



HOMEGROWN THINGS

LOCALLY SOURCED OBJECTS FOR EVERYDAY-LIFE





URBZ / Urbanology
Mumbai, July-October 2014

Plot No. 11-0-1, Shivaji Nagar,
Govandi – Mumbai 400043, India

www.urbz.net
www.urbanology.org

Introduction

This project builds on URBZ' involvement in homegrown neighbourhoods in Mumbai and other cities around the world. We are inspired by the vitality of such places that are often unfairly dismissed as slums or informal settlements. We feel there is a lot more to learn from the extraordinary skills and inventiveness of local actors, whether they are ordinary residents or skilled artisans.

We have for long felt that there is a different and more meaningful way to build an inclusive and sustainable city, beyond master planning. We believe that it is not realistic to imagine that homegrown neighbourhoods throughout India can simply be wiped off the map and replaced by the kind of monolithic and sad urbanism that comes in the name of 're-development'.

Instead, we think that ideas and resources can be harnessed in homegrown neighbourhoods themselves. What is needed is the trust and support of decision-makers and professionals in the public and private sector.

The Homegrown Things project is a continuation of the "Handstorm Workshop" that we organized in March 2014 in Shivaji Nagar. The aim of this week-long workshop, which was attended by over 30 local and international participants and included well known architects and designers as well as talented artisans, was to showcase the amazing range of "homegrown" skills available in a neighbourhood that is usually only described as one of the poorest and most depressed parts of Mumbai.

Not only did the workshop produce a range of actual physical interventions in the neighbourhood, but also demonstrated what can happen when worlds that usually never meet, come together.

The result was a creative explosion with the potential of improving the lives of local residents, and unleashing a wave of innovations that could well inspire far away places. This is partly because in Shivaji Nagar "user-generation" is not just a slogan or a concept, but a central aspect of how the neighbourhood is organized and developed. The result was a creative explosion with the potential of improving the lives of local residents, and unleashing a wave of innovations that could well inspire far away places. This is partly because in Shivaji Nagar "user-generation" is not just a slogan or a concept, but a central aspect of how the neighbourhood is organized and developed.

The Homegrown Things project

Drawing on the success of the Handstorm workshop, the URBZ team decided to extend the experience to produce a larger range of everyday-life objects that would be based on the specific needs of end-users and would use the skills available in the Shivaji Nagar area. This report presents the first output of this project in the form of a catalog of objects that are at once banal and extraordinary in the way they insert themselves to affect the everyday life of residents, and in the way they were produced.

Needs were first identified through close interactions with a few families. Products were then designed by the URBZ

team and prototyped by local artisans. The final products were given to the family in the hope that it would marginally improve their quality of life.

Our aim is not to radically transform people's lives through design, which would be unrealistic. Rather we aimed at working within existing conditions along with the people we addressed our efforts to. We believe that incremental improvement can prove just as radical when given enough time and space. Furthermore, we want to show that people know best what they need, and bring recognition to local artisans who generate livelihood for themselves, employment and training for others, and provide much needed services to the community. The local economy is a crucial and often overlooked aspect of development. We worked with it and it proved extraordinarily resourceful.

During the course of the project we interacted with many people from varied backgrounds, cultures and religions. Designing objects with them required understanding their lifestyles, habits, needs and aspirations.

Space constraint is a major issue in Shivaji Nagar, where many families live in spaces as small as 150 square feet. People have to make the most of the little they have and good design can definitely help them. Most of the objects we produced are multipurpose space saving devices.

In 3 months we produced 6 products, which were delivered to the families with which they were designed. More objects are in the pipeline and many more are waiting to be invented.

About Shivaji Nagar, Govandi, M-Ward, Mumbai

Shivaji Nagar grew in the 1980s around the abattoir and Mumbai's dumping ground which were given over to resettlement projects of the city and the state. Slum dwellers from Matunga Labour Camp were moved there in 1968. Additional neighbourhoods within the area were registered officially in 1982.

The entire area is 135 hectares out of which half has a grid layout (69 hectares) and the other half (64 hectares) is "organic", meaning that it was developed outside of any plan.

During the last 30 years, shops, educational institutions, religious structures have developed in the area and several parts of the neighbourhood are full of commercial activity.

While some parts are well developed with "pucca" houses, others are still in bad shape, especially near the dumping ground. Yet, there is a strong collective drive towards reinvestment in housing that has improved the area in successive waves.

The area is diverse and includes migrant communities from Maharashtra, Uttar Pradesh, Bengal and Gujarat (both Hindus and Muslims). The proportion of Muslim community is significant and the area is said to have 101 mosques and madrasas (most of which are Sunni and Tablighi).

THE TEAM

(from left)

Rafique Bhatkar

Has done Mechanical Engineering and Postgraduate Diploma in industrial piping design. He worked with Tata Powers as an assistant project engineer for 3 years .

He now works with URBZ as part time Product designer.

Minakshi Jambalkar

is an interior design diploma student, with an urge to learn and create. She is a resident of Shivajinagar.

Ramandeep Saini

A product designer with a background in electronics engineering. With an interest in design for social needs and development, she joined the project at URBZ.

Shweta Hiremath

is a Postgraduate in Industrial Design from MIT institute of Design, Pune. She has done her graduation in Electronics and Telecommunications Engineering.

With a passion towards social upliftment, she wants to use her design thinking for bringing a change in peoples life.





Matias Echanove

co-founded URBZ and the Institute of Urbanology. He studied economics and urbanism in London, New York and Tokyo. He now lives in Mumbai.



Rahul Srivastava

co-founded URBZ and the Institute of Urbanology. He studied at anthropology in Mumbai, Delhi and Cambridge (UK). He lives in between Goa and Mumbai.



Alexis de Ducla

has an MBA from ESSEC Business School in Paris and has studied Social Entrepreneurship at INSEAD in Singapore. Between 2010 and 2014, he headed the Lafarge Affordable Housing initiative. He now works with URBZ and UrbanLab.



Bharat Gangurde

studied commerce for two years before joining PUKAR, Partners For Urban Knowledge Action and Research, Mumbai, in 2000, as office and research assistant. Since February 2012 he joined URBZ as Office Manager and Researcher. He lives in Mumbai.



