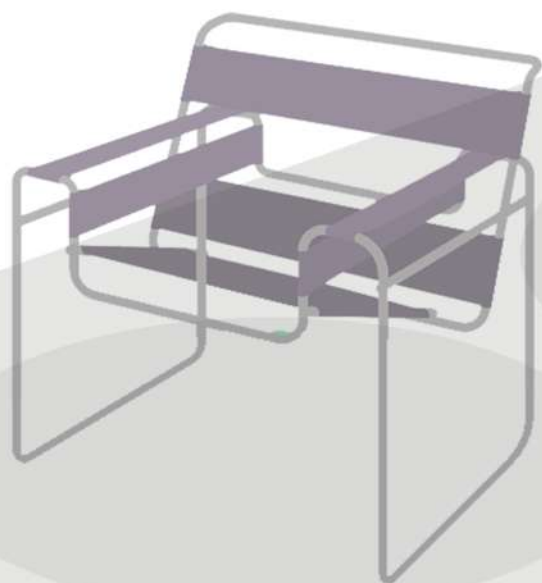


# VOX

VOICE OF PICA

ANNUAL MAGAZINE

2019-2020



Some illustrations are taken from a series of artwork by outmane amahou



## ANNUAL MAGAZINE 2019-20

M.E.S.

**Pillai College of Architecture**

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## FOREWORD



With the achievements set apart by Mahatma Education Society, our parent Organization entering into its brilliant Golden Jubilee year and our PiCA magazine "VOX" into its decade, we present this issue, with a pleased feeling of accomplishment. The significance of communication cannot be questioned in today's society and generation. VOX acts as a bridge between our achievements and reaching the larger section of the society within and beyond architecture community. As head of the institute, I feel privileged to propel and witness its publication. It provides an opportunity to students and faculty to express themselves through various mediums.

Every person innately possesses creative ideas, feelings or imaginations which get expressed through words, lines, colours, sculpture, or any such art forms. A platform to project the manifestation of such ideas plays a vital role in a student's life. It leaves a great impression on his personality which develops him into an understanding, expressive and gentle person. Through expressions, we learn; as every great success begins with an idea. With the help of this medium, I take an opportunity to appreciate the contribution of all those who make us stand tall and encourage to take a gigantic flight with our wings spread wide. I am looking forward to my dedicated faculty members and dearest students for making our institute reach the highest goals! VOX is a proud flash of their dedicated academic work, expression of art and literature while also being a mirror of their intelligence.

Happy reading !

Best regards,  
Sincerely

Dr. Sudnya Mahimkar  
Principal and Professor



## EDITORIAL



It's a great pleasure getting into the role of an advisor for the VOX Magazine, the Voice of Pica from PiCANs for the academic year 2019-20, many congratulations to the team! Being a Co-faculty with Prof. Smita Dalvi for humanities, the theme of the current issue (Avant-Garde) surprised me but at the same time intrigued me to see and wait what is coming up in the magazine now. The issue is divided into sections based on different movements took place in art and architecture in the past. And it's undoubtedly well-knitted together to have the final composition as an outcome, both graphically and content-wise!

We also have witnessed a few special occasions worldwide, having our own Prof. B. V. Doshi who was awarded the Pritzker Award, and The Bauhaus entered into its 100th anniversary in 2019. This has also guided us and reflected in the magazine in the form of sketching, write-ups, short essays, and the sub-themes. I take this opportunity to thank everyone and present you all the VOX 2020, the Voice of Pica to our audience. I also take this moment to appreciate all the support from our Principal, faculty members and Student Council Team for a constant drive to execute and shape the current issue, I wish you all the best for the coming years, cheers!

Neha Korde  
Assistant Professor

## EDITORIAL



Aditya Shukla  
Publication head



Omshrushti Gharghe  
Editor

The 2019-2020 edition of VOX delves into the edgy and contemporary world of “Avant Garde”. As the name suggests, Avant Garde is the ideation and promotion of new techniques or concepts that not only ‘bend the rules’ of experimentation and ideas but also the methods in the creative field of arts, music, architecture, literature, etc. Our team has been enamoured countless times by the sheer creativity of such work which has been under our faculties, students and of course, the numerous people from other fields who have showcased such selected pieces in the current edition of VOX. We strongly believe that our readers would not only be inspired but also learn the abstract world of art via VOX 2019-2020. The current edition of VOX has selected various themes from the “Avant-Garde” periods, specifically the last two centuries.

Art Movements are essentially 20th-century development when there were a greater variety of styles than at any other point in the history of art. They are the collective titles that are given to artworks that share the same artistic ideals, style, technical approach or timeframe. Every art movement is unique in its way and we have selected particular pieces of said innovative art movements for different sections of this magazine. As a salute to their innovation and originality, we have curated a list of such slices of art that have helped in transforming the history of art movements, forever.

## VOX 2019-2020 TEAM



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## LE CORBUSIER GLASSES

Le Corbusier's famous owl-shaped spectacles were custom-made at Bonnet, an elite Parisian eyeglass shop who also served designer Yves Saint Laurent. The simple, round shape reflects Corbusier's functionalist ideals and the pure forms seen in his work both as a painter and architect. They quickly became his signature accessory, and beginning in the 1920s he, along with other notable figures such as Edith Head, began inspiring people everywhere to sport a similar, owl-shaped look.

SOURCE: [www.archdaily.com](http://www.archdaily.com)



## DE-STIJL

This section of the magazine shows the art movement "De-Stijl" in an abstract form in the background, De-Stijl 'The Style' in dutch was an Art movement started by the Dutch in 1917-1931. The use of only horizontal lines and verticle lines and colours of black, white and primary colours is what defined the works of the 'De-Stijl' art movement. This minimalistic and harmonical juxtaposition of horizontal and vertical lines in assymetrical grids acted as principles for the art as well as architecture.



## PUMPING A NEW LEASE OF LIFE

### AN INTERVIEW WITH ECOZEN TEAM

Questionnaire By : Surabhi Mathur



#### ABSTRACT

Ecozen Solutions is an energy-focused company that provides renewable energy based products. It was started in 2010 by Devendra Gupta, Prateek Singhal and Vivek Pandey, graduates from IIT Kharagpur. It was created with a motive to create awareness against poor energy management practices, to drive sustainability in the burgeoning Indian market, and elevate the Indian industry to the standards and expectations of a developed nation in the new era. Motivated towards providing a sustainable present and a green future, Ecozen Solutions offers products to cater to agriculture focused markets. They are the developer of Ecotron - a solar powered pump controller system which helps in water irrigation and Ecofrost - a solar cold storage solution that reduces the wastage of produce using clean energy. Ecozen has received 2019 SEED Awards, sustainable energy heroes at the International Ashden Awards and many other awards.

**Q:** What is Ecozen? How would you describe the ideology behind Ecozen? The journey of Ecozen began during your time in IIT Kharagpur. We are well aware of the success stories of the incubation centre at IIT Kharagpur, we are sure the exposure gave you a lot of insight about your startup in 2009. How different was the experience when you started meeting farmers and other people from rural areas? How did these interactions influence your research?

**A:** The initial idea was to enable energy access and efficiency. While the three of us were students at IIT Kharagpur, we met farmers who had land and bore filled with water but were not able to operate the pump due to lack of reliable power. They were dependent majorly on rainfed agriculture. We developed an irrigation controller "Ecotron" and used solar energy to power their pumps. The farmers then started taking multiple harvests. Their production increased but their price



realization did not increase proportionally. In fact, their price per kg went down. This made us think seriously on the need of post-harvest management at the first mile. We innovated on the control technology we had developed for pumps and improved it to run a refrigeration system effectively. We combined it with thermal energy storage for backup purpose and built the world's first portable solar powered cold room " Ecofrost". Ecofrost was built to fundamentally allow for farm level pre-cooling and help buy time for farmers to aggregate the produce while they found right buyers for their produce.

**Q:** What do you think is the potential of Ecozen? How would you imagine Ecozen evolving in our country?

**A:** India, like most developing nations, loses over 30% of the food it produces. A solar powered cold chain drives food security by improving food quality and nutrition while improving farmers' livelihood. Cold chain industry is poised to grow at 28% CAGR primarily driven by the demand generated from organized retail, food processing and exports. Government is planning to upgrade the infrastructure of 22000 Mandis across the country, under Operation Green. Innovative leasing model successfully demonstrated by Ecozen will help penetrate the market faster.

**Q:** What gave you the idea of creating a company that provides renewable energy and to create awareness against poor energy management practices? In your experience which type of market do you think is the most deprived of sustainable resources?

**A:** With pre-cooling and staging solutions like that of Ecozen Solar Cold Room (Ecofrost), a farmer can extend his



Ref: Team Ecozen

(Ecofrost), a farmer can extend his produce's shelf-life, reach the right market at the right time, send the produce to farther markets and get a better price. We have installed our system in agricultural produce markets, where farmers and vendors can keep left over commodity at the end of the day to retain freshness and use it in following days. Ecofrost helps them to reduce the wastage and increase their income.

By switching to a sustainable solution in energy deprived area, Ecofrost has helped the farmers to decrease wastage by 20% and increase their income by 50% and in some cases even 100% percent or more.

A solution like ours can help F&B manufacturers to identify and procure quality produce directly from the farms. Being cold chain enabled, we can offer the option of long distance sourcing of perishables while ensuring quality and economical pricing. Furthermore, a strong and robust cold chain enable distribution to the last mile.

**Q:** We have witnessed the growth of Ecozen in the agricultural field. I'm guessing the potential of solar powered energy had a lot of potential for the same. Can you tell us your future plans for the agricultural field? Do you feel you have been successful in tapping the potential of solar energy through your work?

**A:** We have been able to grow 25x in

terms of revenue over the last 3 years.

- We have enabled over 21000 farms to be sustainable; with 150+ Ecofrost and 20,000+ solar pumps on ground 30,000 MT perishable served
- Ecofrost users have managed have managed 30% increase in income, in some cases even 85%
- Regional farmers connected to farther markets and exports
- Currently operational in over 6 states across India, Kenya in collaboration with the OGCCC, Indonesia, Bangladesh and Afghanistan. Next couple of years we plan to build our network across 15 more states and cater to the international markets in Africa, SE Asia, Nepal, and Sri Lanka.
- By 2022, we have a vision of impacting 25 million lives and create 1mn tonne capacity for cooling perishables.

**Q:** Can you tell our readers more about the SEED program that was selected by Villgro?

**A:** The SEED program of Villgro was very helpful. As engineers, it was our first formal learning on the business side. We learnt about how to track the business, interact with customers to get feedback about the product, build funding pitch and so on. Most of all it enabled us to raise our pre-seed funding and build relationships with a lot of mentors, some of whom have played a very critical role in helping the founders shape the business.

**Q:** What were the difficulties that your team faced in reaching out to the deprived farmers and supplying them your products? Do you feel the government policies are encouraging the use of renewable energy in the field of agriculture?

**A:** The challenges that we see, pertains to the right infrastructural facility for the



Ref: Team Ecozen

cold chain space in the country. Acceptance of the novel technology is another area we are working upon.

Government subsidies have played an important role in the cold chain sector; with 35% subsidy available on our solar cold room at central level. The projects are subsidy driven and the cost varies depending on different customer requirements, markets and regions. Market is ripe for innovative solutions coming in to address these challenges.

**Q:** Recently our agricultural market has been taking major hit due to change in climate. The farmers are often unprepared to deal with such crisis. Do you feel that Ecozen currently (or in future ) will be successful in dealing with such crisis ?

**A:**

- Farmers can keep their commodity safe in case of untimely rains or hail in the Ecofrost solution, grape farmer already do so .vvv
- The cold chain and information platform integrated corridor that Ecozen is building for movement of perishables will unlock the far-off markets for commodities and in case of climate crisis affecting production, those regions can be supplied thorough other regions as they will be well connected.

**Q:** What message would you like to pass on to the younger generation after your experience in the agricultural field working with so many different people?

**A:**

- Agri is a very big opportunity, the problems are diverse, very regional and there is a lot of value to be created.
- Build products for a very specific segment and build capability for customising the same for other segments.
- Financing models are absolutely necessary to scale upfast.
- Huge opportunity in bringing post-harvest management techniques to farmers, enabling them to reduce wastage and gain better value; ideas encouraging Pre-cooling at the farm level and Cold Chain enabled Value Chain allowing farmers to drive Price, while the consumer gets the best quality!

Government subsidies have played an important role in the cold chain sector. with 35% subsidy available on our solar cold room at central level. The markets is ripe for innovative solutions coming in to address these challenges.



## RETHINKING INNOVATION

### AN INTERVIEW WITH PRABHU RAJAGOPAL

Interview by : Omsrushti Garge,  
Shivani Parkhi, Shreya Nachne  
Questionnaire by : Mansi Shivnikar  
Photograph by : Amal Muralidharan  
Transcript by : Shreya Nachne, Swapnil Rane



#### ABSTRACT

Prabhu Rajagopal is a Professor at IIT Madras and a Dual Degree graduate from Indian Institute of Technology, Madras (IITM - 2003, ME), Prabhu Rajagopal obtained his PhD in Ultrasonic Nondestructive Evaluation (NDE) from Imperial College London, UK in 2007. He is also the cofounder of startups like Solanys and Planys. His passion for his work and his concern for safety of the common people led to the idea of inventing underwater robots for inspecting submerged pipes, and tanks.

**Q:** What was it that piqued your interest in the study of structures under different conditions?

**A:** First of all, I would like to give you some background to my own work - I am trained as an ultrasonic scientist, I have done my PhD in Ultrasonic Non-Destructive Evaluation. Now, design can mean many things. Design for me is about making things. Design can get into details, for example - people can look for calculations, loads, strengths, which I do teach, but I am very much interested in an approach called as 'Philosophy let Design', that is, how can I take guidance from a particular philosophy in such a way that my design is consistent. This way you will be a person of integrity. How can we maximize benefits out of minimum resources? I want to explore the concept of 'Magical Realism' in the context of design and concepts like Recycling in the context of Indian design. My main interest in structures is to make them safe for operation as it is an aspect we should be increasingly aware of.



**Q:** In your years as a student what was the most important thing that you learned?

**A:** I believe that I am still a student, I learn to appreciate being methodical. I couldn't do last minute stuff, so I used to have a diary and plan a lot. It's incredible because I still have some of the diaries with me. Maybe it came from my mother because what I learnt from school is that you can achieve extraordinary things if you just manage to be methodical. 0.1% of the work, when done consistently does add to something is what I recognized very early.

**Q:** What was the most recent and challenging project you were involved with? The one which you found was introspective for you and made you discover new ideas.

**A:** There are many challenging projects I am currently involved in. My PhD project was a big challenge. I didn't think about it before, I just went because my mother said that if I started working, I won't be able to study later. But I was not sure what was going on, because for a couple of years after my PhD, I started facing issues regarding solutions around practical problems. Thankfully, my supervisors and bosses didn't drive me away but the main part was given to someone else which shocked me. I want to do this, I am here to do this, and that's why I am here and I started introspecting. You need to have your own dream that is what will fuel your work until you get your own dream you will be following someone else's dream. The passion and alertness you bring to yourself sometimes changes in your mind this is what I discovered from the process which is painful for me and yes, I am here because of that.



**Q:** Your work on the robotic Septic Tank cleaning solution has been discussed widely. What inspired you to invent the sepyo septic tank and how is it different from others of its kind?

**A:** We first developed this robot for inspection of submerged pipelines. This design was widely appreciated by industrial people as when they saw this; they said it looks fantastic can you do inspections of tanks for us? Underwater robots inspired me for the project of septic tank. While showing the project to people we bumped into an organisation called 'Safai Karamchari Andolan' an NGO which works with septic tank workers, they saw it as a nice and great invention. Main problem was the amount of deaths happening in septic tanks, so that is when we started working on this robot, which is slightly different from others as we made mock-ups and showed that the robot can work in a septic tank, it can stay in place, can remain stationary, turn around, go up and down.

**Q:** Due to your passion for tech-translation, you have co-founded startups including Planys and Solinas which deliver robotic inspections for submerged structural assets and more recently Xyma Analytics which delivers Industrial IOT using waveguide sensors. What new feats have they achieved?

**A:** Planys, for example, is now the only company that offers solutions in some very

unique spaces, for example Dams – Dam safety is a major problem. You must have heard of dams bursting in Maharashtra. So how do we check the quality of the construction of these Dams? Also, the water contents can vary widely in Dams, like during summer, during drought, it is very little, otherwise it can be very bad, to the point that you will have to open it. So Planys is the only company in the country that offers advanced solutions for this case. Secondly, unique things for example last year there was a mining tragedy in Meghalaya, there were these rat hole mines. (Dug from the shaft) and we were able to identify the rat hole via sonar image of the main shaft. That is the impact Planys is delivering safety solutions for the industry and society. Today, Planys is expanding internationally, providing services in Europe, Middle East and so on. It is a big joy for me – Planys has also worked in many ports, like the Chennai port. To see something coming from the first prototype all the way to the actual application is an amazing thing. Everyday, I feel proud for what it is today.

Solinas is an upcoming project and it is the only company that develops advanced NDT tools for pipeline safety. Endobot, for example is a product, or rather a robot that goes inside a pipe for profiling its features for reconstruction of pipe internals. So these kinds of novel sensing techniques married to robots result in a unique advantage.

**Q:** What checks and balances do you use to make sure that you don't make mistakes?

**A:** During my everyday routine, I follow the same method that I've been following since high school which is planning. Although, sometimes you just have to jump into things to get them done.



**Q:** You have cofounded start-ups wherein your leadership skills must have come into play. How would you describe your experience?

**A:** See, in a start-up, the dynamics are totally different. In the lab I can say that I have leadership. But in a start-up, me along with other students, are a team. Instead of leadership, I'd rather say it's more like being there for them. That's what I like to do in a start-up. I'm not leading the team, I'm being there for them. Think of that as Ravi Shastri vs Virat Kohli – Kohli goes and wins the world cup, but Ravi Shastri is equally important, backing him in his game. So, when some technical input needs to be given, I'm looking at it from a different perspective, as it is always better having a third perspective into things.

What we wish to do is nurture young leaders. We want them to go out, make mistakes and learn from them. Of course, we are there for them so as to ensure the mistakes are not fatal. But some mistakes are important in order to learn and grow.

**Q:** No ethic is as ethical as the work ethic. What are the work ethics you strictly follow?

**A:** We as scientists are trained to look at things in a very dispassionate manner,

like when we get some results we may be excited, but unless we have observed it from multiple different angles, we won't go and report that. We don't try to sensationalize these things. So being critical of oneself and not taking yourself too seriously, is what we aspire to bring to the table. Like they say that in religion, one particular person is great. But in science, It's like everybody is great, or rather, equal. Under certain conditions if I obtain a result, tomorrow you should be able to obtain the same result under the same conditions. This doesn't make me any special than anyone else. Treating everything with a certain amount of scepticism and not getting excited before things are confirmed is what helps. So, when something isn't working, we don't stop at one answer, but try to find the whole deal about it. Personally, I am very excited about technology translation. I feel like good science needs to reach the field.

**Q:** Is there anything you would like to convey to young and aspiring engineers and architects?

**A:** What I have been observing in our students since a decade, is that I don't see fire or passion in their eyes. Often, I find that students do something because of expectations from others or their parents. But really, what is your dream, or what do you really want to do? I was in the west for some time, and students there were firm in saying that I want to do this or that or achieve something. I don't see that passion anymore. Although, I'm not saying it is not there, because every youngster out here has some or the other dream, just bottled up deep inside. I would say, unbottle this "genie", and that miracle will happen. I wish to see fire in youngsters because in this young age we haven't seen the hard sides and



challenges of life. So why don't we dream? And dreams are not about material possessions, those things come with success. Our country is young - say 65% under 35 but still people can find themselves seeing black and white.

Now, the thing is not everybody who dreams will totally achieve their dreams. But you'll be satisfied that you didn't kill your dreams.

Also, your dreams have to be necessarily unrealistic. If you dream of going to Jupiter, you will end up on the moon. If you only dream of going from Pune to Mumbai, you may not even reach your destination. Often it happens that people have a ready-made dream for you, all because they want you to be happy and think you will be happy if you follow that particular path. But if you are truly happy pursuing your dreams, the people in your life that love you will be genuinely happy for you.

## STORIES OF MUMBAI THROUGH VISUAL ARTS

### AN INTERVIEW WITH PRATAP MOREY

Interview by : Omsrushti Gharge, Abhishek Hegde

Questionnaire by : Kundanika Prasad

Photographs by : Amal Muralidharan

Transcript by : Abhishek Hegde, Amal Muralidharan

#### ABSTRACT

Pratap Morey is a Mumbai based artist who completed his graduation from Vasai Vikasini College of Visual Arts. His solo exhibitions include Concrete Ciphers, TARQ, Mumbai (2019), Lost right Angle, Space Gachang, Deagu, South Korea (2017) and measure | decipher, TARQ, Mumbai (2015). He is also the recipient of the Bendre- Husain-Scholarship, India (2013) and the La Critique award at Salon des Réalités Nouvelles, France (2012). Recently, his work was showcased at the Tarq Booth C03 at India Art Fair in Delhi (2020). He has been trying to understand the relationship between the space and the people living in Mumbai through his artwork which is also represented in the form of architectural drawings juxtaposed in a way which portray his feelings and thoughts about certain issues, faced by a Metropolitan city like Mumbai and the daily lives of people revolving around it in an emotionless way.



**Q:** How and what led to your interest in being an artist? Is there a story behind your choice?

**A:** While choosing the career there were few things in my mind, I wanted to become an artist or an architect and editing films and all that. With the marks which I had secured in high school probably I'll get admission in the arts school only, that is how I landed in the arts school. I was not a good student in terms of marks so, fine arts was the only option available so I jumped into that but, I was very much exposed to contemporary art and architecture even in my school days. And I was majorly having an interest towards manually hand done work, was one of the reasons for my career as an artist.

**Q:** Is there any one such painting of yours, that act as a driving force?

**A:** I don't say painting but, there is some photographs which I had done initially that changed my thinking. Previously as I was



restricted to small space which has a small computer and digital camera in my own house, that time I had a habit of taking photographs of myself, my body parts and the things which are around me like ceiling fans, tawa, etc. As these series of photographs changed my perspective as the self-portrait doesn't has to be your own portrait, but it can be your expression.



