

# Mon Repos Turtle Centre

Mon Repos Turtle Centre, [Bargara](#), Queensland occupies a sensitive beachside location within a conservation park. The Mon Repos beach and environs is the most important turtle nesting ground in Australia and has been a key research centre for over 40 years.



The project scope included the masterplanning of the entire beachside environs to manage vehicle and pedestrian movement within the sensitive coastal landscape which is one of the most significant seasonal nesting grounds for the loggerhead turtle.



The building is the first part of a much larger experience that includes the beachside interaction of the turtles laying and/or the eggs hatching and making their way to the

## Key Info

Architects: KIRK

Area: 1170.0 m<sup>2</sup>

Year: 2019

Photographs: Scott Burrows

Manufacturers: Big Ass Fans, Hanson, Austral Plywood, Carter Holt Harvey, Hyne, Kennedy's Timber, ZC Technical

Lead Architect: Richard Kirk

Design Team: Richard Kirk, Andrew Magub, Peter Webb, Karl Eckermann, Alex Collins, Michael Croft, Jonathan Ward, Caryn Streeter, Fedor Medek, Ikhwan Johari, David Gowty, Cathy Hua, Adelaide

Hampson, Dylan Harland, George Stratford

Clients: Queensland Government –

Building Assets and Services (BAS), Department of Environment and Science (QPWS)

Engineering: Arup (Structural, Civil, Traffic, Services, Electrical, Lighting, Hydraulic, Fire, ESD and Acoustic)

Landscape: TCL

Interpretive Consultant: Focus Productions

Building Certification And Access

Consultant: Certis

Retail Ffe Design Consultant: March Studio

Programmer: Rowles Time Management

Kitchen Fitout Consultant: Food Services

Consultants Australia

waters edge. It is a part of the overall journey around the site and is planned to facilitate a planned sequence of events and the challenges of managing a large number of visitors in the dark whilst in a sensitive beachside setting. The program is simple – a large gathering space “the courtyard”, an interpretive space with an immersive theatrette, and research office spaces.



The conceptual framework of the project was a search for an authentic site response in the building form, spatial experience and materiality. The design drivers were so compelling we saw the poetic emerging from a deliberate focus on circumstance of place and purpose of the project.



The structure and building fabric were designed to withstand the corrosive sea air and seasonal cyclones for a lifespan of over 40 years. The building was primarily constructed using glue-laminated timber for both structure and linings. The prefabricated, locally sourced, glulam timber diagrid superstructure, external corner folded panels and internal

sourced, glulam timber diagrid superstructure, external copper folded panels and internal plywood linings removed waste for both manufacturing and onsite assembly while having an enduring lifespan. Mixed mode, naturally ventilated and daylighting strategies were employed throughout this state-of-the-art centre, reducing reliance upon energy-consuming man-made systems.

The superstructure is a 9.6m x 9.6m diagrid. This was found to be the most efficient structural design to reduce the overall material use and increase spans between glulam 'tree' columns. The diagrid also informed the plan shape, creating a multi-faceted series of triangular folds for protected openings to limit light spill while enhancing the mystery of the arrival experience. The diagrid pattern is celebrated throughout the interior and implies the intricate patterns of the turtle carapace.



The interior material palette is limited to the expression of the spotted gum diagrid timber, veneer plywood with clear finishing for walls and black japanned for the ceiling. The blackened ceiling responds to the requirement for mitigating light spill and is perforated for acoustics to manage the presence of large crowds in the evening.



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Externally the form is a direct volumetric expression of the mono-pitched diagrid structure. The angular forms are clad in a bespoke folded copper sheeting and were protected, recycled tallowwood cladding and screens. The skin allows the façade to breathe while avoiding light spill outside. The building skin will develop a patina over time along with its surrounding landscape immersing itself into a relatively nondescript landscape of grassy, dune forms and trees, ensuring it is a demure addition to this sensitive and ancient home to the turtles who travel around the world to nest each year in the same place.