

MPAVILION

EDUCATION
GUIDE

2018 BY CARME PINOS

MPavilion is an annual initiative of the Naomi Milgrom Foundation that, since 2014, has brought leading architects from Australia and around the world to Melbourne to design a temporary pavilion for the Queen Victoria Gardens. Each MPavilion hosts a diverse program of free talks, performances, workshops and educational activities and is open daily during its season.

The ambition of MPavilion is to make architecture accessible as a field of design that is of central importance to the way we each experience the world. The architects invited to design each MPavilion are chosen because they are outstanding in their field and unique in their approach to architectural design. This selection criteria has resulted in each new MPavilion being very different from the last in form, materials and building technologies used. At the close of the season each MPavilion is relocated to a new home. You can visit previous MPavilions at locations across Victoria. The new home for the 2018 MPavilion by Carme Pinós is soon to be announced - watch this space.

How to use this resource

This resource introduces the MPavilion initiative and focuses upon the 2018 edition by Spanish architect Carme Pinós. It is aimed at students in levels/years 3-10 and its content is aligned with Victorian and Australian curriculum descriptors. It is intended as a source of insight for educators to draw upon for use either in the classroom, or to help structure an excursion to MPavilion. Each MPavilion has its own dedicated resource and it is recommended that students visit more than one MPavilion to appreciate the contrasts between the designs of different years.



About the Architect: Carme Pinós

Carme Pinós is an internationally acclaimed Spanish architect who was born in Barcelona in 1954. Pinós studied at the Escuela Técnica Superior de Arquitectura de Barcelona (ETSAB), graduating with her architecture qualification in 1979, before returning to ETSAB to study urbanism (the study of the physical needs of urban societies) in 1981. From 1983 - 1990 Pinós worked collaboratively with her then husband, architect Enric Miralles, gaining recognition for several projects, including the City of Barcelona Prize for the 1992 Olympic Archery Range Buildings. Carme Pinós established her own architectural practice, Estudio Carme Pinós, in 1991.

Carme Pinós' takes a humanist approach to her architectural designs. This means that she pays special attention to how her designs can support the wellbeing, progress and agency of people, both collectively and individually. Pinós also pays great attention to the site when developing architectural projects, and considers not only the form and function of the building, but also how it will contribute to the urban plan of which it will become a part.

Carme Pinós is passionate about education and has taught internationally, including as a lecturer at the Harvard University Graduate School of Design, Massachusetts, USA; l'Ecole Polytechnique Federale, Lausanne, Switzerland; and the Kunstakademie in Düsseldorf, Germany. Pinós' has received numerous awards including the 2018 Gaudi Gresol Award 2018; the 2017 International Award for Women in Architecture, ARVHA, Paris; and the 2016 Richard Neutra Award for Professional Excellence.

Portrait of Carme Pinós
Image by Miquel Tres

What is architecture?

Put simply, architecture is the art and practice of designing buildings. A person who practices architecture is called an architect, and to become qualified they must have studied architecture at university. The field of architecture is diverse, including very practical buildings, like hospitals, and also highly creative and expressive ones, like art galleries. And very often, the best architectural buildings combine both practicality and creativity together.

What is a pavilion?

Generally, pavilions are defined by their use as venues for enjoyment or pleasure-related activities such as art exhibitions, music concerts, or as shelters at sporting events. Ordinarily, people don't live or work permanently in a pavilion, and this is reflected in their designs - you are unlikely to ever find amenities such as a kitchen or bedroom in a pavilion. Because pavilions do not need to be functional for day-to-day work or habitation (living), they offer architects unique opportunities to take creative risks and to test experimental designs.

You might already have encountered some examples of pavilions in day-to-day life. For instance, a bandstand in a park, a gazebo in a garden, or a grandstand at a football oval are all different types of modern pavilion. The word 'pavilion' is thought to have developed from two words, the Latin word *papilo*, meaning tent, and the French word *papillon*, meaning butterfly. This is because very early examples of pavilions were large tents with extended fabric sections that were reminiscent of the spread wings of a butterfly. Some of the earliest known pavilions built from permanent materials were Chinese and date back millennia — to 1046-256 BCE!

Exploration opportunity: Investigate these historical and contemporary examples of pavilion design from around the world. What characteristics do they share with the Estudio Carme Pinós MPavilion?

