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## MINDFUL LANDSCAPE DESIGNING: A STEP TOWARDS SUSTAINABILITY

Wide use of native plants and cacti, thoughtful hardscaping and biophilic design are a few ways to help mitigate the climate emergency



AS A LANDSCAPE architect based in Mumbai, I find it hard not to roll my eyes each time I see a greenwashing gimmick parading under the pretence of "environmental sustainability," be it living walls plastered on building façades, or real estate brochures boasting vast expanses of lawn space. I think it is crucial that we shift away from gimmicks and look towards genuine, simple, high-impact design solutions to build resilience against the effects of anthropogenic climate change. Landscape design, especially my stream of work in the luxury sector is often misconceived as a frivolous field, but in reality, mindful landscape planning can be the real game changer in our collective efforts towards sustainability.

Whilst planning a site or curating a planting palette, a key question to ask oneself should be, "How much water is this scheme going to require?" It feels



ridiculously unethical that while large amounts of water are consumed by a single family's sprawling lawns in Alibaug, entire villages nearby have to bear the brunt of water scarcity. Not only is lawn space highly water intensive, it is also expensive to maintain, and the lack of diversity in the soil microbiome ruins soil health. As a rule of thumb, I prioritise dense vegetation, and ensure that not more than 25% of a given site is lawn space.

Through widespread use of native species and xerophytes like cacti, subscribing to principles of "xeriscaping," we would save tons of water. Generally, we tend to be in awe of imported, exotic species, forgetting that we have a host of ornamental local trees that require less water whilst also supporting biodiversity-the evercharming frangipani or the fiery gulmohar, for instance; the list is exhaustive. I've also noticed a long-standing stigma against cacti in our culture; many including my clients still believe it to be inauspicious. Can't succulents be viewed instead as powerful symbols of adaptation and resilience? They are highly underrated in terms of aesthetic value, though perhaps that is changing now thanks to pictures of prickly pear and other succulents populating our Instagram feeds.

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SECTOR IS OFTEN



When it comes to water management, a vital aspect is thoughtful hardscaping; maximising permeable surfaces allows rainwater to percolate into the soil, recharging groundwater storage and reducing stormwater runoff, which in turn mitigates flood risk. My go-to material for a driveway in an outhouse, for instance, is gravel, but I also like to experiment with different patterns using grass pavers. I wish permeable pavers were more widely used in the contemporary Indian city too, for instance in Mumbai, where each year the monsoon is a time of struggle for many, and disproportionately affects certain demographics.

Currently, most of us prescribe to a system of makeuse-throw. Shifting away from a linear model of wasting to a circular economy, wherein the lifespan of materials is extended is a challenge that the construction industry as a whole needs to rise up to. While zero-waste may seem overly idealistic, I like to think that small efforts could have large impacts if they are turned into the norm. Over the past few years, I have been actively trying to incorporate simple tactics in my design practice. For example, I have started repurposing construction debris into hardscape material, such as crushing waste bricks and using the aggregate as a gravel with a distinctive red colour.

Integrating nature into the urban fabric is at the crux of coping with climate emergency, and improving our collective physical and mental wellbeing. While Elon Musk searches for his billion-dollar carbon capture technologies, I advocate for the obvious, yet seemingly forgotten-plants and trees. My own work in city limits primarily consists of adopting principles of biophilic design to create terrace sanctuaries for

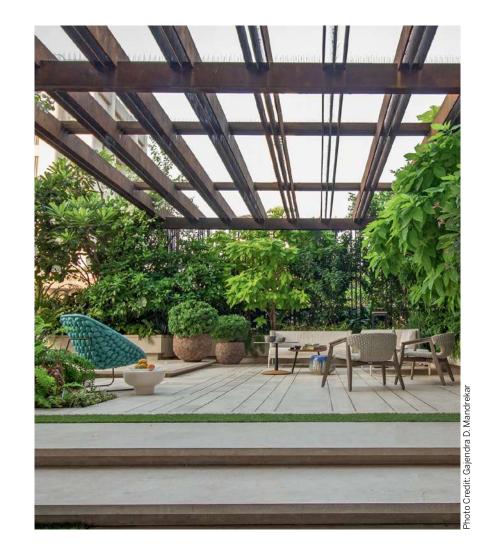




families-meditative environments where plants filter out noise and air pollution and unsightly views of construction. If such green roofs were made a norm, a microclimate could be created via the magical cooling effect that vegetation brings through evapotranspiration.

An unfortunate reality is that most people do not have access to such terrace spaces. Access to nature and good air quality have become luxury commodities, which is supremely unfair! There is a dearth of ecologically sound urban planning in our cities; perhaps, this could be remedied through increased collaborations between the government and private landscape practices on urban acupuncture projects. Urban voids and derelict sites could be transformed into pocket parks in every neighbourhood, mitigating the urban heat island effect that we are currently plagued with.

In Mumbai, more mangrove parks could facilitate natural coastal protection in light of recent development projects. Could the Bandra Kurla complex be reimagined as an office park immersed in an urban forest? These ideas are purely speculative and may sound a bit radical to some, but for a problem as complex as the climate emergency we face, radical change in the built environment is likely the only viable option. 🕂



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