

Cold Light

at Dunham Massey 

five pavilions designed by students from **msa**

Acknowledgements

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The Pavilion: Developing Architectural Practice

The process of understanding and generating ideas to culturally and functionally engage with space through form, communicating these ideas and then making them real is central to the education and practice of an architect. Part of the mission of the Manchester School of Architecture is to enable our students and graduates to participate in the process of design in a wide range of settings, developing skills of communication, development and delivery within a critically based dialogue.

Our work responds to its context both culturally and spatially. We are part of the city that we work within. Local and national cultural institutions form part of this urban context. The School acts as a medium through which different networks and participants can interact.

The Pavilion project develops some of the themes that are core to the education of an architect. The opportunity to work with the National Trust presented our students with a series of real world challenges that map onto the various facets of the design studio. The pavilion encapsulates ideas about construction, form, scale, material and resonance with context at their most elemental. The fact that this project does not remain a paper-based exercise is critical. The move from idea to realised building is complex and requires numerous factors to be considered, from the development of the original thought into form, and then its realisation and evolution through material fabrication. Aspects such as legislation, cost, procurement, logistics and construction all form part of the process of architectural realisation.

Designs were developed within teams that allowed different skills to be brought to bear on the diverse areas of the project. Pavilions emerged from the collaborative engagement of a wide team students, staff and technicians from the Manchester School of Architecture. They were made possible by the process of rigorous development in the design studio acting as a counterpoint to construction within the workshop. The atelier spaces of John Dalton West, fused the studio and workshop to allow designs to be tested and refined. The site, at the National Trust's gardens in Dunham Massey became a gallery where the work engaged with the public.

Prof. Tom Jefferies Head of Manchester School of Architecture





About the Project

Year 2 at the Manchester School of Architecture fosters a collaborative and cooperative approach to architectural endeavour. Live projects with discerning clients generously provide the optimum forum for mutually beneficial activities to inspire students and develop their professional skills. The Pavilion Project at Dunham Massey is now in its second year.