- Serpentine Pavilion - London, UK
- Origami Pavilion by Tal Friedman - Detmold, Germany
- Taoran Pavilion, Beijing - China
- Fireplace Pavilion by Gruppo2020 - Kaluga, Russia

Key design: 2018 Carme Pinós MPavilion

The open, angular form of the 2018 MPavilion by Estudio Carme Pinós was inspired by origami, the Japanese art of paper folding. Looking at the planar (meaning two-dimensional and flat) surfaces of the wall and roof you can imagine that they were folded by giant hands. This impression of a continuous folded surface is reinforced by the fact that the wall and roof are constructed of the same transparent polycarbonate material lined with wooden slats, which continues, unbroken, at the point where a bend separates the horizontal roof from the vertical walls - like a giant piece of folded paper. Where the wing-like geometric planes fold down they meet grassy mounds which were built as foundations for the roof, and designed to mimic the terrain of the surrounding gardens. The interior of the mounds are hollow, and were designed to provide discreet storage for furniture and other equipment when not in use.

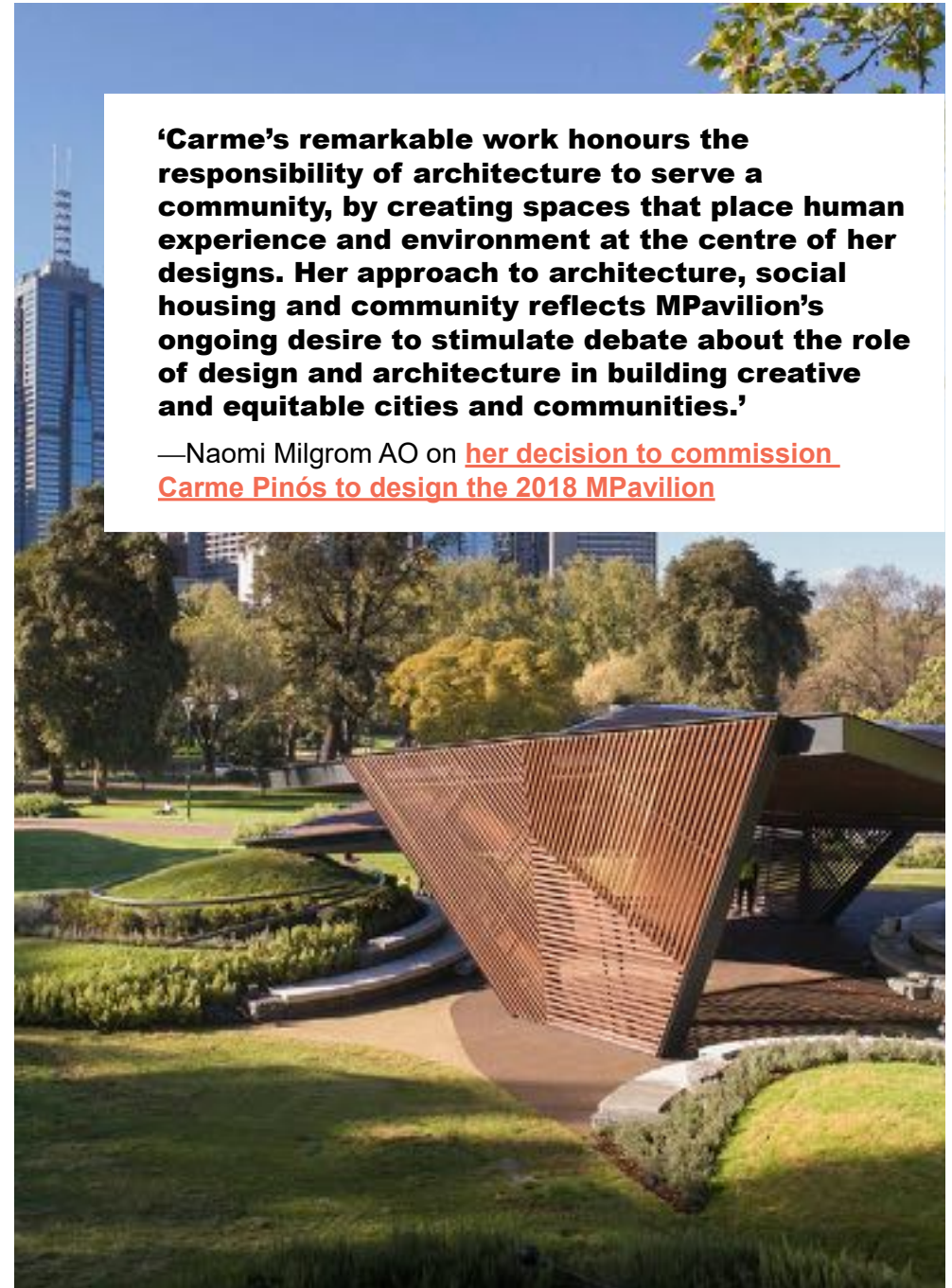
Throughout her career Carme Pinós has specialised in designing community-focused buildings including public housing blocks, accommodation for the elderly, and educational institutions. MPavilion commissioner Naomi Migrom appreciated how, through these socially engaged projects, Carme Pinós centred people and communities within her architectural practice, and this inspired her to invite Pinós to design the 2018 MPavilion.

