

# Bicycle Friendly Area

Design Workshop

18th May - 17th June, 09

Auroville

Shiba Sheikh

Project 1

VC-08625805



*The path, the bicycle and the cyclist are all one ...*

## Prologue

A team of 16 students/professionals comprising architects, product and graphic designers were brought to Auroville, an international township in Tamil Nadu to try to make the city more bicycle friendly. A possible outcome of the project are products or systems that can be applied in other urban spaces.

## Participants

Akshay Roongta  
Anshu George  
Animesh Shrivastava  
Deepti Kundra  
Kumarappan Balagi K  
Mukta Limaye  
Nash Paul  
Priyanka Marawar  
Priyanka Bobal  
Richa Varun  
Rishab Parmar  
Silky Aurora  
Supratim Sengupta  
Vidya Appu  
Yamini Jajoria

## Auroville Mentors

Alok Mallick  
Chandresh Patel  
Dhruv Bhaskar  
Hemant Lamba  
Minhaj Ameen  
Mona Doctor-Pingel  
Prashant Hedao  
Raghu Kolli  
Suhasini Ayer-Guigan  
Tejaswini Mistri

## Sponsors

Aurore  
Auroville Community Transport  
Auroville Foundation  
Auroville Design Consultants  
Auroville Road Services  
Auryaj  
L' Avenir d'Auroville  
Bamboo Research Centre  
BuildAur  
Cafeteria Visitor's Centre  
Centre for Scientific Research  
College Guest House  
Mona Doctor- Pingel  
Prashant Hedao  
Raghu Kolli  
SAIIR  
Solar Kitchen  
Ulrich Blass  
Upasana Integral Design

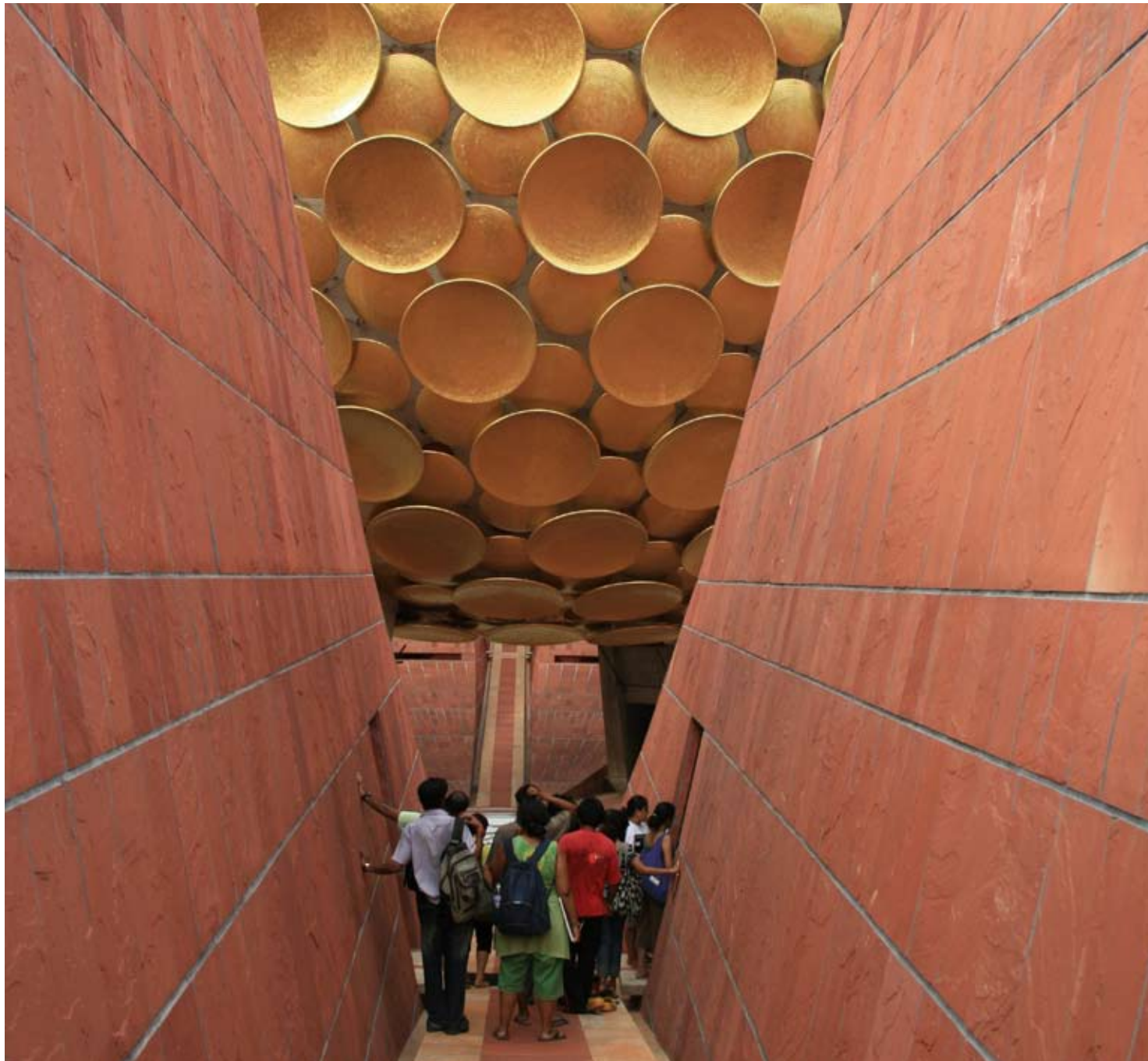
## Acknowledgements

Kumaran  
Bindu Mohanty  
Jeff  
Teja



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## Auroville

Auroville is meant to be a universal town where men and women of all countries are able to live in peace and progressive harmony, above all creeds, all politics and all nationalities. The purpose of Auroville is to realize human unity.

