

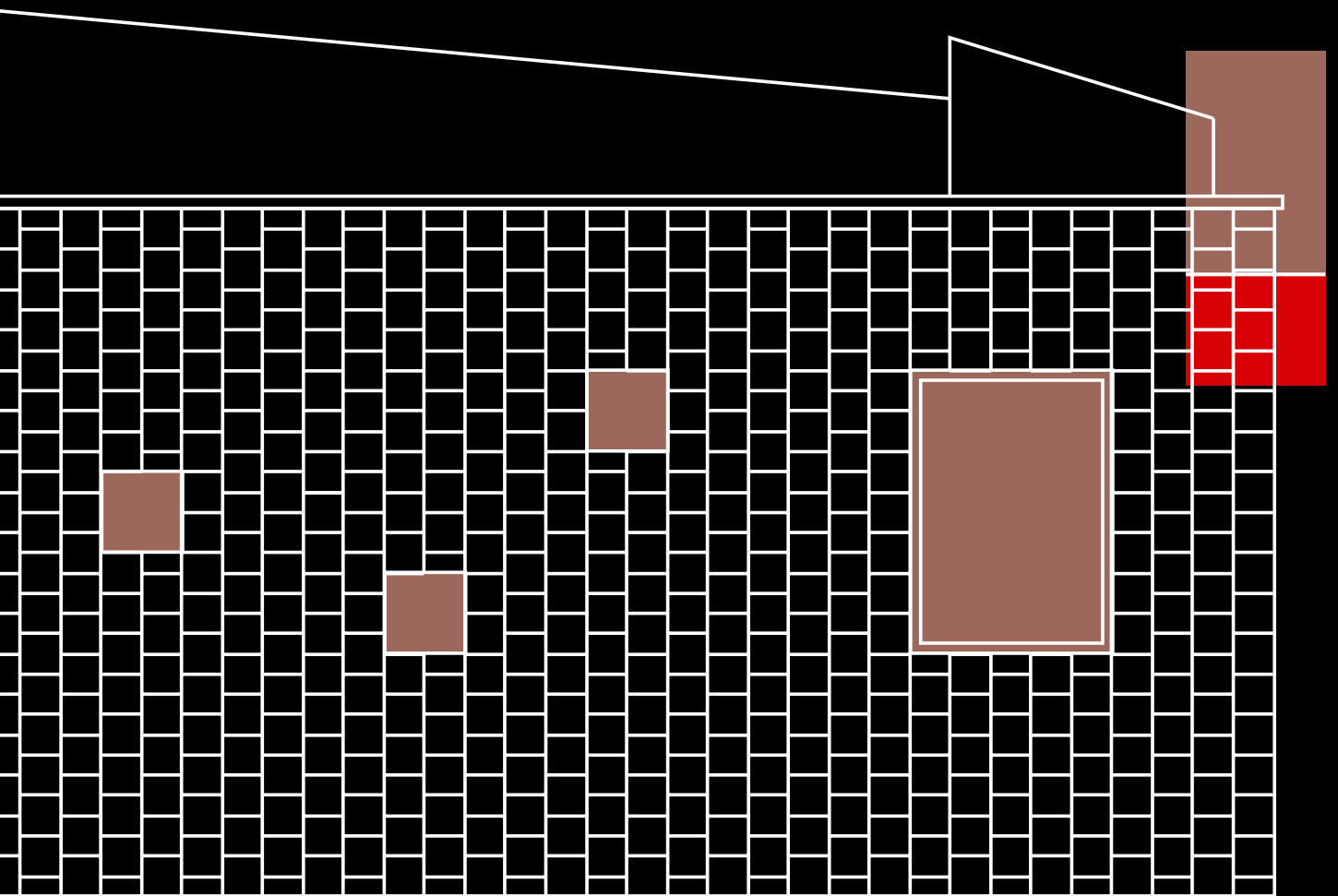
**TECU®**

Copper designs.

