



KIRK architects uses glulam timber to build 'mon repos turtle centre' in queensland

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occupying a sensitive coastal location in bargara, **queensland**, KIRK architects has completed '*mon repos turtle centre*' with a design that focuses on innovation and sustainability. providing a vibrant community hub for visitors and research, the recent intervention is positioned in close vicinity to mon repos beach, which is home to australia's largest concentration of nesting sea turtles.



all images scott burrows photography

the large public building offers an interpretive center for visitors to learn about the turtles of mon repos. during nesting season, it also serves as a briefing center for up to 300 visitors every evening. due to environmental protections, people are guided safely to and from the center to the beach at night via a set of pathways and boardwalks. with its sensitive location in the great barrier reef conservation and protection zone, the project by **KIRK architects** also included master-planning of the entire beachside environs to manage vehicle and pedestrian movement within the sensitive coastal landscape.



one of the main concepts behind the client's vision was to bring people closer to nature and afford a greater appreciation for the natural environment. to achieve this, KIRK architects decided to get rid of the existing asphalt carpark by siting the new building on top of it. this effectively moved parking outside the conservation park and allowed a greater area of landscaping along the beach zone.



as well as responding sensitively to the site and forging a connection between visitors and nature, the project also embraces sustainable design by the use of a prefabricated structure of glulam timber. locally grown and manufactured, the structure was delivered and fully erected in 2 weeks, which saved valuable construction time and minimized transportation as timber members could be stacked in single lengths. erection occurred with a single mobile crane and less than a total of 2-4 riggers.



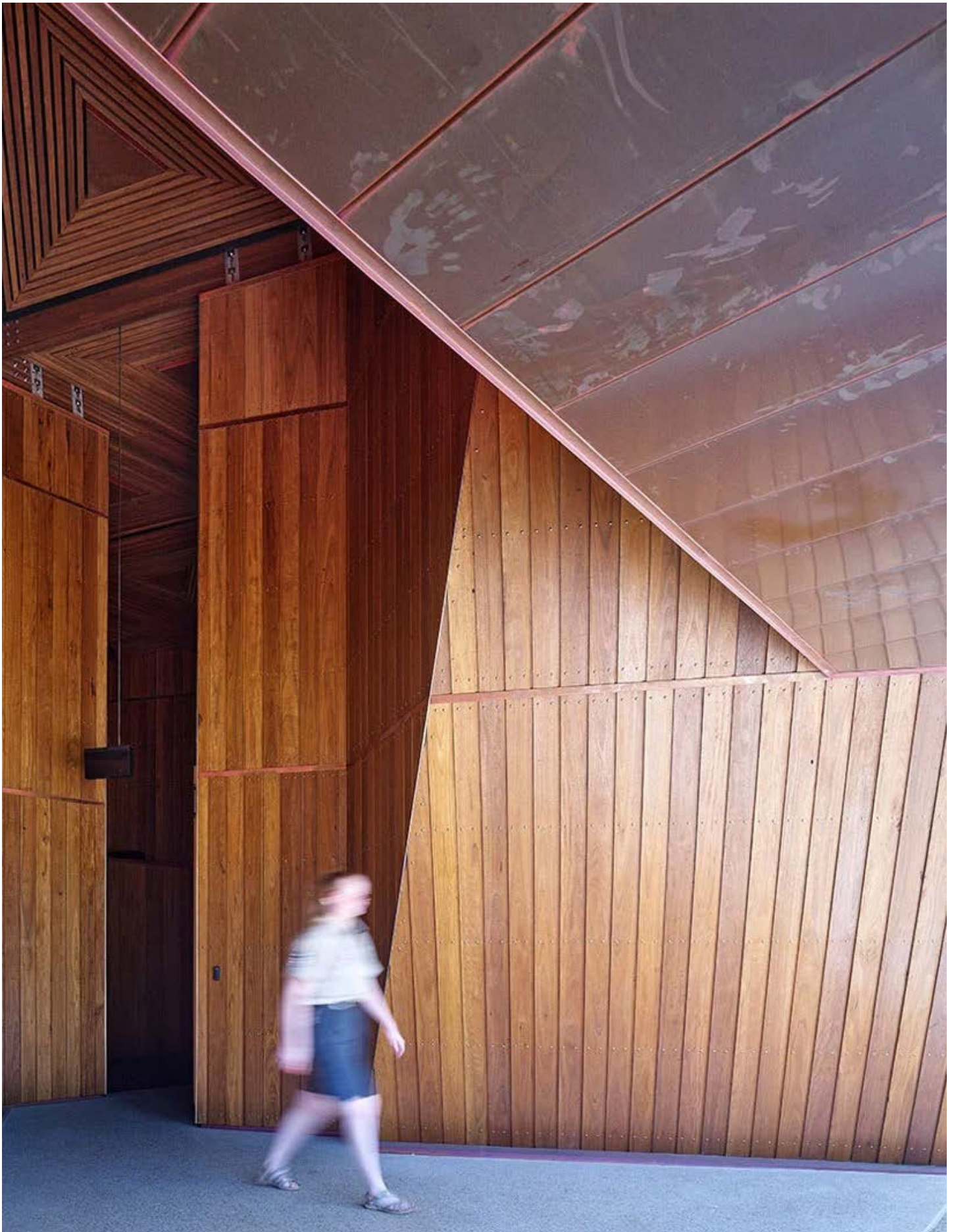
the use of timber also meant the project could fulfil the 50-year design life in the corrosive marine environment, where a steel structure would be very susceptible to corrosion. using timber also enabled them to use copper cladding ideal for the harsh marine environment without worrying about bi-metallic corrosion. *'the timber structure is expected to well exceed the 50 years design life and can be reused at the end of its life.'* – KIRK architects



to reduce energy consumption the orientation of the building was carefully considered to maximize air movement. this was done using computational fluid dynamics (CFD) modelling. the resulting design employs mixed mode, naturally ventilated and daylighting strategies. permanent fixed and operable louvers achieve adequate natural ventilation while the courtyard space is totally naturally ventilated and supplemented with a number of large overhead fans and dramatic triangular skylights. the floor surface is a honed mass concrete that also contributes to the thermal mass of the center helping modulate the internal temperatures.















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project info:

project name: mon repos turtle centre

location: mon repos, queensland, australia

client: queensland parks & wildlife

architect: KIRK architects

status: design 2017; construction 2018-2019; opening november 2019

gross floor area: 11,442 ft2 (1063 m2)
structural & civil engineers: arup
mechanical, electrical and hydraulic engineers: arup
environmental engineers: arup
landscape architect: TCL
geotech: techtonic
certifier: certis
interpretive consultant: focus production
furniture & fitout design: march studio
glulam manufacturer: hyne timber
contractor: murchies constructions
quantity surveyors: QQS
photography: scott burrows photography

lynne myers

may 19, 2020

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