SCREENS

NÍALL MCLAUGHLIN



Screen

Private House London

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This picture-essay shows ten screens designed by our practice over a period of almost twenty years. Looking back over the work, it is interesting to group projects in a way that shows a consistent concern with particular themes. I sense that these constructions demonstrate the development of an organised range of ideas relating to arrays, repetition and light. It is not my intention to make any forced connections in order to underline consistency within the suite, however I can see certain themes emerging as I look at the images collected here.

• Clearly, we enjoy the strategy of making geometric arrays of found materials and objects. The more commonplace the material, the more enjoyable the effect of the resulting transformation. Looking at these projects you can find umbrellas, Daz, gold, Cosy Cloches, web-cam footage, disco film, hanging chads, plastic pipe and guttering.

• Every project delights in the transformative power of light. I believe that screens have a particular way of manifesting light, holding it into themselves to create a three dimensional epiphany. A good screen has a slight fizz to it. Where daylight is used, the screen becomes like a timepiece, marking the passage of the sun by transforming shadows and reflections within its own lattice.

• The use of arrays, and the tactic of serial repetition within a laconic geometric order, brings to mind certain comparisons with music. The acoustic equivalent of our screens is a static polyphonic chant.

• Screens are paradoxical. They present themselves as twodimensional, but their essence is three-dimensional. The primary visual buzz occurs in a flipping of perception between 2d and 3d.



Storm Wall Geometry of the umbrellas

SCREEN 1 U17. London. 1991 Storm Wall

Designed and built with Phil Tabor and the students on U17 at the Bartlett, this geometric array of back-to back umbrellas was intended as a temporary partition of a large hall. The brollies were the kind that you buy for £1.99 from a stall when you get caught out in the rain. They were sewn together at their extremities. Two layers of connected umbrellas were placed facing away from each other, half a grid out of sequence, so that the pole of one passed through the centre of the gap between the canopies on the opposite layer. This created a regular, undulating screen with a visible internal latticework.





Bloom RIBA installation

SCREEN 2 RIBA. London. 1996. Bloom

We worked in collaboration with the artist Martin Richman to create this strongly scented, illuminated field. It was intended to transform the main gallery of the RIBA Building on Great Portland Street. A bed of Daz detergent was laid upon the floor of the first floor room. Two hundred opalescent, house-shaped structures were arrayed regularly on the washing powder. They were called Cosy Cloches. We purchased them by mail order from a garden supply company. Each one was lit internally with a UV light, which is invisible by day and blindingly bright after dark. In daylight, the piece was calm and white with naturally repeating shadows falling between the plastic gables. By night, the UV caused the Daz to phosphoresce, electrifying the space between the cloches. It was possible to walk around the perimeter of the field. Giant mirrors on the ceiling reflected the illuminated rectangle, making it visible to passers by on the street below. The detergent perfumed the whole building for weeks.





Phototrophic Working model views

SCREEN 3 Northamptonshire. 1997. Phototropic.

This un-built project was a pollen laboratory for a flower farm. The south-facing wall was a dense array of solar panels. All of the energy from the panels was directed to the north wall where chilling rods caused the cast glass screen to mist over. The hotter the day, the cooler the wall would become, because it used all of the sun's energy for chilling. The opalescent cool wall was used as a screen for projected real-time images of blooms from the growth forcing poly tunnels. The project captures the unreal, half-nature half-machine, environment of flower farming, an industry where the rhythms of nature are harnessed to the market using telecommunications.



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Hanging chards Interior views SCREEN 4 House. London. 2000. Hanging Chads

A two storey high tapestry of A4 sheets held on delicate suspended cables. It screens south light entering on ugly old bay window. This protects the precious art hanging in the room. The A4 sheets were made of silver nickel, which has a lovely silvery, brassy lustre. Each sheet is computer cut with hundreds of triangular leaves, which are pressed by hand so they stand out from the back in regular repeated folds. We called these 'hanging chads' after the scandal of the ballot cards used in the Florida vote during the US Presidential election. The sheets are laid out in a pattern resembling roof tiles so that they overlap in the horizontal and vertical plane. Light, coming from the back, bounces between the layers creating complex effects. The sense of light within the array is heightened by the hanging chads, which catch fragments of brighter light and reflect it into the front of the lattice. Peter Muller, my dedicated project architect, pressed each triangular leaf out using his index finger. There were 50,000 of them. When it was done, we decided they were the wrong angle, so he did it again.



Níall McLaughlin Architects



SCREEN 5 Houseboat. London. 2001. Thermocline

This project was developed for fun in the office. Later, we submitted it to the House of the Future competition and it won. Since then, inspired nutters from around the world 'phone the office promising to build it on a canal in their hometown. This never happens, so one day I might build it at the bottom of my own garden. The external wall is made of layers of fibreglass, glass fibre and thin woven veneer. It is envisaged as a semi translucent insulated basket. An under floor heating system, made of regular loops of clear plastic tube carrying water, is arranged in a vertical matrix on the wall. It is held in place by aluminium heat transfer plates. This is a proprietary, concealed floor product used vertically, and visibly, in a wall. Water travels through the pipes, pushed by solar powered pumps, and descends down into copper coils hanging in the water below the thermocline. Beneath this layer, the water is at a constant temperature throughout the seasons. So the whole screen acts as a heat dump. We hope that the lazy rhythm of the veiled, coiling tubes will appear like the veins on your wrist when it is seen against the light.