‘My project is not the pavilion, my project is all the relations that make the pavilion. My project (is to) make possible the concerts, the performances.. Architecture is not (about) shapes, (it is) the space where social relations happen.’

—Carme Pinós on her view that [the most important function of architecture is to promote human interactions](#)

‘Carme’s remarkable work honours the responsibility of architecture to serve a community, by creating spaces that place human experience and environment at the centre of her designs. Her approach to architecture, social housing and community reflects MPavilion’s ongoing desire to stimulate debate about the role of design and architecture in building creative and equitable cities and communities.’

—Naomi Migrom AO on [her decision to commission Carme Pinós to design the 2018 MPavilion](#)





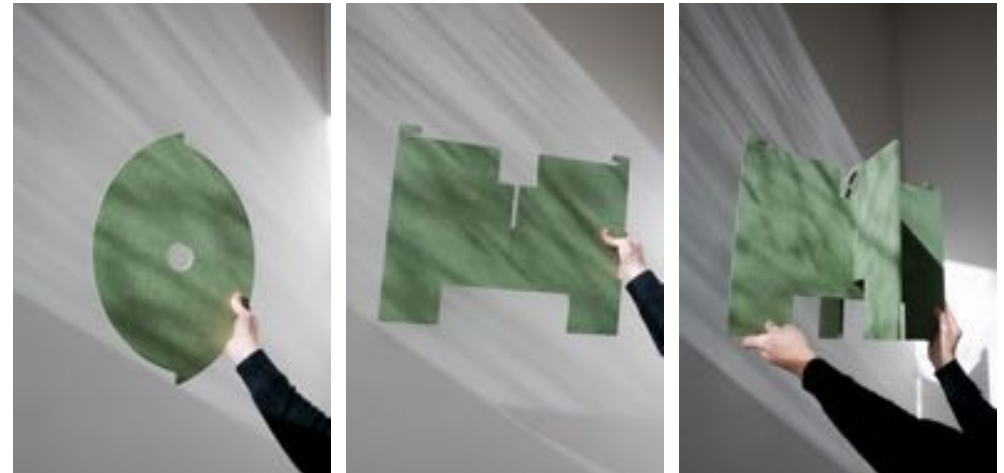
Carme Pinós takes a humanist approach to design. This means that each project is informed by a core belief that design and architecture can, and should, improve the lives of those who live in urban (meaning of, or in, a city or town) environments. To fulfil this criteria through her MPavilion design Pinós adopted an empathetic and observational role. Before she began thinking about what her MPavilion would look like, Pinós visited Melbourne to see and understand first-hand how the people of Melbourne use public space, and how her pavilion could respond to, and enrich, the city in which it would reside. For Pinós, the maxim ‘form follows function’, coined by Modernist American architect Louis Sullivan in 1896, was paramount, with the primary function being how people could best access, enjoy and interact with one another in her MPavilion.

The 2018 MPavilion is constructed of two symmetrical and interlocking elements that rise up and outward at their roof edges in a gesture of openness and welcome to visitors. The pavilion has apertures (openings) onto multiple directions, with no obvious front side. Instead, it invites people from multiple directions simultaneously: the Melbourne CBD from the North; the National Gallery of Victoria and Arts Centre from the West; the Shrine of Remembrance from the South; and the Yarra River and Botanic Gardens from the east. In this way, the pavilion gestures towards multiple facets of Melbourne society - business and city life, art and culture, history and memory, and nature, respectively - and creates a complex, holistic relationship to its site.

Image by Timothy Burgess

'It is a great responsibility to create a unique place in this special park with views over Melbourne, a city to which I have deep attachments. I am inspired by the fact that this new project will become a cultural destination for the city.'

—Carme Pinós on [her ambition for the 2018 MPavilion to connect meaningfully to Melbourne as a unique urban context](#)



Fascinating facts:

- Many of Carme Pinós' buildings, including the celebrated Cube 2 office tower in Guadalajara, Mexico, are based on parallelepipeds - three-dimensional forms composed of six parallelogram (or rhomboid) shaped sides. Another way to understand this is that a parallelepiped is to a parallelogram what a cube is to a square.
- Artist Esther Stewart was commissioned to design a uniform for staff of the 2018 MPavilion. Stewart was chosen because her artworks are often made from fabric and reference fashion, and also because, in 2014, Stewart was an employee at MPavilion, and so had unique insight into what kind of uniform would be most practical for MPavilion employees.
- Carme Pinós designed a stool especially for her MPavilion. The stool is green, to compliment the greenery of the Queen Victoria Gardens, and comes apart in three pieces to allow for compact storage on site. It is also named 'Naomi', after MPavilion commissioner Naomi Milgrom.