**Project Consulting Magazine**

**#5 [GB]**

**KME**



Exemplary Projects # 5.1 to 5.5  
Roof and Façade Designs  
in Copper



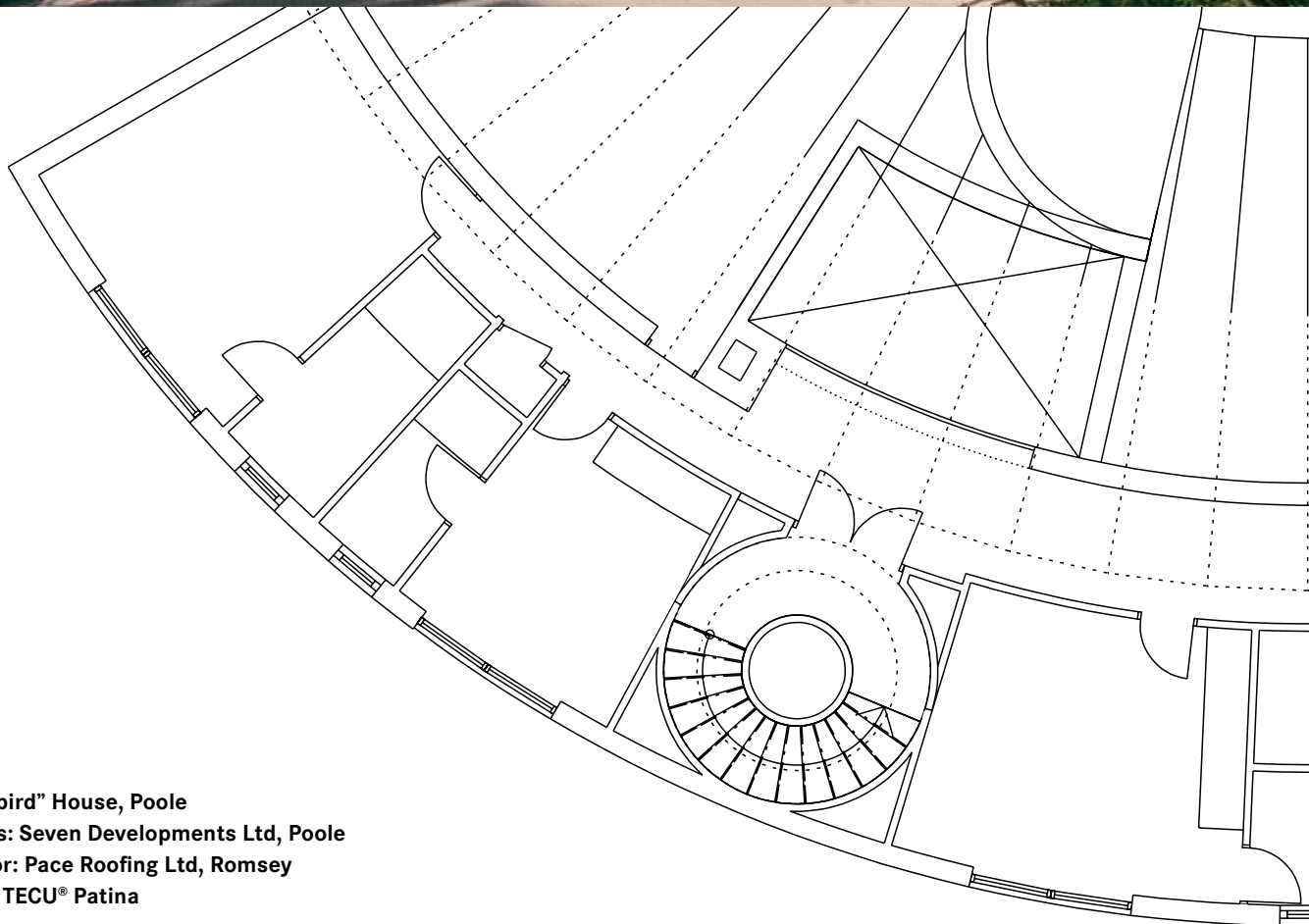
A composite material with a bright rolled copper surface and many other significant advantages: large area, smooth, distortion-resistant, with optimised weight, low thermal expansion, excellent sound insulation and high mechanical resistance to wind loads, impact, blows and pressure.

With TECU® Bond you can design facades and interior surfaces in copper easily, quickly and economically. The material structure is simple but efficient: 0.5 mm thick TECU® Classic sheets are bonded to both sides of the polyethylene core under high pressure – an extremely durable and resistant material bond. The result is an ideal facade material that is easy to work with and to install. The initial preparation of the product is carried out in the workshop; the sheets are then cut to size on the building site and installed in no time at all.

