Gather round the fire in Norway

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Think global, build social: the design-build movement

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The exhibition Think Global, Build Social! Architectures for a Better World! (14 Mar. – 30 June 2014) marks the high point in the many years that the Architekturzentrum Wien (Az W) has spent examining the introduction of a social and sustainable approach to both architectural education and practice. In 2004, Az W presented the Rural Studio, founded by Samuel Mockbee at Auburn University in Alabama at the beginning of the 1990s. This architectural initiative has by now acquired legendary status, but Az W was the first institution in Europe that dedicated an exhibition to its work: the title, Just Build It, sums up a specific attitude. Students at the Rural Studio have been designing projects for the poorer sectors of the population, which they subsequently implement in a creative and economical way. The regional focus has been Hale County, Alabama, where the poverty rate reaches almost 40 per cent. It is a truly forgotten place, where early developments by settlers lie close together with the banal and more recent. Shanty towns stretch alongside the vast pools of industrial catfish producers. Random arrangements of mobile homes are surrounded by rusty cars and semi-derelict cabins. Everywhere, one can see the last traces of what was formerly a flourishing agricultural region. In this no man’s land, the Rural Studio has realized imaginative architecture. It shows sustainable, social and ecological commitment beyond the glamour of international star architecture. The Rural Studio offers a programme for students of architecture that draws them away from abstract academic curriculum. It educate them to deal with the problems of reality, combining useful work for the community with a redesigned architecture course based on real architectural practice.

By drawing attention to the work of the Rural Studio, Az W encouraged socially committed building in Austria as well. Dietmar Steiner invited Austrian architecture faculties to learn from this American model. Why not integrate the design and implementation of bottom-up projects in university curricula? Indeed, a first step in this direction had already been made. Peter Fattinger had just set up his design-build studio at TU Vienna. This made him a European pioneer in an area that is still an extremely young form of special training for architecture students. Over the years, several other initiatives have developed, which integrate the implementation of building projects in university teaching alongside design. They counteract a tendency that, in recent decades, has separated architectural training from building practice.
BCHAPI
After a lengthy planning phase in the PH, construction was completed in just six weeks on site. The project included a building that provides 60 m² of space for a classroom and 60 m² for a workshop, as well as various service spaces, such as a ‘safety box’ for the secure storage of tools and a toilet complex with washbasin area. A timber structure made of prefabricated elements erected on a concrete slab serves as a structural frame and was filled with a mix of clay and straw. In the classroom, the timber structure provides just the roof construction, the rest was built with clay and straw bricks. In Carinthia, a series of experiments was carried out to test different mixes for a clay brick measuring 600x300x15 mm. On the basis of the test results, it was decided to use a new interpretation of the traditional clay-straw building method. Brick blocks were produced on site with the help of students from Ithuba Skills College.

The second project consists of two classrooms with a wing containing sanitary facilities and a multi-purpose space. Sobra takes up the straw and clay construction method that proved its worth in the earlier project in 2008, but with a number of modifications. The two L-shaped buildings are placed in relation to each other in such a way that they define individual outdoor spaces. The project also makes use of solar energy; the north-south orientation of the classrooms and the large windows help to optimise the building’s internal climate. There are two window types: one for (cross) ventilation, the other with deep reveals inside that offer a place to ligates. The roof overhang provides adequate shade in the South African summer while still allowing sufficient sunshine to penetrate in winter.

Sobra (classroom and workshop), 2010
Sobra (primary classroom), 2011
Megagula Heights, Johannesburg, South Africa
PH University of Applied Sciences, Sistra, Carinthia

‘Design-build’ describes initiatives that develop projects for students within the context of their standard architectural instruction – buildings or installations that students can actually complete on site themselves. Contact with reality is the decisive difference between artificial building experiments at universities and on-site projects in socially precarious circumstances – architecture’s direct confrontation with real life. This engagement shows the participating students that there is a real need for their expertise and knowledge; that they can actually solve problems – and not just generate them, as in academic experiments – using their own hands and applying their own ideas. The discussion with, and constant feedback from, future users, as well as the use of locally available resources, brings students to reflect on the necessity and concrete purpose of their architectural ideas, and to refine them when necessary.

