



PEB Exchange, Programme on Educational Building 2004/06

Evaluating Montbrillant  
Lower Secondary School  
in Switzerland

**Sandro Simioni**

<https://dx.doi.org/10.1787/620261174032>

# PROJECTS

## EVALUATING MONTBRILLANT LOWER SECONDARY SCHOOL IN SWITZERLAND

Does Geneva's Montbrillant lower secondary school, which has now been in use for one year, meet the objectives targeted when it was designed? Does the new school respond to the needs and expectations of staff and students? Questions such as these serve to evaluate the quality of a school building once in use and tie in with work supported by PEB on post-occupancy evaluation. For the design of Montbrillant, the Geneva authorities promoted specific integrated concepts; to verify to what extent these were successfully incorporated into the building, the author contacted the school's users, *i.e.* its management, administrative and technical staff, teachers, and students. Although their overall appreciation was positive, the users expressed dissatisfaction with many aspects of the facilities as described below.

The Montbrillant lower secondary school project was presented in the October 1998 issue of this journal after an open architectural competition had been completed. What was only a project six years ago became a reality between September 2000 and June 2003 and is now an attractive working facility. In Geneva, lower secondary schools teach the "orientation cycle" combining the last three levels of compulsory schooling; each of these schools has approximately 700 pupils aged 12-15.

The new Montbrillant school serves an inner-city area of Geneva, with all that that implies: single-parent families, ethnic minorities, crime, drugs, prostitution, and a run-down urban environment with few sports and recreational facilities. Damage, graffiti and theft are part of the package in inner-city areas, and much advice and guidance has been published by PEB over the years. If school buildings are not to become fortresses, then the solutions need to be human and social.

The main objectives of the Montbrillant project were to:

- Ensure high-quality social participation not only for pupils and staff but for members of the outside community.
- Group activities in specific areas and optimise public access outside school hours.
- Give the project a general artistic concept that enhances the atmosphere within the school.

- Provide green areas on the school site and use outside areas for educational and recreational purposes.
- Construct an adaptable, flexible building for the long term.
- Ensure that the school can adapt to changes in educational practices and information technology.
- Create a supportive and healthy environment in a school that is easy and economical to run.

The winning solution is massive but compact, with a large amount of accommodation partly or fully underground and the outdoor sports facilities on the roof. This results in minimising the building's footprint and freeing the maximum amount of land at ground level for public open space. Internal courts and social areas provide a private realm for the school.

### Social participation: common areas

The common areas, whether they are furnished areas or atriums, allow there to be social participation at Montbrillant lower secondary school outside class hours.





Pupils readily use the common areas, although they regret that, because of the need for order and supervision, teachers and administrators do not allow them to use these areas during extended breaks and class periods. As the areas are uniformly distributed over all sectors and floors, this “decentralised” arrangement does not allow the teaching staff to supervise pupils effectively.

The benches and tables available are much appreciated by pupils, who use them to study between classes or simply to socialise.

The large atriums are also greatly appreciated by pupils, as they are spacious and well-lit and give a sense of freedom. However, teachers have reservations about these atriums, which they feel are dangerous in that pupils have been known to throw objects from the upper levels.

### Grouping of activities by sector and public access

The objective of grouping similar activities in specific areas is aimed at improving the internal functioning of the school and creating areas with specific characteristics. Similar courses are grouped in these areas, together with their fixed and movable equipment.

Sports areas and the auditorium, for example, are accessible to external users outside the school’s opening hours, with proper control of entrances and connecting areas.

Pupils congregate in the sector of classrooms without computer and laboratory facilities on the lower levels, for these teaching areas account for 80 to 90% of educational activities. The teaching areas on the upper floors, which are devoted to more specific uses, are proportionally underused, as are their adjacent outside areas.

The media library, according to the administrative staff, should have been located one level lower so as to be closer to the administration and entrances.

### Artistic concept

The building has been studied from an artistic standpoint. The bright colours of the interior contrast sharply with the sober and discrete outer façades. Users have had mixed reactions to the artistic concept.

The decision to restrict the use of white to the playground area located on the lowest level of the entrance porch was the guiding theme for the interior decoration conceived by the Basel designer Renée Lévy. It was even necessary to negotiate so that white “blackboards” and projection screens could be used in teaching areas.

Dozens of different hues and colours are found in all the areas inside the school, alternating between red, satin blue and plain concrete on the walls to flocked orange and platinum grey on the floors.

Pupils as well as teachers and administrative staff are bothered by this concept of an untouchable work of art. Pupils feel deprived of the right to use the school’s walls, especially to post their artwork, while the administrative staff feel that it seriously limits their ability to post internal notices and signs.