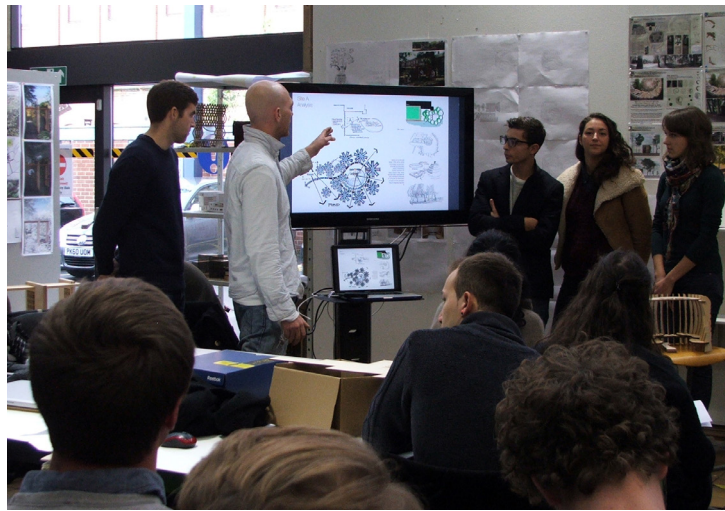
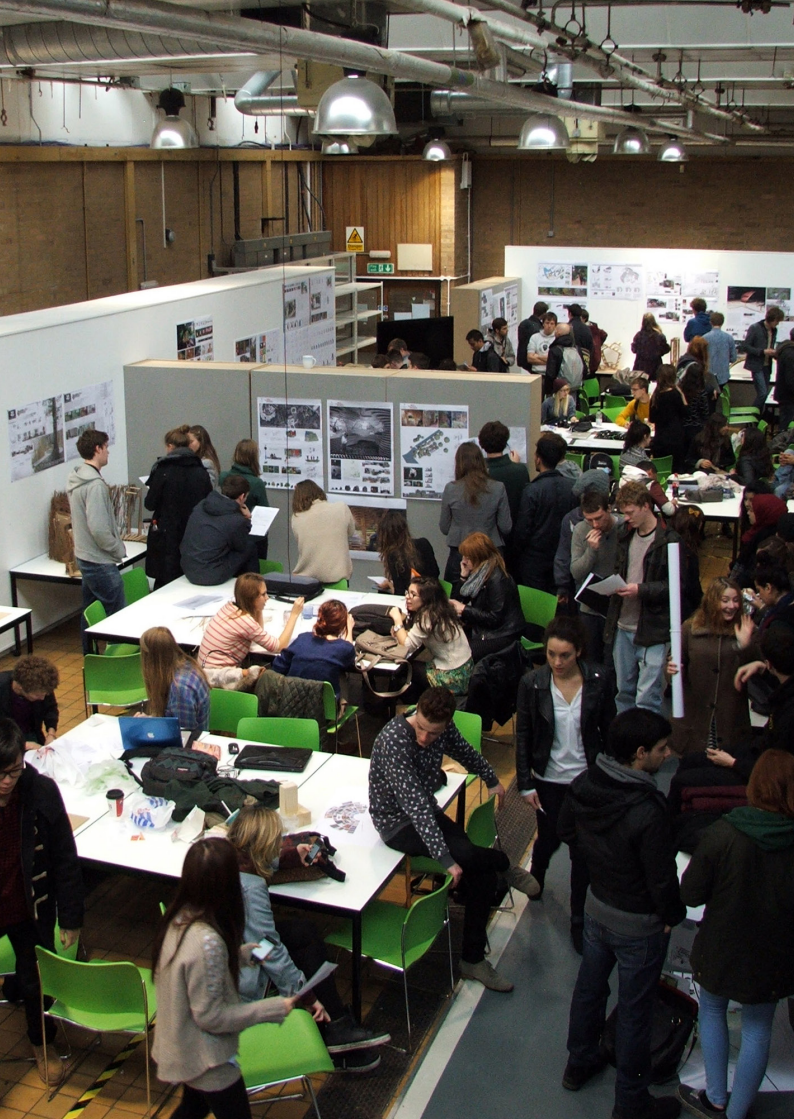
During the Autumn of 2012, Year 2 students from the Manchester School of Architecture were asked to design a purposeful pavilion to be displayed in the Winter Garden at Dunham Massey, Altrincham, Cheshire. This was the beginning of a most extraordinary construction project, providing a unique opportunity for students from the school of architecture to work with the National Trust on a live project, creating a design that would enhance the natural beauty of the Winter Garden, respecting the natural environment of the site and Dunham's architectural heritage, whilst also meeting the demanding levels of rigour, taste and technical skill as demonstrated by the National Trust team at Dunham Massey.

Building on the success of last years pavilions, this years designs were more ambitious and technically advanced. Five designs were selected to be built and exhibited in the Winter Garden over the winter period. They are Chime, Octavia, Tube Cubed, Strata: The Serpent's Cavern and Under the Canopy. The pavilions have proved so popular with visitors and staff at Dunham Massey that four now remain on public display.

We are especially proud of our students who rose to this opportunity with such commitment, enthusiasm and skill, enjoying themselves enormously whilst gaining such valuable experience. The success of this project reflects the calibre and dedication of our students and staff. Our successful endeavours would not have been possible without the generous and invaluable contribution made by our faculty, clients, consultants and sponsors.

Siobhán Barry Head BA2, Manchester School of Architecture











Tube Cubed

Situated in the Winter Gardens, the site is located on a path that culminates with a dead end. The main aim of our design is to draw people to this part of the gardens, who would initially pass by. Our first response to the site is to capture and frame the intricate layered view of the nearby vegetation that surrounds the pathway.

Progressing from framing a simple view of the site, the Tube Cubed pavilion explores the potential of repeating shapes to create a new way of seeing and interacting with the Winter Garden. The final form utilises cardboard tubes to create an enclosed space and provide shelter but is also permeable to engage with the surroundings.

These tubes fragment the garden into multiple frames of focus through which plants and hidden wildlife can be discovered, extracted from the garden in the form of laser cut inserts.