Pankaj Gupta

is a contractor based in Shivaji nagar Govandi. He was born in Shahadpur, Uttar Pradesh. His establishment JK Traders has entered into a partnership with Lafarge Affordable Housing Projects in 2011.



Jai Bhadgaonkar

is an Architect and Urban designer based in Mumbai. He completed his masters from CEPT University and is now a part of URBZ team and is working on Home grown cities project.



Ambra Chiaradia

is a graduate student of Architecture, doing her masters at Politecnico di Milano, Italy. She studied in Trieste, Valencia and now lives in Milan. With URBZ she is developing researches on homegrown neighbourhoods for her master thesis.

FOLDING STUDY TABLE

THE HOUSE

Siddhi Kadam is a 3-year-old girl staying in Shivaji Nagar with her parents and a younger sister Vaishnavi, who is 2. Siddhi is currently in Junior KG. Her father works as a peon in a school and her mother is a housewife. The parents take her studies very seriously.





- She sits on the bed while studying. When her parents teach her she sits on the floor.

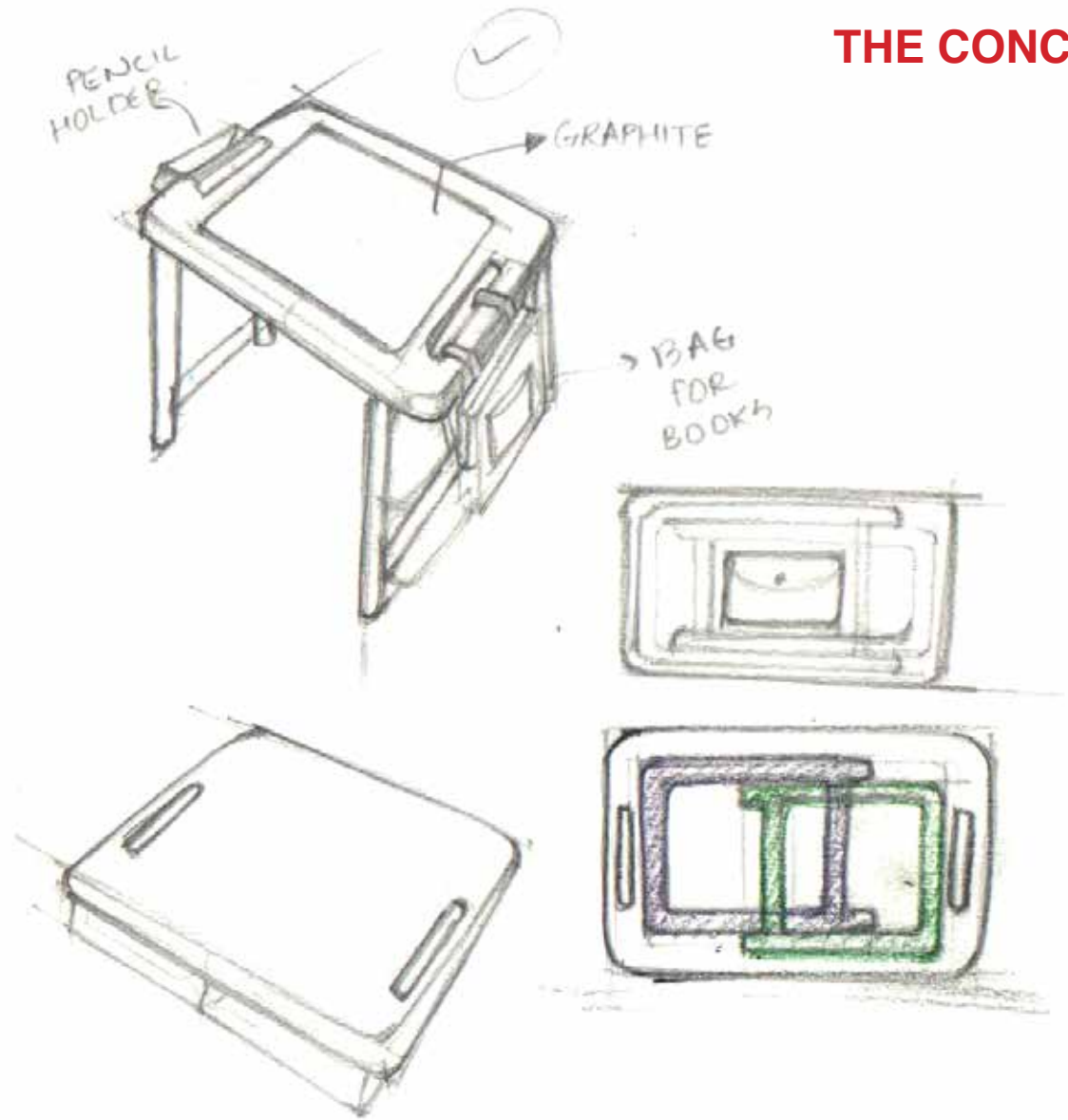
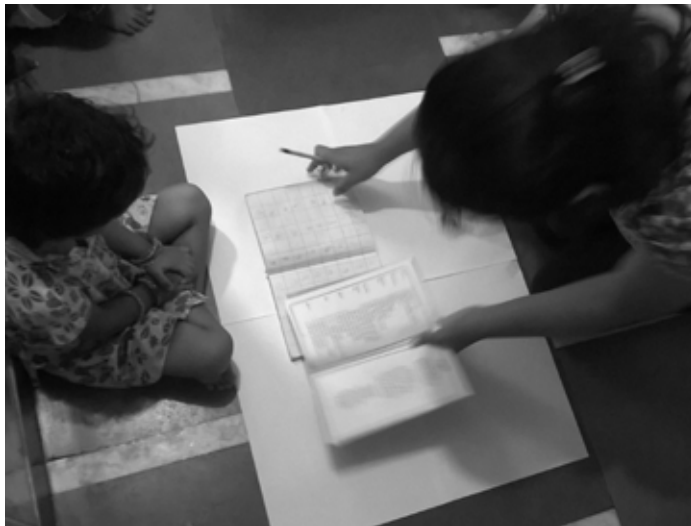
OBSERVATIONS



We designed a foldable study table. It comes with a bag to store books and other school materials. The tabletop is painted with chalkboard material, for her to scribble on.



