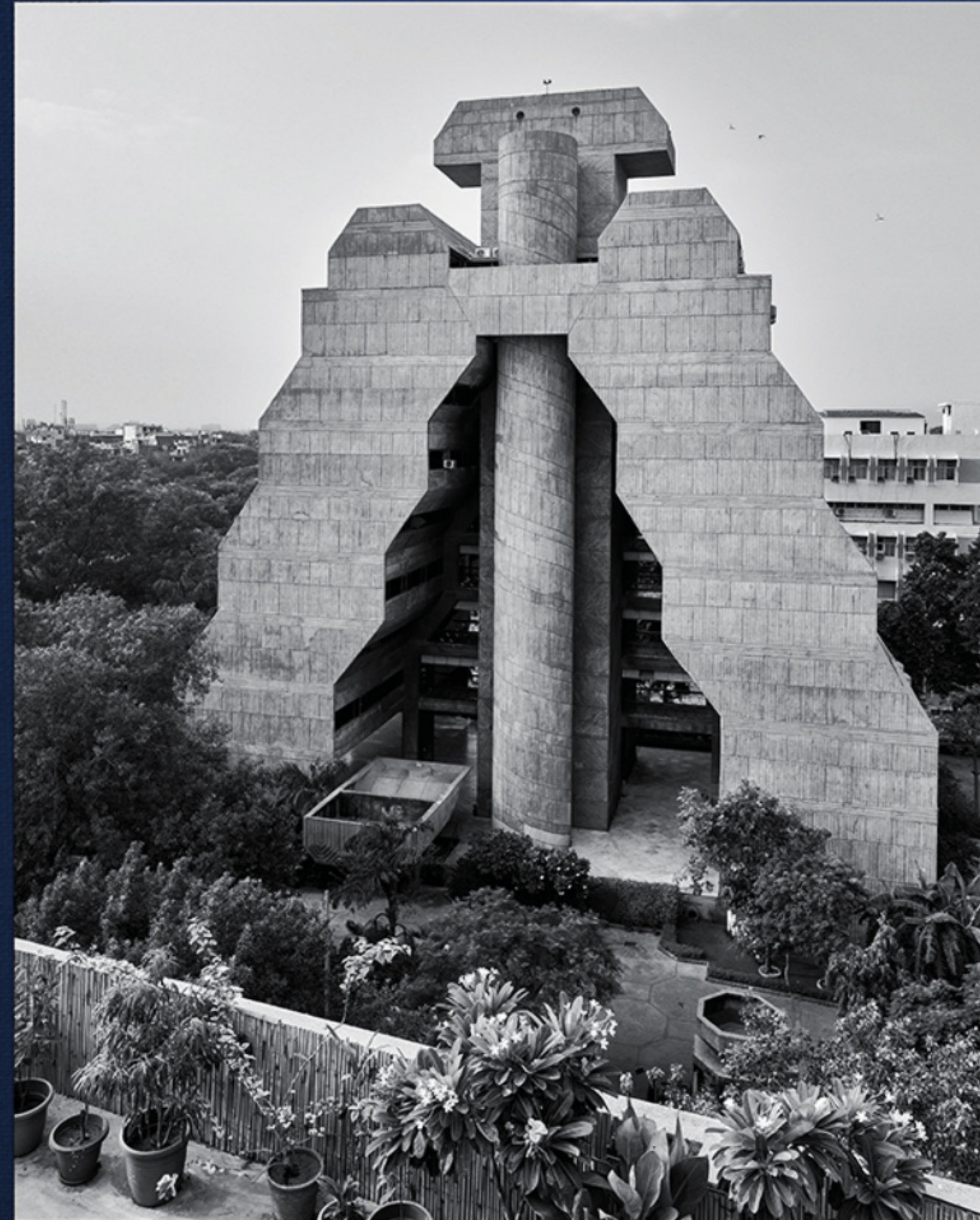


MODERN SOUTH ASIA



KULDIP SINGH

MAHENDRA RAJ

NATIONAL COOPERATIVE DEVELOPMENT CORPORATION

ESSAY BY AMIT SRIVASTAVA AND PETER SCRIVER

EDITED AND PHOTOGRAPHED BY RANDHIR SINGH

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**02**



## COLLABORATIVE INVENTION AND THE ETHIC OF FRUGALITY

Amit Srivastava & Peter Scriver

When it was built in the southern outskirts of metropolitan Delhi in the late 1970s, the new National Cooperative Development Corporation (NCDC) headquarters was one of the relatively few new buildings that stood out, or even above, the sea of low-rise new residential development that was then just beginning to expand the national capital beyond its first ring of post-colonial suburbs. But this was not just a taller structure and far from a merely generic modern office block. 'Architecture', modern or not, was still a relatively unfamiliar concept that few of the uninitiated public understood to apply to anything less exalted than the monumental tombs and ruined historic forts and palaces that dotted Delhi's urban hinterland, such as in the neighbouring Siri Fort area. If 'engineering' had any better grip on the popular imagination, it was understood to be the equally heavy but more utilitarian stuff of infrastructure and industry that was progressing and building the young Indian nation's economic capacity. Yet there was something about this strange, almost ungainly concrete edifice that defied categorisation; it was both monumental and ingeniously light-footed at the same time. Growing up in South Delhi in the 1990s, where the NCDC offices stood opposite the gates of the housing colony in which one of the present authors lived, it was the first and most conspicuous example to which an untutored prospective student of architecture could look with both awe and fascination.

