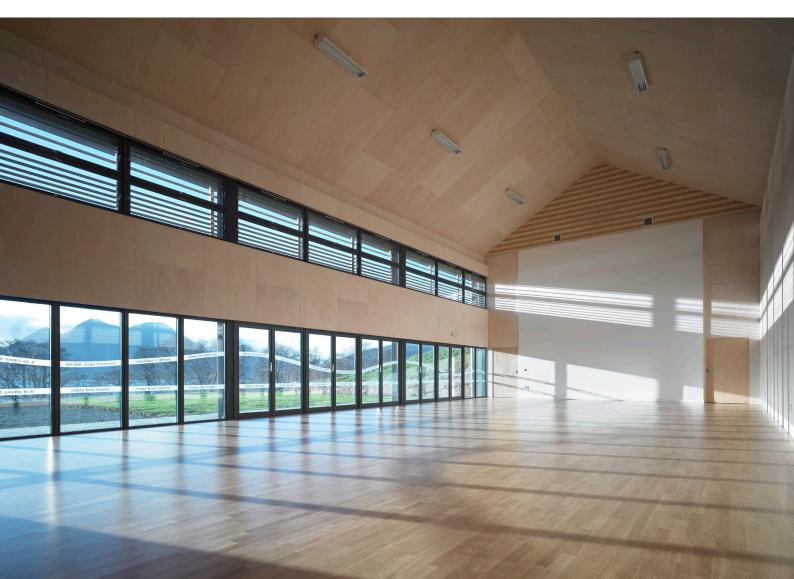
In late 2011 there are twelve groups who use the building on a weekly basis, other regular monthly users, as well as many other occasional users. The uses to which the building is put include bowls, indoor football, Gaelic singing, concerts, ceilidhs, theatre performances, exhibitions, youth club meetings, arts and craft activities, wedding receptions and funeral wakes, clan gatherings, and recording sessions. The primary school use it as their PE hall and following the closure of the day care centre on the island a monthly lunch club is held in the building for over 20 of the islands older residents - for which all the cooking and caring is done by hall volunteers. The original office room is currently being fitted out with a sink and mirror so that a hairdresser from Skye can hold a regular salon in the building whilst the arts and crafts room has been refurbished as the hall's office. With other changes planned to how other rooms are used the committee feels that the building has a good degree of flexibility. The committee has concluded that they need to fit panelling in the hall to improve the acoustics of this space - this was cut out at one point to save costs. Total income from rental is currently covering running costs, but only by a small margin.

For the first two years of its use, all of the management and maintenance and cleaning of the hall (Including the staffing of events and providing transport) has been done by volunteers. The committee is just about to advertise for a part-time cleaner and groundsman. They hope that a development worker about to be appointed by with funding from LEADER and Highlands and Islands Enterprise may use the hall as a base, and that this will help to integrate the hall even further into the community through expanding its use, something the committee are aware needs doing. In retrospect the committee wishes that it would have been possible to arrange independent access to the toilets and showers in the building so that they could be used by passing walkers and back-packers. But they also acknowledge that this type of access could be possible if they achieved their aim of having the hall staffed during the day, rather than just being open for particular users or events.



 $\wedge\,$ View of building at night

 \vee Interior of main hall



Feedback from users welcomes the all year round warmth of the building and the amount of natural light. The only problem with the heating being that the main hall gets too warm for sports use and in winter the upstairs areas are slightly too cold for the less active uses that they were intended for (meetings, social groups etc.).

It took the committee a full year to get the heating system and the hot water working as designed: some of this seems to have been caused by the number of different contractors involved with installing the system. But with energy bills coming in at around £2000 per annum (at 2011 prices) they are pleased with the low running costs. At one stage in the hall's first year of operation the wooden floor in the main hall began to buckle and it was established that K2S had not laid it correctly. Fortunately the floor settled down when the underfloor heating was turned down in the main hall but has risen again quite severely in early 2012. With the main contractor leaving the job unexpectedly before the contract was completed, handover documentation was not provided for much of the work undertaken which often made it difficult for the hall committee to pinpoint the causes of problems that only began to surface once the building started to be used.

