

帕尼社区中心，孟加拉，拉贾哈特 Pani community centre, Rajarhat, Bangladesh, 2014

建筑设计：SchilderScholte建筑事务所
Architects: SchilderScholte Architects



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Photograph courtesy of the architect

荷兰帕尼基金会委托我们的工作室在孟加拉北部设计一座教育性建筑。作为建筑师，我们非常欢迎这种分享知识的正能量公益项目。这座只使用本地材料、工艺和技术建成的环境友好型建筑为社区带来了十分积极的影响。

“我们的目标是在这个穆斯林社区中为没有土地的贫民提供教育，并改善卫生和教育水平，减少儿童死亡率，保证经济独立，最终放大基金会资助带来的效益！”

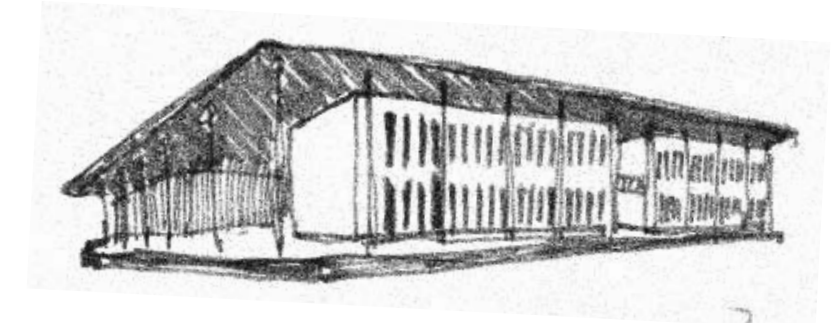
其出发点是用场地 25km 半径内的材料来整合和优化本地的技术。我们与孟加拉的承包商和木匠一起检查哪些产品是可用的。在设计过程中重点关注的是本地材料和天气情况。其中的动力在于鼓励本地人理解可持续性的原则和耐久建筑的理念。在施工中几乎实现了电能和化石能的零消耗。

我们的策略是让本地施工过程的发展和现代化不致出现工匠的技术断层。首先要学习本地施工工人所需的技能，以实现长远策划，并为人们建立信心，在实践中融入新的知识和技能。例如，我们使用了一种非本地的砖砌法，即使不是整体砖墙也能保证稳定性，这样就在保留主要优势、本地材料和工艺的情况下将成本降至最小。该项目使用的所有建筑技术都易学易用，并由承包商进行普及，而这就已经推动了本地施工的现代化。

虽然竹子在这一地区被视为低级材料，但我们还是选择用它建造整个屋顶。甚至工作室的墙面和玻璃门都覆上了竹子！它也暗示着在这里加工的竹自行车架。

从生物气候的角度看，建筑的朝向与热带屋顶保证了自然对流通风。此外，设计中还考虑到利用附近池塘的自然气流给教室降温。从侧面悬挂的 U 形屋顶提供了遮阳，既为建筑中最大的洞口挡雨，又给院内收集雨水。这里还进行了仿生试验！室内墙壁的淡蓝色调能驱赶苍蝇。教室窗户斜面上的黄色调会让特定的昆虫跑开。有了这些低技要素就几乎不再需要杀虫剂和电扇。

这个社区中心已然成为小镇的骄傲，还是人们最喜爱的自拍点。□（尚晋译）





The Dutch Pani Foundation commissioned our office to design an educational building in the north of Bangladesh. We as architects embraced this pro bono assignment coming from ideological motives and knowledge sharing. By making use of local materials, craftsmanship and skills exclusively, an environmentally friendly building has been realized that contributes to the community in a significant way.

"The goal is to train the poor and landless in this Muslim community, improve the hygiene and work on education, reduce child mortality and ensure economic independence eventually making the financial support of the foundation superfluous!"

