

Munkegaard School, restoration and extension by Dorte Mandrup Arkitekter

Introduction:

Dorte Mandrup Arkitekter was in February 2005 asked by the municipality of Gentofte to work on the restoration and extension of Arne Jacobsen's Munkegårds School.

The assignment covered the renovation and completion of new access and distribution structures in the existing building, a reprogramming of the school and a 1500 m² extension to the school. A project that the foundation RealDania supported financially to ensure the quality of the building

The 5500 m² existing buildings were designed by Arne Jacobsen and built 1954-1956. When built the school was very modern having well lit bright classrooms with direct connections to private green court yards - all on ground floor. Arne Jacobsen designed, furniture, fixtures and did the landscaping as well. It is appointed to be one of Arne Jacobsen's masterpieces.

Munkegård School was listed in 1995. Today the school appears almost as originally, but in 2005 it showed signs of wear over the years. The restoration included both preserving interventions and renovation according to Arne Jacobsen's old detail drawings to bring back some missing details.

Principles in restoration:

A wide range of materials, products and built-in furniture originally used in the construction of the school was still available. The goal was to restore and return the school to its original appearance. To restore and reconstruct materials and building components where these had been modified / removed. To upgrade safety requirements, building and fire legislation, indoor climate assessments, etc. was evaluated individually and in some cases lead to substitution of materials and building components. In these cases it was always discussed with the Cultural Board of Heritage.

There was performed a thorough archaeological analysis of Arne Jacobsen's original colour use in the original school and made a scheme of 14 colours that was used for the restoration as well as new designs / inserts / additions and in the extension of the school.

Conservation and maintenance plan:

Upon the completion of the renovation project the office made a conservation and maintenance plan for Munkegård School. The plan, which will be Gentofte municipality's manual for maintenance of the listed school includes material inventories, operating and maintenance schedules and paradigms for future modifications and installation.

For outdoor areas we developed a similar plan of caretaking to ensure proper maintenance of plantations and fixings.

The Extension:

In 2005 the school, with its physical environment was not accommodating the school's desire to implement interdisciplinary teaching and the ability to differentiate instruction according to Danish modern teaching principles. This was remedied by the extension of the school in the new facilities beneath ground. The extension was built for special subjects as "cooking", "body and health", "nature and technology" and Physics and chemistry. All specialized spaces are connected with a large common area, that again connects to the rest of the school. The large space allows for experimental courses, and is also used by the pupils for groupwork.

The listed school thereby avoided being faced with demands for substantial alterations and could therefore be preserved only leaving a minor reorganizing of the functions in the listed building mass. Furthermore the Extension is located under ground - Underneath the existing schoolyard - connecting to the original school via staircases underground and linking the different buildings of the original school.

Formal language:

Original and new court yards:

The original school consists of a repeated structure of building and courtyards. The design of the new underground extension used this theme, establishing daylight in the parterre plan via 4 large courtyards, designed as crystal-like openings. The proportions are half of the original court yards and appear rectangular and well defined from the playground, but twist under ground to a foot print rotated 90 degrees. The rotation of the four court yards makes a more organic, and open flow in the parterre plan. The court yards are used as outdoor space in connection with the projects that take place in the common space.

New school toilets are decorated as a tribute to Arne Jacobsen:

Doors and floors are imposed with a printed sheet - a converted reproduction of one of Arne Jacobsen's water colour drawings. The motif is processed digitally, so the pattern continues both horizontally and vertically.

Stair-library-furniture:

An important reprogramming of the school was turning the old assembly hall into the school library. Its location in the centre of the school was ideal for a new lively "heart" of the school. The design principle in renewing the existing school is not to make any alterations of the structure but using large furniture like inserts, that leaves the original school readable. The "furniture" can be removed, and is clearly stating its own time.

To change the former assembly hall into a library and assembly hall, a mega stair construction was implied. the construction is used as bookshelves in dayly use, but can be changed to house audience for special occasions. The steel construction is clad in loadbearing cellular polycarbonate to allow daylight. bookshelves is also used as small hideouts, and has a Harry Potter like world of turning bookshelves that allows the individual person to create his own space.