



INSIGHTS

When we visited the quaint 'Pol' houses in Madalpur Gaon, Ahmedabad, we wandered along, talking to the residents of the area and made a list of the things we noticed and things which caught our interest.

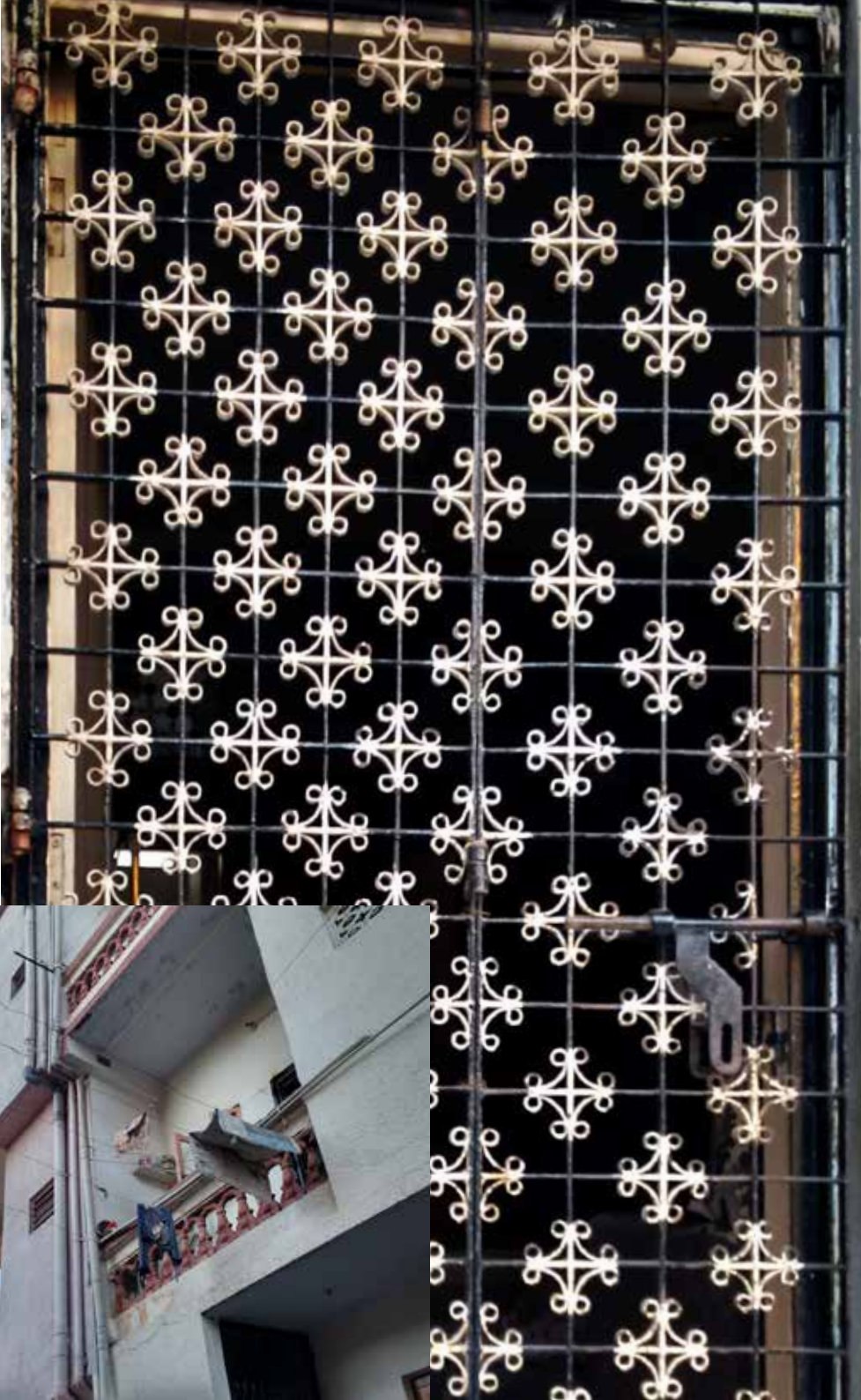
*Most houses had intricate 'jaalis' (interlaced wrought iron structures) in their windows and doors. These jaalis are reminiscent of a different time and are almost like containers of stories and heritage.

*Most houses had clothes lines outside their houses, often connected to other houses and neighbours would constantly keep in touch and talk to each other across the lane while doing their washing activities.

*The sense of community and togetherness is very strong in these areas. People take out time to talk, interact and share during their daily activities.

*Gardens are happy and relaxing places to connect with nature as well as ourselves but most most people do not have the space to have their own garden.





YUGO

Rutuja Chavan

Mayank Kumar

Harshika Jain

Atin Bose



INSIGHTS

Women living in the pols go out in the evenings to buy vegetables or to the temple. These activities are preferably done in groups, with women neighbours or family members. The rest of the time, they stay at home.

Animals and birds are given great importance in the community. Therefore, a chabutra (pigeon stand) is an essential part of the ecosystem.

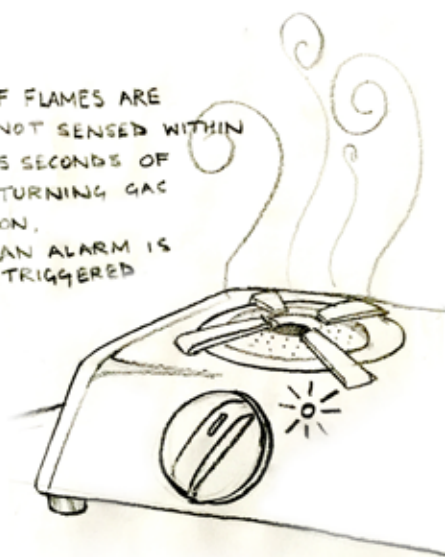
Terraces are a way to connect people. They are joined or are very close to each other and people fly kites together on the festival of Uttarayan.