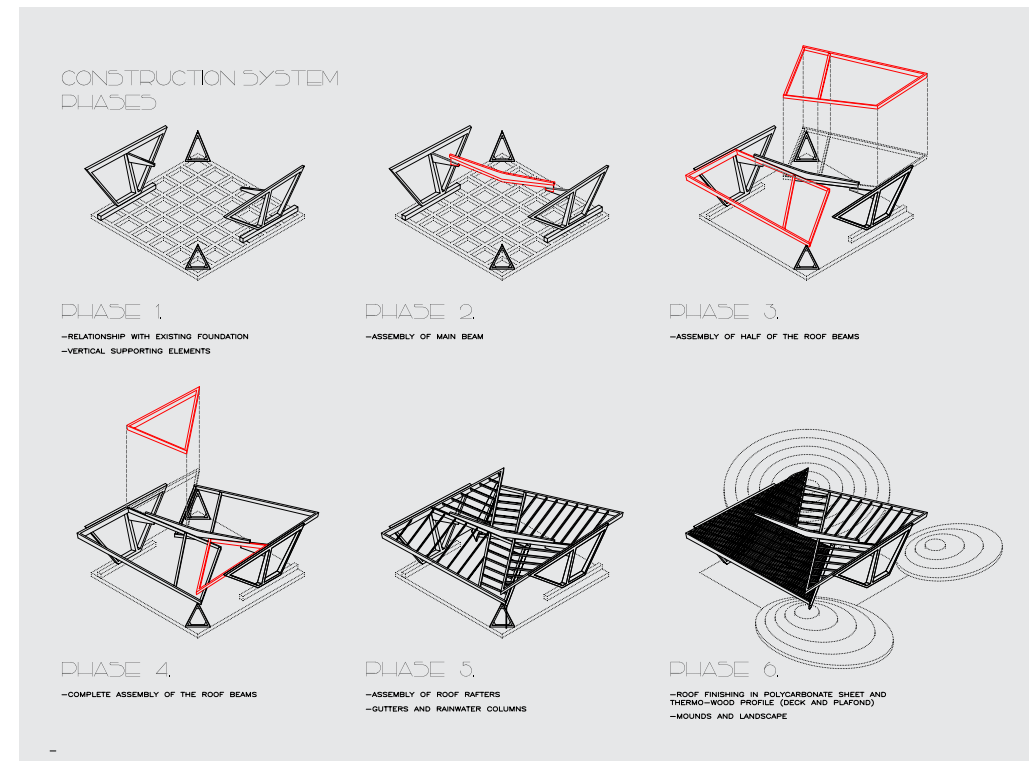
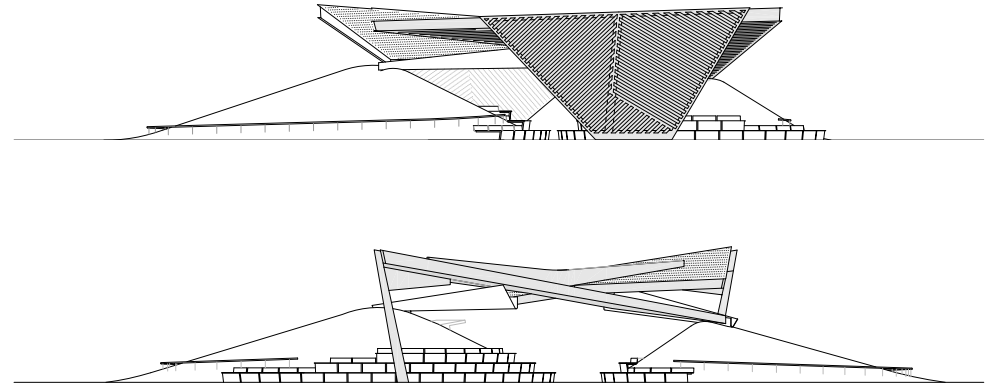
Estudio Carme Pinós 2018 MPavilion Design Process

Carme Pinós and her team at Estudio Carme Pinós began their design process with research. Understanding the place where a piece of architecture will be built and the needs of those who will use it are key priorities for Pinós, so the first thing she did was to visit Melbourne in-person to observe how people interacted with the 2017 MPavilion by OMA. Pinós noted:

‘People arrive there, sit inside, children use (the space) for (activities) .. and I saw another time a woman with a guitar playing in the middle, and people arrived there to sit and listen. (It was all) very natural. All that (suggested) to me that the new (MPavilion should be) something that (can) contain activities (but is) at the same time open to the gardens, and open to the view.’