**Q:** Over the past years of urbanization and hanging scenario have other artists or art speakers or trends have influenced your sense of aesthetics if yes, then how and is there any artist you would like to collaborate with?

**A:** I would like to collaborate with architecture, like an intuitive architect I will say but, I don't want to collaborate with architect who will have the different vision to look at drawings and different blueprints as they have a different vision to it and, I have different vision so I can collaborate with any of the architecture to produce something, and also I may be collaborating with the carpenter because I want to develop something which is three dimensional. I am a trained painter so I try to do it, some sculptures few years back that's one aspect that I want to collaborate, and expand, and construct. I can make 3d on paper but actual 3D works something I would love to collaborate.

**Q:** What do you feel about this notion of buildings replacing chawls?

**A:** Again it's difficult to put it in one word or understanding it transition is required it has to happen because, we fighting for space so the space has to build in some manner so I think what I feel is the human element is missing that one factor is bothering me. I'll say that they are not even taking into consideration how the body moves into an architectural space. So like I would say that

when I visit the high risers, this is a manmade structure but when I go to these high risers makes me feel tiny as a human being. This new structures are not human friendly and the problem is they are made by humans.

**Q:** What was your idea behind concrete ciphers and how did you get inspired before starting the project?

**A:** Initially, I was just thinking of lots of bridges in the city and I just wanted to point out and locate that, there is a loss of geometry but its looks ideal and it there so it's working and functioning. There is flyover near my house and a metro is being built so the metro plan goes over the flyover that is tiny space actually, technically it can't be possible as they want to inject this metro in this tiny space so because this the sound barriers which is been kept is collapsing but the metro will be functioning eventually. Just like the small space into big space or big space into small space and filling up the spaces and occupying, consuming whatever space you have, its changes and the change is a dynamic change, the way you look at.

**Q:** Among the many curated groups shows you have participated over the years, which one according to you was one with the most enriching experience?

**A:** I've preferred more of residencies than these curated broke exhibitions so, residencies you get to interact and you get to see

the artist works right from the stage which is been built. So all of the residencies, few of the residencies I have been too they are very agreeable. Lot of new ideas, lot of debate to realize that about the few aspects about the work which is missing and, someone has highlighted this, then you realize that you wanted to do this or that.

**Q:** In all these years of your career, what was the biggest hurdle you came across and criticism that you received at the very beginning, how did you overcome it?

**A:** I have faced a lot of difficulties; every day you get to face it. Initially the space, the space has always been the difficulty. My place where I stay, even the kind of work which I wanted to do is big work so, space is the biggest difficulty personally, professionally my works, my drawings and understanding the space ,how to draw within a span of less time but I would to create a better and huge space so there is a challenge when you draw line it changes lots of things, an architect can understand this more better and other than this shifting to different medium was the difficulty, shifting from traditional to conventional panting, because I was responding to the situation around me, the situations are contemporary so my work is contemporary. Shifting the medium -like shifting from painting something which I didn't

know what I'm going to do, initially photography happened and then while doing photography, I always wanted to do something with hand because of which I liked the arts school. So the uses of photography, image and drawings I've really have that short which was initially a difficulty.

**Q:** What are your plans for future and do you have any projects lined up?

**A:** As you see the corporate buildings, you can see the blue coloured glass in that it has a particular division to make the building good, whatever it is and when you also look at this general glasses they are blue in colour. So afterwards just going through the diagrams and all of that I saw that there are a lot of blue-prints, architect's blueprints. So, the blueprint is on the intermediate stage and blueprint is in intermediate stage or something you have thought and something that is going to happen so and then I was fascinated by this intermediate drawing so I'm working on this blue prints. Cooperate glass and blueprints which I'm trying to get them together. And it's changing the horizon you see it changing because of this glass, don't know whether this glass is suitable to our climate or not, it consumes lots of energies if it is advisable. But it is changing the horizon, its everywhere now you can see this in the residential building as well.



## ARCHITECTURE IN A COMICAL WAY

### AN INTERVIEW WITH LEEWARDIST

Interview by : Omsrushti Gharge  
 Questionnaire by : Purva Rane  
 Photographs by : Surabhi Mathur  
 Transcript by : Saif Hussain



#### ABSTRACT

"The Leewardists is a platform to know about the importance of Design, Architecture, Sustainability and Urban Design through the medium of Comics. It is the easiest way to convey complex issues from ages to my viewers", says Anuj Kale, who finished under-grad and post-grad in Architecture and Urban Design at the Centre for Environmental Planning and Technology (CEPT), Ahmedabad. The Leewardists represent the daily lives of Architecture students, interns, professionals and academicians in the most relatable way to present life. The comic being relatable to those from the Architecture field makes it more easy to convey major issues facing architecture and issues regarding conservation of heritage buildings in the garb of satire.

**Q:** Did you ever think that your love for comics would lead you to make the comics you make now?

**A:** I always used to see my father drawing something. That was something what I wanted to do too, and hence I studied architecture. The comics didn't come into the picture in the five years of the course. The colleges do not expose you to things which they feel can be connected to architecture, they only want you practice architecture and focus on the design part. Later on when I went to CEPT to do my masters in Urban Design, I thought there is something that I need to do. I need to fuse things, I cannot only do architecture and I think that is where it all started. Everything in seven years of the course contributed to all the comics that I do.

**Q:** What was the story behind the name 'Leewardist'?

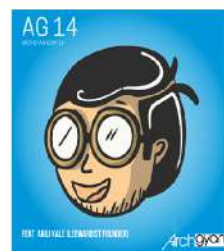
**A:** We were two of us in CEPT who thought of keeping the name 'Leewardist' as my

friend is very good with 'leewards' which is a geographical term which signifies the barren side of the hill. You don't usually see this side in the comics. Even the photographs which you see are on the windward side, which signifies the brighter side. So we, the designers at the leeward side which is equally important but nobody knows what we do. So Leewardists are trying to show the world what we do.

**Q:** How did this breakthrough happen, wanting to quit an architecture centric career and moving on to something so challenging?

**A:** The idea of practicing architecture was becoming dumb for me because it has a lot of people involved. I'm not saying I don't want to design but my creativity is hampered especially in the Indian context where I have to appeal and deal with the mentality of people who do not understand design and architecture. I think the most important thing is money. I think I was not meant for this. I don't hate the architecture course, in fact, I love it. But I hate that part of it. I know a lot of people will say that, 'that's challenging and that's what we have to do'. I eventually thought that okay if I'm not meant for that I have to freeze. I'm not saying it's challenging; I actually chose that part which I thought was comfortable for me and I would excel in it, and I would become a master not only just making conversations.

**Q:** You were talking about the problems that you faced in the architecture course in your college. The architecture course that we have right now is good but the support from college for the extra-curricular activities related to design is not that encouraged. So what do you think are the major loopholes in the way an architecture college in the country works?



**A:** The definition of the course has no problems, but when it comes to extra-curricular activities, these can actually become your passion and that is when the colleges won't support it because they cannot take guarantee or take responsibility of nurturing the kid or the student. The course is hectic but you can learn a lot of things. You're not only exposed to design but also the practical side of it, you have building construction, you have presentations which are aesthetics, you have history. You are exposed to a lot of facets; it's not only designing. You're also exposed to writing; if you're making a model then you're exposed to craft and photography. It is hectic because you are exposed to multiple things and any of these things can become your passion. I know it's a bit tough to do this when you're in the college because of the peer pressure and the parental pressure. There's nothing wrong with the parental pressure and listening to your parents but you also have to think about yourself. I have not listened to my parents for the right reasons. Of course I listen to everything they say, but when it comes to me knowing and following my passion, I know better. So I have not agreed to their points almost 90 % of the time. Because I feel that is what I want to do. You can debate with your parents regarding what you want to do, they will never say no. They just want to see you in confidence. If they see that they will agree for the first. You can try what you want. Then of course they will say 'ki nahi ho raha hain', 'this will not work'. They are concerned. It starts from your house. Because I had to convince

my parents first and then the world. It's difficult, again, it's easy for you to see and get inspired but it's quite difficult when it comes to the reality. Then the college, then your peers. I think even before your parents; you should talk to yourself which I think nobody is doing. Because everybody is so busy in running this race where there is no end. You are doing your submissions, following instructions but what are you getting out of it? The marks? Which I think when you're getting into it nobody looks at your marks. So what is this race about? This is actually not a race; you are in a path. You should be the only one. When I started, I was the only one. There was nobody trying to do something like this. Once I took a journey on this path, then people started to follow as in, when I say follow I mean they're trying to do the same thing. The bottom line is you have to believe in yourself; again a very cliché statement. But when I say believe in yourself I mean that once you find your thing, you call it passion right? So whatever it is, however naïve it is, however small it is. Sketching, that is not yet right; you have to work on it. You have to be patient. If you look at the world closely, when you fail, you have to be patient and not take a decision. The problem is that when people fail, they immediately start taking a decision, that something went wrong I did something wrong. No, you did not do anything wrong; it's just a part of life. You are on the right path but you will have hurdles. Between that I have to go back and start something new.



**Q:** The loopholes of architecture?

**A:** It's not a blame-game; I mean I'm not blaming any college. But I think that is how every college is today, it's all about the curriculum, about ticking marks like a tick mark deeper in-trospection into a student like if you're good at something the faculty should understand that instead of forcefully imposing certain thoughts which they feel are comfortable for them. Nobody wants to take a responsibility. So nobody wants to take a responsibility for you to help you identify what you eventually want to do. So maybe you don't want to do completely architecture. The faculty needs to understand that. We are in a course which has the liberty to mix and diversify. People said that you have wasted 7 years. That's completely wrong, I mean because of these 7 years I am what I am today. The faculties or the management are not taking responsibilities for the students.

**Q:** What makes it difficult for architects today to sustain in this competitive era?

**A:** The number of colleges has increased drastically. In 2010 when I graduated from my under-grads there were like 100 colleges, now it's 5 times, like 450 colleges. The first question is 'do we need these many architects?'. The second question is 'are the students understanding that this is what I want to do' or this is like my last option.

Because they feel like 'mere ko kahi nahi mila to', I didn't get anywhere so this is my last option. And because now we have more colleges, it is easier to get into any colleges except the top colleges because they're still tough to get in. It's like a business so that is why there are so many colleges. The colleges just have to maintain certain things to show it to the council of architecture that we are doing everything we are giving the best to the students. But eventually if you evaluate a student from that college, that student does not know anything. It is difficult to sustain afterwards because we don't need so many architects. The student has to question oneself that now I am in architecture should I do it? or should I mix it? or should I do something else. We have 60 students average per batch in 450 colleges, which becomes 24000 students. Out of that you can see like five architects that do something at the national level which is even less than 1 percent. The same is for the engineers. Architecture is the new Engineering because at the rate at which the no. of colleges is increasing and the students are increasing. Nobody wants to be an engineer these days, everybody wants to be an architect. It's like a trend, it's cool, you don't have exams. It's like cooler option than engineering. I mean it's sad right? That is why you won't get jobs because you thought of this as a cooler option or last option. You will not start practising, it will be difficult. The quality of students and quality of education is decreasing. The student who has come to architecture may not be fit for architecture and is fit for something else. But no effort was being taken by the student or the parents to identify what they want to do. So like I said it's like the new Engineering, so everybody is getting into the architecture and the number of colleges support that statement.

**Q:** How is it different working in an environment where you have to handle people from various academic backgrounds under one project?

**A:** We collaborate with other professionals or organizations because it's also a part of our business model. Because as we have audience, we can also sell products which an audience, we can also sell products which are usually architecture competitions, some event or some software. We did promotion for ARCHDAIS which was an architectural competition. A few months back we did something for Autodesk (AutoCAD). Whatever is beneficial for the students and the architects. We scrutinize the collaboratives we have, we will not start selling anything. We also have our own products where we sell merchandise and online courses for students who to come and learn architecture with a more clarity of thoughts. Any product or any collaborations we do is for the students or the audience. Because what we are today is because of the audience. We cannot be biased, we cannot say things that are false, we have to be true. Because people like us, because of our genuine content. We are not funded by anybody; we are an independent organization. Whatever funds we generate, we use it in our own platform. So when it comes to dealing with people, in our case it's frustrating, because we have developed certain standards for the past four years. Leewardists is four years old. People like, people follow, people also buy things from us. So that's why when people collaborate with us they have to follow those rules or terms and conditions. Most of the times it's easy, if we you want to collaborate this is what we do, if not that's completely fine. So we have developed these through years, it's not a recent thing. People actually don't want to take things slowly. We live in a world that is supposed to be fast.



Some professionals might disagree with this that no things have to be fast. I understood how things are better if they're slow. Yes, you will be criticized a lot. But eventually it's about me right? And I want to take things slow because I want to do something that eventually makes sense which will be remembered. So I want people to remember me or this organization or the comics for a longer period so it will take time. There might be a lot of people will disagree because they've done it in a fast way. But I as a person I think it's better to take things slow. The slow process will not give you any results. But eventually it is about you, if you can get for your passion to grow and you develop into expertise, you have to take things slow.

**Q:** How difficult is it to manage the balance between 'comedy' and 'inspiration' in those comics?

**A:** Yes we have a set of inspirational comics and a set of humorous comics. This is a difficult question because humour cannot be defined. It is something that we have to practise from your childhood. You have to understand what clicks with the audience. You can crack a joke but the audience might not laugh. Then we have to understand what makes people laugh. In today's context, it's the things that are relatable. If my comic is relatable, then automatically it is humorous, because reality is a joke. So you don't have to crack a joke. If you just say that I slept at 3 AM people will laugh or you got a redo, maybe you will cry but others will laugh. Somebody might ask about the North; you will feel bad but others as an audience will laugh. They'll laugh because they've faced it. Humour is tough on this public platform. It's actually a tough job because we have to analyse what will make people laugh. That is the toughest part of our job. The rest of it making graphics, comics is nothing;

we don't even think about it much, we enjoy it. It's actually tougher because we have to inspire people but at the same time we have to make people laugh. Every comic has a certain inspiration even if it's about redo or the North. Every comic if you look back at it you will get a learning out of it. The only thing that is not constant is the humour because I cannot forcefully add humour into every conversation. So it starts with a humorous thing and then I relate it with the inspiration or some learning you can take back. But it starts with something inspirational, maybe it will not have humour because like I said I cannot forcefully add humour. A joke will come to me if I see something happening in the society or in the college or by talking with the architects. So that joke will come instantly and it will definitely have some learning they can take back. If I see something like people calling us architecture. So that is both a joke and also a problem in the society that people don't know what we are. It's actually serious also but it makes people laugh. We also did a comic called 'we don't need an architect' which is basically about an app that comes in the world. So that is something which I saw some of my IT friends talk about, we can also make an app in future where you don't have too design. My brother is in the IT department, so his friends were talking about this. And then I thought this is something that can happen very soon. So let me imagine a future where there is an app that actually designs for people. So what will happen? Now I cannot add humour in this its already a heavy topic. Adding humour to it will actually kill the comic. But humour sells the most and comics like this don't. If you want these comics to also sell, it has to have a good script, it has to have of course good visuals, relatable things that people will understand. These comics are quite difficult because we have to write a lot which we haven't been doing lately.

It's a lot of work and that's why a lot of comics have been gone down because we're quite busy. But as soon as we have two people coming on-board, so as soon as that happens it will be regular.

**Q:** In an internet friendly world, how do you make sure your content is original considering the fact that we're always influenced by what we see through scrolls on a daily basis?

**A:** Maybe my education or maybe my upbringing has taught me to.... like my father's an architect, so he believes in original work. I've never been in that group whose like let's copy this or like let's take a shortcut. My upbringing is always about not taking that way. And because my father is an architect he used to imbibe in me that you have to have original thoughts, original ideas. That's why he exposed me to comics, animations; T.V. series to make get exposed to these things. So even today everybody asks me... because I have to come up with comics on a daily basis. I cannot get influenced by certain comic it doesn't happen with me. Maybe because of my education or my upbringing, which has actually helped me to not get into that part. Even if I get influenced by certain comic, we tag or credit that person. So even if it's an idea that's been given by the student we tag that person or if were influenced by somebody we tag them, saying that this comic is inspired. And that again is not taught in the colleges, Credit. Everybody is stealing our work, converting it into their language, even removing our logos. But sometimes I feel good, I'm the source and people are copying. So you have to be that person. I mean it's okay that they're copying. It's actually an achievement, our comics being converted into other languages. Yeah it's an achievement. I will not say it's

copied; I'm taking it as a compliment. Because these pages or these people on the internet are waiting for us to post. So I never was disheartened by not getting ideas or I should copy. Because you know that frustration that I think now I have to take something from the internet. It's fine it's okay like 'do din nahi aayenge comics', its fine. But whenever I should post it has to be original because the original one will travel the world, the copied one won't.

**Q:** So you've been doing this for like almost 4 years. So have you thought that maybe someday I might run out of ideas or content?

**A:** My parenting, my upbringing had actually motivated me to always be excited about thinking about ideas, being creative. So I'm always excited about it. So it never demotes me to think about that now I should just take ideas from the internet or I'm out of ideas. In fact, the more you think about new ideas, you will have more ideas. So the original idea will actually help you come with even more ideas. I mean I don't know why people are afraid to be original and be creative. When I go to colleges, they always want to take that shortcut or the fast way. Nothing wrong with it but if you achieve something fast, it will also be finished fast. So for an example- if you copy something as a design and then show it to the professor; for that moment, for maybe that half an hour, we'll say 'oh nice work' but after that when you go back you will feel bad about yourself. You've actually not learned anything and you just got false praise.

**Q:** How would you describe the whole journey starting from an iota of followers on Instagram now?

**A:** Initially I used to be very worried about the number. You need the followers; The audience is following the work to see what this person has to offer next. If they don't find it, they will



unfollow it. They will not subscribe to it. It's like a subscription. They subscribe to the work. Initially it was frustrating because the first ten thousand is very difficult. The next 1 lakh 30 – 40 thousand were not actually that difficult because I somehow knew what to give. So it was a very interesting and exciting journey. The first 10,000 or the first 5,000 or I could say the first 1,000 is where a lot of people back out. They actually maybe 1000 or 5000, but they don't see the growth and that is where they stop. So why do they stop? Because they don't evolve. They have to evolve. I can count and say I have evolved 4 times. I can see all my comics on my timeline and I can say that 'haan yaha pe I have changed something' and I can see that. The world keeps on evolving and so you have to too. You cannot just stick to it even if you suffer the ample, even if you "topped the class". You cannot be a topper in the second semester or the third semester because we are in a field, where we have to evolve. You can see in every semester there is somebody else. Or there is a single person who is the faculty's favourite. Because that's how design is right? It's subjective. You have to evolve you cannot follow the same rules or the same ethos which you had in the previous semester. You have to keep thinking about what is new? What are the current trends? That is also with me or with every profession that you have to evolve. The world is changing fast and you have to evolve according to what the people want. So even the comic storytelling has changed from the first comic to what you see today and it will change. You cannot say that I cannot be satisfied. In fact, it is a very scary thought for me that 'oh I think that I have cracked it'. No I've not cracked it, I still have to evolve. So even today I'm struggling with everything because I constantly have to evolve.

It's like starting all over again and that I think it's tough. But if you work on your field, your passion, it is not tough. Then you will automatically evolve. People don't have to say to you that now you should evolve. Nobody is telling me that. I am evolving automatically. And that is where you also have to find a thing where everything is automatic. Nobody has to tell you and mentor you. I did not have a mentor. Who will mentor me? There are no cases like me. The architects say something else, the artists say something else, few cartoonists which I know from India, again they have a different background, they're not architects, they say something else, my parents say something else. So who should I listen to? So I have to mentor myself and because in that process I mentored myself, I know how to change and evolve according to time. It's a slow process but a good process. It's eventually helping me. So you've heard this word 'viral' right? What is trending these days? Anything which is some trend like the Kiki challenge was last year. What is trending these days? There is something which is going on like 'ok boomer'. I mean yeah it's a sad thing because it's something very debatable or controversial. So whoever had come up with that or whoever said it for the first time, that person has become viral for a month. Not even a month, it's almost getting over it's a week. So a viral thing on today's day is only for a week. But what after that? So do you have something in your life that consistently has viral things? Is it like a fluke or is it genuinely something which you have? Because that 'ok boomer', within a month you will forget about it. But am I making something in a continuous basis which is there in the minds of the people for a longer period. And every week or every month they are seeing something, even if they're not following. There are a lot of people who don't follow Leewardists. But if somebody sends a WhatsApp image in the group, they are subscribed to it but not



I BELIEVE THAT ARCHITECTURE IS A  
PRAGMATIC ART. TO BECOME ART IT  
MUST BE BUILT ON A FOUNDATION OF  
NECESSITY.

- I.M.PEI



TRAVEL



Photo by Atharva Patnekar  
Second year



Photo by Prathamesh Mohite  
Fifth year





Photo by Suganda Das  
First year



Photo by Atharva Patnekar  
Second year



Photo by Saurav Kadam  
Third year





Photo by Umang Panchal  
Second year

FOOD



Photo by Saurav Kadam  
Third year



Photo by Saurav Kadam  
Third year





Photo by Saurav Kadam  
Third year



Photo by Saurav Kadam  
Third year

## THE SCREAM

the inspiration for this painting was drawn from a past event. "The Scream" was a result of the anxiety and fear he felt on a day while walking with two friends. The serene atmosphere, which he had hoped to enjoy, was suddenly interrupted by changes in the sky, caused by the setting sun. To Munch, the landscape seemed engulfed in red flames, triggering an unnerving sense of fear in him.

"The flaming clouds hung like blood "

Edvard Munch



## ART NOUVEAU

This section of the magazine shows the art movement “Art Nouveau” in an abstract form in the background, Art Nouveau or Arts and Craft movement was a decorative and fine arts movement between 1880s-1920s. It was a movement emerging as a result of commercialization of products and in the support of handicrafts. It mainly led to the revival of vernacular art and architecture in a country thereby uplifting the pride and cultural heritage of local people. Inculcating the forms of vernacular architecture and craftsmanship whether decorative forms and ornaments into the present design is what made Art Nouveau unique.



