The idea of the station which set Modernism in train

Architecture and technology in the service of movement

The problematic object of the London Underground

Marko Jobst

This perspective looks at the London Underground station building and proposes that it has a problematic status which is yet to be fully acknowledged in architectural writing. The emergence of the London Underground in the second half of the nineteenth century challenged some of the basic premises of what would become, by the twentieth century, the standard interpretations of Modernism and, yet, it remains insufficiently researched. In outlining a trajectory that leads from Crystal Palace via the railway station and the hybrid nature of the arcade to the London Underground, the aim is to indicate that the spatial and visual regimes of the Underground – and its main architectural object, the Underground station – trace a lineage that was never fully reconciled with the dominant narratives of Modernism.

Crystal Palace

Crystal Palace occupies a privileged place in the history of modern architecture. It is often portrayed as one of the key stepping stones on the way to the technical logic of Modernism, through the use of contemporary materials, consistent structural logic and novel modes of production and assembly. But Crystal Palace was also, in many ways, a 'mobile' architectural object itself. Its columns, beams and girders were mass-produced and the glass panes, laid by the 'glazing-wagon' that ran on wheels inside the building's gutters, were installed at unprecedented speed. As Paxton noted, three columns and two girders could be erected within sixteen minutes.[1]

The Palace was also an impermanent structure. As the Great Exhibition wound down, a series of competing proposals emerged regarding its future: Charles Burton proposed the prefabricated units be turned into a one-thousand-feet high 'Prospect Tower', a belvedere with a winter garden and a collection of displays;[2] it was reimagined as an extension to the British Museum and a system of baths; it could have become 'a permanent residence for invalids, a vast and permanent picture gallery, an international library, a polytechnic institution, a theatre or a riding-school'.[3] The chosen solution would ultimately offer a variation on the original edifice, functionally and structurally, and yet, in this brief moment between the two buildings, the Palace offered a glimpse of the potential it housed: impermanent, malleable, a building that can become other buildings, never fully fixed either morphologically or in purpose.

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While this idea destabilises some key aspects of architecture as the discipline would have understood them at the time – permanence, structural autonomy and visual regimes that defined the architectural object as an autonomous whole – the Palace still represented an *architecture of the visible*, even if this visibility bore a close relation to the potentially dematerialising nature of light, ushering in as it did a very modern regime of architectural 'lightness'. It remained firmly rooted in the tradition of visibly prominent architectural objects, 'a monument on display' as Barry Bergdoll writes,[4] to the point of this primacy potentially becoming the building's ultimate function – as would be the case with the Eiffel Tower in Roland Barthes' famous interpretation.[5]

As an architectural object, then, the Palace manifested processes that emphasised impermanence, transparency and spatial continuity, but it remained visually unified, a structure identifiable as a *signifying whole*. If this trajectory brought into question a number of definitions of architecture, it still offered a confirmation of the unity of the object; which is the point where another, more ambiguous, route of modernity is to be followed through the building of the railway station.

The railway station

The nature of the urban railway station was hybrid from the outset, disallowing easy absorption of new materials and technologies into a single signifying whole. The building itself was only the face – sometimes literally only a facade – of a more problematic presence in architecture: that of the technologies of movement, which played a more overt role here than in the case of the Crystal Palace.

The world's first long-distance railway, the London and Birmingham, started operating from Euston in 1837. There was no precedent for the building type and the design was split between architects and engineers, between the station building and the train shed. The most recognisable aspect of Euston was its free-standing Doric portico, a gateway not so much to the station concourse

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(positioned perpendicularly behind) but to the *space of the journey*, to *movement itself*. The tension between the various aspects of this new type was rendered visible and the most interesting aspect was precisely the way it divorced its various elements.

It is therefore Euston, more than any other example of the period, that helps think through the Underground station, pointing as it does at the qualitative difference between the interior of a building and its outside, indicating the ever-present potential for the discontinuity between the two realms. The architecture of Euston offered a glimpse of what would inevitably happen once railway travel delved beneath the surface: the fragmentation of the (always illusory) visual unity of the architectural object.