The starting point was to combine and optimize local techniques and skills with materials to be

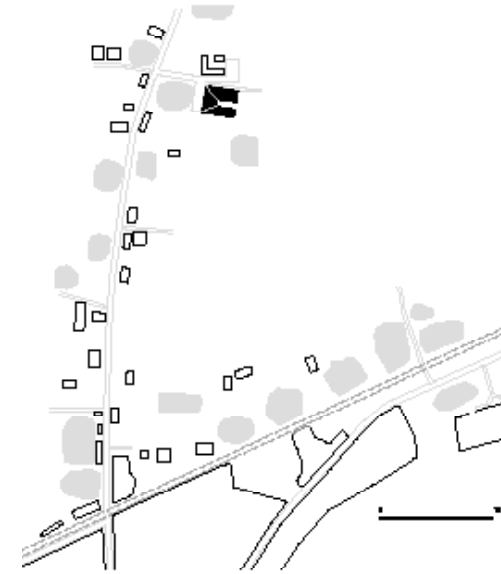
found within a 25 km radius from the site. Together with the Bengal contractors and carpenters we looked at what products were available. During the design process, attention was mainly focused on local available materials and climatic conditions. The motivation was to encourage locals to become aware of the basic principles of sustainability and durable building concepts. In effect close to zero electricity or fossil fuels were used during construction.

This strategy was to participate in the evolution and modernization of the local construction processes without a rupture in the "know how" of the artisans. This began with learning the local construction workers