THE CONCEPT



PROTOTYPING

ARTISANS:

Mr. Mansoor again assisted us from his welding workshop in Shivaji Nagar.

Mr Ajay, carpenter, Shivaji Nagar.
Telephone number: 9819820991.

Mr Ashfaq, bag maker,
Shivaji Nagar.

Telephone number: 869277086.

MATERIALS:

FRAME - MILD STEEL,
TABLE TOP - LOCAL WOOD
BAG - FABRIC



FINAL PRODUCT

“Use table ke upar likhna acchha lagega, bag mein uska saara samaan aa jayega.”

“She will enjoy scribbling, the bag is good to store her stuff.”

1. The tabletop is painted with chalkboard paint so that she can scribble.

2. It has a bag to store her stuff.

3. It get folded along with the bag.

4. It goes inside the space available besides the bed.

5. A “L” shaped metal stopper, which prevents the table legs from falling inwards when open. It can be pushed out when the table is to be closed.



FEATURES

COST ANALYSIS (PROTOTYPE):

FRAME

Material and making cost: 1000 /-

WOODEN TOP

Material and making cost: 400 /-

FABRIC BAG

Material and making cost: 200 /-

PAINTING AND POLISHING

(including material): 600 /-

TOTAL COST: 2200 /-

SPACE OPTIMIZATION



CUSTOMIZATION



The product was to be prototyped in a week. But developing a folding mechanism that was safe and reliable was not that easy. Without a factory made kind of folding+ safety mechanism, the table was not stable and thus could not be used by a kid. We understood why there is almost no foldable furniture in Shivaji nagar, though it is the first thing that comes to mind when one looks at optimizing space. We spent few days trying to find some existing mechanism on the market and went to many different neighborhoods of Mumbai. We then finally designed our own system. We were finally successful and managed to design a safe and efficient locking system

CUPBOARD CUM DRESSING

THE HOUSE


Mrs. Dolly is a recently married lady in a family of 4, which includes her husband, mother and father in law. She works as a computer teacher and her husband works in Saudi Arabia. She doesn't have space in her new home for her clothes. At present, she uses a suitcase, which is inconvenient. She is planning to buy a 'metal cupboard' as the family may well be growing soon. She also needs a dressing table. She does not have enough space to have both pieces of furniture in her house, which brought her to us.





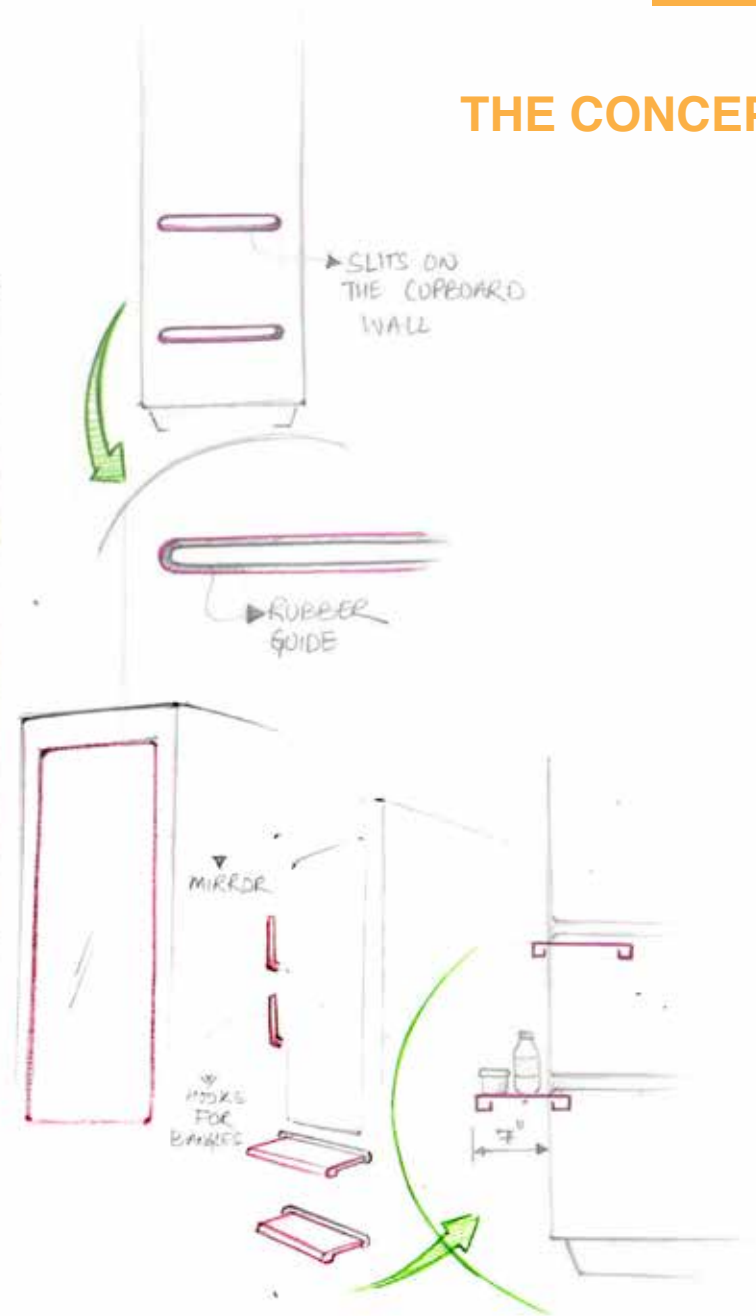
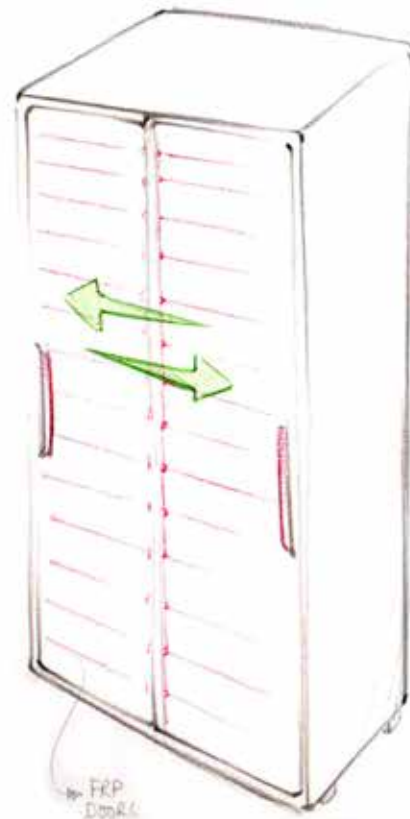
- Clothes are kept in a suitcase.
- Cosmetics are packed in boxes and kept in a bag.