An example that did fit the major narratives of Modernism was the Great Northern's railway terminus at King's Cross which opened in 1852. Unlike Euston, the whole structure was designed by the same man, Lewis Cubitt, and was composed of twin sheds, mirrored at Euston Road by the openings in the brick facade. The result was, as Simon Bradley puts it, 'a supremely legible building, each part declaring its purpose and means of construction'.[6] To Pevsner, therefore, King's Cross would display an 'acceptable union'[7] of the shed and the building, which, in keeping with the major Modernist narratives, presupposed the visually identifiable unity of the building's structural, formal and spatial elements.

'…"an extended Crystal Palace" with shops and houses lining its sides and an arcade to connect the railway stations with the Palace of Westminster.'

At Paddington, the railway shed would reveal an aspect of the problem of 'architectures of movement' that would only be fully developed with the Underground: unusually long as a response to the problem of sound pollution, it created a rudimentary arcade-like enclosure of the tracks. As a solution, it indicated that housing the technologies of movement was problematic by default: the building's relation to the space of the tracks – and with them the space of travel – would always inevitably indicate the inadequacy of a unified architectural object. It could never represent an enclosure proper, one identical with the object's image.

The arcade

Charles Pearson initially conceived of the railway running down Fleet valley to Farringdon as one covered by glass, an arcade of sorts. There had already been ideas to this effect in the 1830s but the technology needed for tunnelling under buildings was missing and so Pearson's 'Arcade Railway' initially made little impact.

There were other types of scheme at the time, and they all rehearsed the arcade solution. William Moseley's Crystal Way was to run twelve feet below the surface, from St Paul's to Oxford Circus, surrounded by shops, houses, hotels and a walkway above the tracks. In 1855 Paxton himself proposed the Great Metropolitan Way, a 'girdle' railway together with a 'boulevard under glass', which was to be eleven and a half miles long. He suggested it be made of the Crystal Palace units, 'an extended Crystal Palace' with shops and houses lining its sides and an arcade to connect the railway stations with the Palace of Westminster.

These arcades took the question of railway architectures a step further. However problematic the railway station might have been as an architectural object, it was still visually identifiable as such. In contrast, the railway arcade represented an extensive spatial enclosure conceived around movement itself and was potentially infinite – as long as the journey itself. Instead of marking a location, an architectural 'terminus', the arcades indicated trajectories. They carried the potential to further dissolve the stability and wished-for unity of the architectural object.

These railway specimens were based on an interesting precedent. In Walter Benjamin's seminal rendition, Parisian arcades were the 'points of transition between inside and outside as well as private and public'. Their status as 'passages' was ambiguous; they did not seem fully confined to a specific activity – lingering, looking, shopping or simply passing through from one place to another all represented equally viable activities. 'The passage did not possess a fixed meaning, did not define a place, but was parasitic upon the other places to which it led and the purposes for which it was used.'[8] In his writing on Naples, Benjamin related the street to the concept of porosity and the Parisian arcade took this notion to the next level: it was a threshold, a 'point of passage', which is what gave it its 'disquieting' sense of ambiguity.[9]

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This historical moment of 'ambiguity' would prove unstable and the arcade would ultimately be transformed either into a 'defined space' or a simple route, its spatial ambiguity abandoned in favour of one of two directions: the department store, and its 'surrender' to commerce, or the interior of a home (Fourier's phalanstery), which Benjamin saw as a reactionary move since it surrendered to 'dwelling' the ambiguous social aspects of the arcade.[10] In other words, arcades lost the speculative challenge they had originally posed, surrendering to the opposition between public and private, artifice and nature.[11]

It is hard not to see the sequence that leads from the arcade to the Underground as significant, a trajectory that radically questions the status of the building as a result of its close relation to movement. Unlike the Parisian arcades though, the Underground is still an integral part of London. The forces and conditions that might have rendered it a 'residue of a dreamworld'[12] in the nineteenth century are still at play today, largely undisturbed. The key to understanding this proposition lies partly in the problematic figure of the Underground station, no less ambiguous a 'point of passage', a place 'parasitic upon other places', than the Parisian arcade – despite its seemingly exclusive functional assignment as the space of urban railway travel. And yet, this has largely been overlooked in the histories of architecture of the nineteenth and the twentieth centuries, especially when addressing the question of public interiors.[13]

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The Underground station

The emergence of the Underground initiates a more interesting line of development than any of the previously discussed examples. If Crystal Palace indicated the potential collapse of the distinction between the building and its surrounding *milieu* (to be fully enacted in the twentieth century), it nevertheless offered a clearly identifiable architectural object – even when its image tended toward dissolution in light.

