JÄRVEKÜLA KOOL

(Järveküla preliminary school)

As many schoolhouses have already been built during the previous times, it is rather seldom today for a new schoolhouse to be built. Rae parish needed a new building for the schoolhouse in a very short time, therefore the completion period was extraordinarily short – it took only a year and 8 months from the design contract until the end of the construction phase.

Design phase	PDP (Preliminary design phase)	03.03.2015 - 13.07.2015
	DDP (Detail design phase)	18.01.2016 - 01.11.2016
Construction phase		23.11.2015 - 23.10.2016

The heart of the Järveküla elementary school is formed by the main entrance atrium with the canteen and the main hall which is situated on the second floor. The atrium is connecting the elementary school part with the grade school. In the three-storey elementary school part which is situated towards the morning sun from the atrium, there are also rooms for the direction on the 2nd floor and for the library and an extracurricular activities centre on the 3rd floor. There is also a sports centre in the elementary school part. The grade school is situated towards the evening sun from the main atrium.

One of the main concepts for the design of the school building was to disperse the entrances. The main entrance to the building is from the main atrium. For each age group there are different private entrances to the grade school - all in all 4 entrances. In the elemenatary school part there are 2 separate entrances, one on each floor. To the extracurriculum activities centre there is a separate entrance from the 3rd floor.

From the entrances towards the south-west the pupils and teachers can enter only during the morning time before the classes. After the classes have already started you can only enter the school from the main entrance, where there is also an administrator. Guests and first-time visitors enter the building by the main entrance. The main entrance is situated between the two different school building volumes and it steps back to formulate a south-facing inner courtyard. There are also separate entrances to the sports centre, technical basement and kitchen.

The 21st century school building has made vast changes in its functional logic – it is not anymore only a building with classrooms in a row where you get educated – it has transformed into a social space which holds a critical role in informal socialising and social alternation.

Each pupil has different needs and preparedness. Some pupils learn fast but move slowly, some move fast and learn fast, some need more help and encouragement in socialising. The school building creates a barrier-free environment - a canvas for equal opportunities where everyone gets to be a part in the socialising process. Where no teacher or pupil is left out from it just because of the space not providing the opportunity. For everyone to be able to be a part of the architectural elements in this socialising space the school building is a boundary-free continuous surface accessible to everyone.

Järveküla elementary school was designed for the pupils in Rae parish. It is planned to be used by maximum 700 children. A sports centre and an extracurricular activities centre was also built in addition to the school to service also the residents and other pupils of Rae parish.

Like mentioned, one of the main concepts of the design was to disperse the entrances - 4 entrances for the younger pupils and 2 for the elementary school. Next to each entrance there are coatrooms for 2 age-groups. That kind of dividing helps to prevent overcrowding and keep order and cleanliness. Also this way the wardrobes are closer to the home-classes.

The grade school part is designed with a building-within-building logic – for each year there is a separate unit consisting of a coat-room, 3 home-classes, a socialising space and the sanitary rooms. This logic helps to create a more intimate and private atmosphere inside a big school building and helps to adjust with the school life.

The visual appearance of the building is laconic and modest with the facade consisting of concrete, glass surfaces, assemblable concrete element surfaces and perforated metal sheets. A perforated aluminium sheet as a screen is used for passive insolation. The screen lets in light and is visually transparent but helps to shade the heating sun. The perforation is not regular – the digitally computated perforation forms an image which is visually detectable in distance. An outdoor area protected from the climate is formed between the screen and the building where you can store bicycles and also play during bad weather conditions.

The bearing structures are predominantly from concrete in different conditions- monolith, assembable concrete and pre-made elements. The load-bearing outer walls are from assemblable concrete elements, non-bearing inner walls are from concrete masonry units. The supporting structure of the intermediate ceilings and roofing is made from concrete hollow-core slabs and also TT-panels.

The aesthetical compromise is achieved with iron-sulfate impregnated concrete, common on the educational facilities in Rae parish, which is combined with natural concrete. The concrete part of the building is "polished" with steel and glass elements. The rust-colored finish was the wish of the parish, also the wish that the building is durable and easily maintainable - that there is no need for a periodic renewal of the facade.

The characteristics of concrete as a noise-insulator and the heat-intertia holder are very convenient for a school building. It is fairly easy to stop the spread of noise, especially airborne noise with concrete. Floor heating is the best method to heat this kind of building when thinking about the school hygiene and the possible "fooling-around" of the kids. Concrete allows it in the most convenient manner. The pipes and concrete are a unified whole, which with the help of floor-heating and massive heating unit solve the problem of possible noise transfer through the constructions. The acoustic characteristics in the building have been achieved on the highest level.

School was designed by:

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