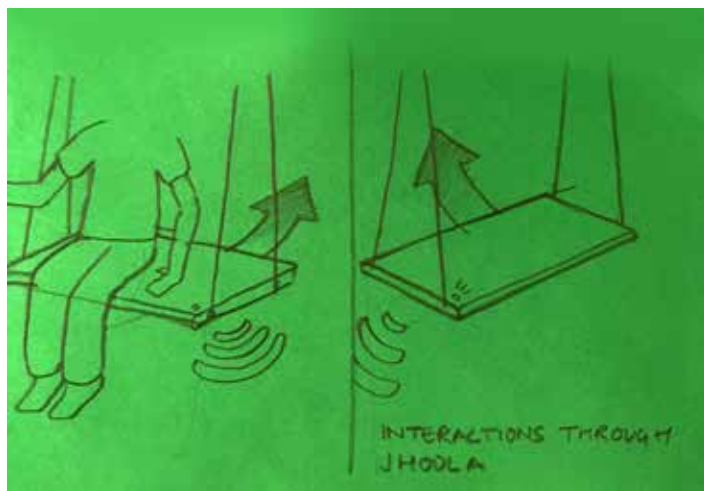
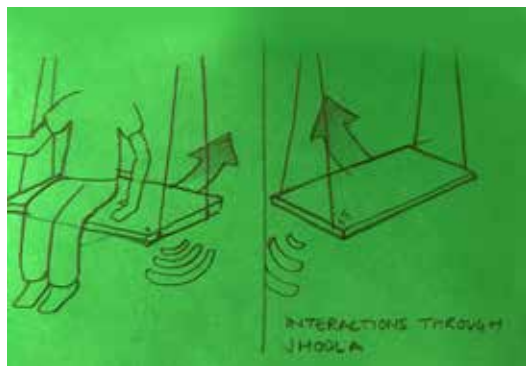
Marriages bring two families together and strengthens their bond. A lifetime's worth of savings are spent on weddings to achieve that perfect, memorable and picture perfect moment.

People like to share recipes and traditional know how from their years of experience. This is only possible when they go to buy



IF FLAMES ARE
NOT SENSED WITHIN
15 SECONDS OF
TURNING GAS
ON,
AN ALARM IS
TRIGGERED









INSIGHTS

Connectedness

Apart from having connected spaces and architecture, doors & windows opening into each-other, the people living in the pols and pol houses are physically and mentally highly connected at all aspects of life, from daily needs to social functions.

Open-ness

Just like the architecture and space elements, a large open central courtyard with lots of large doors/windows, the people and the pol culture are very warm and welcoming, their thought process equally open and ahead of time, from rain water harvesting to use of italian tiles and belgian glass since the past 200 years.





Drama/Illusions

Spaces have been categorised and associated with a particular aspect of life, common rooms playing with natural lighting, mirrors creating illusions of openness & space, walls with religious drawings being of spiritual use. All spaces have a sense of drama and celebration, going in-hand with their lifestyle.

Organisation

The daily life of the pol people was highly organised, starting early and ending early, clearly reflecting in the way they utilised and arranged objects in the particular space, like a wall mirror creating a stairway partition,

Irony/Duality

The space-human interaction is such that one can find ironical connections everywhere, dark rooms vs open courtyards, dirty lanes vs immaculately clean houses, loud & chaotic exteriors vs spacious & peaceful interiors.



IDEAS & CONCEPTS

Connected Illusions

For the visitors and guests who are unfamiliar with the environment. Staying connected via mirrors, creating an optical illusion.

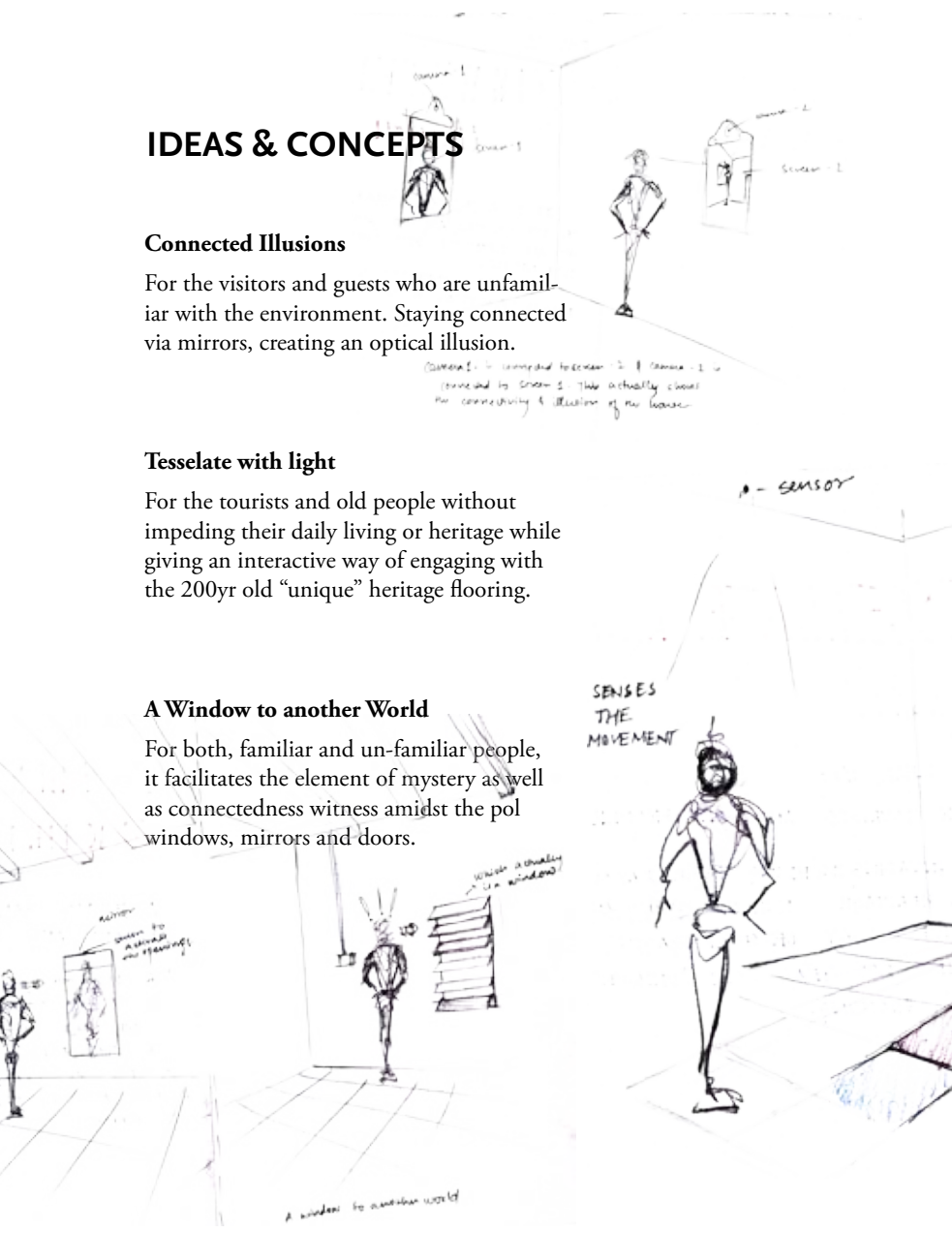
Camera 1 is connected to camera 2 & camera 2 is connected to camera 1. This actually creates the connecting & illusion of the space.

