

First Encounter

During the mid 90's I was working 3 days a week in a site hut over what is now North Greenwich station on the Jubilee line. Here we watched the 12 steel "cigars" of the millenium dome being pulled into place as the details of the station were worked on, regularly entering into the chasm that had been excavated to inspect the ongoing works. This was unlike any other "fit out" job I'd done before because the key mantra for the construction of the Jubilee Line extension was "there shouldn't be a stick of timber in it". Being employed as an Architect by London underground meant that this rule was paramount in order to comply with the findings of the Kings Cross fire enquiry.

My other 2 days of the week were spent tutoring a design studio at Oxford Brookes University School of Architecture. A certain strand of the studios interest was to introduce students to the ideas of one of the most important post war artists Joseph Beuys. Having had a chequered history as a pilot in the 2nd World War Beuys' plane, presumably without "a stick of timber in it", was shot down on the Eastern Front. His life was famously saved by a community of nomad Tartars who covered his body in animal fat to insulate him from the freezing conditions.

Reflecting on this after the war Beuys moved away from his intention to become a scientist and started to draw intensively from nature. This led him on to a life-long interest in the symbolic and physical attraction of natural materials, the animal world and humankind's relationships to the environment. These interests led him on to being a founding member of the German Green Party in the 60s and evolving his ideas of "social sculpture", and the notion that all people and things in the world can be viewed from the perspective of being "Art".

Growing into Solid Timber



With this pedagogical perspective the design studio of students set forth on a trip to London visiting Construction Resources — the "Eco builders merchants" — who, unfortunately, are no more. Their excellent showroom on Southwark Street had fabulous full-scale sectional mock-ups of their products indicating sustainable forms of construction. It was here that I first saw cross laminated timber panels and thought "that's a good idea" and one Beuys might approve of.

Building Quay House and the Meeting of Mr Fovargue

In February 1998, my now wife and co-director of Quay 2c, the artist Julia Manheim, moved into the ex milk depot we bought in Peckham. We embarked on an initial project to upgrade the building at the rear, which is where we still live. In 2000 we started the building of three flats over the front of the building, which has become Quay House.

As we were building around ourselves we wanted to keep as much of the old building as we could, this being as much a simple security decision as it was an aesthetic and sustainable one.

Out of this thought came the realization that a new steel frame and block work infill building "tabling" over the existing structures and avoiding the old footings was probably the only construction system that would suffice. As it was our own project we felt duty bound to try and use as many sustainable materials and inventive techniques as we could. This led us back to Construction Resources, from whom we bought 29 pallets of lightweight terracotta blocks to infill our steel frame.

Here we met Jonathan Fovargue who helped us out on two knotty issues; how to convert the German specifications of the blocks into understandable English vernacular to keep our building control officer happy, and the knock-on consequences of the petrol tankers strike of the period. A crucial part of the build was to co-ordinate the concrete plank floor installation with the delivery of the blocks. This would allow the crane to drop the correct number of pallets on to each of the floors. Rather brilliantly the blocks appeared from Switzerland through European wide hold-ups on the roads. Unfortunately no floor planks had appeared down the M1 from Chesterfield, so 29 pallets appeared during a sustained summer downpour with nowhere to go.

A forklift truck was commandeered from our local builders merchant and we started to take the pallets off into the minimal recesses of our yard. We were then told by the helpful Mr Fovargue that of course being such wonderful "wall flower" sustainable blocks of a sensitive variety, the pallets could not be stacked on top of each other! After some frantic phoning around while the rain still raged, our hero managed to find a secure venue for half the pallets to be stored until someone decided to turn the petrol back on. I often think about this occasion, not only for Jonathan's practicality in a crisis, but also the slightly unreal time where a few tanker drivers held the country to ransom. It's interesting that this has never been repeated as it remains a brief window into a scary world. What will happen when the oil runs out?

On reflection, the story questioned a bunch of things; How did we end up importing blocks from Switzerland? Why can't the British produce these things... it would make the procurement process a lot easier? Why do we ever want to do steelwork and precast concrete floored buildings again? Why are they so inaccurate, unsustainable, unadaptable and why so many trades when all you get is a basic half-reasonable superstructure?

