



LYCÉE FRANÇAIS CHARLES DE GAULLE

Damascus, Syria

Set on the slopes of the Mezzah district – once the summer retreat for Damascenes living in the hotter old city in the valley below – the Lycée Charles de Gaulle in Damascus offers a French education for 900 students from kindergarten to baccalaureate level. Inaugurated in 2008, the project aimed to provide an integrated campus for three schools previously located in different buildings in the city. The campus design, with its own strong formal image, is generated to a large extent in response to the physical constraints of the sloping site, the arid desert climate and, crucially, the desire for natural ventilation and sustainability. Indeed, the decision to erect a building in the Middle East without air conditioning came as a surprise to many and, in fact, resulted in the school standing out so clearly from its high-density residential surroundings.

The “garden” is the spatial building block of the overall design scheme and essential to the central strategy for natural cooling and ventilation systems. The classrooms of the three schools – kindergarten and primary on the left and secondary on the right – are arranged in a pattern of alternating pavilions and garden-patios either side of the main axes along a major courtyard leading up the hill.

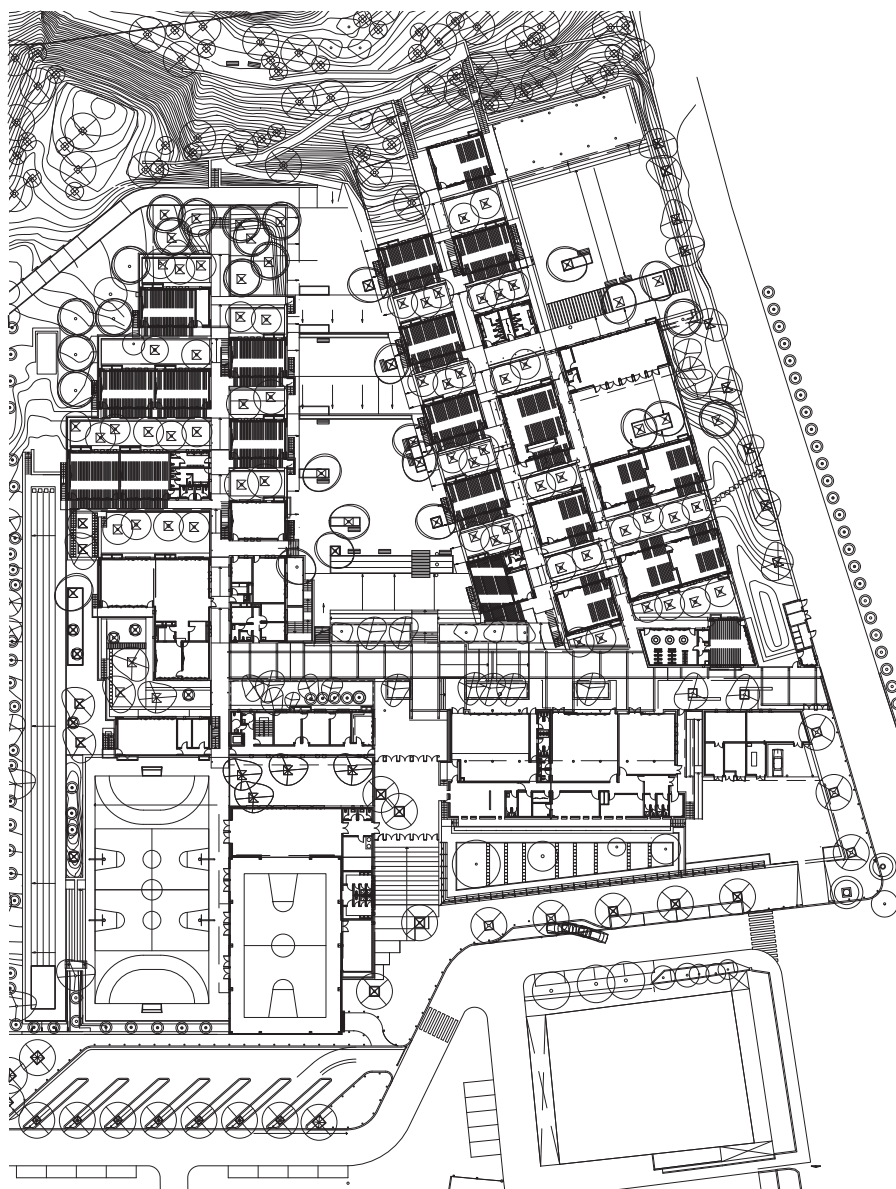
Each two-storey block is made up of two classrooms with thermal-inducing double-block walls (hollow concrete on the exterior, solid concrete on the interior separated by a 5-centimetre air pocket) and gives onto a small, planted garden-patio that acts as a microclimate providing cool air. This passes through PVC pipes in the ground-floor slabs and circulates via the natural updraft created by the specifically placed, tall solar chimneys – one for each classroom – that give the campus its distinctive image. Each classroom has a dual aspect and the size and position of the double-glazed windows were carefully studied to provide maximum natural light. The patios are planted and/or shaded with retractable awnings and every classroom is connected to the main avenue by a system of open and roofed two-level corridors paved with basalt tiles: again, designed with cooling and ventilation in mind. The aluminium or zinc-clad roofs also provide additional protection and are sloped parallel to the site, facilitating rainwater collection.

To establish the necessary microclimate and garden, great care was taken to preserve all the existing trees, which also frame views to the mountains beyond, and many fast-growing local varieties that require little water were added.









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CLIENTS

French Ministry of Foreign Affairs, Paris, France

Parent-Teacher Association for the Charles de Gaulle Senior High School, Damascus, Syria

ARCHITECT

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LOCAL ARCHITECT

Dagher Hanna & Partners, Beirut, Lebanon

STRUCTURAL ENGINEER

GEC Ingénierie, Paris, France

FLUID ENGINEER

Barbanel Liban, Beirut, Lebanon

PEDOLOGICAL STUDIES

Sol Paysage, Paris, France

CLIMATE ENGINEER

Transsolar Energietechnik GmbH, Stuttgart, Germany

PROJECT DATA

Site area: 10,000 m²
Ground-floor area: 4995 m²
Cost: 6,576,000 USD
Commission: June 2001
Design: January 2006
Construction: April 2006–May 2008
Completion: September 2008

YVES LION

Yves Lion was born in Casablanca in 1945. He studied architecture in the Pingusson workshop at the École des Beaux Arts and, subsequently, at the University of Paris VI. He established his agency in 1974, and was fully involved in debates and competitions during the period that marked the emergence of "urban architecture".

From the earliest days, he has been involved in social-housing projects. He has also designed numerous housing schemes for private developers, as well as many public buildings, including the Palais de Justice in Lyon (1995) and the French Embassy in Beirut (2003).

His career has been punctuated by other projects involving cultural and educational facilities, including the renovation of the Fine Arts Museum in Dijon, the Paris Institute of Islamic Cultures and the National Institute of Oriental Languages and Civilisations in Paris.

He combines urban design analyses, urban development projects, public spaces and territorial development. He focuses on the creation of links as a means of repairing breaches (between city centres and suburbs), by the reclamation of fallow land or the redevelopment of infrastructures, and on the relationship between townscape and nature. In 2007, he was awarded the "Grand Prix de l'Urbanisme" prize for urban development and, in 2010, the "Prix National de l'Aménagement Urbain" national urban development prize, together with the Municipality of Strasbourg.

WEBSITE

www.atelierslion.com