In the case of the railway station, the unity of the object was questioned differently: not only did the two aspects of the building resist unification, but the very integrity of the interior was destabilised through the figure of the railway carriage, that mobile double of the architectural interior, which emerged from the station to represent an enclosure within the space of the journey itself. And yet the distinction between the carriage, as a para-architectural object of sorts, and the openness of the landscape was retained, however destabilised the very notion of 'enclosure' might have been by the novel technologies of movement. Landscape as the final component of this 'machine ensemble', to use Wolfgang Schivelbusch's term,[14] provided the necessary exterior, the visually identifiable 'beyond' of architecture.

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All this is radically altered with the emergence of the Underground and its accompanying architectures, making the distinction between the object, space and environment (manmade or nature) more problematic. To enter the station building is to enter the interior of the whole of the Underground, a network of interconnected tunnels and buildings expanded to include the whole city, yet unfolded in a space that will remain distinctly other to it. The exterior of the railway journey, i.e. the landscape, has been replaced by 'earth' itself and this particular outside is not to be apprehended directly – the way an overland train carriage would have offered mobile, panoramic views of the outside – but by rendering exteriority itself visually inaccessible. Exterior and interior collapse onto a continuous surface of the tunnel instead, layering architecture, technology and nature, all in the service of movement.

As such, the Underground resists the dominant narratives of Modernism that would be formulated by the middle of the twentieth century, while potentially holding some of its crucial genetic aspects. Through the object's lack of autonomy, the wall's folded surface, the peculiar discontinuity between the interior and the exterior and the abstracting function at the service of movement, it refuses to offer a unifying image of architecture.

If the Modernist building, announced by the Crystal Palace, tended toward dissolution in light, it still supported the signifying regime of an autonomous object. This was radically altered with the visual regime of the Underground, since it made unifying, 'external' views on the building – and consequently on architecture itself – impossible. The Underground station is an entry point only, its autonomy short-circuited in favour of a more complex spatial, functional and visual urban whole. It is with this subversion of the traditional regimes still expected of architecture that the *edifice-that-is-the-city* challenged the conception of experiential and material continuities, introducing themes that would regain currency at the end of the twentieth century with the rise of so-called 'new' technologies. As such, it is yet to be written into the histories of architecture.

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Notes

1. P. Beaver, *The Crystal Palace: A Portrait of a Victorian Enterprise* (Chichester: Phillimore, 1986), p. 23.
2. J. R. Piggott, *Palace of the People: The Crystal Palace at Sydenham 1854-1936,* (London: Hurst, 2004), p. 32.
3. Ibid., p. 33.
4. B. Bergdoll, *European Architecture 1750-1890* (Oxford: Oxford University Press, 2000), p. 208.
5. R. Barthes, 'The Eiffel Tower', in *The Eiffel Tower and Other Mythologies* (Berkeley: University of California Press, 1997), p. 3.
6. S. Bradley, *St Pancras Station* (London: Profile Books, 2007), p. 63.
7. Ibid., p. 86.
8. H. Caygill, *Walter Benjamin: The Colour of Experience* (London: Routledge, 1998), p. 132.
9. Ibid.
10. Ibid., p. 133.
11. Ibid.
12. Ibid.
13. See for instance P. Sparke, *The Modern Interior* (London: Reaktion, 2008); D. L. Pike, *Subterranean Cities: The World Beneath Paris and London* (Ithaca: Cornell University Press, 2005); and R. Williams, *Notes on the Underground: An Essay on Technology, Society, and the Imagination* (Cambridge MA: The MIT Press, 2008).
14. W. Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19th Century* (Berkeley: The University of California Press, 1986), p.16.

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