This virtuosic hybrid – the collaborative work of architect Kuldip Singh and engineer Mahendra Raj – was nothing if not iconic. Local residents and passing rickshaw drivers would describe it as the 'pyjama' building owing to the cartoonish pantaloons-like profile of its two great legs and the striped, textile-like ribbing of its concrete flanks. For the other author in the present duo, who was once a young architectural graduate gaining overseas work experience in Delhi in the 1980s (along with some rudimentary Hindi), it was equally affectionately known and discussed with local colleagues as the *hathi* building as we could also imagine it as a great elephant standing guard at the city's approaches, its flanks draped with battle armour or imperial regalia, topped with a diminutive *howda*. Other later commentators, the present authors included, would also come to recognise a further similarity between the distinctively canted and hollowed-out NCDC structure and the great temple gateways, or *gopurums*, of South India. This was an even less intuitively obvious formal analogy, it would seem, but one that the architect himself would acknowledge was a probable albeit unwitting inspiration. But, equally sceptical of arbitrary form or expression purely for its own aesthetic sake, yet another reading that the architect found particularly felicitous was the belief of the client – the Chairman of the Board of NCDC – that the building was

a "wonderful" architectural representation of "cooperation" itself, the two wings converging and meeting at the top but depending integrally on each other for mutual support and strength to get there!<sup>1</sup>

