

## **NATIONAL TRUST FOR SCOTLAND MEDIA RELEASE**

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### **National Trust for Scotland opens multimillion pound rescue project to save Charles Rennie Mackintosh's Hill House**

- **Public given access to the Hill House Box for the first time from Fri 7 June, Charles Rennie Mackintosh's 151<sup>st</sup> birthday**
- **After over a century of water damage, the Box will lead to a permanent solution to save the house and contents from being lost**
- **Elevated walkways and new interpretation will give public a whole new view of the iconic house**

Wrapped in the world's largest chainmail structure, with walkways snaking over the chimney pots, the National Trust for Scotland opens the doors this week (Friday 7 June) to its most ambitious conservation project yet.

Owned by the Trust since 1982, the Hill House in Helensburgh is considered to be the finest example of domestic architecture by Charles Rennie Mackintosh. However, Mackintosh's experimental design, combined with his trial of new materials has meant that the house has been soaking up water like a sponge for over a 115 years.

Battered by around 190 days of rain a year, the long-term survival of the building is in doubt and there is a real danger of its priceless, Mackintosh-designed interior being lost forever.

The Hill House Box is the National Trust for Scotland's innovative solution to the problem of water damage at the Hill House and to permanently save the property and its irreplaceable collection.

Designed by award-winning architects Carmody Groarke, the Hill House Box is a vast semi-transparent shelter around the main house, consisting of a 165 tonnes steel frame swathed in chainmail made up of 32.4million rings, themselves weighing 8.3 tonnes.

Opening to the public on Friday 7 June - Charles Rennie Mackintosh's 151<sup>st</sup> birthday - the Box acts as a giant shield covering the entire building. It will protect it from the rain while allowing the house to dry out and let conservators begin their work rescuing this iconic home.

The total cost of rescuing the Hill House will be in the region of £4.5 million. Of this, £3 million is being drawn down from the National Trust for Scotland's reserves with the remaining £1.5 million coming from donations to the largest single fundraising campaign ever undertaken by the charity. In addition, the Getty Foundation made a grant of £95,000

in 2015 through its Keeping It Modern initiative towards finding a solution to the house's problems.

Donations came from many generous benefactors as part of the Trust's largest ever appeal, including the National Trust for Scotland USA Foundation.

It may take up to three years for the house to dry out fully before conservation work can begin in earnest. The National Trust for Scotland will then need to develop a long-lasting solution, and implement it. This means the Hill House Box may have to stay in place for between seven and ten years.

The Hill House Box's design includes several walkways around the upper levels and over the roof. These will provide a totally new way to experience the house and Mackintosh's design, as well as offering stunning views over the Clyde estuary.

The National Trust for Scotland has also built a new café and visitor centre, meaning even more people can experience the house and learn about Charles and Margaret Mackintosh and the Blackie family whom the house was built for.

Simon Skinner, Chief Executive Officer of National Trust for Scotland said: "The box is incredibly impressive in itself and being able to see the house from angles that Mackintosh could only dream of takes your breath away. But it's more than that. We've completely rethought how the house and its history is presented and when people come to the Hill House they'll see how a house like this became a home to a family.

"There are surprises at every turn and no two visits will be the same. It's an active, evolving conservation project and there's nothing like it anywhere else. The Hill House is an exceptional place and our approach to rescuing it is as unique as Mackintosh's vision.

"What we're doing at The Hill House is really what the Trust is about. We're taking a radical approach to conservation and making sure that what we love about Scotland is here for future generations."

Andy Groarke of Carmody Groarke architects said: "It has been an enormous privilege and education to work so closely with Hill House over the last few years. We were inspired by Mackintosh's residential masterpiece to create a new piece of architecture which protects it from further decay, and gives visitors the chance to experience the house from unique and dramatic points of view."

Charles Rennie Mackintosh was at the peak of his architectural career when he was commissioned to create the Hill House. He had just finished the first half of the Glasgow School of Art a few years earlier and, working together with his wife Margaret Macdonald, he produced a design masterpiece.

The Hill House stands out amongst other Arts & Craft and Art Nouveau houses in the UK because it has survived intact for so long. The house has original furnishings, fixtures and fittings in situ – all of which were part of Mackintosh's all-encompassing approach to design.

Both the interior of the Hill House itself and the Box will be accessible to the public (including disabled access) over the course of the rescue process and they will be able to watch conservators at work.

