



COLL AND THE COSMOS  
FOR CARERS



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With special thanks to:

The Royal Astronomical Society, the RS Macdonald Charitable Trust,  
Cosmos Planetarium, Dynamic Earth, the Royal Observatory Edinburgh,  
Tigh na Mara Guest House  
and all those who have participated in this project.

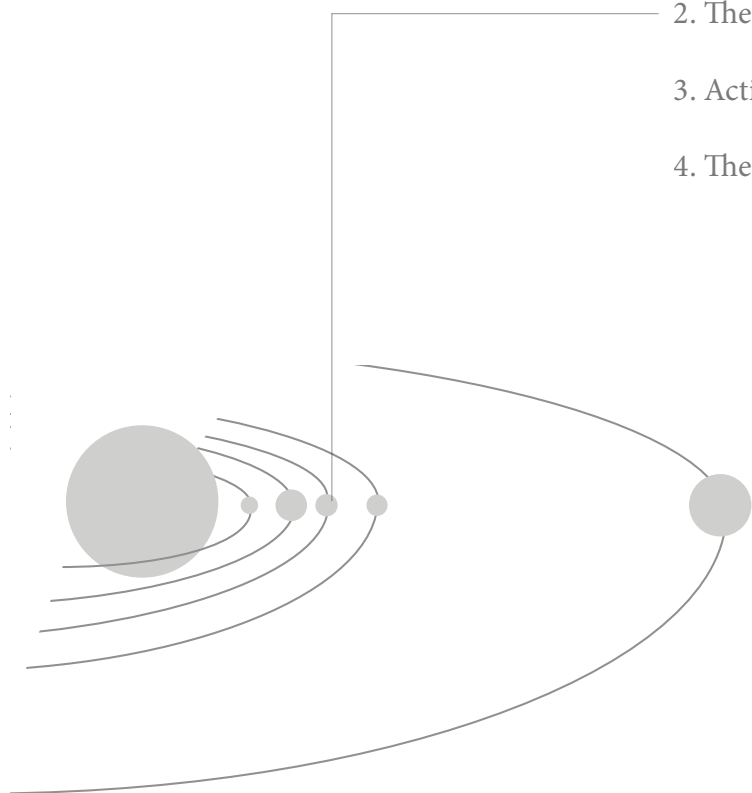
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# 1. Coll & Care for Carers

Care for Carers is a Voluntary Organisation established in 1989 to provide support services to all carers regardless of age, gender, disability or relationship to the person they care for.

They deliver services to carers in Edinburgh but also provide specific short breaks to carers from across Scotland through their *Stepping Out*<sup>®</sup> programme.

In 2015 - in collaboration with Dynamic Earth, the Royal Observatory Edinburgh and Cosmos Planetarium - Care for Carers were awarded a development grant as part of the Royal Astronomical Society's *RAS 200: Sky & Earth* bicentennial celebration programme. This was subsequently match funded by the RS Macdonald Charitable Trust.

Thus was born *Astronomy Short Breaks* - a programme of day events, activities, short breaks and residential breaks for carers, based

around the themes of astronomy, geophysics, planetary science and space science - and in March 2016 the first *Dark Skies Astronomy Residential* took place: a three night break staying on the dark skies Isle of Coll.

Arriving via ferry from Oban, the participants stayed at the Tigh na Mara (Gaelic for 'house by the sea'), a friendly, family run guest house located on the shore of Arinagour Bay, with panoramic views of the neighbouring islands of Mull, Staffa and The Treshnish Isles. By day they explored the beautiful natural environment of Coll and enjoyed various group activities; by night they explored the vast expanse of the cosmos above them.

The following pages contain photographs from this and subsequent visits to Coll, together with further information about the island and the activities on offer, both earth-bound and skyward.

















## 2. The Isle of Coll

The Isle of Coll is a small Hebridean island about four miles west of Mull. It is approximately 13 miles long and three miles wide, and has a population of around 200 permanent residents. The island is a holiday destination for many seeking peace and quiet, and those who enjoy nature and the natural beauty of the Hebrides.

The island is well known for its sandy beaches, of which there are 23, and its wild natural environment. There are two castles, both at the shore of Loch Breachacha.

The highest point on Coll is Ben Hogh in the south west of the island, which rises to a height of 104 metres (341 ft), offering breathtaking views of the surrounding islands.

