

# REDISCOVERING YOUR INNER CHILD

**John Greeves** talks to **Simon Payne** about Blue Forest and Chewton Glen's spectacular treehouse creation for the 2019 RHS Chelsea Flower Show

As children, many of us built a treehouse, our secret haven, where we could establish a top-secret clubhouse far away from the prying eyes of our parents. Treehouses became associated with nature and adventure, marking out a child's space in the home and representing the kind of 'free play' that was encouraged after World War II. The history of these structures dates back much further. The Romans built seats high up in trees and during the Middle ages, garden arbours, along with other garden structures, became increasingly popular. In many cultures they were part of everyday life. The Korowai people of New Guinea built raised homes to help protect their food and belongings from animals and floods.

In the UK, the oldest surviving treehouse in the world is still to be found at Pitchford Estate and dates back to the 17th century. When she was 13-years-old, the future Queen Victoria visited the Pitchford treehouse in 1832 and wrote in her diary: "At a little past one, we came home and walked about the grounds and I went up a staircase to a little house in a tree."



Britain's oldest existing treehouse  
Photograph courtesy of Pitchford Estate



Photographs courtesy of Blue Forest (UK) Ltd, unless otherwise stated



**FURTHER INFORMATION**

Blue Forest (UK) Ltd – [www.blueforest.com](http://www.blueforest.com)  
Chewton Glen – [www.chewtonglen.com](http://www.chewtonglen.com)



Blue Forest Treehouse at RHS Chelsea 2016

Epitomised by the Simpson's treehouse, their popularity has endured through time with literary references such as *Swiss Family Robinson*, Enid Blyton's *Hallow Tree* and J.R.R. Tolkien's *The Lord of the Rings*. In films, they have featured in *To Kill a Mocking Bird*, *Star Wars – Return of the Jedi* as well as *Avatar*, a film directed by James Cameron in 2009. They remain part of our collective consciousness and childhood memories, which Blue Forest (UK) Ltd intended to reawaken at this year's RHS Chelsea Flower Show with their spectacular treehouse.

Blue Forest has established a reputation as the world's leading treehouse consultancy and are renowned for designing buildings that reflect the environment in which they are built. The company has built hundreds of luxury treehouses around the world – anything from a luxury ecolodge in Malawi, to treehouse hotels and innovative garden hideaways. The range is staggering.

This latest treehouse, created in collaboration with Chewton Glen Hotel and Spa in Hampshire,



2018 woodland fairies with Chelsea Pensioner  
Photograph courtesy of **Prospect Arts**



Posts up



2017 interior of Blue Forest Treehouse  
Photograph courtesy of **Alexander Whittle**

is a luxurious structure and offered the public a rare opportunity to experience first-hand the quality and charm of a bespoke treehouse. 'Rediscover Your Inner Child' (this year's theme) was bound in the essence of the design and presented an ideal location for children to play in, while invoking cherished memories for older family members and friends. A striking planting scheme was provided by 'Architectural Plants', a well known nursery for quirky and unusual plants. Planting reflected this year's theme and aimed to encourage children and families to spend more time outdoors reconnecting with nature. Sensory plants abounded, with different textures, shapes, smells and colours and even tastes for all to explore. Simon Payne, Marketing Director of Blue Forest, tells me that this is the fourth treehouse the company has designed and built for the Chelsea Flower Show. "What we did at Chelsea this year was to really provide an exciting opportunity for people to walk in, touch and fully experience one of our treehouses, which are generally on a person's private land and not always accessible to the public."