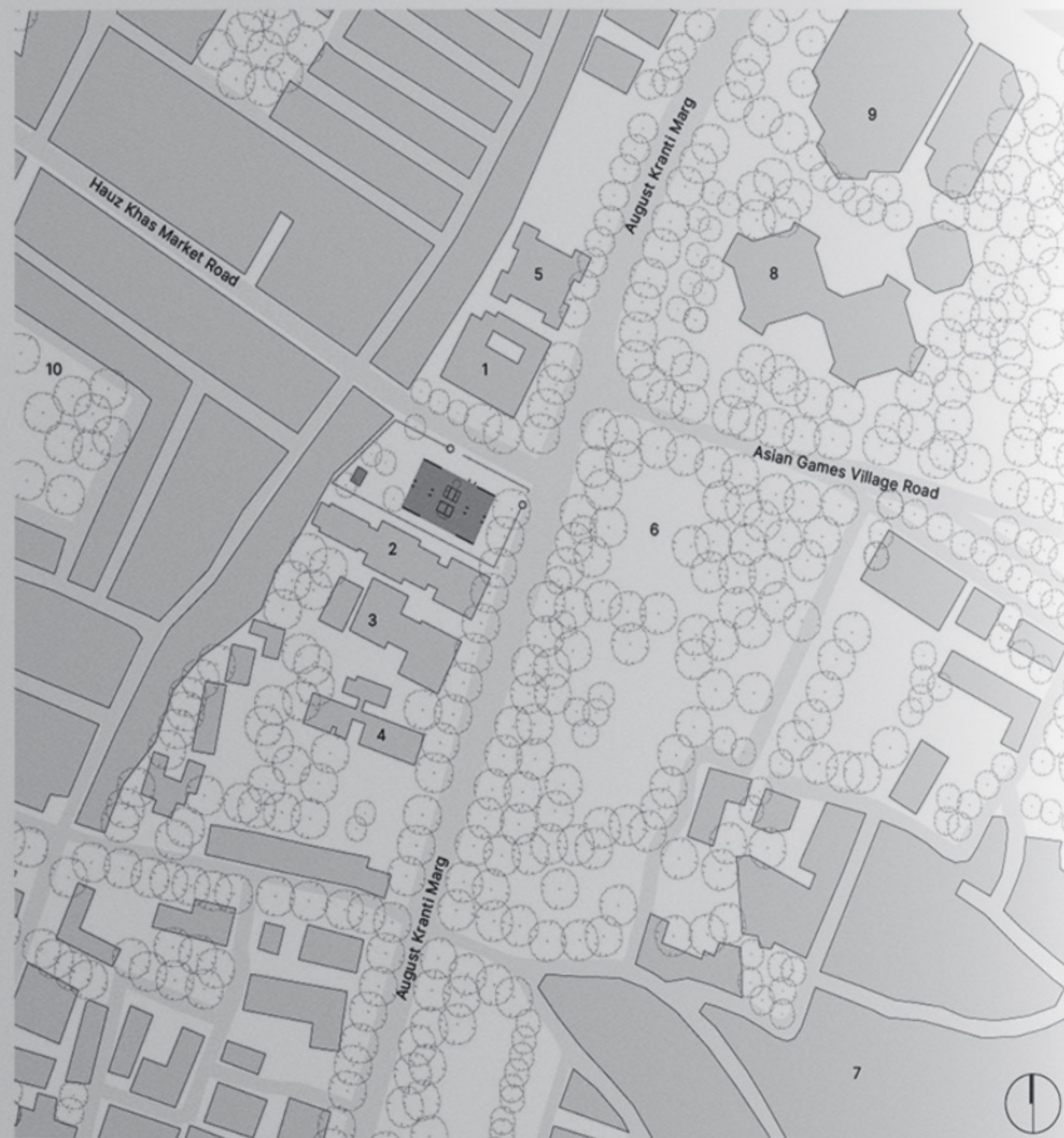
Four decades on, the uncanny lightness of this monolithic post-tensioned concrete structure, the daring ingenuity of what would seem to be impossibly-thin shear walls, and the meticulous detailing of its off-form concrete surfaces and finishes are still remarkable. Arguably, it has proved to be one of the most exceptionally well-constructed and equally well-preserved exemplars of late-modern concrete architecture in South Asia and even beyond, as recent international exhibitions and related efforts to document and conserve the misunderstood and increasingly at-risk 'monsters' of brutalist architecture worldwide have consistently affirmed.<sup>2</sup>

'Brutalism' offers a stylistic category and qualitative descriptor with which an architecturally informed observer could surely attempt to interpret the NCDC building in line with broader tendencies and potential precedents elsewhere. Typologically, for instance, one could speculate about the inspiration of the futuristic urbanism projected by the Japanese Metabolist architects of the early 1960s or the isolated realisation of similar 'mega-structural' propositions in the stand-alone corporate and university campus schemes of Paul Rudolf, John Andrews, and James Stirling, among others. But to fully appreciate the ingenuity of the NCDC offices, it is necessary to look more closely at the immediate historical context and contemporary building culture in which this particular mega-structural fragment was designed and constructed. It is important, first of all, to recognise how directly the novel architectural way-finding and experimentation of India's own nation-building in the decades following her independence from colonial rule had contributed to the development of the Brutalist aesthetic in the global architectural culture of the mid-twentieth century. But even more important to highlight in attempting such a situated interpretation of the NCDC design was the ethic of frugality and authenticity of such a frank and fearless approach to material economy through structural innovation in the politically and economically isolated India of the 1970s in particular.