OBSERVATIONS



Is it possible to customize the common metal cupboard and incorporate a dressing table in it? We wanted to make simple changes without altering the complete design so it is easy to manufacture, and cost effective, while still providing old benefits. The side of the cupboard was used to create a dressing with mirror and retractable shelves.

THE CONCEPT



PROTOTYPING

ARTISANS:

Mr Madan Solank, cupboard maker,
Gautam Nagar.
Telephone number: 9820162036.

Mr. Madan Solanki owns a sheet metal workshop at Gautam Nagar and has a team of 4 people. He is a very positive and dynamic person. He is welcoming and willing to explore new ideas. His experience helped us turn our idea into reality.

MATERIALS:

SHEET METAL





FINAL PRODUCT

“Achha hai , mera sab saamaan baith raha hai. Aur dressing table bhi use ho raha hai”

“It is good. All my stuff fit into it. I am also using the dressing table.”

1. The shelves on the side are for keeping cosmetics and other stuffs.

2. A stand for all type of bangles is built in.

3. A hanger for duppatas, stoles, belts etc.

4. The retractable shelves have been positioned just below the inside shelves, hence they do not obstruct the things kept inside.

5. The shelves can be flushed inside the wardrobe, when not used.



FEATURES



SPACE OPTIMIZATION



CUSTOMIZATION



COST ANALYSIS (PROTOTYPE):

1. Cost of prototype: 8300 /-
2. Cost of an existing cupboard: 800 /-

The ideation started with designing a new cupboard cum dressing. But in the mid way we felt that instead if we focus on modifying the existing cupboard, it will be more practical and easy to fabricate.

A local cupboard maker did the fabrication. Initially he was reluctant, particularly about the retractable shelves, but later he agreed. It was his positive attitude and curiosity, which helped us, make this cupboard nicely and quickly.

TEA CARRIER

THE SITE


Mr. Dadabhau Adhak is a tea vendor in Shivaji Nagar. He has a set-up just outside his home, which includes a small seating arrangement. As he has many customers, his son assists him in the business. Tea is carried all day to shopkeepers and workers in the area.





- The carriers are stacked on the staircase next to the shop, when not used.
- Washed glasses are stored upside down on a glass slab to drain out water.
- Glasses often slip from the slab and break.

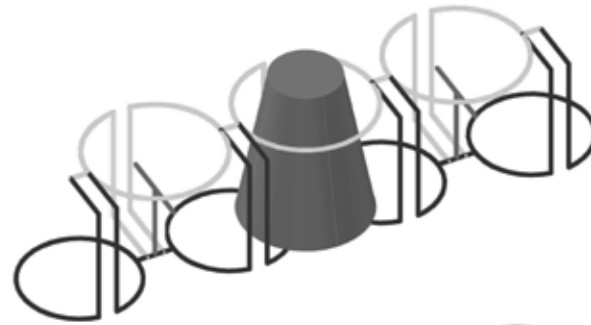
OBSERVATIONS



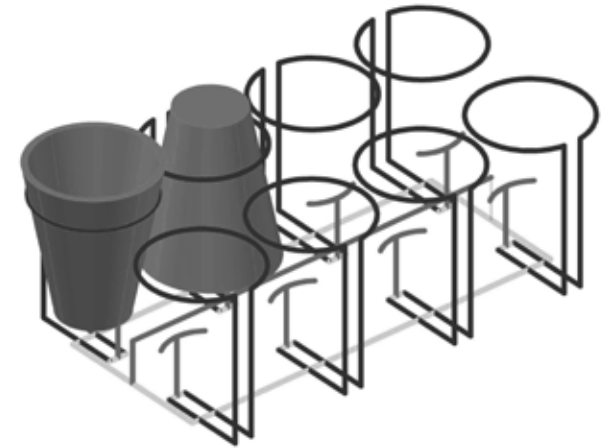
The idea is to create a tea carrier, which can hold the glass upright as well as upside down. This will save space and prevent the breaking of glasses. Small mock-ups were created and a real time validation was done. Mr. Adhak liked the ideas and was excited to see the actual product and using it.



THE CONCEPT



CONCEPT 1



CONCEPT 2

PROTOTYPING

ARTISANS:

Mr Kalim, welder, Gautam Nagar.
Telephone number: 9146276503.

Mr Vipul Doshi, Milan Industrial Work,
Sakinaka.
Telephone number: 982058578.

Vipul doshi is a welding machine manufacturer. He is based in Sakinaka. He is into the business from last 38 years. His experience and interest for new things helped turn our concept into a product. We faced many challenges making this product but eventually everything was taken care of thanks to his constant help and patience.

