

QUARTERLY REVIEW OF  
NORDIC ARCHITECTURE,  
INTERIORS AND DESIGN

Forum AID

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A female Icelandic architect in Darmstadt  
has transformed a theatre threatened  
with closure from a beast to a beauty.  
Without cancelling a single performance.  
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Supplement:  
Forum AID Award 2007



A mat becomes an island in a room for group activities, the corridors are lined with concentration booths and the gym hall is also used for rehearsals. In the municipality of Gentofte all efforts have been made to find the formula for the school of the future.

## *New school*

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SKUB

ARCHITECTURE





If school is all about learning for life, school architecture is about building for learning. The old ideal with a teacher's raised desk and school benches in rows was scrapped long ago. Today new solutions are being tested to match the ideas about individual adaptation to school, where every pupil should be offered the prerequisites to match that particular individual's learning techniques. Gentofte in Denmark is the Nordic municipality that has launched the most overriding and ambitious project yet in this field. SKUB (School Development and Building Project) was set up in 1998 when the municipality calculated that the number of primary school pupils would increase by 50 percent by 2009. It was necessary to build and renovate a total of 12 schools in order to house all the pupils. There was also a desire for the renovation of the physical environment to go hand in hand with educational development. The policy was formed to meet the aim of differentiated education, as formulated in the new legal act, the Folkeskoleloven of 1993.

Initially 61 million euro was set aside for the project. In 2006, when the project was in its penultimate year, the expenses were calculated at just over double this, 127 million. Not as a result of overdrawn budgets, but because the project's ambition had quite simply grown and had come to include several building projects, of which two were so-called multihalls, a type of all-activity building to be used by several schools, with space for a library and sports facilities amongst other things. A measure totally in line with SKUB's desire for various institutes within its municipality to work together.

Initially, SKUB management visited other far-sighted schools, including one in Håbo municipality just north of Stockholm. In the mid-nineties a concerted grip had been taken on the schools in the municipality, with the aim of creating buildings adapted to new educational ideas and an organisational model with integrated school and youth recreation centre. Many

concepts that had formed the Håbo School's philosophy – open environment, teamwork, multifunctional rooms, differentiated learning – remain today in SKUB's philosophy.

As the idea was to develop the educational ideas and architecture in parallel, SKUB discarded the idea of arranging an architect competition from the beginning. The starting point was that what was being created here should be created in collaboration with many parties – children, parents, teachers, school staff, municipal civil servants, architects and engineers. The more who jumped on the bandwagon, the merrier. There was no centrally established template as a basis for this large-scale user influence. Schools within SKUB have had the freedom to formulate their own aims and means all the time, within certain frameworks.

The statute book states that all Danish schools should have school classes as "a structural principle", but say nothing about the pupils having to have their own classroom. "One school has made a number of cubes of six to eight square metres the basis of their classes. Another has maximised the classroom to 35 square metres so as not to be able to conduct teaching in large groups. There are all sorts of solutions," says commissioning advisor Henrik Povisen who has been on SKUB's project management since the beginning.

SKUB has worked with two generations of schools. The five schools they worked with first had traditionally composed teams with a responsible architect office per school. One of these was Hellerup School, the only new construction of that generation. The school was opened in 2002 and since then has been SKUB's flagship, designed by Arkitema. Many solutions were solved here for the first time: a home area instead of a classroom, workshop teaching in open plan, et cetera.

"Hellerup School has been criticised for its teaching methods, that they are only suitable for study-motivated pupils. But I don't believe you can completely copy anyone else's teaching style, it must always be adapted to each school's

special conditions," says Per Fibæk Laursen, professor at the Danish University of Education, who has followed SKUB's journey into the 21st century and written a book about Hellerup School.

The second generation of schools came about according to a completely different model. There SKUB selected three architect offices – Søren Robert Lund Arkitekter (SRL), Nord (Northern Office for Research and Design) and Cebra – to totally concentrate on the schools' overriding content and shape. Different local architects were responsible for the actual details of the project.

The three architect offices were pushed together in different constellations, and had to share the responsibility in pairs for four different projects. SRL and Cebra also had the entire responsibility for a school each.

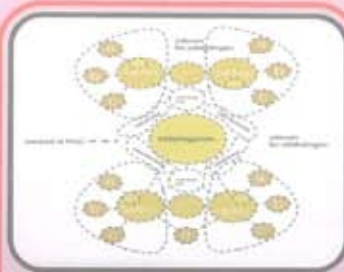
"We needed to get new blood into the project and thought that if we could get innovative offices, that showed they were not stuck in traditional ways of thinking to collaborate with each other, this would give rise to some positive energy," explains Povisen.

The result can be seen in the two latest completed projects: Ordrup School and Bakkegård School. Both were opened in autumn 2006 and are designed in a collaboration between SRL and Cebra. They are both also renovations of older schools, but with totally different starting points.