Tessellate with light

For the tourists and old people without impeding their daily living or heritage while giving an interactive way of engaging with the 200yr old "unique" heritage flooring.

A Window to another World

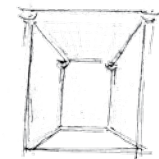
For both, familiar and un-familiar people, it facilitates the element of mystery as well as connectedness witness amidst the pol windows, mirrors and doors.



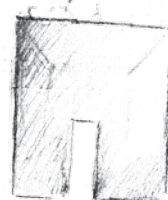


provides
- openness
- light

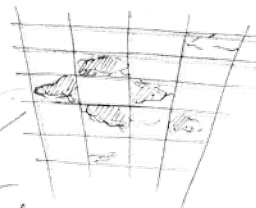
trailings on the
top - keeping the
"verandah"



→ taking the
inspiration from
that... we could put it at other
places



Somehow where it's
completely dark
or to recreate the
same feeling



at alternate
places,

adding/giving
an illusion of openness
once the installation it is turned on.

Sky High

For the older homes and new
closed indoor environments, giving
a feeling of an open environment
under the sky as witnessed in old
pol houses using adaptive, smart,
subtle lights.



Rhythmic Drama

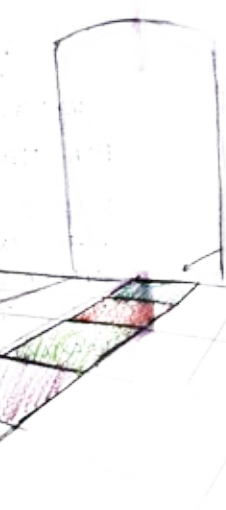
For all types of people, setting the
mood through lights while talking,



Too far - To go - switch it
on
So, sensors

the light of
the window
that colour
intensifies.

Floor tiles light up as soon
you come in a contact of
sensor. These lights
will help you to reach out
the switch board.



FINAL PROJECT

With good feedback for “A Window to Another World” during the general discussion, the idea taken further. A quick mock was made to play with the idea of a window opening when somebody came close to it. The new idea focused on deterring the use of cellphones while experiencing the exhibit, with an aim to open the shutters when a person tried to observe his/her self in mirror or tried to take a selfie.

The aim was to prevent over-indulgence in technology and promote real-world experiences. This quick prototype, made out of cardboard and tapes used an ultrasonic range finder hooked to an Arduino to control the opening of window slits with a servo when somebody came in front of it.

The code evolved from using a ldr to control a servo to the ultrasonic range defining the servo position.



When the new challenge was unveiled regarding exhibiting in an open space, the idea underwent a complete freeze as he target audience changed entirely to children and people from slum areas. After a lot of deliberation and reshuffling of ideas to make it easier to interact with, while at the same time offering a great learning experience took a lot of mental processing.

It ultimately came down to a periscopic device, showing the viewer a vision of his/herself in their own environment initially, overlapping with visuals from different periscopes, globally connected, to share ideas with imagining themselves inside it. These ideas can be used as an analytical tool to find the psychological health of the community and frame products, services and policies accordingly, from a local to global level, while being a great tool to play and interact.

The final exhibit used the window opening mechanism along with a disc (drawn on by children) changing mechanism controlled by a potentiometer to give an overlapping view of self and their imagination. The periscopic device was made from PVC pipes and mirrors.



```
define trigpin 5//set trigpin
define echopin 6//set echopin
Servo myservo;// declare servo name type servo
int duration, distance;//declare variable for un

void setup() {
  Serial.begin(9600);
  pinMode(trigpin, OUTPUT);
  pinMode(echopin, INPUT);
  myservo.attach(3);// attach your servo
  myservo.writeMicroseconds(1500);
  // put your setup code here, to run once:
}

void loop() {
  // myservo.write(90);// always set servo to 90 to
  //ultrasonic code
  digitalWrite(trigpin,HIGH);
  _delay_ms(500);
  digitalWrite(trigpin, LOW);

  duration=pulseIn(echopin,HIGH);
  distance=(duration/2)/29.1;
  if(distance <=20)// if ultrasonic sensor detects
  {
    myservo.write(0); //servo rotates at full speed to
    delay(400);
  }
  else
  {
    myservo.write(180);// else servo stays at 90 deg
    delay(400);
  }

  Serial.print("cm"); //print distance unit cm
  Serial.println(distance);//distance
}
```

REFLECTIONS

Designing and making an exhibit for an open space, to be used by children, is a great task, but the moment we setup our exhibit, and the children started to interact and use it, explaining to each other how it worked, we knew that the idea was sold to them.

The exhibit did not endure for more than 30mins, when throngs of children as well as adults interacted with it, made their own meanings, associations, creating memories, having fun, but most importantly, taking the message home about being self confident, looking beyond self, with a wide angled perspective.

One notable moment was when an adult wrote his remarks in urdu on the pipe, which translated as "If one has to look at the beauty of a human being, than this device has done it beautifully". Such messages made us realise the potential of an exhibit having more than one meaning and associations attached to it, and how difficult and exciting it is to sculpt the exhibit accordingly. The joy and awe on the faces of children and adults alike, each time the shutters opened and they saw their reflections from a different perspective through the childrens artworks made us happy and proud, yet thinking of ways to take it further down the development journey.

Our initial research made us realise that there seemed no apparent problem in the pol culture as many deemed it had. Rather, it had all the aspects of a community one aspired to be in, heritage houses, historic connections, warm people, private rooms and open common places, the perfect and delicate balance of a connected and caring environment. The dilemma was "do they really need technology to connect?"