The island has one village, Arinagour, which houses all the island's amenities. It is one kilometre from the ferry terminal, where

in summer daily ferries connect with the mainland (in the winter there are only five ferries per week).

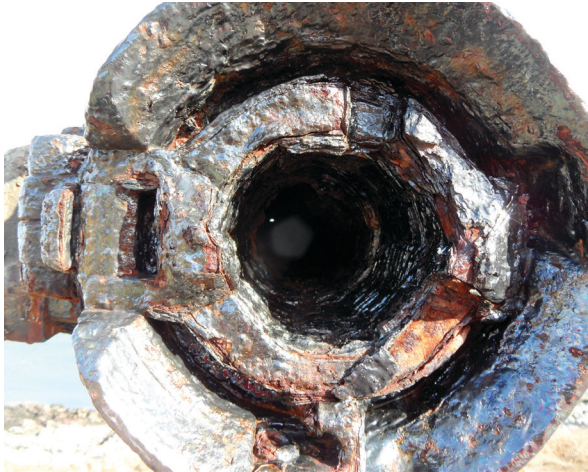
The Isle of Coll has quite a mild climate, with frosts and snow being rare, and there are often bright clear skies even when the surrounding area is overcast.

In midsummer there can be almost no darkness. However, Coll is an incredibly dark place in winter, assisted by the small volume of traffic and the absence of street lighting. In the depths of winter daylight hours can be reduced to between 9am and 4pm. These longer dark hours make sky viewing an exciting prospect.

In December 2013, Coll secured “dark skies” status, cementing its reputation as one of the best stargazing locations in the UK. It was only the second area in Scotland to be so recognised (after Galloway Forest Park).















### 3. Activities & Exploration

The hub of activity on Coll is the island's community centre, An Cridhe (which means "the heart"). Opened in 2012, this is a multi-purpose building that caters for the many different needs of islanders and visitors alike. It is managed by Development Coll, a local charity formed to benefit the community of the Isle of Coll.

It is here that, for *Coll and the Cosmos*, the Cosmos Planetarium team give talks, show films and provide hands-on experience with telescopes, mounts and binoculars.

The Cosmos Planetarium itself is a state of the art 360° immersive multi-media theatre experience. It is a six-metre mobile planetarium which can accommodate up to 25 adults.

The planetarium's software can take the audience on a virtual tour of the night sky as it will look that night - or indeed at any

other time or location. It can also play 360° immersive full-dome movies on a wide range of subjects, including the history of the solar system, astrophysics and astrobiology, dark matter and more: a journey through the solar system and beyond.

In the evenings, if the skies are clear, there are practical astronomy sessions using the naked eye, binoculars and various types of telescopes. Mapping out the sky, celestial objects such as the Milky Way, key stars and constellations, the planets of our solar system, and even the International Space Station can be clearly identified with the benefit of the dark skies of Coll.

Meanwhile, in the afternoons visitors spend time exploring the island, including its many stunning beaches.

Further activities include the participants building and launching their own rockets!





