



*Living with rain
- surviving
with water*

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Water is a harsh, vital element. Up in the air it's clouds, in the mid air it's beautiful rain - but when it hits the ground it can form a river, fill a glass to drink or bring a whole city to a standstill. Mumbai has an ambivalent relationship with its water: loving it to hating it and needing it to wanting to get rid of it. Water, like energy never fails to disappear, it only changes its form through a process; from pure rain water as white water, to dustier murkier once used grey water to unusable contaminated black water.

Most often there's too little of it, and some days there's too much of it. And when you have too much water, there's actually very little you can do for it. You can collect the rainwater, and Mumbai should - there's actually more than enough of it for everyone, but the issue is in preserving it. Rainwater is only good for few months and it takes up a lot of space, as you can't really make a litre any smaller - it is a volume.

In our exhibition we tried to tackle few of the biggest issues when it comes to water in Mumbai. Behind every design, big or small, there is the same backbone as a end result of a thinking process we went through when taking a closer look at water as an element and its sources and processes in Mumbai. The numbers and the state of some aspects of it are just staggering.



THE FIVE GARDENS PARK



WATERBROTHER
SISTERS+MOTHERS+FATHERS



RIVER MITHI SCENARIOS

Living with Rain in Mumbai:

Mumbai rains are both a source of delight and dread. When the city misses out on its expected date of rain each year, there is panic as to wherefrom the burgeoning population will get their source of water? If it precedes the expected date, there is cheer and happiness that the city will meet its water resource expectations through the year-rainwater, elixir of life.

Those who are permanent residents of the city claim proudly that the quality of drinking water is the best in the country. The taste, texture, the digestion, the purity.....everything about it is par excellence. Rainfall is the primary source of drinking water for everyone. Environmental degradation has brought the city into a veritable disaster-prone time bomb, resulting in climate change and unpredictability of the monsoons. This has not happened overnight but has been a result of wrongful policies and actions over a period of time.

Five Gardens

- A sustainable model for Mumbai parks

Five Gardens is a park located in the center of the Mumbai City. The park has been maintained by the municipality and the surrounding communities, but lately the state and the development of the park has been static. We were given a challenge to look at the park from both the tangible and intangible perspectives: how the park looks and what functions it offers to the people, the users of the park. The park is a peculiar one in the sense that it is located in a cross section of public roads so even though it is used by a lot of different people, a certain lack of ownership is present.

Although our case is about the Five Gardens specifically, there is a pattern to our choices that could be turned into a method for planning other Mumbai city parks too.

Instead of just prettifying the park, we looked at it by its sustainability aspects. By the well known (although debatable) typical triple division of sustainability; the economic, ecological and socio-cultural aspects of the park.

Lawns should be green, flowers fresh and the whole place spotless - but who's going to pay for it. The work with the park doesn't just stop to the finished end result, but it needs to be maintained as well. We have few different suggestions, of what could be done in this park, and parks alike in Mumbai. One simple, yet quite top-down solution could be to plea for corporate funds in exchange of advertisement space, like in the hanging billboards under the bridges where a company could welcome its guests to the park. Or it could be organised more on level-to-level manner; so grant permits to certain vendors to sell their goods that are park and park function specific; like cafes, sporting goods, kids clothes, picnic food and flowers. Instead of paying a direct rent of the permit, the owners can either contract the default maintenance company, find their own or even do the work by themselves, as long as the park stays in order. Watering the lawns, developing the park and all other bigger purchases come from a shared fund that is gathered as a percentage out of all of the shops and this pooled money is untouchable, unless there is a vote on where and how it should be spent. The vendors responsibility is to keep the park clean and enjoyable, so every morning it looks a tiny bit better than it did the day before. The shared fund can be also raised by renting out

the park for social gatherings like small concerts, weddings and kids parties. It is still important to remember that a park is ultimately a non-economic zone, so free use of the park has to be allowed to all willing visitors. No one should have to pay even a price of a coffee for to be able to sit down and enjoy the green areas of a city.

