
AHEC brings Miralles to Milan

Perpetuum Mobile exhibition reveals revered architect's secret life as a furniture designer

6–13 June 2022



Inestable (1993) by Enric Miralles, comprising several flat boards that can be stood upright, revealing concealed drawers and book rests to aid reading.

It is hard to imagine what the great Spanish architect Enric Miralles might have achieved had he not died prematurely in 2000, aged just 45, four years before the opening of his largest ever project, the Scottish Parliament Building. Perpetuum Mobile – an exhibition made possible by the American Hardwood Export Council (AHEC) – offers an extraordinary insight into Miralles' creative vision, approach to form and sense of invention – not through the buildings he created for his clients, but the furniture he designed for his home.



Scottish Parliament Building, Edinburgh, Scotland, UK 1998–2004



Santa Caterina Market, Barcelona, Spain 1997–2005

Showing as part of **Interni Design Re-Generation** at the University of Milan, Perpetuum Mobile brings together recreations of nine of the furniture pieces and objects that the architect designed alongside his partner Benedetta Tagliabue for their home in Barcelona. An old warehouse whose walls were knocked down to create an open space, their home imagined a house on the move, where the furniture did not have a fixed place or form but could be moved or modified according to the needs of the moment. The exhibition provides a unique insight into the detail and craft of the architects' domestic environment, including a recently discovered piece, produced for the first time in 2020. Although Enric Miralles and Benedetta Tagliabue's interior projects have been exhibited extensively, this is the first time the unique domestic landscape of their Barcelona home will have been publicly exhibited in Italy.



Tropical (1994) table in original Barcelona setting.

The exhibition includes tables, seating and shelving designed between 1992 and 1999 but never put into commercial production, now reproduced in sustainable American hardwoods. Although each piece is unique, they all demonstrate Miralles' vision of the 'house in motion' – a domestic space in which each piece of furniture does not have a defined place or a set purpose, but can be moved or modified to meet the needs of the moment.



Enric Miralles in the studio. Photography by Maro Kouri.

The nine pieces featured in the exhibition have been painstakingly recreated from drawings and documents from Miralles' private archives, remaining true to their original design by Madrid-based carpentry workshop La Navarra. Materials,

however, have been updated in close collaboration with AHEC, whose experts recommended appropriate sustainable hardwoods to stand in for the original timbers. Rather than the likes of elm, iroko, bolondo and birch plywood available to Miralles at the time, often left over from his building projects, the new pieces are made using four underused American hardwood species – red oak, maple, cherry and tulipwood – chosen by Bernedetta Tagliabue for their aesthetic, performance and environmental credentials and donated by Spanish timber specialist AE Maderas.