MATERIALS:

GIMS WIRE



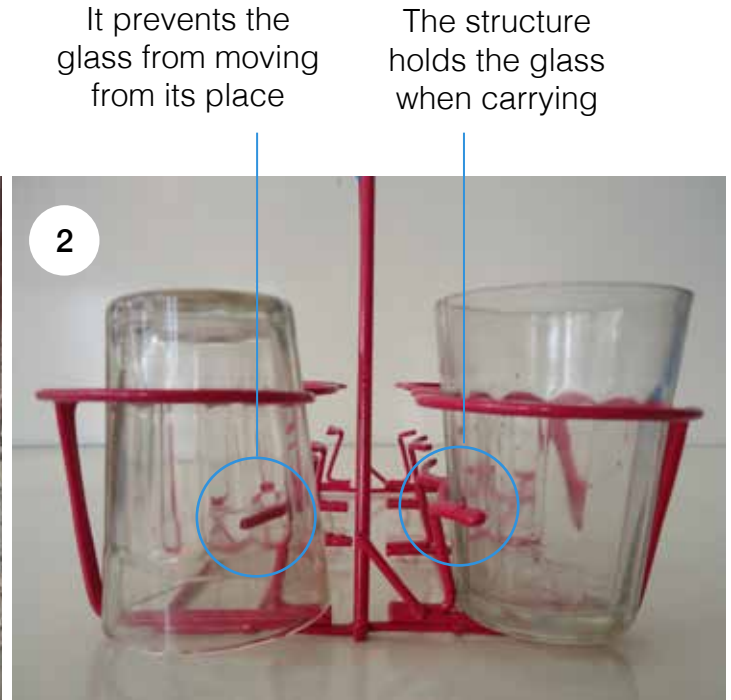


FINAL PRODUCTS

*“Mjhe laga tha
ban nai payega,
par bohatt acha
bana hai”*

“I thought it would
not be possible to
make it but it has
come out really
well.”

1. Products in the context.
2. Serving and storage in product 1
3. Serving and storage in product 2
4. Glasses can be stacked while storage.
5. Carriers can be stacked upon each other.



FEATURES

The glass can be put in both ways by flipping the product

COST ANALYSIS (PROTOTYPE):

1. Material cost: 58 /- per kg
2. Material consumed: 1 kg
3. Labour cost: 2400 /-

TOTAL COST: 2500 /-

SPACE OPTIMIZATION



CUSTOMIZATION



The tea carrier required spot welding. We found a specialist in Gautam Nagar who agreed to do it with us but after making a prototype, he gave up. We spent almost a month looking for spot welders, slowly extending our reach and going to other neighborhoods. Spot welders work on relatively less complicated products than other fabricators, which could explain why they were less used to creating an entirely new product. We finally found an entrepreneur who sells machines to spot welders in Sakinaka, He was interested in the project and helped us a lot in the realization of the sample. The result is working very well.

BOOKSTORAGE

THE HOUSE

The Khillare family has 6 members, including 4 children, who go to school or college. The earning members of the family are the father and the eldest daughter. The father works in a factory on a temporary basis and the eldest daughter works as a computer teacher and gives tuition classes at home. The mother is a housewife.


The house has rats and water leakage issues. As a result, schoolbooks, which are piled up wherever possible, get damaged. The family is missing a good, safe and dry space to keep its many books.





- Books are piled up on the computer table, which make it unusable.
- More books are stored in boxes under the bed to protect them from rats.
- The dabbas (food containers) are stacked next to the computer table.
- The door cannot be fully opened because the shoe rack is placed behind.
- The grain bags are piled up in one corner of the room.

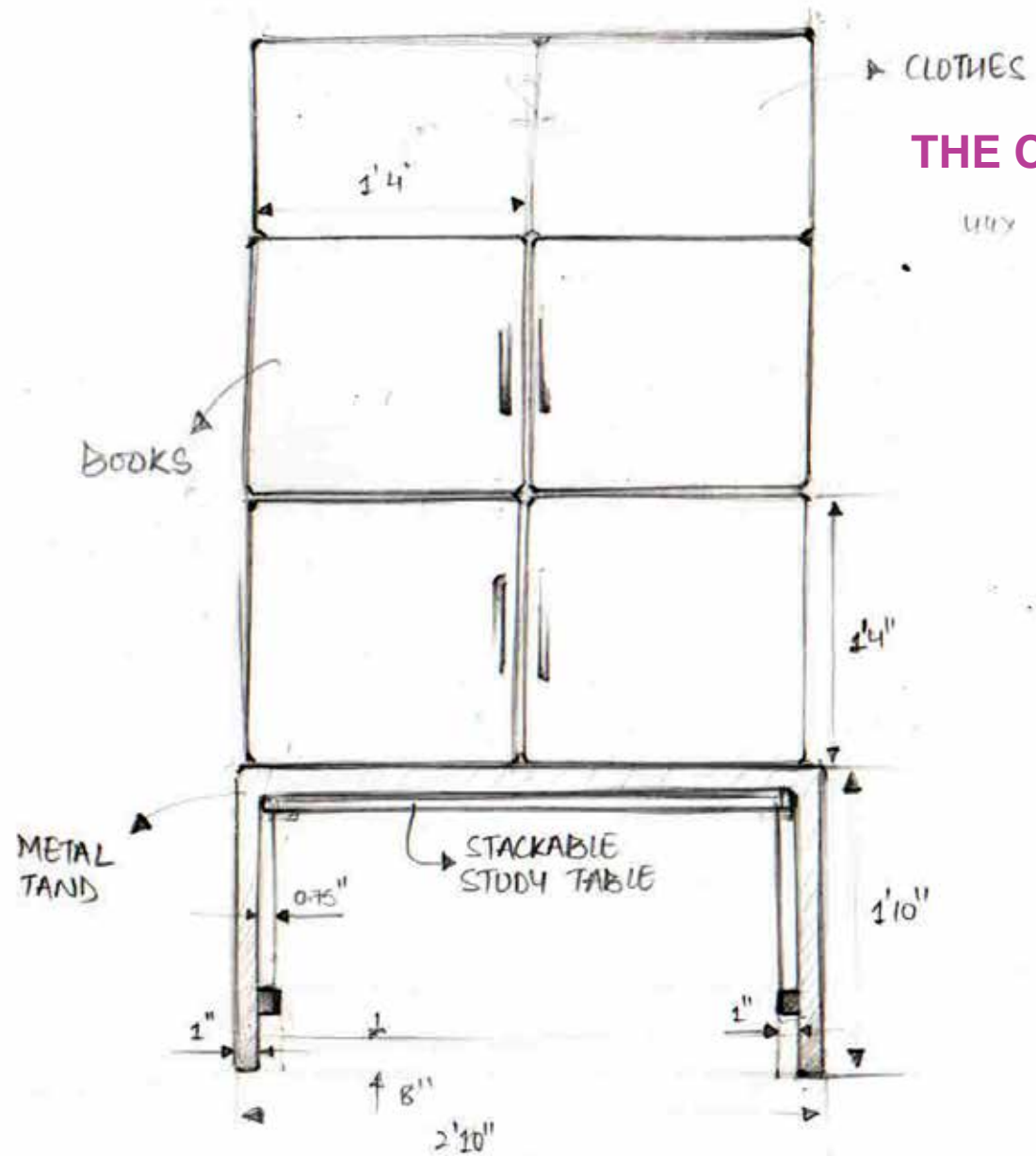
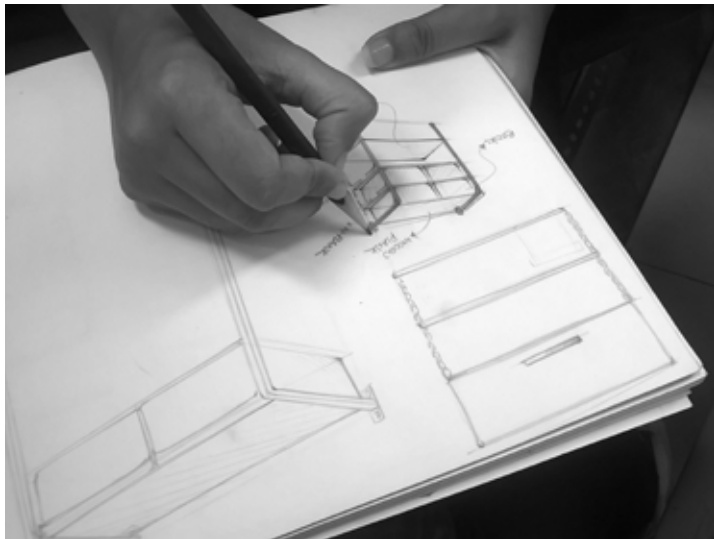
OBSERVATIONS