The property will open to the public from Friday, 7 June. Entry is by timed ticket in 30 minute intervals. Parking is restricted at The Hill House and visitors are urged to use public transport when visiting. A park and ride service will also be in place from Saturday, 8 June

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### Images:

Free-use image library with CG images of the Box, original architectural drawings, photographs of damage to the interior, thermographic images and construction pictures: [www.flickr.com/gp/133918740@N04/80C84G](https://www.flickr.com/gp/133918740@N04/80C84G)

National Trust for Scotland website about the Box: [www.nts.org.uk/visit/places/the-hill-house/highlights/hill-house-box](http://www.nts.org.uk/visit/places/the-hill-house/highlights/hill-house-box)

Video about the Hill House Box with National Trust for Scotland President Neil Oliver: [www.youtube.com/watch?v=mrlvRuM8gXo](https://www.youtube.com/watch?v=mrlvRuM8gXo)

The National Trust for Scotland is the charity that celebrates and protects Scotland's heritage. It relies on the support of its members and donors to carry out its important work of caring for the natural and built heritage of Scotland for everyone to enjoy.

From coastlines to castles, art to architecture, wildlife to wildernesses, the National Trust for Scotland exists to protect the national and natural treasures we all love. To plan your visit today, enter your postcode at [www.nts.org.uk](http://www.nts.org.uk).

## The Hill House Box: Background

### What is the Hill House?

The Hill House in Helensburgh is considered to be the finest example of domestic architecture by Scottish architect Charles Rennie Mackintosh, and, as such, is a major landmark within the history of architecture.

The Glasgow publisher Walter Blackie commissioned Mackintosh to design the house in 1902 and construction was complete in 1904.



Mackintosh also designed the furniture for the main rooms, fittings and decorative schemes, while his wife, Margaret Macdonald, contributed fabric designs and a unique gesso panel.

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### Why does the Hill House need saving?

Since 1902 the Hill House has been battered by 193 days of rain per year (on average). Mackintosh's experimental design, coupled with his trial of new materials, has meant the house now shows signs of serious deterioration.

Mackintosh made use of Portland cement to form a smooth layer of render. Unfortunately, the finish allowed water to penetrate the sandstone from the day it was first applied. Decades of driving west coast wind and rain have saturated the wall of the Hill House – and threaten the long-term survival of the building and its priceless, Mackintosh-designed interior.



Various attempts by previous owners, as well as by the Trust and partners, have been made to protect the Hill House and repair the cement harling that covers the outside of the building. Sadly, none of these solutions has proved permanent.

### What is the Hill House Box?

The Hill House Box is the National Trust for Scotland's innovative solution to the problem of water damage at the Hill House and to permanently save the property and its irreplaceable collection.

The Box will act as a giant shield covering the entire building, protecting it from the rain while allowing the house to dry out and conservators to begin their work rescuing this iconic home.



The Hill House Box is a semi-transparent shelter around the main house, consisting of a steel roof and a frame encased in chainmail, completed in June 2019. It has been designed specifically for the Hill House, meaning that the garden within the Box is maintained and protected (trees will continue to grow inside the Box), as well as allowing the building to remain visible.

### What happens after the Box is in place?

Once the house is protected from the rain, conservators can start the process of drying the building out naturally. This will be done gradually in controlled conditions – if it happens too fast it could cause structural damage. The Box is designed to allow 13% of rain to reach the house.

The National Trust for Scotland will then, with the support of international organisations such as The Getty Foundation and a specially appointed advisory panel, be able to understand the extent of the damage caused by the water, and begin to take corrective steps.

It may take up to three years for the house to dry out fully before conservation work can begin in earnest. The National Trust for Scotland will then need to develop a long-lasting solution, and implement it. This means the Hill House Box may have to stay in place for between seven and ten years.

### What will people be able to see at the Hill House?

Both the interior of the Hill House itself and the Box will be accessible to the public (including disabled access) over the course of the rescue process and they will be able to watch conservators at work.

The Hill House Box's design includes several walkways around the upper levels and over the roof. These will provide a totally new way to experience the house and Mackintosh's design, as well as offering stunning views over the Clyde estuary.



The National Trust for Scotland has also built a new café and visitor centre, meaning even more people can experience the house and learn about Charles and Margaret Mackintosh and the Blackie family whom the house was built for.

### Has anything like this been done before?

There are other examples of conserving historic buildings in a similar way, but this project is unique. Usually unsightly scaffolding would be erected for projects like this. Instead, the Trust is respecting Mackintosh's design legacy by delivering an innovative solution that is respectful and design-led.

Also, most conservation work of this nature takes place on much older buildings – like medieval castles. The Hill House Box will be a global first in conserving a 20th-century building in this manner, making it a significant project for building conservation around the world.

### How much has this cost?

The total cost of rescuing the Hill House will be in the region of £4.5 million. Of this, £3 million is being drawn down from the National Trust for Scotland's reserves.

The remaining £1.5 million is coming from donations to the largest single fundraising campaign ever undertaken by the charity.