During the ideation, we thought of celebrating and highlighting their positivies than finding flaws and showing it to them. All our ideas and prototypes were driven by that very motto.

The idea of the periscope a.k.a “Hole ni Pol”, took birth from that, celebrating the children of the community, yet gaining a meaning out of it to be shared with the community and the world. We also understood that the materials needed to be local yet highly durable, able to withstand the onslaught of throngs of excited and curious children and adults. The need for better covering and cooling of our circuitry was also realised when our arduinos ceased to work midway due to overheating under the harsh afternoon sunlight.

All in all, it was a fun experience enveloped inbetween hard times of ideating and re-ideating, keeping pace with the changing criterions and conditions, all the while doing coding, making circuits and adjusting the optics to make it simpler and better for the audience (children) to understand, interact and have fun with.





Team LAN: Love and Networks

Members:

Aboli Joshi

Bhuvana Sekar

Deergha Joshi



INSIGHTS

Recreating home away from home

People living away from home (from immigrant workers to hostel students) try to create the feeling of home wherever they are.

Need for a private space

Even family members living together feel the need to own a space within the house which other residents don't have access to.

Hoarding mentality

People tend to hold on to objects from their past instead of throwing them away, creating clutter in their houses.

Home is made by people, not by walls

The idea of security and family stretches outside the walls of the house to the entire community.

Home is a temple

Religion and prayer play a huge role in shaping ideas of home and family.

HOARDING
MENTALITY
OR
ATTACHING
MEMORIES TO
OBJECTS .



घर मंदिर है.

जहाँ माँ बाप
वहाँ मंदिर.

HOME IS A
TEMPLE.

HOME IS MADE
BY
PEOPLE,
NOT BY WALLS.



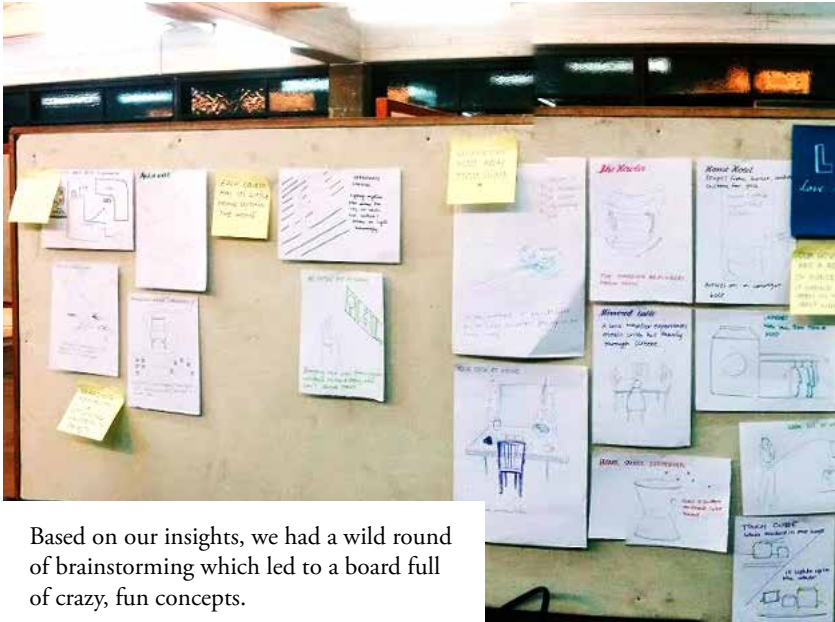
NEED FOR
A PRIVATE
SPACE



RECREATING
HOME AWAY
FROM HOME



IDEAS & CONCEPTS



Based on our insights, we had a wild round of brainstorming which led to a board full of crazy, fun concepts.

To pare down our ideas, we accounted for:

*The limitations of our coding knowledge which would influence our quality of prototype

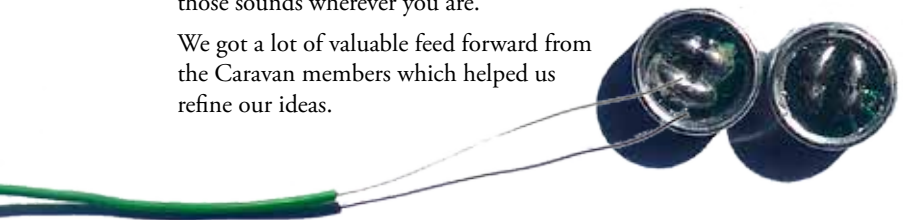
*Working only around the insights which we liked the most.

*Idea babies: When two average ideas have epic offspring together.

As college students living in a hostel, all the ideas centred around “home away from home” appealed to us the most.

Since everyone has a personal connection to the soundscape of their home, our ideas were an attempt to recreate or translate those sounds wherever you are.

We got a lot of valuable feed forward from the Caravan members which helped us refine our ideas.





Can your music light
up someone's mood?

AARTI / MUSIC



Play on a
music
instrument?

Chambers!

Wake up to the
sounds of your home.
Sounds you love.



FOR ACTIVITIES:

AARTI
BHAJANS

Connecting through
common daily
activities

FINAL PROJECT

Hicchki (Hiccup)

Each of us have a sound from home that makes us feel comfortable, loved and safe. It could be the sound of prayer bells, the sound of your dad's guitar, or the whistle of a pressure cooker.

Whenever your favourite sound is heard at home, Hicchki translates it into a soft, warm, non-intrusive light that you can take with you anywhere.

The light can be associated with an object or artefact that reminds you of home, like a photo frame or a key. This visual hiccup reminds you that your family is missing you, and creates a push for you to pick up your phone and give them a call. Our prototype uses the sound of a bell and the light of a diya (small terracotta lamp) as the sound and artefact combination to demonstrate the concept.

