



## BAU 2017, January 16-21, Munich

by Jim Roche



This bi-annual five-day event is one of the leading and biggest trade fairs of architecture, materials, building systems and craft skills in the world. Held in the huge Messe München Trade Fair Center in eastern Munich and stretching over 17 gigantic halls each the size of a football pitch, it offers a truly rich display of the latest innovations in building technology.

This year 250,000 people, 80,000 of those from abroad, explored the elaborate stalls of 2,120 exhibitors from 45 countries, researching, networking, exchanging ideas or sometimes just drooling at the magnificent technology innovation on display. 65,000 visitors were from architecture and planning offices alone.

Despite the international presence, German stalls predominated as BAU is essentially about German manufacturers and system providers targeting German specifiers, a commercial reality that was omnipresent with a huge financial investment by all companies involved, with some 2-storey stalls taking up one-eighth of a football pitch. Parallel daily forums - really mini conferences - that explored themes such as the dialogue between the architect and industry, intelligent buildings, building physics and BIM complemented the exhibition.

Four staff and forty-four architectural technology students from 2nd, 3rd and 4th years from the School of Architecture, DIT visited the fair for two full days with the helpful sponsorship of Messe Munich International, Pattern Ltd (UK) and Gretsche-Unitas. It is impossible to see everything in two days and benefit from the advice of the experts on the stalls so we tended to focus on façade and manufactured timber systems.

Heliobus specialise in collecting and reflecting daylight to where you need it inside buildings. Their systems range from the very public lighttubes installed outside Bahnhof Potsdamer Platz in Berlin to the super flush, frameless, horizontal rooflights so beloved of architects. Knapp offer a myriad range of stainless steel connectors, mostly hidden, for manufactured timber systems. The high-end Swiss based Sky-Frame offer the most incredibly slender floor to ceiling metallic section sliding glazing systems. Rhinezink demonstrated the latest

zinc cladding technology in a myriad of samples and one full-scale part roof and wall assembly displaying how to solve that tricky eaves detail while satisfying the requirements for insulation and ventilation and even supporting balustrades overhead. The Italian firm Secco displayed elegance par-excellence with their exquisite folded brass sheet windows.

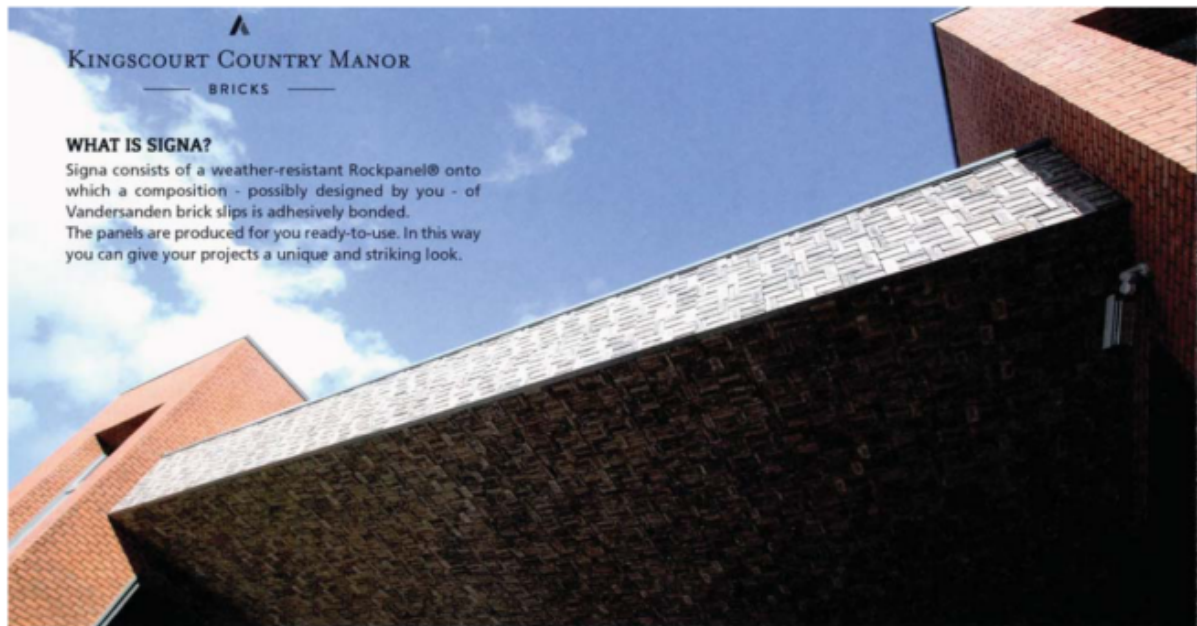
Schöck, who brought us the innovative Isokorb thermal break system, displayed their new system for balconies fixed to timber structures using carbon fibre rather than stainless steel fixings and also a new innovative way of acoustically isolating internal concrete staircases from the surrounding walls. The Cobiax stall displayed its efficient and energy efficient way of making concrete slabs with air-filled plastic balls. And much more besides!