Whilst architect Singh and engineer Raj had not directly collaborated before the 1970s, both men had cut their teeth as young graduates two decades earlier, working on the design and construction of Chandigarh, the new capital for the Indian state of Punjab. This symbolically and technically seminal nation-building project (1951–65) had been a proving ground for fresh ideas about a new architecture and urbanism for modern India. Unfettered by the past, many of the emerging first generation of post-Independence architects and engineers would continue to test and develop this approach in their own practices in the years that followed. Consulting architect and city-planner Le Corbusier, the eminent Swiss-French modernist, had greatly extended and developed his own highly influential post-war experiments with the aesthetics of *béton brut* in his designs for key buildings at Chandigarh, such as the High Court. But it had been the fateful task of the young Mahendra Raj, as a junior engineer of the Punjab Public Works Department, to assist Le Corbusier with the structural design of the iconic concrete vaults and canopy roof of the High Court. Furthermore, Raj had to figure out how these would actually be constructed with the limited technical means and material resources at hand in an industrialising economy that was still heavily dependent on

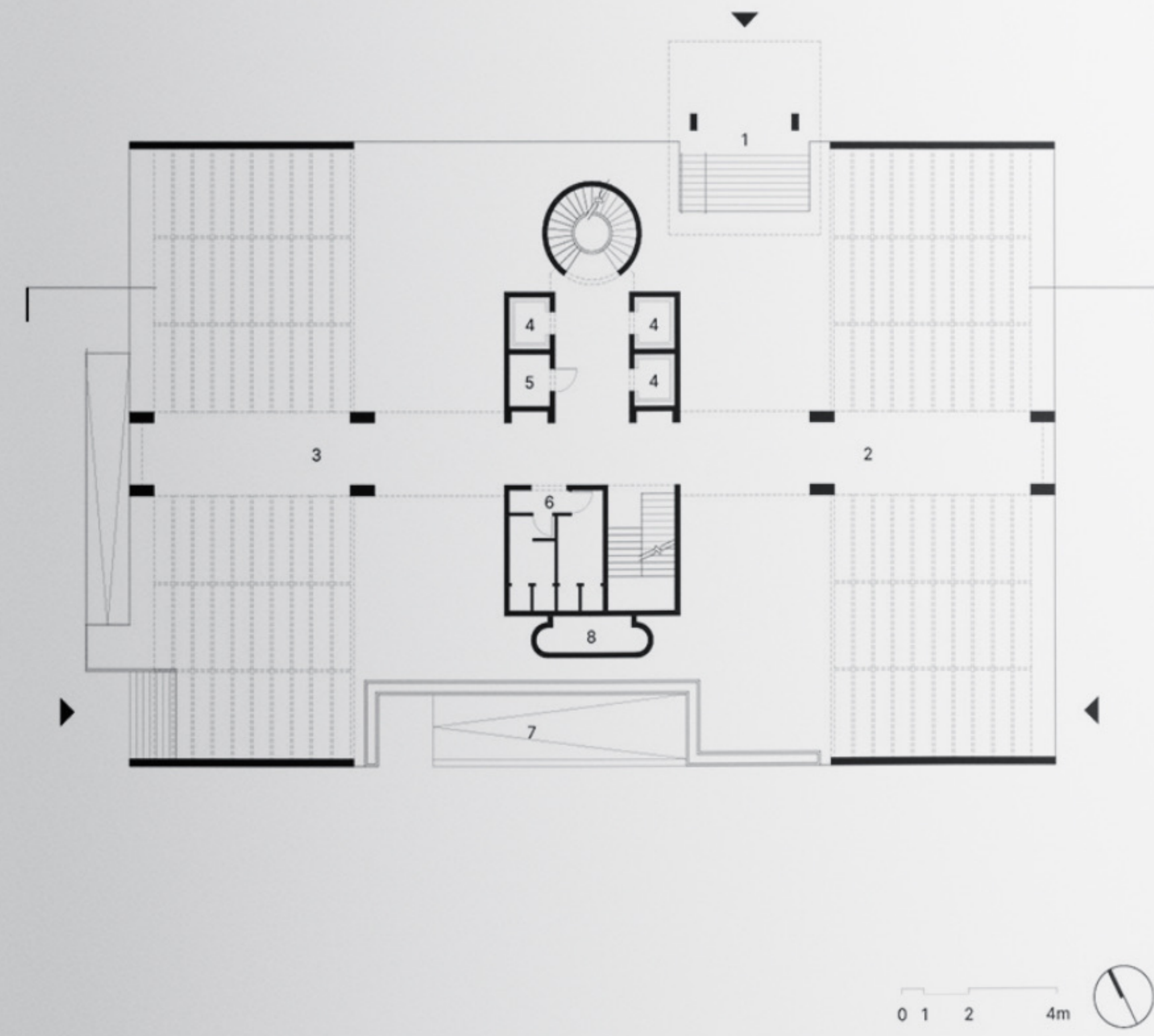
- |  |                          |
|--|--------------------------|
| 1 NCUI Auditorium and Convention Centre                          | 6 Municipal Park         |
| 2 Central Warehousing Corporation                                | 7 Shahpur Jat            |
| 3 PHD Chamber of Commerce and Industry                           | 8 BHEL House             |
| 4 National Institute of Public Cooperation and Child Development | 9 Siri Fort Auditorium   |
| 5 Warehousing Development and Regulatory Authority               | 10 Hauz Khas Main Market |

