

# **Built commitment to Myanmar**

a+r Architekten build a hospital funded by donations in Myanmar, a country ravaged by political crises and natural disasters.



In the United Nations Universal Declaration of Human Rights, health is enshrined as a human right. In concrete terms, this means that all people must have access to health care. For our highly developed Western industrialised societies, this is usually the norm. Poor countries like Myanmar, however, are often still far from this reality. With a new hospital building that transforms traditional construction methods into a contemporary design vocabulary, a+r Architekten are doing their bit to ensure that people in Magyizin, a remote village in the Bay of Bengal, have faster and better access to medical care. The project, which is currently also providing medical care to those injured in the recent political unrest, was awarded the AIT Award 2020.

Myanmar, formerly also known as Burma, is the second largest country in Southeast Asia and has a population of around 53 million. After many years of military dictatorship, it remains to be one of the least developed countries in the world. Still in very troubled political waters and often hit by natural disasters such as cyclones, floods or earthquakes, more than a quarter of Myanmar's population lives in poverty. Medical care is not available throughout the country and standards are very low. For example, Myanmar has a very high maternal and infant mortality rate.

#### Architectural projects commissioned by NGOs

The non-governmental organisation and registered association Projekt Burma e. V. has set itself the goal of improving the living conditions of people affected by poverty in Myanmar. "Helping people to help themselves" is the motto of the association, which Marion Mück founded in Filderstadt near Stuttgart in 2009. Projekt Burma in cooperation with local partners has already realised various projects in the areas of education, health, water, hygiene and disaster prevention. One of them is the high school in Thazin, which was opened in 2014. The school is

## Your press contact

Heike Bering bering\*kopal, Büro für Kommunikation t +49(0)711 7451 759 15 heike.bering@beringkopal.de

www.bering-kopal.de

#### Architects contact

a+r Architekten GmbH Rotebühlstraße 89/2 D 70178 Stuttgart t +49(0)711 722355-31 f +49(0)711 722355-22 pr@ackermann-raff.de www.ackermann-raff.de



the first building that a+r Architekten designed by order of the NGO and had the opportunity to assist in the implementation on site.

#### Inadequate access to health care

At the opening of the high school in Thazin, the mayor and two community members of the Magyizin village approached the association. They had travelled six hours by fishing boat to personally ask for help. They emphatically described their plight in terms of medical care. Their existing health centre was dilapidated and inadequately equipped. The nearest hospital was over three hours away by moped, an unreasonable distance for seriously ill or heavily pregnant women. After the on-site visit, the board of the association decided that the construction of a hospital should be the next joint project.

#### Comprehensive room schedule

After almost five intensive years of planning, fundraising, material procurement and construction, the hospital was officially opened in February 2020. With 20 beds, a fully equipped operating theatre, a delivery room and a laboratory, it now serves around 20 communities and 20,000 people as a central hospital. The majority of the hospital equipment arrived by container from Germany on the initiative of Projekt Burma e.V., where it had been donated by German institutions and doctors.

A hill on the side of the village facing away from the sea was chosen as the location for the new building. Thanks to its elevated position, the building also serves as a safe refuge during tropical storms and tsunamis. a+r Architekten developed a single-storey atrium house that serves as the main building. The sheltered inner courtyard is the heart of the building; it is both a lounge area and a communal space. Grouped around it are the patient rooms, the treatment and staff rooms and the dispensary. To minimise the transmission of diseases, the waiting area is located outdoors. The linear side wing with its distinctive mono-pitch roof is accessed via a pergola. It houses an isolation ward with additional rooms for infectious patients, kitchens — for self-catering, which is common in Myanmar — along with storage rooms, washrooms and sanitary facilities.

#### Inspired by local building methods

While travelling around the country, the architects had studied the traditional construction methods. As with the high school in Thazin, they designed the hospital according to the country's typical "brick nogging structure", using a skeleton construction with brick infill. In the case of the hospital, the supporting skeleton was made of reinforced concrete to achieve greater stability and to protect against insect infestation. Architecturally striking features are the movable shading and rain protection elements made of wooden slats and the roof construction of the atrium house with its all-round gable top. In combination, both also ensure constant ventilation — one of the major issues when building in a tropical climate. The underside of the ceiling structure made of timber trusses was largely covered with weaved bamboo mats. In this way, the air flow circulates through the open windows behind the shading folding shutters, upwards through the bamboo lattice and back out again via ventilation louvres in the ridge of the gable top. "There is a pleasant draught everywhere in the building," says Julia Raff, the project architect,



explaining the simple but effective basic principle of cross-ventilation. Since there are no construction companies in the area, the building was largely erected by villagers under the guidance of a carpenter.