The building being on two levels causes occasional problems of a lot of 'traipsing up and down' (both outside and in),with older people naturally are reluctant to use the stairs, and vehicles don't always bother to park behind the building at the upper level, instead remaining blocking the view at the front. But the committee acknowledges that it would have been impossible to accommodate a single-storey building of the necessary size on this particular site.

Given the amount of equipment that needs to be accommodated in the storage space off the hall and the number of different users in and out of this space, the committee would welcome more storage space but they acknowledge that this could not be afforded and that they simply have to continually manage the use of the storage space.

KEY LESSONS

The fund-raising for and commissioning of a £1m building by an island community of 200 people - and a building which went on to win a national award – is a substantial achievement. Such things are always more difficult for small communities, and even more so for small island communities, where skills and resources are scarcer, costs always higher and users limited by the nature of ferry timetables. The extended time-scale for the whole project put the clients under a lot of strain, a situation compounded by the diminishing focus on the job from the main contractor, and their subsequent disappearance before completing their work. This made for a difficult relationship between clients and architects and by the time the building was open it made it harder for the client (by then a different committee) to take ownership of the building and deal with the snags and the loose ends caused by the disjointed and over-extended building process. The fall in population on the island from the time the hall was

commissioned to the point at which it opened (in late 2009 the population had fallen to 150) contributed to the strain on the original vision of a facility for a growing community.

The client acknowledges that in retrospect time, stress and, perhaps, some money might have been saved by employing someone to manage the project, but also that it would have been difficult to find someone on the island to take on this role, and that they simply could not have raised any more money to pay for it. It is difficult to know what difference a project manager could have made. Although it was not their role to manage the project, the architects are aware that they spent substantially more time on the project than they expected to.

Although the cost of the building to the community was high, compared with other comparable buildings in the Highlands the actual cost was not high. The architect would have liked to spend more on certain aspects of the building (mainly windows, doors and floors) to make this a building of even greater quality, and a more sustainable building, which in their view, always requires more investment. By the same measure they would have preferred to make a timber-framed building but the budget could not stretch to that, and the architects doubt whether that would ever have been an appropriate solution for a hall with a 6m span.

Internally the client's only advice to others commissioning similar buildings is to never under-estimate the amount of storage space that you need.



✓ Rear elevation

Project Information

| Location: | Inverarish, Isle of Raasay, Kyle, IV40 8NG |
|----------------------|--------------------------------------------|
| Client: | Raasay Community Association |
| Date Completed: | 2009 |
| Project Value: | £870,400 |
| Internal floor area: | 447 sq. m. |
| | |

Architect: Structural Engineer: Services Engineer: Quantity Surveyor: Main Contractor: Dualchas Building Design Hugh Campbell Jim Coomber (An Cuilionn Consultancy) Armour and Partners K2S (Scotland)

Funders

- Highlands and Islands Enterprise (Wester Ross and Skye) £247,000
- The Big Lottery Fund £200,000
- EU ERDF £180,000
- The Highland Council £130,000
- Communities Scotland £90,000
- BBC Children in Need £35,000
- The Raasay Community Association £22,000
- Highland 2007 £20,000
- Gannochy Trust £20,000
- The Robertson Trust £15,000
- Hugh Fraser Foundation £10,000
- Lloyds TSB Foundation £6,500
- Highlands and Islands Community Energy Company (Additional funding for renewable energy plant) £29,000
- Highland 2007 and the Scottish Arts Council (Additional funding for equipment for the hall) £12273

Awards

Inverness Architectural Association, 2010; shortlisted for the 2010 RIAS Andrew Doolan Best Building in Scotland Award; RIBA Award, 2011

Image Credit: Andrew Lee

Architecture and Design Scotland

Bakehouse Close, 146 Canongate Edinburgh EH8 8DD

Level 2, The Lighthouse, 11 Mitchell Lane, Glasgow, G1 3NU

T: +44 (0) 845 1 800 642 F: +44 (0) 845 1 800 643 E: info@ads.org.uk

www.ads.org.uk/sust



Architecture+DesignScotland Ailtearachd is Dealbhadh na h-Alba