Eureka moment in Rotterdam

Julia and I had gone for a short break over Easter to Holland and were sitting in the cafe of the Luxor theatre designed by Bolles Wilson in Rotterdam. We had just got planning permission for Fairmule House in Shoreditch, the home of Eurban for the past few years, and were being asked the classic question by the client as to whether a steel or concrete framed construction would be best given their similar cost at the time. Looking out from the cafe I spotted a green pod on top of one of the nearby warehouses looking onto the river. This I recognized from the sales literature that I'd seen for the solid timber panels as being a funky green painted live / work space and immediately thought... ah yes... there is another option to answer the question that we were being asked.

Unfortunately we couldn't get up onto the roof to inspect this exotic looking structure at closer quarters, but its expressive shape was a product of it essentially being constructed of these thick "plywood type" panels. From the street we could see that the surface finish was painted stained timber, enforcing the obvious point that timber is a brilliant insulator and that reasonable thermal comfort could be achieved for a temporary structure of this kind without any additional insulation.

Fairmule House

In getting planning consent for Fairmule House we had adapted a previous recent permission by other designers that had single-aspect flats, anonymous bunker-like brickwork facades, dark corridors down the middle of the building and no natural cross-ventilation. Given that there was an established envelope of development we were able to develop the plan to have two light-filled staircases that actually reduced the floor area of common parts keeping the developer happy. This allowed us to have 7 work units to the Ground and First floors and 11 cross-ventilated flats. These have living rooms to the sunny street side and bedrooms with indented terraces to overcome boundary fire issues to the rear overlooking the quieter pocket park.



One of the few graves left in the park that was once a graveyard is that of Thomas Fairchild. He was the first man to genetically modify plants, combining a Sweet William and a Carnation to manufacture his famous "Fairchild Mule" hybrid. Hence the name for our building; a crossbreed between Fairchild's name and his creation. As the scheme had a street and a garden side the hybrid theme also crystallized our choice of materials externally; galvanized cladding panels to the tougher street side recalling images of watering cans and natural timber shingles responding to the garden side.

With this theme of nature in mind the idea of the buildings superstructure being made of solid timber was conceptually appealing. On our return from Rotterdam we made enquiries with Jonathan as to how we might procure a solid timber structure and whether it would be cost effective. The answer to this question was positive and resulted in our clients, the Lint Group, supporting the initiative to make what became the biggest solid timber building in the UK, and one which is still unique in how it overcomes the extra regulatory requirements that a mixed-use building demands.

The outcome of our enquiry was also very fortuitous in that Jonathan and Liam had recently set up Eurban to facilitate a more streamlined process of procurement for solid timber structures in the UK. This involved offering a design and build contracting service while helping to convert the European product certificates to be acceptable to the relevant UK regulatory bodies such as Building Control Bodies and Building Warranty providers. This took some work to sort through but enabled us to expose the solid timber ceilings and resulted in us winning LABC's London Sustainability Building of the year award.



Fairmule House Artworks

In response to the naming of the building our clients supported the installation of number of embedded artworks, led by in-house Quay 2c director and Artist Julia Manheim. These include: House Signs – over the front doors incorporating microscopic images of carnations laminated into glass, Botanic Signs – variations of black species plaques found in botanical gardens tell the story of the building to the street, Staircases – digital cross breeds between carnations and sweet williams occupy the two upper areas of glazing to give a flowering of light and colour when the sun shines, Garden Side – the seven glass balustrade panels read "Fairmule House" along with abstracted Sweet William images.

Further Stories

Following on from the building of Fairmule House we were able to design Chancery Court, another solid timber building for the Lint Group in Manor Park. This is a 5 storey building of 10 flats ultimately bought by Swan Housing Association. This scheme developed into covering the solid timber structure with wood fiber insulation and a natural render finish. As a result of these two projects and their patent success, Quay 2c's first instinct is always to recommend the use of solid timber for the residential and mixed-use projects that we tend to get drawn to. While it has been difficult to follow through projects of this type since the financial crisis, bigger projects now seem to be in the pipeline.