necessary skills required for long-term planning and develop confidence to bring into practice new knowledge and skills. We for

instance introduced a locally unknown brickwork bond that doesn't require whole-brick walls for stability, thus minimizing the costs and maintaining the main advantage, the use of local materials and craftsmanship. All the building techniques used for this project are very easy to learn and diffused by the main contractor, which has already contributed to the local construction modernization.

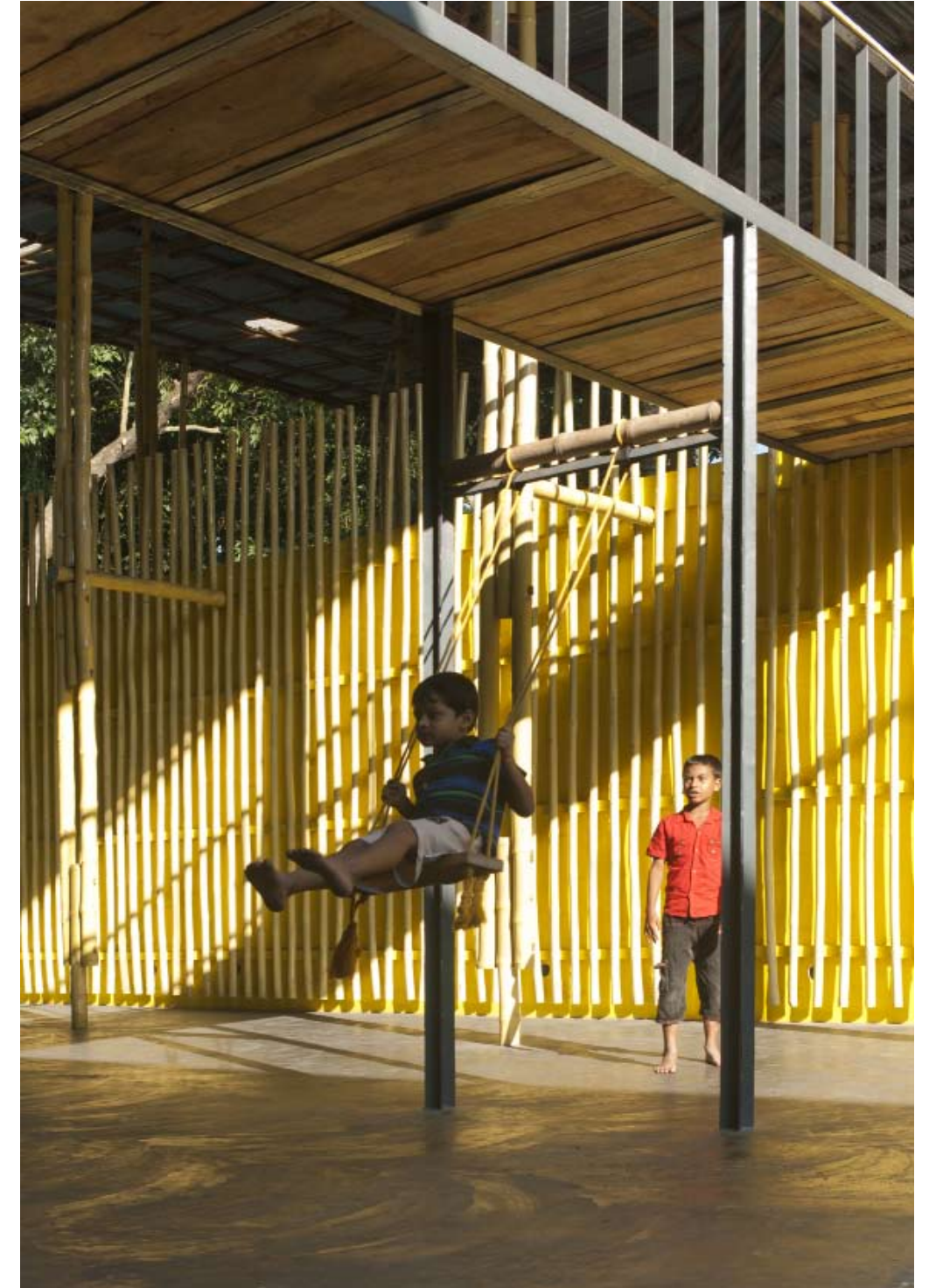
Although bamboo is seen as an inferior material in the region, we chose to make the whole roof construction out of it. Even the walls and French doors of the workshop are clad with it, a reference to the bamboo bicycle frames that are made here.