The sheets are delivered with a protective film on both copper surfaces, which is removed only after they are installed in place. In this way, TECU® Bond provides elegant, low-cost solutions for applications such as ventilated, curtain-type facades, fascia cladding, parapet cladding, tunnel cladding, roofing and interior design.

Residential building, Wels (Austria)  
Architects: Hofbauer, Wels (Austria)  
Contractor: Pöttinger, Obertrattbach (Austria)  
Cladding: TECU® Bond





**"Thunderbird" House, Poole**  
**Architects: Seven Developments Ltd, Poole**  
**Contractor: Pace Roofing Ltd, Romsey**  
**Cladding: TECU® Patina**

In an attractive residential area with the most expensive real estate in Europe, a project was completed that more than lives up to its reputation in terms of its structural aesthetics and use of materials. The characteristic “wings” of the Thunderbird house in Poole, England were achieved by virtue of a stunning roof design using TECU® Patina panels.



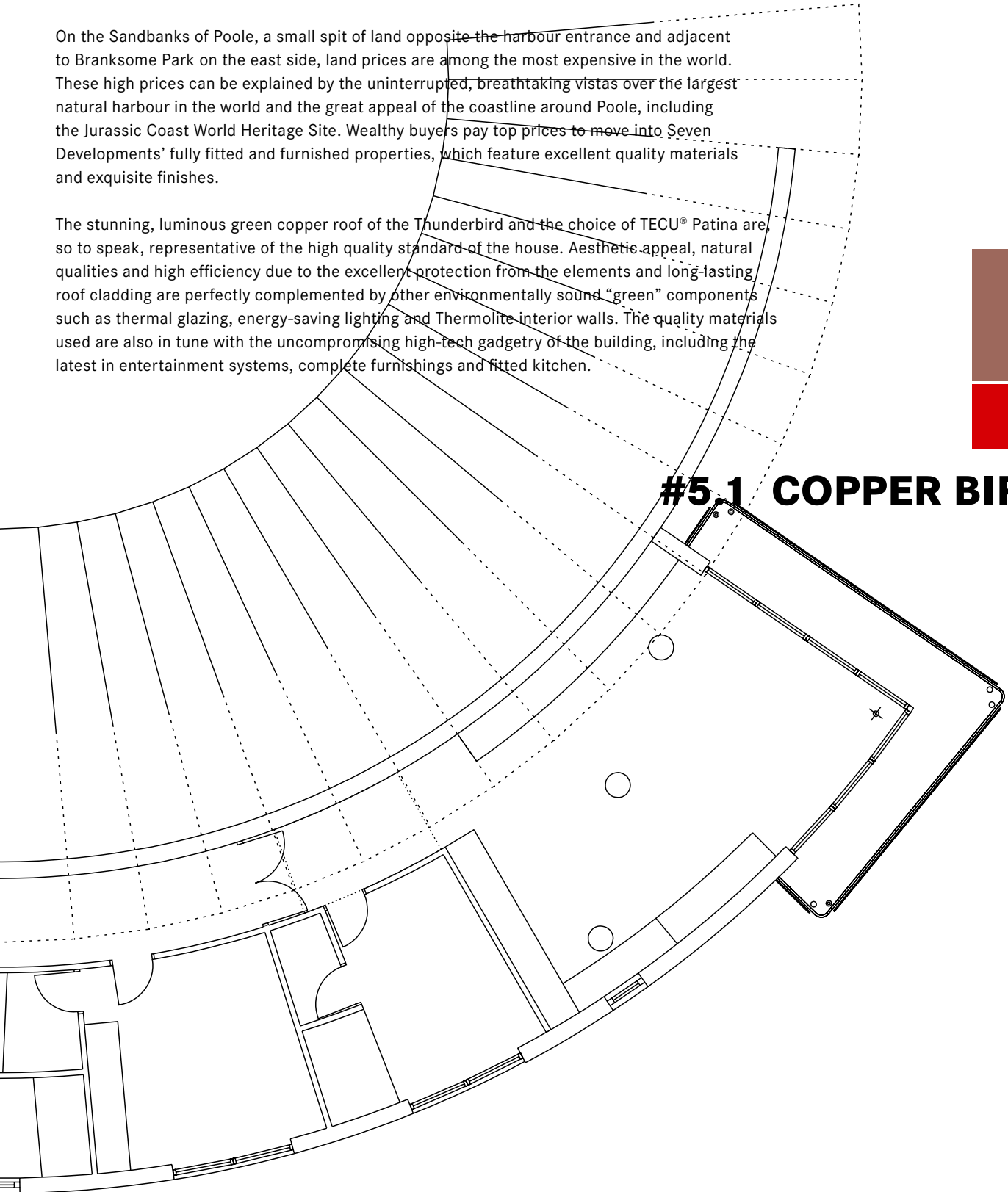
Eddie Mitchell, Managing Director of Seven Developments, is credited with wanting to turn sleepy Poole into Britain’s version of St. Tropez with his outrageous and unique homes. The key architectural features employed are white walls and facades, sinuous vertical surfaces, floor-to-ceiling coloured glass panels and highly sloping and curved roofs – made of copper, because there is scarcely any other material that allows so much creative scope and meets such exacting quality requirements. Many of the company’s properties have already won prestigious awards and prizes; including first prize for best private home for Thunderbird in the 2006 National Home Builder Design Award.