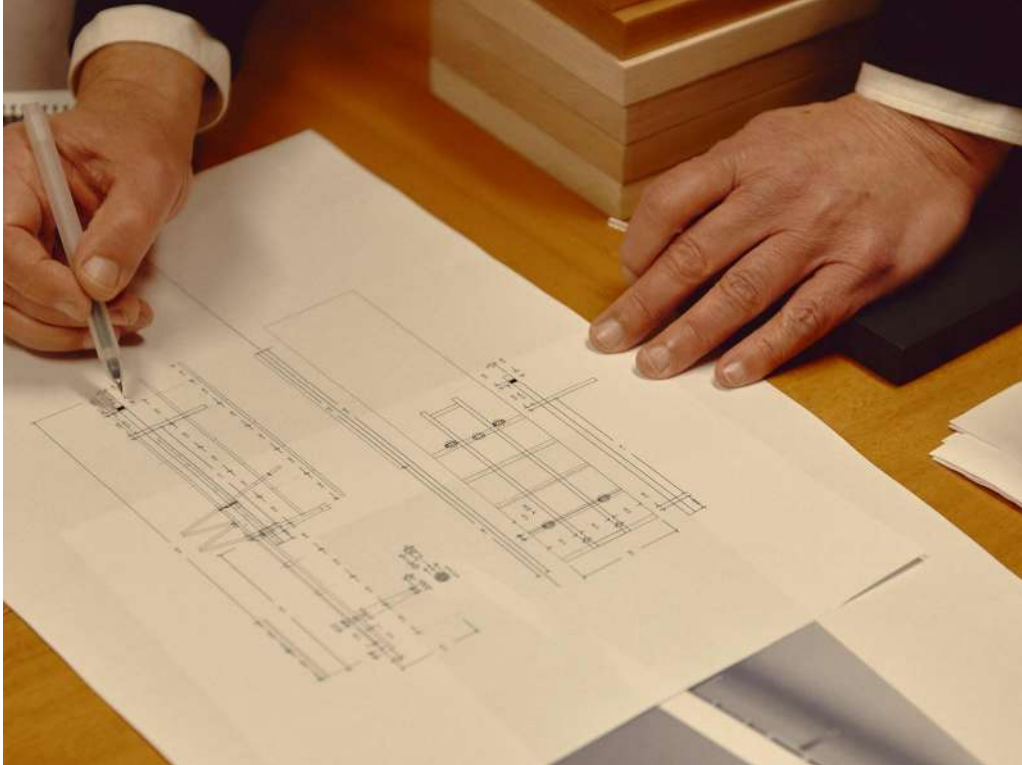
"The idea is to make the conversation go on. Enric was always very experimental. He had a mind that was never conventional. If you posed a problem to Enric, he would always answer back with a surprising thing. He was special and that is still coming out from the documents you find in his archives."

– Bernedetta Tagliabue, Head architect, Miralles Tagliabue EMBT & Chairman, Enric Miralles Foundation

A mystery uncovered

While conducting the research into her husband's archives, Tagliabue came across a notebook containing a drawing of a table she didn't recognise. This turned out to be a new design that Miralles never mentioned to her or had the chance to realise in his lifetime, and likely one of the last pieces he had been thinking about before his death. Thanks to Perpetuum Mobile, the 'Mystery Table' has been brought to life at last – a drawing table that can be lengthened or shortened with a zigzag folding system, transforming from a workspace for one to a 4m dining table for up to 16 people.





Making of the collection at La Navarra. Photos © Alex Cascallana

Tables, stools and shelving

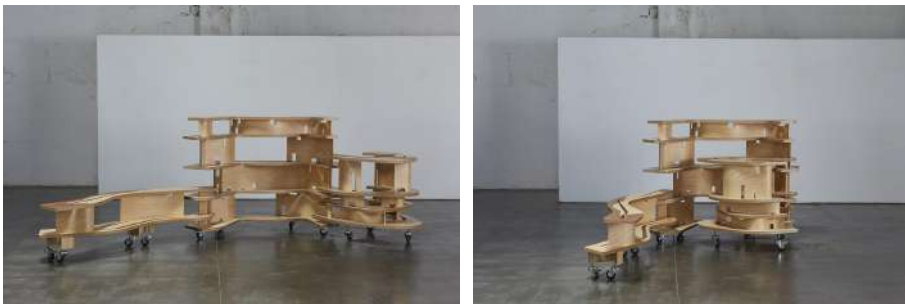
"Miralles approached furniture from the point of view of an architect, bringing in a complexity of form often involving movement, that makes many of the pieces so unusual and unique. The idea of furniture having multiple functions, by way of transformation was a key part of his thinking in both his architecture and product design. Furthermore, with these pieces, he was designing for himself, not for a brand or company so there is a strong element of freedom of expression and experimentation within this collection."

– David Venables, European Director, AHEC

The Mistery Table is joined at Perpetuum Mobile by eight other designs:



Inestable (1993) – A large table in American red oak, comprising several flat boards that can be stood upright, revealing concealed drawers and book rests to aid reading. The rounded perimeter of the table frames a Z-shaped structure that recalls both the ground plan of Barcelona's Igualada Cemetery and the roofs of Parets del Vallès, as well Miralles' own initials, E and M.