The rebuilding of Bakkegård School – that was nominated for this year's Mies van der Rohe prize – concerned linking the old and new buildings together. The central meeting point became a half-buried sports hall that now has a green outdoor area on its roof and inside functions as a rehearsal space and for recreational activities – just as multifunctional as the modern educational instigators want school buildings to be.

The vision for Ordrup School was to tighten up the space by creating a labyrinth, a conglomeration of alleys on many levels. All with the ulterior motive of breaking up the old school's



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traditional corridors, classrooms and square-like school yard, and instead create several meeting places and more flexible space.

Søren Robert Lund meets me at the entrance of Ordrup School to take me on a guided tour. Here, from the street, are just a couple of yellow and angular windbreaks around the doors that immediately let you know that something has happened to the old school (the undersigned can vouch for this, as my children started school here at the end of the nineties). It is not until we come round the door that you begin to suspect what radical changes have taken place. The school playground, that was formerly placed in the open centre of the U-shaped building, has been spirited away. Here, where the head used to gather all the school's pupils to a flag-waving sea at the end of term ceremony, a "UFO" has parked itself on three-four levels. The change of style from the old red brick building's façade and design language is total.

The tour goes at an amazing speed. Søren Robert Lund points this way and that, climbs over pupils who are sitting on the floor, all the time one step ahead. Takes the stairs two at a time and talks engagingly about how he has always loved working on buildings with many levels. He laughs approvingly at my comparison with Howart School in the Harry Potter films. "Personally I would like the building to be like an adventure where you can get lost in a good way, that is to say that you know for sure that you can never seriously get lost. Rather like the feeling you have when you walk around in Venice," he explains, at the same time as he takes a short cut over one of the school's two inner yards (the one that, against his will, was given a glass ceiling).

Well, yes, he is satisfied with the final outcome, but doesn't deny that the journey to get here, with extensive user-influence and the collaboration with Cebra, had been rather arduous.

"The result was better than it would have been without the process. The greatest advan-

The architects at Nord have a great deal of experience of user influence and continually develop their design process. Here can be seen a simplified diagram of the office's work with Skovgård School, three old classrooms were rebuilt as a test in the middle of the process. This pilot area was then utilized by the users for three months. The assessment showed different solutions that the pupils, teachers, contractors and engineers thought worked well and what they wanted to change. The rebuilding of Skovgård School is a collaboration between Nord and Cebra. Previous spread: The meeting between old and new at Bakkegård School is emphasised through angles and colours. The façade of the extension has been clad in Rockpanel, in strong contrast to the brick walls from 1935. Mainly because it is a material that allows for any colour, but also because it is hard-wearing, requires no maintenance and is relatively inexpensive. The connecting link between the old building and the new gym hall has been coloured black.

tage in mixing in a great number of people is that you get many more ideas than you would otherwise. Then, that the details are not always so accomplished as you would want is the price you have to pay."

He feels that the working model that SKUB chose, with a sharp line of demarcation between the areas of responsibility of the architects doing the designing and those doing the project has been successful, especially from the point of view of the users. "In this project, as an architect I have been able to focus on what the users want, instead of starting immediately thinking about what is technically and economically possible. I have listened to their wishes and taken on a sort of lawyer's role. I tried to ensure that the vision isn't frittered away during the working process", he explains and adds:

"The hard part about user influence is to get the right balance between freedom and control. One extreme is to show all the possibilities, which prepares the way for disappointment for those who don't get their wishes granted. The other extreme is to produce two alternatives and say 'Choose one'. I believe that you have to tailor-make every process from the extant prerequisites, for example, by finding out what traditions and experience of participation the people in the school have."

If Søren Robert Lund were to give just one concrete example of how the user-influence has influenced the architecture, it would be through the placement of the music rooms at Bakkegård School. He personally would never have thought of placing them directly next to the gym hall, which made it possible to carry out instruments onto the playing-fields and use the music rooms for rehearsals. "Everyone finds it hard to disregard what it was like when they went to school and most of them are generally negative to change. But these schools are built for the future and in ten years they will be experienced as ultra modern," he maintains decisively.

Many of the internal solutions – bright red sofas on wheels, hanging carpets that can be





taken down and rolled out on the floor as temporary "meeting islands", Jacuzzi-like pots to gather in, padded reading pipes to relax in, concentration booths to shield yourself away – have been constructed by the artist couple Bosch & Fjord.

"When we came to the school in autumn 2005 we could claim that the pupils and teachers had got a new, stylish school, which they didn't seem to know how they should use. The corridors, that had become common rooms, were abandoned. We saw it as our task to activate the architecture, hurry along the process of making the users feel at home," says Rosan Bosch later on the phone.

