An Analysis of a Brutalist Building

Park Hill estate, Sheffield
Introduction

Park Hill was opened in 1961 as a substantial Brutalist housing development, aimed at re-housing many people who had previously lived in poor quality terraced housing. Le Corbusier’s Brutalist designs and *Beton Brut* construction were significant influences on its architect, Jack Lynn, who died on 15th October 2013. Most were very pleased with their new homes, as confirmed by many interviews with residents in its early years. When first built it was visited by many architects. It was only in later years that the estate acquired a bad name for drug-dealing, gangs and anti-social behaviour, which in turn has blighted its earlier good reputation. Subsequently, Urban Splash were involved in a major refurbishment of the site which resulted in only the concrete matrix, or frame, being retained, the remainder of the grade II listed building being entirely replaced.

This report will analyse the Park Hill site and various aspects of site construction and materials used. From when it was first build to the modern day renovations by urban splash. The main focus of this report will be on the original building and its design and construction and use.
Brief History

Park Hill was the first completed post-war slum clearance scheme of an entire community in Britain. It was the most ambitious inner-city development of its time. In 1954 work began on the design of Park Hill and it was later built between 1957 and 1961. Most of the people who were moved back into the site were located next to their old neighbours to try and keep the community spirit going. The main focus of the building was to improve the quality of homes for people living in these communities. Each flat opens out onto a 10 foot wide deck. This provided access for milk floats and communal areas, enhancing the image of "streets in the sky". Over the years the estate has been home to 31 shops, 4 pubs, 74 garages, a primary and a nursery school, doctor's surgery and pharmacy. The shops were set at the lowest point of the estate, to which people were thought to naturally gravitate. 4 pubs and a launderette were more widely dispersed at points on the ground near lifts.

In 1998 Park Hill was listed as Grade II* by the then Department of Culture, Media and Sport.

https://www.sheffield.gov.uk/in-your-area/regeneration/your-neighbourhood/park-hill/history.html
Approach to construction

Much of the housing had been condemned as unfit for human habitation before the Second World War and slum clearance attempts had begun. But after the war, the City Council decided a bigger and bolder solution was needed. Their model was to be le Corbusier’s Unité d’Habitation development in Marseilles, completed in 1952.

Sheffield’s own version of these ‘streets in the sky’ was designed by Jack Lynn and Ivor Smith under the guidance of J Lewis Womersley, Sheffield’s City Architect.

The flats fronted on to the 3 metre-wide street decks which are one of the best-known features of the estate, wide enough for a milk float and friendly enough to allow easy socialising with neighbours.

There were 966 flats housing about 3,000 people and rising up 13 stories at its highest. Each flat opened out onto a three meter wide deck in the complex. This provided access to communal areas and for milk floats, as there were a large numbers of front doors opening onto them. Each deck at some point had direct access to ground level on the sloping site. The roofline also remained level despite the building varying between four and 13 stories in height.

https://municipaldreams.wordpress.com/2013/04/16/the-park-hill-estate-sheffield-streets-in-the-sky/
The building programme was completed in 1961 with the erection of 990 dwellings in four blocks ranging from four to thirteen storeys. The elevations used the sloping hillside to connect each floor with ground level at some point. This was achievable with the wide walkways and bridges. These walkways were at every 3rd level and used for milk trolleys and for mums with prams. The also provided a more social space which was what the main design focus was to make it feel like more of a community.

The elevation is of a brutalist design, closely influenced by that of Le Corbusiers Unité d'Habitation. As seen below you can see the similarities between the two building. The both had a pod design to them using the concrete frame to box out each flat. While in Park hill the flats are over 2 floors the flats in Unité d'Habitation fit into each pod. Park hill also uses the same principal of having the living quarters off the ground floor with the space bellow used for socialising and amenities.

Le Corbusiers Unité d'Habitation. (Above)
Elevation / plan / facades / finishes

Level 11 no bridge links.

Level 12 showing the bridges linking the 4 buildings.

These 3 plans show best how the site is made up. In the first image showing level 11 you can see the 4 separate curved buildings.
Image 2 shows level 12 which is one of the bridge levels this shows how the 3 meter decks all connect the buildings.
Image 3 Shows the slope of the site. At this level there are only flats to the far left building as the other ones would be below ground level.

Level 3 showing the slope of the site.