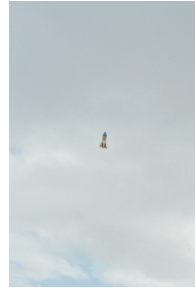




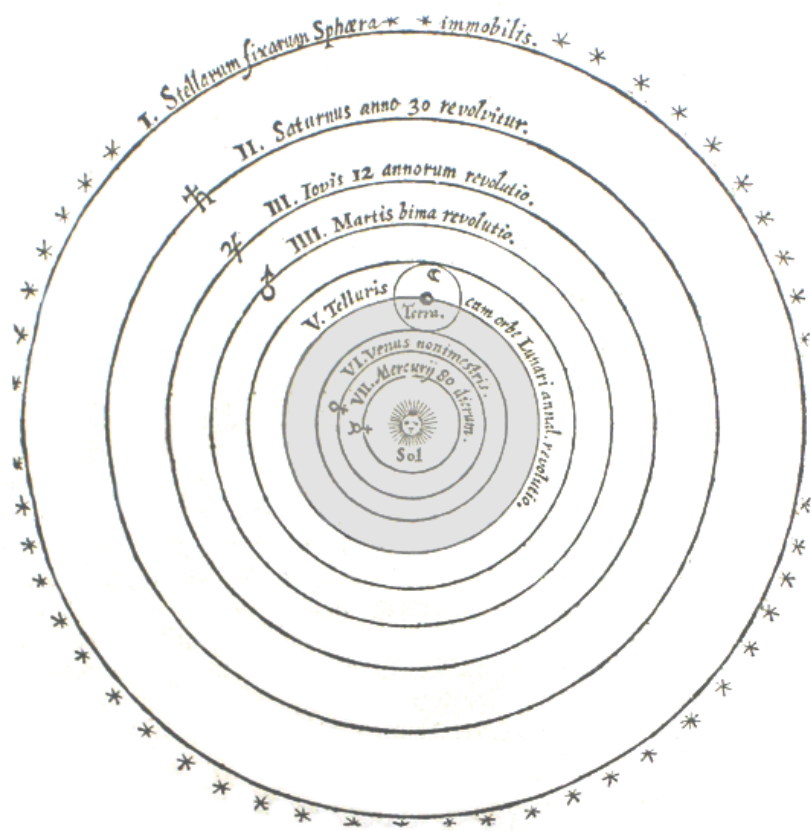












## 4. The Skies of Coll

The International Dark-Sky Association (IDA) established the *International Dark Sky Places* conservation program in 2001 to recognize excellent stewardship of the night sky. Designations are based on stringent outdoor lighting standards and innovative community outreach.

Coll's official designation as a "Dark-Sky Community" by the IDA in December 2013 followed years of work by the local Coll Dark Sky Group, who took measurements of the darkness of the night sky over Coll, carried out an audit of all outside lights on the island, and adjusted or refitted a number of lights that had spoiled the view for stargazers.

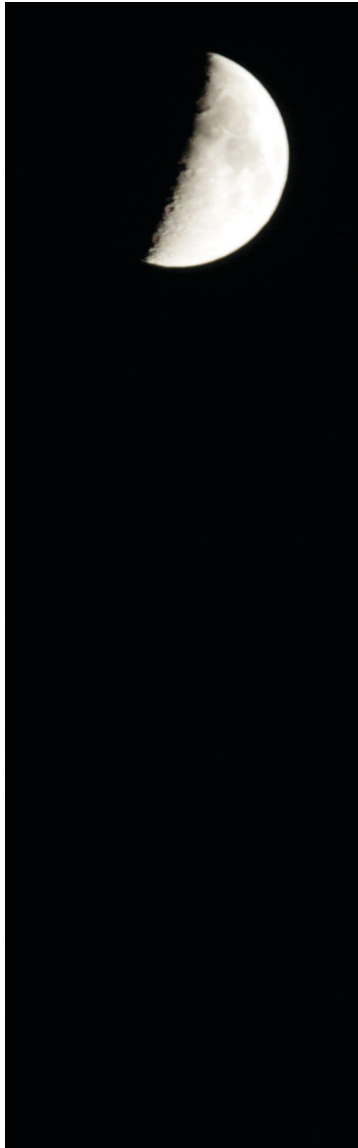
During this process, the hand-held device used to measure sky brightness regularly recorded readings of 21.9 in some locations, which - on a scale of 17 (urban sky) to 22 (light pollution free) - places Coll's skies as being some of the very darkest in Europe.

With Coll's naturally unpolluted sky, many deep sky objects can be seen with the naked eye. Some of these include star clusters like the "Beehive" and "Double Cluster", nebulae like the "Great Orion Nebula", and the "Andromeda Galaxy". The bright band of the Milky Way can also be easily seen arching over the night sky at certain times of the year.

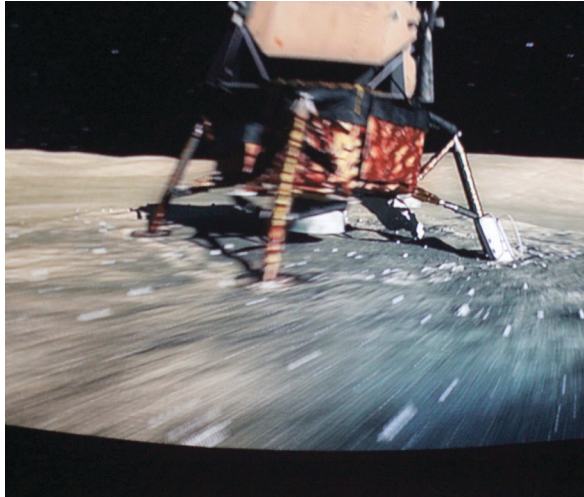
It is within this context that Care for Carers and *Coll and the Cosmos* have been able to provide these weekends of stargazing, learning and discovery - guided by expert astronomers in a way designed to make the skies accessible to as wide an audience as possible, all in a beautiful natural setting.