The product designed was a storage for books, clothes and dabbas.

Keeping the book safe and dry the first priority.

A stackable study table was provided along with the book storage.



THE CONCEPT

PROTOTYPING

ARTISANS:

Mr Mansoor, welder, Shivaji Nagar.
Telephone number: 9221543941.

Mr. Mansoor owns a welding workshop in Shivaji Nagar. He migrated to Mumbai from Jammu and Kashmir. He is assisted by another person. He is mainly into grill making. He is a warm and friendly person. He took great interest in our work. His workshop was always a place for us to learn and brainstorm.

Mr Sharafat Ali, carpenter, Shivaji Nagar.
Telephone number: 9619824341.

MATERIALS:

BOTTOM PART - MILD STEEL,
UPPER PART - PLYWOOD, SUNMAICA





FINAL PRODUCT

“Hamne apne books cupboard mein rakha hai, ab wo safe hai. Table accha hai ham log abhi padhw samay table use karenge. Abhi ghar mein jyada jagah hai.”

“We have kept our books in the cupboard, they are safe now. The table is good and help us in studying. The colour is cool. And now there is more space in the house.”

FEATURES

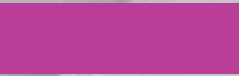


1. The computer table is now free from the books and usable.

2. The bed box can now be used to keep other things.

3. The dabbas have a place under the bookstorage.

4. The door now can be opened completely.



The idea was to create storage for books, dabbas and clothes. Also considering the limited space in the house we thought of integrating a seating with the storage. But the family was very adamant about using the entire wall for storage. They felt that the seating won't be used much. Hence we retained our concept of a storage unit.

COST ANALYSIS (PROTOTYPE):

STORAGE

- 1. Material cost: 4800 /-
- (plywood, laminate, Al sheet, hinges, handles)
- 2. Making cost: 2400 /-

STAND

- 1. Material cost: 1100 /-
- 2. Making cost: 700 /-
- 3. Painting: 200 /-

TOTAL COST: 9200 /-

SPACE OPTIMIZATION



CUSTOMIZATION



KITCHEN RACK

THE HOUSE


Mrs. Suman Jambhalkar is a housewife with a family of six that includes three children. Her husband works in a bank as a clerk.





- The water filter is kept on ground. As a result is difficult to fill and use.
- The dabbas are scattered over various shelves.