—Carme Pinós, on [the importance of observing the Queen Victoria Gardens site and Melbourne community when conceiving her 2018 MPavilion design.](#)

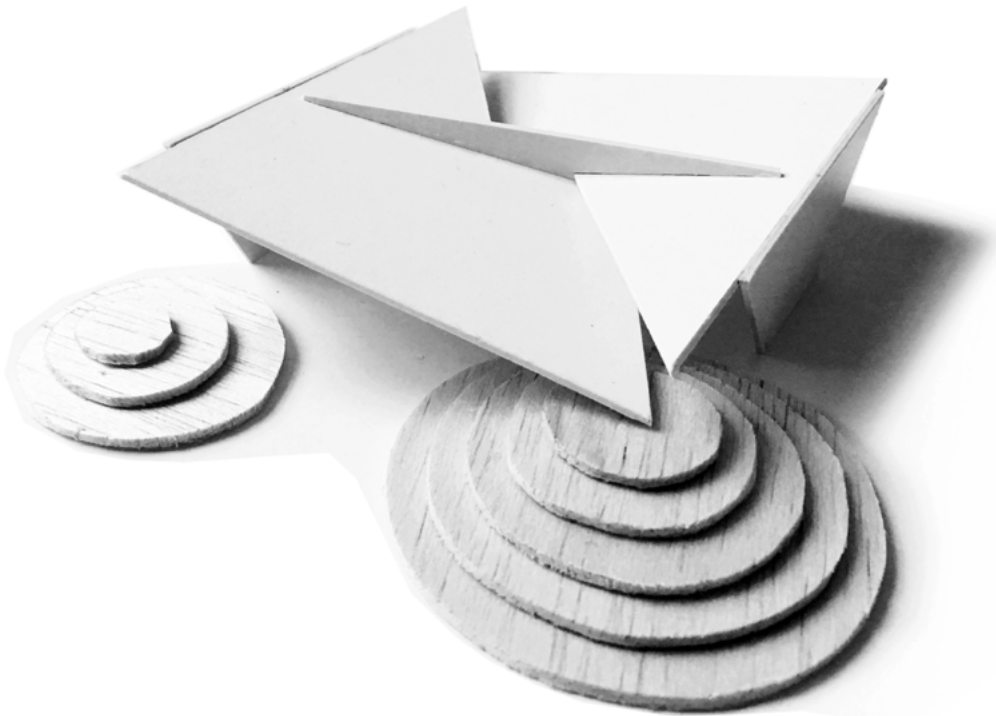
The next step involved the team at Estudio Carme Pinós producing a detailed proposal for the design of the 2018 MPavilion. The proposal included many detailed technical drawings showing the pavilion from the side, above, and separated into different elements. This was accompanied by an architect’s statement from Pinós which detailed her thinking behind the proposed design.



Renders from the design proposal by Estudio Carme Pinós

Models

Estudio Pinós also produced a simple three-dimensional model built from foam core and balsa wood. This showed both the basic form of the roof and of the grass mounds which would act as foundations to support the pavilion.



“A protected space for social activities, but also a place to experience with all the senses; to establish a sophisticated relationship with nature; where we will feel the sun’s path through the game of shadows created by the pavilion’s skin; where on rainy days we will see the water run through its transparent roofing.

