

# Escola Secundária Passos Manuel

LOCATION | LISBON, PORTUGAL

ARCHITECTS: **victor mestre | sofia aleixo, arquitectos**

CLIENT: **Parque Escolar, EPE**

TYPE OF SCHOOL: **Lower and upper secondary**

NUMBER OF STUDENTS: **1150**

TYPE OF PROJECT: **Renovation and extension**

GROSS SURFACE AREA: **16 400m<sup>2</sup>**

YEAR OF COMPLETION: **2010**

CONTEXT: **City**



A

“The new features are very suitable for the school population, providing new spaces and modern facilities that are excellent for students. The multipurpose pavilion presents itself as beautiful and modern space. Students very much enjoy the renewed school as well as the outside spaces.”

*Emília Cruz, assistant (operational), Escola Secundária Passos Manuel*

This school has historical significance in both an educational and an architectural context. Situated in the historic centre of Lisbon, it was the first lyceum built in Portugal under the 1836 education reforms.

Inaugurated in 1911, the compact school was modelled on a typical French lycée of the time. It has two enclosed courtyards following the style of old monastic colleges and displays several period and relatively recently introduced architectural features, such as metal structures, steel beams, cast iron columns and concrete flooring.

## Renovation work

In its 100 year history, the school has been largely unchanged, accommodating all the changes in educational practice that took place in the twentieth century. Now a listed building, the task facing the team renovating the school was to introduce twenty-first century learning environments while preserving the architectural heritage. They also had a further challenge: restoration work was to take place while the school was in use.

The main building was reorganised through a series of discrete interventions. Rather than

strip out the old fabric, an effort was made to restore, renovate and structurally reinforce all degraded elements. New infrastructure and IT networks were integrated into the structure using non-intrusive methods.

Work was undertaken to ensure that the building complied with current environmental quality and energy efficiency standards. This included introducing new renewable energy sources (solar and photovoltaic panels) to ensure thermal and acoustic comfort and energy self-sufficiency. The restored school now fully complies with recent legislation regarding thermal performance in buildings, energy and acclimatisation systems in buildings, and noise and energy performance.

## New extensions

It was not possible to meet all the needs of a modern school within the physical constraints imposed by the old school. Some facilities had space or technological requirements that could not be accommodated without substantial modifications. These facilities were therefore located at strategic places on the site in order to limit their impact on the existing school and more space was created by excavating under and beside the historic building.



B



C



D



E

New laboratories and a canteen have been introduced in the basement levels. The canteen opens out onto a new patio at the southern end of the school. This is at a lower level than the surrounding ground, and therefore does not visually intrude on the historic facades. The sports facilities have been substantially enhanced by building two gyms below the level of the old school playing field. A new outdoor playing field has been installed on the roof of this new structure.

The school now has the spaces to support a modern curriculum, with laboratories for experimental science classes, ICT rooms, workshops and rooms for the fine and performing arts. As well as the general classrooms there are also two auditoria for lectures and performance. Outside the classrooms, the social areas for students and teachers and the canteen provide multipurpose spaces where informal learning can take place.

Although the historic laboratories and library have been fully restored to preserve evidence of the educational heritage, a new resource centre has been provided fully equipped with areas for study, consulting information and exhibiting school collections.

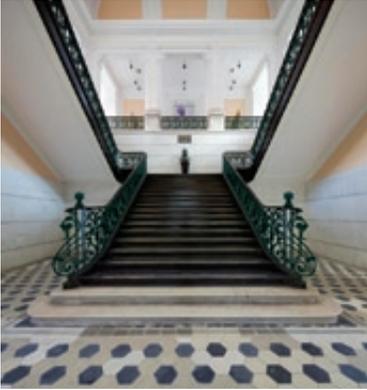
**A:** The front elevation of the school.