Unlike conventional buildings, treehouses sit up in the canopy surrounded by greenery and people are quick to tell Simon about the natural textures, smells as well as the completely different experience they encounter. One main factor that is common to all treehouses, Simon insists, is that



Substructure

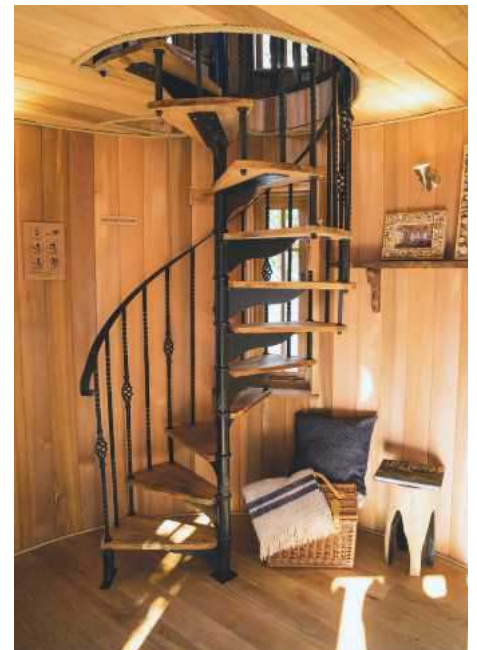


Exterior of Blue Forest Treehouse  
Photograph courtesy of **Alexander Whittle**

of family space. "It's definitely a space where people come together socially, to enjoy time with one another, far away from the house, office and the stresses of everyday life." This year, Blue Forest ensured that children and parents alike had access to their treehouse and garden when they visited stand 329 at the main avenue.

### Decreasing the carbon footprint

Simon makes it very clear that the company is committed to sustainable principles and design in all their treehouses, which is reflected not



2018 reclaimed spiral staircase  
Photograph courtesy of **Prospect Arts**



Setting out the bottom plate



Floor joists and bottom plate

only in their design and choice of materials but also in the way they are built. They don't use the tree for major support but employ stilts that can be erected to underpin the structure and place minimal strain on the tree. Not only does this mean that the tree isn't drilled but this approach also allows the tree to grow and change. At Blue Forest they use FSC and PEFC certified sustainable wood and products. As well as trying to use ultra-local suppliers, they also employ local craftspeople in the community. In this latest venture, low energy LED lighting



Rafters



Wall batten and membrane



Treehouse wall framework

was utilised, which uses 80% less electrical energy than incandescent bulbs. Structural insulation was also fabricated into the walls and lining of the treehouse. In many designs, solar panels or PV systems (standing for photovoltaics) are incorporated to convert sunlight into electricity, while insulation and double glazing remains a central feature of all builds.

Grey water drainage is applied in most of the Blue Forest builds. This is water from a sink or shower, which can then be filtered and reused for your internal toilet system. Like all other structures, the Chelsea treehouse was built almost entirely of timber, the world's most sustainable resource. It is carbon neutral and highly weather-resistant. Following the RHS Chelsea Flower Show, the treehouse (unlike many structures at the event) was transported to its new home in the grounds of Chewton Glen, where it is currently providing a fabulous home for the hotel's popular children's club.

### Overview of the RHS Chelsea Flower Treehouse

The treehouse is approximately 8m in length, open-planned and supported on a raised platform. Its central conical roof raises to a height of nearly 7.5m from ground level. The main sustainable timber used in its construction is tanalised pine



Cedar roof lining

and spruce, although cedar cladding is used extensively throughout the building (inside and out), with oak framing for the double-glazed windows and bi-fold doors. Access to the treehouse is via a spiral wooden staircase at ground level with intricate rope work providing a hand rail. The entrance is through a stable door into a square porch area that connects in turn to a large circular room with an integrated smaller circular reading nook. Bi-fold oak doors open to the raised deck with balustrade, unifying the outside with the inside space and providing access to another spiral staircase, which in turn leads down onto the garden.

Internal features include low level benches with a boot store and hooks in the porch area. Curved upholstered benches, kitchenette and sink, storage cupboards, boiler, fridge, spectacular LED lighting, TV and oak-framed windows are among many other visible internal features that can also be found.

### Construction timetable

When I spoke to Simon about the building of this amazing treehouse, they were in the middle of the project and governed by a very tight time schedule. Construction of the Blue Forest treehouse started on 11 February 2019 with all sections expected to be ready for transportation to the show by Friday 3 May 2019. Unlike ordinary builds the treehouse was prefabricated in five main sections, which were carefully designed to ensure ease of transport for the 50 mile journey from the workshop in Surrey.