## ADVENTURES OF ALIZA

(Aliza is a female given name meaning joyfull)

Sun never sets here,  
Her world filled with chirp and cheer

Open land with never ending sky,  
Huge and fluffy clouds, you'd see passing by

Clouds filled with mystery and dream,  
To look beyond them, she needs more self esteem

Gods have taught her to be like them,  
How they enable bread and water to the realm

Just when everything seemed so bright,  
Appeared huge mountains to cover the light

It seems like a test of what she learnt,

Looking for the light, she run  
Situation then took a turn

In the dark, the moon shine,  
Making everything again fine

Running again with more courage,  
All her problems hit breakage

Mountains are now her friends,  
Everyone adores her in the end

She knows, never to give up,  
A bright new adventure is now up.

Aditya Shukla  
Third Year



## CLASS OF ROWDIES

We had a class of rowdies  
A class where there was no discipline.  
A class where teaching was a sin.  
A class where we had scribbled chair,  
and marking system not fair.  
A class of girls with amazing looks.  
A class of guys yes completely fools.  
A class where we never used those bag hooks,  
and never looked into books.  
A class where we were always together,  
discussing about the weather,  
supporting the waited and studying later.  
A class where teachers were respected  
students suspended and soft hearts affected.  
A class where we had fun, lots and lots of fun  
those morning runs and amazing buns.  
A class where students were a major pain,  
getting fame, loosing name.  
A class where we supported the weaks,  
never broke those streaks,  
made them family and never let anybody envy.  
A class where everybody was clueless  
and now just now I remember that class was gone.  
and on the last day everybody was hopeless.  
friends lost and I was the only host.  
A class where we stepped out together  
but got lost in this world.  
And the class was remembered  
and A class which will always be named after the rowdies

Káinat Zehra  
Third Year



## CITY IN A BLOODSTREAM

As I'm walking through these streets  
Another day is gone  
The skyline bleeds, a million dreams  
Reflecting off the dawn

As the  
Cadence of that skyline pulls  
Desires that are stuck inside  
Choking out this land, just like a  
Necklace to the countryside

Because the  
City that breathes its life  
Into its every last silhouette  
Carries the spirit that can make  
Mausoleums resurrect

But very kingdom rests upon  
The throne of its skeletons  
Where celebration kicks in  
Right after a funeral

Looking at the future isn't like  
Looking past the haze  
Nobody saw the Notre-Dame  
Going up in flames

How two centuries worth of effort  
Had overnight erased  
Reminds me how it's said that  
Rome wasn't built in a day

But everybody's still in a rush  
As if relaxing was a life hack  
How easy it is to lose your breath  
When every blink is a timelapse

Yet the history of this city stands  
Tall just like a highrise  
With so many stories, I couldn't  
Fit into one lifetime

With nothing you can't do  
In this breathtaking enclosure  
Endless possibilities,  
Quite frankly like the ocean

Stainless to those evil eyes,  
This monolithic superstate  
Before you know, you realize  
This city runs inside your veins

Swapnil Rane  
Second Year



## BESTFRIEND

I took that pen up and a plain sheet white.  
There were thousand thoughts  
but just so messed up to right.  
The things you told me when I left  
maybe all that was right.  
but leaving hurts more than holding on tight.  
My life is messed up with what all happened that night.  
You me the silent graveyard yet nobody to fight.  
I never stopped loving you,  
you exclaimed I always lied.  
but trust me we were on the worst roller coaster ride. when people  
used to say we are made for each other. my hand still shakes for  
writing more further.  
It is a bit difficult for me to move on.  
Cause you were my first love after all.  
Remember when people thought we were gay,  
on our dates where I never let you pay.  
I am sorry best friend I lost you,  
for those whose days in my life were very few.  
hey bestfriend when god said he wanted you badly.  
I was breaking I was breaking madly.  
I hope you are doing good up there.  
life down here is quite unfair.  
PS: She was my best friend.

Kainat Zehra  
Third year

LESS  
IS  
MORE.

- LUDWIG MIES VAN DER ROHE



ART AND ARCHITECTURE

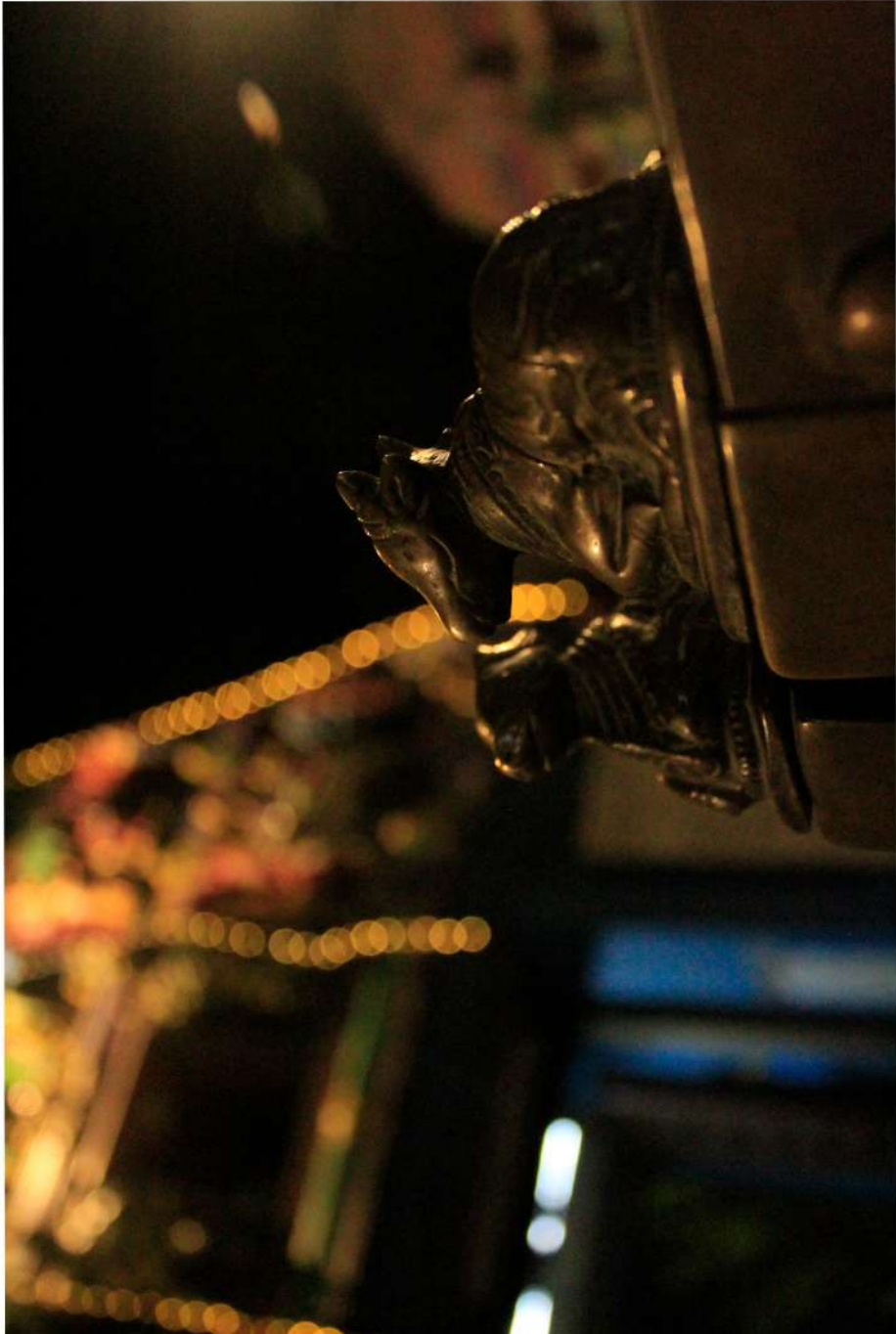


Photo by Saurav Kadam  
Third year



Photo by Swati Kaginkar  
Third year



Photo by Swati Kaginkar  
Third year





Photo by Ashwin Vishwanathan  
Fifth year

COLOURS AND PEOPLE



Photo by Prathamesh Mohite  
Fifth year



Photo by Prathamesh Mohite  
Fifth year





Photo by Saurav Kadam  
Third year



Photo by Umang Panchal  
Second year



Photo by Ritwik Rathi  
Third year



The painting is a combination of three elements that became fundamental to the Cubist approach: flatness, geometric reduction and a multiplicity of perspectives. Flatness was achieved through a lack of shading, bringing the background and foreground together without assigning preference to either. The use of geometric shapes simplified the forms, reducing the visual vocabulary of the subject matter. The use of multiple perspectives showed the subjects from several simultaneous points of view. Cubism is considered the first movement aimed at explicit attempts to abstract the subject matter of paintings. Cubism was a specific scientific approach involving a limited color palette. The results were intentionally, unavoidably abstract. This confident, intentional alteration of visual information

## BRUTALISM

This section of the magazine shows the art movement "Brutalism" in an abstract form in the background, Brutalism is a style that started in the 1950s till early 20th century. Brutalism could be said to be the extreme form of Minimalism in terms of using no ornamentation at all and exposing the building materials to natural elements to bring about the rawness and 'honesty' in design. To be brutal, vocal about the quality of materials and their use visually in the building. It was represented in buildings in the form of its exposed materials- concrete, brick, wood, glass etc.





AR. RESHMA SATHE,  
Assistant Professor.

Biomimicry, innovation inspired by the natural processes of earth. Biomimicry in simple words is learning from and then emulating nature's forms, processes, and ecosystems to create more sustainable designs. Biomimetic or biomimicry is imitation of the methods, systems and elements of nature for the purpose of solving complex human problems.

Living organisms have self-evolved well adapted structures and materials over geological time through natural selection. Biomimicry has given rise to new technologies inspired by biological solutions at macro and nanoscales. Human beings have looked up to nature for answers to problems throughout their existence.

Although human beings have studied biomimicry for the past half century, planet earth has been developing really efficient methods of life for 3.8 billion years. Our planet is the oldest and wisest teacher. However in our extremely short history we have not exactly seen eye to eye with the earth. It is because of this that we are experiencing changes in the climate that will prove dangerous for our future.

The term "biomimetics" was coined by American biophysicist and inventor Otto Schmitt in 1950's. During his doctoral research he developed the Schmitt trigger by studying the nerves in squid, attempting to engineer a device that replicated the biological system of nerve propagation.

In 1997 Janine Benyus promoted the term “biomimicry” in her ground-breaking book *Biomimicry: Innovation Inspired by Nature*.

Biomimicry is defined in the book as a “new science that studies nature’s models and then imitates or takes inspiration from these designs and processes to solve human problems. It sparked the interest of the subject in engineers and designers all over the world. She also started her own world leading consulting organization, Biomimicry 3.8. Their mission is to teach the world to innovate, learn, and be inspired by nature. She continues to strive toward a future that listens to the earth rather than exploits it.

Biomimicry is an approach to innovation that seeks sustainable solutions to human challenges by emulating nature’s time-tested patterns and strategies. The goal is to create products, processes, and policies—new ways of living—that are well-adapted to life on earth over the long haul.

#### Examples of Biomimicry

Nature has since long time perfected the biomechanics of everything. Right from tiny leaf cells to whale fins, adapting their functions to be as efficient and effective as possible for each particular set of circumstances and environments. So it should not be a surprise that designers, architects and engineers take cues from nature when they attempt to design buildings, trains, prosthetics, robots and fashionable accessories.

### **Silk: 3000 BCE**

Silk is one of the first examples of bio-mimicry that we see in human history. Use of the material is dated back to 4000 BC, making it one of the first fabrics invented by humans. It is common knowledge that silk comes from silkworms, and the Chinese were the first civilization to learn from the brilliant worm. This invention was the reason that the Silk Road got its name. Silk could be traded for its weight in gold during the times where only the Chinese had the weaving strategy mastered. 6,000 years later we are still using silk all around the world. The weaving of the thread into fabric is a skill, perhaps acquired from the silkworms. Spiders are another species of weavers and often emulated to evolve patterns and designs in the fabric weaving. This invention by far is the one of most phenomenal examples of learning from Nature.



### **Rock-Cut Architecture: 6000 BCE**

Caves have been used as shelter since the monolithic era 6000 BCE, so it makes perfect sense that in India Buddhist temples and shrines were actually carved into caves and mountain sides. These temples eventually doubled as trade posts on the Silk Road.

### **Umbrellas: 3 BCE**

The first Chinese umbrellas were invented 1700 years ago by a man named Lu Ban, who is now revered in Chinese history. The idea for the umbrella sprouted when Lu Ban saw children using lotus leaves to shield themselves from the rain. He decided to mimic the flexibility and effectiveness of the leaf and create a product of his own. The first umbrellas were, in fact, made of silk. This invention has made it possible for us to protect ourselves from being wet, and move about in wet weather too.

### **Velcro: 1955**

While hunting in the Swiss Alps with his dog, George de Mestral noticed that burs in the woods stuck onto his clothes and his dog's fur. While it was an inconvenience, he saw it as an opportunity. After further examining the burs, he noticed that its surface was made up of many tiny hooks. They stick to things by intertwining these hooks into the loose makeup of surfaces like fabric and animal fur. He invented Velcro by mimicking this surface covered in tiny hooks and partnering it with a surface covered in tiny loops, resulting in the useful product we know today.



### **Bullet Train: 1990s**

In the late 1990s Japan implemented bio-mimicry in the form of trains. The bullet trains they had been using were causing problems for all nearby inhabitants. When the trains zoomed through a tunnel, air would compress around the front of the train before releasing a tremendous booming noise once the train exited the tunnel. The chief engineer was able to solve this problem by looking to one of his hobbies: birdwatching. The kingfisher is a small bird with a long beak that dives into the water for its prey. The engineer redesigned the front of the train to be shaped like the kingfisher's head, resulting in the train slicing the wind rather than trapping it inside the tunnels, fixing the booming sound.



### **Eastgate Centre: 1996**

The Eastgate Centre is located in Harare, Zimbabwe and fills the role of a shopping mall and office space. However, it is no ordinary shopping mall. Designed with the concept of termite hills in mind, the Eastgate Centre does not need to be conventionally heated or cooled.

Termites keep their mounds at a steady temperature by closing and opening holes along the mound's outer shell, allowing the air to ventilate and balance the temperature within.





The Eastgate centre works in a similar way except with ducts and fans instead of termites. It uses 10% of the energy a conventional building of the same size.

Quotes from few personalities that emphasize the importance of Biomimicry. "I think the biggest innovations of the 21st century will be at the intersection of biology and technology. A new era is beginning."-Steve Jobs.

"The countries, communities, and companies that most closely and consciously mirror Mother Nature ... are the ones that are going to thrive in what I call the Age of Accelerations. I'm a big believer in biomimicry."-Thomas Friedman, Pulitzer Prize-winning author.

"When we look at what is truly sustainable, the only real model that has worked over long periods of time is the natural world."-Janine Benyu

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# TAODWSAFRADGS AAN' OATLHEDR AERECFHJIRTKELCLTEUTRBE

AR. ABHIJIT SAHASRABUDHE,  
Assistant Professor.

Architecture is a reflection of its time. It needs to adapt itself according to the changes in society. Architecture is also linked to many other fields of knowledge like history, philosophy, arts, science and technology. In the book 'Towards a new architecture' the author Le Corbusier refers to a critical change happening in the society at the beginning of the 19th century. He mentions an emergence of 'Engineers Aesthetic' as a result of modern rational thinking and technology. However, he points out that the Architecture practised during this modern age was not in accordance with the new aesthetic and that it must evolve into a new form.

Similarly in the 21st century, the development of the internet and virtual reality has started to have a powerful effect on the fabric of our society. It has dramatically altered the effect of physical distance and location on relationships between people. This essay tries to understand the effect of this phenomenon and anticipate how architecture could adapt to these changes.

## ARGUMENT

Technology of the internet and virtual reality is the new epoch of this age. This new technology provides a virtual space for people to exist in. Although this virtual space does not exist in the physical sense, it exists strongly in the minds of people. It engages them both mentally and physically.

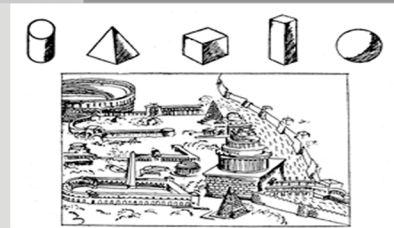


Image 1

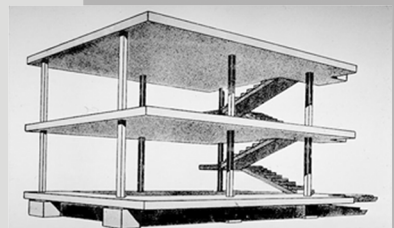


Image 2

TAODWSAFRADGS  
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With the spread of internet, this virtual space has become easily accessible. Today people exist in both the real and virtual worlds simultaneously. The reality of the virtual world is changing the fabric of the contemporary society. It removes the barrier of physical location and establishes a possibility to link with each other from any location around the world. People do not need to be in a common or shared physical space to connect with each other. They can be in different physical locations but still share the same virtual space. For example, the possibility of distance learning and on-line lectures has removed the need for students to physically come to the educational institute. They can access the course material and attend the online classes from any place and at any time. Similar observations can be made in office spaces. 'Work From Home' has revolutionized the way people work. With this virtual presence, people no longer need to move to a different physical location in order to perform an activity.

**The shared virtual space has emerged as a new social space.**

During the age of modernism, spaces were designed to cater to a specific function - like a machine. People would move from one space / place to another to perform different activities and connect with other people. For example - a person would move from a place designed for rest / sleep (home) to a place designed for work (office) or to a place designed to learn (school). However now a singular physical space

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can be used to perform multiple functions (work from home / distance learning). This singular space would now need to adapt itself to the different functions for which the user would use it. This is a radical change in the relationship between a place / space and its function. Architecture still dwells on the traditional ideas of designing specialised spaces for fixed function. This should change and spaces should be able to transform themselves to accommodate multiple functions happening at different times. Contemporary Architecture must reflect upon this and transform itself in light of this new epoch.

### Reminders to Architects Form

The modern movement was inspired by the advances in engineering. In Architecture, it focused on developing a precise form (machine) for a function. A home became a machine for living. However, with the current break in relationship between the form and its function, architectural form can move away from this functional precision. Form which evolved as a reflection of function can now dissolve into volumes and spaces for multiple activities and respond to context, light, ventilation etc. A new formlessness in a building can emerge. Architecture can move from being a rigid form for a function to becoming a facilitator / a space for events / a phenomenon.



Image 3



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## Image

1111 Lincoln Road - Parking lot at Miami. "This is not a parking garage," Mr. Wenne (the developer of the garage) said. "It's really a civic space." The image of a building resulting out of its physical form has always been an important aspect of Architecture design. However with the new formlessness, the physical built-form no longer needs to contribute to the image of a building. The image would exist only in the minds of the people because of the events that it houses and the people / communities that it associates with. The virtual image of the building becomes more widespread and accessible than its physical image.

## Mass

Internet and virtual reality allows people at different locations, separated physically to connect virtually. Thus the need for a singular large physical space for people to perform an activity is not required. Individual spaces separated physically can connect virtually with each other and be utilized for working together. Individual spaces separated physically can connect virtually with each other and be utilised for working together. For example - a work space is no longer defined by a large floor plate with fixed layout of desk spaces. Most of the work happens on a software which is linked by cloud network. The virtual connectivity is more important than the physical connectivity between people.



Image 4



Image 5



Image 6

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## Surface

The surface of a building is dependent on the relation between two events on its two (either) sides. When the events are fixed, the surface can be constant. However when the events are continually changing and evolving, the surface must reflect this change. They should be able to transform from being completely impermeable / opaque to being completely permeable / transparent as and when required. They should be interactive, adaptive and accommodative, continually reflective of the changing events in its surrounding context.

## Regulating lines

Regulating lines should disappear. These regulating lines suggested by Le Corbusier would help to establish an order and relationship between the building and its surroundings. It would also help in establishing control over the built form and separate it from the apparent disorder in nature. However, the new virtual society is actually very similar to nature. It is organic and flexible. The rigid order of the age of modernism no longer holds true. There are no 90 degrees in nature. Thus the nature of Architecture as a visible, solid and strong physical object should change. Presence no longer needs to be physical. Virtual presence is much more public and accessible.



Image 7



Image 8

TAODWSAFRADGS  
 AAN OATLH EDR  
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Architecture can transform accordingly from a physical object to being conceptual, adaptable and flexible in its nature. It can exist as a background to facilitate activities and events.

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IMAGE 2- <https://www.researchgate.net/figure/Le-Corbusier>

IMAGE 3- <https://in.pinterest.com/pin/539728336564142933/?lp=true> IMAGE 4-<https://www.nytimes.com/2011/01/24/us/24garage.html>

IMAGE5-<https://www.nytimes.com/2011/01/24/us/24garage.html>

IMAGE6-<https://www.behance.net/gallery/41956253/Precedent-Study-Moriyama-House>

IMAGE7-[https://plusaq.wordpress.com/2013/02/27/moriyama-house\\_-ryue-nishizawa/](https://plusaq.wordpress.com/2013/02/27/moriyama-house_-ryue-nishizawa/)

IMAGE8-<http://www.stevenholl.com/projects/storfront-for-art-and-architecture>

IMAGE9- [ylvp08woroud.blogspot.com](http://ylvp08woroud.blogspot.com)



Image 9

AR. SMITA DALVI,  
Professor.

### **“Prefiguring the Future cities through Cinematic vision”**

Fantasizing about the future has been a part of architecture and cinema alike. Fantasy relies on a suspension of disbelief, the willingness to accept something not yet seen, something even surreal that sacrifices every logic of realism. The science fiction thriller genre in popular cinema presents a heightened imagination of the future of mankind, and speculative urbanisms feature prominently in them. Flying transportation, tall buildings, dynamic movement, living on water, aspiring to go to space have always been some of the tropes by filmmakers to imagine cities. Many of these ideas in different form have been used in architectural imaginations as well.

