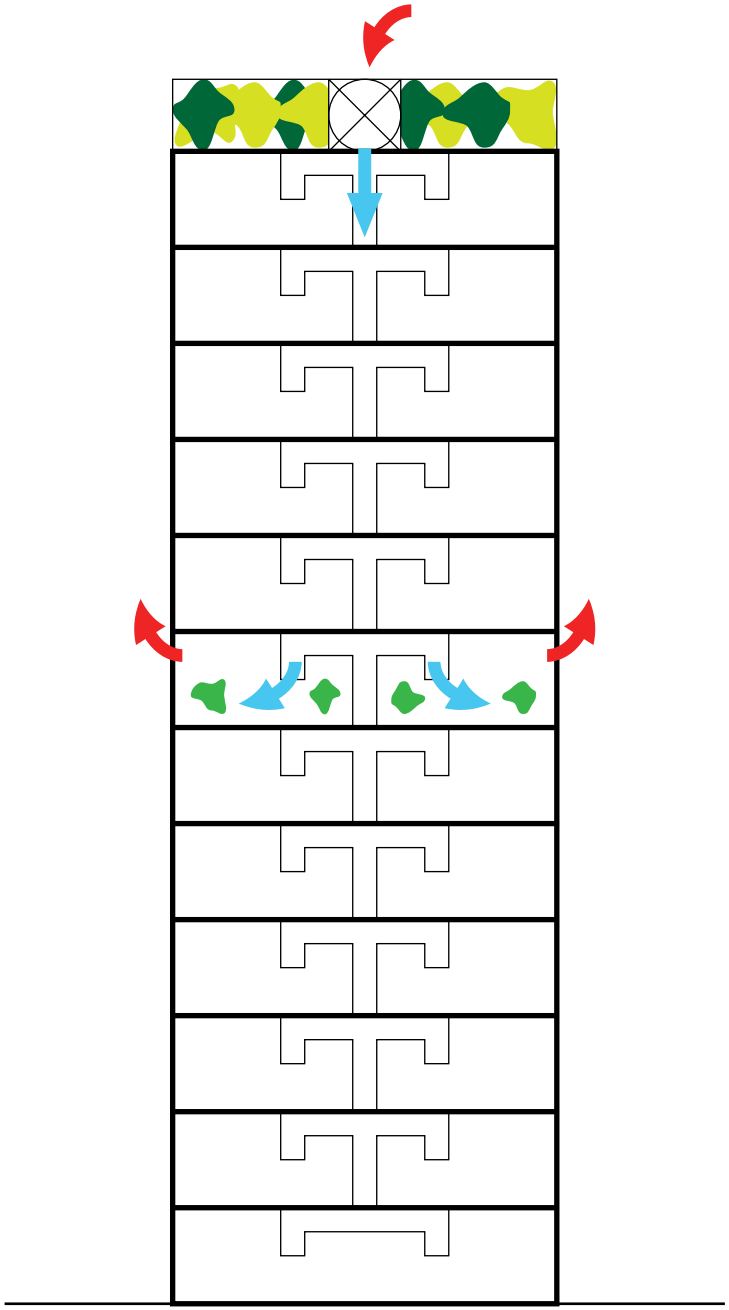
Self-organized green office space

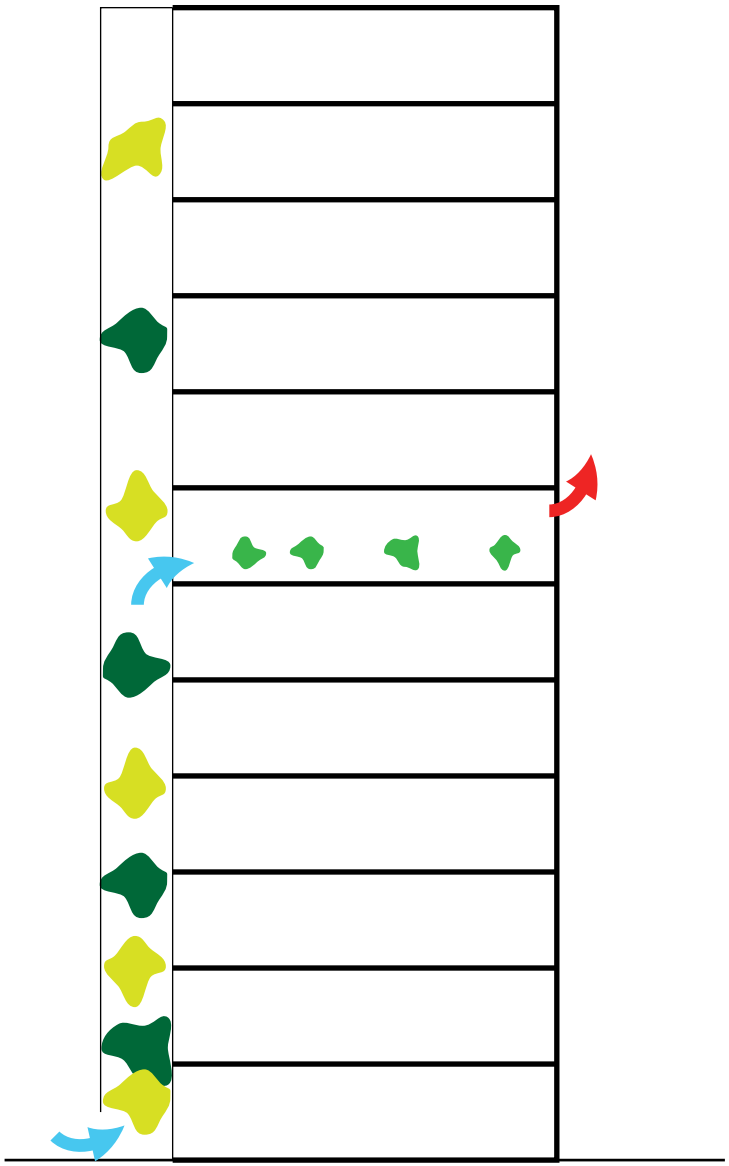


Greenhouse on the roof + mechanical ventilation

Kamal Meattle is a businessman who runs a large “office hotel” in New Delhi – the Paharpur Business Center. However, he is also an environmentalist and one of the two plaintiffs in a now famous, twenty year old public interest litigation case, which led the Supreme Court of India to actively intervene in order to curtail the air pollution of Delhi.

To be sure, Mr. Meattle had some personal reasons for taking the case involving air pollution to the Supreme Court. He had already lost a good part of his lung capacity due to this problem and his doctor had warned him that if he didn’t move away from Delhi, the air pollution of that city would eventually kill him.

Instead of moving away, though, Mr. Meattle found a jugaad solution to the problem. He identified two commonly available plants in India – the Areca palm and the Mother-in-Law’s Tongue – that produce oxygen, respectively, during the day and during the night. Then he went about building a large greenhouse on top of his office complex, filled it with these two plants and connected the whole set-up to the building’s mechanical ventilation system.



Vertical greenhouse + natural ventilation

Now Mr. Meattle wanted to apply this concept to the design of a new “office hotel” – the GreenSpaces – which was slated to be the world’s most energy-efficient large-scale office complex.

We suggested that the idea of “growing fresh air” be combined with the use of natural ventilation. Thus, instead of placing a large greenhouse on the roof, the entire façade of the building could be a vertical greenhouse – a very large “green façade”, which would be made up of two single layers of glass between which the Areca palms and Mother-in-Law’s Tongues would grow. The natural up-drift of cold air from the ground would then get the air to pass through these plants, which convert CO2 into oxygen, before the air flows into the offices.

This would not make the air 100 percent clean but it would significantly improve the quality of it.

