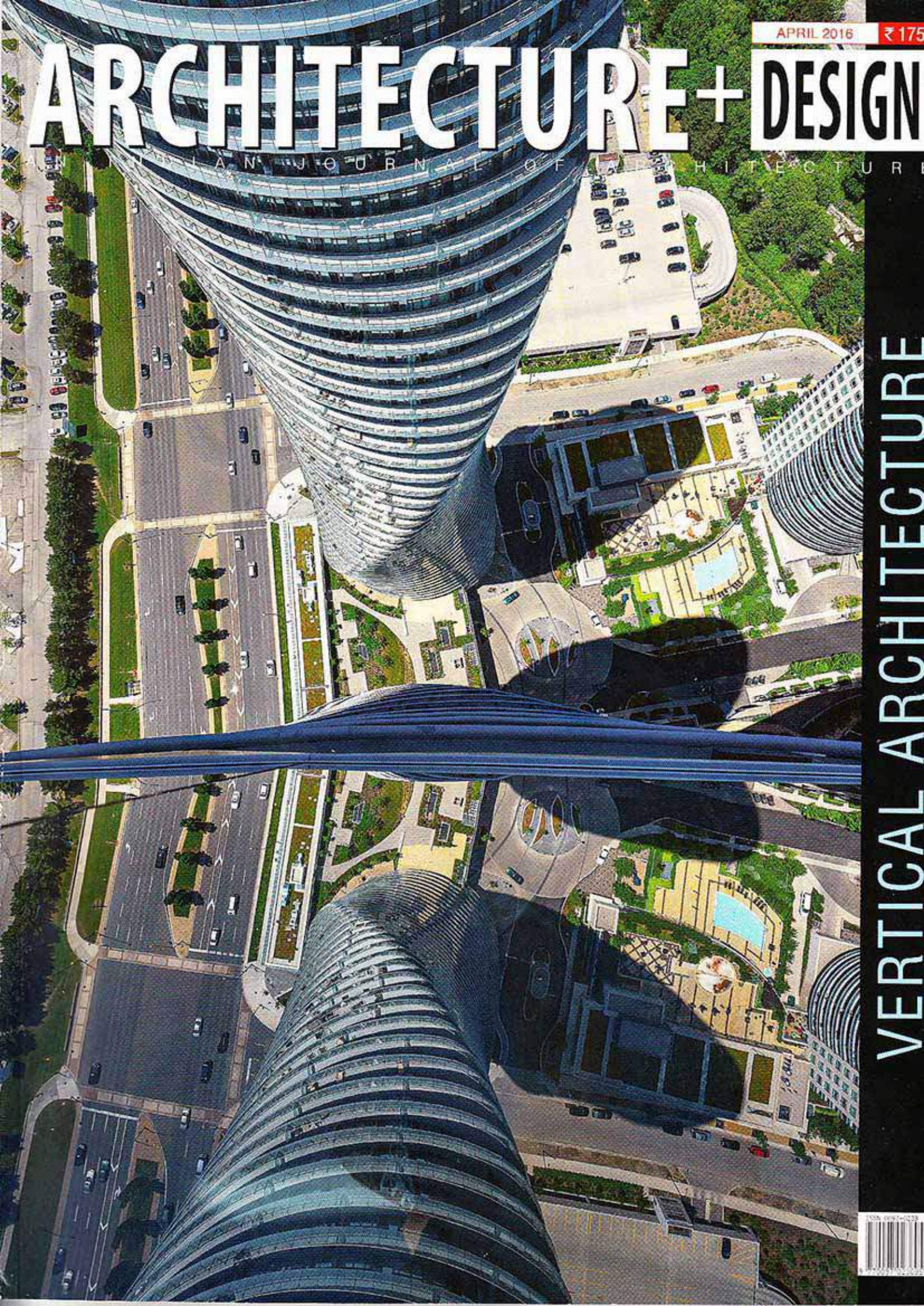


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VERTICAL ARCHITECTURE



Vertical Architecture



GYS VISION TOWERS, GURGAON



Vertical Architecture and Activating Ground Planes

Sonali Rastogi & Rahat Varma

With the rapid increase of urban density in our cities and with land being a major constraint there is a need to look out for solutions that allow the city to expand and not implode. High-rise is a response to the paucity of land, without a doubt, tall buildings and compact living may be directly related. As a design ideology the high-rise typology of construction has often been seated centre stage at a number of architectural discourses, it has often type-casted as either 'the evil' or 'the global icon' of modernisation. Thus, it would not be wrong to believe that going vertical has always been controversial and while being aspirational

also has acceptance issue at another level.