From the socio-cultural perspective this, as almost all the other parks too, serve a vast and heterogeneous population - especially when located next to public roads. Park is in a way a semi-defined functional space and also a semi-public space. An empty lawn itself caters a lot of different activities, and that is why we have suggested some of them to happen in their assigned lots; like sports and play. So even though the visitors are free to do, what is normally done in a park, there are assigned spaces for some activities and groups. The existing park already seemed to have some specific functions and behaviors, so it made sense to us to try to enhance them.

And a park is a semi-public space, meaning that even though it's not selective to its visitors, but there is a sense of jurisdiction by the vendors, the police and the rules to the park. The rules to the park should be laid in a soft-paternalism way with minimum of restrictions but a lot of suggestions and without restricting the well behaved visitors but penalising the ones who cross the rules, for example not banning to bring your own food to the park but fining for littering. For this, some of the amenities of the park could even work on reservation basis so a small money pawn is paid for a table which is then returned if the place is handed back in good shape. The park should allow and gratify its users and only restrict things

that harm the park or its other guests.

Environmentally the biggest impact of the park, in a sunny city like Mumbai comes from the watering of the lawns and plants. Under the park there are several wastewater pipes running with highly nutritious and easily upcyclable (making black water into grey water) that could be used all over the park. Tapping a sewage line is easy and as we learned from an example of a close by golf course very viable and also cheap. Before pumping sewage to the lawns the water needs just some simple treatment to make it safe for the park maintenance people to handle and like said, sewage water is actually very nutritious with potassium and such that are vital to plants. Since the park is watered with gray water, the park needs to have a good color coding for everyone to understand what water is safe to use. Although all this is taught to people in the Kids parks exhibition, the visitors are guided all over the park by making the drinking fountains bright white, since that's where the white water flows. The water areas with gray water as well as the watering equipment are color coded gray, since those carry is the upcycled water and all the toilets are black since that is the process of black water. This guidance, with the playful garbage collectors, makes the whole park an educative tool too, where good sustainable behaviour is made simple and visible. From using the appropriate water to its needed use to easy and fun waste collection and perhaps even separation and recycling.

Of course all of the parks constructions, furniture and other amenities are built with sturdy and long-lasting materials that have a good MIPS (material impact per service) numbers, making it a bit more

expensive by the upfront costs, but sensible in the long run.

From our field trips to the park we recognized five different functions in the five different sections of the park. The middle of the park, the round about that's built to circle a pond could be seen as an island of serenity, where you take a slow stroll and you calm down next to the vital natural elements of water, soil and plant. The center is surrounded by water and plants to create a feeling of positive isolation. The center has a multi storey pond and a fountain that works as a destination to your stroll. It's all about beauty, colour, natural elements and enjoyment of the vicinity of nature in the middle of the concrete jungle of Mumbai. If you see a lovely flower or a plant that you'd want to grow or gift yourself, you can buy all of the parks greens from a small shop at the entrance.

The first section of the park already functions as a sports field, there's now few undefined lost where people play football and other sports, and there is an open air gym in one far corner of the lot. On our field trip this section seemed to be one of the most popular ones, and with that the most used one - all though the current state isn't that good. Outdoor sports of course is an activity that should be supported and enhanced for its health qualities, both physical and mental and for it's communal properties, so naturally our suggestion is to keep the sports grounds, with few new improvements to it; like drinking fountains, bicycle parking, audience stand for the home field matches and a small sports shop, that carries some basic needs like energy drinks, balls and bandages.

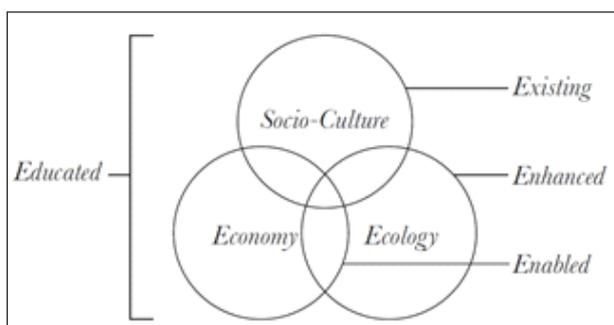
From the sports fields one can safely walk over a wooden pedestrian bridge to the childrens section

of the park; to the kids educational play field.