Each section weighs approximately 1.5 tons. The entire treehouse and garden was to then be built in only 15 days on-site at the Chelsea



Treehouse stud walls erected



Underfloor heating trays being fitted



Wall cladding and fitting windows



Interior walls insulated, ready for lining



Interior cladding and second-fix electrics added

to give you a platform height of between 2-4m. On the top of the posts is the subframe; this is essentially constructed with 12x2 large timber beams, which supports the deck and floor joists. Most commonly used are softwood varieties such as pine and spruce. The timber is structurally graded C16 and C24 timbers, which have been tanalised to ensure longevity. Diagonal braces are fixed into these large timbers from the vertical house posts below. The floor joists and deck joists run on top of the beams in the opposite direction at right angles and perpendicular to the beams, conforming to the technical timber framing standards.

Flower Show, then dismantled in three days. Blue Forest aimed to assemble the main elements of the treehouse in just seven days, and by doing so allow enough time for the planting design to take place. Interior designers were then given two days to complete the work.

When the platform has been completed to form a solid base, the treehouse is erected. Simon describes the process: "We frame up the walls using our wall studs and noggins; it's fairly typical of traditional timber-framing techniques." Depending on what the client has requested, the structure is highly insulated, either with a solid board insulation, or a sustainable non-combustible stone wool insulation, such as Rockwool, to fill the cavity in the walls. Some clients may, for instance, insist on sheep wool, or another renewable alternative for the insulation.

**The build**

The best treehouse designs incorporate the process of 'escaping' or 'journeying away' from the demands of a busy life. Working very closely with a client and their ideas, the design team at Blue Forest follow a set procedure and generate a computer model to realise this vision. If required, they will also produce a physical model. Simon explains: "Once we've got through that stage we use a fantastic system for our foundations, which requires no digging or concrete." He's referring to ground screws (manufactured by The Great British Grand Screw Company Ltd), which are about 1m long and go into the ground like a normal screw. They have a weight bearing ability typically around 7 tons per screw. Simon continues: "They are effectively mini piles and push the root aside as they go into the ground and create no impact on the surrounding environment or water courses during their use or after removal."

The latest Chelsea treehouse was lined from the outside with cedar. From carrying out previous projects, Simon has found this to be a particularly good timber because it contains its own natural oils, which means it will last for a long time. As well as having a beautiful colour, it is also easy to work. Approximately 500 linear meters of western red cedar cladding were used to create the Chelsea treehouse, which is the same length as 50 London buses or five football pitches.

Inside the treehouse, all the rafters in this open-plan structure are visible to enhance the aesthetic look. The featured vaulted ceiling has the rafters converging to a kingpin in the centre of the room. This particular treehouse roof is fitted with 400 tiny fibre optic lights, which are inset into the ceiling to appear like a night sky. Each hole is less than 1mm wide and had to be hand-drilled. The inside of this is also lined with cedar. Each board had to be hand-cut, due to the circular roof, and becomes narrower towards the top – a time-consuming process, but one that produces a mesmerising effect.

**AWARDS RECEIVED**  
 Winner – Build Awards – Tree House Consultancy of the Year 2018  
 Winner – Best of Houzz Design – 2017  
 Winner – Construction & Engineering Awards – Best in Luxury Tree House Design 2016

These ground screws are capped with metal tenon caps, which are then fixed into the vertical timber house posts. Each ground screw takes about a minute to fit and they are also easily removable. They have the added advantage of keeping the timber posts out of the ground and so prevent decay. These posts can be constructed

