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Precast concrete architecture in Central Europe

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Hardly any other building material is in such demand at the moment by architects and is more diverse in use than concrete. This is once again reflected in contemporary architecture. The material that was mostly used previously for construction, has since become an architectural statement of the surface, that emphasises its message self confidently both visually and haptically. The times of stereotyped concrete blocks are over, in the meantime the "Modern marble" now appears virtually refined, often with velvet matt surfaces, which are coloured or textured at times. Concrete as a styling medium and design form of modern architecture is experiencing a true renaissance. Of course not just the aesthetes but also the technologists have taken on the material in the past few years. Hardly a material is currently more innovative than concrete. Research institutions and companies around the world are working on developing new, customised types of concrete for general and special applications.

Concrete is now synonymous with high-tech. Concrete technological innovations and developments pave the way for a new exciting future. 3D printing is just one of many keywords in this field. Self-compacting and ultra-high-performance concretes promise sculptural and filigree constructions and an architecture that could not be built in the past. Glass fibre and textile reinforced or even translucent concrete open up the range of possibilities that concrete architecture offers the planners nowadays. However, despite all nanotechnology and concrete technology opening up new design freedom for planners, the most wonderful thing about concrete remains its endless versatility in terms of its visual and haptic appearance. And to this purpose no new developments and compositions are needed; the imagination of the planners is sufficient. Each thus has the possibility to create his own individual and unique concrete look.

The design of the decisive last few millimetres is endlessly versatile. From the choice of the colour, the building material composition and the surface processing to the geometrical moulding of the concrete structures, the designer has a massive arsenal of possibilities at his disposal to realise his ideas in fluid stone. Concrete is a challenge. Poor planners get lost, but for good planners the limits of concrete are the limits of their imagination. Concrete design is a supreme discipline. Particularly, facades made of prefabricated concrete elements are constantly challenging the architects' individual design. They can be designed and realized very differently. Especially in recent years, precasters, in collaboration with architects, have designed a series of

buildings for diverse uses, which have caused a stir in the architectural community. They prove that modern production techniques allow the realization of formal and constructive but also structural sophisticated designs. The presentation takes you on my private and diverse journey through the current precast concrete architecture to be found in Central Europe showing some of the trends and innovations in precast building reflected in objects and products. But keep in mind: it's just a small selection out of the concrete universe.

Structural precast elements

Office and production building, Munich (Germany)

Architecture: Kurt Tillich

In Munich, a building like a dark crystal, a geometrically folded structure that catches the eye immediately among the monotony of commercial properties due to its form and structure, shows how one can create a wonderfully individual piece of architecture with a high-value and noble appearance using architectural concrete façade elements (Fig. 1). The volumetric structure of anthracite coloured concrete is divided by a three-dimensional, geometric fold and the strongly carved-out joints. The exposed position shows the geometric play of the facade, its sequence and the shaping of the corners to their best advantage. Depending on the time of day and year, the weather and the incidence of light, the façade constantly changes its character and is modulated to a greater or lesser extent. The plastic form of the matt shining, smooth concrete surfaces is further increased via the vertically bending joints. The sharp and precise edges and the lively, genuine surface transport this standard. Due to the high degree of prefabrication, the short construction



Fig. 1. Office and production building, Munich

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