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Introduction

On July 7th, 2008, the volcanic island Surtsey and the surrounding sea was awarded a World Heritage Site status by UNESCO's World Heritage Committee. In the committee's justification for this decision it is found important that scientific work has continuously been carried out on Surtsey from the start of the eruption. Furthermore, it is emphasized and found to be of greatest importance that the island and the surrounding sea has since shortly after the island appeared been declared a nature reserve, and thus been protected from human impact, as far as possible. This being the first Surtsey Research report after this important recognition, it seems appropriate to review briefly the history of Surtsey and the scientific work on the island.

The submarine eruption which started on the 14th of November, 1963, at Vestmannaeyjar, approximately 20 miles off the southern coast of Iceland aroused great interest among scientists, both in Iceland and abroad, especially after it became likely that the island would last. This led to the National Research Council of Iceland setting up a committee, the Surtsey Research Committee, to coordinate and facilitate the scientific work. There were 11 members, 8 Icelandic scientists, representing different disciplines, two from the United States, and the director of the National Research Council as chairman.

As the scientific interest grew fast, it was felt that more extensive coordination was needed as well as financial support. Therefore, in 1964 the Committee drew up a coordinated plan for scientific work on and around the island. The participants were 21 Icelandic scientists and 13 from abroad. This plan was submitted to various foundations that supported scientific work both in the United States and in Europe. It was well received, but in order to make it possible to receive financial support, especially from abroad, a non-governmental and non-profit organization had to be created. This led to the foundation of the Surtsey Research Society, May 20th, 1965. Founders were Icelandic scientists, nature enthusiasts and volunteers. Numerous foreign individuals became associate members of the Society. Members are now close to one hundred.

Considerable financial support was received from various institutions and foundations, primarily in the United States, and from the Icelandic Government, as well as important indirect support from scientific institutions in Iceland, United States and Europe through the work of scientists from those

institutions on Surtsey. While the activities on Surtsey were at its peak, transportation to the island was mostly by boat from Heimaey, the only inhabited island of Vestmannaeyjar, but after the island became stable the Icelandic Coast Guard has taken care of the transport of one or two scientific expeditions to Surtsey by helicopter every summer.

In 1966 the Surtsey Research Society erected a research station and shelter on the island. It was located on the northern part, close to the shore. That site was gradually destroyed by the ocean breaking down the shore. A new house was built on the eastern part of the island in 1985. That house is maintained by the Society. It has been named "Pálsbaer" (The House of Paul) in honor of the late Professor Paul Bauer of the United States one of the greatest benefactor of the scientific work on Surtsey. A helicopter landing platform was made close to that house in 1993.

In order to protect Surtsey as much as possible from human impact, the National Research Council proposed in 1965 that Surtsey be declared a nature reserve. That was done by the Nature Conservation Council of Iceland and all travel to the island forbidden without permission from the Surtsey Research Society. This was reiterated in 1973 based on a new law on nature conservation. To underline the Government's decision to nominate Surtsey for the UNESCO World Heritage List, a new and revised Declaration for the Surtsey Nature Reserve was issued in January 2006. The boundaries of the Reserve were expanded to ensure the protection of the entire Surtsey volcano, both above and below the sea surface.

After land formed scientists saw a unique opportunity to observe the beginning and development of life on a new and sterile land, especially after the decision was taken to protect it as much as possible from human impact. In the spring of 1964 a meeting was held at the Duke University in the United States to discuss the possibility of extensive scientific studies on Surtsey with participation by scientists from Universities and Institutions in the United States. Participants in that meeting were three from Iceland and several scientists from the United States. The conclusion was that this was not only feasible but also very important. The number of scientists of different disciplines multiplied and so did the activities of the Surtsey Research Society.

Two international conferences have been held. The Surtsey Biology Conference was held in Reykja-

vik in April 1965. Participants were 22 from Iceland and 16 from abroad. At the conference a “Biological Outline” for research on and around Surtsey was presented. It was “evaluated, scrutinized and accepted”, as stated in the minutes from the conference. The second conference, The Surtsey Research Conference, was held in Reykjavik in June 1967. The participants were 36 from Iceland and 40 from abroad. At this conference 17 papers were presented and discussed in five special working groups. Besides those scientific conferences, the thirty and forty years anniversaries of the Surtsey eruption were commemorated by open meetings in Reykjavik where papers were presented on the development of Surtsey. In the fall of 2005 a conference was held in Vestmannaeyjar where scientist outlined the development of Surtsey and the future of the island was discussed.

On behalf of the Surtsey Research Society Surtsey aerial photographs have been taken regularly and maps drawn. This gives a unique record of changes taking place on the island, especially by ocean erosion. In 1967, when its area was the largest, it was 2.65 km². It is now close to half that size.

Scientific studies on Surtsey continue with yearly expeditions to the island organized by the Society. It is important to continue this work. Surtsey is far from being fully developed. It yields new knowledge every year. During the eruption scientists from several scientific institutions did work on Surtsey. Since the eruption ceased the work has been primarily in the hands of scientists from three Icelandic institutions, The Icelandic Institute of Natural History, The Agricultural Research Institute and The Marine Research Institute. Furthermore, these institutions, along with the Surtsey Research

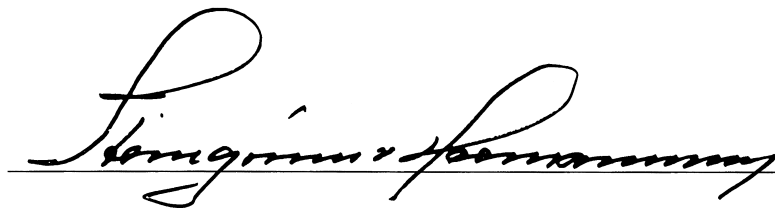
Society, have during the last 40 years carried most of the expenses of the scientific work with support from the Icelandic Government and the Icelandic Coast Guard.

The bibliography on Surtsey is extensive. Numerous articles and books have been published on the island’s development. Of great importance are the publications of the Surtsey Research Society, the Surtsey Research Progress Report (later Surtsey Research). This report, now being published, is the twelfth. Three scientists, Sveinn P. Jakobsson, geology and geophysics, Borgthór Magnússon, terrestrial biology, and Karl Gunnarsson, marine biology, have been in charge of the editing and publishing of this volume. These twelve reports contain 217 papers by scientists who have worked on Surtsey. The Surtsey Research Reports contain the most reliable and comprehensive information available on the island’s development and scientific findings.

The Surtsey Research Society has set up a web site (www.surtsey.is) with comprehensive information about the creation and development of Surtsey, its history, the Society, the scientific work on the island and its conservation as a nature reserve. Through that site all the reports published by the Society are accessible.

In historical times several islands have been created on Earth by submarine eruptions but none have been protected from human influence as Surtsey or scientifically observed as thoroughly and continuously from its birth. This is why Surtsey is unique. It has already yielded valuable knowledge about both geological development of a new land and settlement of life on a sterile rock. With uninterrupted scientific work, Surtsey will continue being a source of new knowledge.

For the Surtsey Research Society,

A handwritten signature in black ink, reading "Steingrímur Hermannsson". The signature is written in a cursive style with a horizontal line underneath.

Steingrímur Hermannsson
chairman

GEOLOGY AND GEOPHYSICS