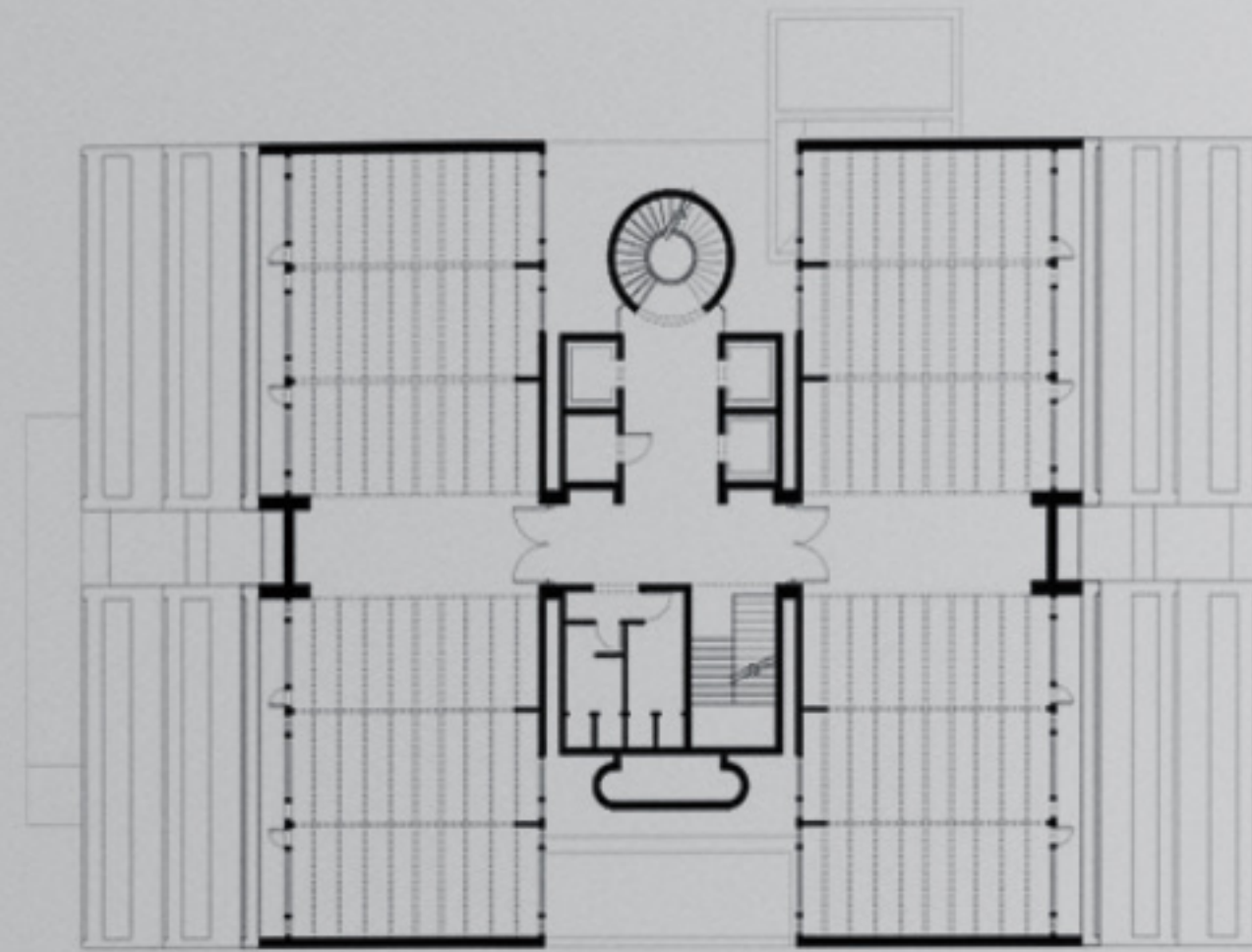
Site Plan



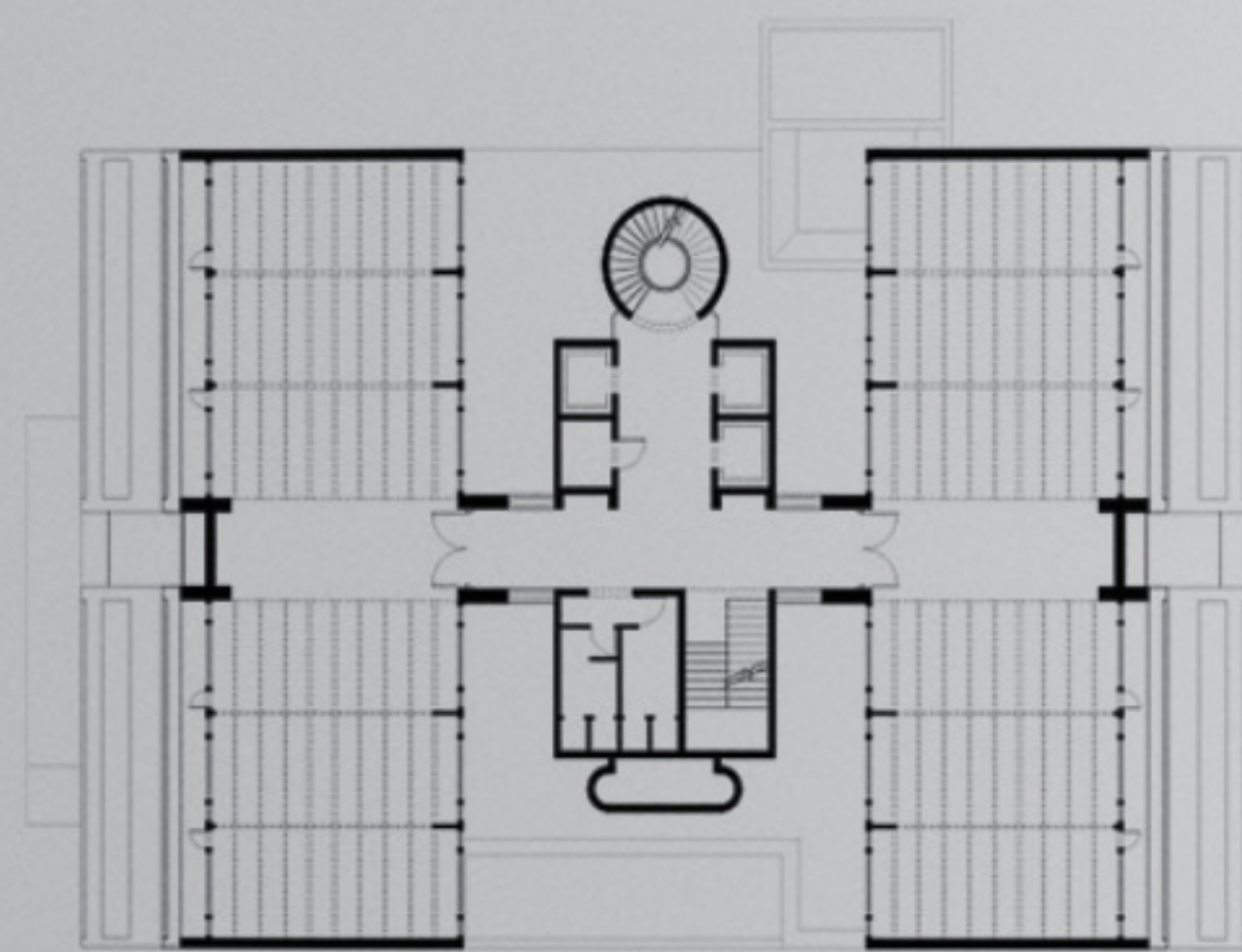
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|--------------------|--------------------|
| 1 Entrance portico | 5 Electrical room  |
| 2 East atrium      | 6 Toilets          |
| 3 West atrium      | 7 Ramp to basement |
| 4 Elevator         | 8 Shaft            |