The problem we faced while preparing for the exhibit was making the audience feel distant inspite of standing in front of each other. The diya is enclosed in a box of mirrors which creates the illusion of a long corridor to emphasise the distance between the person ringing the bell and the person seeing the light.

```
Adafruit_NeoPixel strip = Adafruit_NeoPixel(12, 5, 10);

const int sensorPin = A0; //pin to connect the sensor
int value; //save analog value
int val;

void setup() {
  // This is for Trinket 5V 16MHz
  #if defined (__AVR_ATtiny85__) || defined (__AVR_ATtiny45__)
    if (F_CPU == 16000000) clock_prescale_set(clock_prescale_2);
  #endif
  // End of trinket special code

  Serial.begin(9600);
  strip.begin();
  strip.show(); // Initialize

  // Some example procedures
  // value = analogRead(sensorPin);
  // Serial.println(value);
  // val = map(value, 0, 1023, 0, 255);

  if (value < 1000) {
    theaterChase(strip.Color(127, 127, 127));
  }
}
```



```
value = analogRead(sensorPin);
Serial.println(value);

//Read and save analog value from potentiometer
//Print value
```



```
fruit_NeoPixel(6
```

```
in A0 to read an
```

```
MHz, you can remove these three lines if you are not using a Trinket
```

```
);  
clock_prescale_set(clock_div_1);
```

```
ode
```

```
all pixels to 'off'
```

```
showing how to display to the pixels:
```

```
; //Read and save analog value from potentiometer  
//Print value
```

```
, 100); //Map value 0-1023 to 0-255 (PWM)
```

```
, 0, 0, 10); //red
```

```
, 127, 0, 5000); //yellow
```



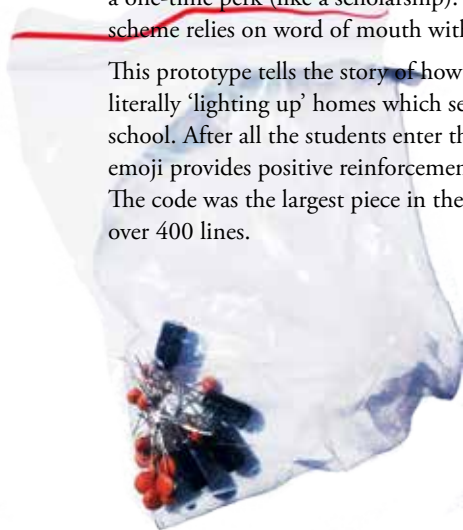

School Chalein Hum (Let's go to school)

This idea arose from the ruins of our soft board and a conversation with the head of the Conflictorium. We realised that the area around the Museum of Conflict had five different communities, and started wondering about what could bring them together.

School is a melting pot for children of all communities. Future generations of educated citizens could erase ignorance, intolerance and misunderstandings between groups of people.

Our concept uses positive reinforcement and the close-knitted nature of communities to help create a learning environment in the home instead of just forcing enrollment. Parents who keep their children enrolled and engage in their education would receive ongoing incentives (perhaps phone credit or supplies) instead of a one-time perk (like a scholarship). The spread of this scheme relies on word of mouth within the pols.

This prototype tells the story of how the system works by literally 'lighting up' homes which send their children to school. After all the students enter the school, a happy emoji provides positive reinforcement to the audience. The code was the largest piece in the whole class with over 400 lines.



```
void colorWipe(RGB color, uint8_t wait) {
  for(uint16_t row=0; row < 8; row++) {
    for(uint16_t column=0; column < 8; column++) {
      matrix.drawPixel(column, row, color);
      matrix.show();
      delay(wait);
    }
  }
}

// Fade pixel (x, y) from startColor to endColor
void fadePixel(int x, int y, RGB startColor, RGB endColor, int steps) {
  for(int i = 0; i <= steps; i++) {
    int newR = startColor.r + (endColor.r - startColor.r) * i / steps;
    int newG = startColor.g + (endColor.g - startColor.g) * i / steps;
    int newB = startColor.b + (endColor.b - startColor.b) * i / steps;

    matrix.drawPixel(x, y, matrix.Color(newR, newG, newB));
    matrix.show();
    delay(wait);
  }
}

// Crossfade entire screen from startColor to endColor
void crossFade(RGB startColor, RGB endColor, int steps) {
  for(int i = 0; i <= steps; i++) {
    int newR = startColor.r + (endColor.r - startColor.r) * i / steps;
    int newG = startColor.g + (endColor.g - startColor.g) * i / steps;
    int newB = startColor.b + (endColor.b - startColor.b) * i / steps;

    matrix.drawPixel(0, 0, matrix.Color(newR, newG, newB));
    matrix.show();
    delay(wait);
  }
}
```


REFLECTIONS

The last two weeks have been an exercise in adaptation (I think Darwin would be proud). With a constantly evolving brief and Jon hitting us with code trucks from all directions, it was a challenge to come up with anything even resembling a working model for the display. We did it, though! And now here we are, looking back on everything we learned.

Honestly, the biggest challenge in this course may have been creating and working in multidisciplinary groups without killing each other. However, all the conflicts, arguments and clashes in perspective meant a combined, balanced point of view for the group. Yes, we spent three days discussing one concept, but the resulting clarity of thought was a blessing.

One of our areas of investigation was the difference between a house and a home. The overwhelming consensus from our fieldwork was that a house is made of bricks and cement, but a home is made of people. Looking at the brief – “The Connected Home” – through this lens, we realised that it should have been more like “Connecting People”. Instead of creating a super smart house which discounted the residents, we wanted to create a connection between the people in a home.

Jon’s way of teaching coding is a bit like how I was taught swimming – thrown into the pool and then it’s swim or drown. It’s not the most subtle approach, but it gave us a lot of experience using coding to create experience prototypes.

It was refreshing to be working without the worry of a “final product” or a “display-worthy outcome”. The emphasis was on being experimental and focussing on the experience over the tech involved. We tried our best to have fun with it (occasionally falling back into our old ways and then panicking before Arjun would swoop in and tell us to stop overthinking). We tried to create magic, turning our addled minds to ‘how it would feel’ instead of ‘how we would do it’.