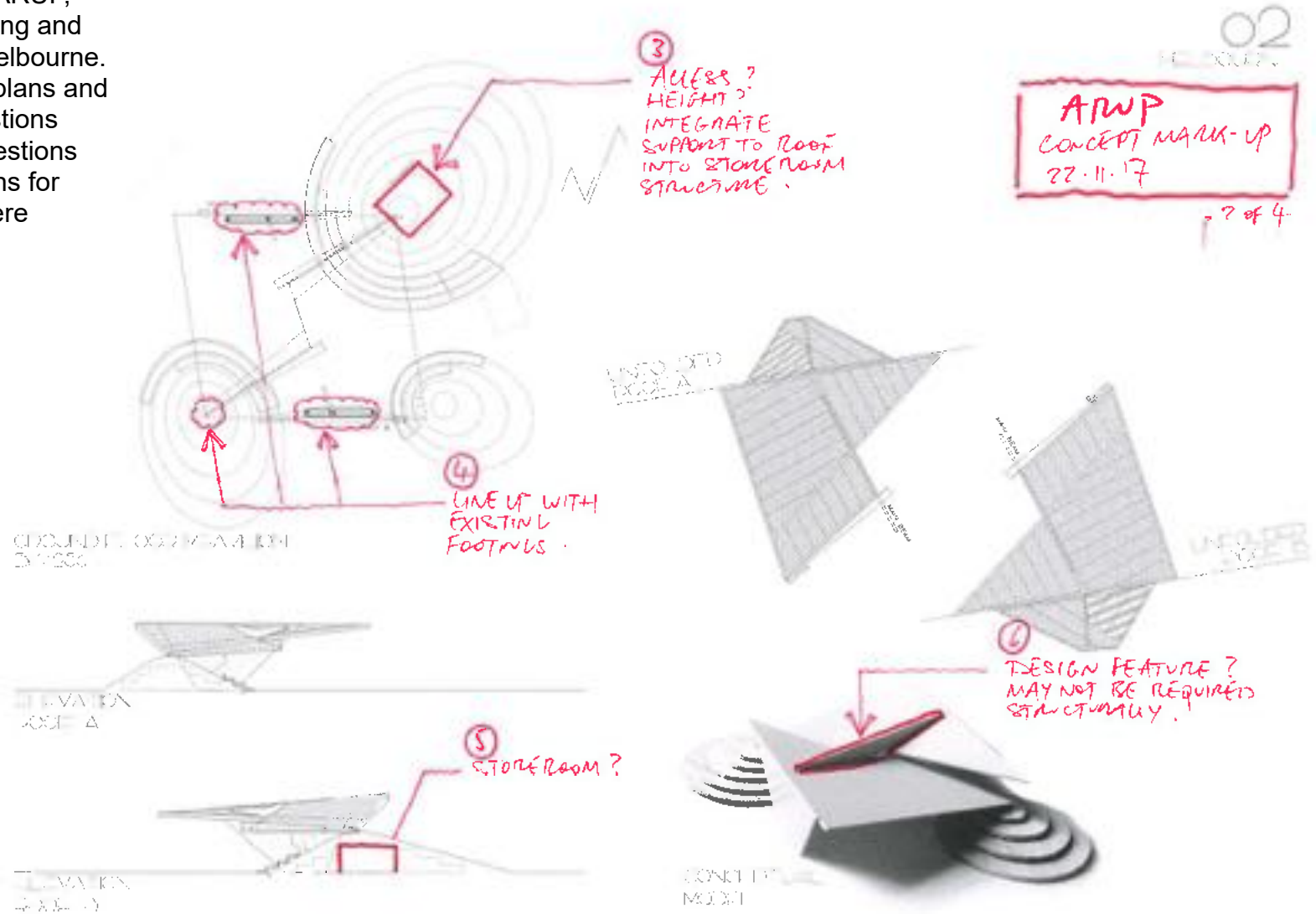
Like an origami folding two surfaces of timber latticework bend and intersect with themselves to form a roof... From the teared seating we enjoy the activities offered by the foundation, never losing sight of the fact that we are in the middle of a magnificent park.

We will be inside the pavilion, but always feeling as if we were also on a balcony facing the surrounding nature.”

—Carne Pinós’ Architect Statement

Plans

Once the design was approved the next step was to share the plans with ARUP, an international design, engineering and architecture firm with offices in Melbourne. ARUP engineers scrutinised the plans and made notes where they had questions about the design. Once those questions were resolved the final calculations for the engineering of the pavilion were confirmed.



Construction

Next, the steel elements were fabricated off-site. They were then transported to the Queen Victoria Gardens for construction along with all the wood and other materials required. Heavy machinery including cranes and diggers were brought in to complete the task.



Once construction was complete the grass mounds were planted with turf and shrubs. Carme Pinós returned to Melbourne for the unveiling of the pavilion and crowds were welcomed to experience the new building.



Relocation

At the close of each season the MPavilion is donated to a Victorian organisation, making space for the next MPavilion to be built the following year. Interested organisations apply to 'adopt' each MPavilion and the most appropriate site is chosen. Recipients of MPavilions include the Melbourne Zoo, Monash University and the Hellenic Museum. This strategy means that each previous MPavilion remains available to be visited, and Melbourne has gained a collection of diverse architecture by leading architects.

The 2018 MPavilion is soon to be relocated. Please visit mpavilion.org and subscribe to the MPavilion newsletter to be notified first of the pavilion's new home.

