



# FABRICATING BEAUTIFUL OBJECTS

From staircases to pavilions, design and fabrication company **Cake Industries** works on a variety of fascinating projects; we [learn more about them here](#)

London-based Cake Industries is a design and fabrication company that produces a range of beautiful objects; their work can be anything from sculpture to staircases, and cabinetry to pavilions.

Directors Keefer Erickson and Andy Creed founded the company in 2009 – the firm's name is an anagram of their initials. The collaboration brought together their complementary backgrounds in industrial and architectural design, steelwork and cabinetmaking.

A third director, David Knight, later joined Keefer and Andy and together they developed a company with a strong design, structural engineering and fabrication capability.

Their projects range in scale from individual pieces of furniture to large structural steelwork, small bridges and buildings. They include art installations, staircases, bespoke kitchens, cabinetry, fitted furniture and other interior projects.

The Outdoor Living Room Pavilion is clad in glue-laminated larch timber with brightly coloured powder-coated aluminium shingles covering the exterior

## First major commission

The first major project for Cake Industries was a commission from Chris Wilkinson RA, who was asked to design and make the courtyard sculpture for the Royal Academy Courtyard for their Summer Exhibition in 2012.

Chris designed a powerful sculpture based on a series of 11 wooden artist's frames with a sequential 90° twist. It was supported on a timber structure and clad in polished stainless steel. The piece was entitled From Landscape to Portrait.

Cake Industries was commissioned to create the design for manufacture, construction and installation and also featured on the poster for the exhibition. When the exhibition ended, the installation was relocated to Canary Wharf.

This project was also where David met Keefer and Andy. David was the consulting structural engineer for the job and stayed in touch with Andy and Keefer after completion. David later joined the company as a director in 2017.

## The design and making process

Taking a design-focused approach to all their projects, Cake Industries is made up of a team of specialist craftspeople. They work with architects, designers, artists and contractors and on private commissions to bring ideas and concepts to life.

The company carry out a full design (including structural engineering) and assemble the elements in their south London workshop before installing them on site. At all stages they are committed to a collaborative approach with their clients to achieve the best outcome.

'We carry out all of our design in 3D packages. The majority of our work is developed in Solidworks, and we use Rhino 3D with the parametric plug-in Grasshopper for geometrically complex work and for structural engineering design,' explains David Knight.

## Materials and sustainability

Cake Industries have fully equipped steel and timber workshops and are experienced at working in aluminium, brass, plastic, concrete, and hardwood, panel and engineered timber products.

The choice of timber varies according to the demands of each project. 'The majority of our work is coordinated closely with an architect or designer's requirements for finishes. For staircases we often use English or European oak, which is hardwearing and can be stained or finished to suit. We have used a range of timbers for handrails and staircases (e.g. cherry and walnut). We have carried out a number of recent projects which use plywood structurally (as arches and beams), as well as glue-laminated larch. Our outdoor projects use naturally durable hardwoods such as iroko,' says David.

Sustainability is an important factor when choosing materials. David explains: 'As signatories to the "Construction Industry declares a climate emergency" manifesto we have an obligation to our clients to suggest sustainable solutions for their projects. This includes providing embodied carbon dioxide calculations as standard on all projects, which is often used as a design tool to promote a switch from steel to timber solutions. We obviously try to ensure all our timber is sourced from FSC or PEFC suppliers; more importantly, our integrated design process allows us to reduce wastage by ensuring pieces can be cut efficiently from sheets or billets.'



The Cake Industries south London workshop is equipped to work with metal, timber and a variety of other materials

## The Hothouse

In summer 2019 Cake Industries was approached by the London Design Festival (LDF) and became part of the team that created the arched greenhouse named the Hothouse. The finished greenhouse stands near the Olympic Park in Stratford. It is filled with plants, highlighting the many exotic varieties that may grow outdoors by 2050 if climate change continues.

Cake Industries worked closely with LDF, the architect Studio Weave and structural engineers Arup. They helped develop a design that fitted into the required time frame and budget for the project. The design also needed to satisfy aesthetic and practical requirements as well as be reusable and therefore more sustainable.

Fabrication started in the middle of July 2020 and the team worked long hours to weld the bespoke steelwork together while ensuring that all the interior elements were built on time. The steelwork was galvanised and then sent to site where they had three weeks to install the pavilion and plants.

Cake Industries also had to design the electrical items and ventilation to make sure that it didn't overheat in the summer. Despite some late summer



The Blue Stair features a delicate steel framework set off from the out of square walls of this renovated house supports solid oak treads and a brass handrail



PHOTOGRAPHS COURTESY OF CAKE INDUSTRIES

Bicupola is a recently completed pavilion for a central London location. Clad in aluminium, its plywood grid forms a doubly curved minimal surface, edged with a bespoke, robot-carved edge beam



Made for a private home in Wimbledon, this innovative staircase used CNC-cut birch plywood pieces bolted together to form a strong aesthetic statement



storms the project was completed a couple of days early in time for the launch of LDF in September 2020 where it was the landmark exhibit.

It was exciting work for the company to create a structure that is visible to so many people each day. It will remain part of London's horizon for some time to come.

## The Outdoor Living Room Pavilion

Cake Industries were approached by Lendlease to realise a competition winning scheme for a feature pavilion in the busy new commercial office district of Stratford's International Quarter, London.

The galvanised steel cantilever structure, clad in glue-laminated larch timber, is repeated through nine bays, supporting a canopy roof which wraps around one side of the structure.

Powder-coated aluminium shingles cover the exterior in a bright and colourful pattern blending from vivid pink to pastel green, creating a sculptural shelter from every view point. The vibrant colour scheme is continued in the bespoke, galvanised and powder-coated steel work of the fixed furniture inside, with durable hardwood seating and a long communal table.

## Current and future projects

Recently completed projects include a curved timber outdoor meeting room, approximately 5m<sup>2</sup>, fabricated from a complex plywood grid with a CNC-carved iroko edgebeam and clad in raw aluminium strips. They are also currently building a 10m-long arched music studio for a private music industry client out of birch plywood, clad in Douglas fir, and are in the last stages of a finishing a complex timber staircase with central spine beam, with all structural elements from cherry including solid timber treads topped with cork.

Cake Industries is looking to expand in the future. They would love to be able to combine their structural engineering capability with the design and fabrication of beautiful objects on a larger scale. Their 'ideal project' is an architectural footbridge to provide connectivity and be a delight for users.

There is no doubt this innovative, forward-looking company will go from strength to strength and achieve their ambitions and much more.

[cakeindustries.co.uk](http://cakeindustries.co.uk)

Instagram: @cakeindustries