On the Sandbanks of Poole, a small spit of land opposite the harbour entrance and adjacent to Branksome Park on the east side, land prices are among the most expensive in the world. These high prices can be explained by the uninterrupted, breathtaking vistas over the largest natural harbour in the world and the great appeal of the coastline around Poole, including the Jurassic Coast World Heritage Site. Wealthy buyers pay top prices to move into Seven Developments’ fully fitted and furnished properties, which feature excellent quality materials and exquisite finishes.

The stunning, luminous green copper roof of the Thunderbird and the choice of TECU® Patina are, so to speak, representative of the high quality standard of the house. Aesthetic appeal, natural qualities and high efficiency due to the excellent protection from the elements and long-lasting roof cladding are perfectly complemented by other environmentally sound “green” components such as thermal glazing, energy-saving lighting and Thermolite interior walls. The quality materials used are also in tune with the uncompromising high-tech gadgetry of the building, including the latest in entertainment systems, complete furnishings and fitted kitchen.



## #5.1 COPPER BIRD





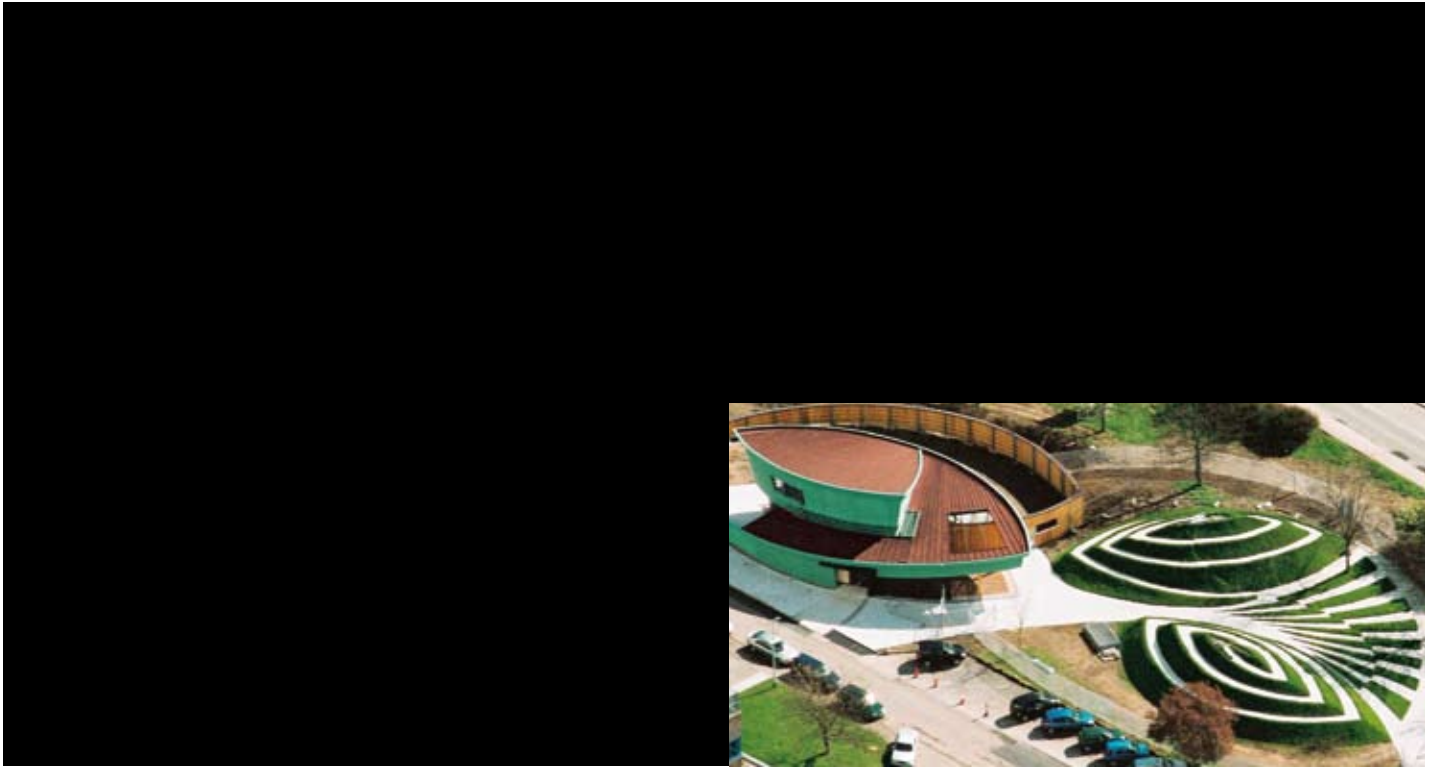
## #5.2 COPPER CUBE

**A residential building in the Swiss region of Mendrisiotto skilfully combines openness and privacy. The transparent ground floor enclosed in glass is stylishly complemented by the copper clad façade of the top floor. The copper red TECU® Classic Shingles are laid to create a relief pattern which makes impressive use of the play of light.**

The external design of the building gives the initial clue to the consistent spatial rigidity of the inside area: an open ground floor, an intimate top floor, a roof terrace split up by angled walls. The communicative quality of this compilation is fascinating. During the day, light floods the ground floor, giving the inhabitants continuous visual contact with their surroundings; as night falls the interior lighting lights up the patio and garden. On the top of the building the TECU® Classic Shingles constantly change colour and, depending on the time of day, are a subdued red with a greenish glimmer, aubergine or fiery red tones. Over time, weathering will continue to trigger some changes. Then, the reddish brown copper colouring will change to matt dark brown shades, eventually turning into the typical copper patina colour – the oxide layer which will keep the surface protected for many years to come. TECU® Classic has a lively surface which contributes a lot to the communicative properties of the house and which, as it continues to develop, will also be a perfect complement to the pleasant colours of the landscape.

Initially, the house owners had trouble imagining the unique quality of this special material. They were familiar with concrete walls and flat roofs and could picture them as design elements – but a metal façade which constantly changes colour, where you never quite know what it will look like? But the architect, who became very enthusiastic about the material after seeing Alvar Aalto's copper roofs in Helsinki, was able to convince them. Today, the owners are fascinated by the quality of the play of colours which harmonise so perfectly with the natural surroundings of the house.

**Casa Travella, Castel San Pietro (Switzerland)**  
**Architect: Aldo Celoria, Balerna (Switzerland)**  
**Contractor: Antonio Corti SA, Caslano (Switzerland)**  
**Cladding: TECU® Classic**



**Maggie's Highlands Cancer Caring Centre  
at Raigmore Hospital, Inverness  
Architects: Page & Park Architects, Glasgow  
Contractor: W B Watson Ltd, Stewarton  
Cladding: TECU® Patina, TECU® Oxid**