The main finishes for the facades of the building is reinforced concrete frame with brick and white framed windows. The brickwork gets lighter as they ascend the building. The a dark brown colour at the bottom and an sandy colour at the top. The changes in colour help to distinguish at what level the open decks are situated. The facade has an almost pod look to it, as though it was build of individual pods fitted on top of each other.
Roof construction

The roof design of park hill is an interesting one. This because the roof has been built all at one level as the buildings don't follow the contours of the landscape the cut into it. At one end the site starts at 3 storeys and as the ground drops away it increases to 13 stories. This has allowed the roof to remain all at one level thought the site. The buildings were designed with a horizontal roof line to emphasise the topography.

One of the downfalls of having a horizontal roof meant that as the building rose the more shadows would be created on other buildings. but this was over come as the open spaces between the blocks become progressively larger, as the height of the buildings increases towards the north, to ensure the maximum amount of light, air and sunshine.
Individual flats

The flats in park hill comprise of either 2 or one story apartments. With front doors leading off the deck to a hall ways with stairs. The 3 image above link to the section to the right. The windows and baloneys fit between the bays created by the concrete frame. But not all the rooms stick to this. The main structure is highlighted in black. Leaving decent size open spaces. This would offer a lot better living conditions to the back to back houses that would have once occupied the site. With a kitchen /diner of that a balcony and living room . Offering a small outside space that would not have been there in the back to back houses. The deck also offers the feeling of a street so neighbours could socialise and children play.
Stairs, elevators

Most of the stair and elevators are located at the ends of the building and where the bridges connect to the next building. The image to the right shows the central stairs located near 2 of the bridge. These would have provided easy access from flats at this end of the building with distances not to far from a stair case. All the stairs are open air offering a well vented space and making it less likely for people to congregate in these areas, which are important to be clear in emergencies.

The lift colour coded buttons to match each floor with the exterior brick work too. Dark drown at the bottom and lighter at the top. Each deck was named after streets that were lost when the back to back housing was demolished.

Refurbishment of the site by Urban Splash

“Unfortunately, the collapse of the steel industry – Sheffield’s biggest income provider and employer – in the 1980s brought the radical ideals of Park Hill to an end. As money ran out, pubs were boarded up and the labyrinth of passages and decks became the perfect place for antisocial behaviour, vandalism and crime.

The fortunes of the complex changed in 1997 when Park Hill was granted a Grade II listing by English Heritage, making it the largest listed building in Europe. Property developer Urban Splash took over the building and commissioned architects Hawkins\Brown and urban designers Studio Egret West to renovate its dilapidated interiors. “

“I think this scheme gives real meaning to the word ‘regeneration’; it represents a new beginning, a new vitality. I sense in those who have been involved the same enthusiasm and excitement that Jack Lynn and I enjoyed half a century ago. It will be a great place to live!” Ivor Smith, the original architect

Refurbishment of the site by Urban Splash

So far the team has completed the first phase of its redevelopment, which involved stripping the building back to its gridded concrete framework and adding a new facade. It received a Stirling Prize nomination in 2013.

The new apartments make use of the existing concrete structure with the frame being left exposed and the openings fit with full height windows. The living space is open plan in all the apartment offering a clean modern design.

Refurbishment of the site by Urban Splash

This shows the new floor plan layout. It works in a similar way to the original design. The main difference is the floors are more open plan. There are various size flats available. For different peoples needs. There are one bad flats which would be marketed to younger maybe single professional. There are also 2 bed flats with variations on the living space available so it could be good for couple with a child, or an older couple who’s children have left home.
Conclusion

The original design was an amazing feat at the time. It took the lives of the Sheffield people and changed them for the better. It took the slums of the back to backs and created a real community with better living standards that it once had. It was a fast build like it was meant to be so the people could be moved back in. But it was of a high quality as now the urban splash development has started they have found no major issues with the structure. The concrete frame is what has made this structure truly icon and it was right that it should have been listed. It was the first successful development of its time, even if in the end it did ultimately fail due to the economic climate with the steel mill closing down. It was done with the thought of the community in mind not just to make money.

The Urban splash development of the site has improved the buildings function thus making it able to last longer into the future. The main problem with the original building is that it was for tenants and they wouldn't feel the need to look after the building as the hadn't invested in it. But with the urban splash development the properties are for sale so the owners will be more inclined to protect the building thus protecting their investment. I think the remodelling had to add new design elements to attract potential buyers and inverters to move it away from the bad image it has got over the years. People aren't going to want to move into new properties that are seen as a former ‘drugs den’. The new development should be more future proof once it is completed and the remaining properties sold.