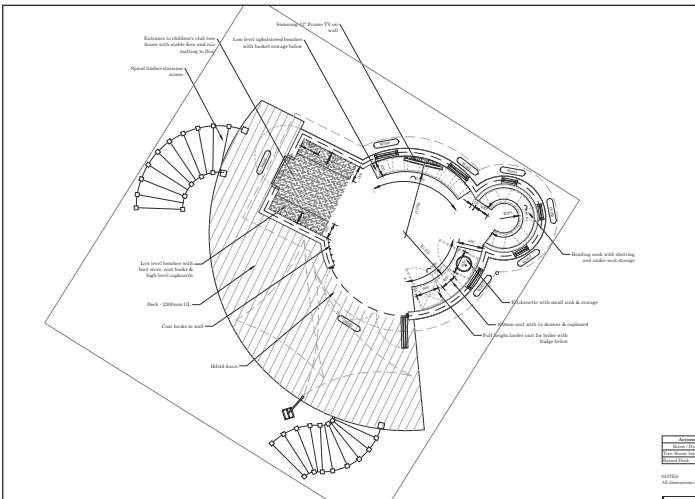


Fig.1 Treehouse ground floor interior plan

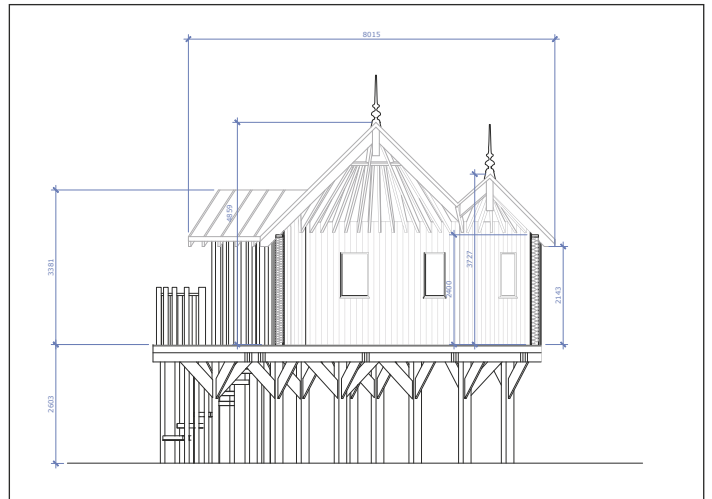


Fig.2 Treehouse proposed section



Drawing of the treehouse exterior

The roof is insulated and lined on the outside. Many treehouses are lined with cedar shingles but this one has a very contemporary roof made from IKO, a single ply waterproof membrane made from recycled materials. The IKO Polymeric is resistant to weathering, chemical oxidation and UV radiation, which ensures long-term durability. When applied, the rubberised roofing surface is finished with a standing seam giving it a similar look to a zinc roof. As Simon explains: "This construction has a slightly more contemporary choice of materials and finishes and has enabled us to try out new methods, including a new sustainable element in roofing choices."

All the joinery on the inside of the treehouse is bespoke including the oak-framed double-glazed windows, the oak stable door, bi-fold doors, the reading nook, work surfaces and movable oak bench seating, which are placed around the circumference of the main room. Engineered flooring is used rather than solid oak flooring, and this particular treehouse also has an underfloor heating system. However, the engineered oak flooring, made up of laminated 180mm x 14mm boards, can cope effectively with the variations in temperature. Careful consideration is always given to every single feature of the treehouse,

as well as the overall integrity of the design. Even the spiral staircases, made from treated softwood, are stained in colour to blend with the surrounding woodland and then finished off with intricate rope detail.

Ingenuity and forward thinking design is never far away from any of the Blue Forest treehouses. All the designs seem to be very fitting for the needs of the 21st century. Previously, the award winning 'Quiet Treehouse', designed for the RHS Hampton Court Flower Show 2014, had acoustic insulation equivalent to a 30cm concrete wall and



Exterior cladding being fitted...



Walls being battened ready for cladding

provided the ultimate silent retreat in the eyes of the judges. Then again, 'The Escape to Narnia Treehouse' developed for the 2018 RHS Chelsea Flower Show, pioneered an avant-garde copper shingle roof, which has since been adopted in other builds.

It's also clear that the Blue Forest team are passionate about the safe-guarding of the environment and keen to promote sustainable principles and ethics throughout the design and construction process, bringing a touch of magic into people's lives. The company continues to build high quality timber buildings, but in Simon's words: "They are a labour of love and in many ways take a long time to build. They're all different, but one of the greatest things about them is that they are great fun" – a sentiment echoed at the 2019 RHS Chelsea Flower Show with this latest exhibit, which is fittingly entitled 'Rediscovering Your Inner Child.' ✂



... and once in place



Completed treehouse interior...



... and exterior