Moving away from acceptance, and acknowledging the fact that we are a rapidly growing economy, there is a palpable increase in exposure to global construction technologies and awareness of architectural style vocabularies. It would not be wrong to state that skyscrapers have come to be commonly identified with worldwide economic and cultural integration and a collapse of boundaries. The high-rise paradigm is here to stay and working forward with this idea, one must endeavour to find a solution to the problems of the rapidly growing urban density in our city centres. It would be

quintessential to make sure that this plug-in would ingrain itself deeply into the existing city fabric, both contextually and in terms of infrastructure.

In the local context, it would be important to comprehend that not all our cities have the potential to develop extensive infrastructure that would allow them to have a low rise perpetuate sprawl outwards and engulf the satellite towns. Hence, the high-rise comes inbuilt with the concept of stacking. Whether it is stacking of function or services, there is a need to understand that the quality of living of the citizens must be recognised and like all other reasonable architectural briefs, it must augment the lifestyle. Pertinent issues that we as architects need to address before planning and designing any project are same for tall buildings too: How the user intends to inhabit the space? The function of the space? How long does the user intend to remain in the space? And what are the acceptable levels of mobility in a particular society? What becomes key is the understanding of density and infrastructure.

Taking this a step forward we need to tailor our solutions, so as to make sure that these new interventions can be delicately inter-woven back into the basic urban fabric of our cities.

We need to plan for our socio-cultural activities that are inherent in our way of lives. If we sit down to examine a traditional, old typical dwelling plan, at the very first glance we would realise that there is an effortless flow of spaces between the outside and the inside. We have always built with front verandas and central courtyards. This not only brings the outside inside, but also is a response to the local climatic conditions.

This perception and diligent response to the climatic conditions needs to be carried forward to newer concept of vertical stacking. It is imperative that we do not step

away from our traditional solutions that help us build responsive architecture and not just blindly encase tall buildings in sheets of glass. There is a need to be sustainable and maintainable. In economic terms there are always limited resources and thus there is always a need for optimal utilisation of infrastructure that is made available to as many citizens as possible. When it comes to high density living, mass transit systems and last-mile connectivity play an important role of helping in inter-connecting the city. In some ways high-rise planning works well integrated with pedestrianisation.

With the passage of time, the cities that we now live in have lost their walkability. Perhaps this change can be attributed to the population explosion, but we have essentially caused the demise of the transition and congregation spaces that used to foster the experience and cohabitation in the city. This realisation of drastic change should ideally make us retrace the roots of our existing metropolises, like we did in the Delhi Nullahs Project. We need to learn to tap into the latent infrastructural network that city might provide. In this case it was the 350km long continuous network of *nullahs*, the current state of this network system might be dilapidated. However, with a relatively small investment these *nullahs* can be turned into valuable assets. With an elaborate proposal on how to revive this network, we hope to bring to life an alternate transportation network, an environmental corridor and a cultural web that attempts to hold the whole national capital together. With this initiative, we present the hidden opportunity that lies within Delhi by establishing a green and sustainable network as an alternative and democratic source of engagement within the city. I talk of *nullahs* also as the last mile connectivity required to connect nodes of human density.