The modernists and other Avante Garde architects believed that modern architecture can radically alter the lives of people for better. Le Corbusier created a concept urban masterplan for Paris – the Radiant City – first presented in 1924 as the “City of the Future” and a ‘Machine for Living’. It imagined a new Paris on a completely virgin ground. In 1988 Japanese animation film ‘Akira’, the old Tokyo has been wiped out in a huge explosion and in its place, is built the Neo-Tokyo whose architectural vision is not very different from Corbusier’s New Paris. The new city is a teeming, prosperous, hi-tech place. In the Radiant city of ‘Akira’, however, the ground level is anarchic and strange, always apparently on the verge of breaking down, over-run by the motorbike gangs.



New Tokyo in animation film 'Akira'



This brings us to the question, "How do we know what the future holds for us?" or another question – "Is our urban future bright or bleak?" Cinematic imaginations present to us a retrofitted future, one which is high-tech and gleaming in places but decayed and dystopian elsewhere. While dystopian futures are increasingly common in cinematic fantasies, images of post-apocalyptic chaos reflect our own anxieties with the present, especially with the several urban challenges just around the corner, whether the pressures of population, the increasing influence of automation and information technology, and the imminent climate crisis.

There have been many speculations by architects about an urban vision that would mitigate some of the impending crises of the new age such as accommodating burgeoning populations, or adverse effects of the toxic environment brought about by industrial cities. Techno architects like Buckminster Fuller who first invented the geodesic dome created speculative images of these geodesics covering Manhattan in New York to regulate climactic conditions and curtail energy use. Such imaginations are also reflected in cinema and recently in television series. Where they imagine a sudden appearance of a dome covering an entire town. Only here, connotations are not about protection but entrapment and isolation from the outside world. Technological fantasy is supreme in the creations such as 'Plug-In City' or 'Walking City' of Archigram who use modularity as a means



Fritz Lang's 'Metropolis'

to create urban spaces that extend infinitely and can move from place to place. A kind of vision one does not associate with sedentary permanence of an inhabited space. The mirror opposite of this vision is the post-apocalyptic future very popular in sci-fi thrillers. It is seen at its best in 'Mad Max 2' when order completely collapses survivors scrounge around for scraps to keep themselves going. And these scraps are inevitably technological remnants from a better past. One prized commodity is oil necessary to keep the automobiles running and taking its control is the theme of the film.

Aerial city and floating city have commonly been seen in the form of utopian designs of the Metabolists, a group of architects who stretched the technological presence into the future. These are visionary images easy to consume, technologically possible to execute yet fantastical because of the socio-economic realities of the world.

As mentioned before, popular cinema has explored the future by giving vision to our collective anxieties about it. 'Waterworld', a 1995 film by Kevin Reynolds is one such imagination of climate change overwhelming the planet. Like 'Mad Max', here too, the remnants of past technologies are retrofitted to gain power positions in this hostile and dystopian environment. The setting of the film is in the distant future, perhaps in 2500. The polar ice cap has completely melted, and the sea level has risen a few thousand meters, covering nearly all of the land.



Future Los Angeles in Ridley Scott's 'Bladerunner'

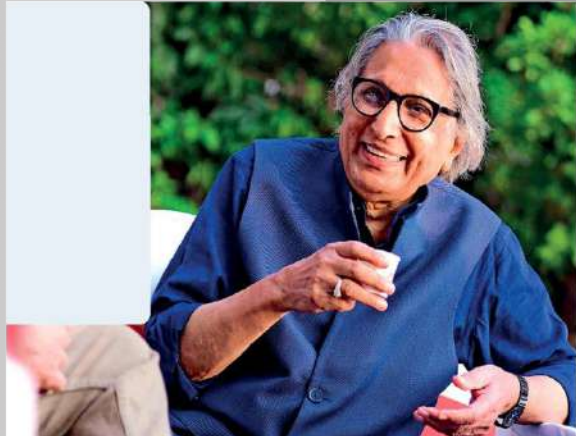
On the other hand, environmental challenges produced by highly industrialised world are staring us in the face as we speak. The New York Times recently reported the findings of a science paper which has mapped the submergence of coastal cities by 2050 due to rising sea levels. We saw with alarm the image of Mumbai in this report. There is a certain irony in this scientifically imagined future of Mumbai in which rising sea levels will take back what was reclaimed leaving the same seven islands above the water much as it was when the city first began. Visual imageries of Los Angeles in the year 2049 as seen in the sequel of 'Bladerunner', its colour palette came in everyone's mind when they saw photographs of Australian cities affected by massive bushfires in the vicinity.

From the early 20th century, architects and planners have created utopian visions of future cities based on technological advances and full of self-belief of an idealised form of living. But the cinematic imaginations point out the social deficiencies of such visions. Inevitably, in cinema, the futuristic cities show degraded environment, and are ruled by despots or technocratic corporations. There are fantastical versions of technology mainly used for intrusive surveillance, interrogation and control of individual lives. In the film stories, this inevitably leads to resistance and underground rebellion bringing the notions of a strictly ordered society crashing down; making the visions of the future highly dystopic.



Tyrell Coporation in Ridley Scott's 'Bladerunner'

AR. NEHA KORDE,  
Assistant Professor.



REF. Times of India

It's a tributary article to one of the masters in India, Prof. B.V. Doshi who has been awarded Pritzker in 2018 whereas this year he has also been felicitated and honored by the greatest Padma Vibhushan, 2020! Having him as a tutor as well as an employer, sharing a few moments which have contributed to my learnings as an architect and a sensitive designer!

The celebration had begun around the country, in Ahmedabad – a city has witnessed Prof. Doshi's legacy, his growth as a sensitive designer, extremely dedicated approach towards his work and at the same time a curiosity which still awakens him to become vibrant even today! “.. we design to define a better lifestyle” the words I remembered standing outside the auditorium in the CEPT University, while I started my post-graduate studies!



The arena was fully occupied and I could only sense his firm voice and render the visualization he was describing. Being in the field for almost a decade now, I somewhere begin to relate what he was trying to say on the very first day I heard him! We live in a population of 1.3 billion around us, in the complex structure in the society, defining our community spaces. Doshi's practice wanders in these varied pockets, cultivates and responds to its context; in the climatic extremity we have in India with traditional and cultural values we nurture with , and that's where he has experimented with his ideas having diverse design manifestation in each of his built forms. Doshi has combined certain enduring values of modern architecture with research into the sub-structures of Indian tradition. The primary lessons from Le Corbusier and Louis Kahn have been transformed to deal with the searing climate and the needs of an ancient civilization undergoing dramatic change.

We can clearly see two aspects which have been stressed by Curtis –

1. Pioneering modern architecture in India and contributing towards defining a national identity after the independence (circa 1947-60), and
2. The ultimate association with the greatest architects like Corbusier and Kahn and their teachings. Later, 1977 onwards he was in partnership with Joseph Allen Stein and Jai Rttan Bhalla.. He initiated his own practice – Vastu Shilpa Consultants (1979-81)



01. "CEPT University, Ahmedabad"



02. CEPT University, Ahmedabad

where he designed his own studio – Sangath on the edge of countryside to the west of Amedabad. “Sangath” means “moving together with participation” and the place is more than just an architectural office. 2 While I was working in this space, the sense of place and space keeps you far away from my daily routine and motivates one to keep on exploring each day. He is still volatile and at the same time stable to sense everything happening around him, he can talk to his gardener with the same rigour as a professional or even students. He accepts the way life renders it, welcoming it, flourishing it. Doshi’s quest for an authentic architecture blending old and new, regional and universal, has relevance beyond India. The 2018 Pritzkar prize winner, makes us conscious enough to realize what we have on a global arena and shows us the potential having a diverse cultural and regional juncture being in one of Asian counties!



03. CEPT University, Ahmedabad



04. CEPT University, Ahmedabad

AR. TEJASHREE LAKRAS,  
Assistant Professor.

### **"A journey through Architectural history and heritage of Kalyan"**

A Saint Gobain scholarship project by Architect Tejashree Lakras and team.

With an objective of introducing and implementing, community centred heritage conservation approach for the historic core of Old Kalyan, this Saint Gobain sponsored an year long, research project has produced its first outcome in the form of Public Exhibiton showcasing the 8 heritage buildings as representatives of Architectural styles from Kalyan's history. The first exhibiton was inaugurated by Former UP governor Honourable Mr. Ram Naik in September 2019 and was very well received by the local visitors.

Considering, films to be one of the attractive medium of generating heritage awareness, the project aimed to bring the significance and need of Architectural heritage conservation in the form of a Documentary and has already successfully released the English one at Mindscape festival at Urban Haat, Belapur in Jan 2020 and Marathi version of the same at Kalyan Wachanalay in Feb 2020 along with the display of exhibition of sheets too. This attempt has already sown the seeds of heritage awareness in Architecture fraternity and locals of Kalyan. The Marathi version was inaugurated and appreciated by well known historian Dr. Shrinivas Sathe with his own words " Kalyan has failed to receive conservation efforts for very long, the documentary Kalyan-Smrutigandh would be probably the first

and last attempt in bringing sensitive awareness amongst locals”.

The project then travelled to Kamla Raheja Vidyaniidhi institute of Architecture and will be showcasing its 5 th round of Exhibition and movie screening at Rizvi college of Architecture, Mumbai soon.

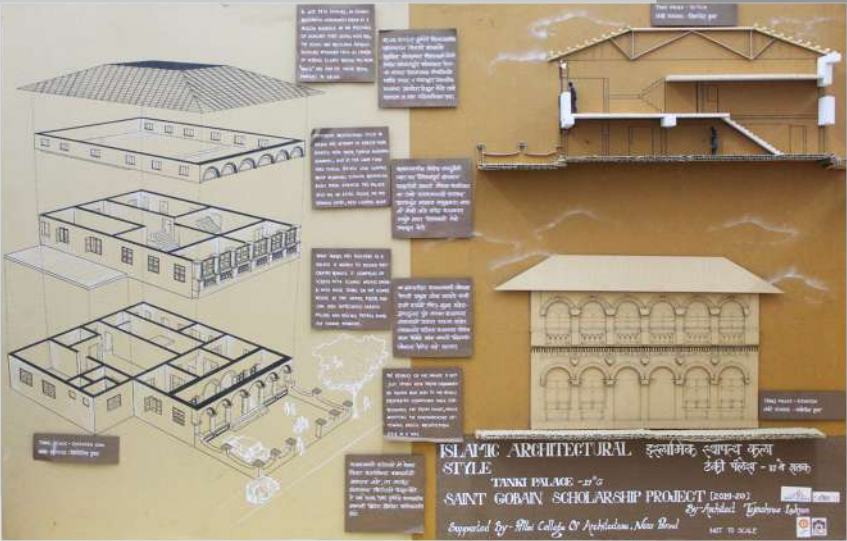
I take this opportunity to thank my entire team of student volunteers from PiCA without whom, this project would have never achieved its goal and to my Friend and colleague Prof. Neha Korde for translating the content so beautifully and Prof. Kavita Sawant for her constant support and lastly my heartfelt thanks to the valuable suggestions given by my mentors Dr. Arif Merchant, Dr. Sudnya Mahimkar and Prof. Smita Dalvi.



01. Buddhist Architectural Style.



KTAZLEYGADNW  
SAMGRAUZTDIAGOAGNZD'H



02. Islamic Architectural Style.



03. Peshwa Architectural Style.

KTAZLEYGADNW  
SAMGRAUZTDIAGOAGNZD'H



04. Colonial Architectural Style.



05. Islamic Architectural Style.

REVATI KAMTHANKAR,  
Third year.

#### PERSONALITY AND ITS COLOUR :

**“Colours makes the world appear so beautiful, Each shade, each tinge feels so soulful.”**

Colours makes our life-lively. Each and every colour plays a very important and crucial part in our vitality. Colours defines and differentiates objects. It creates different impulsive reactions at its first look. Different views towards different particulars are also developed because of its colour.

Some colours and its shades soothe our eyes while some invoke strong reactions, some interests our minds while seeing some of them creates horrified feeling. Life without colours is unimaginable. A pale colourless rainbow is like a dessert deprived of its sweetness. The joy we get seeing greenery in Rainy season is incomparable. The shift of day to night and vice-versa creates soulful shades. Warm and Cool colours are differentiated according to the feeling they invoke after seeing. Hence to sensitise them we need People. As life without colours is not seen, life without people is unimaginable.

**“The real truth is indiscrete, Life without People seems incomplete.”**

Right from ancient era, Human keep an aim to be at the top, compete and conquer a position, helping or fighting for the same. This wouldn't have been possible if people wouldn't have been present. They form our family, friends, guide, well-wishers, critics and also opponents. People hence play a

hence play a very crucial role in our life. One needs a friend along with food, clothing and shelter. It is said that when the man used to wander from places to places in search of liveable space, he first used to find similar creature. Life would become lonely, meaningless without the intervention of people in it.

People are judged by the Personality they possess. Some are tough, some are mild, some are aggressive, some are understanding, etc. These personalities of people can be linked with the other important factor we possess in life i.e. colours. People have different colours as their favourite ones at different point of time in life. Some love blue, some black, red, green, yellow, orange, etc. at different mindsets in Human life. Hence, we can barely imply that colours play role or, are the product of the kind of mindset a person possess.

Human and Colour Psychology suggests that personality of a person has a role in having a favourite colour or also it changes according to moods. According to it a person's favourite colour says a lot about physical, mental and emotional states. Also, the colours people dislike says a lot about weakness and vulnerabilities. Traits of favourite colour are seen getting repeated in dresses, colour of rooms, colour of car and so on. Hence, sometimes for any designer it becomes easy to choose colour for a person by interacting and knowing the personality of client. Some of the common favourite colours people possess implying



**Red:** Implies Strong will, ambition and energy.

**Blue:** Implies people having fixed set of principles, desire to live and having peaceful personality.

**Green:** Implies people to strive for safety, security and acknowledgement, they need to be loved

**Yellow:** Implies people to be perfectionists and dreamers.

**Orange:** Implies kind of people who loves people and like to be around others.

**Brown:** Implies people who enjoy simple life, good friends and close relationships.

**Black:** Implies people with independent and strong-willed personality.

**White:** Implies people loving simplicity, openness and purity, having a confident personality.

These inputs are given by some of the psychologists which not completely but some are commonly seen in people having these as their favourite colours.

As the mix of all flavours in right quantity improves the taste of any dish, the perfect combination of all sorts of people and colours forming expressive shades gives us a perfect life. Hence "Colours and People" forms the soulful base to which with our understanding we can form the perfect equation to enjoy life.

Reference: <https://psychologia.co/personality-color>

# TDHTEW W:ORMQAGN O:FW B^AGDA^AEMTI

PURVA UMESH RANE,  
Second year.

Tattakodi is a village which sits around a semi-urban background, with construction sites, a crowded bus station, 4 star hotels but still the image of Badami is its caves, Heritage temples and the Lake. Promising rains have relieved everyone, but considering the fact that it is waterless for more than half of the year makes me imagine a very different picture of Badami. It is very difficult to think about Badami without its ghats, the children jumping in the turquoise waters alongside the caves, the Agatsya lake, but it is something I would love to explore all over again.

If Badami would be residing in a person, it would be this lady with the world's most indescribable smile, handing me a cup of chai, trying to speak broken Hindi. We happened to document the home of this lady in the Tattakodi village in Badami. Let me tell you, the chai was terrible with sugar loaded in it like bullets in an AK-47. But the only thing which let me gulp down that diabetic chai was the excitement and fondness with which she decided to offer us the tea.

No doubt saying yes for a cup of tea in Tattakodi was a horrific idea, but I was so deeply in love with that woman who welcomed a bunch of students so passionately. This woman didn't click any photograph with us, but she is always going to stay in my mind. 'Athithi Devo Bhava' still exists in these small villages of India.

Since we travelled comparatively, to the lesser known parts of India, we saw the

tourism industry still being operated on a small-scale level. It exists, but not as grandiose as the rest of India. May be that was the only reason, a middle-aged woman in scorching sun of Pattadakal, managed to sell 65 'matkas' of 'dahi' in a group of 80 students.

It is surprising how someone can convince A pack of 80 Mc Donald's-bound, urban students to buy curd in a small 'matka' made out of mud and what not. Just imagine how awesome you have to be in order to win over Students who asked for north Indian food in south India, to buy ordinary 'Dahi', and not flavored Greek yogurt which came with a certified packing. And she did. I believe, such women to be the face of feminism in India, real, hardworking, self-sufficient women.

We were not provided with good food services at the restaurants we went to, but nothing on the earth could ever match the taste of that curd with the pinch of sugar on it. While it went down my throat, I could sense the epitome of softness that a bowl of curd can ever give you. Entire tour of North Karnataka, being on a combination of Paneer Kadai, I found my solace in a bowl full of Plain curd. May be at the end of the day, this is the closest I could ever get to experience Pattadakal in the form of food. And every time I think about it, I wish we could've responded way more efficiently as tourists, as aspiring architects, because if we don't conserve the way rural economy runs, sustains, we might not be left with villages to document.

MEOTD EGRDNW  
ZFRAM ICLPYK

SAI UPHAD,  
Fifth year.

### 'BIJAPUR - HAMPI - GOA'

The trip started at 12 at midnight with a birthday celebration and energy commitment to reach Bijapur - Gol Gumbaz. There were three cars and 15 of us split our way, in between the night journey, tea and snacks break continued till the dawn. Then was the state crossing of Maharashtra and Karnataka..which was not felt by any of us..the culture, houses, the village settlements all seemed same to Maharashtra. As the sun was rising along our way and we were capturing each other and chasing along the fields of North Karnataka. Our surroundings made us pause and breath for a moment and look around the shades of sun rays on the fields which was mesmerizing, which made us all feel fresh for our first destination Gol Gumbaz. By the time we reached Hampi with the stories of road trips and travel blog' s the darkness of night had covered the beautiful landscape of stones which sparkle most at dawn and dusk. Dinner with the empty stomach and good company of Carnatic music and friends summed up our first day of the road trip. Every morning uses to start with the sharing of breakfast in one plate and excitement to explore the city of temples. Every visit of the monument was greeted with numerous glass of Nimbu and Naari-lya paani and juicy fruits which led to the discussion of how these beautiful temples were constructed on these rock hills in the era when the machine was not even introduced in the world. The small ponds of cold water and the company with whom one could enjoy the silence





MEOTD EGRDNW  
ZFRAXMAIGLPYK

of serenity is something one would always ask for.

Our next day in Hampi started with the ride of an electric golf cart towards Vitthala temple where we could relive the aura of the Vijayanagar dynasty by passing by the ruins of temples and old bazaars imagining the immensity of the place one could just imagine the gone by Golden era. There we met our guide and friend Giriraj, who not only told us the stories of that era but expressed all the architectural elements that temple complex holds, which astonishes us to date. From that site, our journey started off all over Hampi with Giriraj. Our nights use to end by the shopping street and old bazaars of Hippie Island, where the market was covered with old silver jewellery, boho fashioned clothes, old lanterns and the welcoming restaurants with delicious continental food with the ambience of mellow vibes and company and stories of different travelers around the world who held and had achieved the unrealistic dreams and were in search of companionship in the world

Our next destination was Goa. The ghats through which we passed by, listening to ghost stories on rough roads and clinging on to one another in fear. The road seemed never-ending and through each other's, the comfort we shared our stories of fear. We reached our hotel around midnight starving for food and comfort, worried for the friends whose car had broken down on the way.



through the academic years. Goa has been a second home for us. The days in G and cherish the moment. At this moment we realized in the journeys which we had traveled the destination never mattered the company did, 16 is a huge number and holding on to all of them has been difficult time and now but through the years we all learned in our difficult times we would see these 16 faces for sure. That's what Modern Family is about 'Not sticking around everywhere but always having your back'. The last night in Goa ended with firecrackers by the Arambol beach, missing and remembering the one member of the family who missed the trip of a long time. The Next morning we headed home with a lot more memories and experiences that would shine back from our faces for the rest of our lives.



# THE CITY OF THE FUTURE FAUGTAUERWE

MANASI HRISHIKESH SHIVNIKAR,  
SECOND YEAR.

The monumentally giant skyscrapers, the bustling crowds, transportation systems, compact residential settings, little natural landscape, pollution and the fast track of time - in a nutshell, these capture the essence of the places most of the population wants to live in- the cities. Catering to all the materialistic needs of its dwellers and enhancing the convenience and quality of their lives, they are the cradle for trade and development. To achieve so much in a comparatively small piece of land proves to be quite enervating for the resources, causing hazardous environmental impacts.

Increasing population, air pollution, greenhouse effects, melting polar icecaps, depleting non- renewable resources and biodiversity, detrimental climatic changes and the frequent occurrences of natural disasters are the problems being faced and finally addressed by the people. These all factors are intertwined and there is probably only one way through this obstacle, that is, Technology. Discovering, developing, harnessing and widely using it to create 'the cities of the future', is the way ahead. 'The cities of the future', blindingly emanate the promise of sustainable and environmentally friendly civilizations. The rising sea levels due to the alarming rate of melting of polar ice caps pose a great threat to all the low-lying regions on this planet. As a solution to these issues, cities that float on the water or are underwater can be built. These solutions negate the potential threat due to hiking sea levels.

The future cities could even have small floating islands in the air for residential purposes. These cities shall have green buildings and net-zero buildings to reduce environmental impacts.

Wi-fi is a commonly and widely used utility in today's date. In the future cities, this technology could connect the entire human race in ways that can hardly be imagined. For instance, creating a space where people can come together without actually traveling. The future cities might as well be situated on different planets. We can achieve unfathomable feats using this manmade miracle. Addressing the issue of petroleum, a highly depleting non-renewable resource, future transport shall run on renewable resources such as electricity and possibly solar energy. The energy created by wind and water currents can be used as well. With enough development of technology, techniques can be developed to effectively harness, enhance and supply the energy created by natural resources. The cities can have automobiles with a fully automatic system where one only needs to enter the destination and the rest, such as navigation and driving, is done by the machine itself. Such automobiles can run on roads, fly in the sky and surf on the water. Taking a step ahead in the imagination of how technology can shape our cities, portals which I'd like to call 'the virtual lifts', can be created to directly transport a mass of people to a certain destination.