#### The location is developing

The villagers also actively participated in the construction of the hospital, which is officially called Project Burma Hospital. For example, they collected stones on the beach to line the central basin in the inner courtyard. In case of heavy rainfall, water can be drained off in a controlled manner via this surface. In a few years, a sapling tree in the middle of the basin will provide additional shade. In the course of building the new hospital, the Myanmar government additionally funded a house for doctors and nursing staff. Thus, the village of Magyizin is developing into a health centre for the entire region. During the Corona pandemic, the hospital is also used as an official quarantine centre. Since the outbreak of the recent political unrest in Myanmar, many, mostly young people injured in the protests have been treated at the Burma Hospital.

#### First prize at the AIT Award

"This small hospital combines pragmatic and spatial programmatic aspects with local culture in a remarkable way. Its character impresses with a noble appropriateness and the consideration of regional construction techniques. What is very remarkable here is that non-local planners have demonstrated the conceptual and socio-political empathy that in similar projects in Asia or Africa often degenerates into folkloristic attitudes." This is the jury's statement for the AIT Award 2020, which has been awarded by the trade journal AIT since 2012 for outstanding building construction and interior design projects. The Burma Hospital was awarded 1st prize in the health/nursing category. "We are very proud that our project has convinced the jury and that our commitment and that of the association Projekt Burma has been appreciated," explains Julia Raff from a+r Architekten. "We very much hope that the hospital in Magyizin will become a successful component for healthcare in Myanmar and that the association will be able to initiate many more meaningful activities on site."

#### Data + Facts

Project: Project Burma Hospital Location: Magyizin, Myanmar Planning office: a+r Architekten GmbH Client: Projekt Burma e. V. Site and project management: Projekt Burma e. V. Planning and construction period: 2015-2019 Opening: February 2020 Building costs: approx. 360,000 USD, funded by donations Built-up area: 767 sq m Usable floor area: 515 sq m

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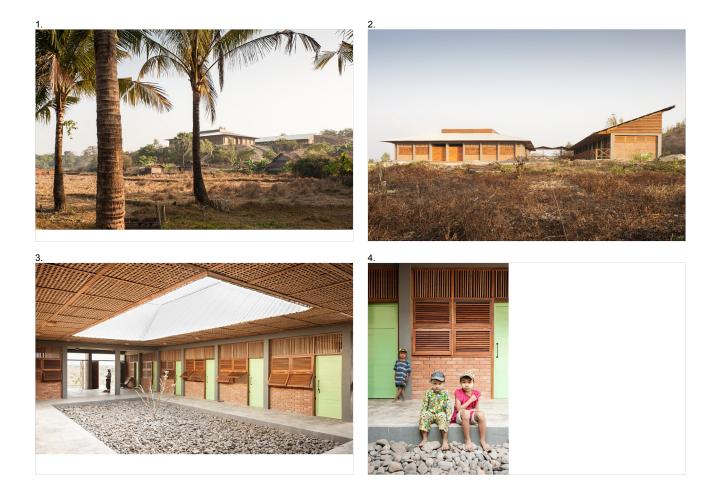


**1** A hill on the side of the village facing away from the sea was chosen as the location for the hospital in Magyizin, Myanmar. Thanks to its elevated position, the building also serves as a safe refuge during tropical storms and tsunamis. Photo: Oliver Gerhartz

2 a+r Architekten developed a single-storey atrium house to serve as the main building. The linear side wing with its distinctive mono-pitch roof is accessed via an arcade. Among other things, it accommodates an isolation ward. Photo: Oliver Gerhartz

**3** The sheltered inner courtyard is the heart of the hospital; it is both a lounge area and a communal space. The patient rooms, the treatment and staff rooms and the dispensary are grouped around it. Photo: Oliver Gerhartz

**4** With its 20 beds, a fully equipped operating theatre, a delivery room and a laboratory, Project Burma Hospital serves as a central hospital for around 20 communities and 20,000 people. Photo: Oliver Gerhartz