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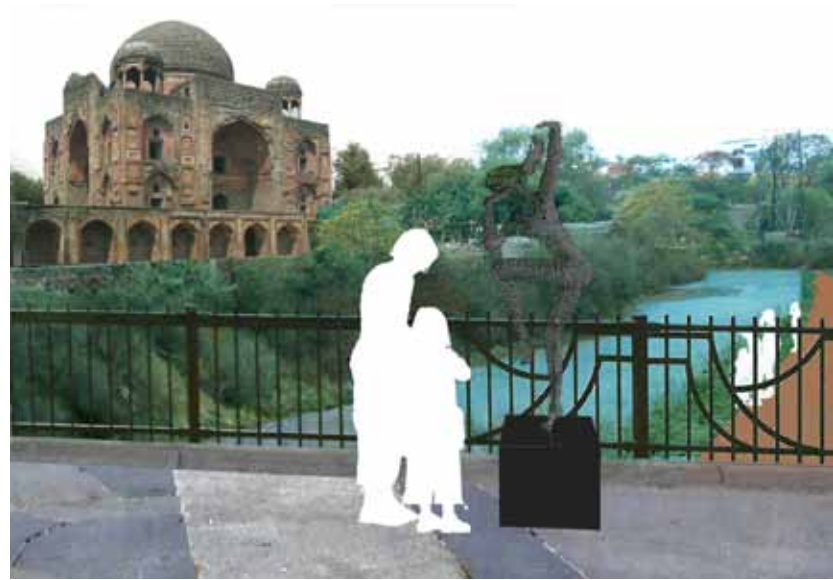


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BEFORE

The ground plane of the city at an urban scale needs to be activated as the socio-cultural space in addition to the functional requirement of mobility. Taking a reference from nature and attempting to explain this phenomenon of the need to strengthen our roots as we go higher, we can look closely at the physical configuration of a banyan tree. As it grows upwards from the earth, it spreads its roots deep and wide into the soil, so as to tap into as much of the available



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natural infrastructure. Interpreting this thought in context to the modern cityscape, there needs to be a realisation that with the taller we intend to grow, the deeper we need to spread our roots. These roots directly translate into the network systems of our metropolises. Having probed the ideology—of verticality enough, it could be rightfully stated that for such an intervention to work successfully, there is a need to activate the ground plane.

On closely scrutinising the concept of piling volumetric functions, one on top of the other, one might realise that this could give birth to a number of elevated flat planes. To elaborate on the concept more we look closely at the GYS Vision Towers. The design brief that called for a commercial development in one of the prime suburbs of Gurgaon, being the hub of emergent urbanism. The design solution proposed is for the built form to move away from the typical office typology, aiming to provide an alternative with interweaving open social spaces, and closed workspaces. It promotes and interweaves open social spaces right next to modern workspaces and focuses on the seamless integration of the towers with the landscape and developing connections with the life activity happening on the ground and other various elevated levels. Ideated as a stack of Jenga blocks, this complex houses three towers, while there is one that aims to leave an iconic statement on the city skyline, the other two are less ambitious in their structural interplay with form. While this takes place above the ground level, the biggest challenge existed below it, the soil conditions on site were difficult to work with as the water table was at eight metres below NGL, and the lowermost soil strata being silty sand with gravel. This added the complexity of designing an under slab drainage system, to relieve the uplift pressure below the foundation level.

The Iconic Tower on site makes an iconic statement with the rotating floor plate's formula and is braced with bulky super columns for structural stability. This rotation of volume



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results in residual deck spaces after every three floors, which may be considered as an elevated ground plane, and these are used to activate socio-cultural activity at the work place. The two neighbouring towers carry forward the same philosophy of shift in volume, but in a slightly toned down manner. The towers sit integrated within the green in such a way that at any point there are sufficient shaded spaces. Sunken courtyards, verandas, an interesting play of levels forming outdoor volumes and terraces that sinuously wrap themselves along the towers are the key to the experiential nature of this project.

The emphasis put on limiting the visual barriers and allowing the plethora of views to infiltrate into the heart of the workplace is what sets this project apart from the many others. Understanding how we traditionally built and being able to apply that knowledge base at a much larger scale



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in terms of density, this proposed development attempts to poetically merge the vertical stacking concept and elevated recreational spaces at multiple levels.

The obvious solution of our high density problems lies in the architectural terminology of verticality. While applying this we must ensure that the race to the clouds does not destroy or obscure our inherently brilliant traditional and rich socio-cultural urban fabric. ✚

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