These ideas are just potential solutions to



the major problems being faced. If technology is going to shape our future cities, it will touch all the spheres of our life for certain. It will impact the human race socially, culturally as well as biologically. With technology, most of the jobs will be run by robots instead of humans. Jobs such as cleaning, housekeeping, and other services will be done by robots. The cities will be technically monitored using CCTV cameras, drones, and high-resolution satellites. With these developments, we could be looking at a sharp drop in crimes carried out physically, although cyber-crimes will increase. Broadly speaking, these factors have the potential to bring in legal and societal changes to the urban areas. Speaking about technology affecting us biologically, the future cities could have genetically hybridized plant species which will consume more carbon dioxide and thus give out more oxygen. They will require comparatively lesser amounts of water and will have strong and deeper roots to hold the soil. This can prevent soil erosion, increase groundwater levels and prevent floods. The dream and idea of such cities is the first step towards their creation. The future of the human race holds for them-The beginning of a new era, the technological revolution, the 'Tech-cities'.

# MEATNUTATL ZORFW UGSKIPNOG TYROXUARW BARGAAIEN

UMANG PANCHAL,  
SECOND YEAR

I have arrived on this manual by attending many talks; watching videos and reading articles on the internet. I am not the owner of this knowledge; instead, I am the trustee of this knowledge.

## **Step 1: To make it useful:**

I think your brain is just like the frying pan in your kitchen with which you can make a lot many dishes. It is not specific to just making something vegetarian or non-vegetarian; it can almost cook everything and anything by using that frying pan. Use the brain the same way it is not meant to be used for just one specific skill; it's in your hands to make it multiskilled with perseverance. Just like the frying pan empty it then clean it and reuse it efficiently.

## **Step 2: Do not label yourself:**

If you pack yourself into a box i.e., a label then how will you get out of the box. You become what you think of yourself. If you think you are a photographer, you will always think through the photographer's perspective the same goes with a sketcher. If you do not label yourself, you can imagine with different perspectives, and you would be curious to learn other skills or else you would just stay in that box where you will be narrow-minded and not open-minded.

## **Step 3: Be Fearless:**

Create like you are the first and last person on the earth. Don't overthink just get into the flow. Don't think that its already made

MFATNFUTATL ZORFW UGSKIPNQG  
 TYROXUARW BARGAIEN

or could be made and so you won't make it. That doesn't mean you copy blindly. In the world of art, it is said that copying is foolish and shameful, whereas stealing is considered to the traits of an intelligent human. Because in stealing, you try to think how would that X person would have created that thing and learn from it and evolve it.

#### **Step 4: Reinventing:**

The person who thinks that they would only be able to do XYZ and continue to do the same without reinventing, their graph of relevance goes straight up to its peak, and the same way comes down. Whereas the people who keep reinventing, their graph of relevance too flies to its peak but then instead of falling down, the graph goes for another flight because they reinvented themselves at that point of declining. With reinvention, I meant that you should keep exploring and developing your craft and not dwelling at a point. Let me explain with an example be like the river which has the curiosity to explore and improve on the other side the lake which just dwells at a point.

I would like to conclude by saying that there is nothing wrong in accumulating knowledge and using it but sometimes letting that knowledge to sit aside and using the curiosity and innocence that you were born with will help you come up with very creative solutions.

WFHTAET GMDOWTRI WVUAPTREGS ZMPEK  
I N A RGCAHEIWTSEFCYTUGRPE

SAHIL AHMED,  
FOURTH YEAR

Architecture to me is when it affects us physiologically, emotionally and it awakens in us the sudden sensitivities of surprises with pauses. The design can't be taught it's instinct, that comes with observation.

As an architect, we represent God.

For example, in a small house of a poor man, if you express it as a temple, would you think Miserably, would you abuse the space? Definitely you won't. You would rather say the man is poor, but it's his temple. Thus, I need to hunt for a way which gives him a heightened experience, So you are the representative of that man, so you can't see that he is abused by your mistake, here you represent this God.



THE ESSENCE OF MINIMALISM IS  
SIMPLICITY, BUT SIMPLICITY  
WITHOUT DEPTH IS MERELY  
CHEAP. IT IS NOT ENOUGH.

- TADAO ANDO

UNDER CONSTRUCTION

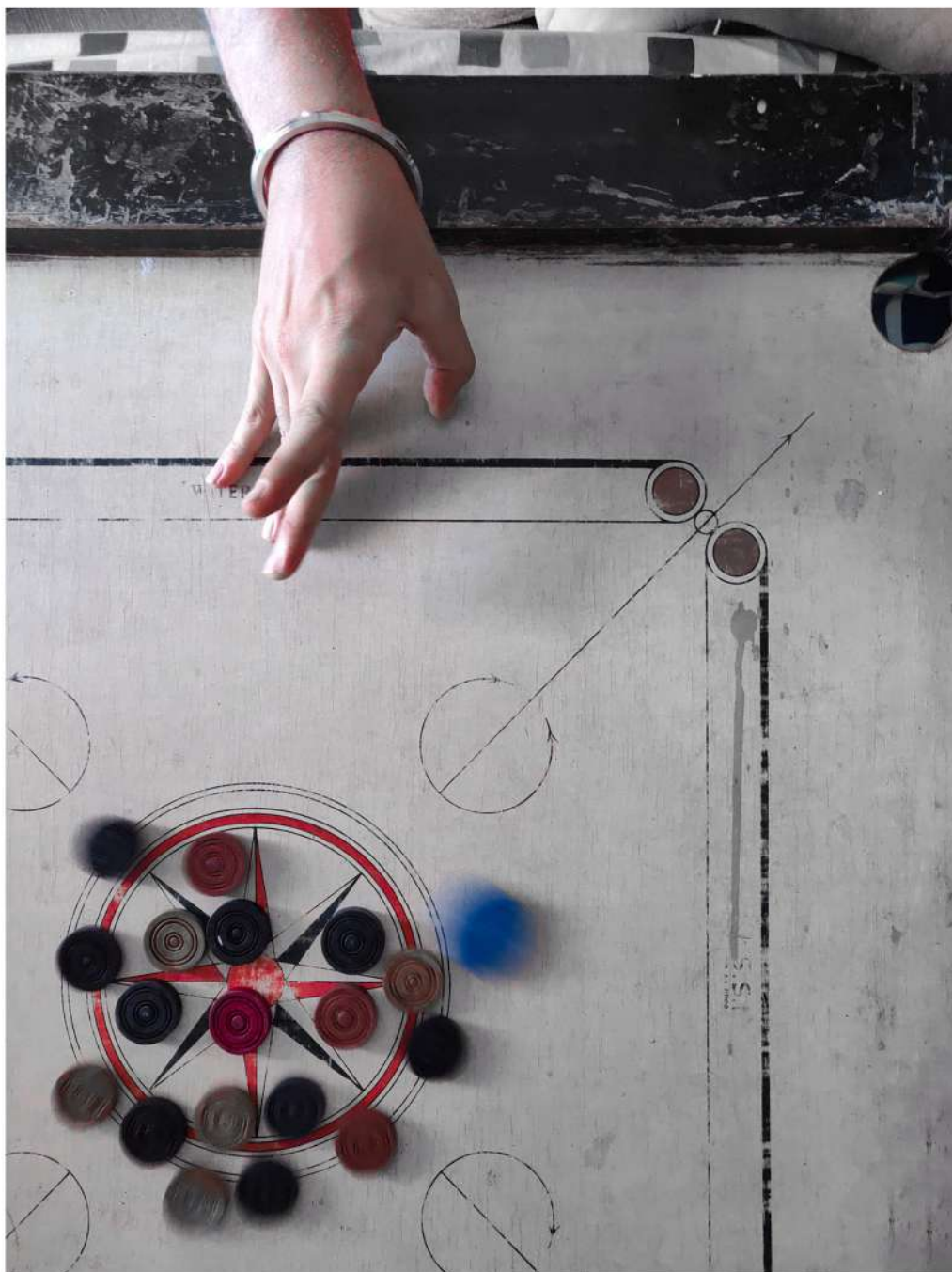


Photo by Prathamesh Mohite  
Fifth year



Photo by Prathamesh Mohite  
Fifth year

LIGHT ILLUMINATIONS

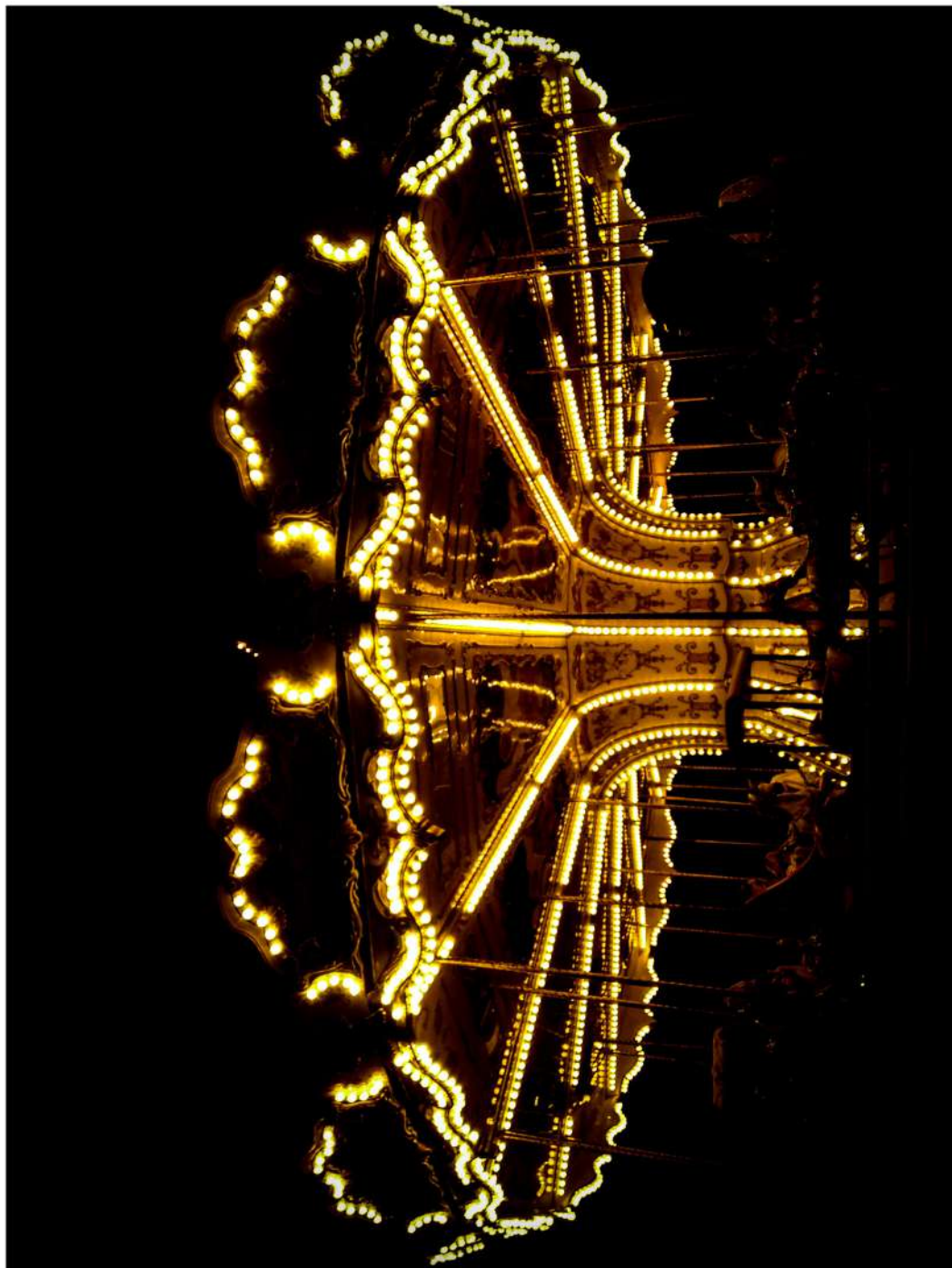


Photo by Anuja Kanse  
Second year



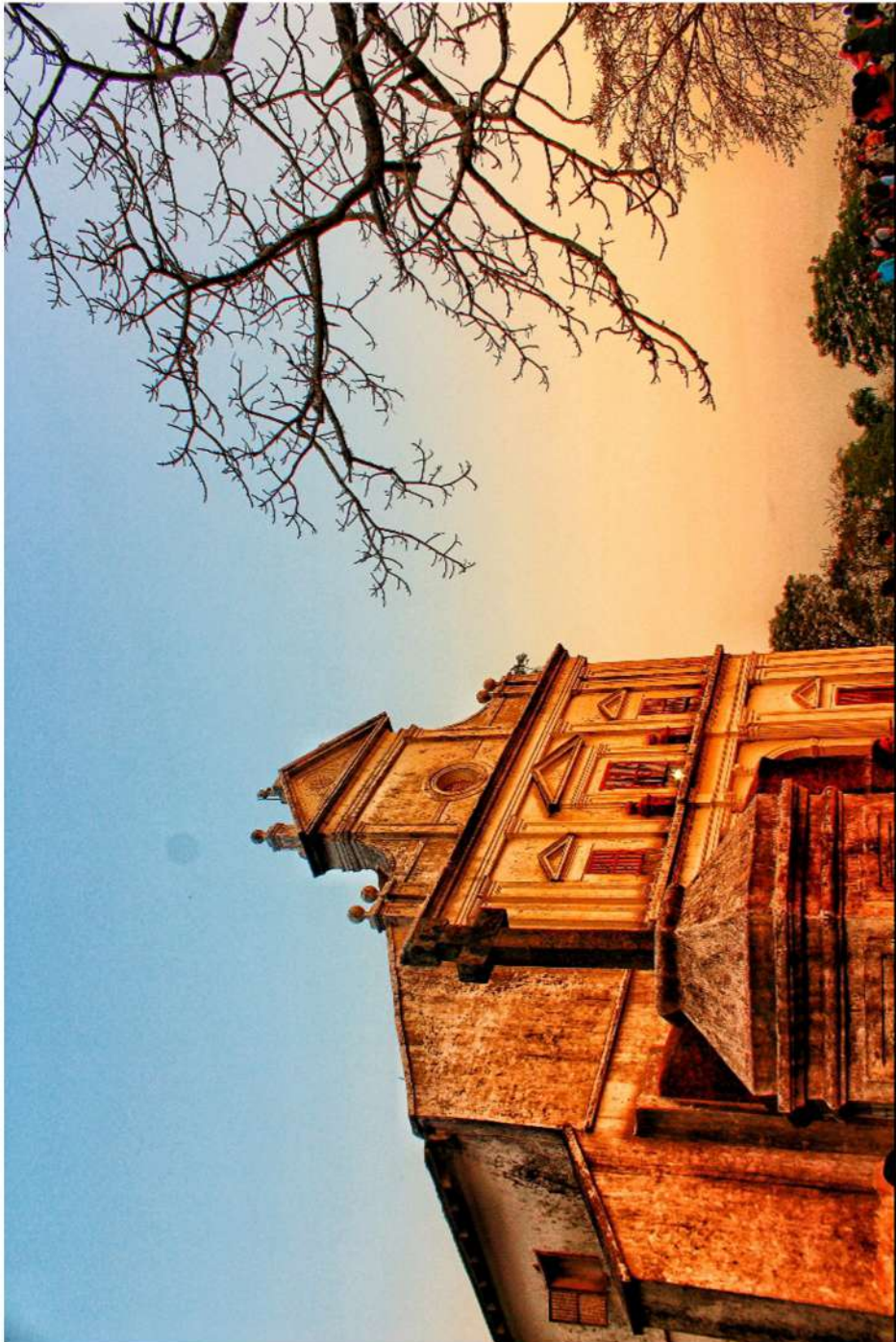


Photo by Atharva Patnekar  
Second year

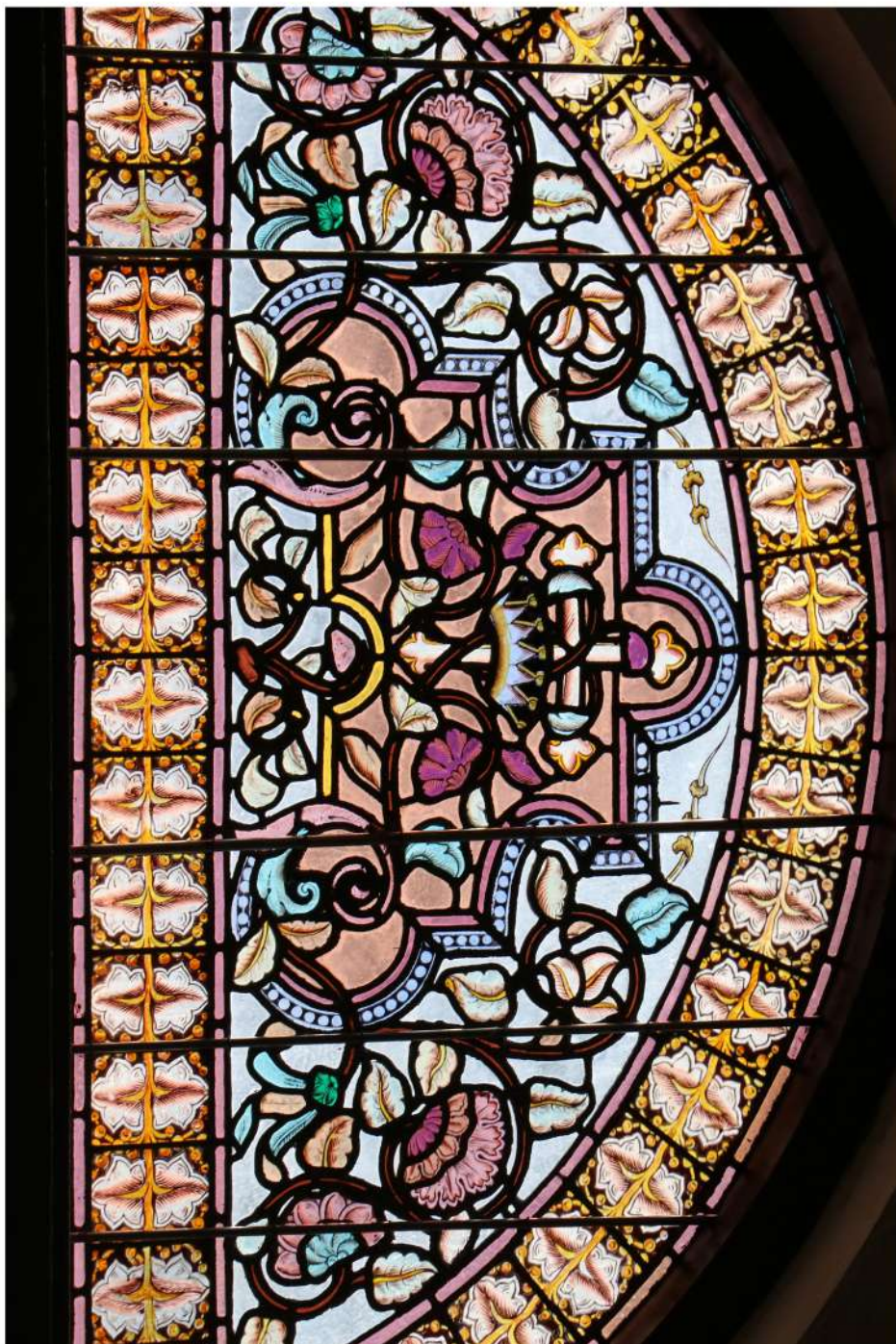


Photo by Omshrushti Garge  
Third year





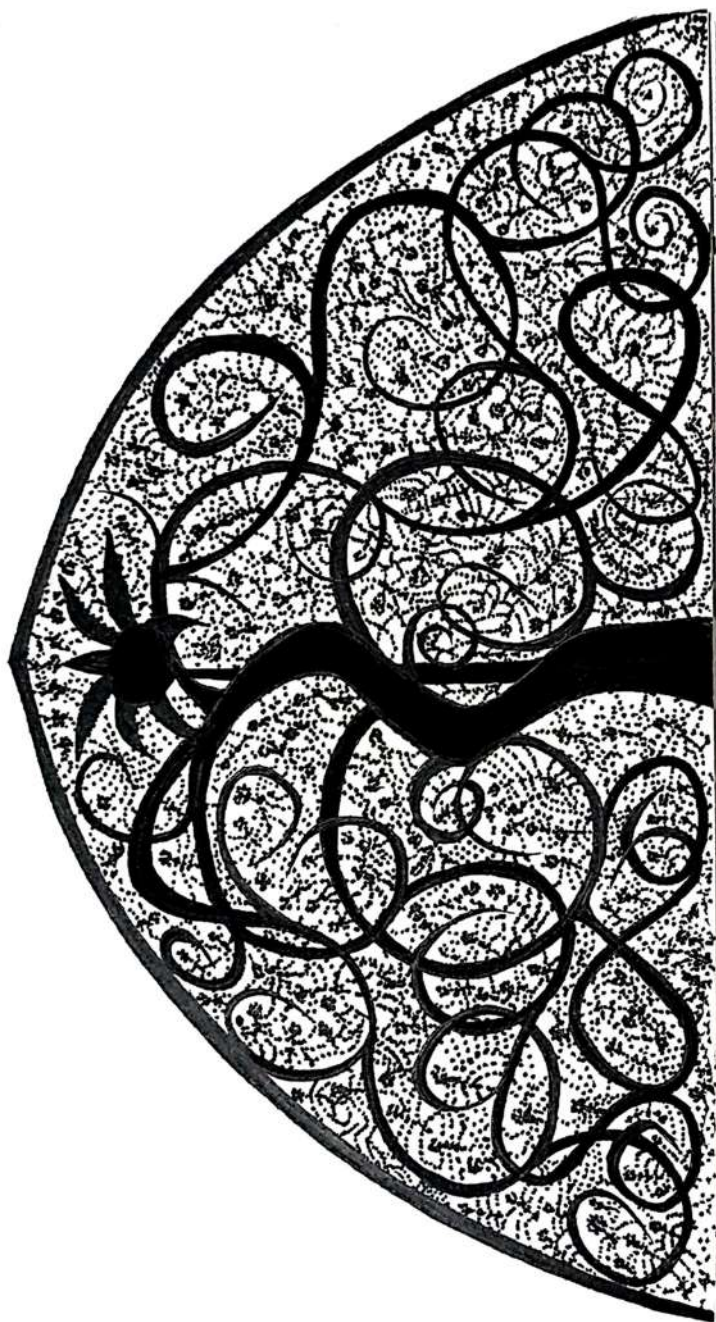
Photo by Prathamesh Mohite  
Fifth year

SIMPLICITY IS THE ULTIMATE  
SOPHISTICATION.

