White Light / Dark Matter

Modernism is synonymous with light, clarity and function. It sought to bring order to the built environment through architecture that deployed crisp geometries, austere planes and, frequently, large spans of glazing by using glass, steel and reinforced concrete. It is important to note that the latter was typically rendered and painted white. In short, modernism ushered ‘white light’ into cities—across its gleaming facades and reflective surfaces—providing a sharp brilliance of minimalism. The bright future was here.

Yet the arrival of these architectural flares in many cities was generally met by an urban landscape creeping out of the shadows of industrialisation. This was not simply an issue of form and utility, it was one of material fact. Following the aftermath of the coal-fired furnaces which powered the industrial revolution, many buildings and streets had been coated with soot. Nowhere was this situation more acute and abundant, perhaps, than in Manchester. What had once been widely acknowledged as the original industrial city quickly became the dirtiest. During the first half of the twentieth century, the city was replete with an ‘architecture of darkness’. The blanket of soot that clung to the buildings and streets of the city resulted in an urban landscape that was dramatic, unified and uncanny. Light was absorbed so intensely by the soot-covered built environment that even the daytime city was one of gloomy scenes.

Darkness is logically associated with, and perceived as a feature of, night. Here, however, was a city whose industrial legacy had produced a specific urban sublime.

The layer of material deposit that sat upon the city's walls, facades, streets and other features, provided an urban 'dark matter'. Ironically, it was perhaps more comprehensive and coherent in its unification of the city centre and its surroundings than the sporadic episodes that the post-war 1945 plan for Manchester was able to deliver. This situation was further enhanced by the considerable amount of smog present in the city. Such radical transformation was only temporary. The introduction of the Clean Air Act in 1956 swiftly removed the smog in the city and its architecture gradually returned to its original state, either by cleaning or the soot being washed off by the rain. Two examples of this dark matter from the industrial era still remain. These are 22 Lever Street by Smith Woodhouse and Willoughby (1875) and the interior courtyards of Alfred Waterhouse's Town Hall (1867-1877). The latter is currently undergoing renovation so it is unknown whether their blackened condition will endure.

This impact of the city's atmospherically darkened past is not entirely surprising. However, what is less known is that this strange environment also offered a particular context for Manchester's subsequent architecture to be designed for. The most notable example being the District Bank Headquarters (1969) by Casson and Condor. Casson compared the building to a lump of coal, its unusual form the result of rights of light studies, and its dark Swedish granite cladding being hand-tooled, vertically ribbed and specifically chosen to absorb the city's soot. Although the overall ambiance of Manchester might have provided buildings explicitly designed to resonate with its dark matter, they were the exception and not the rule.

Parallel developments in the city, such as the expansion of the University of Manchester Institute of Science and Technology (UMIST) campus in the early 1960s, pointed toward a gleaming new future for the city, written in white-rendered concrete and glass. The interplay between the white light of the modernist aesthetic amid the dark matter of the blackened Victorian landscape was striking and provided sharp contrast between the city's past and its techno-utopian ambitions. All of this concerns the city as encountered during daytime.

At around the same time, in the US the lighting theorist and designer Richard Kelly was giving new expression to modern architecture through his three principles of focal glow, ambient luminescence, and play of brilliants. Working with darkness rather than against it, the diversity and nuances of lighting promoted by Kelly quickly dissipated with the increase in artificial illumination in urban centres. If we fast forward to the present day then this planned power is evident in the recent comprehensive rollout of 56,000 LED lights in Manchester. By replacing the sodium lamps with bright white ones, the city has once again found itself full of tensions and contradictions between white light and dark matter.

This lighting replacement programme has profoundly changed the character of the city at night. Since its implementation began in 2014, Manchester has become a city of disappearances since the diversity of different nocturnal urban atmospheres produced by the legacy of its lighting infrastructures has been lost, which is why I have been documenting these for the last eight years. This loss is not permanent, but access to a wider array of urban ambiances after dark is now temporarily restricted by the profusion of cheap, white LED street lighting. The urban landscape

that has formed as a result is one that is largely deprived of nuance and character. In its place, are the harshly-lit punctuation marks of poorly conceived urban illumination.

As the city continues its reinvention, with major regeneration plans underway for Mayfield and the Irk Valley, the shadowlands of its past could and should be re-examined for their potential to contribute toward a more sustainable inner-urban experience rather than whitewashing it. Design preservation and consideration should not just be limited to the daytime city. Better understanding of both the impact of light and the value of darkness could shape a city full of differentiated drama and ambiance, reflecting the diversity of its population and architectural legacy. This would enable Manchester to become the modern city relevant for an era of climate emergency. Given its history as a city of firsts, leading the way in which urban environments can be inclusive, convivial, ethical and safe as a result of good design principles and practices at night seems like a critical element for its future.

1. H.M. Fairhurst, *Pariser Building* (1963). Nick Dunn (2021)

2. *City Centre Reflections*, Nick Dunn (2014)

3. Cruickshank and Seward, *Maths and Social Sciences Building* (1969). Nick Dunn (2021)

4. Cruickshank and Seward, *Renold Building* (1962). Nick Dunn (2021)