



Arkitrek

conservation of natural resources
through design + education

Founder: Ian Hall BSc, BArch, ARB(UK)
Incorporated: 2008 as Malaysian Private Limited Company
Services: Design Consultancy

Arkitrek Sdn Bhd

Capability Statement

Company Background

Arkitrek is rooted in a love of nature and the question of what we in the construction industry can do to protect it. We are experts in sustainable design, in particular tropical passive design and the integration of architecture with social infrastructure and the natural environment. We practice participatory design and engage with volunteers, students and communities in many of our projects

Arkitrek was founded by Ian Hall, a UK registered architect. It was incorporated as a private limited company in Malaysia in 2008. The company is majority Malaysian bumiputera owned and operates as a social enterprise.

Design Services:

- Architectural design
- Feasibility studies, site analysis & appraisals
- Green building / eco-design
- Participatory design process
- Holistic design for people and environment
- Contract documents & tender process
- Construction oversight
- Post-occupancy analysis

People we've worked with

- Avantha Foundation, Malaysia
- Batu Batu resort, Johor, Malaysia
- Bornean Sun Bear Conservation Centre
- Borneo Rainforest Lodge
- Camps International
- Jerudong International School, Brunei
- Keresa Plantations & Mill
- LEAP Conservancy
- Lupa Masa resort
- Raleigh International
- The Royal Society
- Wild Asia
- Yayasan Sabah

Experiential Learning Services:

- Design/Build programs for architecture & engineering students
- Schools design/build workshops
- Volunteer construction programs
- Facilitation, Training and Participatory Design

Registered Office

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SSM Company Number

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Website

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The arkitrek logo is a seed from a rare tropical hardwood tree *Dipterocarpus exalatus* (local name Keruing rapak) photographed in Maliau Basin.

Client: Borneo Nature Tours
Project: Renovation of Luxury Nature Tourism Lodge
Role: Lead Design Consultant
Status: Completed May 2010

Sabah, Malaysia Borneo Rainforest Lodge Chalets

Can luxury be reconciled with sustainable design? The renovation of 28 chalets at Borneo Rainforest Lodge has reset the benchmark for the leading nature resort in Sabah.

We have adapted two original designs into four unique new room types. The design principles have stayed true to our philosophy of creating cool and comfortable rooms without air conditioning

We have achieved this by following passive design principles of thermal insulation, thermal mass and natural ventilation.

Our brief called for improved daylighting and to enhance the feeling of connection to nature.

The success of BRL makes it a persuasive case study for non-extractive use of a fragile resource such as the Danum Valley Conservation Area.



Client: Borneo Nature Tours
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Sabah, Malaysia
Borneo Rainforest Lodge
Main Lodge

The main lodge building at BRL applies the same principles as the chalets on a grander scale. We have reworked the arrival sequence, circulation and connection to nature to make the most of the magnificent setting.

The centrepiece is a grand atrium with bespoke lighting installation. The atrium at the heart of the building helps to integrate the flow between inside and outside and between back of house and front. This difficult to describe, movement of energy, was one of the most conspicuous shortcomings of the original design.

Looking back on the construction process we see a progression both in our design repertoire, the client's willingness to experiment and the contractors' understanding that sometimes moy liang (less nice) is ho liang (very nice).



Client: Wild Asia / Keresa Plantations & Mill
Project: Round-table for Sustainable Palm Oil (RSPO) certification
Role: Participatory Design / Sustainable Design Consultant
Status: RSPO Certification Awarded 2010

Sarawak, Malaysia Keresa Plantations & Mill

Part way through upgrading their workers' housing, Keresa Plantations and Mill wanted to know whether their work was on the right track.

In association with Wild Asia, Arkitek was invited to help review housing standards and find out from the workers themselves whether the new houses were any good. This was done through site surveys, home visits and a series of participatory design workshops.

These discussions also provided an opportunity to assess how the workers' aspirations might support sustainable practices such as rainwater harvesting, constructed wetland waste water treatment & passive building design.

Most of the recommendations were implemented and Keresa now produce RSPO certified Palm Oil



Client: Camps International
Project: Building Community Tourism infrastructure
Role: Planning, Sustainable Design & Capacity Building
Status: Ongoing

Sabah, Malaysia Camp Borneo

How do you build capacity in rural communities to pursue sustainable development ideals? Camps International's model is to empower communities to build and operate their own community tourism businesses.

Voluntourists and school groups that stay in the community undertake project work that aims to support education, micro enterprise and sustainable practices

Arkitrek's role does not stop at planning and design of the camps and project work, it also includes communication and logistical support to the community members who build the camps.