**5** After almost five intensive years of planning, fundraising, material procurement and construction, the hospital was opened in February 2020. Photo: Oliver Gerhartz

**6** The hospital was designed following the country's typical "brick nogging structure", using a skeletal construction method with brick infill. Photo: Oliver Gerhartz

7 The underside of the ceiling structure made of timber trusses was largely covered with weaved bamboo mats. This allows air to circulate through the open windows behind the shading shutters, upwards through the bamboo lattice and back out again via ventilation louvres in the ridge of the gable top. Photo: Oliver Gerhartz

**8** "There is a pleasant draught everywhere in the building," says Julia Raff, the project architect, explaining the simple but effective basic principle of cross-ventilation. Photo: Oliver Gerhartz



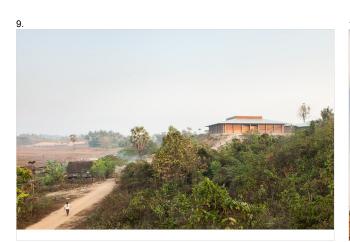


**9** As there are no construction companies in the region, the building was largely erected by villagers under the guidance of a carpenter. Photo: Oliver Gerhartz

**10** While travelling around the country, a+r Architekten had studied the traditional construction method and adapted it for the hospital in a contemporary way. Photo: Oliver Gerhartz

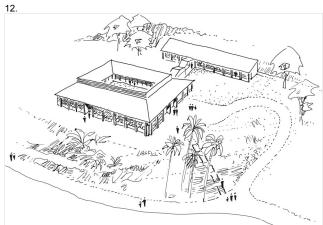
11 The shading folding shutters are a distinctive element of the new building. Photo: Oliver Gerhartz

12 Sketch: site plan of the Project Burma Hospital, illustration: a+r Architekten









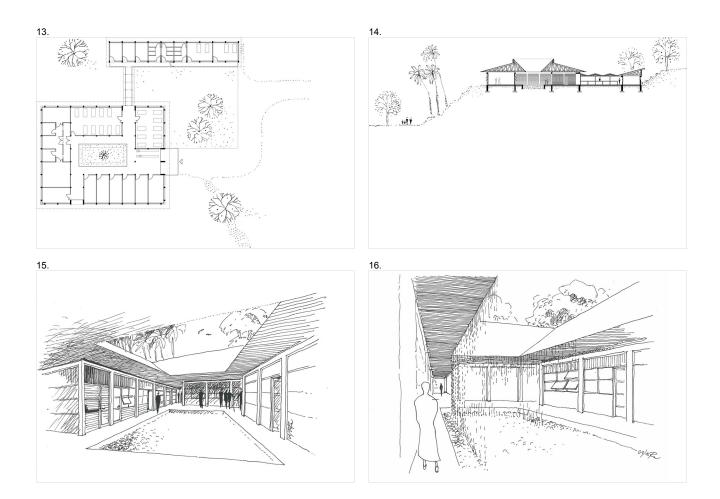


13 Floor plan of the Project Burma Hospital, illustration: a+r Architekten

14 Section of the Project Burma Hospital, illustration: a+r Architekten

15 Sketch: inner courtyard of the Project Burma Hospital, illustration: a+r Architekten

16 Sketch: inner courtyard during the rainy season, Project Burma Hospital, illustration: a+r Architekten





#### About a+r Architekten

a+r Architekten stand for solid, environmentally compatible and future-oriented architecture with impressive expertise in the field of sustainable building — also in existing building contexts. Founded in 1985 by Professor Gerd Ackermann and Professor Hellmut Raff, the office with branches in Stuttgart and Tübingen has around 100 employees and is today headed by Professor Hellmut Raff, Oliver Braun, Florian Gruner, Alexander Lange and Walter Fritz. a+r Architekten mainly build for public clients, industry and commerce, municipal housing companies and social institutions. The office focuses on appropriate, ecological, functional and the resulting innovative construction methods and has been awarded prestigious prizes for this approach: most recently, DAM Prize 2020, Exemplary Construction Award 2020 by the Baden-Württemberg Chamber of Architects, "best architects 2020" and first place in the Competitionline Ranking 2019/20 as the most successful competition office in German-speaking countries.

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