Tuesday 20th May, 2025

Arch Revival Pavilion unveiled at Clerkenwell Design Week

Championing the strength, versatility and beauty of British stone bricks

Photo: Will Pryce

An ambitious pavilion, *Brick from a Stone: Arch Revival*, has been unveiled on Clerkenwell Green by Albion Stone and Hutton Stone for this year's Clerkenwell Design Week (20 to 22 May). The two British stone suppliers commissioned architecture practice Hawkins\Brown and engineering consultancy Webb Yates to design an installation that would demonstrate the strength, versatility and beauty of stone bricks.

Brick from a Stone: Arch Revival consists of a striking pair of freestanding, vaulted hyperbolic arches that are 4 metres tall. Hawkins\Brown designed the two arches to sit together as one sculptural pavilion, creating a dialogue between the two arches through form and texture.

Each arch is elegantly crafted from a single layer of stone bricks, measuring only 102mm thick, demonstrating the material's versatility as a load-bearing architectural product. The arches also showcase the variety of sizes and shapes of stone bricks, including T-shaped brick 'specials' that both Albion Stone and Hutton Stone can produce thanks to their investment in state-of-the-art machinery. The stone brick specials are one of the winners of the inaugural Clerkenwell Design Week Product Awards.

ALBION STONE

BRICK from a STONE

Hutton Stone
MASONS - STONE MERCHANTS - QUARRY OPERATORS

One arch is built from sandstone bricks in various hues from Hutton Stone's quarries, predominantly pale buff Darney Heritage sandstone from Northumberland which is reminiscent of the traditional London brick stock. The other arch is made from Heritage Portland Stone bricks from Albion Stone's mine in Dorset. Each arch includes 702 stone bricks.

Range of Portland limestone brick produced by Albion Stone

Range of sandstone bricks produced by Hutton Stone

All these bricks are made from 'unloved stone' – essentially blocks that have already been quarried and removed from the ground but have not been selected for projects due to a mix of geological characteristics. Traditional clay-fired bricks are made from multiple ingredients that need to be screened, mixed, dried and heated to 1,600°C, resulting in a high carbon footprint. Stone starts as zero carbon as it doesn't need to be manufactured – energy is just needed to extract it from the ground and cut it up. *Brick from a Stone: Arch Revival* has 66% less embodied carbon than the same structure built with clay-fired bricks, saving 419kg CO2.

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Magda Pelszyk and Candela Oliva, architects at Hawkins\Brown (left) and Steve Webb from Webb Yates (right)

“We associate stone with robust and weighty constructions, but by incorporating catenary, load-bearing arches similar to those that Gaudi included in the Sagrada Familia, we designed a structure made up of incredibly thin building blocks. These bricks reveal the strength inherent in the material itself”, explains Roger Hawkins, Founding Partner of Hawkins\Brown. “The installation is a testament to design and engineering and it asks us to reconsider ancient techniques for the 21st century.”

Webb Yates, one of the UK’s top engineering firms specialising in modern stone construction, has advised on the form and construction of the arches which will sit on solid stone plinths with integrated seating.

“As well as the considerable carbon saving from using stone in place of fired clay bricks, we wanted to make the point that form (the shape of buildings), is often forgotten as a tool to lower embodied carbon. In this case the subtle change from a semi circular arch to a hyperbolic arch halved the wall thickness” says Steve Webb, Director of Webb Yates.“Generally, bricks are almost exclusively used today as decorative elements, but stone bricks can be structural as well as decorative.”

“Although unnecessary for the final structure, the arches have been lightly reinforced to allow them to be fabricated at the quarry and delivered to site in a single piece, demonstrating the material’s suitability for prefabrication and off-site manufacture,” he adds.

Brick from a Stone: Arch Revival has been installed between two iconic red London telephone boxes on Clerkenwell Green, the same site as last year’s *Brick from a Stone* installation during Clerkenwell Design Week. Sections from last year’s structure were re-used in this pavilion, creating a bench and tables beside the arches to encourage dwell time for festivalgoers.

ALBION STONE

BRICK from a STONE

Hutton Stone
MASONS - STONE MERCHANTS - QUARRY OPERATORS

The team behind *Brick from a Stone: Arch Revival* – Magdalena Pelszyk, Hawkins\Brown; Jordan Poultney, Albion Stone; Steve Webb, Webb Yates; Michael Poultney, Albion Stone; Marcus Paine, Hutton Stone; Ben Levy, Albion Stone; Candela Oliva, Hawkins\Brown;

The T-shaped brick 'specials' (above) were produced specifically for *Arch Revival* using state-of-the-art machinery. They were one of the winners of the inaugural Clerkenwell Design Week Product Awards

After Clerkenwell Design Week, there are plans to install the arches, bench and tables permanently at the London Cancer Hub in Sutton and will form part of the London Festival of Architecture in June.