Despite this, users admit somewhat paradoxically that they prefer this brightly coloured interior to the white or beige walls of their previous schools.

Surprisingly, the red colour used in the corridors, which adults find too bright, does not bother the pupils, who object more to the fluorescent yellow used in the auditorium and physical education rooms. The more neutral colours (blue and grey) are not mentioned in their evaluation.

The pupils also mention the fact that the colours lack any practical meaning. The continual use of red in all connecting areas, on all levels and in all sectors of the building makes it difficult for them to find their bearings and distinguish one area from another.



As regards the long-term maintenance of the interior of the building, this integrated design could act as a constraint concerning any future changes.

## Outdoor areas

### *Sports area on the roof*

All outdoor sports facilities, usually located on adjacent land, have been placed on the roof, which has an area of 5 000 m<sup>2</sup>, in order to allow the surrounding land to be used for green and recreational areas.

The use of the roof as a sports facility, a well-established option in urban areas, has raised problems, mainly involving safety, that should be easily solved. Any balls that go over the protective fence become dangerous and can injure people in the courtyard and public areas below. In addition, unruly pupils have occasionally thrown the gravel along the edge of the basketball courts from the roof. Access to the roof has temporarily been closed pending a solution to these problems.

Pupils appreciate this facility and are sorry that they can no longer use it during recreation periods.

### *Outside architecture and site*

The pupils find the outside architecture of the school severe and cold. Its straight lines, naked concrete and predominant use of glass and lack of colours give the

impression of a school designed for adults, such as a university. The school's monumental entrance also adds to this impression.

The large sunken area 30 x 15 meters and 10 meters deep, known as the "flying carpet" designed by the artist near the entrance, is not appreciated by pupils. They wonder what purpose it serves. The boys would like to use it as a football pitch and the girls would like it as a volley-ball area to use during recreation.



The ping-pong tables located outside are a great success. They are used continuously by pupils and have become the main focus of the courtyard, which is an area for socialising.

Because of the building's position and the sloping terrain, there are two distinct courtyard areas. This division into two courtyards bothers users. They are probably used to the frequent model of a single courtyard surrounded by the wings of the building.

### Limited parking space

One of the specific characteristics of this school, located near the main train station, is that it does not provide parking for staff. The cantonal and municipal authorities want to limit traffic in the city centre by promoting the use of public transport.

The small number of parking places – only 11 – poses a problem for the school's management, which does not know what criteria to use in assigning them.

### Rapid deterioration of the building

After a few months' use, the building had undergone various types of damage: some 60 slat window shades had been broken on the ground floor, the façades and street furniture had been covered with graffiti, the school had been broken into and equipment had been stolen. Since there is free access to the school outside class hours, it is impossible to monitor it permanently.

### A flexible building: site utilities and electricity networks

The site utilities and electricity networks were designed so that they could undergo the inevitable future changes in use. Utilities are grouped in vertical ducts incorporated into the load-bearing walls and are accessible through removable panels. The electricity network is distributed through smaller ducts that house both high and low voltage lines, including those for light controls.

### Users' appreciation

Despite the shortcomings that have been discovered with use and that have been pointed out by users, the general functioning of the school has not been called

into question, and all the pupils and staff recognise the high quality of the building.

There is unanimous approval of the internal space and luminosity of the school, as well as of the large number of activities offered and the increasing number of computer and communications facilities available in the media library and computer classes.



### New projects for tomorrow

Two new architectural competitions that have been held for buildings with the same surface area have resulted in the selection of two completely different projects on two very different sites. In one case, the lower secondary school will be divided into three separate buildings. In the other, the entire school will be contained in a single building with a ground floor and first floor. The operational problems pointed out above will be taken into account and will lead to other solutions in these future buildings (for example, interior atriums will be eliminated or will only be two levels high, and there will only be one outside courtyard). Involving users in the design of one of these projects (where an existing school will be rebuilt) should also be effective in ensuring that the facilities meet the educational needs.

#### Technical description of the building

Total floor area: 17 700 m<sup>2</sup>  
 Building volume: 85 000 m<sup>3</sup>  
 Construction cost: CHF 52 million  
 Construction time: 34 months, from September 2000 to June 2003

For more information, contact:

Sandro Simioni

Architect in the technical division of the DIP

B.P. 3994, 7 rue des Granges

1204 Geneva, Switzerland

Tel.: 4122 327 33 40

E-mail: sandro.simioni@etat.ge.ch