



BRIDGING THE GAP: Students and villagers work together to construct the new environmentally-friendly Wu Zhi Qiao which uses mainly local natural materials. Photos: SCMP Pictures

Crossing the border to help build a safer bridge

Katherine Forestier

It seemed like a bridge too far. But with the help of students from universities in Hong Kong and Xian, children in the impoverished village of Maosi in Gansu Province can now get to school safely.

For years children in the community divided by the River Po – a tributary of the Yellow River – had to make the crossing on a precarious, single-log bridge built on pillars of straw, rock and earth. Among the many accidents, a mother and child were swept to their deaths on the journey to the school on the other side of the waterway from their homes.

But collaboration between architect students and academics at Chinese University of Hong Kong, as well as students from Polytechnic University, the Hong Kong University of Science and Technology and Xian Jiaotong University, has resulted in the construction of a safe, environmentally-friendly alternative.

The achievement, completed last month, is celebrated in *A Bridge Too Far, A Dream Come True*, an exhibition of photographs in Taikoo Place, Quarry Bay.

Every day more than 300 school children crossed the narrow and slippery bridge, "like performing gymnasts", according to Professor Edward Ng Yan-yung, of the Department of Architecture at CUHK, who came across the community and their problem during field work to

study the thermal properties of cave dwellings in the area.

Students and professionals came up with the solution – the 80-metre Wu Zhi Qiao (bridge of sustainability). The structure, which cost just \$300,000 to build, was designed to use mainly natural local materials, to be maintained by the villagers and copied for other bridges. "They learnt everything they needed to know to build another bridge themselves. That was the idea," he said.

Anthony Hunt, a designer for

Britain's famed Eden Project, came up with the solution involving a metal frame that could be filled with rocks. Bamboo and steel planks, designed to detach and be retrieved from the river bed to avoid damage in heavy storms, provide the walking surface.

About 50 students from Hong Kong, and 30 from Xian, took five days to build the bridge, working alongside villagers. They were supported by the Hong Kong Professional Green Building Council. For-

mer chief secretary Sir David Akers-Jones acted as adviser and patron.

The project was of enormous benefit to the Hong Kong students, Professor Ng said. "I doubted their abilities to build the bridge but I am now convinced they can do wonders," he said. "It was a great challenge and gave them a new perspective of their motherland."

Polly Tsang Lai-pui, 20, an environmental design student at PolyU, was responsible for the fund-raising and publicity. Her eyes were opened

by the 15 days she spent living in a cave dwelling and working on the bridge. She also gained new leadership skills. "I had to co-operate with students and professors from different universities. I learnt a lot about leadership and communication," she said.

CUHK's Department of Architecture is now raising funds for a 'green' school building for the village. Professor Ng said that the concrete and glass school houses sprouting in many Chinese villages were not suitable for an area where temperatures varied between minus 15 degrees Celsius in winter to 30 to 40 degrees in summer.

The building, estimated to cost \$900,000, would be relatively expensive as it involved experimenting with more suitable natural materials for the climate and that could be copied for other schools. So far \$600,000 has been raised.



HELPING HANDS: Local children help with the construction work by carrying rocks, which are used to fill the bridge's metal frame. The journey to the school across the river is now safer.

The exhibition, which runs until Tuesday, is open from 8am to 9pm, at 1/F Devon House, Taikoo Place, 979 King's Road, Hong Kong. The building of the bridge will feature on TVB's Sunday Report and Pearl Report next month. For more information, visit www.bridge2far.info