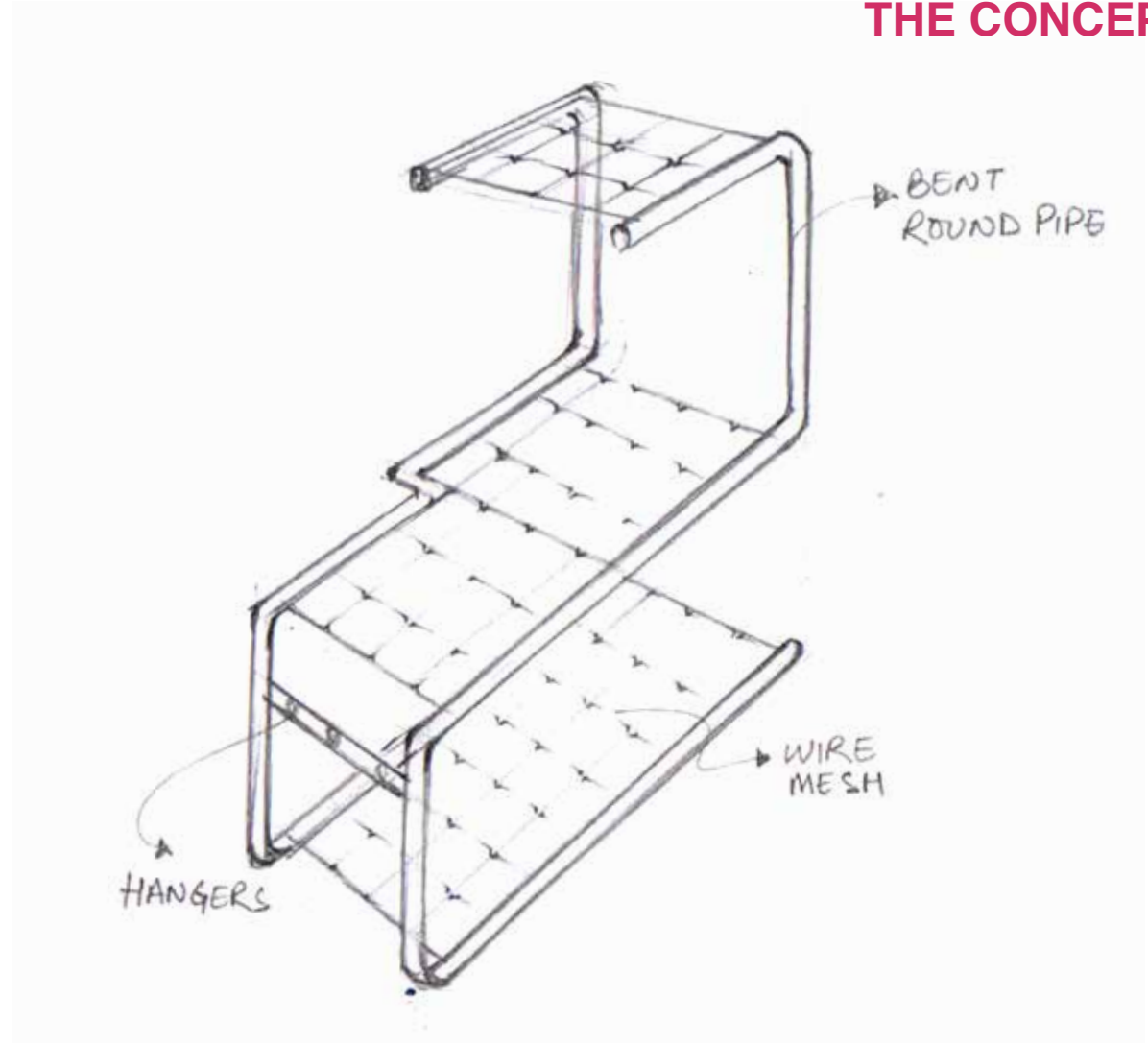
OBSERVATIONS



An inverted S form rack that can accommodate all the containers as well as raise the water filter to an ergonomic height. The rack is customized according to the space available next to the kitchen counter. The size also suits the family requirements. In addition they get extra space on the floor to perform their usual tasks.



THE CONCEPT



PROTOTYPING

ARTISANS:

Mr Gufran, welder, Gautam Nagar.
Telephone number: 9920289143.
Work: display systems.

Mr. Gufran is a young welder. He has a workshop in Gautam Nagar with 6 workers. He makes display systems for shops and showrooms, but also does all sorts of spot welding jobs.

MATERIALS:

MILD STEEL PIPE,
MILD STEEL WIREMESH





FINAL PRODUCT

“Sahi hai...!! Rack ki wajah se sab arranged dikh raha hai..”

“Rang acha hai..”

“It’s cool! Due to the rack everything appears systematic”

“The colour is nice...”

1. Proper storage for all type of kitchen containers, big and small.

2. Filter placed at an ergonomic height.

3. Hangers for polybags, dusters etc.

4. The profile of kitchen rack is such that it fits into the beam.



FEATURES

The family was initially interested and enthusiastic about designing and getting the product. But just before the prototyping they backed out, fearing that it would end up being too bulky – it would obstruct the cooking which is done on the floor. They also did not trust our manufacturing capacities, as it would have been our first product at that time.

A month later, after seeing the work done on the other objects, the family approached us again to get the product done. It was completed in a week and delivered with a few changes in the dimensions, to make it fit perfectly in their kitchen and make sure to optimize space.

COST ANALYSIS (PROTOTYPE):

1. Material and making cost: 4900 /-
2. Powder coating: 700 /-

TOTAL COST: 5600 /-

SPACE OPTIMIZATION



CUSTOMIZATION



STAIRCASE

THE HOUSE


The pilothouse is a 14 feet high house being constructed by URBZ in Shivaji Nagar. The idea is to optimize the space available, using local construction techniques and materials while following the BMC (Brihanmumbai Municipal Corporation) regulations.

The house has been constructed with the intention to leave the owners totally free to make their own arrangements. For instance, if they want to divide that small house into two apartments, they should be able to. Thus the house requires an external staircase. In the neighborhood, external staircases are usually fabricated in metal. This makes the staircase cost effective and temporary in nature and thus it is legal under BMC regulations.