Among those who attended the opening of the Just Build exhibition at Az W was Christoph Chorherr, a Green Party politician and member of Vienna’s City Council. Listening to the lecture given by the head of the Rural Studio, Andrew Freear, Chorherr asked himself whether it might be possible to use design-build projects with students to contribute to development work. Chorherr had already been involved in welfare projects in Africa, and he now set up the s’arch (social and sustainable architecture) association. Since then, s’arch, together with different architecture faculties, has carried out an impressive number of more than 40 projects. According to Chorherr, it’s not the clicks and likes on virtual internet sites that change the world. It is the willingness of young people to devote their abilities, their time, and their strengths to a concrete project that benefits others and opens up opportunities in life for them.

Since 2008, s’arch has concentrated on erecting two large school campuses. It created Ithuba Skills College in Megagula Heights, located roughly 50 kilometres south of Johannesburg, South Africa. By now the college has grown into a complex of over 40 different buildings (classrooms, residential units, events hall, workshops). Since 2010, the association has been working on another school, Ithuba Wild Coast Community College, situated in Mzimba on the Wild Coast of South Africa’s Eastern Cape.

Another design-build initiative can be found at Austria’s smallest school of architecture, based at the Kunstuniversität Linz. In 2004, the head of the school, architect Roland Gnäger, set up a project studio with the name BASEhabitat. It offers students the opportunity to try out and further develop what
they have learned in the areas of solar architecture, building ecology and constructing with timber and earth. According to Gnaiger, the main focus is on reconciling opposites: between basic needs and aesthetics, between ecology and economy, between prosperity and poverty, and between usefulness and poetry. In all its projects, BASEhabitats explicitly pursues the aim of never neglecting the beauty of the buildings, for building without art is spiritless, destructive, cynical and often brutal. The two projects realized by Studio BASEhabitats illustrated here reflect this ethos.

When design-build projects are implemented in developing countries or distressed areas, the accost of neocolonialism is often raised. At first glance, it seems a waste of resources when a dozen privileged, middle-class undergraduates from the Northern Hemisphere pay for expensive flights to a township or region struck by catastrophe. There, for several weeks, they administer the placebo of a selective solution to a pervasive structural problem that affects all of society. This cannot be denied, but it must be viewed in relation to today’s gigantic global market for professional social and catastrophe aid, which is primarily dictated by the commercial interests of the Northern Hemisphere, and which largely ignores local cultures and needs.

The design-build movement, by contrast, emphasizes a communicative learning model that draws on the local situation and empowers the local population. Instead of presenting a community with a lifestyle imported from the wealthy North to which local people cannot relate, such projects inspire them to reactivity their own traditions and construction methods, and to enable them. Through this, they develop new capabilities in shaping and designing their situations. It does, therefore, make sense for student task forces to get involved with design-build projects in developing and distressed areas. They learn from one another and gain a healthy general scepticism toward the capitalistic business of architecture in the Northern Hemisphere. Design-build projects in developing countries break through Western rituals of distinction, encouraging the local population to view their traditions with renewed pride and to develop their own brand of contemporary architecture.

METI SCHOOL AND HOMEMADE

As a result of her degree thesis, Anna Heringer, then student of the Kunstuniversität Linz, built her ‘handmade school’, together with Berlin architect Elke Rosweg, in Bangladesh in 2004. The so-called METI School received the Aga Khan Award for Architecture in 2007. It marks the start of an intensive involvement with Bangladesh on the part of BASEhabitats and Heringer.

The METI School was followed, among other projects, by three model houses that were also erected in Rudrapur and given the name HOMEMade. Eight students from Skidmore, Oxford University in Doha and five students from the Kunstuniversität Linz endeavoured, together with local craftsmen, to improve living conditions in a sustainable way. This also required a kind of re-education. Although traditional building materials are extremely sustainable, people increasingly fail to appreciate the many qualities of clay and bamboo. Instead they want ‘modern’ houses built of fired bricks, concrete and corrugated iron. On the one hand, this is due to the urban models that people are presented with; on the other, the building tradition is technically outdated because it has not been further developed for centuries. The three model houses use an adapted form of local building methods to meet the growing need for space and higher requirements for comfort.

METI School, 2005–2006
HOMEMade model houses, 2007–2008
Rudrapur, Bangladesh
Studio BASEhabitats, Kunstuniversität Linz

1) The METI School in Rudrapur, Bangladesh, is a two-storey school building with five classrooms (Studio BASEhabitats, Kunstuniversität Linz, with Anna Heringer and Elke Rosweg).