It was founded in 1968 by Mirra Richard (since her definitive settling in India called “(The) Mother”) and designed by architect Roger Anger. Auroville was founded as a project of Sri Aurobindo Society on Wednesday 28 February, 1968 by The Mother. She was an equal spiritual collaborator of Sri Aurobindo, who believed that “man is a transitional being”. The Mother expected that this experimental “universal township” would contribute significantly in the “progress of humanity towards its splendid future by bringing together people of goodwill and aspiration for a better world.” The Mother also believed that such a universal township will contribute decisively to the Indian renaissance.



We can change the way we live.  
By creating a better environment around us in which we can use less energy, breathe clean air and stay healthy.  
Design for a cause, not just need.

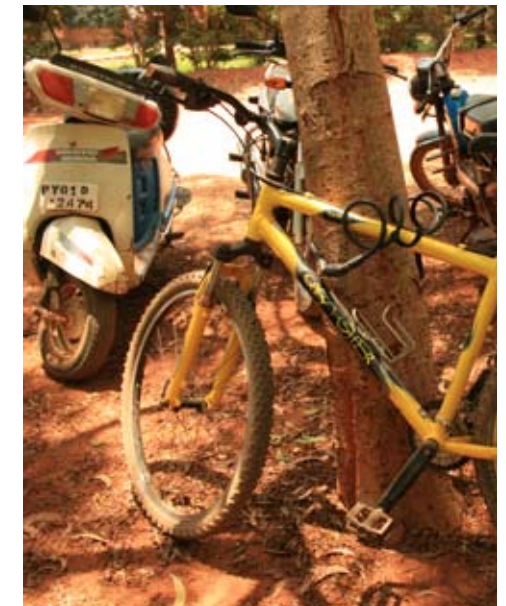
### Sustainable Mobility at Auroville

The International Township of Auroville (near Pondicherry in South India) has a population of over 2000 residents and a floating population of several thousands more who need to move around daily in a forested area some 10 kilometers wide. As an ecologically conscious community,

Auroville encourages use of bicycles and non-fossil fuel based vehicles for transportation. Hence we explored innovative ways to create a sustainable physical environment that provides a safe and pleasant cycling experience in tropical conditions.

### Bicycle Friendly Space Design Workshop

The aim of Bicycle Friendly Area design workshop was to research, conceptualize and prototype a few components of environment (pathways, shelters, lighting, signage and accessories) using local and natural materials to create new forms with minimal eco footprint.



We were an interesting group of young professionals and students from all over the country who came together during this workshop. 16 participants and all the Auroville mentors together made it possible for this collaboration to happen.

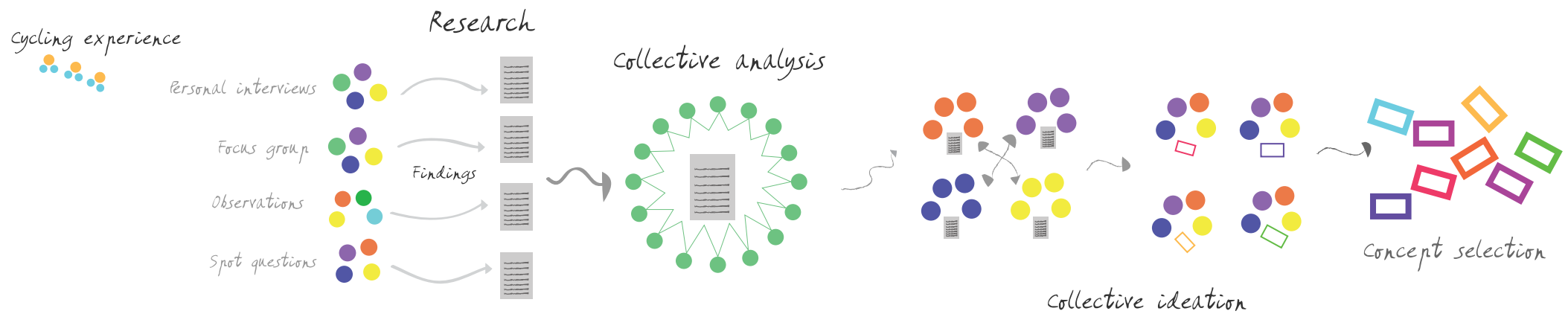


## Participants





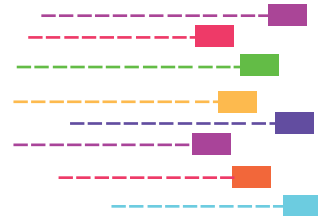
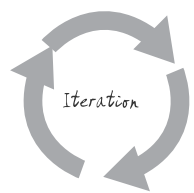
## Workshop outline & schedule



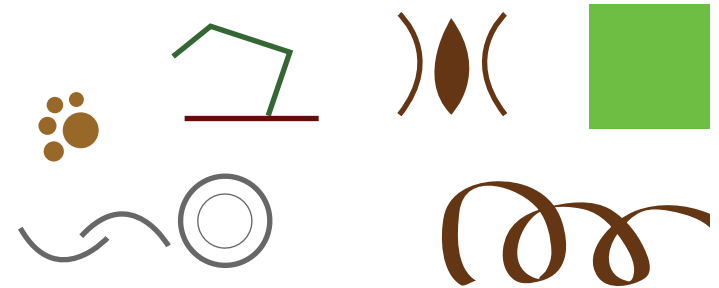
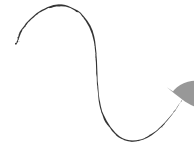
Week 1: Orientation, project briefing, team building, research, ideas review  
Week 2: Analysis, design brief, concept mock-ups, design review



## Workshop outline & schedule



Construction



Demonstration

- Week 3: Design detailing, materials, prototyping review
- Week 4: Construction, testing, installation review
- Week 5: Demonstration and closing



## Outcome

As the outcome of the workshop, a small stretch of bicycle path was constructed and show cased with prototypes: 1. Bicycle shelter and stand 2. Bicycle path and entry barrier 3. Signage 4. Lighting 5. Bags, bike wear 6. Map etc.