If you are at all curious about the vast universe in which we find ourselves, this is the programme for you. No prior knowledge of astronomy is needed; this programme brings you the best of the night sky in a way that is fun and easily understandable.









# Cosmos Planetarium

SPACE ACADEMY

Certificate of Completion

C4C COSMIC TEAM - OCTOBER 2016

Fiona Farris  
Beth Hayward  
Jane McCall  
Caroline West

Christine Gibson  
Tony Norton  
Alistair Middleton

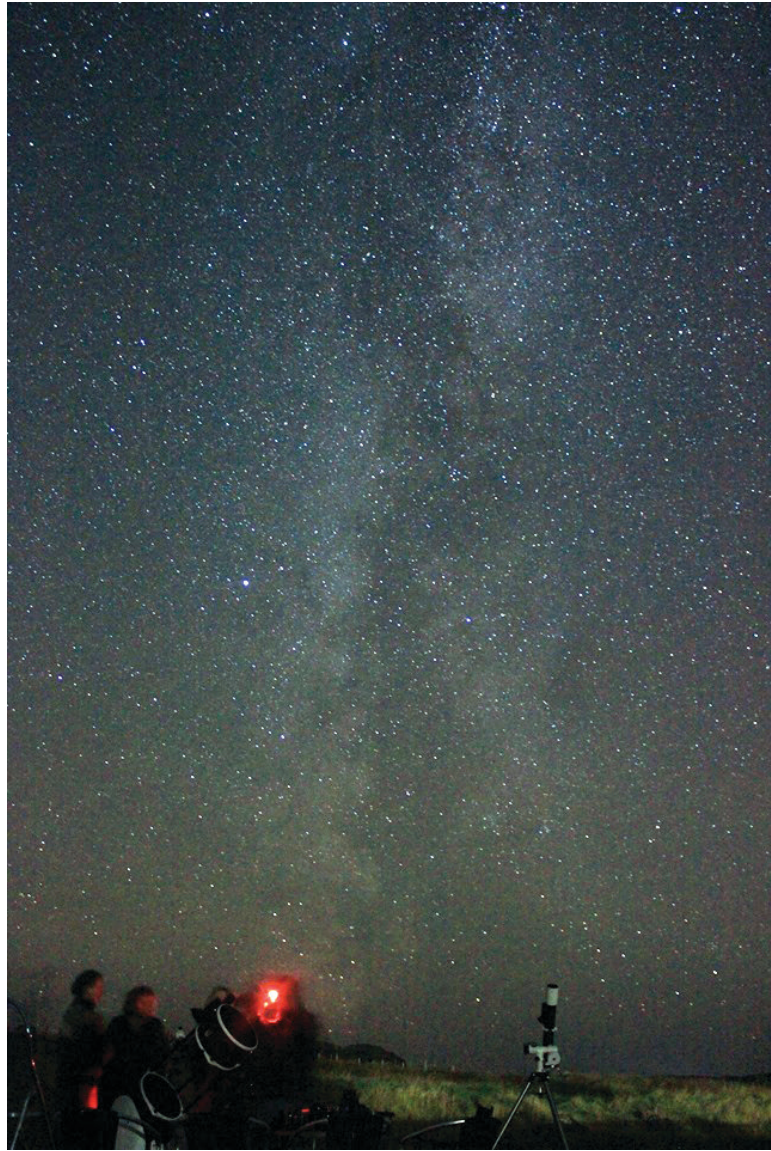
Colin Hayward  
Morag Norton

Coll & the Cosmos

I've seen the Milky Way  
on the Isle of Coll...!



[www.cosmosplanetarium.co.uk](http://www.cosmosplanetarium.co.uk)



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Events and developments, such as ... the Copernican Revolution, ... occurred only because some thinkers either decided not to be bound by certain “obvious” methodological rules, or because they unwittingly broke them.

— Paul Feyerabend  
*Against Method* (1975)



Care for Carers  
*Supporting those who care for others*



THE  
RS MACDONALD  
CHARITABLE TRUST

Photographs sourced from Care for Carers, the Royal Astronomical Society and Coll and the Cosmos.  
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Care for Carers is a Scottish Charitable Incorporated Organisation. Registered Charity No. SCO 13450.





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