Inherent to this process is building capacity for sustainable practices such as; rainwater harvesting, reduced reliance on tropical hardwoods, biogas digesters, grey water recycling and use of recycled materials.



Client: Wild Asia

Project: Asia Region Independent Responsible Tourism Award

Role: Judge and Fact-finder

Status: Annual Award

Kuala Lumpur, Malaysia

Responsible Tourism Awards

Wild Asia's Responsible Tourism (RT) Awards is an annual event that recognises and rewards businesses in Asia that have embraced the ideals of Responsible tourism. Now in its fifth year, the awards have become a showcase for sustainable tourism, and are inspiring change and innovation from within the travel industry.

The independent awards process includes a self assessment checklist and a fact-finding visit to each of the finalists to verify their claims. The judging process, awards ceremony and follow up workshops aim to share and promote best practice.

Arkitrek's Ian Hall is a responsible tourism associate of Wild Asia, a role which includes fact-finding and judging for the RT awards, reviewing RT standards, participation in forums and recently as an invited speaker at the Pacific Asia Tourism Association (PATA) RT conference in Nepal.



Client: Bornean Sun Bear Conservation Centre
Project: Wildlife sanctuary and rehabilitation centre
Role: Lead Design Consultant
Status: Phase I completed March 2010

Sabah, Malaysia Sun Bear Conservation Centre

Sun Bears are a totally protected species in Malaysia and threatened throughout their range by habitat loss and poaching. BSBCC answers the animal welfare needs of captive bears confiscated by the Sabah Wildlife Department.

Many of these animals will spend the rest of their life in captivity and a few will be suitable for rehabilitation to the wild.

The recently completed Phase I of the conservation centre uniquely provides a bear house with controlled access to lowland primary rainforest, the bears' natural habitat.

There are 20 indoor caged dens and 6 hotwired forest enclosures totalling 1.3ha. The building is low energy, maximises daylighting, harvests rainwater and will collect methane from bear dung to cook the bears' food. Construction of Phase II (visitor centre and observation deck) will start in 2011.



Client: Bornean Sun Bear Conservation Centre
Project: Wildlife sanctuary and rehabilitation centre
Role: Volunteer Program Coordinator
Status: Ongoing

Sabah, Malaysia BSBCC Volunteer Program

The volunteer program started in July 2009 and to date has seen over 500 young people from around the world contribute to the construction of the new sun bear conservation centre.

The volunteers have contributed to peripheral infrastructure such as screening walls, footbridges, trails, boardwalks and a biogas digester. This benefits BSBCC by reducing the fundraising burden and by building international support for conservation of wild animals in Borneo.

Arkitrek designs the projects to suit requirements of specific volunteer groups and provide them with easily identifiable objectives that will give a sense of achievement. Logistical support is provided by a team of supervisors including arkitrek interns.



Client: Various

Project: Experiential learning program for design students

Status: Ongoing

Malaysia and Cambodia Arkitrek Intern Program

The Arkitrek Intern Program provides 3 month placements for construction industry students and graduates. Since its inception in 2009 the program has seen more than 10 participants engaged with clients such as Camps International, Borneo Rainforest Lodge and the Bornean Sun Bear Conservation Centre.

The Program is a site based opportunity to get hands on construction experience together with design responsibility.

Engaging interns in this way is effective in developing the interns' confidence. They are given autonomy to communicate directly with clients, contractors and building users. Interns are selected for their self motivation and are set objectives matched to their abilities.

Working on community and environmental projects in remote areas is an appropriate place for interns to learn the processes of sustainable design. Here the impacts of development are more obvious due to the physical proximity of the nature. Energy, resource and waste flows can be viewed more holistically and significantly, students can learn methods for engaging communities to become better stewards of our natural resources.



Client: Lupa Masa Resort
Project: Jungle Camp, by Poring Hot Springs, Mt Kinabalu
Role: Lead Design Consultant
Status: Due for completion in 2011