-ENDS-

For further press information or high-resolution images:
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Notes to editors:

THE CARBON FOOTPRINT OF STONE BRICKS
According to the World Green Building Council, the building and construction sector is responsible for almost 40% of global, energy-related carbon emissions - 28% from operational emissions (heating, cooling, lighting etc) and **11%** from 'embodied carbon' (extraction, manufacture and transportation of materials and construction).

Stone is increasingly recognised as a stronger, more durable, more recyclable, and lower-carbon alternative to the steel, clay bricks and concrete that have become synonymous with the built environment in the 20th and 21st centuries. The manufacture and transportation of steel, clay bricks and concrete involve enormous amounts of energy which largely comes from fossil fuels. Stone starts as zero carbon as it doesn't need to be manufactured, although energy is needed to extract it from the ground, cut it into blocks and carve it if needed. The final product has a low factor of embodied carbon. When local stone is used for local construction projects, the carbon footprint associated with transportation is negligible. As companies like Albion Stone and Hutton Stone move increasingly towards electric machinery and transportation powered by renewable energy, the embodied carbon of natural stone will continue to reduce.

The UK has many different types of stone, but when measured as a building material, its embodied carbon is significantly less than manufactured materials.

Albion Stone's Heritage Portland Stone Bricks have a carbon footprint of only 97.9kg CO2e per m3. Hutton Stone's Darney Heritage Natural Stone Bricks have a carbon footprint of 118kg CO2e per m3. The bricks were shortlisted for the Sustainable Design (Building Product) award at the Dezeen Awards 2024.

The UK manufactures almost 2 billion traditional clay-fired bricks a year – they have a carbon footprint of 454kg CO2e per m3.

THE STRENGTH OF STONE BRICKS

In the UK, the compressive strength of a clay brick typically ranges from 7 to 20MPa (megapascals).

Engineering bricks are manufactured specifically for civil engineering applications. These are rated as either Class A (around 125MPa) or Class B (75MPa).

Hutton Stone's Darney Heritage stone bricks have a mean compressive strength of 64MPa, and Albion Stone's Portland Heritage stone bricks 55MPa.

ABOUT HUTTON STONE

Hutton Stone's highly skilled and friendly team of 44 staff are dedicated to supplying the finest quality, natural and sustainable UK sandstone. With Production Facilities in the Scottish Borders and North Northumberland they supply throughout Scotland and across the UK.

Founded in 1994 by Managing Director Marcus Paine, a 5th Generation Quarrier and Past President of The Stone Federation GB, the company operates three exclusive sandstone quarries with state-of-the-art sawing and production equipment and also stocks a further 20 other types of British stone to serve their wide client base. Hutton Stone specialises in new build and restoration supply projects with highly skilled banker masons, carvers, and mass produced walling production too. In 2024, as part of a focus on a sustainable future for natural stone it launched Darney Heritage Natural Stone Bricks, a new sustainable construction product with a fraction of the carbon footprint of clay-fired bricks.

www.huttonstone.co.uk

ABOUT ALBION STONE

Albion Stone is a family run company that has been supplying Portland stone for projects in London for almost a century and quarrying Portland stone for nearly 50 years.

When Michael Poultney became Managing Director in 1991, he relocated the factory to Portland alongside the quarries and, to secure more reserves for the future, switched from quarrying to the more environmentally sensitive mining. The company has expanded to be a major stone mining operation that is one of the largest and most technically advanced stone factories in the country.

Albion Stone produces some of the most environmentally sensitive building products in the world, and last year launched its new Heritage Portland Stone Bricks which can reduce the embodied carbon of external walls by up to 70% when compared to clay-fired bricks.

www.albionstone.com

ABOUT HAWKINS\BROWN

We are architects, urban and interior designers based in London, Manchester, Edinburgh, Dublin and Toronto. Founded 35 years ago and now run as an employee-owned trust, we bring a collaborative approach to projects across a range of types and scale in six main sectors: civic, community & culture; education; healthcare, workplace; transport & infrastructure and residential.

Alongside our design work, we conduct industry-leading research with outputs that include H\B:ERT, an award-winning open-source tool that enables teams across the industry to analyse the whole-life carbon impact of their design choices.

hawkinsbrown.com

ABOUT WEBB YATES

Webb Yates is an award winning structural, civil, and building services engineering design practice with offices in London and Birmingham. They offer a collaborative, enthusiastic and holistic service with an efficient, innovative, and creative design approach. Sustainability and an enjoyment of the collaborative creative process are central to their philosophy. It is this desire for unbounded collaboration, together with the broad-ranging interests of the team that has cultivated their multidisciplinary offering. Their services are dedicated to bringing the built environment in line with planetary limits.

webbyates.com