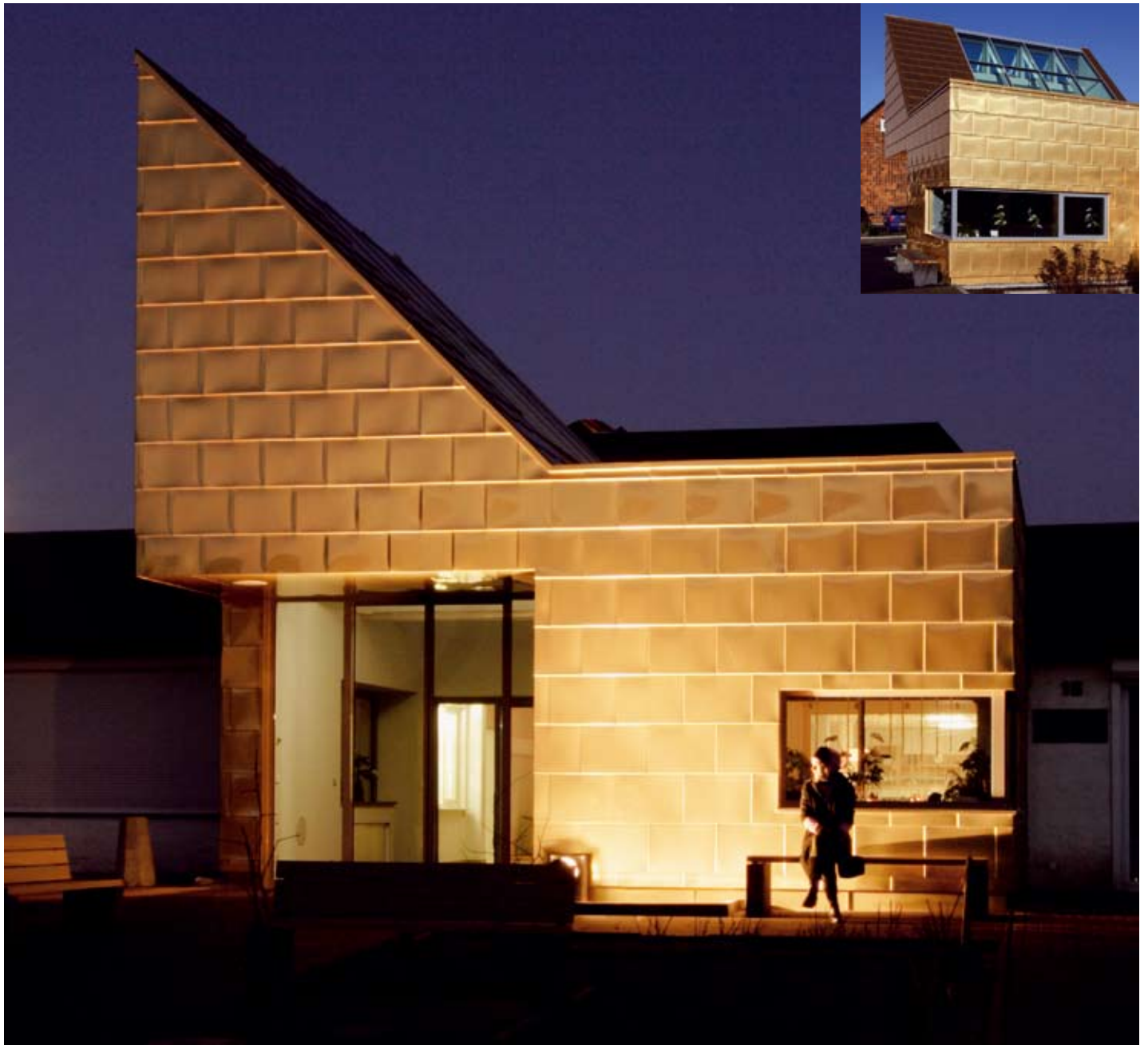