We are also in the fortunate position of being able to put "our limited money where our mouth is" as we are now on site with groundworks and are about to order solid timber structures for two self developed houses in Peckham. These are due to be finished around Easter 2014 and will have exposed timber ceilings and an unfinished timber walled staircase in a triple-height volume with open risers allowing light down to penetrate to the basement.



In these days of increasing climate change and more consumer awareness of energy costs we look forward to doing more solid timber structures. From our perspective they are a bit of a "no brainer"; ecological, easy to detail, good people to work with, fast construction times, competitive pricing, looks great in itself, way more "solid feeling" than timber frame without all the laboriousness of masonry construction, a "warm" material, and one which allows flexibility of form, design, cladding etc and what's more, it smells nice once built!

A Final Thought

It may be my fond memories of Mr Gordon, our dryly witty Scottish woodwork teacher who got us turning ash bowls in his workshop at school that has sustained my lifelong love of timber, but for whatever reason I still find trees and wood a fascination. Whether it's the art world's use or depiction of them, or their metaphoric and physical attributes, their simplicity, complexity and sheer beauty continues to capture my attention. In working with Eurban I have also realised that as a construction material wood has this rather brilliant quality of being a single material that performs in a myriad of different ways. If you're doing a solid timber structure you need to think about its strength, joint capability, fire resistance, thermal qualities, cost, weather protection, carbon footprint, aesthetic etc, all at the onset.

This reveals both its brilliant holistic virtues, but is also its downfall in an ever more alienating global capitalist economy. The idea that this one material in its basic simplicity as a renewable resource can answer so many of the complicated questions that the construction industry poses is probably a bit scary, as it really asks why are we not using it more? Is it because it asks too many questions all at once? Requires us to think holistically which is difficult? Whatever the reason I'm sure Joseph Beuys would have approved of solid timber construction if he were still around, and that thought endorses it for me.

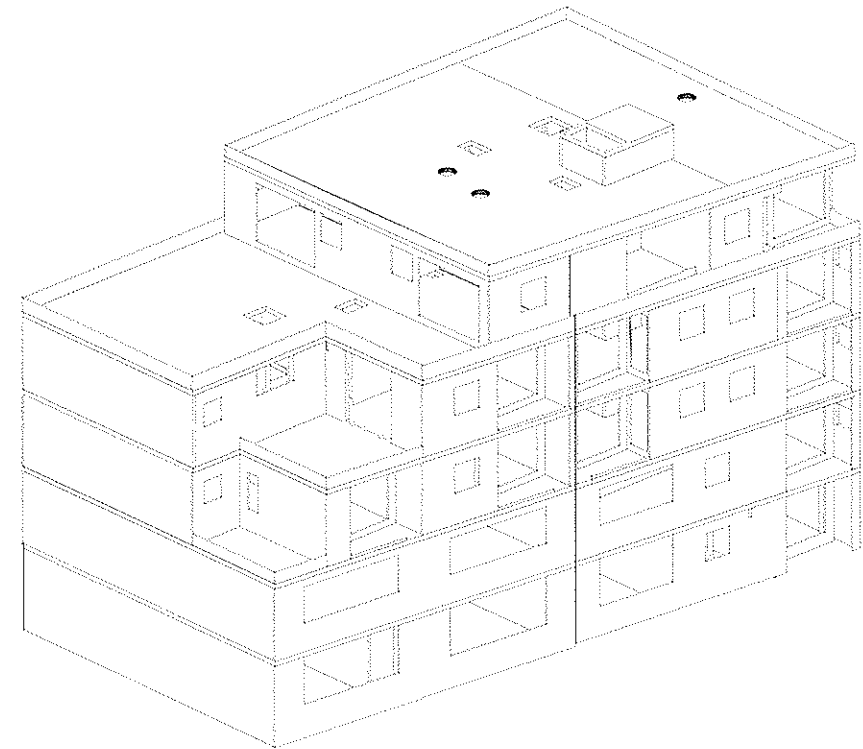
Ken Taylor
Principal of Quay2c Architects,
Designers of Fairmule House

Architect
Quay2c

Year
2006

Location
Shoreditch, London

Stored Carbon
335t CO₂



Fairmule House