## Cycling experience

The workshop kick started with each one of us being handed a cycle to get used to the environment and cycle paths and understand the scenario for which we would be designing.

We were taken on a tour of Auroville by Gillian a resident Aurovillian for many years who has been the pioneer in setting up cycle paths and using cycle as the only medium of transport around Auroville.

Cycling around the terrain and using the existing pathways over a couple of days gave us first hand idea of what we were looking at in terms of design problems and what can be done to involve more people into the activity of cycling.

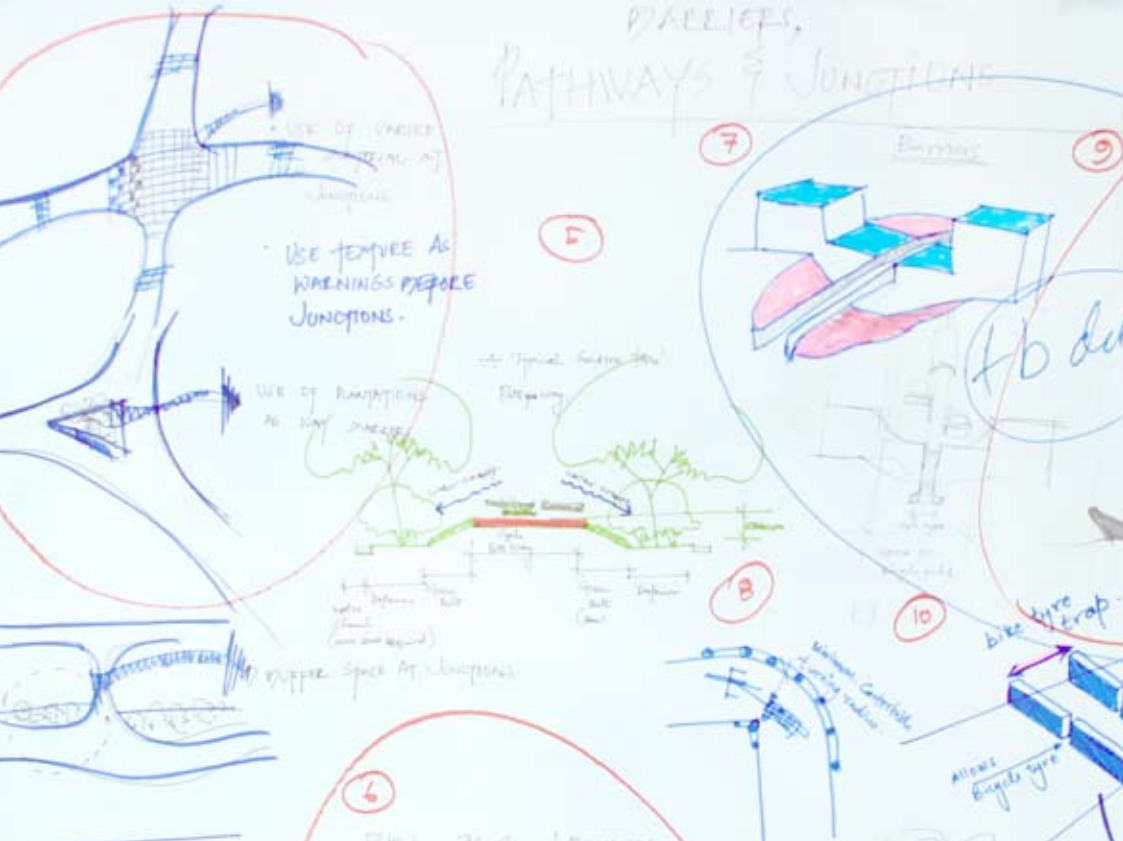
- 1 & 2. Cycle tour with Gillian  
3. Cycling during the workshop  
4. Cycle paths in Auroville



## Research

We were split into 4 groups of 4 each. Each group carried out a different form of research. Spot questions, Personal Interviews, Focus groups and Observations. Based on the requirement of each methodology we gathered users and observed them. The upside to using 4 different methodologies was that we got a holistic overview of current situation, patterns and problems from a varied group of Aurovillians. Both cyclist and non cyclists also about what they felt about creating a Bicycle friendly areas for Auroville.

All the findings of the various research processes were then taken forward and collectively analyzed. Collective analysis lead to a lot of key areas that came into focus like Path lighting, Shelters, Parking spaces, Pathway itself, Navigation and Signages which was then taken forward to the collective ideation phase.