Donations came from many generous benefactors, including the National Trust for Scotland USA Foundation.

### How did the damage happen?

Mackintosh made use of a then new material – Portland cement – to form a smooth layer of render. The once-experimental finish has allowed extensive moisture ingress from the day it was first applied.

In an average year, Helensburgh has around 190 days of rain – added to the driving westerly winds from the Firth of Clyde, this drenches the building.

Traditional limewash is permeable and allows moisture to escape again when the dry days come – Portland cement doesn't allow the moisture to escape and is prone to cracking – instead it retains it and gives it time to attack the sandstone walls underneath the surface render.

Sandstone is itself permeable and the situation was made worse by the fact that Mackintosh's builders laid the sandstone blocks on end in many places because they would not be seen and they expected the render to be completely protective. As a result, gravity helped drive the moisture further into the sandstone's striations (the layers of ancient seabed that form the rock) and propelled it into the Hill House's interior.

Infra-red thermographic images recently made in partnership between the Trust and Historic Environment Scotland show the extent of damp and water damage.

Moisture has accumulated in many areas, especially around what is now the exhibition room, and extends to internal walls and there are some parts of the building where the harling has become loose. Water damage is clearly visible in the dining room and other rooms where it is defacing some of the jewel-like decoration designed by Margaret MacDonald.

Anecdotally, there are stories of the Blackie family's maids being forced to position pails to catch dripping water only a few years after the Hill House was completed.



## Why did the National Trust for Scotland decide to box The Hill House?

Through the decades many have tried to solve the water ingress problem and all have failed. Various patches, especially around wall-heads and chimneys, have been applied. Internal walls have been restored and re-plastered, only to be water-damaged again.

Because of the building's listed status (and its preciousness as the prime example of a relatively untouched Mackintosh design), conservation experts and statutory bodies have argued about how to deal with the problems.

In 2015, the Getty Foundation allocated a grant of £95,000 towards helping the Trust find a solution to the moisture ingress.

Following initial discussions through 2016, a March 2017 paper for the Trust's Board of Trustees set out the key issues and proposed a favoured option of 'containment' to effectively shelter the Hill House for the elements. It was clear that ultimate solution to Mackintosh's watery legacy had to be preceded by a means of stopping moisture ingress and halting further damage.

The Trust convened an advisory panel between April and June 2017 and it assisted with a tender process to find the best architectural approach to constructing the proposed shelter. The winning design for the innovative chain-mail-encased shelter came from London-based architects Carmody Groarke.

Their solution proposed a solid steel rain-proof roof, with semi-permeable stainless steel chain-mail elevations which had never been used before. The chain-mail reduced the amount of water penetration within the shelter, whilst allowing the structure to breathe naturally, allowing air flow and the building to dry naturally. It also allowed the house within the enclosure of the structure to be clearly visible from the gardens. A solution that not even a glass enclosure would have facilitated.

Board approval was duly given. Carmody Groarke then worked closely with Price & Myers to design the superstructure. Project management was contracted to Gardiner & Theobald, interior design for the café and shop was awarded to Drinkall Dean and graphic design was developed by Carter Studio.

Groundwork began in December 2018 and steelwork came onsite from January 2019 onwards. The Hill House and Box conservation project will open to the public on June 7 2019.

## History of the Hill House

Charles Rennie Mackintosh, the son of a police superintendent, was born in Glasgow on 7 June 1868. (He was christened McIntosh but, like his father, adopted the 'Mack' later).

He enrolled at Glasgow School of Art in 1884. After completing his apprenticeship in 1890, he met his future wife Margaret MacDonald, her sister Frances and, together with his

friend, Herbert McNair, they became known as 'The Four' who created the 'Glasgow Style' of architecture and interior design.

In 1902, the publisher Walter Blackie purchased a plot of land at the top of a hill in Helensburgh for which he planned a new home with views over the Gareloch and the Firth of Clyde.

Blackie already had an interest in the Glasgow Style and Mackintosh was recommended to him.

Mackintosh was heavily influenced by the traditional plain style of historic Scottish towns and villages and disliked the then current vogue in architecture which copied Tudor, Gothic and Classical detailing. It was a meeting of minds with Blackie.

At a cost of £6,652, Mackintosh, along with his wife Margaret MacDonald, oversaw the design and construction of every detail of the Hill House, which was completed in 1904.

The Hill House proved to be incredibly influential in Europe, becoming especially inspiring to the German Bauhaus school and architectural/design movement, which in turn inspired much mid-late 20th century architecture.



In 1953, the property was sold to Mr T Campbell Lawson. In 1972, it was sold to the Royal Incorporation of Architects in Scotland (RIAS) and by 1978 the Landmark Trust took over a specially converted top flat for holiday-letting.