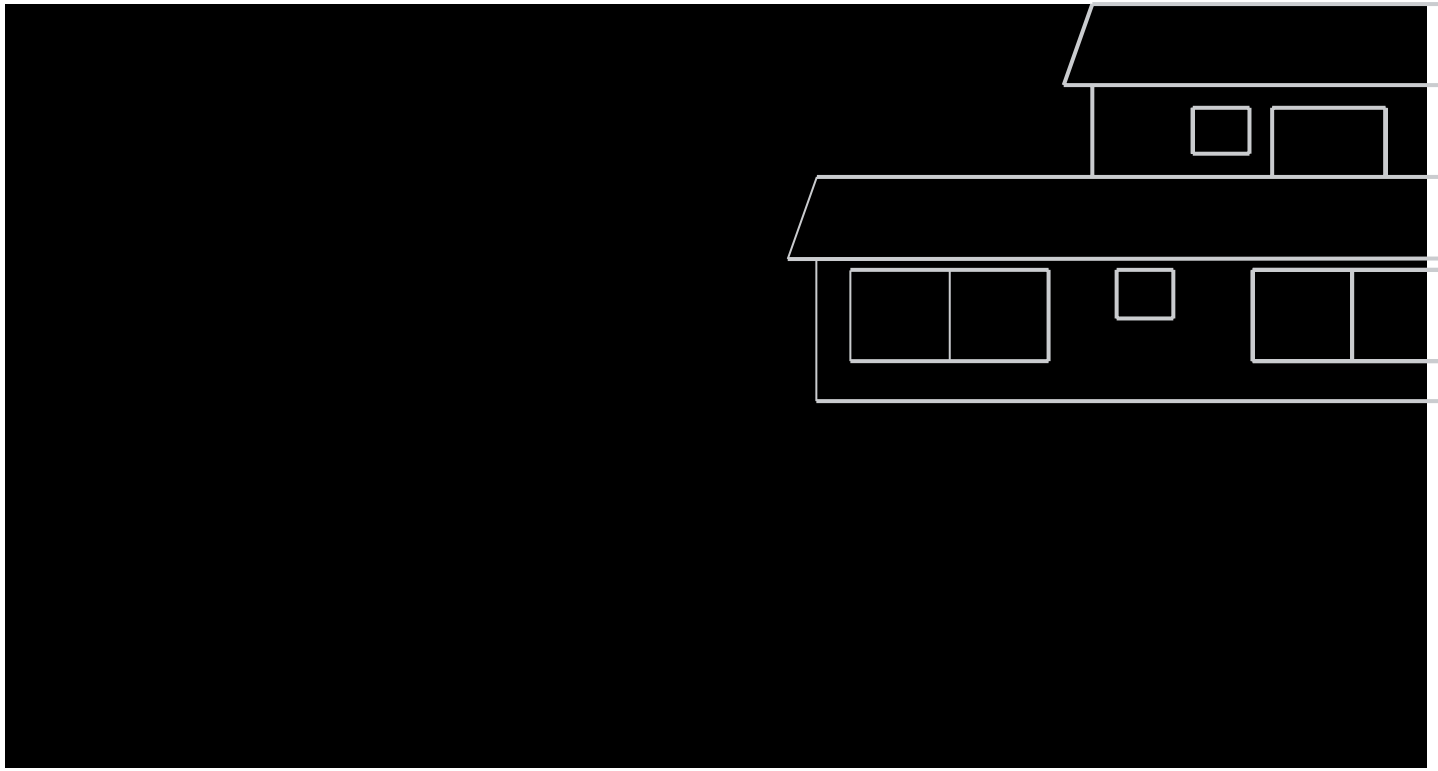
## #5.3 COPPER SYMBOL