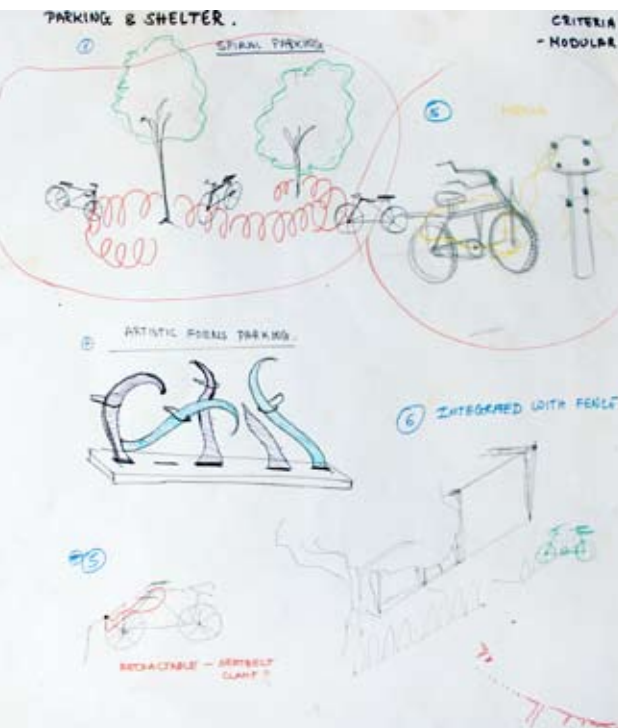


## Collective Ideation

The collective ideation process was a completely new concept we got exposed to, where we were all collectively ideated over a particular design problem.



We were again divided into groups of four each then ideate over a particular subject for instance barriers, and switch groups and again discuss. This lead to an intensive and exhaustive method of contributing different permutations and combinations of concepts and ideas which were taken forward as design solutions.



A number of interesting ideas, some not even expected came out of this exercise. All of which were presented and analysed. It helped understand each others strengths and weaknesses but also open our minds to different patterns of thinking and conceptualizing that would not happen otherwise working in isolation.

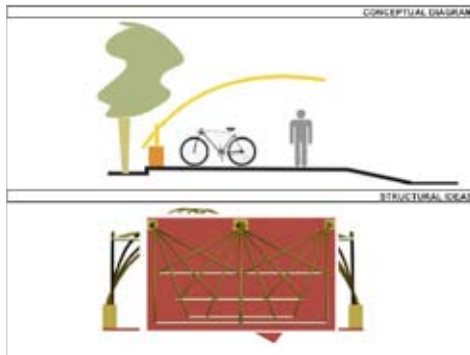
The Collective Ideation process lead a number of interesting concepts. From which it was decided to work on eight key areas based on the time deadline. The eight major areas that was decided to work on were closed parking shelter, open parking, pathways, lighting, barriers for motorists, rest stops and cycling map. From here on all sixteen of us were divided into groups of two or three each

depending on the scope of work. From here we worked individually in our respective groups until the final construction stage. The individual groups worked on the iterations in design of the original concept in accordance to its feasibility and practicality . A great deal of focus was laid on readily available materials. Costing was done down to smallest detail to make sure the funds donated to us was dispatched

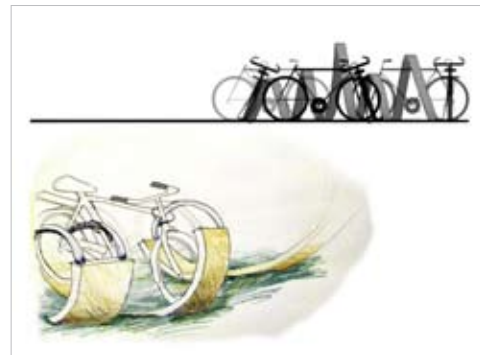
equally to all groups depending on the complexity and detail.



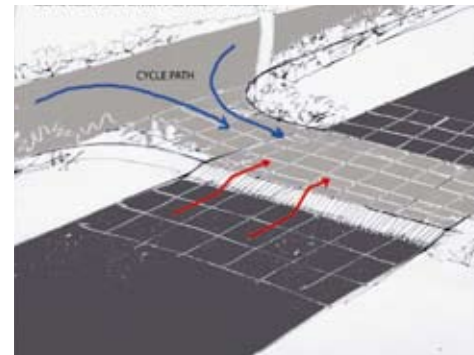
## Selected Concepts



1



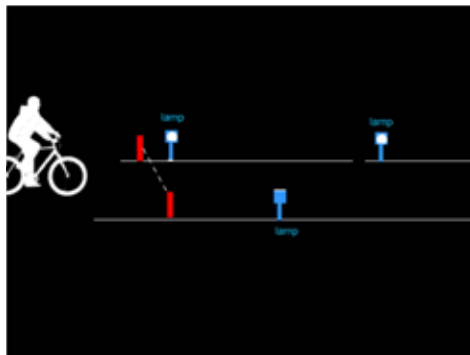
2



3



4



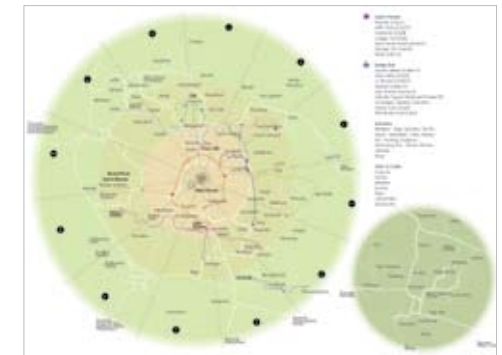
5



6



7



8

1. Parking Shelter
2. Open Parking
3. Pathway
4. Products
5. Path Lighting
6. Barriers for motorists on cycle path
7. Rest stops
8. Cycling Map



## Auroville Cycling Map

Auroville Cycling Map is the project I took forward. We were two people in one group. Our main task was to work on a cycling map from scratch as something like this never existed. There is an Auroville map which already exists but didn't seem to be very user friendly.

We went back to the extensive research conducted to see what could be done for the cycling map keeping the guests that come to Auroville in mind. Focussing more on the activities that they would like to explore and key problems they would face while cycling in Auroville. When the local Aurovillians were asked if they needed a cycling map or not they responded by saying that they didn't really need a map to get around since they already knew the places to get to and preferred looking and discovering their own paths .



## Results of Way finding Research

The current map has no indication of cycle paths.