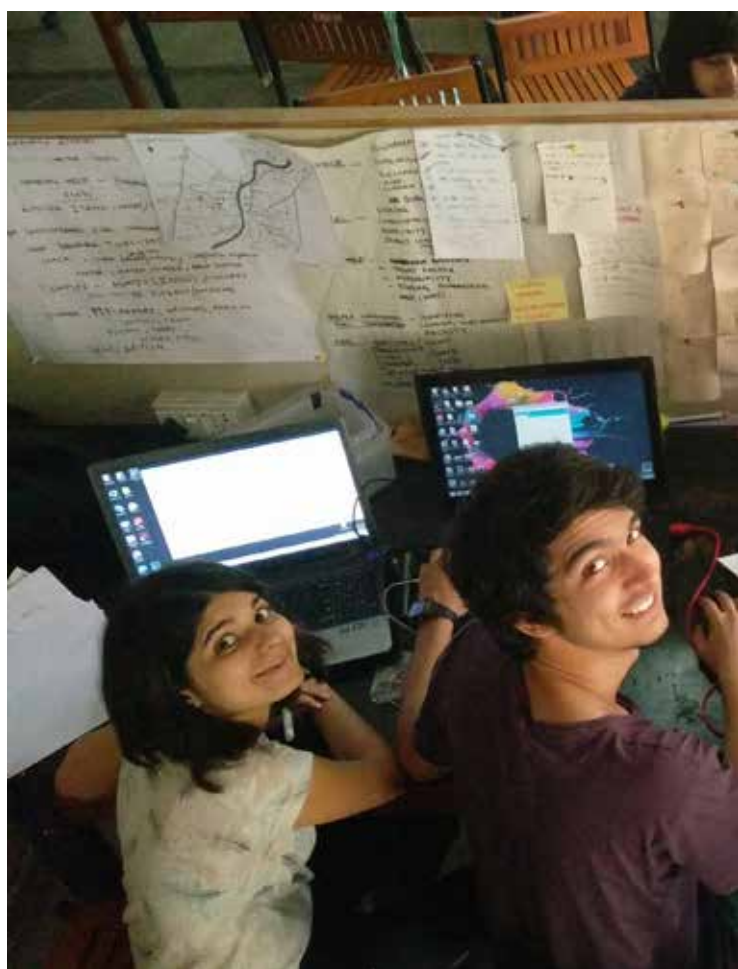
We were privileged to be working with the members of the Unbox Caravan, who brought their years of experience and technical expertise to our vague ideas and helped make them a reality. Just to be in the presence of such a diverse and talented group of people was inspiring.

This course has helped us become more confident presenting our work at the drop of a hat. Showing at the Museum of Conflict to the local community was a revelation in how a layman would perceive our concepts. We got varied interpretations of our prototype, none of which were even remotely close to our actual idea. We also had to make changes to our prototype on the spot to make the experience more fun for the audience. Overall, it was a lesson in how to curate our work for display, and we understood the necessary changes to make our work more relatable.

We're leaving this course with a lot of good energy and an opened mindset (plenty of sleep debt as well). We've become more comfortable with iterating and getting feedback on our concepts. Obviously, we've learnt a tremendous amount about electronics, IoT and Arduino, but we've also learnt a lot about ourselves and how we work under stress. It's been fabulous learning with Jon, and hopefully we'll get to be run over by his code trucks again someday.

Love,

Team Love and Networks



INSIGHTS

Worship areas

People of Ahmedabad are religious. Every home has small praying spaces. In the kitchen they have separate almirah or Worship corner with idols of Gods. After cooking each meal they serve God first and pay them thanks for each meal that they receive due to God's benevolence.



Kitchen Washing Area

In most houses, people have separate areas outside the Kitchen where they wash the utensils and then take them back in the kitchen. They have strongly believe in not keeping used utensils because of worship area in the kitchen.

Tiles

Kitchen tiles have a particular pattern which have motifs related to food and utensils with bright colours.



Water Storage

Most of the houses have underground cemented water storage tank which is directly connected to the main water supply tank.

Mirrors

Every Mirror has connected story with the house. Each house has A big Mirror in the Common area or in the hall with aesthetic carved frame.

IDEAS & CONCEPTS



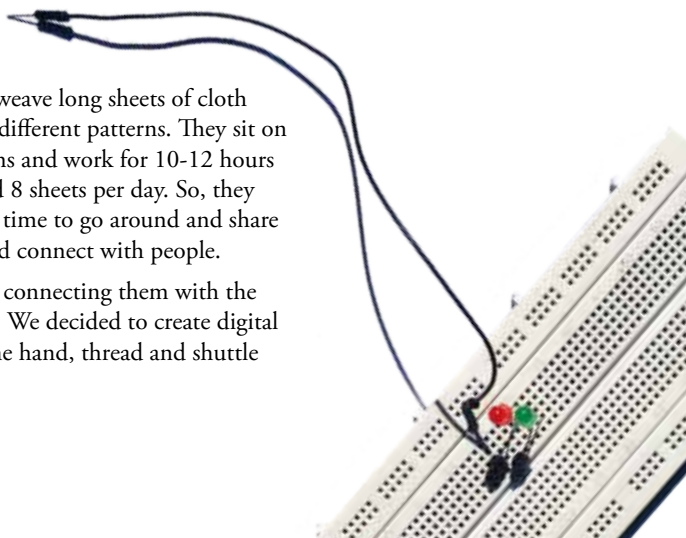
Pottery

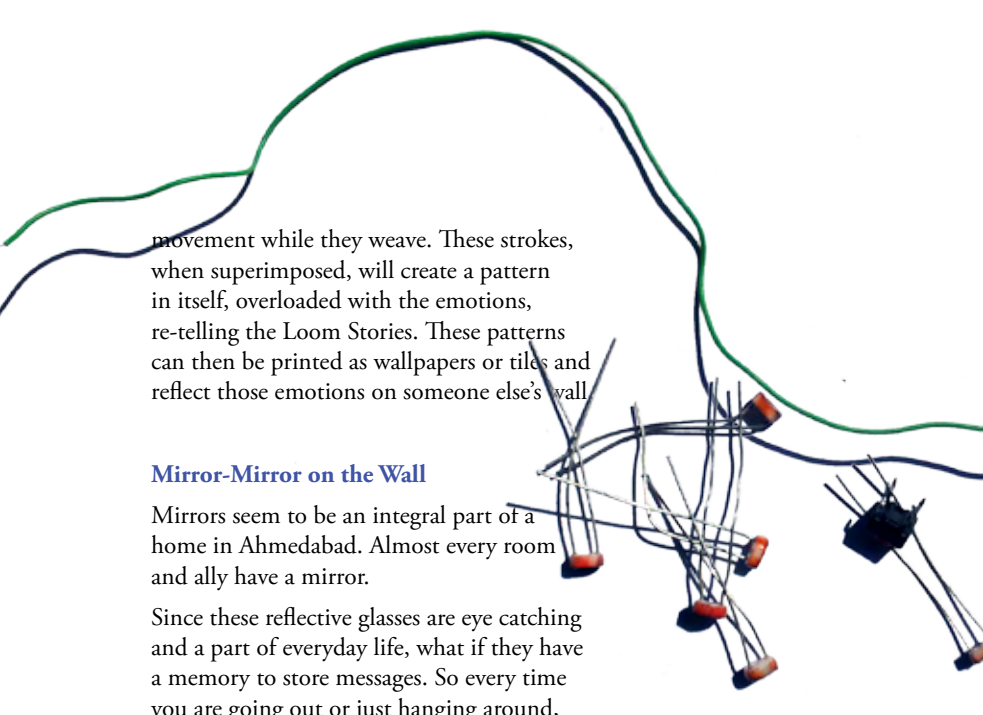
Sarkhej Kumharvari is a community of potters who produce different kinds of pots and clay products through different methods. Since every pot tells a story through its form, We decided to tell the same story but via medium of Music. Creating a blend of notes, rhythms, and emotions from the forms of the pots or from the hand movement of the clay thrower, while shaping the clay.