**Inverness, on the east coast of the Scottish Highlands, is the location of a cancer patient care centre with a concept which focuses on the target group in a very unique manner. The individual design idea is already expressed in the building's cladding: the roof and façade are clad in different surfaces of TECU® brand copper.**

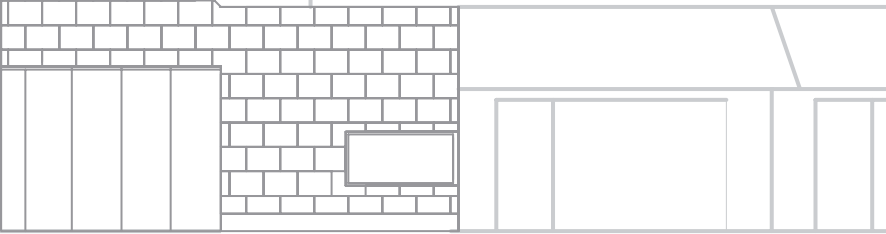
The idea for these care centres, which are being built throughout the whole of the UK, came from the person whom they are named after – Maggie Keswick Jencks. She and her husband, acclaimed landscape architect Charles Jencks, were responsible for the idea taking form. Together with Charles Jencks the architects Page & Park developed a harmonious combination of landscape design and built form. The building materials were used as a formal contrast to the most striking elements of the gardens – two grass covered mounds encircled by spiral pathways winding their way upwards. This motion is repeated in the façade with green patinated TECU® Patina copper sheets. The walls of the building angle away from the vertical by 10° and wrap around to form a rising spiral shape. A ventilated standing seam system made from TECU® Oxid strips has been constructed in a radiating pattern as an ideal solution responding to the twisting profile of the roof form – guaranteeing protection and durability for many decades to come.

