

CORK HOUSE - THE FIRST BUILDING MADE OF CORK

DESIGNED AND DEVELOPED IN UNITED KINGDOM

Cork House, the first cork made building has been designed, tested and developed in the town of Eton (United Kingdom) by the architects Matthew Barnett Howland, Dido Milne and Oliver Wilton in partnership with the [Bartlett School of Architecture-University College London UCL](#).

In June 2019 the Cork House has been recognized as one of the 54 winners at the [2019 RIBA National Awards Stirling Prize for architecture](#) promoted by the Royal Institute of British Architects RIBA. The award since 1966 recognizes the UK's best new construction projects. [The board of the Cork House published in the Riba Award webpage](#) presents information, designs and images of the Cork House.

The Cork House is also one of 26 projects longlisted for rural house by the [Dezeen Awards 2019](#) which celebrates the world's best new architecture, interiors and design and have attracted more than 4,500 participants from 87 different countries.

Cork House has been recognized by the Riba Prize for the extraordinary characteristics of this construction. The house has exceptionally low whole-life carbon and is carbon negative at completion due to the atmospheric carbon stored in its plant-based components. It is easy to assemble by hand, with no glue or mortar used. Its construction enables easy a disassembly too at the end of its life allowing to recover its 1,268 cork blocks for reuse, recycling or simply to be returned to the biosphere.

The expanded cork billets from which the blocks are formed, are made in Portugal using by-products and waste from cork forestry and the cork stopper industry. For this project, granules of cork were compressed and heated to create building blocks. These were cut using a 3D milling so the blocks are interlocked, removing the need for glue or cement.

Using these blocks of prefabricated cork, the whole house is 'designed for disassembly' and can be constructed by hand. Cork's thermal properties mean that the house which measures 44 square meters, remains internally warm. Adding to its green credentials, the architects say the house's "whole life carbon" - quantifying all the carbon required to assemble, maintain and use the building- is less than 15% of a standard British newly-built house, due to the atmospheric carbon stored in its plant-based components.

Cork is well known as a [natural construction material](#) which offers numerous benefits for a sustainable building. With



excellent thermal and acoustic insulation and water-resistance, it's hard wearing and safe. It is used for floorings, rigid insulation, exterior finish, floor underlayment, acoustic wall coverings and countertops. In addition to enhancing these features, the Cork House built by the Bartlett School has also demonstrated its extraordinary contribution to reduce carbon emissions.

The use of Cork to build eco-efficient houses can also bring significant benefits in the territories where it grows, encouraging communities and farmers to plant more trees that will help consume carbon dioxide, and to grow them through environmentally friendly methods, gaining significant economic benefits.

Cork is a 100% natural, renewable, recyclable and biodegradable material that is harvested on a sustainable basis. The bark of the tree can be removed without killing it, when a tree is about 20 years old. The bark is harvested every 9 years, removing it from the trunk and main branches by hand, with special axes. The life expectancy of a cork oak tree is over 200 years.

The cork oak tree is native to the Mediterranean regions of southern Europe and northern Africa. The website of the [Cork Forest Conservation Alliance](#) reports that approximately 6.6 million acres of Mediterranean cork forest extend across Portugal, Spain, Algeria, Morocco, Italy, Tunisia and France. These oak forests support one of the world's highest levels of forest biodiversity.

Portugal is the largest producer of cork and has adopted a very strict legislation for the sustainable management of the cork forests, called [montados](#), and the production processes. Cork oaks cannot be harvested until the tree is at least 25 years old and it can only take place every 9 years. The trees also require no pesticides, irrigation or pruning. Thanks to this care, the stripped trees absorb vast amounts of carbon dioxide and release more oxygen, bringing great benefits to the environment.

To know more

[Cork House in Bartlett School website](#)

[Cork House in Riba Award website](#)

[2019 RIBA Awards Winners](#)

[Article in ribaj.com](#)

[Bartlett School of Architecture UCL website](#)

[Dezeen Awards 2019](#)

[Cork in greenbuilding supply.com](#)

[Article in designboom.com](#)

[Article in reuters.com](#)

[Article in archdaily.com](#)



[Article in the guardian.com](#)

[Article in livekindly.com](#)

[Article in treehugger.com](#)

[Article in builddirect.com](#)

[Article in inhabitat.com](#)

[Cork Forest Conservation Alliance website](#)

[Cork facts in corkforest.org](#)