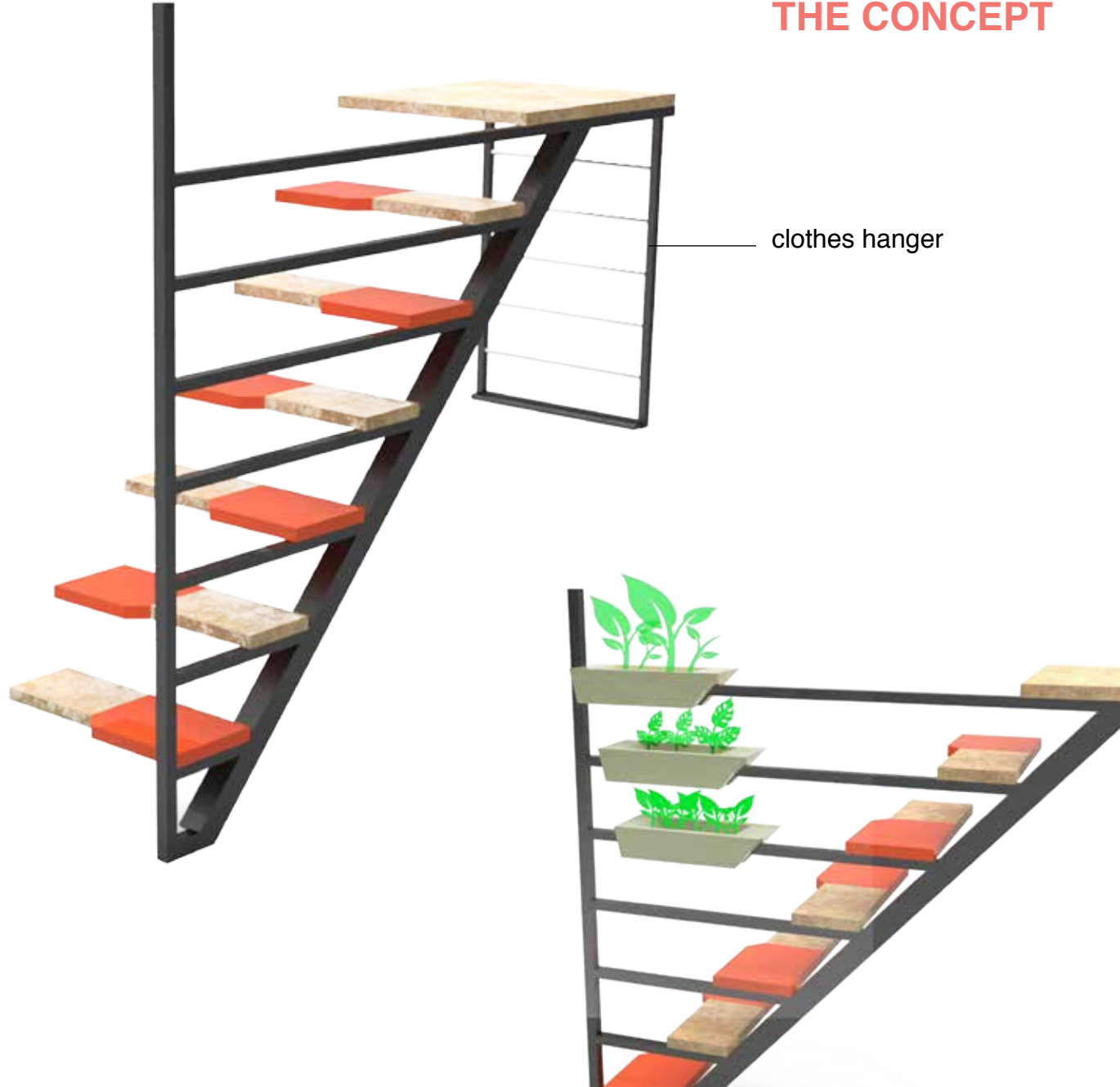
SITE RESEARCH



An ergonomic and multifunctional staircase which fits in the available space and which is also easy for elderly people and children to use. The staircase should be aesthetically appealing and at the same time easy to fabricate by a local welder.



THE CONCEPT



clothes hanger

PROTOTYPING

ARTISANS:

Once again, Mr Mansoor, helped us work on this project.

Mr Mansoor, welder, Shivaji Nagar.
Telephone number: 9221543941.
Work: grill, table.

MATERIALS:

FRAME - MILD STEEL,
STEPS - STONE
CLOTH HANGER - MILD STEEL, STAIN-
LESS STEEL RODS





FINAL PRODUCT

1. Ergonomic steps

- More foot space
- Easy to climb up and down for all age groups
- Visually intuitive with different coloured steps

2. Horizontal Railing

- Aesthetically appealing
- Sturdy and strong
- Easy to hold while climbing

3. Foldable cloth dryer for drying on clothes on the plinth.

4. Metal frame is screwd onto the wall from one side and the stones are fixed with “auto body solder” (adhesive).



FEATURES



SPACE OPTIMIZATION



CUSTOMIZATION



In the staircase our main focus was to design ergonomic steps for all users. We tried to propose the concept of alternate steps, but the contractor felt that it may not be comfortable for elderly people, as they would need to put both feet on each step when they climb. For that we designed steps, which are in between the alternate and the usual ones. Each step has two different colours and different sizes on the right and the left. The color difference helps the user to identify the appropriate stone for keeping the foot if he wants to use the alternate step system and get the benefit of the comfort of a wider step, with more space for the leg to move. For seniors, there are still full steps at every level.

The railings consist of sequential horizontal bars, which give more stability and a sense of safety when one climbs. It can also be used to hang flowerpots or as a clothes hanger/dryer. An additional cloth dryer has been provided under the staircase.

Conclusion

The “Homegrown Things” project was not just another initiative. It was a journey filled with varied people, experiences, feelings and emotions.

It was much more than just about creating things, it was about experiencing all of it and then coming up with a solution together with the chain of value that involved everyone – from the user to the designer to the maker.

India is still in a situation where its vast urban settlements continue to be sites of production of goods and commodities. In them, highly skilled workers, whose talents have evolved and mutated over time, continue to contribute to the needs of people. They tend to be classified into the vague, hazy category of the ‘informal’ and the entire system that they are connected with tends to be undermined.

Homegrown Things was about working in those settlements and valuing them. About valuing local production, traditional skills, and domestic markets as they come together. It was about building a relationship with the families, gaining their trust and giving them confidence.

It definitely didn’t happen overnight, it was through various conversations, meetings and examples we set in front of them in the form of products. Now more people want us to visit them and provide solutions.

It was about forming relationships with local artisans. During the process, we came across various skilled people. Some of them were experienced and had lots of knowledge while some were fresh. Few of them were really occupied and few

were looking for work. We even came across people who were very much interested in doing something new, so they put their time and effort into it. In this duration we also got an understanding of their expertise and strengths.

Neighbourhoods have lots of needs areas like other parts of the city. In fact, their needs are a lot more interesting and challenging since the products available in the market are not catering to them. There’s an ample amount of scope for customisation and a constant need of space efficient (saving) products.

But it is not simply about needs. It is also about the aspirations of the people.

We have been working for the past several years on local construction practices, co-designing with contractors and masons. We see these practices as part of a wider context of artisanal, local and domestic production of objects in which the house is an intrinsic component. We have learned that the home and its spatial configurations are inter-related, where objects of use in homes and the homes themselves emerge from similar concerns and production practices.

In the coming years we would like to build on these relations that exist within these neighbourhoods, value their local talent and skills, connect them to more creative pedagogic practices and evolve a modern vocational context that harnesses the best of traditional and local skills for contemporary needs.

Our little project encapsulates the world of designing objects, learning of new skills, harnessing the neighbourhood itself as a site of production and pedagogy and ultimately shows how such settlements can go a long way in transforming themselves, as well as sharing the best of what they can offer with other places and contexts.



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