**B:** A refurbished classroom.

**C:** One of the auditoria.

**D:** The new canteen and outdoor eating area is an unobtrusive addition to the school.

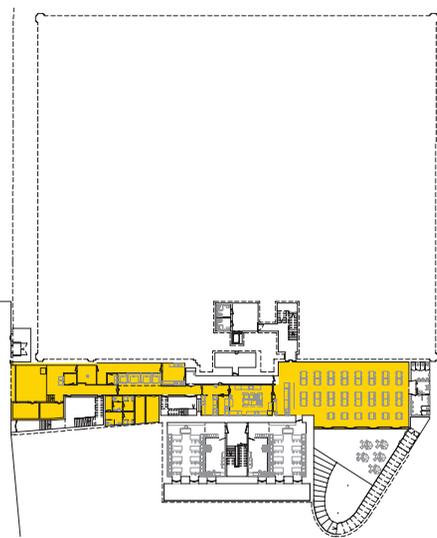
**E:** The sports pavilion; two gyms are below the courts on the roof.



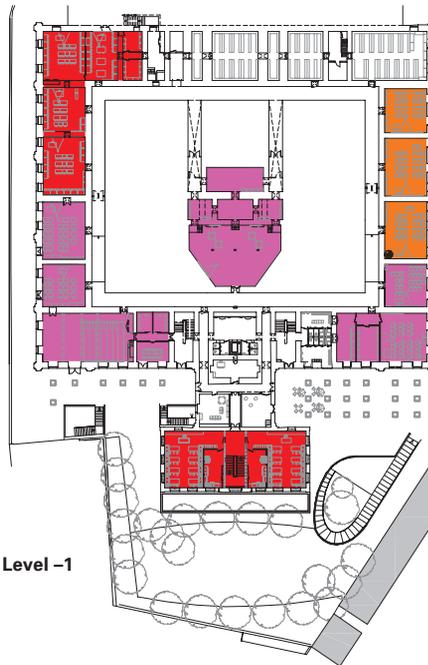
F



G

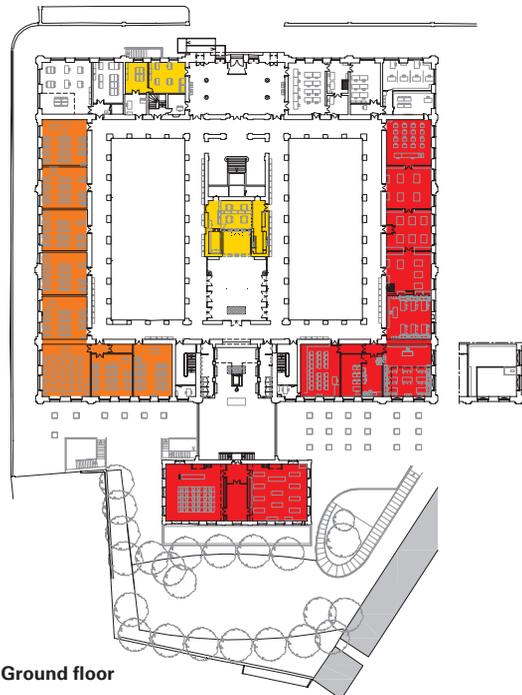


Level -2

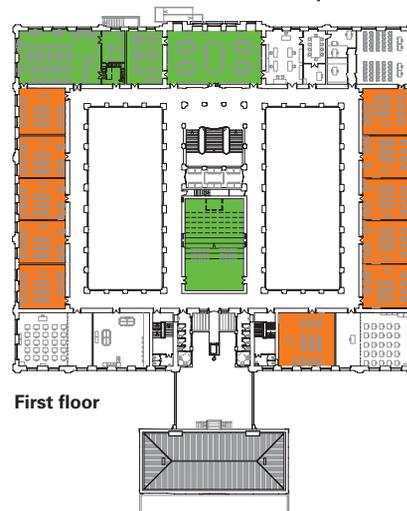


Level -1

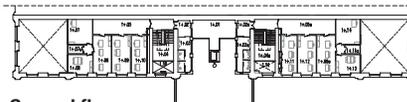
- Restaurant and social areas
- Classrooms
- Science and technology labs
- Art classrooms
- Library, learning resource centre and auditoria



Ground floor



First floor



Second floor

**F:** The historic building has been carefully restored.

**G:** The school has a new learning resource centre but has preserved its old library.

**H:** Furniture and floor plans.