According to the architects, the formal expression of the building symbolises in a metaphorical sense the process of cell division, illustrated by the rounded shapes of the building's cladding and the TECU® Patina fence butting against one other. In this sense, the cladding material, copper, is symbolical for a "cell wall", whose sensitivity is also its strength. As a reaction to the environmental influences (weathering), the outer surface forms an oxide layer which protects the inside and the outside for many years and makes them practically invulnerable. But the surface keeps on developing, illustrated by the lively progression through various shades of brown before turning the familiar patina green colour – a process that was anticipated in the TECU® Oxid and TECU® Patina surfaces not just symbolically but completely naturally and permanently.





Haus Metzner Residential and Care Centre for the Aged, Cremlingen-Gardessen (Germany)  
Architect: Jörg Baumeister, m3xh, Braunschweig (Germany)  
Contractor: Musche GmbH, Magdeburg (Germany)  
Cladding: TECU® Gold



## #5.4 GOLD CORNER

As part of a conversion project, a residential home for the aged was to get a new entrance. The architect proposed an unusual solution, which won over both the operators and staff of the home: a glimmering combination of cube and mono-pitch roof clad with shingles made from the new TECU® Gold copper alloy.

Modern architecture has left little trace in the small municipality of Gardessen, a tranquil village near Elm / Lappwald Nature Park. Consequently, the new entrance to Haus Metzner with its design and unusual choice of materials, which would even have raised many an eyebrow elsewhere, was guaranteed to draw a lot of attention. The operator enjoys telling that many drivers passing the building on the nearby through road have been so surprised that they instinctively take their foot from the accelerator to take a closer look. It would seem that one goal has been achieved: the highly reputed care centre now presents itself confidently and very communicatively.

The initial brightness of the TECU® Gold Shingles on the façade has begun to gradually change to a warm gold colour, which will remain and ennoble the building for a long time to come. Although the new copper alloy surface will not show such dramatic changes as pure copper, it is absolutely the same in terms of durability. The operator is especially enthusiastic about this feature while the architect was inspired above all by the naturalness of the material – and also by its natural function as a light reflector. Jörg Baumeister specialises in daylight and artificial light designs and is currently working in an EU research project on the subject of “adaptive urban light”.

“The sun is captured”, is how the architect explains the primary design principle of Haus Metzner, which is realised inside the entrance with the large windows in the mono-pitch roof and outside by the reflective properties of the façade. If the idea was to create light catchers, projection and reflection areas with architecture, Haus Metzner is an undoubted success. The matt golden façade is presented no less impressively by the changing light of day than by the dramatic artificial lighting at night.





Entrance to University Library, Debrecen (Hungary)  
Architects: János Golda, János Megyik, Gábor Szenderffy, Budapest  
Contractor: Szolnok KAS Kft, Szolnok (Hungary)  
Cladding: TECU® Patina



## #5.5 WORK OF ART

**The cladding of the entrance portal, with its sophisticated design and perfect craftsmanship, created a spectacular finish to the structural design of the university library in Debrecen. The exceptional malleability of the TECU® Patina copper sheets was the main prerequisite for implementation of the intricate surface structure.**

In an exemplary symbiosis, architecture and art demonstrate in this object how a unique building entrance can be created from the interaction of structural design and sculptural form. Above all, the unusual pattern of the finely detailed folds, which creates the imposing visual structure of the copper surface, evinces great artistry and provides for a correspondingly high level of attractiveness.

The architects János Golda and Gábor Szenderffy commissioned the famous Hungarian sculptor János Megyik to provide the concept and artistic design of the entrance portal. The sculptor originally began his artistic career as a painter and still works with a very unique form of perception. He models his compositions using wooden sticks and beams as two or three-dimensional sculptures. This working process inevitably led him to a new sense of space, which accommodates both sculpture and architecture – and which is ultimately behind the spectacular spatial depth of the copper cladding construction used in the Debrecen project.

János Megyik used one of his earlier box shapes as a motif for the project, reworking it in such a way that the copper panels could assume the function of framing the portal. On the entrance portal the framing by the copper panels was to be intentionally externalised: the cladding was to be just as accentuated and visible as it is on a metal roof. In this context, a comment made by the artist underscores the problem common to craft, architecture and art, “In my opinion the transformation of the material represents a major dilemma in all the arts, and it is one that can only be resolved by superior and flawless workmanship.”





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