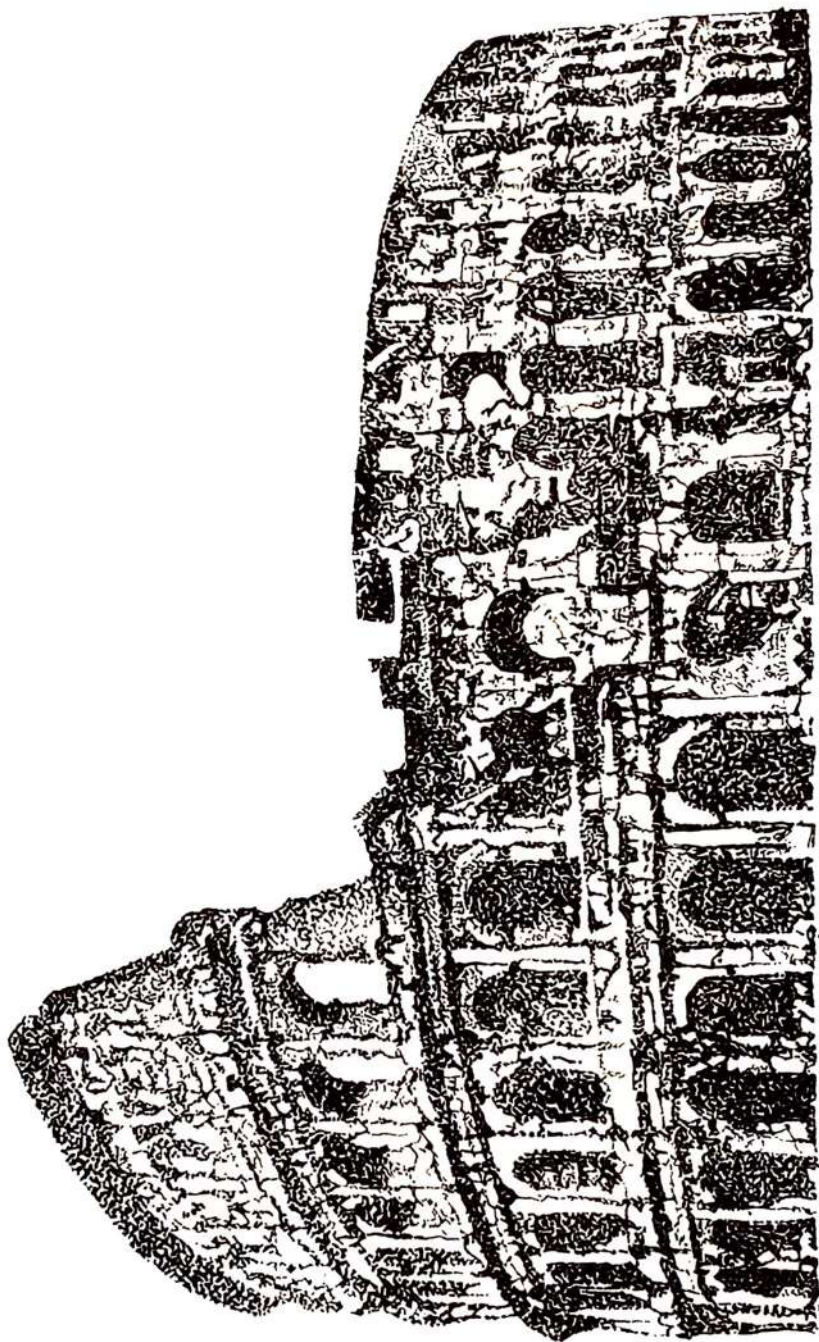
- LEONARDO DA VINCI

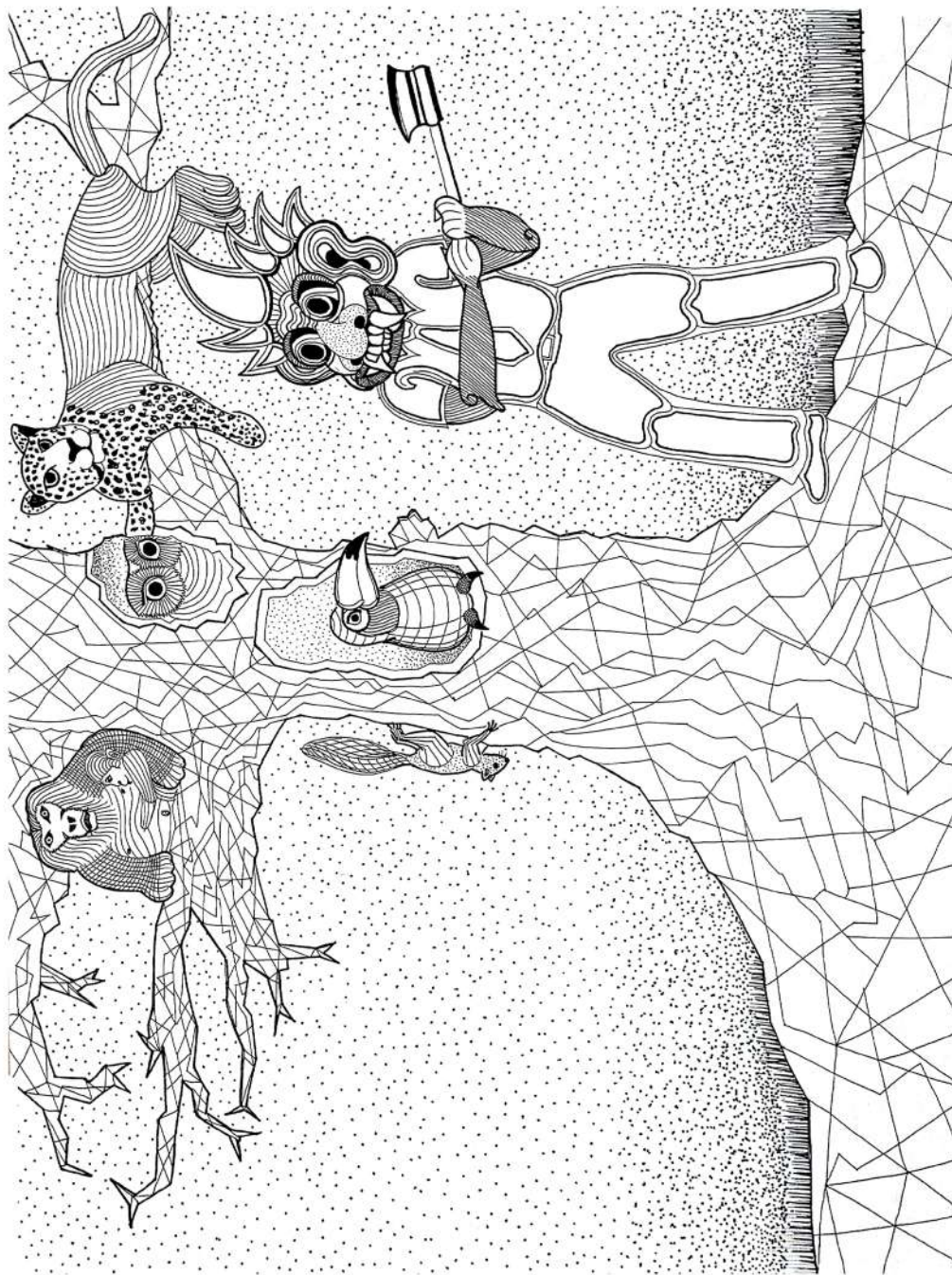




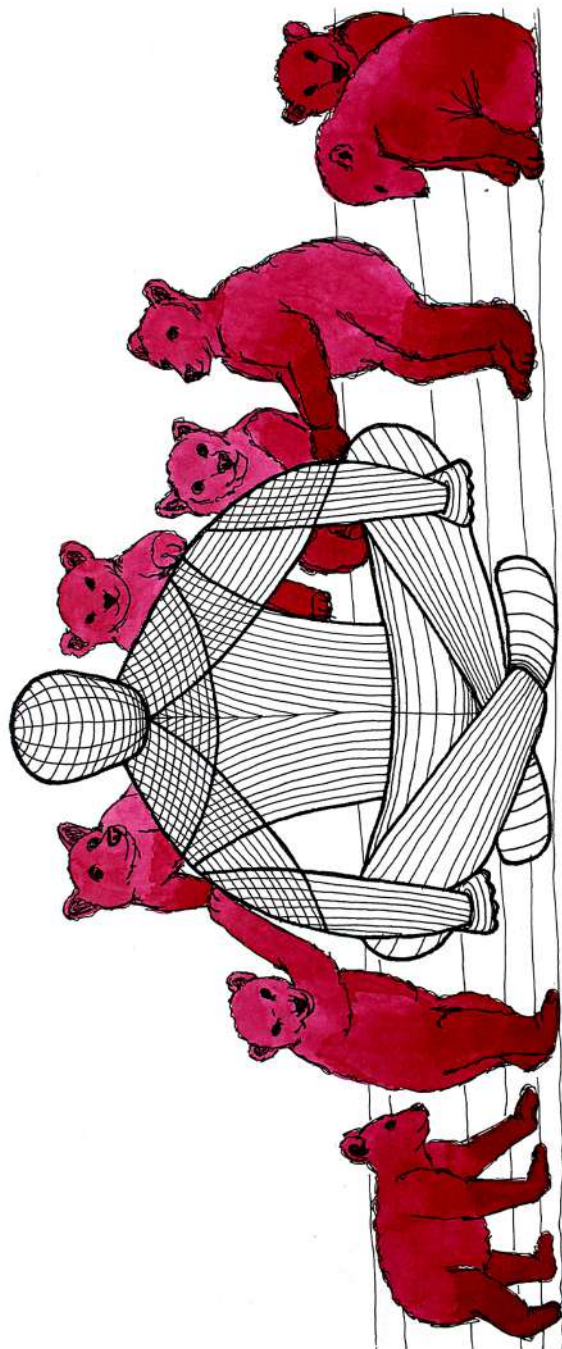












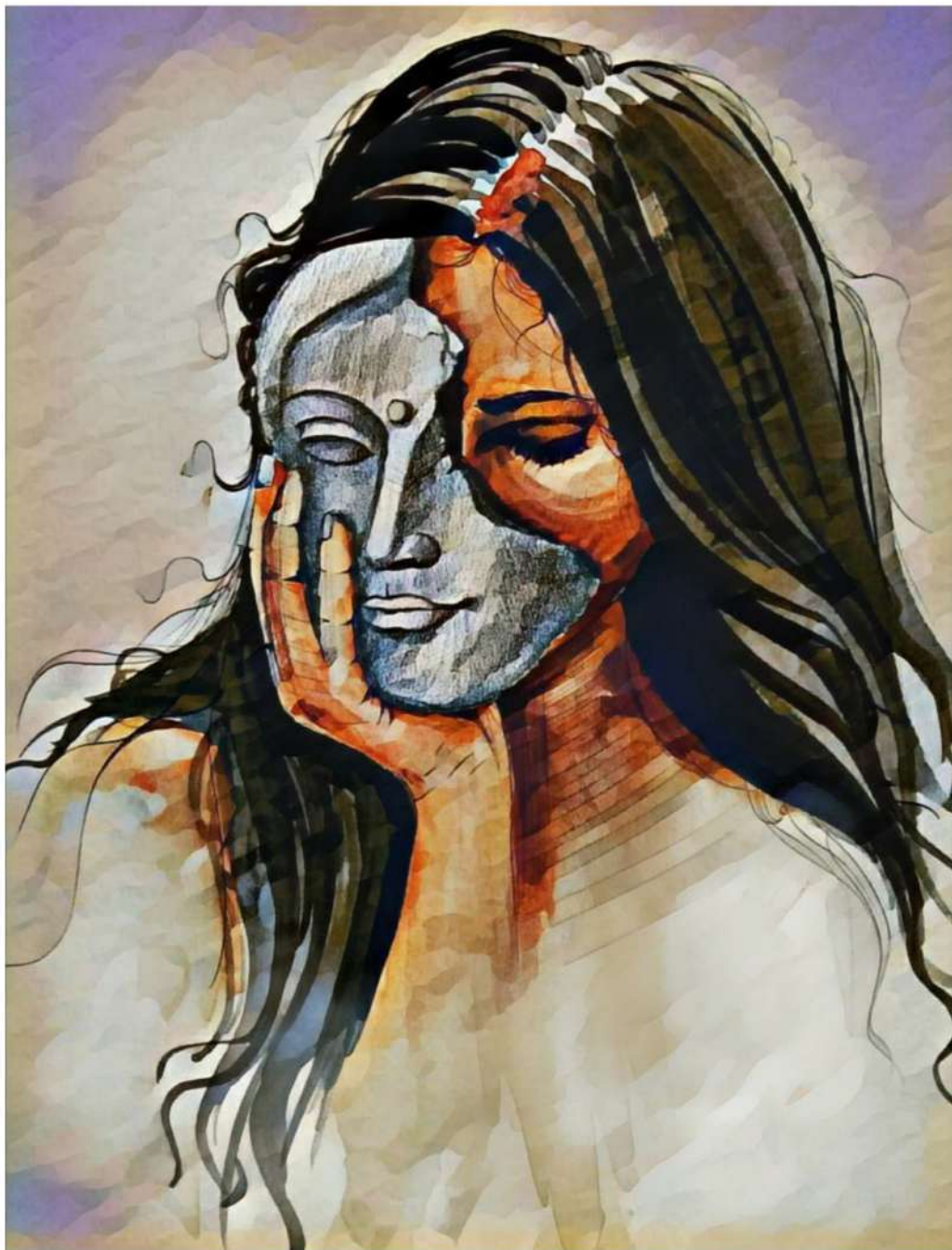




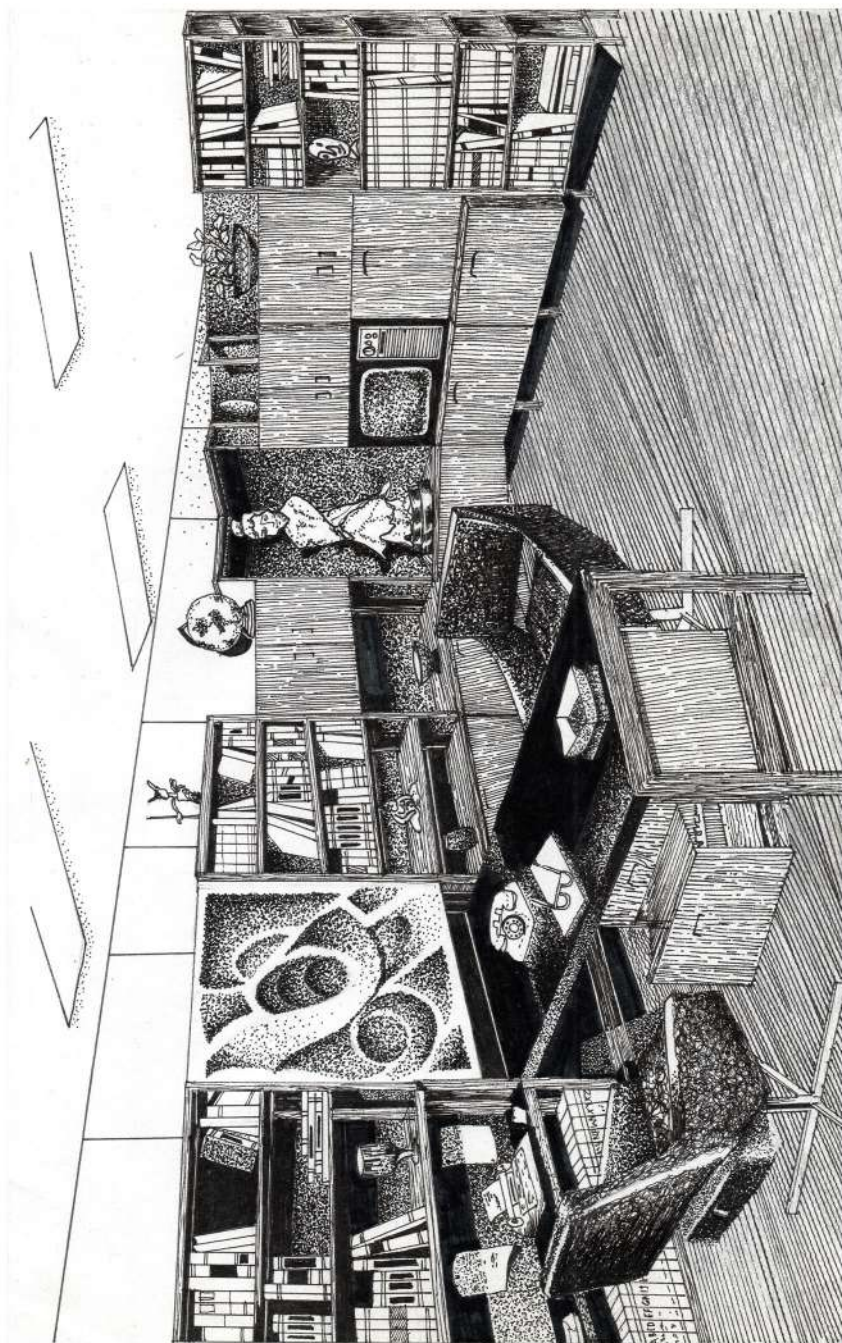


WATSON  
HOTEL,  
KALA GHODA.