Sabah, Malaysia Lupa Masa

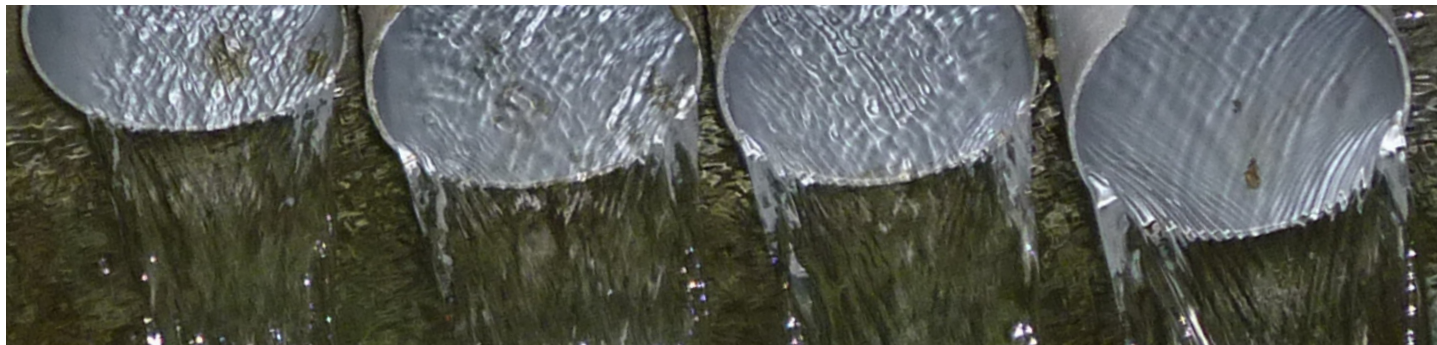
The name for our jungle camp came after a few bottles of wine. Reclining on siliu bamboo floor under a sheet of tarpaulin we banded ideas around.

Lupa Masa means forget time; get up when it gets light, rest when it gets hot and bathe in the cool evening when the six-o'clock cicada starts to call.

The architectural detailing is not prescriptive but adaptive. That's how we've ended up with various patterns of rattan bound joints, bamboo slats and siliu bamboo floors. Siliu is the local name for split bamboo mat.

Lupa Masa is carbon neutral in operation. This is possible thanks to a steep fast flowing stream from Mt Kinabalu which drives a 3kW micro hydro power plant.

Main building materials are bamboo and stone rubble, both sourced on or near the site.



Client: Camps International
Project: Marine Conservation Program Learning Centre
Role: Program Coordinator
Status: Complete

Sabah, Malaysia Arkitrek Camp, May 2011

The Arkitrek Camp gives a team of passionate designers a real client and a real project brief in an exotic location in Borneo.

The Arkitrek Camp is for students, graduates and professionals in the construction industry. For students it is a chance to experience the construction process first hand and to learn that what you design must actually be build-able. For professionals perhaps it is a chance to rejuvenate both your enthusiasm for the profession and commitment to sustainable use of natural resources

This is what the client had to say about the outcome of the first camp in May 2011

“The building has surpassed our brief and our expectations. It is not a typical building – It has a distinct ‘presence’ but at the same time is also completely in harmony with its surroundings.

We hope that building will be a catalyst for taking our marine work, and more importantly the community’s ownership and protection of their own marine environment, to a higher level.

Thank you to the Arkitrek team for a job well done!”

Rory Hall, Director, Camps International Asia



Client: Camps International
Project: Sleeping Quarters for Camp Borneo Volunteers
Role: Program Coordinator
Status: Complete

Sabah, Malaysia Arkitrek Camp2, April 2012

The second Arkitrek Camp brought together young designers and engineers from Malaysia and the UK to tackle the issue of rainwater harvesting on an island with serious threats to its groundwater resource.

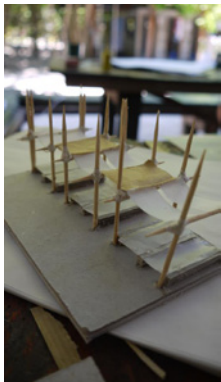
This is what our participants said about their experiences:

“I thought the [design sessions] worked really well to incorporate everyone’s thoughts and ideas into the design and was also fun and enjoyable! I was surprised at how quickly the design for the building was formulated in comparison to other design experiences (especially other group work) that I have had.”

Anna Nichols, Part I Architecture student, UK

“Amazing what can be achieved by 6 amateurs in such a short time. I should work harder and achieve more.”

Anna MacKenzie, Part I Architecture student, UK



Client: Sepilok Orang Utan Rehabilitation Centre
Project: Training Area for young orang utans
Role: Program Coordinator & Training
Status: On going

Sabah, Malaysia
Arkitrek CampJIS, April 2012

Arkitrek Camp JIS is a bespoke program run for the Jeradong International School, Brunei. It engages students to design and build a training facility at the internationally renowned Sepilok Orang Utan Rehabilitation Center.

Students have interviewed staff and rehabilitation experts, made observations of orang utans and designed and engineered devices to encourage climbing, agility and confidence in the trees. This project is currently on site and the school will be returning next year to run the program again.

“It’s not often that students get to play such a big role on a project of this scale, and it still surprises me that we not only seem to be accomplishing what is required of us, but also excelling in certain areas.”

Son Han Yee

“Never have I experienced a project that challenges me both mentally and physically, but still feels so fulfilling at the end of the day. I’m really excited to see the out come of all this.”

Yee Ling Leong