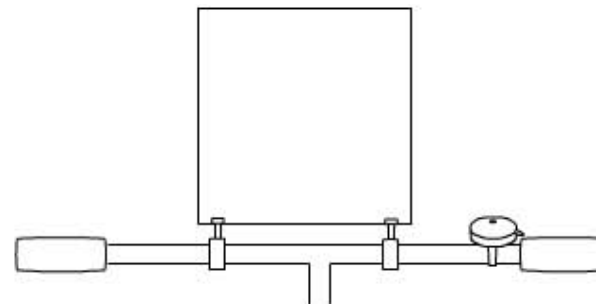
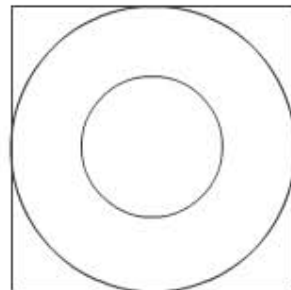
Guests often cannot follow the map or orient themselves in Auroville.

Some local Aurovillians would also like to discover new paths and use a map for reference.

## Physicality of the Map

A number of issues were kept in mind while designing the cycling map for Auroville. Since it was going to be mostly guest centric the size, orientation and folds etc was what our focus was on. Initially we were also looking at options of using a format such that it could be fastened on the cycle itself but eventually it was decided to work in the A3 format considering the scale and readability of the map.

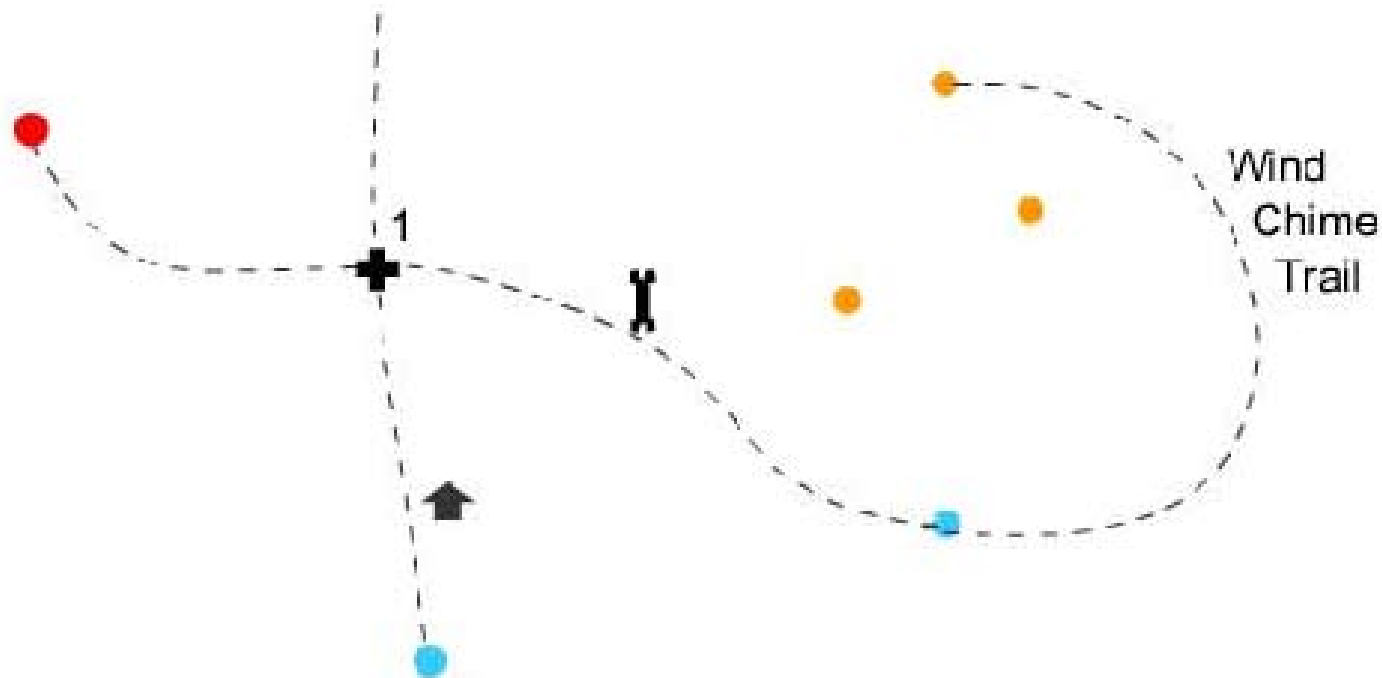
The first version is in a folder format with the map on one side and the expanded legend and details on the opposite side. Guests can conveniently open it and refer and fold it back and either carry it in there front pockets or back pack etc.



## Content of the Map

The map is intended to be mostly used by guests coming to Auroville, hence some basic information is very important to be clearly classified. For example the different regions of Auroville, Naming of pathways as currently it didn't exist. Naming key junction point. To make even giving directions easy as now there is no landmark as such which exists.

Time. Distance is also a parameter which we were looking at including.