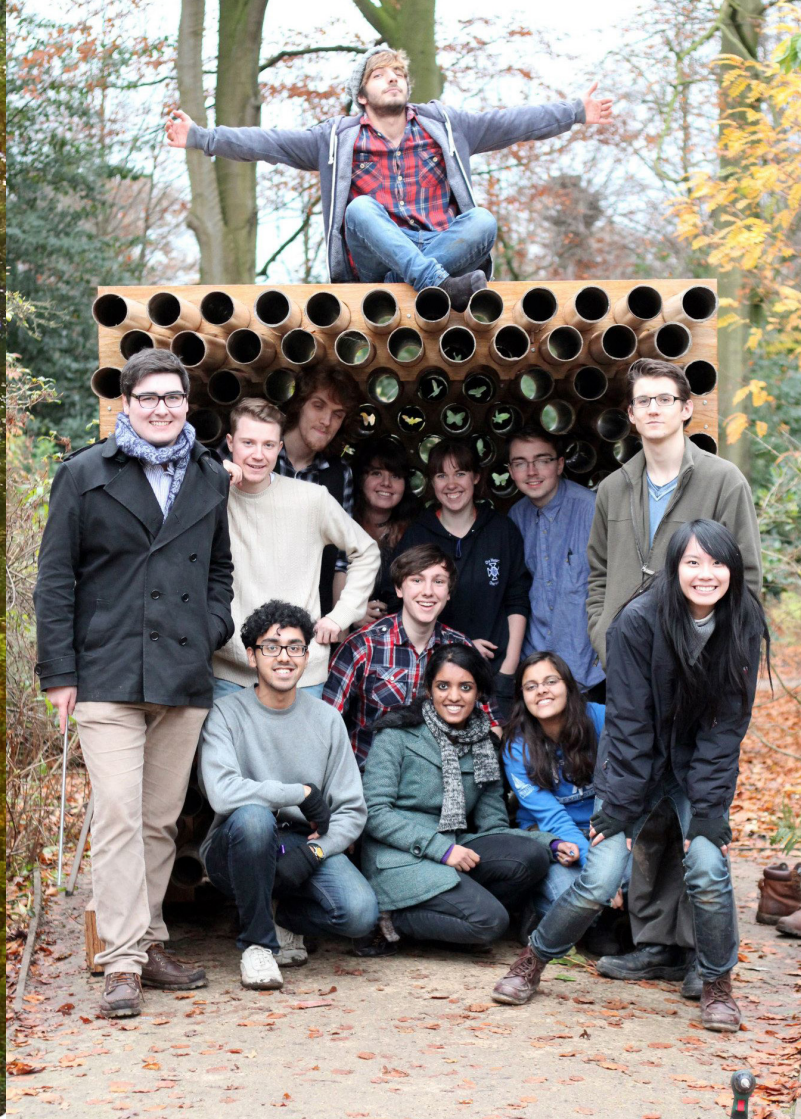




Manchester
Universities'
Catholic
Chaplaincy











Chime

'Chime' aims to bring together the magic of Dunham Massey, integrating the past and present in a design that allows exploration and engagement with the park. It showcases a key feature of the house in the garden, bringing the two to life.

Our site connects the interior and exterior of Dunham Massey, providing a place of interaction between the two. We were taken by the recurring imagery of the service systems and bells that were used in the house. We felt these were successful in bringing the house to life and wanted to harness this to create an attraction for families that will engage them with Dunham Massey.

The layers are built up out of stained ply to echo the bark of the surrounding trees. Insert nuts and bolts fix the layers together in groups of four prior to the build for speed on the day. The arches were carefully considered to be strong and resilient, designed with safety in mind. They'll be completely prefabricated before the build, and will reach over the path taking full advantage of the view. Four sections of double thickness ply will be used to form the curved struts, and three struts will be braced by noggins to form one arch. Additional plywood cladding will cover the arch to match the design of the bell.

Bells on the arches are internally connected to a pulley system, which is accessed from inside the shelter. Song sheets will be available inside so that music can be played on the bells, which are set at different pitches to form an octave. Even when the bells aren't being played, the wind can make its own music with them.

With its musical imagery and sounds, 'Chime' captures the essence of Dunham Massey, and provides a fun and interactive respite for all visitors.

















