In autumn 2012, the charity Orkidstudio put out a call for young designers and architecture students to help design, build and raise funds for Mutende School and Orphanage.

The aim of the charity, founded by three architecture students, is to benefit communities worldwide through innovative architecture and design. With projects completed in Uganda, Bolivia and Zambia, there is a strong focus on architecture as a catalyst for change which empowers and instils pride within a community.

The team designed a building centred on a community hall which could be subdivided into four classrooms, with a rear block housing an IT room, office and store. This would more than double the capacity of the existing school, with the long-term intention of enabling it to be self-sufficient. The project was Orkidstudio’s fourth live build and its most ambitious, with a tight schedule and budget. The challenge was to construct a 350sqm facility in seven weeks at £100 per sqm.

The Mutende school, which educates hundreds of young children, is on the outskirts of Chingola, one of Zambia’s main copper mining towns. With the overwhelming majority of Africa’s copper in Zambia, the country should be thriving. Yet it ranks among the poorest countries in the world. With no recent wars or dictatorship to impede its development something must be wrong.

Following independence in 1964, Zambia regained control of its copper reserves and reached a GDP equivalent to Portugal’s. But copper prices plummeted in the 1973 global oil crisis, resulting in crippling debt for Zambia. By the time prices soared by 500 per cent, increases in global interest rates had worsened Zambia’s situation and the country floundered.

Today, the copper industry, its richest resource, is overwhelmed by foreign investment and privatisation.

Stretching in a long line east to west, Africa’s Copperbelt dominates the North Western Province of Zambia, with industrial towns like Chingola dots on a dangerous highway providing the only passage into the region. Some 70 years old, this tough, gridded town was purpose-built to exploit the region’s vast copper reserves. Huge open cast mines scar the surrounding terrain, while large gated properties hint at the wealth this natural resource offers, yet it largely fails to reach the wider population.

Despite the foreign grip on its mines, Zambia compares well with its neighbours. Major roads are well surfaced, industry is advanced by African measures, and medical facilities are passable if not always accessible to many of the population.

A 1980s-era Chinese-built railway linking central Zambia to Tanzania’s capital, Dar es Salaam, even offers this land-locked country a viable trading route to the coast. In some ways, Zambia fits a stereotypical picture of Africa; it has an almost-booming capital city, rural villages and beautiful landscape. The Copperbelt shatters the image. It is a place built for purpose. Huge trucks shuttle along the single highway between towns of rough concrete buildings, never more than two storeys high. Before copper was discovered, there was a sense that Orkidstudio’s construction might stand as a rare highlight in an otherwise stalled society.

The project involved long days in which negotiation skills were honed, but the team left hopeful that the new school will instil pride and a positive outlook for the future of education and welfare for children in this unique corner of Africa.