There's already some improvement work going on at this field, so our suggestion is only partial to the lot. Next to the play castles there could be an open space, with natural roofing and a standing permanent exhibition about the philosophy of the park and more specifically about water related topics. The kids hear and see information about saving, sharing and resource smart use of water and can then move to the grounds to play a board game that is set to run through the whole lot on big and safe illustrated tiles. One proceeds in the game by remembering the correct answers from the exhibition, and ends up in either of the two options: by making bad, irresponsible and water consuming choices we end up in a waterless world, the desert - by making the right, sensible and resource smart choices one ends up in the water park. Both the desert and the waterpark aren't just end results of the game but also things to play with for the kids. They can use the biggest sandbox ever to build and run around and the waterpark to see what qualities the element of water has, like it's power to turn the water wheels and it's ability to make plants grow.

Next to the kids field is naturally a Family park. In this slower paced field families can have picnics and even kids parties and other gatherings around the park tables and comfortably under the rain/sun covers. There's tables and benches but also a lot of nice lawn to spend your day and have a walk around and around the never ending loop. In this corner of the park, there's also a small Police stand, public toilets and food carts.

From the Family park one can take yet another beautiful bridge to the next lot, which is set up for



different size and type of crowds to have meetings and gatherings of that sort. While visiting the park we saw many groups of men different ages standing and talking so we planned to place few objects of help to them. In the corner next to the Family park, there's some noise isolating bushes that takes in few round table groups for sit-downs. A corner closest to the street there is a part of the park that is meant for the passers by to take a rest on their walk or bicycle ride, where they can sit and enjoy the park and its fresh water - even just for a while. At the other end of the lot there's a performance stage and amphitheater seating built to the grassy ground for performances and public talks. Corner coffee shops sell the best espressos in the city and the tall trees growing above should be left alone, since they seem to inhabit thousands of bats, whom shouldn't be forced to move just because of the park renovation.

ECONOMY

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of advertisement space, like in the hanging billboards under the bridges where a company could welcome its guests to the park.

Or it could be organised more on people-private-public manner; so grant permits to certain vendors to sell their goods that are park and park function specific; like cafes in the meeting areas, sporting goods close to fields, kids clothes in the educational park, picnic food in the garden and flowers in the middle. Instead of paying a direct rent of the permit, the owners can either contract the default maintenance company, find their own or even do the work by themselves, as long as the park stays in order.

Watering the lawns, developing the park and all other bigger purchases come from a shared fund that is gathered as a percentage out of all of the shops and this pooled money is untouchable, unless there is a vote on where and how it should be spent. The vendors responsibility is to keep the park clean and enjoyable, so every morning it looks a tiny bit better than it did the day before.

The shared fund can be also raised by renting out the park for social gatherings like small concerts, weddings and kids parties. It is still important to remember that a park is ultimately a non-economic zone, so free use of the park has to be allowed to all willing visitors. No one should have to pay even a price of a coffee for to be able to sit down and enjoy the green areas of a city.

SOCIO-CULTURE

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2014 Inter design Mumbai workshop in association with We School

5-19 February 2014

ICSID is the apex body of Industrial Designers and has as its members leading national bodies representing designers as well as leading global Design corporations such as Apple, Autodesk etc

*The Inter Design Workshop has been conducted for over 30 years once in 3-4 years in different parts of the world. The 2014 Inter Design, Mumbai with a theme “**Humanizing a Metropolis**” was hosted by We School at its Mumbai Campus. 30 National and International designers representing 10 nationalities volunteered their time, efforts and Design skills to analyse the problems of Mumbai and propose solutions to some of these in an intense workshop mode. The participating designers representing reputed organizations such as Microsoft (USA), Godrej Industries, Tata Elxi to name a few. Each subtheme team comprised of ICSID Designers Faculty & Students.*

The workshop had following subthemes -

- *Zero Waste Household*
- *Living with Rain*
- *Health on the Go*
- *Visualising Matunga as an Educational Township*
- *Redefining the outdoor experience for a citizen*
- *The Great Indian Bazaar (unorganized retail in Mumbai)*

The design process involved interacting with stakeholders, domain experts, MCGM and related governing bodies and others.

The exhibits can be viewed in We School Campus with prior appointment.

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