Ground Floor Plan

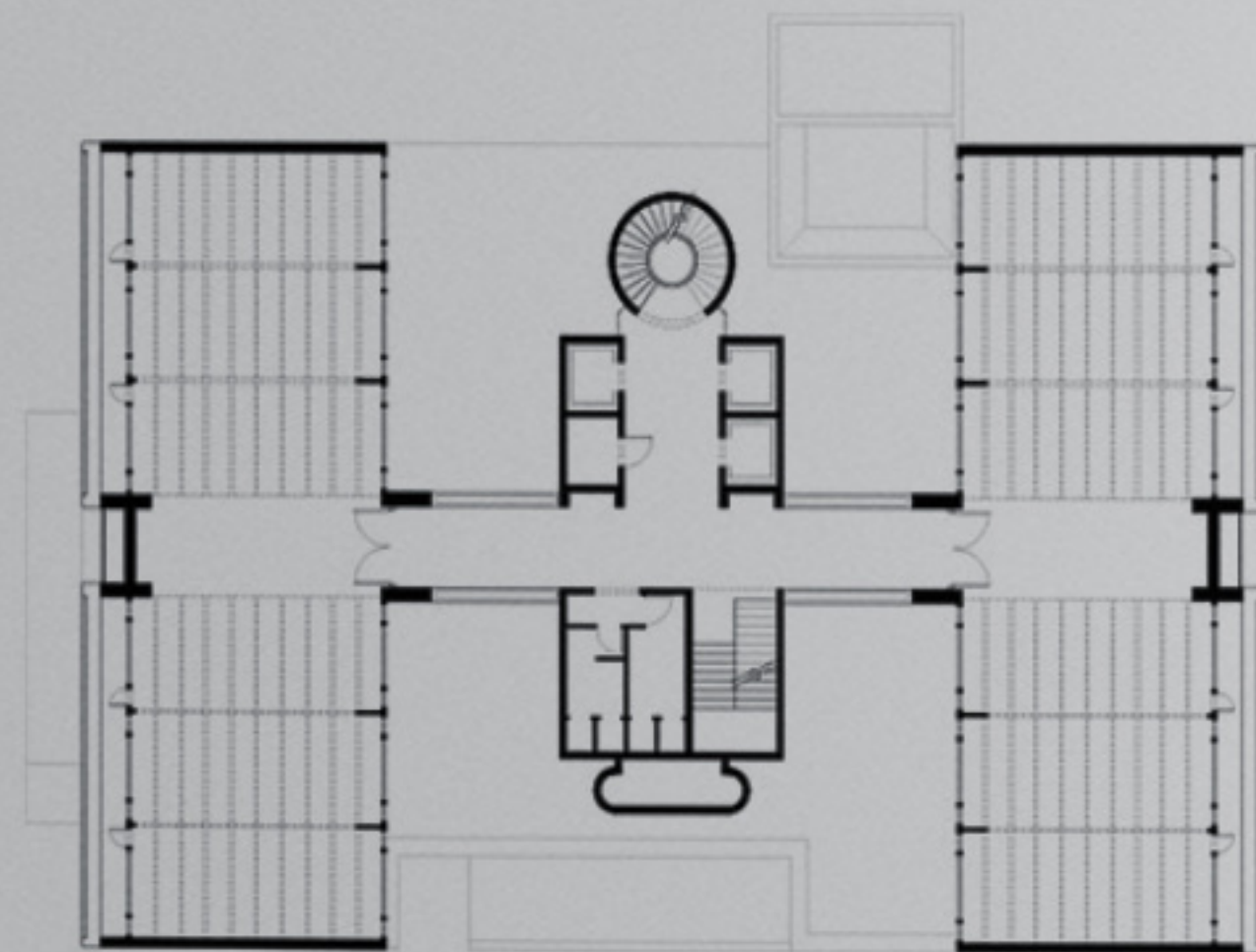




Sixth Floor Plan



Fourth Floor Plan



Second Floor Plan

- 1 Basement
- 2 East atrium
- 3 West atrium

- 4 Elevator Lobby
- 5 Offices

Section

