

Biggest Contemporary Arts Venue outside of London - Newcastle's Dramatic £46m Baltic Mills

This Arts Council of England's National Lottery fund investment was opened on Saturday 13th July 2002. Such a "cultural explosion", as it was then described, on the Gateshead side of the Tyne sits in the shadow of the historic Tyne Bridge and the Blinking Eye Millennium Bridge. The venue is seen as strategic to Gateshead, being a physical and symbolic catalyst for the regeneration of Gateshead's east side.

The mill, or grain warehouse, was built on the site occupied between 1850 and 1890 by Gateshead Iron Works; it was derelict until the vast mill building, designed during the 1930s, was opened in 1950 by Rank Hovis. Having a height of 42m and a silo capacity of 22,000 tonnes, the mill was initially responsible for employing some 300 people, reducing to 100 before it closed in 1981. The Baltic Mills building was used as a model for other mills built by Rank Hovis after the Second World War; probably named after the Baltic Exchange in London (the wheat trading hub for many years) other Rank Hovis mills were named Ocean, Solent and Atlantic.

Six floor levels within the Baltic Mill's shell boast some 3,000 m² of galleries, a cinema, lecture theatre, workshops, artists studios and a Learning Suite.



Photo - courtesy Baltic Centre for Contemporary Art

Talented young architect, Dominic Williams of Ellis Williams Architects, won an international design competition launched by RIBA in 1994 to find an exciting and innovative design to convert the building into a gallery and venue.

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Dominic's design retained much of the existing character of the building with its imposing brick exterior and concrete fins; his designs include:

- removal of the internal structure and opening up the east and west walls;
- constructing a series of floors to provide gallery spaces, artist studios, education workshops, retail and café space;
- a glass rooftop restaurant offering panoramic views of Gateshead, Newcastle and beyond.

Dominic's acoustic design support naturally came from AAD; working with such an exciting and innovative team on such a significant landmark building allowed a certain degree of creative passion to flow, even though our core values in the provision of pragmatic and cost effective designs and specifications managed to win through.

Technical Overview

The acoustic challenges

- Accommodating "no noise" and "high noise" exhibits simultaneously;
- Allowing exhibit construction without undue intrusion to adjacent exhibits;
- Controlling sound transfer between galleries whilst maintaining use flexibility;
- Mitigation of excessive reverberation;
- Provision of flexible "installation" space;
- Controlling sound transmission from café to adjacent areas.

Sounds Right

- Provision of one gallery floor with high integrity and structurally decoupled boundaries;
- Acoustically rated and isolated and floating box for auditorium construction;
- Floating slab, twin wall, acoustic absorption constructions for music / art areas;

Mark Bishop, AAD Director and project consultant comments... *"our approach to the scheme having made a site inspection was to listen intently to Dominic's ambitions for this massive volume, then to provide advice regarding what must, and what could, and what could not be achieved. We then described all the functional acoustic performance requirements for the many spaces, followed by concept and detailed design specifications using pragmatic design details that are understandable and build-able. As with so many successful projects, the design and construction teams worked very well together and we are delighted this landmark can live on. It's an ultimate recycling achievement!"*

Other reading:

www.Gateshead.gov.uk/leisure

www.riba.org/fileLibrary/pdf/Baltic_lowres.pdf

www.artscouncil.org.uk/aboutus/project_detail.php?rid=4&id=78