05: Case Study: Consort Road, Peckham
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Today we are going to present one building to you, which commenced for us in 2003 and which embodies a number of our researches from that period. This is a research project into an urban housing solution. It is 100 per cent affordable housing – key worker, shared ownership and rental. It is a combination of flats and houses and it is in Peckham, London.

One of the aspects that we are trying to look at in this scheme, apart from a broader range of sustainability, is how to make the best and most efficient use of space in the city for the benefit of occupancy. That is the occupancy of the external areas as well as the internal areas.

Illustration 1 shows the urban context and layout of the site. It was originally a brownfield site, most of it was wasteland and there was one small corner pub on the site of what are now the four-storey corner apartments. There is a small office building on the north-west corner up by the railway line. There is a very busy one-way A road running from top to bottom beside the site and a railway viaduct to the north with lots of light industrial activity. There are also bad neighbour activities at the base of the railway viaduct. All of this generates an enormous amount of environmental pollution both acoustically and in terms of smells and suchlike. There is very limited access from the main road, the only access really being through our clients’ previous development which lies to the right.
A more consolidated residential area lies behind the site towards the east. Until a couple of weeks ago the terminus of the cross-London tram route had been scheduled to go on the site immediately opposite. The development was therefore going to enjoy much better access to central London than it does at the moment; unfortunately this is no longer going to happen. The density here is 187 dwellings per hectare so it represents a considerable densification over and above what is common in the area, yet it does so in a way which introduces this mixture of accommodation.

Illustration 2: the street frontage

In illustration 2 you can see that we have used quite traditional devices of a corner block turning the street, a street frontage which is quite strong and, as it is sloping down the hill, you have the larger block to the north as well. We have gathered most of the openings together to produce multi-storey conservatory buffer zones, which actually address the environment on the street side. We have also doubled the space all around the buildings in terms of the pavement width to try and make this more amenable to pedestrian movement. We believe that the street space is quite important. We have made a simple street block form with an enclosed courtyard to the rear which enables us to start reconstructing this area of fragmented and destroyed city. The building creates quite a strong edge to the nature of fragmentation in front of the site.

We elected to put a six-storey apartment block to the north in an L-shaped configuration to try and isolate the railway line and shelter the accommodation from the noise and environmental disturbance generated. We have done that by buffering the skin on this building. This notion of buffering is also taken to the west and the southern side of the building where we have buffered against the road using a series of devices.
On the railway side (illustration 3) there is a very traditional deck access block in many respects and all we have done is introduce onto the deck access a glazed screen which acts to isolate the dwelling environment from both the sound of the railway line and also the industrial activity that is happening at ground level.

Illustration 3 shows that the screen is then used as an architectural device for the pleasure of the inhabitants. The module that arises from the patination of the scheme is to do with taking the screen around the curve of the façade and then increasing it in places where there is a doorway. Wherever there is a door you get a density of glazing and wherever there is a window directly opposite there are clear panes of larger glass. This acts to isolate this area from all the industrial noise and activity and also the passing trains, allowing the opportunity for much more sheltered walkways which in due course have become colonised. This also affords wonderful views out over central London (illustration 4).
INTERSTITIAL COMMON ENTRANCE SPACE

This acoustic screen transforms the access giving a uniquely individual entrance sequence, which offers magnificent views. Space is available for residents to adopt.

The glazing sequence directly relates to door & window openings of dwellings behind. While the thermal shell of the dwelling lies to the left, the rain skin to the right encloses the unheated interstitial access space, contributing significantly to the thermal performance of individual dwellings, and their usability.

Illustration 4: the deck access

What we have done therefore is very traditional, it is very simple, it is using the deck access and enclosing it behind the skin of the weathering shell so that there is a rain screen and then a thermal screen that lies behind, so we have separated the rain and the thermal shell from each other and we are therefore able to use the space inside.

Illustration 5 shows the stone court, which is the amenity space at the bottom, but which has not yet been planted. We have incorporated a number of encased bird boxes here.

Illustration 5: the stone court
These flats have been developed to try and enhance their sustainability in a number of ways. One of the initial principles behind this is that they have a very wide span; they have a 6.3 metre span slab which means we have a 250 mm deep slab which is more than normal in the housing sector. This means that to provide the required acoustic performance we only need to put a deck on the top side of the slab and we can leave the soffits exposed so that the thermal mass can be used in the environment of the dwellings (illustration 6).

The services are placed on the perimeter of the flat, allowing us in future to completely restructure the insides or even extend one flat across the space if you bought up the flat next door. There is, therefore, an aspect of flexibility and sustainability inherent within the structural idea behind these units. We then have what we call a softer zone where we have things like the home office space or the storage space in the flats and also where we have the winter gardens located within the units.