Drawn by Dhiraj Jadhav  
Second year







# CITY OF THE FUTURE

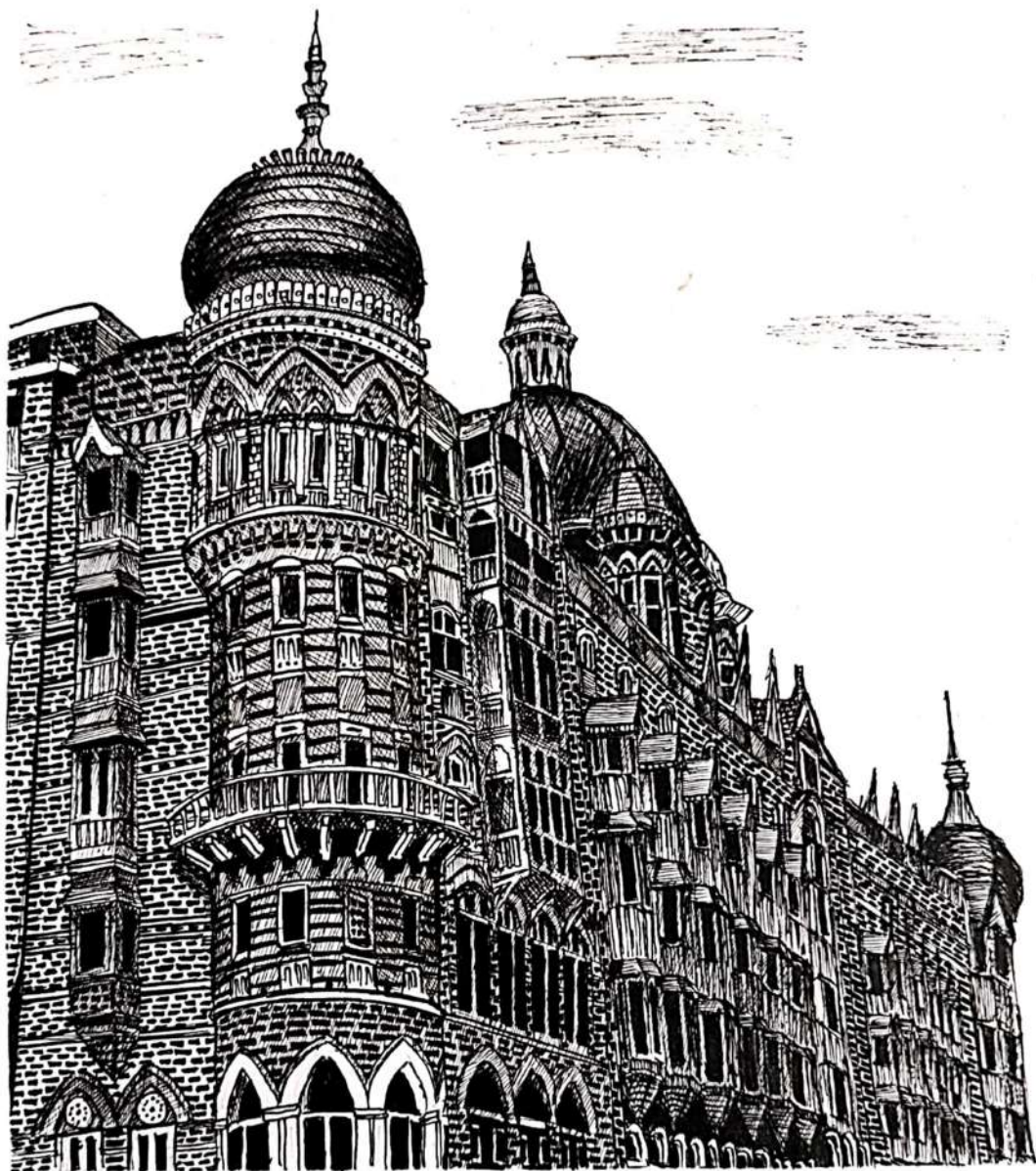






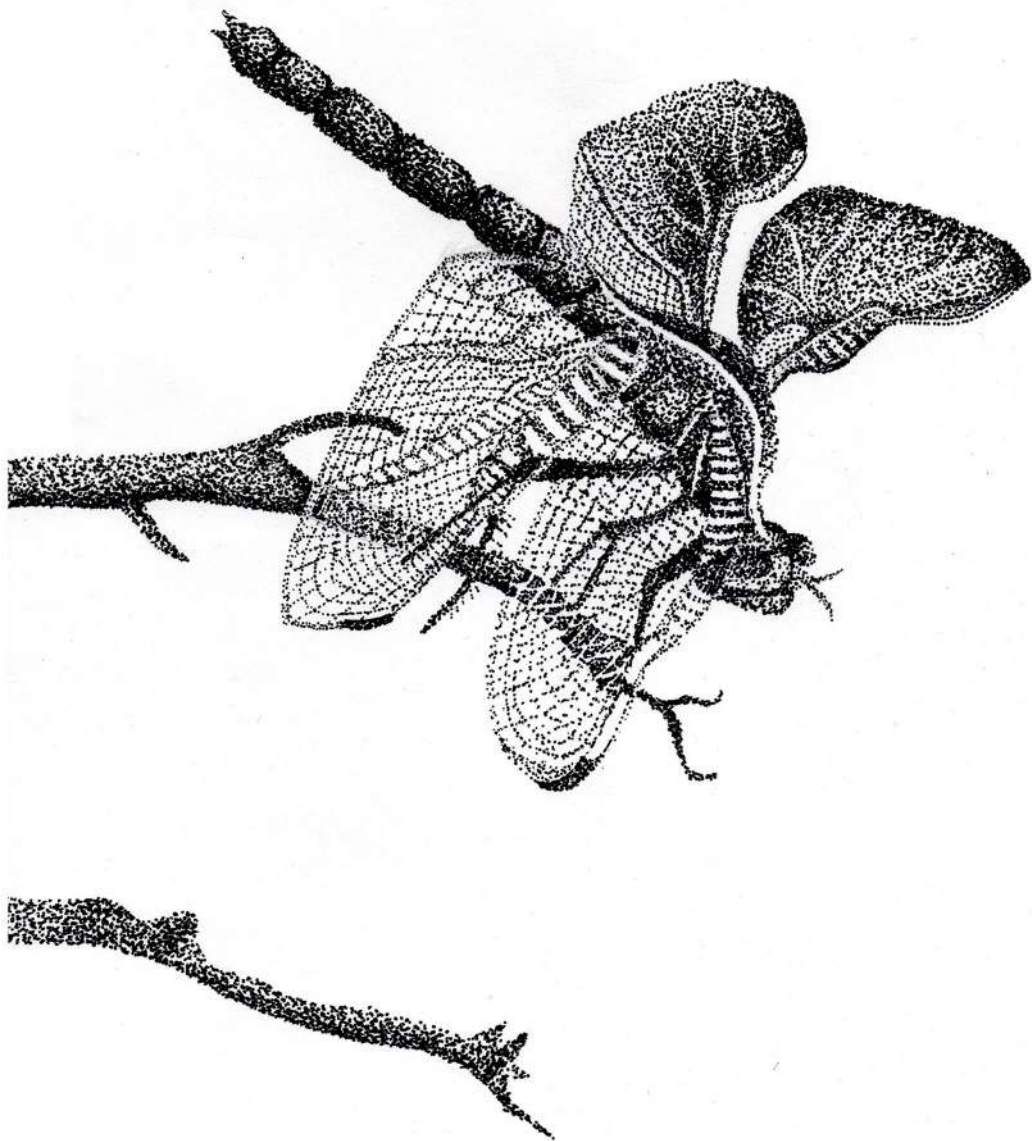








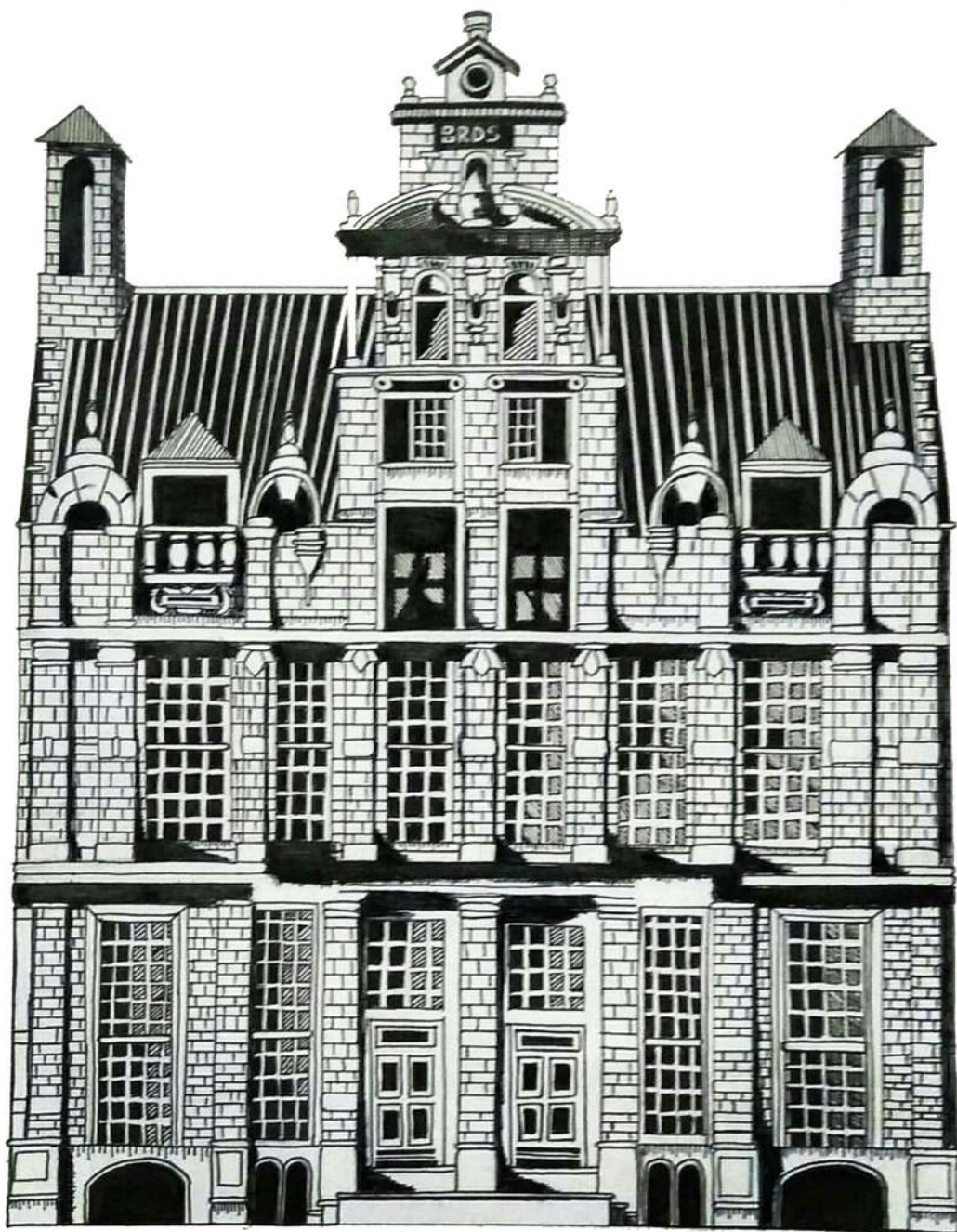


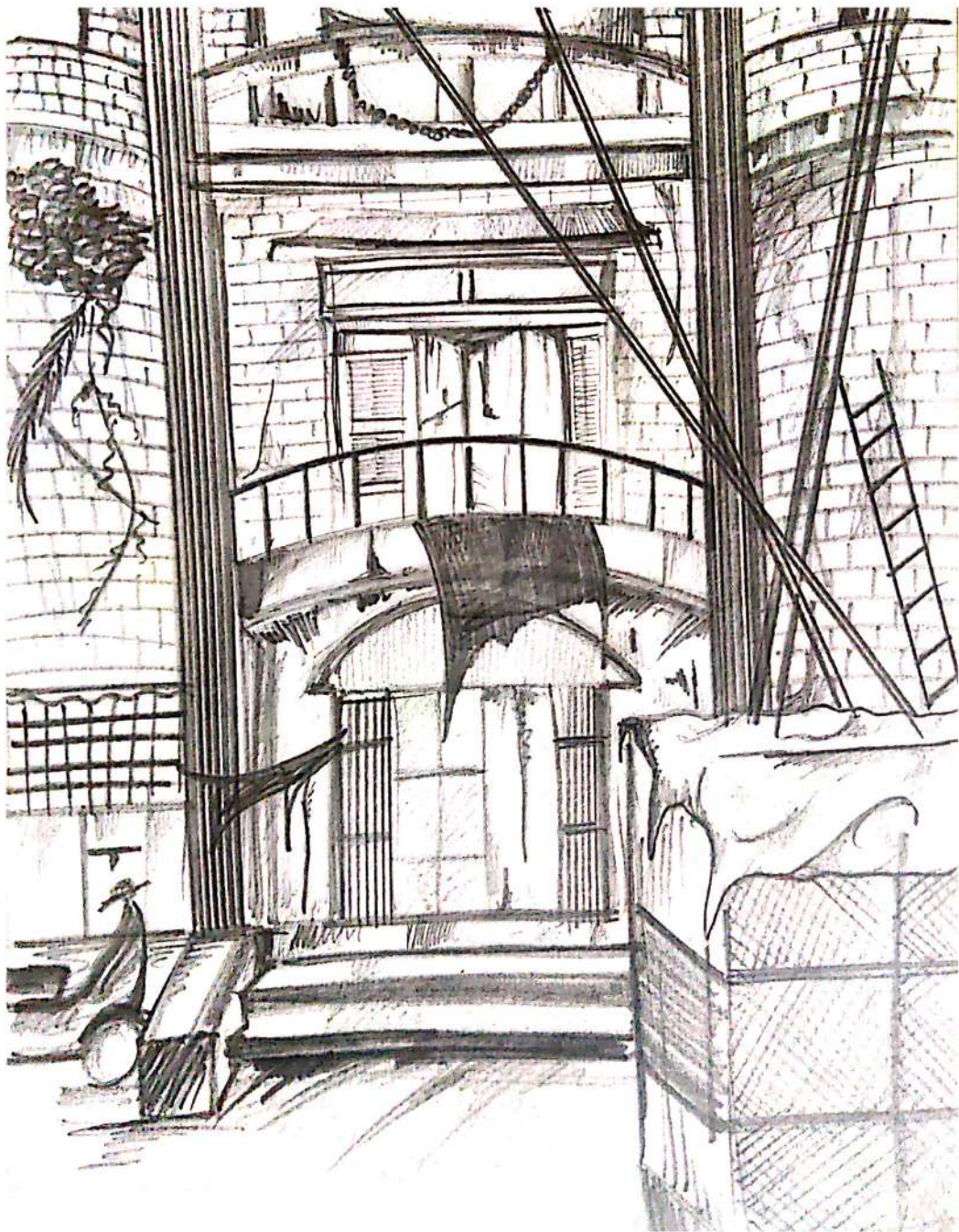




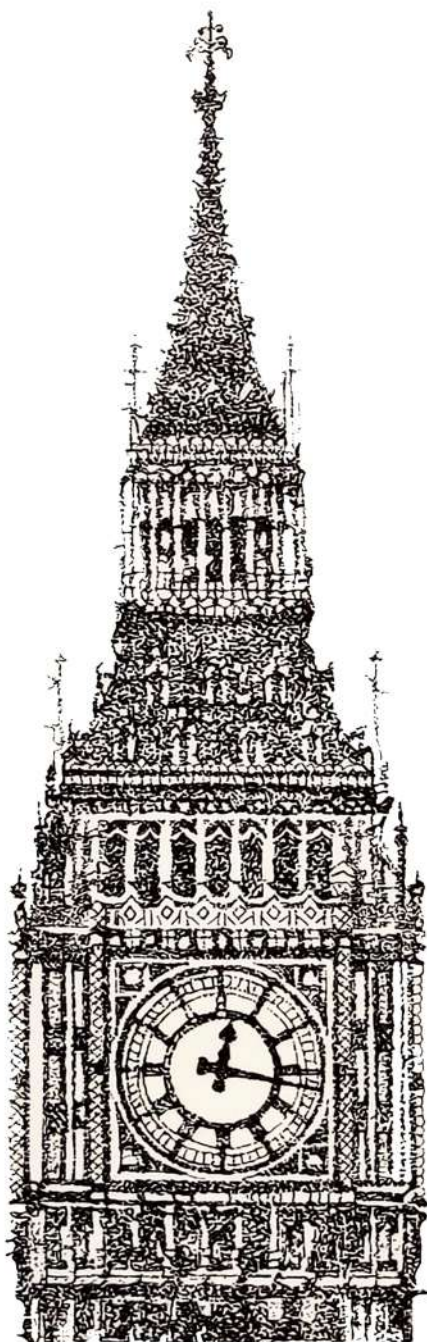
Drawn by Prachi Bendale  
Third year

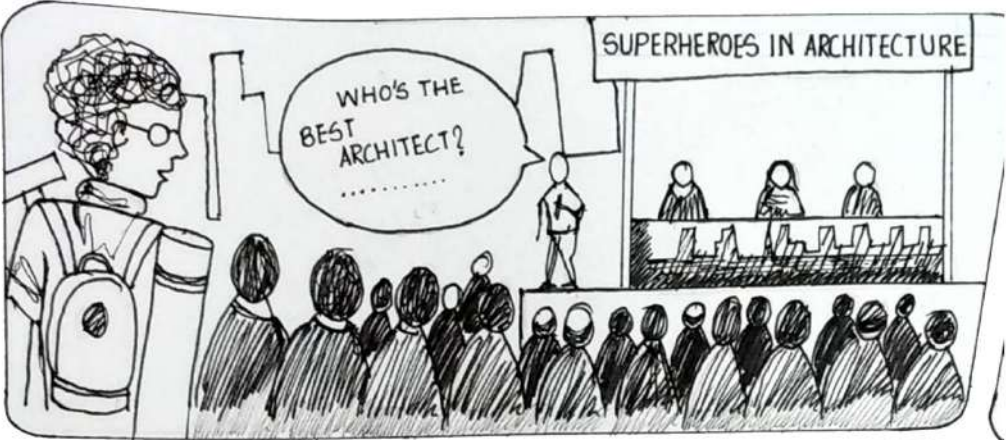




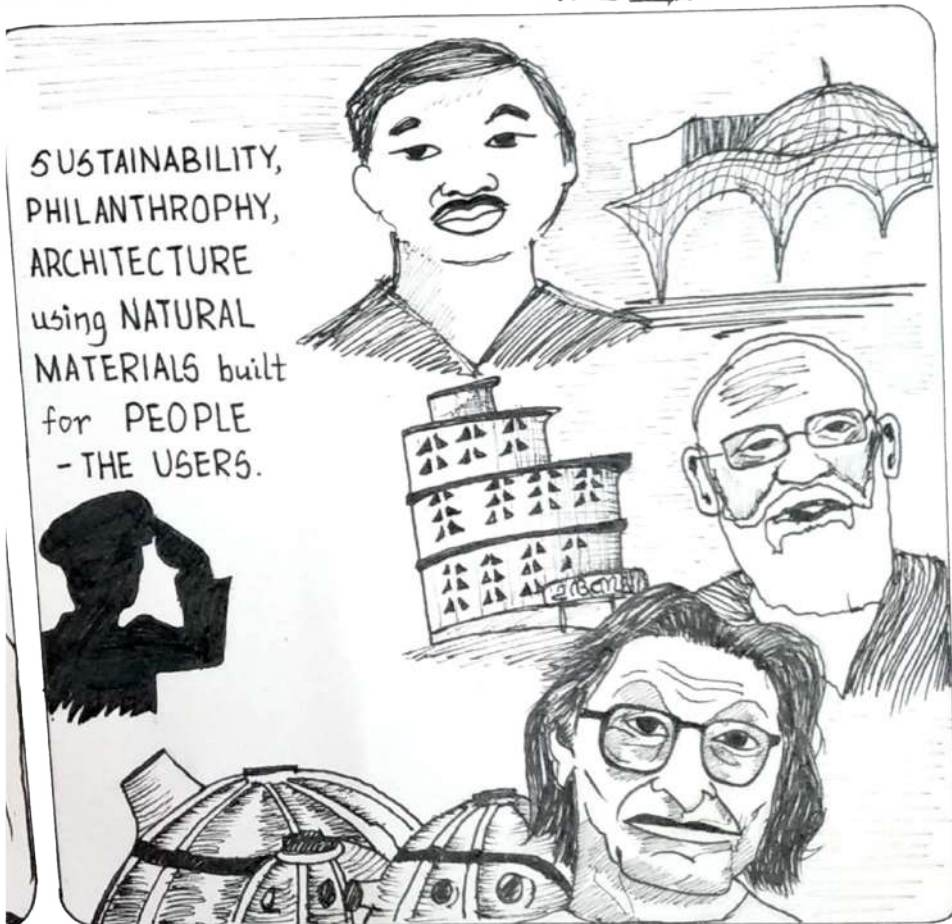














3 idiots...

AND SOMEONE

GHAT

... JUST BEFORE THE DAY OF SUBMISSION



SHIT!

WAS,

SCIR



OMG!  
WHAT IS A  
"CONTEXTUAL"  
DESIGN?



...RED  
vision 2020



# SUPRHEROES IN ARCHITECTURE



After an intense battle, the heroes were beaten up to DEATH !!

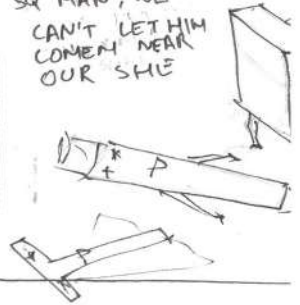
GET-UP T-MAN  
WE CAN'T  
LOSE TO  
HIM!!

WE  
HAVE  
TO  
WIN

NOONE  
CAN SAVE  
YOU FROM  
ME!!



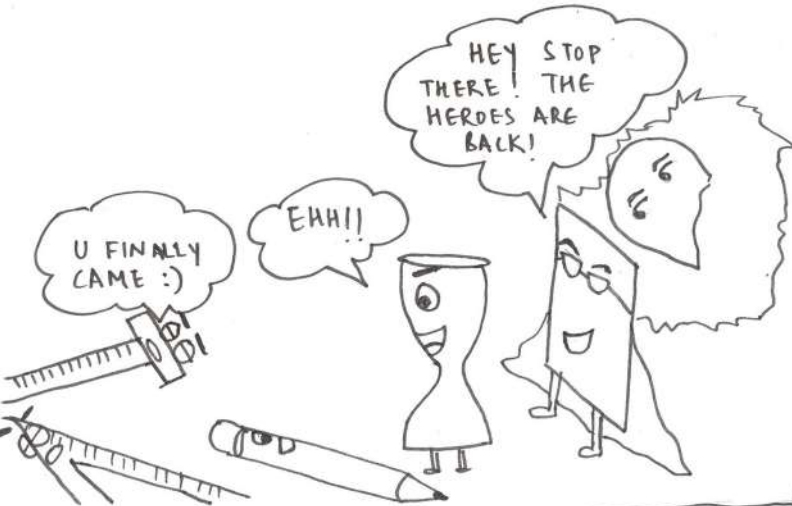
CIMON ST  
SQ MAN, WE  
CAN'T LET HIM  
COMEN NEAR  
OUR SHE



HEY STOP  
THERE! THE  
HEROES ARE  
BACK!

EHH!!

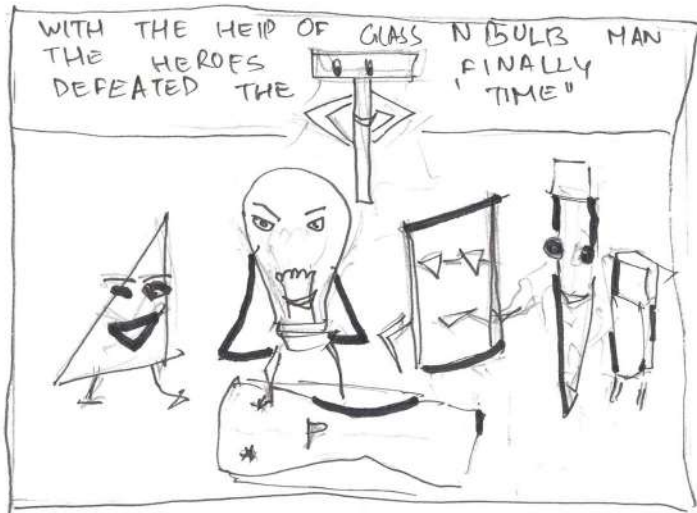
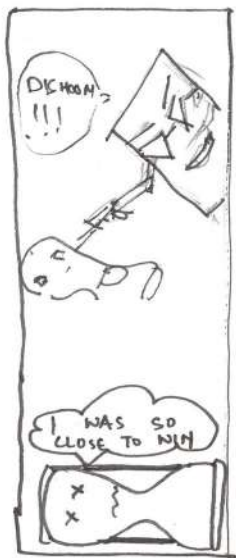
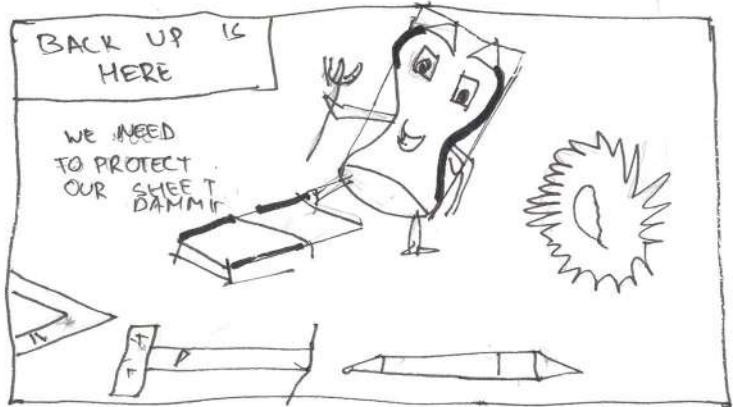
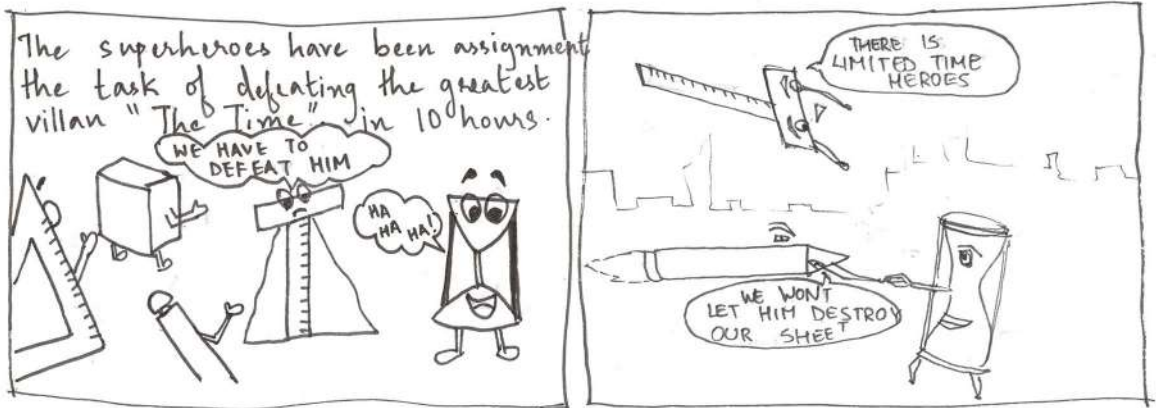
U FINALLY  
CAME :)



BOOM!!