Lelukaappi (1995) – Originally designed for a play centre at Mollet del Vallès and representing the building in microcosm, this shelving unit is made of three articulated units of horizontal and vertical wooden shelves at different heights, which rotate on their common axes. Made using American maple veneer inlaid with cherry, all three are fitted with wheels, allowing for fluid movement. Like many of the shelves designed by Enric Miralles, Lelukaappi is characterised by its organic layout and its ability to surround the user, creating a cocoon in which to work, read or reflect.



Estudi (1993) – Designed by Enric Miralles and Benedetta Tagliabue for their home, the Estudi table comprises two seating places, allowing the users to draw, design and talk while facing each other, and a large five-legged frame that supports a wooden worktop with a slot for electrical cables. A chest on wheels to store architectural plans is placed underneath. The Estudi table has been reproduced in American cherry with red oak accents. The drawer unit sits on castors and its front is made of vertically jointed cherry veneers.



Marisa (1992) – Inspired by the typology of travel trunks, the Marisa shelves consist of two high units in edge-matched American tulipwood veneer that, through a series of hinges, close upon themselves, leaving the books and objects inside partially visible.



Tropical (1994) – Another collaboration with Tagliabue, the Tropical table has two possible heights, 70 cm or 35cm, so that it can do double duty as both dining and coffee table. The height can be adjusted by leaning on the table's four legs, which act like the pillars of a drawbridge, supported by a cross-joined frame. The reproduction has been made in American red oak with an oil finish.



Dolmen (1995) – The Dolmen table responds to restaurant tables that fold vertically when not in use. When open, Dolmen can be used for work, aided by the drawers underneath. When folded, it forms a movable wall that can be used as a room divider. The table's menhir-shaped worktop comprises eight boards of solid American cherry, arranged diagonally, and attached to the lower part of the table by a cross-shaped frame made of American tulipwood. The lower part of the piece is made up of three legs, one of which has two pivoting arms that allow the table to be collapsed.



Japonès Stool (1992) – Created after a trip to Japan by Miralles and Tagliabue, inspired by the traditional Japanese shower stool, the Japonès stool is a very simple piece of furniture that fully expresses its structural composition, with no hidden joints. The stool has a slot on the top making it easy to transport, and can be placed either on two legs or on its side. For Perpetuum Mobile, stools have been reproduced in American red oak, tulipwood, maple and cherry with an oil finish.



Troncs (1998) – Made in collaboration with Benedetta Tagliabue for their home, the Troncs table has a simple mechanism that allows for the position of the legs to be changed, turning it from standard-height table to low bench. For Perpetuum Mobile it has been reproduced in American red oak.

The design of the exhibition and positioning of the nine pieces will reflect the layout of Tagliabue's house, where many of the original one-off pieces reside today. They will be accompanied by a series of films telling the story of their recreation in American hardwoods, and demonstrating the ingenious mechanisms of movement that Miralles incorporated into each.



At Benedetta Tagliabue's house. Original furniture © Mariluz Vidal

After the exhibition concludes, all furniture will be donated to the Eric Miralles Foundation based in Barcelona, where they will serve to inspire Spain's next generation of architects and designers.

For more information about Perpetuum Mobile and AHEC's role in the exhibition, or to attend the press launch on Monday 6 June, please contact ahec@zetteler.co.uk.

Notes for editors

Perpetuum Mobile

Credits

Perpetuum Mobile – The Dancing Furniture of Enric Miralles & Benedetta Tagliabue's Home. Designed by Benedetta Tagliabue of EMBT Architects, in collaboration with Fundació Enric Miralles.

Supported by the American Hardwood Export Council (AHEC).

With special thanks to AE Maderas for the timber donation and to Bover Barcelona Lights.