Octavia

The Octavia Pavilion was designed to celebrate the life and legacy of Octavia Hill, co-founder of the National Trust, a hundred years after her death. Designed with her ideals in mind the pavilion frames the ‘quiet influence of nature, showing ‘the need for air’ and ‘of things growing’ that Octavia Hill knew to be so important. Subtly understated, the Octavia pavilion frames one of Dunham Massey’s least noticeable but most beautiful views.

Her National Trust is now one of the country’s largest charities and landowners, but one hundred years on her ideas and ambitions must not be forgotten, and so the Octavia Pavilion prolongs her stay in the memories of Dunham Massey’s visitors.

Measuring only 3.16m wide by 2.88m deep, the site could be seen as a small and unsuitable location for the pavilion to be built; however there is a secret. The beautiful hidden view of the canal running behind. We wanted to create a stunning piece of minimal architecture, an intriguing introduction to an arresting experience. An unmissable event, to encourage the discovery of a sublime natural scene that may otherwise have been missed.

The design is simple, yet falling down each wall like shadows of the roofing structure that passes through them are strips of peepholes. Laser cut designs inspired by Dunham Massey’s Georgian wallpaper patterns, create uniquely shaped frames around the beautiful sight beyond.

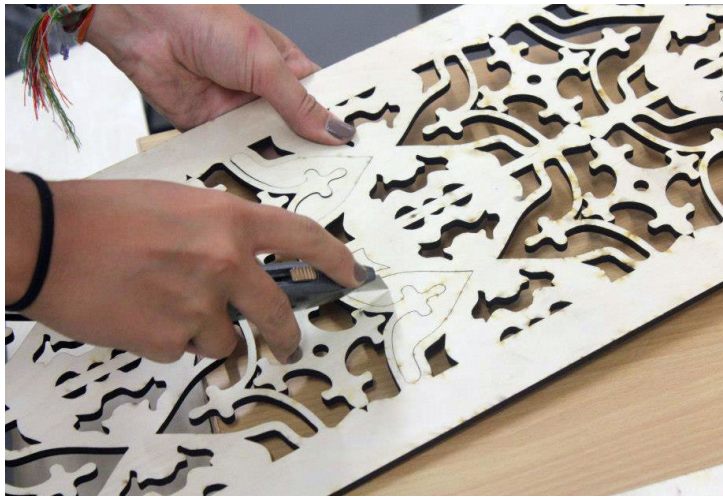
“The need of quiet, the need of air,
and I believe the sight of sky and
the things growing, seem human
needs, common to all men.”