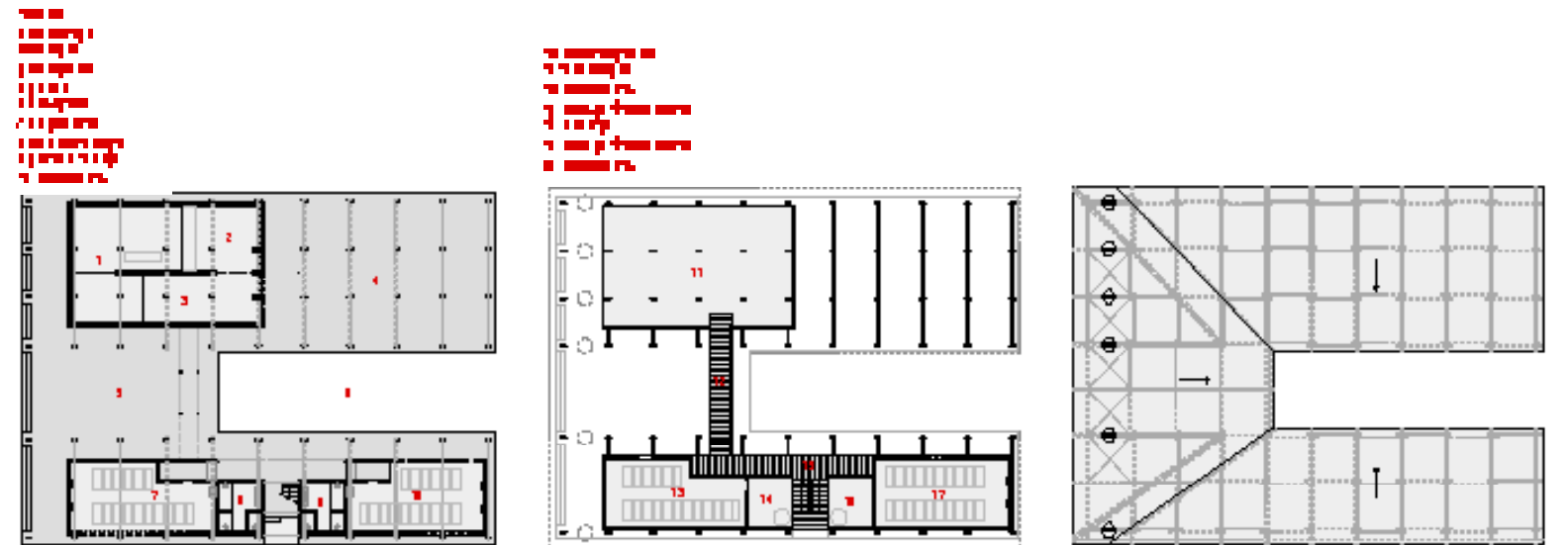
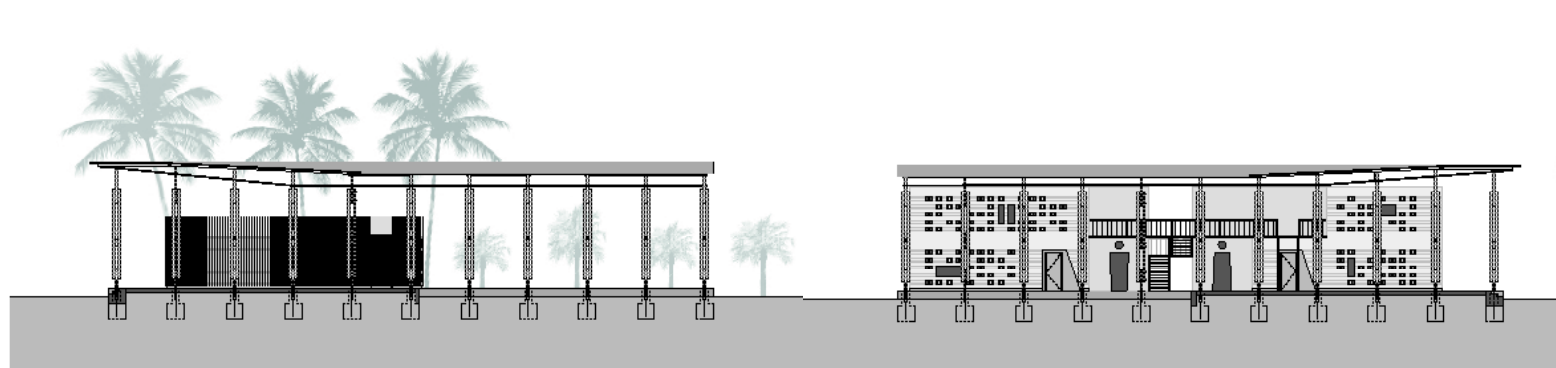
From a bioclimatic point of view the orientation of the building together with the tropical roof



ensures natural cross ventilation. Also the use of nearby ponds for natural draft to cool the classrooms was taken into account in the design. The U-shaped roof is suspended to the sides providing shade, protecting the biggest openings against rain and collecting rainwater into the courtyard. Some bio mimicry elements are put on the test here! The interior walls are colored in light blue, a hue that flies shun. The splay of the classroom windows are painted yellow, a hue that specific insects dislike. These low tech features have proven to reduce the use of insecticides and electric fans to minimum.

The community center has become the pride of the town and a favorite *selfie spot*. □







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项目信息/Credits and data:
 建筑设计/Project: SchilderScholte建筑事务所/
 SchilderScholte Architects
 设计团队/Design team: Gerrit Schilder & Hill Scholte
 结构工程师/Structural engineer: Dick van Gernerden - PT-
 structural
 承包商/MEI
 客户/Client: 帕尼基金会/Pani Foundation
 建筑面积/Building area: 768m²
 造价/Building cost: €44,000
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