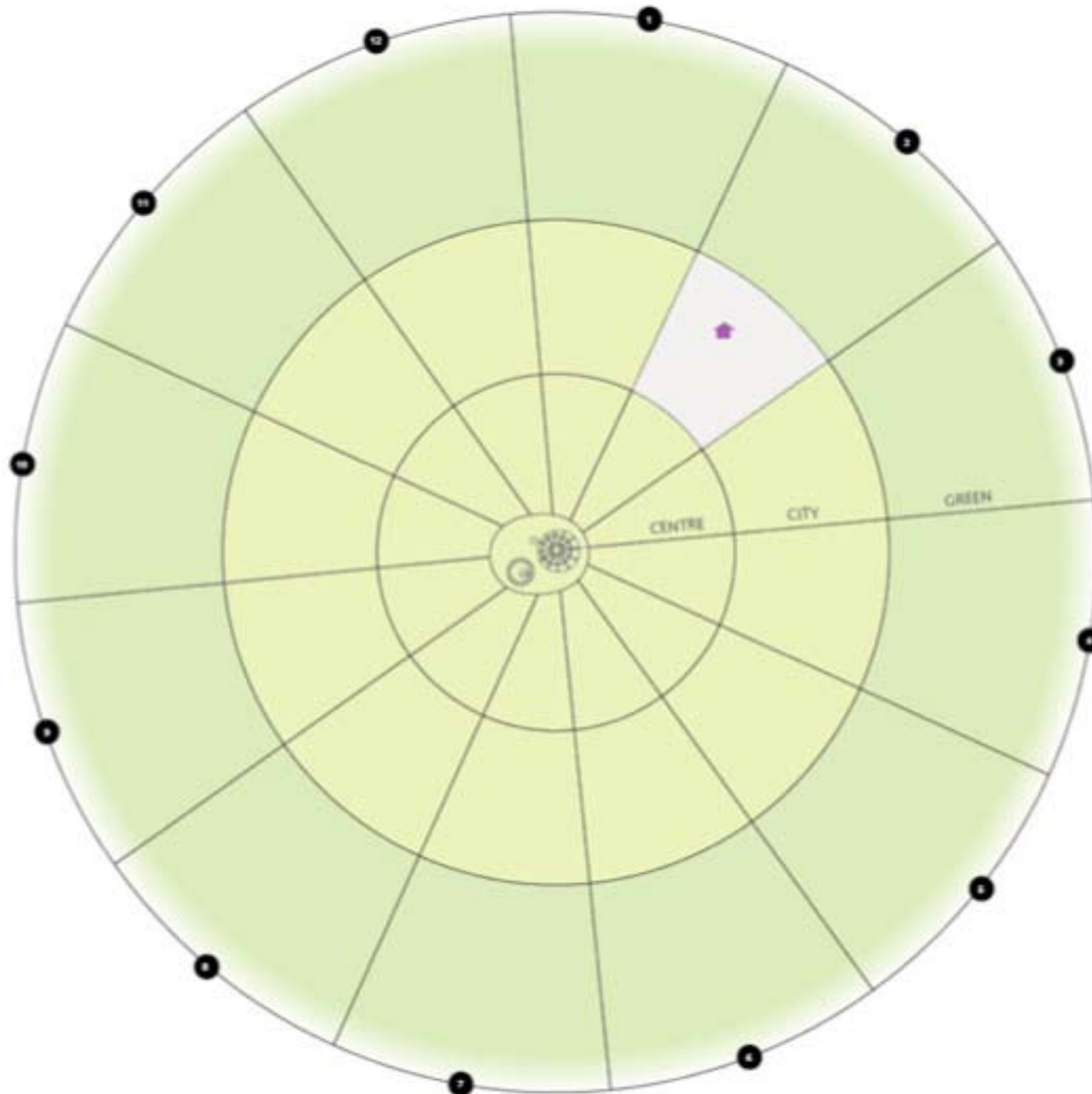
Color coding of zones (Residential, International,  
Cultural and Commercial)

Numbering/ Naming Junctions

Naming of trails

Key Cycling routes

Time/ Distance between key points



## Radial Grid

The main problem mostly observed was orientation. Often guests found it difficult to tell which direction was a certain point. Hence to solve this problem a radial grid was introduced. The Matri mandir is the central landmark of Auroville and mostly all other major landmarks are situation around it. Hence, the map divides Auroville into three concentric regions, the centre region being the centre then city area and the green belt.

Hence if a guest house was located in the city area, then the legend would have information like 8 centre or 12 city. Making it easy to give a general idea of which area the guest house is located in instead of giving co ordinates as in horizontal grids.

## Icons

The Auroville cycling map needed icons to make it informal and interesting for the guests. The icons in whatever style had to be legible on the map.

19 icons were designed for the various activities and industries that were important to be represented on the map. Technique of thick and thin strokes and flat colors was used so that when the images were scaled down, the discrepancies in the strokes would differentiate the area of flat colors which would add character to the icon.

- |                |                     |
|----------------|---------------------|
| 1. Art         | 14. Pottery         |
| 2. Dance       | 15. School          |
| 3. Farming     | 16. Shopping        |
| 4. Fashion     | 17. Sports          |
| 5. Films       | 18. Stone sculpture |
| 6. Cafe        | 19. Wellness        |
| 7. Forest      |                     |
| 8. Guest house |                     |
| 9. Incense     |                     |
| 10. Jewelry    |                     |
| 11. Library    |                     |
| 12. Music      |                     |
| 13. Paper      |                     |



Art



Forest



Paper



Wellness



Dance



Guest House



Pottery



Farming



Incense



School



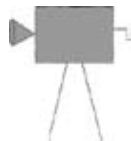
Fashion



Jewelry



Shopping



Films



Library



Sports



Cafe



Music



Stone sculpture



## Junctions and Cycle Paths

All the cycle paths and junctions had to be named or given some way of identification since they didn't exist.

A system had to be considered while weighing options of naming or numbering the paths and junctions as many new paths and junctions could be added and not necessarily in an order. Auroville has many native trees and flowers which "The Mother" had identified. They are of great significance to the lifestyle people lead. Hence it was decided to name the pathways based on the native trees and important junctions on the flowers. Each junction would hence also have a sculpture or installation of that particular flower which would make identification easier.

