



Moeding Keramikfassaden GmbH
Ludwig-Girnghuber-Straße 1
84163 Marklkofen

A sweeping frame for a university campus

Ceramic façade for a new building at the Universidad Complutense de Madrid

The Faculty of Economics & Business at the Universidad Complutense de Madrid (UCM) has gained a new building that responds to its setting while reflecting the colourful life of the campus. Madrid-based architect Silvia Babsky Nadel and her practice partner Ramón Valls Navascués of BN Asociados conceived a colourfully clad, organic volume designed to encourage interaction while creating a striking frame for the existing buildings. The external façades skilfully respond to both the diversity and the context of the site. Depending on their orientation and position on the building, large-format ceramic panels from MOEDING form a precisely choreographed pattern that accentuates its unusual shape. Curved panels are key to giving the building envelope its seamless, unified appearance.

Until the late 1960s, the Faculty of Economics & Business at the Universidad Complutense de Madrid moved between several locations before relocating to the Somosaguas campus in the neighbouring town of Pozuelo de Alarcón, to the west. The complex originally comprised five buildings, each dedicated to a different year of study. With facilities spread widely across the site and the prefabricated buildings now more than 55 years old, plans were drawn up to reorganise the economics campus and add a modern main building. The new building now complements the four retained faculty buildings, providing a functional link between them. Only one building – which had housed teaching facilities for fourth-year students – had to make way for the development.

A unifying structure around multiple courtyards

The design, selected through an architectural competition, was deliberately conceived as an embracing gesture towards the existing campus. It was intended to create a striking frame not only for the existing buildings, but also for the surrounding parkland. With a gross floor area of almost 50,000 square metres, the new building takes the form of a single organic structure, extending



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over four storeys throughout and built predominantly using solid construction methods, with some prefabricated elements. Its sweeping U-shaped form encloses five smaller courtyards, with two additional semi-open courtyards to the south. Distributed along its entire length are offices for teaching staff, seminar rooms and lecture theatres, an events hall, administrative offices, a cafeteria, and underground parking on two basement levels.

Colour and form for greater energy efficiency

Environmental considerations and energy efficiency were integral to the architects' approach from the outset. The building was designed in accordance with European guidelines for nearly-zero energy buildings. In addition to photovoltaic systems for generating energy, the faculty building in Madrid incorporates measures to improve the thermal performance of the building envelope. The building's form and the positioning of its window and door openings help prevent energy loss. The ratio of opaque to transparent areas of the external walls varies according to location. While extensive glazing facing the courtyards provides abundant natural light and views, the external walls are enclosed by a compact ventilated rainscreen façade clad with ceramic panels.

The architects developed a colour scheme that, depending on the orientation of the panels, helps reduce summer heat gain and improve thermal insulation in winter. The north façade is therefore finished in dark shades of grey and black, while the south façade features bright, colourful tones. Despite this variety of colours, the use of flat ceramic panels arranged horizontally throughout gives the façade a restrained, understated appearance. At the same time, the colour groupings add variety to the parallel bond pattern, giving the building envelope a lively, dynamic appearance. MOEDING developed the 17 different glaze colours to the architects' precise specifications in just two sampling rounds.

Curved panels follow the building geometry

Another key consideration for the architects when developing the building's unusual footprint was to preserve as many of the mature trees as possible and



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thus retain the character of the campus. The rounded corners of the building were designed to wrap harmoniously around the vegetation. This approach could only be achieved using curved ceramic panels that precisely follow the building geometry and have become a defining feature of the design. Working closely with architect Silvia Babsky, the MOEDING experts developed the various concave and convex curves required for the rounded sections of the façade.

Safe and simple fixing system

The MOEDING L² fixing system ensures fast, precise installation. Each ceramic panel is secured by two aluminium panel clips at both its upper and lower edges. Each of the lower clips features a stainless steel spring which, during installation, simply clicks into a groove extruded into the rear of the façade panel, with no additional tools required. This ensures that every panel remains securely fixed in place over the long term.

((5.159 characters incl. spaces))

Project information

Project name:	Facultad de Ciencias Económicas y Empresariales, Universidad Complutense de Madrid
Client:	Universidad Complutense de Madrid
Architecture:	BN Asociados SA, Madrid
Façade lining:	MOEDING ALPHATON® ceramic panels in 17 different colours

Figures



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Working to precise specifications from architect Silvia Babsky Nadel of BN Asociados, the MOEDING experts developed the different glazes for the ceramic panels used on a new faculty building at the Universidad Complutense de Madrid.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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Despite the parallel joint pattern, the choice of colours for the individual ceramic panels creates a lively and varied overall appearance.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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The flat, flush-fitting ceramic panels, laid horizontally throughout, nevertheless give the building envelope a calm, understated appearance.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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A

sweeping frame for a university campus

The ceramic panels wrap the building like a perfectly fitted skin of scales, with curved panels formed to precisely calculated concave and convex radii.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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The ventilated rainscreen façade, with its durable, robust ceramic panels, forms part of an overall energy-efficient design that also takes account of the thermal performance of the building envelope.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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The 17 different panel colours also help moderate the effects of the climate. Dark shades on the exposed north façade absorb heat, while the light colours and greater degree of undulation on the south façade help shield the building from the heat.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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Shading and natural air circulation, along with photovoltaic modules on the roofs and landscaped courtyards, also form part of the sustainable design.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe



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Despite the varied form of the building, its organic underlying shape remains evident throughout. Rounded corners on all sides are designed to integrate the building harmoniously with the existing architecture and vegetation.

Architecture: BN Asociados, Madrid

Photo: Roland Halbe