# REDISCOVERING 'PRIVACY' WITHIN CONTOURS

SITE AREA 5000 SQ.M

Dapoli is a town in the district of Ratnagiri in Western Maharashtra. The area has a number of fortification, such as the nearby Vijaydurga Fort and Harnai beach.

The structure lies between Ravines evokes the Contours and Materials of Local fortification.

Inhabit the hilly site rather than try to impose their forms on the natural land.

## CONCEPT AND DESIGN DEVELOPMENT :- FORM AND FUNCTION



Form on contours



Function and circulation



Distracted



At different levels

## MATERIAL

Laterite-Found in 20km radius from quarries

Wood-Boat wood

Glass-For Asthetic

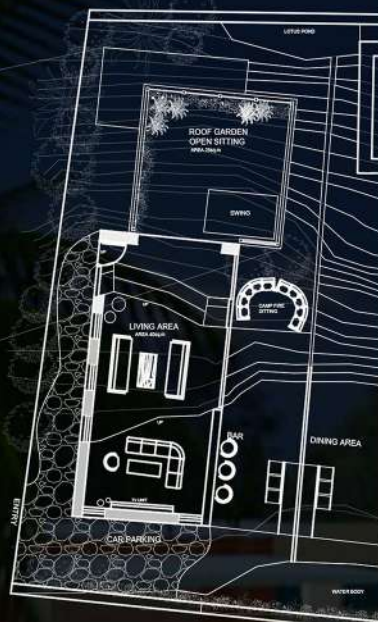
Stone-Kota and Black basalt



## PLAN



LEVEL 2



LEVEL 1

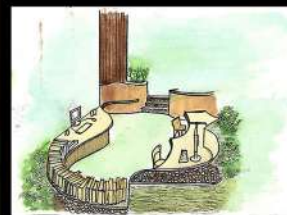
### DINNING AREA



The Contours leads from the living space to the level of the house, the Kitchen and Dining area; a stream runs beside which directs the water flow to the natural features inside the house.

### STUDY ROOM

Floor to ceiling windows enclose the space which results, that you could be looking out at the sea while being in closed spaces.



The house is designed semi-opened and well as the vanist





LIVING ROOM



The living room extends onto a large veranda, which the winds sweep in and out.

SITTING WALL IN BED ROOM

The opening is naturally ventilated with an understanding of orientation, breezes and typical air mechanisms.



CAMPFIRE SITTING

Strating at the top, a winding driveway leads to the Living room. The deck of which forms one of the many intermediate pause points that allows you to stop and take in the panoramic view of the sea and fort and mountain around.



The outdoor areas overlooks the sea, and indoor areas decorated with artefacts and antique which reflects Koli culture.



Designed into its hilly site, allowing covered spaces of different types as a ring edge swimming pool



SWIMMING AND BEDROOM



JACUZZI BEDROOM LARGE VERANDA LIVING ROOM.

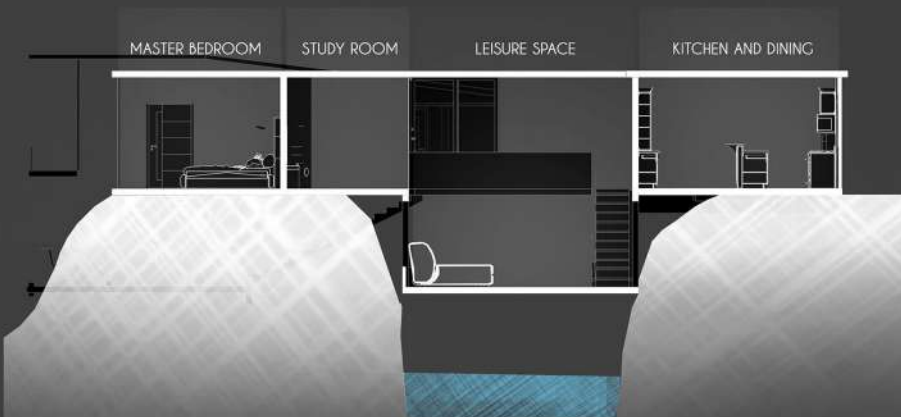
# RIVERDALE.

A house is a building for human habitation and what makes a house habitable are its spaces and its functionality. But what makes a house liveable is how these spaces and functions are incorporated with nature's beauty without disturbing it. In today's concrete jungle, a house which celebrates the nature's marvelous landscape and its fine aspects is what one desires. In this project we have tried to do the same by designing a house of what we perceive as a 'Nature Inclusive House'.

The house has an open plan with constant transition between closed, semi-open to completely open spaces. There is minimal usage of walls to eliminate any visual barriers other than those required to maintain privacy in select spaces. The bedrooms are designed with floor-to-ceiling glass wall towards the gently flowing river to provide a visual delicacy to the eyes of user. There are also completely open decks under the living spaces to give an entirely barrier less experience of the beautiful nature surrounding the structure.



PLAN



SCHEMATIC SECTION





TH972784







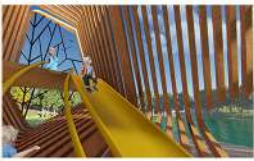
# cocoon

Nestled amongst the wholesome green patches and the ever flowing water bodies of The Vondelpark. The Cocoon combines both the elements of nature through its harmonious and poetic architectural style. The shape derived from the cocoon shell of a morphing caterpillar, respecting the phenomena observed in spring times. The cocoon pavilion's long, meandering bridges take the user on a path of discovery by feeding the curiosity through the ropes bound at different orientations bringing a sense of taking a snooze. And in the end, leaving them at the gate of the colossal pavilion wrapped in a wooden shell protecting its inner self from the outside elements.

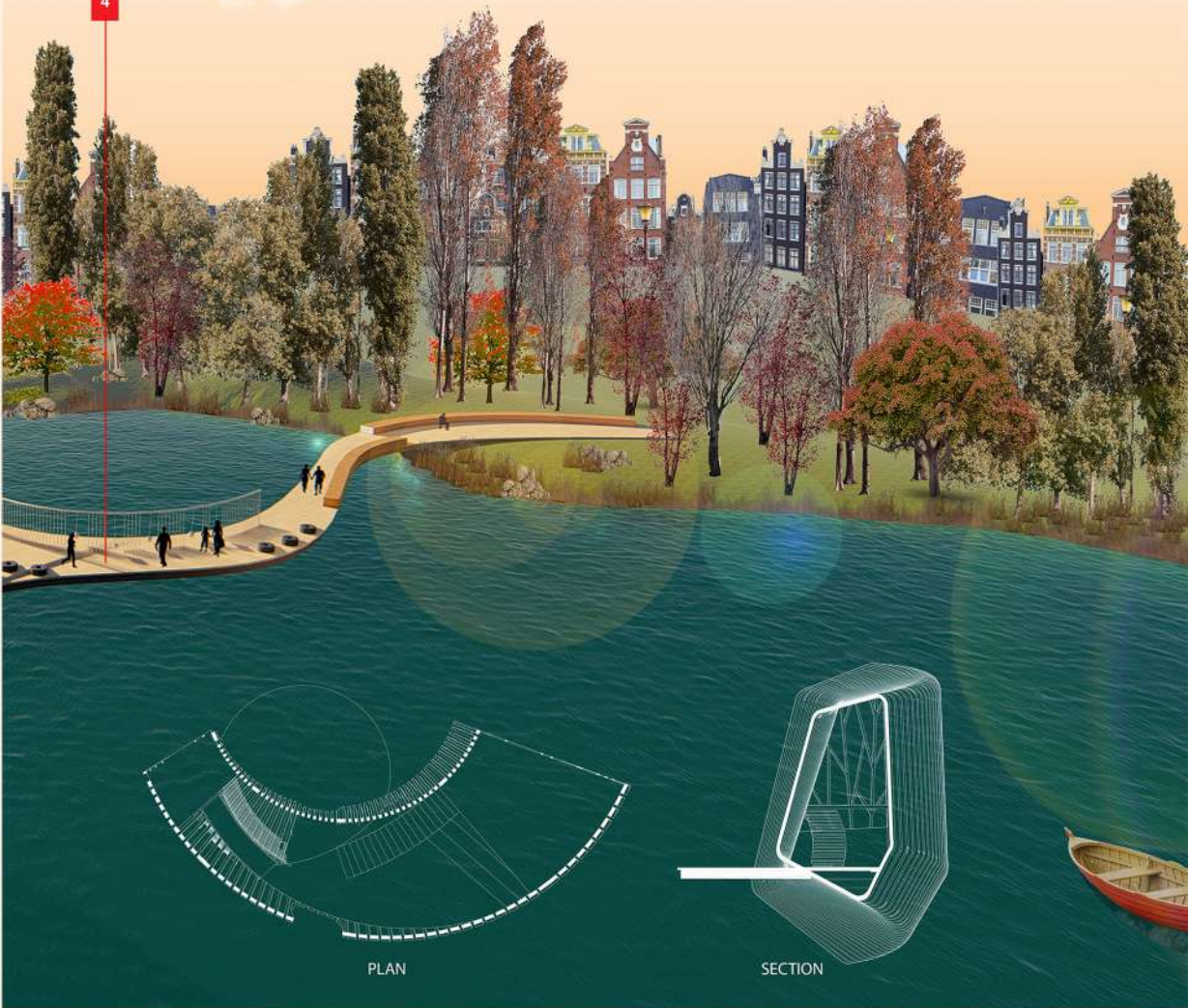
Inside, the interactivity and the blurring of spaces makes the pavilion easy to approach for a user of any age be it a child or someone old. From playfulness to interactivity to just sit back and enjoy the view all done in spaces being shared with each other. The concept of a person moving around and experiencing the pavilion through its different areas by climbing, sitting, walking or just staying still are implemented. This pavilion aptly captures the spirit of spring and the emblematic nature of Vondelpark while making its space warm and welcome for public use.







4



PLAN

SECTION

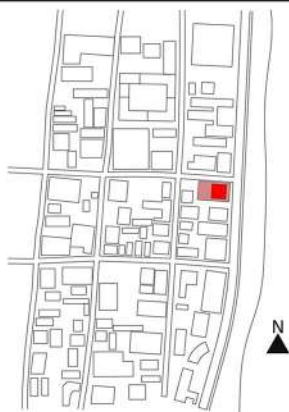


# BUSSY ST. HOUSE

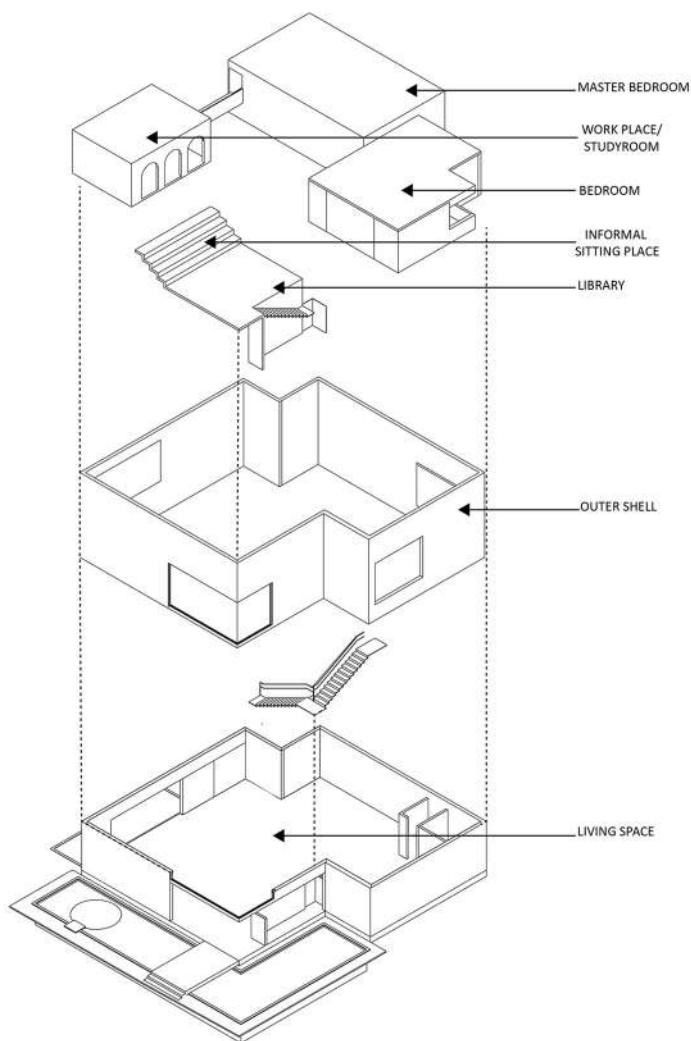
The house is designed for young couple authors to reimagine their vivid thoughts.

The house acts as both a single room and a collection of rooms comprised of shells of progressive size nested inside one another. The individual floor plates create a setting for a range of activities that can take place at different scales and level.

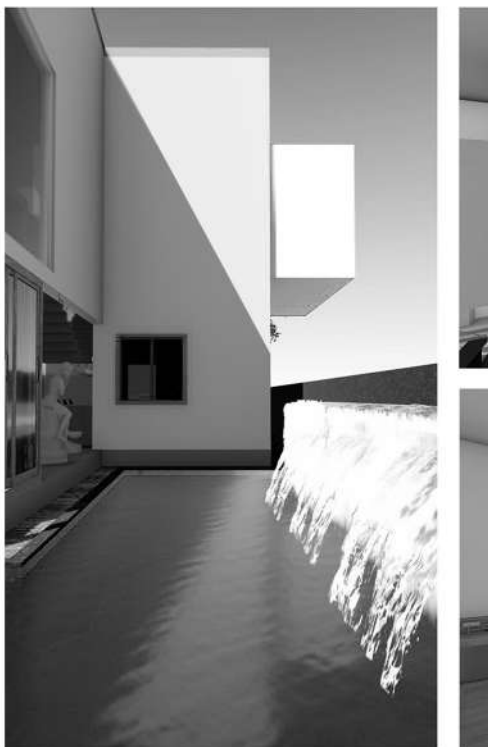
The outermost shell is encompassed of different shells interacting with the façade of which covers the entire premises creating a canopy at entrance. Also it drives outer activity inside with open voids towards garden, pool and bar. Inner most shell branches into twigs of spaces into library with sets of books for the user with variety of sitting place that connects directly to workplace and bedroom.



HOUSE IS DESIGNED IN THE NEIGHBOURHOOD OF PONDICHERRY



Conceptual massing diagram





Sectional view A



Sectional view B



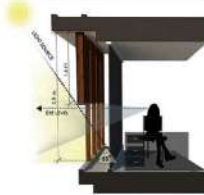
Upper level



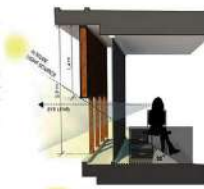
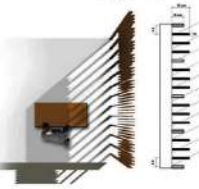
Lower level

The concept of transition spaces is not just achieved by connecting spaces at physical boundaries of the building but has been also reflected at the psychologically healthy level of user and the external climate respons of the building.

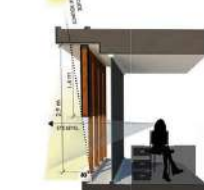
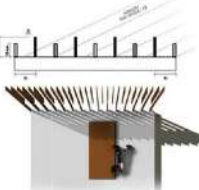
SOUTH FACADE



WEST FACADE



NORTH FACADE



## LOUVERED FACADE

The internal user connected with the outer sunlight and being motivated on daily basis for his commercial work ,by using the louvered system on south and west facades.

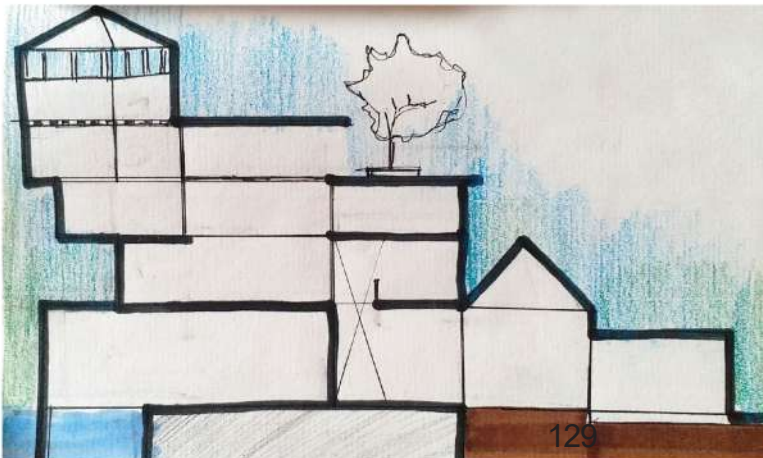
## POTTED PLANTS

The series of potted plants which is again making the internal enviornment qualitative for the user profile internally.



## LEVELS

The levels of the building manage at differen points and same is maintained to achieve the vertical interaction not at only the building level but also at the user mentality level.





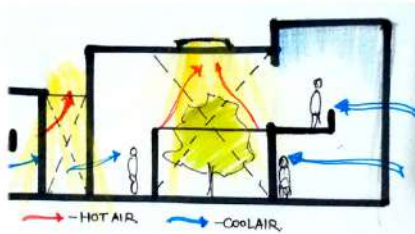
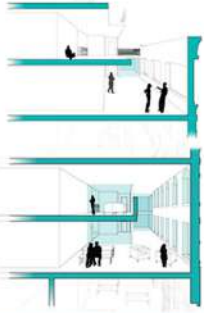
# CO-WORKING SPACE

The site is located at Khandeshwar which is connected to the Metropolitan city Mumbai, which gives rise to the need to create co-working spaces.

## CONCEPT :- 'Connecting spaces - Evoking experiences.'

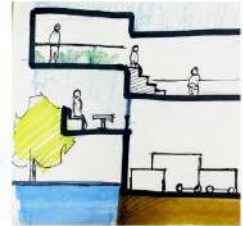
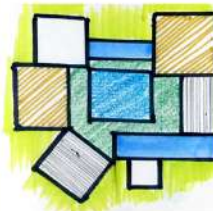
Spaces forming connection between the two different structure and the two similar functions are always termed as **transitional spaces**.

Here in this design which is directing the purposes to the commercial, non-commercial and the co-working spaces where the residential and commercial both activities are playing equal important role which have the focus on transitional spaces.



However the transition of spaces can be denoted, expressed in the form of corridors, courtyards and the semiopen spaces which are mostly having the wind air circulation defined with water bodies and trees.

The monotony is broken by using the regular square geometry but converting that into the human height and human experience, small pockets between the two different functions, which is generating an individual level experience so the user outside the building and the user within the building is able to appreciate the building in different forms and this is also catering to the purpose of again redefining language of architecture in commercial world.





View which acts as a beneficial pointer for the curvilinear design and the waterbody centred design is positioning the particular functions like working spaces and library in such a way that not only the visual connections with waterbody is built but also the experience from the four sides of the spaces is naturally interactive. In order to motivate the users in this two particular spaces for particular functioning like reading, studying and working 8 hrs continuously.



View which is the spaces of break points which is naturally having informal functions like dining, art studio and café are positioned in such a way that a connection with the working space and the educational space is retain yet this break point serve the purpose of informal activities separately.



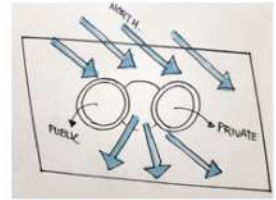
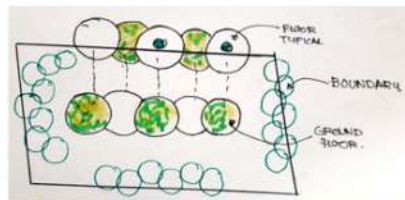
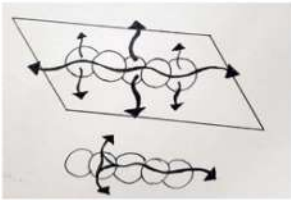




The site is located between khandeshwar which is connected by khandeshwar kamothe bridge over water body. There is a co relation between two types of market altogether with the socio economic group being affected the most.

## CONCEPT –AIRY CURVES

The airy curves concept allows the cooler air flow over the waterbody enter inside the interiors through the semi open spaces which are connected with the enclosed spaces on one hand and open to sky spaces on the other .



Redefining the traditional concept of working space and educational space that is library by making it more interactive in terms of natural sunlight and air ventilation and also by making it inclusive with respect to indoor environment and outdoor site elements. eg. Trees and Waterbody .

In order to satisfy the above requirements there were two three options of design or form.

Frame in the evolution process through which one get inspired from the profile of waterbody which is curvilinear and starts giving experience in the design by providing curves.







1ST YEAR , BATCH OF 2019- 2024







2ND YEAR , BATCH OF 2018-2023







# REBELS OF C

3RD YEAR , BATCH OF 2017- 2022

THIRD YEA



**COLOSSUS HIVE**  
AR B.ARCH





5TH YEAR , BATCH OF 2015- 2020







4TH YEAR , BATCH OF 2016- 2021



# FORM 4

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I, Principal Dr. Sudnya Mahimkar hereby  
declare that particulars given above are true  
to the best of my knowledge and belief.

Principal