Loom Stories

Loom makers weave long sheets of cloth with beautiful different patterns. They sit on their handlooms and work for 10-12 hours making around 8 sheets per day. So, they don't really get time to go around and share their stories and connect with people.

We thought of connecting them with the people around. We decided to create digital strokes from the hand, thread and shuttle





movement while they weave. These strokes, when superimposed, will create a pattern in itself, overloaded with the emotions, re-telling the Loom Stories. These patterns can then be printed as wallpapers or tiles and reflect those emotions on someone else's wall

Mirror-Mirror on the Wall

Mirrors seem to be an integral part of a home in Ahmedabad. Almost every room and ally have a mirror.


Since these reflective glasses are eye catching and a part of everyday life, what if they have a memory to store messages. So every time you are going out or just hanging around, you can leave a message for a family member or the entire family.

Interactive God

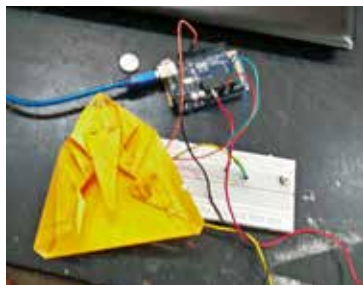
What if we make the everyday process of praying to the god more interactive.

So, every time we touch their feet, they will bless us by engulfing us in a ray of divine light, smell of Chandan and peaceful chanting of mantras.

River Reawakening



In order to connect people with their Rivers again, we decided to personify the rivers, ponds, and lakes. Giving them emotions and feelings which can be well understood and addressed by the common people and authorities as well. These emotions will be conveyed by different colors, sound, and blinking.





FINAL PROJECT

Close to our college flows a river, there is a riverfront built alongside, where people spend so much time looking across the river that they fail to see at it and its predicament. This river is the Sabarmati river, one of the most polluted rivers of India. The Amdavadis are not “connected” with it anymore. So we set out to explore how to bring the locals’ attention to this lost connection.

So how do we put life in this eutrophicated river, with negligible aquatic life. We decided to put in cluster of dummy fishes which glow and indicate the level of pollution in a river at separate points. This also gets plotted on the map exposing the people to the condition of the river as compared to the other rivers on the map, thus invoking incentive to look for opportunities for the betterment of this river.

For the prototype we used an LDR (can be replaced by sensors like libelium smart water sensor) to detect the clarity of water using the amount of light passing through the water. We used a toy fish’s body to place the lights in. This was connected to an arduino which, based on how much ink is in the water container would change the colour of the fish from green to red, where green indicated fresh water and red - polluted. Through processing we plotted this on a map of Sabarmati.

And then comes the scary part, where we had to exhibit this prototype. So we take it to the conflictorium, callibrate the code according to the light intensity of the room in the Conflictorium.

And it begins ! There’s a bunch of kids which rush in. They interact with the exhibit playfully, amused by the changing lights. We told them that the fishes get angry- (red LED glows inside) when they placed them in dirty water and that they die eventually. So we should keep the river clean. We explained the idea to the adults too who gave us intersting insights and ideas to move forward





The story was of the utmost importance while Arduino and the other electronic components were merely the media to convey the story.

We gathered rich insights by spending time in the field, talking to people and observing the place. We looked at the common elements which connect the people of Ahmedabad or evoke emotions of togetherness. Reflecting on these insights, as a team gave birth to interesting stories to tell.

We started discovering the means to communicate these strong emotional stories and experience through otherwise lifeless electronic components. We broke down the concepts into smallest of the steps to be later translated into the language that the electronic components speak which we learnt on the fly.

The reflections and the discussions with the other students and the members of the Unbox Caravan gave us the insights to move further. We also explored processing as another medium to take physical interaction of the user on the computer screen. We exhibited the prototype in front of the people who are the target audience of this project. We stood by the exhibit and explained it to the visitors. We had to fine tune the explanation for different visitors.

INSIGHTS

When we visited the quaint 'Pol' houses in Madalpur gaon, Ahmedabad, we wandered along talking to the residents of the area and made a list of the things we noticed and things which caught our interest.

One of the most distinct things about the communities living at the pols was the sense of togetherness and belonging

Most houses had clothes lines outside their houses, often connected to other houses and neighbours would constantly keep in touch and talk to each other across the lane while doing their washing activities.





Most houses had intricate 'jaalis' (interlaced wrought iron structures) in their windows and doors. These jaalis are reminiscent of a different time and are almost like containers of stories and heritage.



Gardens are happy and relaxing places to connect with nature as well as ourselves but most most people do not have the space to have their own garden.

