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The School of Tomorrow – Nordic Network of Educational Buildings

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Changing Society – Education – School Buildings

Extensive changes have been made within schools during the last ten years; new curriculum and also new ways of approaching teaching and learning have been introduced. The importance of the responsibility of schools to lay the foundation for lifelong learning has grown, since development and changes seem to proceed with increasing speed in the society of which schools are part. This must be taken into consideration when designing the physical environment of a school.

It is commonly agreed among the Nordic countries that *the* optimal school does not exist, but that there are many suitable architectural answers – and to gain benefit from others' experiences, the Nordic countries have decided to set up a network: "The School of Tomorrow".

The Nordic Countries and Their Schools

The Nordic countries show similarities in several respects. Compared with many other countries, municipalities here act as an organisational layer between the government and the individual ministries on one hand and institutions such as schools on the other. In a unique way local authorities link the individual schools to different administrative levels with a mutual interest and obligation – this is why they can each contribute and work together.

Local municipalities are responsible for the school and the school buildings, and the local responsibility also leaves room for different ways of interpreting the Act of Education. This situation leads to "local school cultures" which again leads to different buildings. But in the Nordic countries there is a common tendency towards an increasingly open school and more places for individual and group work.

Thus for the small Nordic countries there is much to be gained through cultivating the Nordic perspective – and at the same time reflecting international tendencies – in EU, OECD/PEB and the European Council (*Europarådet*) through co-operation on different administrative levels.

How the Network Got Started

In 2000 the Norwegian "Centre for Design, Architecture and the Built Environment" took the initiative of organising the first meeting. The purpose was to exchange experiences and knowledge about how we can develop good school buildings in harmony with the overall educational and cultural aims of the different Nordic countries, as well as to discuss the desirability of establishing co-operation in the field. For two days we discussed how we could benefit from exchanging ideas, experiences and knowledge. Enthusiastic agreement was reached on establishing a network that would meet once a year.

Purpose, Objectives of the Network

- To exchange and discuss knowledge, experience and ideas concerning school buildings.
- To establish contact across organisational levels, professions and countries.
- To collect knowledge of how pedagogy and space in school contribute to pupils' learning.
- To collect knowledge in special fields such as small schools, indoor climate, the special needs of young pupils in nursery/primary schools, and outdoor areas.

Activities

- Annual network meeting Once a year the network meeting brings together architects, teachers and pedagogic advisors, researchers and representatives from school authorities from different organisational levels (ministries, local authorities) and the building industry. The countries take turns arranging the network meetings. Participants contribute with lectures and presentations.
- Working groups give the participants a possibility to group themselves around their subjects of special interest. The group concerned with the outdoor areas of schools co-operate to collect and edit a report with a collection of good examples. This work is linked with ongoing research activities in four individual countries.
- Conferences on the relationship between pedagogic work and physical space.
- Co-operative projects on the importance/influence of the physical environment upon learning.
- Dissemination of information, knowledge, experience and interesting examples.

Organisational Frame and Structure

Members: Denmark, The Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Åland.

Preferably the following groups should be represented in the network: ministries of education, local authorities, pupils, architects, researchers, teachers and the building industry.

Planning group A liaison officer is appointed from each country to co-ordinate activities, to plan the annual meetings and to liaise further with the official bodies. It is

required that their participation in the planning group can be carried out as part of their job.

Economy Each country covers its own costs of participation. The costs of the annual meeting is covered by participants' fees. The Nordic Council has kindly granted some financial support, which has been very helpful.

Researchers Network

The pedagogic changes taking place throughout the educational sector during the last few years have increased the requirements for physical space as a framework for education. At the same time, existing experience and knowledge in the field have proven insufficient as a basis for decision-making. Here research may fill in some gaps. But since the Nordic countries are small, only a few people carry out research on schools, and they are in need of colleagues with whom to discuss research in the same field. Already at the first network meeting the researchers had the idea of a special network that should be considered as a "daughter network" of the Nordic Network. At the second meeting the idea evolved, and at the end of November 2001 a few researchers met in Copenhagen to plan and establish it.

The aim of the researchers' network is to meet and to get to know each other, to exchange experiences and research results, and to stimulate new initiatives for research projects.

First of all we made a list of urgent research topics; for each topic a person was nominated as responsible:

- Outdoor areas in schools.
- Renovation of existing schools.
- Evaluation of school buildings.
- Aesthetic quality and art in schools.
- Sustainable schools.
- New pedagogic intentions – new schools.
- Information and communication technology working places – from primary school to university.
- The school building as a tool for learning.
- New forms of governance and partnerships in the process of building schools.
- The school as a local centre.

In an attempt to stimulate further research, we committed ourselves to study the possibility of each country having at least two Ph.D.-students doing research into educational building.

The participants also stressed the importance of organising working groups and conferences dealing with research matters. The idea is to add a few days to the annual meeting for the researchers' working group – to reduce costs. The topics for the next three meetings are as follows:

- 2002: comparison of research approaches and methods with a well-built school in Helsinki as a case study (place for the next network meeting).
- 2003: aesthetics – in the wide meaning of the word covering general well-being at school.

- 2004: outdoor spaces – based on the results of the ongoing research.

***Rum Form Funktion* – Promoting Good Schools in Denmark**

As an example of how one Nordic country is trying to increase know-how about good schools, I would like to introduce the Danish initiative *Rum Form Funktion*.

It actually started in a small way:

The new educational law in Denmark (1993) introduced new pedagogic concepts. For building suitable new schools, traditional school buildings did not serve as an inspiration. Therefore, in 1998 the Ministry of Education and Danish National Research and Education Buildings organised three parallel architectural competitions to develop and discuss different possibilities. For each school seven architectural firms were invited to enter the competition. It was strongly recommended that the teams include a pedagogic advisor, and the jury also included pedagogic expertise. This clearly made the entries more to the point and the discussions prior to the voting more nuanced.

The Ministry covered the costs, whereas the municipalities have committed themselves to build the school – as is usual in Denmark. Further, an agreement was made that the municipalities would co-operate with the Ministry on two things:

- Experience about the process from competition to bringing the building into use should be acquired.
- The schools are to be evaluated after two and five years' use.

Publications A number of books have been published. The first about the theme was an introduction to the competitions. The second booklet was the jury report. Subsequently, we asked 19 experts to analyse the 21 entries from different perspectives – such as daylight, school libraries and places for group work.

The latest book from RFF gives the results of a pilot project: interaction between children and the physical setting of school.

Research It soon became clear that existing knowledge is insufficient and some research projects have been initiated:

- Schools' outdoor areas – also included in the Nordic project.
- New forms of governance and partnerships in the process of building schools.
- Interaction between children and the physical setting of school.

Rum Form Funktion (www.rumformfunktion.dk) started small. Today *Rum Form Funktion* is formalised in a "centre without walls" as an alliance between:

- the Ministry of Education,
- Danish National Research and Education Buildings,
- Danish Building and Urban Research.

A condition for the work carried out is that it should not be normative but discussion-oriented and inspiring.

Over time the experiences from primary and secondary schools will be transferred to and further developed in buildings for general upper secondary education and higher education.