### Legend

- 0 1 km  
SCALE: 1:20000 DATE: JANUARY 2009



## Finding your way

## Fashion

Mina Boutique (City9)  
Products of Amang, Autisms, Fibre, Flame, Miniature  
and Shradhanjali  
282-2589  
minaboutique@autville.org.in

Wild Seagull Bookshop (Kovilpalayam)  
Books by Sri Aurobindo, The Mother, Satprem and Kireet Joshi  
CDs, cassettes and handmade stationery items  
262-2017  
aurobindopress@gmail.com, in

Aurville (Kyllburgers)

Aummins (Green LLC)  
Handknit sweaters, crochet and leather goods  
262-2019/262-2040  
aummins@aurville.org

Autummode (City12)  
 Garments & accessories in hand-painted silk  
 262-2060/2167  
[autummode@autoville.org](mailto:autummode@autoville.org)

Highway 10 City 123  
 Beaded wear and tapestries  
 262-2660/93444-55558  
[pillan@caroville.org](mailto:pillan@caroville.org)

Discovery (Kuyilagarapatti)  
Garments, bags, dolls, hammocks and handicrafts  
202-2025  
karma@aurville.org.in

Bevko (City 42)  
Garments  
262-20842526  
bevko@aurville.org

Memories from the Future of Light (Green)  
Silver and gold jewellery, gemstones, crystals,  
sculptures and t-shirts  
262-2075  
[www.victoriapark.org.au](http://www.victoriapark.org.au)

Rangoli (Cley) 2)  
Clothing  
263-2628/2563  
rangoli@audville.org.in

Uppasana Design Studio (City 1)  
Garments and garment design  
262-2938/2957  
uppasana@australlie.org.au

Lively Boutique 804y111  
 Garments, curtains, cushions, leather items, pottery-ware  
 233-0166/262-3460  
 lively@survills.com

The Colours of Nature (City12)  
Purely naturally dyed textile garments and fabrics  
26225679345428200  
colnature@surcouff.org.in

## Wellness

Quiet Healing Centre (from Kuyilapalayam)  
Therapies : homeopathy, bio-resonance, aqua balancing,  
crystal healing, polarity therapy, hydrogen peroxide bath  
Body work/massage : Ayurvedic Massage, Lymph Drainage,  
Underwater massage, Shiatsu, Thai Massage  
Classes : hatha yoga, dance

Ceritude (Green)  
Badminton, Basketball, Football, Table Tennis, Tennis  
Ultimate Frisbee, Volleyball

New Creation (Kovilpalayam)  
Aerobics, Badminton, Basketball, Cricket, Gymnastics,  
Swimming Table tennis, Tennis, Volleyball, Weightlifting

Dorkali  
Running tracks

Agreement  
Registration

Marts at Sarniga  
Fairthi

## Ceramics

Kratz's Workshop (Green3)  
Ceramic pottery & sculpture  
262.236.9443/45386  
aloka@sureville.org

Mandal Pottery (Tucson)  
Handmade, smoke fired pottery, designer  
tiles, ceramic wall murals, mirror frames.  
2622605  
sumanda@psnho.com

Maura [City12]  
Handmade glazed stoneware/pottery items  
2022173/2567  
maura@aurpwic.org

## Paper

**Radiance (City12)**  
Design plus decorative items using paper, stone, glass, wax, brass and stainless steel

Shradhargali (City12)  
 Pressed flower cards and stationery; flower decorated  
 tishades, trays, screens  
 202212/3700  
 shradman@aurisville.org.in

Alaska (City12)  
Paper companies  
2672500  
alaska@earthlink.net

Aunville Papers (Kuyilapalayam)  
Handmade paper items  
2622132/2619  
aunvillepapers@aunville.org.in

Joy Postcards (Kuyilapalayam)  
Quality postcards and visual documentation on India  
2622240  
joyindia@auroravill.org.in

Papyrus (Kavilapalayam)

Printing, hand loading, statuary, display items  
3622179  
display@worldwide.org.uk

## Stone works

Flame (Green2)  
Stoneware  
3622071  
flame@pauvrole.org

## Music

Rain Tree Records (Green)  
Recorded CDs and cassettes  
2622339  
raintree13@aunwi.c.org.in

Saaram Musical Instruments (Gernit)  
Percussion, wind and string instruments  
262-2220/994436-58787  
msaharam@saaramile.org.in





## Auroville Cycling Map Version 1.0

The Auroville Cycling Map was called version 1.0 as it was the first draft of what the basic map would like. It had all the guidelines of font, color coding, legend and explanations necessary for future corrections to take place. Since the detailing of the map began in the last phase, we were in constant touch with Aurovillians and our mentor Nicole who works at the visitors centre who clearly gave us insight into what would make the map most user friendly.

A number of aspects still need to be incorporated such as new cycling paths that are constantly changing .

### Wellness

Quieter Healing Centre (From Kuyilapalayam)  
Therapies : homeopathy, bio-resonance, aqua balancing, crystal healing, polarity therapy, hydrogen peroxide bath  
Body work/massage : Ayurvedic Massage, Lymph Drainage, Underwater massage, Shiatsu, Thai Massage  
Classes : hatha yoga, dance

Certitude (Green3)  
Badminton, Basketball, Football, Table Tennis, Tennis, Ultimate Frisbee, Volleyball

New Creation (Kuyilapalayam)  
Aerobics, Badminton, Basketball, Cricket, Gymnastics, Swimming, Table tennis, Tennis, Volleyball, Weightlifting

Darkali  
Running tracks

Aurodam  
Badminton

Marco at Sharnaga  
Tai chi

### Ceramics

Krabu's Workshop (Green3)  
Ceramic pottery, sculpture  
2622233/9443045386  
aloka@aurville.org.in