SMALL WONDER LIVE WIRE

IDEAS & CONCEPTS



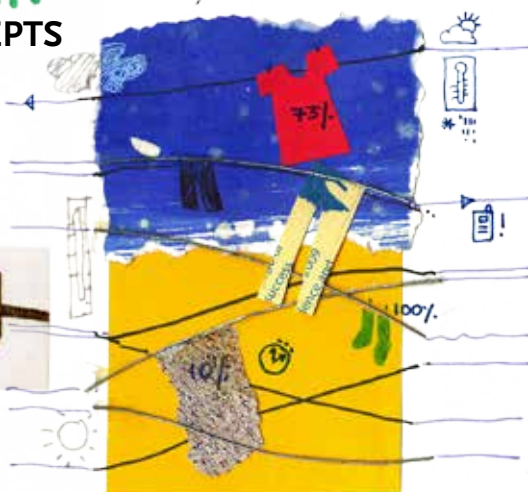
NO SPACE FOR GARDENS.

— TERRARIUMS

— AUGMENTED REALITY

CHILD CAN GO INSIDE & EXPLORE
PLANTS & ANIMALS.

CAN TAG things, maintain a
journal of adventures.



— TELLS YOU EXPECTED TIME OF DRYING
OR WHEN CLOTHES ARE DRY.

— PREDICTS WEATHER CONDITIONS & TELLS YOU
HOW LONG IT WILL TAKE TO DRY, ETC.

Trapped in Time.



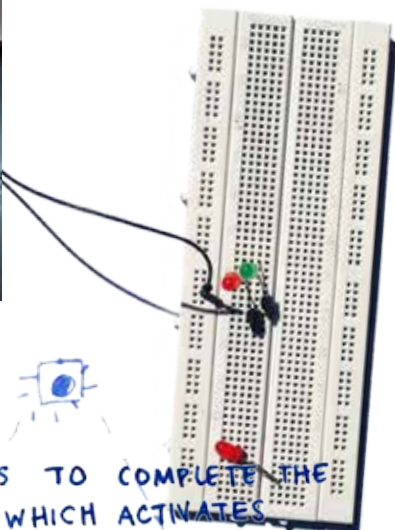
XYZ
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LIVES
HERE



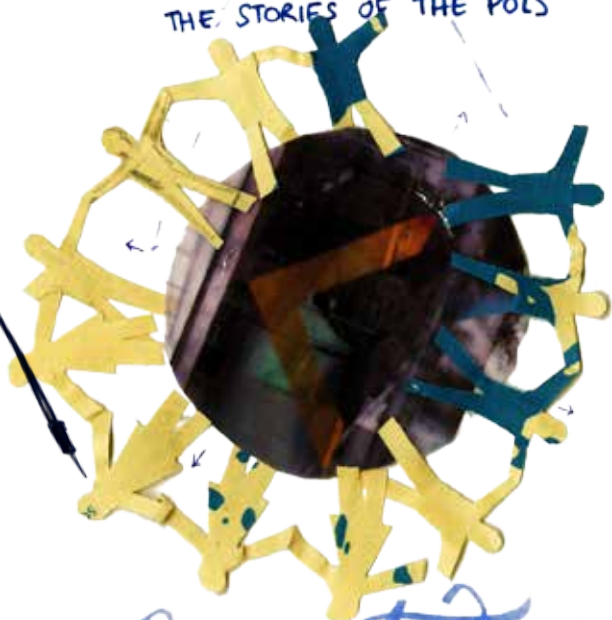
BUILT
IN '86
....

ARCHIVE

JAALIS / INTRICATE WROUGHT IRON DOORS
• TOUCH SENSORS • STORIES • HERITAGE •
• SOUND • VIDEO • HAVELIS • NOSTALGIA



JOIN HANDS TO COMPLETE THE
CIRCLE WHICH ACTIVATES
THE STORIES OF THE POLS



Connected
Communities

-ta team

FINAL PROJECT



Taking from the idea of the connected communities we saw at the pols, we tried to bring back a sense of connect between people through our project. Holding hands together creates a sense of solidarity, empathy and connection.

We tried to build a human circuit which would only function when people stood together and held their hands. When the people in the space hold their hands and complete the circuit, a video projection starts and grows bigger for as long as the audience hold hands. The video projection fills the room, and engulfs the viewers. The circuit links the projection to a live stream of videos from news channels and social media, filtering out videos of current events like the Chennai floods, the situation in Syria and other world events which need public solidarity and understanding. This space is a place for prayer and goodwill. A world map in the centre of the room indicates which other places in the world where these installations are being activated by people coming together.

When our brief changed and we had to display outside the Conflictorium, to the community nearby, we had to change everything. Our audience could be anyone (though we suspected a lot of kids), we weren't sure of what everyone would relate to.

We thought, who doesn't love bubbles!



Making bubbles was a great idea. Although the context of our concept changed, it still retains the key idea of connecting communities.

The Conflictorium lies at a social crossroads, where atleast five different communities are situated. We weren't sure of relations between the communities, so our installation had an experimental angle to it. When the kids hold each others hands to complete the human circuit, the blower and bubble spindle motor start working. This causes the set up to produce soap bubbles which continue doing so till someone lets go of their neighbour's hand.



REFLECTIONS

They were good many things that captured our imagination and gave us something to reflect about throughout the entire process. From comprehending the implications of using a simple LED to signal the workings of the universe, to the live streaming of data from across the world with the flick of a switch, we realised the possibilities of using code and circuits are endless.

A very different type of reflection dawned upon us when we began our experimental installation at the Confictorium.

No sooner had we caught our breath, than the first wave of kids swarmed in, eager to see what this strange contraption was all about. They immediately touched the aluminium hand holders, but were thoroughly confused when they saw nothing happening. It took some time to explain how it worked, but within 10 minutes or so the young ones had figured it out. They understood the basic concept of the installation, and were guiding each other to hold hands to form the human chain to make the bubble machine work. The initial confusion and want for instant reward was soon replaced by the need to work together to get the bubble machine to work for longer and produce lots of bubbles.

Even as the waves of children kept on coming, the bubble making machine worked perfectly, only needing the occasional soap bubble solution top-up.

We honestly didn't know what to expect from this installation, neither did we have complete faith in our own idea behind this. What we did know was that even though we might not have imparted any message, we did bring people together so that they can enjoy something that everyone loves-bubbles! We were very surprised to see the reactions and the instant impact it had on the visitors. It's stunning to see how something as simple as creating soap bubbles can captivate people, and enable them to connect with each other, even if it is on a very basic level.

We wonder, what else can bring people together? What's the simplest, most basic way to connect people of different castes and creeds together? And also, why is it so hard to make a good soap solution to make bubbles? All equally important questions that we hope to answer.

