

## **Kindergarten for Weilers Farm in South Africa**

A full scale project at the Institute for Architectural Engineering of the Graz University of Technology

### Facts

8 months of preparation, 42 days of building site, 21 students, 3 supervisors, 5 workers from the township, 14m<sup>3</sup> concrete, 166 pieces of laminated limestone, 4.5 km wooden sections, 383 pieces of plywood board, 455m polycarbonate flutes, 381m corrugated sheet, 30,000 screws, 65m sewer piping, 330m metal fencing, 605m steel rope, 482m shade netting, 86m<sup>2</sup> group rooms, 27m<sup>2</sup> office, kitchen, sanitary facilities, 136m<sup>2</sup> veranda, 216m<sup>2</sup> shaded area = 1300m<sup>3</sup> architecture

### Challenge

A full scale project means planning and building. It yields experiences and knowledge which can only be gained by going the whole hog—from the idea to the architectural reality. 25 people with quite different approaches and opinions were involved in the Weilers Farm project. This meant taking up positions, taking responsibility, bringing forward arguments, balancing things out, making decisions and also accepting decisions. A full scale project is the spatial experience of your own drafts: how do your ideas work in the real world? Such a project brings about an encounter with the given marginal conditions in a really direct way. Full scale projects bring about confrontations with boundaries and pose challenges which architectural training does not normally provide to its students.

### Order

S2ARCH (social and sustainable architecture), a non-profit association in Austria started by Sabine Gretner and Christoph Chorherr, approached the Institute for Architectural Engineering with the idea of “building a kindergarten in Weilers Farm in South Africa with a group of students.” Education Africa, a South African NGO, dealt with the necessary local resources and contacts. The Vienna University of Technology, Innsbruck University of Technology, RWTH Aachen University, Kunstuniversität Linz and Salzburg University of Applied Science all participated with one group each.

### General Conditions

Weilers Farm is a township in the southern part of the Johannesburg region and consists of approx. 3500 parcels of land predominantly built up with corrugated huts, so-called “shacks.” The townships originated during the time of Apartheid, and were areas outside the city into which the black population were systematically resettled. Due to the great distance to the city and the consequently impeded economic possibilities, it is particularly problematic for the population there to improve its social position. For this reason, these areas have high unemployment, high poverty and a high rate of aids. Whereas other townships, such as Soweto or, lately, Orange Farm, have visibly developed, Weilers Farm has become worse. The roads have not yet been asphalted and water supply and sewerage are currently only being planned. However, there is a working social infrastructure, mostly borne by private initiatives from local women. Sarah Ngwenya is one of these women. She actively supports the construction of the kindergarten. Through her great commitment, the community of Weilers Farm has provided a plot of land and two shacks for the kindergarten. The kindergarten will be run all day for children between 0 to 6. Our task was to improve the situation by building three group rooms and associated service areas.

### Schedule

June 2005 – August 2005: in the framework of three workshops, the team of 21 students design the kindergarten. But there is a narrow restriction on the budget: the kindergarten must not cost very much, and has to be ready to build in five weeks: using our own handiwork abilities! The design should create pleasant surroundings and be able to be recreated by people locally. It goes without saying that the kindergarten should become a special place for the children, despite the tight budget, it should be a place where they feel good and have their first experiences of independence.

September 2005: the first elements of the kindergarten are built as a “test” in Graz; the group familiarizes itself with the most important tools and machinery.

October 2005 – January 2006: design and detailed plans are worked out, lists of materials put together, working steps and schedules laid down, materials ordered, tool boxes packed, building site plans printed...

24. January – 10th March 2006: the kindergarten is built locally with residents, opened with a party, and handed over to the future users.

What was special about the project in South Africa, was being confronted with a social reality different to what you're familiar with. To face a culture as an outsider challenges you to constantly rethink things which you usually take for granted; this also enables you to work on the task in hand in a more unbiased way. The team was compelled to deal with a completely different mentality, to move around in a social structure which we first had to learn about. At the same time, the people looked at the “Austrians“ to some extent differently, and they were

able to build a kindergarten which definitely didn't correspond to the usual ideas, and perhaps locally opened up new, unknown perspectives.

#### Team

Paul Donner, Birgit Eberhard, Alicia Fischer, Christian Freissling, Martin Gansberger, Barbara Gartner, Bernhard Gilli, Kristina Gröbacher, Verena Hesse, Anita Huber, Mario Huber, Theresa Kalteis, Daniela Meyer, Petra Reiter, Martin Schöberl, Dietmar Klaus Weidinger, Rupert Wernhart, Martin Widowitz, Christoph Wiesmayr, Nina Wirnsberger, Christian Zechner.

Responsible for the project: Eva Grubbauer, Gernot Kupfer, Peter Schreibmayer

Structural calculations: Johann Riebenbauer, building physics: Karl Höfler.

[www.weilersfarm.net](http://www.weilersfarm.net), [www.sarch.at](http://www.sarch.at), [www.educationafrica.com](http://www.educationafrica.com)

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