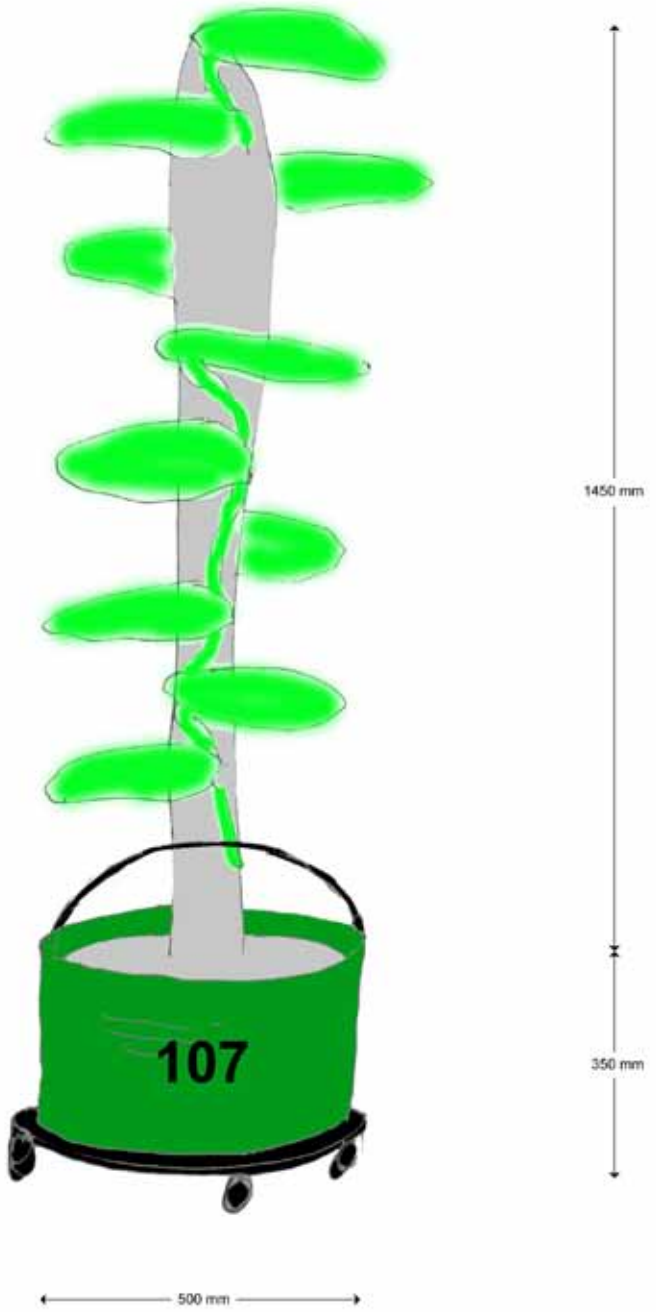
Moveable Plants

In addition to the two aforementioned plant species, Mr. Meattle had identified a third plant – the Money Plant – that absorbs the pollutants in the air. This is also a common plant in India and Mr. Meattle generously placed these plants throughout the office spaces – four plants per person.

The Money Plant is a climbing plant which is placed in a clay pot or a recycled bucket and which grows to a height of about 1.5 meters. If they were to be put together, the plants would form a “green wall” that could be used to divide up the open office space into smaller areas that would simultaneously be both mutually separated and interconnected.

Furthermore, we proposed that the plants be put on wheels so that the “green walls” could be moved around freely. This could be done by the users themselves, according to their various and changing spatial needs.

The Money Plant would also contribute to a de-stressing work environment since each of the employees would be given four plants to take care of – and taking care of plants is a stress-releasing activity.



Moveable desks

Each employee would be provided a workstation consisting of a desk with an integrated locker. The desk would also be on wheels so that it could also be moved around freely and be put together with other desks in various combinations.

The desks could be folded and stored away. Each desk would contain a battery for laptops, lamps, etc., which would be recharged whenever the desk was not being used.

Flexible spaces

The flexible self-organizing green office space can be configured – and reconfigured – in endless variations.