- Octavia Hill

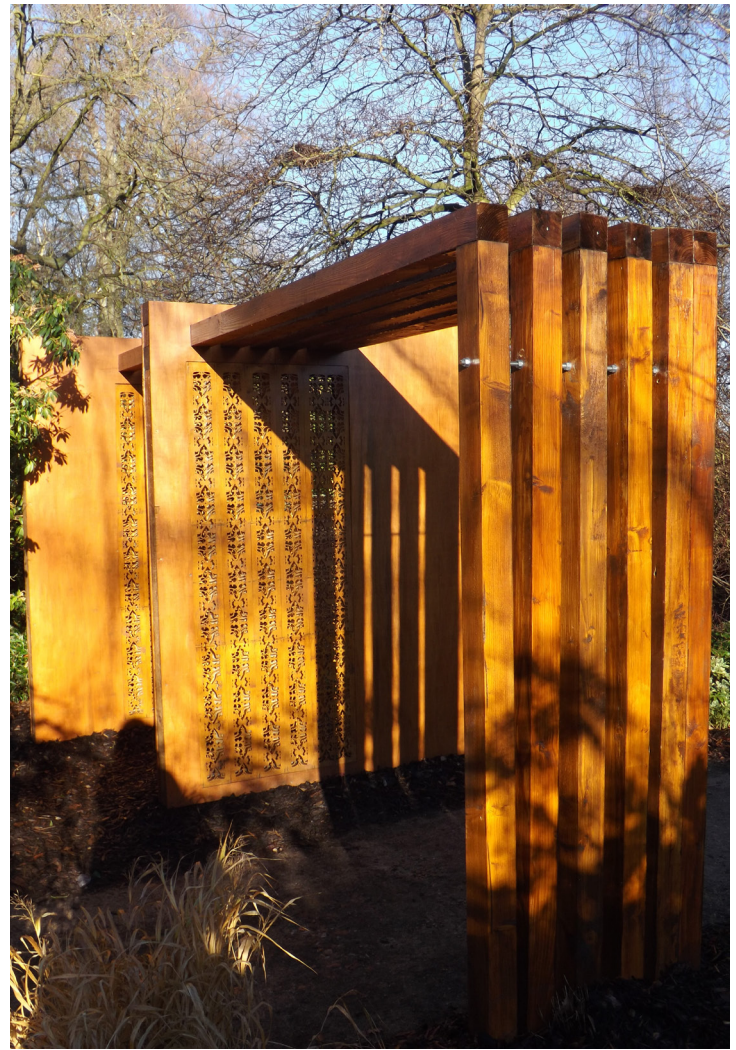








OCTAVIA PAVILION





Strata: the Serpents Cavern

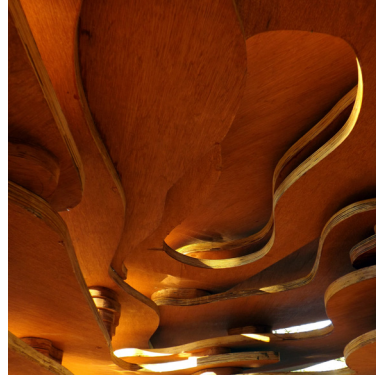
In the heart of Dunham Massey's winter garden sits Strata. A unique and elegant design which appreciates the importance of the annual winter garden, Strata stands proudly between two oak trees. The Pavilion boasts framed views that draw the visitor's eye to specific plants and the continuous horizontal slits throughout the pavilion allow you to peek through.

The pavilion is focused on the internal experience for the user within; a shelter for children to enhance their outlook on nature as they observe and gain knowledge from the gardens. The design is inspired by the organic geometry of caves and rock forms, with their beautiful natural interiors that also provide shelter. Replicating the forms created by the natural process of erosion, the pavilion is fluid and intricate within. The Pavilion is built up of 23 layers with spacers in between each layer, adding structural stability and enhancing the visual effect of the horizontal planes. These planes provide shelter from rain, snow, hail, or even sunlight, without restricting the visitors from experiencing the wonderful gardens around them. The planes also create an interesting and dynamic environment within the shelter, whilst the gaps between each plane allow for a 360 degree view of your surroundings.