Mandal Pottery (Green3)  
Handmade, smoke fired pottery, designer tiles, ceramic wall murals, mirror frames  
2622685  
avmandala@yahoo.com

Mantra (City12)  
Handmade glazed stoneware/pottery items  
2622173/2567  
angad@aurville.org.in

### Paper

Radiance (City12)  
Design plus decorative items using paper, stone, glass, wax, brass and stainless steel

Shradhanjali (City12)  
Pressed flower cards and stationery, flower decorated lapshades, trays, screens  
2622172/3700  
shradhan@aurville.org.in

Papyrus (Kuyilapalayam)  
Printing, book binding, stationery, display items  
2622129  
papyrus@aurville.org.in

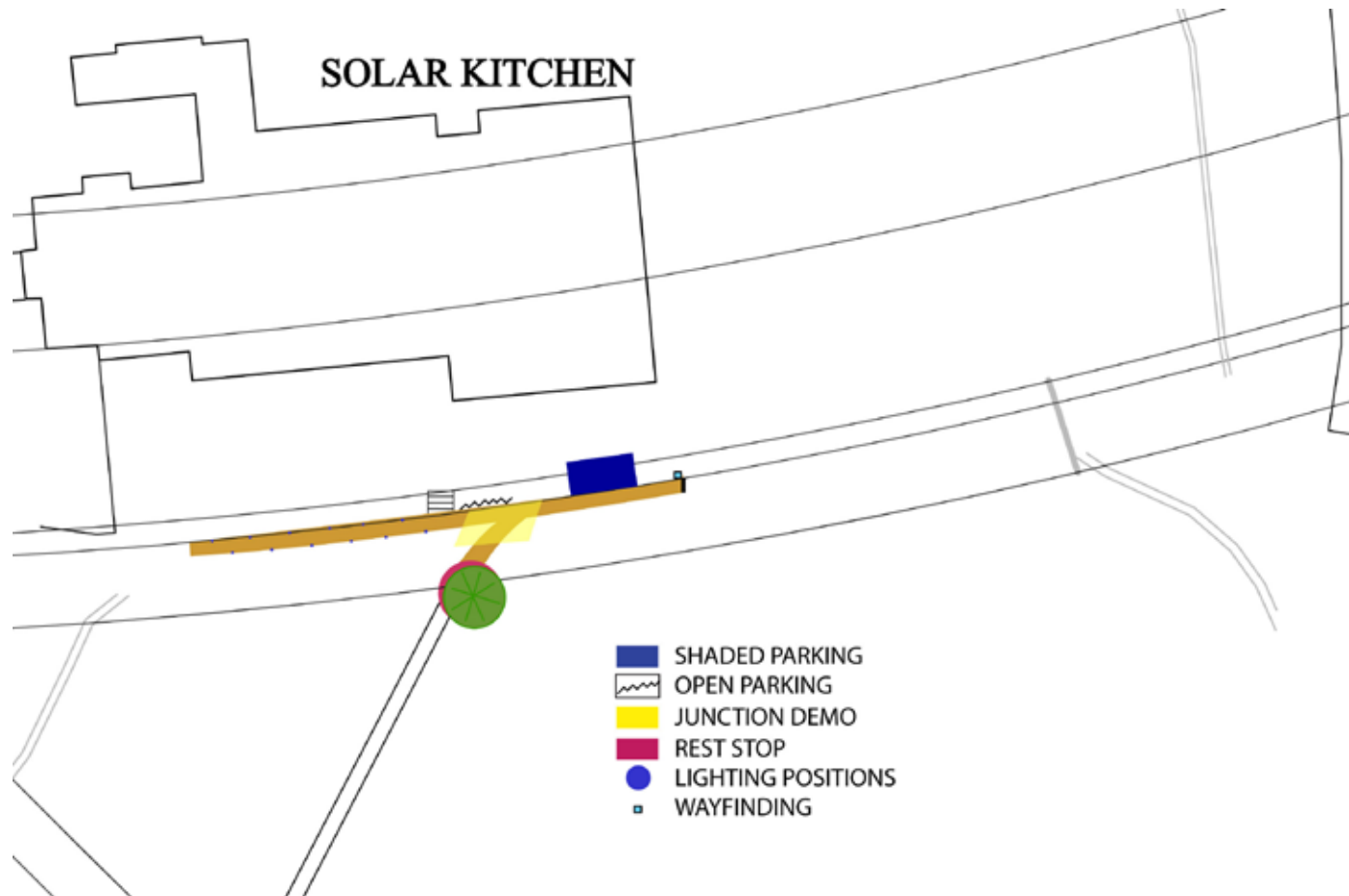
Stone works

Flame (Green3)  
Stoneware  
2622071  
flame@aurville.org.in

Music

Rain Tree Records (Green3)  
Recorded CDs and cassettes  
2622339  
raintree@aurville.org.in

Svaram Musical Instruments (Green11)  
Percussion, wind and string instruments  
262-2220/994436-59787  
mohanam@aurville.org.in



## Final Demo Site

By the end of the one month workshop as stated before a demo site had to be constructed displaying all the proposed designs . Solar kitchen is a community dinning space where most Aurovillians gather for lunch and dinner. Hence this was the most appropriate spot to test our designs . The last phase of detailing and construction took place here . On the final day the 16 June 2009, the demo site was opened for all to see .

## Final Designs



1



2



3



4



5



6



7



8

1. Parking Shelter
2. Open Parking
3. Pathway
4. Products
5. Path Lighting
6. Barriers for motorists on cycle path
7. Rest stops
8. Cycling Map



## Epilogue

As the month draws to an end, we have worked on many different products, experienced much but unlike other projects we realize that this is not an end but is a beginning for the initiative of taking India along the path of becoming bicycle friendly one city at a time.



The End