The National Trust for Scotland acquired the Hill House in May 1982, with financial assistance of £425,000 from the National Heritage Memorial Fund.

### The Hill House Box – facts and figures

- 165 tonnes of steel (from Wishaw)
- Circa 2700m<sup>2</sup> of chainmail, weighing, 8.3 tonnes and comprising 32.4million chainmail rings
- The highest walkway is 15 meters from the ground
- The chainmail is made in Germany and primarily used in safety clothing including bullet-proof vests. It has never been used on this scale before
- No 'hot work' such as welding was carried out in the construction of the Box
- The structure is fully demountable, reusable and recyclable
- The visitor centre is a timber building made from a timber from FSC renewable forest
- Groundwork began in December 2018 and steelwork came onsite from January 2019 onwards. This necessitated the use of the largest mobile crane in Scotland

### Visiting

- Public access will begin on Friday, 7 June
- Entry is by timed ticket from [www.nts.org.uk/visit/events/the-hill-house-timed-admission](http://www.nts.org.uk/visit/events/the-hill-house-timed-admission)



- Timed ticket slots are available at 30-minute intervals from 10am–3.30pm.
- Cost of entry – Adult £12.50; Child £5.50; Family £28.00; One adult family £17.00
- National Trust for Scotland and National Trust members will of course be able to visit the box for free.
- Parking is available at Helensburgh’s waterside and a free shuttle bus to the house will be in operation from Saturday, 8 June.

### About The Getty Foundation

The Getty Foundation fulfils the philanthropic mission of the Getty Trust by supporting individuals and institutions committed to advancing the greater understanding and preservation of the visual arts in Los Angeles and throughout the world. Through strategic grants initiatives, it strengthens art history as a global discipline, promotes the interdisciplinary practice of conservation, increases access to museum and archival collections, and develops current and future leaders in the visual arts. The Getty Foundation carries out its work in collaboration with the other Getty Programs to ensure that they individually and collectively achieve maximum effect.

Since its inception in 1984, the Getty Foundation has developed, awarded, and monitored nearly 8,000 grants in over 180 countries on all seven continents. Among the Foundation’s most prominent initiatives is Pacific Standard Time, which to date has awarded approximately \$28 million to dozens of cultural institutions across Southern California for the production of hundreds of linked art exhibitions, scholarly publications, and public programs.

Other Foundation initiatives include: Keeping It Modern, focused on the conservation of 20th-century buildings around the world; Conserving Canvas, dedicated to expanding knowledge and skills for the structural care of paintings on canvas; The Paper Project, which provides training and professional development for early- to mid-career curators of prints and drawings; and Connecting Art Histories, focused on bringing together scholars across national boundaries, especially from regions that face economic or political constraints.

In addition, the Foundation supports a variety of internships and professional development programs, including the Getty Marrow Undergraduate Internship program in Los Angeles, which has dedicated over \$14 million since 1993 to support more than 3,400 internships at over 160 local cultural organizations. For further information about these and other grant programs, visit the Foundation’s website at [www.getty.edu/foundation](http://www.getty.edu/foundation).

### About Carmody Groarke

Carmody Groarke is an architectural practice founded in 2006 by Kevin Carmody and Andy Groarke. The practice has developed a reputation for working internationally on a wide range of arts, cultural, heritage and residential projects, both new build and within the context of historic buildings.

Completed projects include Windermere Jetty Museum in the Lake District, the new entrance to the British Film Institute Southbank, the permanent memorial in Hyde Park to the 7 July London bombings, the New Architecture Gallery at the Royal Institute of British Architects headquarters, Frieze (London) Art Fair 2011-2013, Maggie's Cancer Care Centre Clatterbridge Merseyside, an artist's studio for sculptor Antony Gormley and the new Members' Room for the Victoria and Albert Museum.

Current projects include an extension of the Museum of Science & Industry in Manchester, a major new international arts venue for S1 Artspace within the listed Park Hill housing development in Sheffield, a masterplan for Tullie House Museum & Art Gallery in Carlisle and several private houses. The practice is also working overseas with a major urban development for student housing in Milan, a hospitality events venue in Hamburg and a masterplan for Heide Museum of Modern Art in Melbourne, Australia.

Carmody Groarke has also designed a series of exhibitions including a major retrospective of Alexander Calder and the current Unconscious Landscapes Works from the Ursula Hauser Collection at Hauser & Wirth in Somerset, Beazley's Designs of the Year 2018 at the Design Museum and an exhibition at the Royal Academy for Bill Viola Michelangelo.

The practice has earned international recognition, winning several architectural competitions and awards for completed projects. Monographs of the studio have been published in the international periodical, 2G and in the Spanish publication, El Croquis No.195.

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