Inside this structure we then build high thermal mass partition blockwork, which increases the thermal storage and mass of the buildings further. Illustration 7 shows some of the flexible plan types that have been developed within this building. We have the circulation area that we were looking at before which was buffering the flats to the north, and then within we have a service core and a kitchen area in a zone where the structure and services come together and where our drop ceiling is over this area and the rest is all exposed ceiling.
dwellings spaces within the apartments are conceived as flexible vessels for living. they are defined by their core & perimeter, with movable screens offering adjustable divisions - sliding partitions separate living and sleeping areas - sliding-folding glazed doors open onto the winter-garden this gives numerous configurational permutations that can respond to needs and seasons. 6 sq m winter-gardens can provide occupants up to 12% extra usable seasonal floor space

Illustration 7: the flexible plan types

We have a flexible plan configuration between the bedroom, the living room and the kitchen which can be separated by a sliding screen – a very traditional idea. Then, rather than having a normal balcony, we have a winter garden which acts to environmentally and thermally buffer the shell of the building. The whole end wall of the living room can then open up to the winter garden. This device means that the balcony, which is 12 to 14 per cent of the floor area of the flat, can be used in the summer months as extended space, so that you can increase the floor area of the flat by up to 12 per cent above the norm that would be allowed for within this budget. These winter gardens are not only contributing in terms of the environmental qualities and the thermal benefits, but they are also contributing additional space that can be used in new ways. The rest of the rooms can be entirely reconfigured. This gives a number of different options available for accommodation and use of the premises. It also puts the home office area and the supplementary storage within the soft zone at the front. These are 100 per cent lifetime home units which deliver what we hope is the option for people to configure their flats as they want whether they are single dwellings, or if there are two people in them. Also, as is very rare within the very smallest of the accommodation units of this type, there is the opportunity to have a party.
space is generous.
placing windows at room divisions enlarges the apparent interior volume
all dwellings meet Life Times Homes standards

Illustration 8: the flat interiors

The houses again take on board explorations of the space in homes. They are very simple but they do a number of things. They are all paired together to give a scale suitable for the context. They only have one window that we can see when we look down on the street, although there is a large clerestory. They have their storage space located on the street frontage because that is the direction towards the shops and also towards where most of the kids go out for bikes (Illustration 9).

Illustration 9: the street frontage of the houses
The lobby acts to buffer the house from the street. We have developed a slightly different house plan (illustration 10) where we have got a simple family room - a bit like what many people do in Victorian properties where they do a knock-through in the basement or on the first floor; we have a shared kitchen and a large living room. They are on a module of 4.9 metres so that is the narrowest frontage we can get for this type of four-bedroom house. They are through-ventilated and they provide spaces, as previous speakers were talking about, in terms of children being able to play in this area while people cook. They open directly out onto the garden, providing a very simple arrangement of through-living at ground floor.

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7 p, 3 storey, narrow, 4.9m wide frontage lifetime homes  
- with front porch buffer & large ground floor family room opening to the rear garden  
- 2 equivalent sized rooms around the 1st floor service core provides flexibility in use  
- a continuous stair flight allows disabled access to the 2nd floor without disembarking, giving sectional play & bringing light into the dwellings core  
- roofs are composited single skin SIP constructions (without cavities)

Illustration 10: the house plans

On the first floor is a dumbbell plan, on one side of which is a small room perceived as being a breakout space or called, for the sake of the space standards, a supplementary living room, but it is not much bigger than a normal bedroom. This dumbbell plan with equal weighting allows people to use either room effectively as a second living room, guest room, office, workshop, store or whatever they want in terms of however they wish to live. In the middle we have provided a bathroom which, for family accommodation, is larger than the flats, which we believe is essential for bathing kids and such, and there is lots of storage space.

This dumbbell plan then continues up to the top floor. Because these are lifetime homes we have included an in-line stair allowing people to move up through the house to the top floor without disembarking on the landing first, getting into a chair, going around and getting up the next flight of stairs to the top floor. Therefore, if anyone does become wheelchair-bound in their lifetime in this house they can get up to all the rooms in the house that they are familiar with, not just to the first floor.

Put simply, the house is quite a narrow frontage, deep plan, terraced house design which embodies a number of minor amendments which give it place and flexibility. We have increased the ceiling heights to above average and in the roof we are using a
Structural Insulated Panel (SIP) which expands part of the party wall. This is a composite panel which gives us extra volume on the underside. So there is a generosity in the sense of internal space. At the end of the stairwells the full height windows permit light to pass down the stair right into the body of the house, providing natural light into all parts of the building.

Because sustainability is one of our primary concerns we have also incorporated a gas-fired Combined Heat and Power (CHP), a high number of photovoltaic (PV) arrays and a brown roof, which was quite a challenge. We have also incorporated things like whole house heat recovery and ventilation with this super-insulated shell in the scheme. It is quite a high performance building. We have also included a car-club.

Behind the quite industrial appearance of the façade the window openings offer a wonderful, diverse display of the occupancy of the interior which are emerging as part of the engagement with the street. There are children playing, there is planting and there is washing hanging up which is a rather attractive aspect of the lives that are being led.