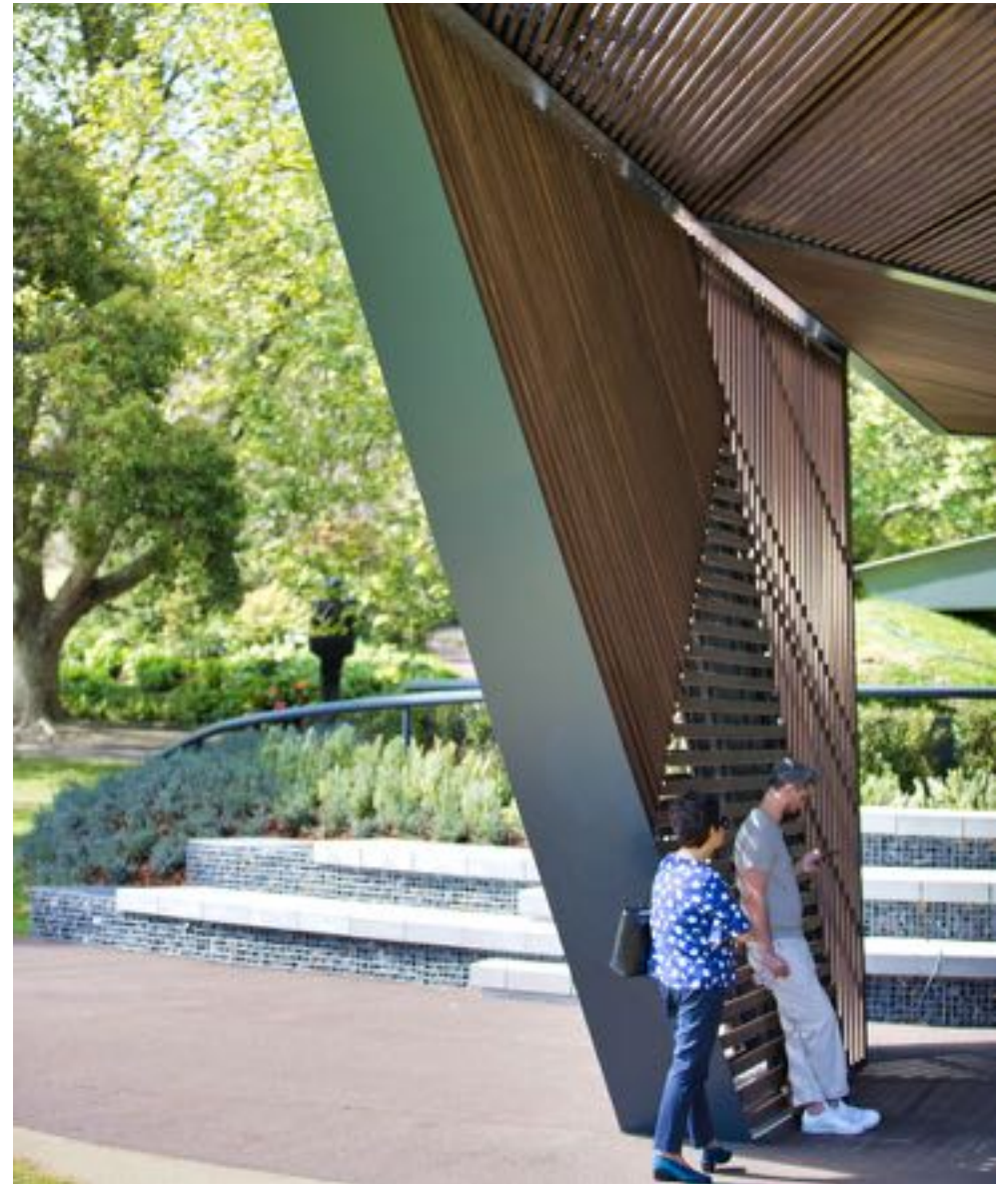


Image by John Gollings

Inquiry questions:

1. Have you seen a building like this before? Does its angular form remind you of anything else?

2. The 2018 MPavilion is an unusual building with several entrances. Which is the front side, and why do you think that?

3. How does the 2018 MPavilion relate to the gardens around it? Can you see any instances where nature and architecture are merging together?

Activity:

The 2018 MPavilion design is inspired by the folded forms of origami. It is composed of two elements that interlock in the centre to create one continuously supported roof, with walls made of the parts that 'fold' down to meet the ground. Your task is to create your own folded paper model for the next MPavilion. Think about how your folded form will look, but also how people will enter it, how they will be sheltered, and how the structure will hold itself up.

Carme Pinós has used slats of wood to create an architectural feature called a brise soleil that adds a lined pattern to the design but also provides shade and allows for sunlight to illuminate the interior of the pavilion. Think about how you could use similar techniques. For example, you could decorate the surface of your pavilion using pencils, or you could pierce your paper to allow light to come through. Trial your techniques on some scrap pieces of paper and then apply the successful ones to your pavilion model.

Excursion tool kit:

- Greylead pencils
- Coloured pencils
- Paper or visual diary
- Hats, sunscreen and water bottles

Inquiry questions:

1. The form of the 2018 MPavilion is inspired by origami, the Japanese art of paper folding. Can you see evidence of this? Where?

2. Carme Pinós wanted her MPavilion to allow visitors to remain connected with nature even when inside the structure. Has she achieved this through her choice of materials and construction techniques? If so, how?