"During a total of six weeks we moved our office to the school and carried out different practical exercises with the pupils and teachers. One day we handed out pink Post-it slips to pupils and yellow ones to the teachers, then everyone had to mark their favourite part of the school. It became obvious, for example, that ten-year-olds loved sitting by the windows that go right down to the floor. Another day we turned off all the overhead lights and gave each class five cheap Ikea lamps that they could place wherever they wanted. This made them aware of the important role of lighting."

For all those involved, not least the architects, the SKUB project has been all about formulating goals and finding solutions in collaboration with both amateurs and professionals. The day after the tour at Ordrup School it is time to make a final trip to Copenhagen harbour to some of those who are considered veterans in the field: the architects at Nord. Johannes Pedersen (who together with Morten Rask Gregersen founded the firm in 2002) welcomes us at the office, four floors up with no lift in a block of flats in the Nørrebro part of town. The Power Point presentation is prepared, it can start straightaway – it is obvious that this is not the first time he gives an account of the team's ambitious documented work methods. "We hadn't worked with schools before and this proved itself to be a little different. In earlier projects, for example the residential areas

The rebuilding of Bakkegård School is a collaboration between Seren Robert Lund Arkitekter and Cebra. The extension stretches up from the undulating school yard; the planted roof burrows itself down into the slope and becomes an extension of the grass-covered open spaces. The architects responsible were Kragh & Berglund. A four-metre-steep amphitheatre forms a semicircle around the façade and allows light to reach down to the ground floor and the gym. The gym is the largest area in the extension, 44 x 24 metres, with windows facing southwest. The play areas on the roof and the fact that it was not possible to reinforce the room in the middle with pillars, demanded an extra strong concrete construction. Many areas in the school can be used for both meeting places and teaching. There is room for two classes to sit in one of the stairways that lead down to the gym.



SRL Architects





The extension at Ordrup School accommodates premises that are used by all the school's pupils: science labs, a media centre and auditorium. The terrace on the first floor has an entrance to the old school's gym, that has now been made into the library. The idea, recurring in several places, is that teaching can easily be moved outdoors. All the doors and windows that can open have been provided with a strong, yellow frame. There is a veranda between the extension and the old main building. One half (below) has a glass ceiling so one can go dry-shod on the interlinking stairway. The façade has acquired another structure for acoustic reasons. The rebuilding of Ordrup School is a collaboration between Seren Robert Lund Arkitekt and Cebra.











Footnote: one school, Arne Jacobsen's protected Munksgård School, has been treated separately from the rest of the project all the time. The renovation has been designed by Dorte Mandrup and is estimated to be ready for the autumn. Forum AID will return to this subject.

Urban Planen and Gyldenrisk park in Amager, we had involved two categories in our processes: "citizens" and "clients". "Citizens" represented the inhabitants in the municipality or those living there. "The clients" are different bosses, representatives of public authorities. There is also a third category in the school world: "subject experts". These are the teachers and other staff with knowledge about teaching, knowledge that is essential and what we ourselves lacked. This was a group from whom we learned a great deal", he says.

Within the framework of the SKUB project, Nord is now working with Skovgård School, Skovshoved School and a multihall in Ordrup that will be used by several schools. They are simultaneously developing a new product in order to organise the experience they have learnt and help others who are about to enter complex processes of change: a type of "dialogue game" with a playing board and counters, that schools and others can buy with or without the consultancy service attached to it.

"It is not a game in the common meaning of the word, rather a platform that will be a tool in a process of change. It can concern the physical and organisational changes," explains Pedersen. The counters symbolise different functions, qualities and educational measures, for example "group work", "one-way teaching", "toilets", and "meeting places", that the participants can place on the school plan in various scales (from individual classrooms to the entire school, including the outside environment). Concrete things that could be considered banal, but that can easily become complex and confused when 20 to 30 people voice their opinions. The idea is that the game should give the participants an overview and help different groups, for example users and building contractors, to communicate with each other.

"By making the communication visual, those who normally have a verbal advantage do not automatically come out on top. The discussion becomes more democratic."

The box is being "tried out" just now with the aim of having it on the market by autumn 2007.

The interior design of Ordrup School has been created by the artist duo Bosch & Fjord. Most of the furniture has been manufactured in painted mdf. On the left: there is space in the same room for concentration booths for individual work and a stage for both presentations and play. Scattered carpets function for temporary discussions and where pupils can work together. On the right: concentration booth for one or two students is a way of exploiting the wide corridors of the old school; raised window compartments provide direct contact with the high windows in the corridor; discussions and group work are allowed to be both lively and noisy in so-called "Hot pots". Opposite page: instead of a traditional solution, the architects chose to extend the compulsory fire-escape to a "stairway to meet on" with room for students to mingle. There is space on each floor which can be used for outside teaching. The undulating play area in rubber has been designed by Kragh & Berglund.