Houseboat

Section and canal view



SCREEN 6 Arc. Hull. 2003. Sprite Major

We worked with the local community to build a small architecture centre by a motorway in a derelict area of Hull. The building is made using technology transfer from other local industries in the area including caravan building, ceramics and chemical dyes. It is intended to move to a new site every three years. Hull, once famous for trawler manufacture, fishing and food processing has turned its back on the sea. The roof of our building is a translucent, insulated plane tilted towards the traffic flowing over the bridge into the city. It is built like an empty advertising hoarding. A web cam, positioned out in the old fishing grounds beyond Spurn Head, transmits images of the surface of the sea to projectors illuminating the roof. Every night, that day's weather is played back on to the screen's surface. The images are very abstract but they work subliminally, like a heartbeat, bringing the shifting patterns of the old hinterland back into the city. The light from the projectors filters through the roof into the interior beneath, bringing a wavering, changeable quality to the space.



ARC Exterior views



Pavilion

competition model

SCREEN 7 Avenham Park Pavilion. Preston. 2005. Loom

Preston is one of the wettest towns in England. This made it very suitable for linen manufacture and it became prosperous on the transatlantic cotton trade. Avenham Park was built, beside the River Ribble, by relief workers temporarily put out of work during the American Civil War. You enter the park from an elevated position and look down on meadows sweeping towards the river below. We proposed a horizontal canopy, like a spread picnic cloth, which is seen from above by people arriving at the park. The screen is a multi-coloured woven layer that covers cafes, music stands, toilets and a little hall. The mature avenue of trees along the river passes through the weave. This tense matrix is held in place by stout, braced timber frames, like a loom. The roof is designed to catch the frequent rain and make a noisy event of its journey back to the river. There are gutters, basins and gargoyles woven into the warp and weft of cables. Wind turbines and solar panels are held in the array. The building comes into itself during a downpour when the rain animates the upper canopy. From the café you can watch water sluicing down into the river and smearing the windows, obliterating the view.





Peabody housing *Iridescence*

SCREEN 8 Peabody Trust Housing. Silvertown. 2002 Iridescence

Silvertown once manufactured luxury goods and TNT. Now it has lost all of its factories and it has become an eerie post-industrial landscape of IBIS hotels, exhibition halls and Noddy houses. Our housing project is made of timber blocks stacked up like tea crates on the wharf. It is wrapped in iridescent disco film. It is like a chemical flare, remembering the cheap glory of Victorian match factories, dye works, sugar-refineries, petrol dumps and Roses Primrose Soap. We worked with the artist Martin Richman on this project. We investigated the phenomenon of Iridescence, where light reflects off different layers in a substance, creating interference patterns expressed as shifting colour. This is familiar in petrol and peacocks wings. We used radiant light film in structured layers within the façade. Metal oxides on the surface reflect light in different spectra depending on the angle of incidence and the angle of view. The effect is totally different in various weather conditions because the sky is a reciprocal surface. The strange film is held within dimpled cast glass vitrines. A screen of silver birch trees throws fragments of indigo shade onto the façade. The leaves catch the reflecting colours coming back of the wall. Sometimes a carpet of colour appears on the tar macadam in the street below.







Rose window Competition images

SCREEN 9 Sherwood Forest. Nottingham. 2006. Rose Window

Here is a two storey high rose window made from computer cut plywood flats. These act as wind braces for a glass wall that is largely concealed beyond the timber reveals. The construction combines the complexity of computer cutting with the simplicity of halving joints in plywood. We hope to create something that has richness in its pattern but simplicity in its fabrication. The cellular structure of the screen is conceived as being like the enlarged section of a stalk, made of cross linked cellulose walls. On the north side of the building, the panels will be infilled with glass but on the south side they will be filled with earth. We didn't win the competition, so we are reconceiving the rose window for a project in Ireland.

And then in the foggy midlands it appeared, Our mud vision, as if a rose window of mud Had invented itself out of the glittery damp, A gossamer wheel, concentric with its own hub Of nebulous dirt, sullied yet lucent. We had heard of the sun standing still and the sun That changed colour, but we were vouchsafed Original clay, transfigured and spinning.

Seamus Heaney, The Mud Vision



Canopy Competition model SCREEN 10 Canopy. London. 2007. Delay

In a sudden summer rainstorm you stand under a tree. It is dry for a little while. As the shower passes, it starts to rain under the tree.

Here is a competition entry for a laminated canopy made from computer-etched copper sheet. The cutting, folding and spacing of the sheets is a development of Screen 4. Each face of the copper is pre-patinated differently before it is cut, so that, as time passes, the two layers will come to look very different to each other. We hope to develop a clear, bright copper colour, a brown-purple patina and slowly emerging verdigris. It is intended that the structure will come into its own over a period of about one hundred years. The colours will mingle visually as the patinated, cut and folded layers interleave naturally. The canopy is seen as something that will cast lovely shadows onto the black stone beneath. This stone is etched in a geometric pattern, so that the copper oxide in solution dripping down from above will create a true green inlay pattern on the stone surface, staining the etched stone and running off the polished surface. The object, its halo, its shadow and its stained residue will interact in different patterns over short and long time periods. To me, screens are like clocks.





Pavilion Preliminary model

SCREEN 11 University Pavilion. 2007. Homage

Last year I discovered Egon Eiermann and now we have just found the projects of Erwin Hauer. This allows us to renew our understanding of the subject of screens. This recent competitionwinning scheme is offered up to these two masters. It is a reception pavilion for a university. It is made of golden stone cubic volumes held within a veil of interlinked, cut and twisted metal particles. It connects like pearl stitching. The screen reflects the outer world while casting shadows into the veiled interior. It is a deliberate evocation of Semper's comparison of cladding and clothing.



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