3. A major feature of the 2018 MPavilion is the brise soleil roof and walls. Find out the definition of this French architectural term, and then analyse how this feature performs within the design. What does it contribute to your experience of the pavilion?

Activity:

Carme Pinós is a humanist architect - this means that she considers first and foremost how her designs will add value and improve the quality of peoples' lives. This way of working and thinking is what attracted Naomi Milgrom to Pinós' work, and subsequently inspired her to commission Pinós to design the fifth MPavilion.

The first thing Pinós did when designing her pavilion was to visit Melbourne to see how people interacted with the 2017 MPavilion by OMA, and it was these observations that formed the foundation of her MPavilion design. Observe the 2018 MPavilion and consider how Pinós has communicated her humanist goals through its design. How do you relate to the pavilion? What about the person next to you? Now, use your observations as the basis for your own speculative MPavilion design. Create a design drawing that illustrates the form of your design and displays in accompanying bullet points how your pavilion aspires to create connections with its audience. How will it enrich their experiences? Will it challenge their assumptions about architecture? Add annotations to show what materials you would specify and be sure to consider the environmental impact of each choice. For example, are there any recycled materials that you could substitute in place of new ones?

Excursion tool kit:

- Pens and pencils
- Cartridge paper or visual diary
- Hats, sunscreen and water bottles

Primary school

Australian curriculum links:

Design and Technologies / Processes and Production Skills: ([ACTDEP015](#); [ACTDEP025](#))

- Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques
- Exploring ways of joining, connecting and assembling components that ensure success
- Generating a range of design ideas for intended products, services, environments

Victorian curriculum links:

Design Technologies / Technologies and Society: ([VCDSTS023](#); [VCDSTS033](#))

- Considering the impact of environments on users, for example a school vegetable garden, a protected outdoor play area
- Exploring, playing with and testing materials for their appropriateness, for example materials for a new sun-shade product
- Considering the impact designed solutions have in relation to sustainability and also on local, national, regional and global communities, including Aboriginal and Torres Strait Islander communities and countries in the Asia region

Extension materials

- [Carme Pinós in conversation with Naomi Milgrom discussing the 2018 MPavilion and Pinós' definition of architecture](#)
- [Time-lapse film showing the 2018 MPavilion under construction](#)
- [Film showing the design and assembly of the stool Carme Pinós designed especially for the 2018 MPavilion](#)

Secondary school

Australian curriculum links:

Design and Technologies Processes and Production Skills: ([ACTDEK029](#); [ACTDEP048](#))

- Considering factors that influence the selection of appropriate materials, components, tools and equipment, for example Aboriginal and Torres Strait Islander Peoples' sustainable practices, custodianship and connection to Country
- Considering the needs of community groups to identify rich design tasks
- Critiquing the design of new products to identify how well design ideas respond to sustainability issues

Victorian curriculum links:

Design and Technologies / Creating Designed Solutions / Evaluating: ([VCDSCD052](#); [VCDSCD063](#))

- Developing criteria for success to assess the success of designed solutions in terms of aesthetics, functionality and sustainability
- Evaluating designed solutions and processes and transferring new knowledge and skills to future design projects
- Evaluating and justifying the use and best combination of traditional, contemporary and emerging technologies during project development, including consideration of sustainability, for example farming methods in South-East Asia

Planning your visit

The relocation of the 2018 MPavilion is soon to be announced.

Watch this space.

The MPavilion changes each year, and up until 2020 the location in the Queen Victoria Gardens remained the same. However, to account for Covid-19 restrictions an innovative new model was developed for the 2020-21 program that saw all the previous MPavilions used as venues for artistic commissions and events. This is instead of a new MPavilion being built. The next MPavilion in the series will be commissioned for 2021 - please visit mpavilion.org for the imminent announcement.

You can plan your visit to coincide with education-centred events for students and teachers by checking [here](#).

The full-to-bursting program of free events for the general public can also be accessed [here](#).

Next steps

All but one of the previous MPavilions have been relocated to new locations within Melbourne and are available for viewing, most at no cost.

- 2019** MPavilion by Australian architect Glenn Murcutt is soon to be relocated to **The University of Melbourne, University Square, Carlton** in early 2021.
- 2017** MPavilion by Rem Koolhaas and David Gianotten for OMA can be visited at the **Clayton Campus of Monash University, Melbourne.**
- 2016** MPavilion by Indian architect Bijoy Jain for Studio Mumbai can be visited at the **Melbourne Zoo**. Ticketed admission.
- 2015** MPavilion by British architect Amanda Levete for AL_A can be visited at **Docklands Park**.
- 2014** MPavilion by Australian architect Sean Godsell can be visited at the **Hellenic Museum**.

Acknowledgements

This resource was written and compiled by Andrew Atchison for MPavilion, March 2021.

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