Dates 6–13 June 2022

Venue Outside the main auditorium (Aula Magna), Università degli Studi di Milano, via Festa del Perdono 7, 20122 Milano

Press launch 2.30pm, Monday 6 June 2021

American Hardwood Export Council (AHEC)

For over 30 years the American Hardwood Export Council (AHEC) has been at the forefront of wood promotion in Europe, successfully building a distinctive and creative brand for US hardwoods. AHEC's support for creative design projects such as Discovered, Designposts and Connected for the London Design Festival demonstrate the performance potential of these sustainable materials and provide valuable inspiration.

AHEC has pioneered the modelling of environmental Life Cycle Assessment (LCA) for hardwoods, an approach that has since been adopted by other industries. LCA measures a number of impacts: primary energy demand (from renewable and non-renewable resources); global-warming potential; acidification potential; eutrophication potential; and photochemical ozone-creation potential.

www.americanhardwood.org

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EMBT – Benedetta Tagliabue

Benedetta Tagliabue is the director of the international architecture firm Miralles Tagliabue EMBT, founded in 1994 in collaboration with Enric Miralles, based in Barcelona and, since 2010, Shanghai. Among her notable projects are the Edinburgh

Parliament, Diagonal Mar Park, the Santa Caterina market in Barcelona, Campus Universitario de Vigo, and the Spanish Pavilion at the 2010 Shanghai World Expo, which was named 'Best International Building of 2011' by RIBA International. Current studio projects include the Business School of Fudan University in Shanghai, office towers in Xiamen and Taichung, public spaces of HafenCity in Hamburg, the metro station Clichy-Montfermeil in Paris, (first prize in competition) and the metro central station in Naples.

Tagliabue has also been a visiting professor at Harvard University, Columbia University and Barcelona ETSAB, lecturing regularly at architecture forums and universities, and is part of juries around the world for the likes of the Princesa de Asturias awards and the Pritzker Prize. Her work received the RIBA Stirling Prize in 2005, the National Spanish Prize in 2006, the Catalan National prize in 2002, City of Barcelona prize in 2005 and 2009, FAD prizes in 2000, 2003 and 2007. She is also the director of the Enric Miralles Foundation.

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Materials

American red oak (*Quercus* species, mainly *Quercus rubra*)

Warm, grainy, tough and bendy.

Reaching a height of 21m, with a trunk diameter of 1m, red oak is the most abundant species in America's hardwood forests. Named for the colour of its leaves in the fall, this classic oak wood has a light brown sapwood, and a heartwood characterised by attractive warm reddish-pink tones. Red oak is strong, straight grained, coarse-textured and distinctive. Its porosity makes it a premium wood for bending and staining.

American maple (*Acer saccharum*, *Acer nigrum*, *Acer rubrum*)

Light, fine, hard and incandescent.

A close cousin of European maple and sycamore, American maple can reach heights of 23–27m, with a trunk diameter of 75cm. This project uses two botanical subspecies, hard and soft maple, which share similar characteristics and are both relatively abundant. Hard maple is a cold-climate species favouring the northern states, whereas soft maples grow more widely across the mixed hardwood forests of the eastern United States. Both hard and soft maple produce syrup.

American cherry (*Prunus serotina*)

Rich, smooth, vibrant and flexible.

A medium-size tree, reaching a height of around 20m, cherry has a relatively short rotation, taking less time to mature than other hardwoods. The narrow sapwood is a light pinkish colour, while the heartwood varies from rich red to reddish brown, and darkens on exposure to light. American cherry had a long period of popularity in furniture making; it became less popular but is on the verge of a revival.

American tulipwood (*Liriodendrom tulipifera*)

Strong, light, and rapidly renewable.

One of the most prolific hardwood species from the US, American tulipwood is unique to North America, having been eliminated in Europe by the last Ice Age. Its colour goes from creamy white, in the sapwood, to pale yellow or brown in the heartwood. Tulipwood trees are widely distributed throughout most of the eastern United States in mixed hardwood forests. The trees are huge and identified by their tulip-like flowers giving rise to the name. Tulipwood is easy to finish and stain, and it is highly suitable for furniture. It also has extraordinary overall strength properties related to its weight, making it an ideal choice of timber for structural applications.