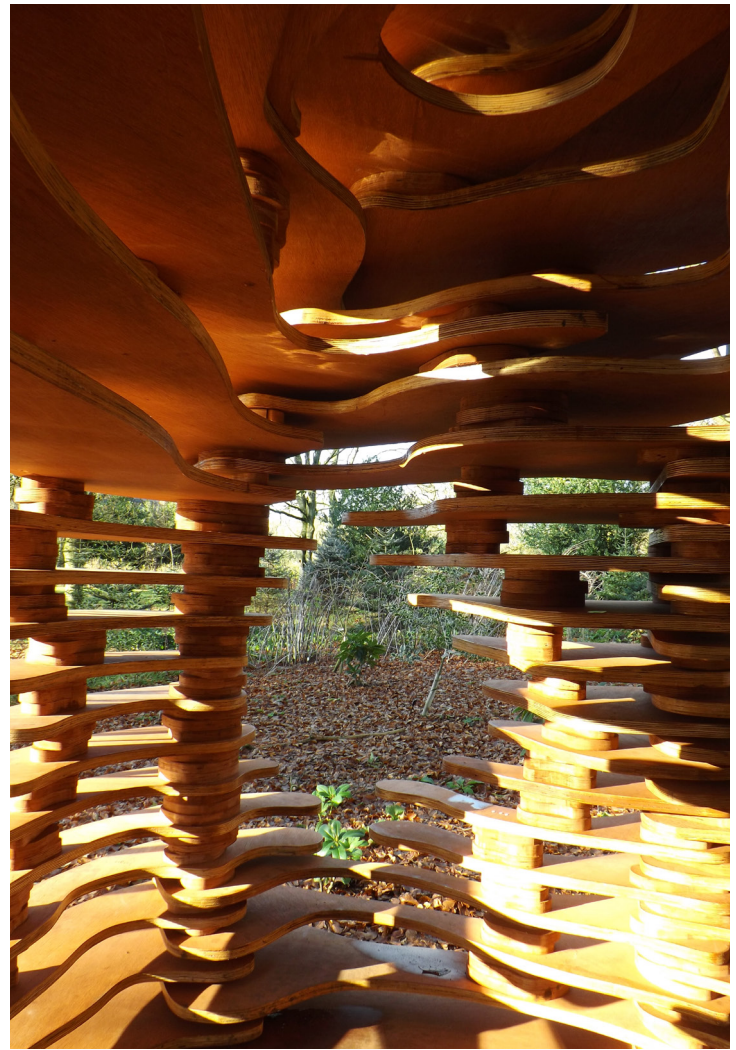














Under the Canopy

We believe that our pavilion should have a low impact on both the natural site, and the environment. We took inspiration from the rings of a tree, which get smaller nearer to the core. Each pair of arches is a smaller iteration of the one before, allowing us to take all three arch sets from the same sheets of plywood. The resulting structure sits gently on the site without drawing attention away from the surrounding gardens, but also minimises impact on the greater natural ecosystem.

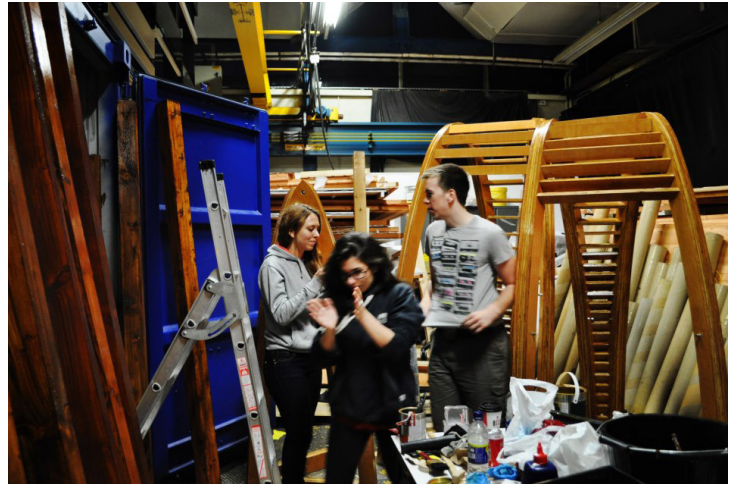
We designed the pavilion to accommodate the different age groups attracted to Dunham Massey; the three arches and chairs decrease in size, creating a connected space that fits every member of the family. We designed our pavilion to be light and open, to counter the dark space under the yew tree.

The design can be cut out of sheets of plywood and easily assembled using a combination of bolts and screw fixtures. We have tessellated all of the pieces on sheets of plywood; arranged to minimise the use of wood, the design is both economical and ecological.

The slats are packed densely angled upwards near the base, making it difficult for younger visitors to find a grip or a foothold, and preventing potential climbing related injuries.

A large part of Dunham Massey's visitor experience is the wildlife that inhabits the gardens; the pavilion, which is designed not to harm or discourage animals could act as a platform to observe seasonal animal life from afar.











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Aperture Pavilion Exhibition

26th Nov 2012 - 31st March 2013 An exhibition of five pavilions inspired by the Winter Garden at Dunham Massey by 2nd Year students from Manchester School of Architecture.

The Winter Garden, Dunham Massey, Altrincham, Cheshire WA14 4SJ

Manchester School of Architecture is an innovative collaboration between the University of Manchester and Manchester Metropolitan University uniting two schools of architecture with over 100 years of educational experience to create one of the largest schools of architecture in the UK.

Admission:
£ 7.20 - Standard Entry
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Free for National Trust Members

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"ESTABLISHED 1926"

Alan Wheat Prize for Architecture 2013
awarded to Strata Pavilion



Pictured: Connor Armitage receiving the award from John White
(Chief Executive of the Timber Trade Association) on behalf of team Strata.



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