One striking aspect of all the products and systems viewed is the amount of testing done and the claims for compliance with the required EN codes. Experiencing BAU one wonders why German building technology is so innovative and is constantly pushing new boundaries? Think of all the products we specify, or of the development of Passive House in recent years? It surely goes back over 100 years to the Deutscher Werkbund (German Association of Craftsmen) when artists, architects, designers and industrialists came together in a state-sponsored effort to integrate traditional craft techniques with industrial mass-production techniques, thus helping Germany to compete favourably against other industrial nations, and of course continued in the massive reconstruction programme following the destruction of WW2. That competitive ethos seems to still drive current innovations as seen here in BAU in what becomes, as evening draws near and weary visitors search for an exit, a phantasmagoria of German technological prowess.

BAU is an invaluable educational resource for students and a great interactive CPD for teachers and practitioners alike. Start saving for BAU 2019 and bring a small wheeled suitcase along for all the technological goodies!

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## KINGSCOURT COUNTRY MANOR BRICKS

### WHAT IS SIGNA?

Signa consists of a weather-resistant Rockpanel® onto which a composition - possibly designed by you - of Vandersanden brick slips is adhesively bonded. The panels are produced for you ready-to-use. In this way you can give your projects a unique and striking look.

### MILLIONS OF POSSIBILITIES

Signa stands for ... brick freedom. Even the most striking facades can become a reality. Vandersanden produces what you create. On the basis of 4 variables millions of patterns are conceivable.

### COLOURS

You choose and combine from the full Vandersanden line. There is a range of more than 100 colours, expanded by the 4 surface textures; hand-moulded, formback, water-struck and aged.

### RELIEF

The slips can be cut to various thicknesses for the stretcher, the header and the sole. You can choose a straight or diagonal cutting line. Moreover, several parts can be used from one and the same brick.

You do not have to limit yourself to just a single cutting line. By combining several cutting lines you create an intense composition with a varying relief that is full of character.

### BOND

You can apply the familiar brickwork bonds such as half-brick, English bond or irregular bond. Combinations of these brickwork bonds are achievable. Horizontal, vertical and even diagonal brick sections are amongst the possibilities. This is feasible because Signa is not laid but adhesively bonded, thus offering greater freedom.

Kingscourt Country Manor Bricks are distributors of Vandersanden products in Ireland and Northern Ireland.







### Innovative prefab façade system for Saxion University

Saxion is a major university in the eastern part of the Netherlands, with campuses in Apeldoorn, Deventer and Enschede. The university recently constructed a new building due to the growth in the number of students and research activities on the Enschede campus. The façades radiate innovation. A new, pre-fabricated curtain wall façade structure is combined with facing bricks from Vandersanden Group.

IAA Architects of Enschede decided to build part of the building underground so that Saxion's new university building should not have four separate entrances. A large 'cellar area' serves as a connecting element between the separate structures.

The architects used a special pattern of bricks to reflect the historic context of Enschede, a place noted for its variety of brick patterns and ornaments. Specialists and experts met at an early stage to work out how to implement a special form of brickwork. There were continuous synergies between various design techniques to display the patterns for the building in the design phase. During development of these patterns, the original dimensions of the grid – 1200 mm – evolved to 1260 mm because the size of a Water-struck brick is 210 mm. IAA Architects incorporated that fact in the drawings and the engineering of the building.

"The choice of brick on the outside was logical. Brickwork fits in very well with the building culture in the Netherlands. The 'genius loci', the 'spirit' of a place is essential to us. Every place demands a different approach," says architect Marko Matic of IAA Architects. Along with advisers from ARUP Amsterdam and

designers from AD Develop, they opted for Vandersanden Group's Signa system.

### Curtain wall element for high-rise buildings

Vandersanden Group has had very little presence in the field of high-rise buildings, whilst the demand for prefabricated curtain wall systems is increasing. In Signa, the brick manufacturer's innovation team have come up with a curtain wall element that can be used in high-rise buildings. Bricks are not laid in a traditional way in this environment. Since the bricks are glued to a backing panel, the architect can 'rotate' the bricks during the design process, both in depth and in relief, and he can also play with colours and patterns. It is an attractive and flexible system with many possibilities. The panels can still be dismantled even after the bricks are laid.

### 'Zigzag slalom'

The brick pattern at Saxion satisfies a number of constraints. The school building is surrounded by beautiful buildings with ornamental brickwork. The architects wanted to reflect that element in the building. You will also find a lot of decorative brickwork throughout Enschede, originally associated with the town's history in the textile industry. IAA Architects wanted to incorporate that history as a tangible aspect of the façade in one way or another. The zigzag slalom is a metaphor for the weave of textiles. The flexibility of the range was also a critical factor for choosing a vertical division in the façade, and that was also continued through in the pattern.

