

A New Approach to Urban Housing

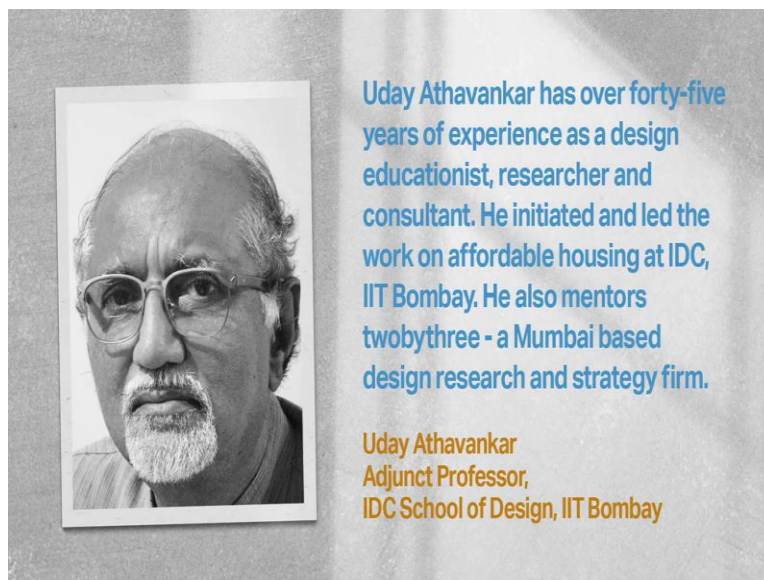
Professor. Uday Athavankar

Open Design School

Indian Institute of Technology, Bombay


Lecture No. 64

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As promised, we have a presentation by Professor Uday Athavankar, a senior member of the faculty in IDC School of Design, IIT Bombay, Professor Athavankar teaches courses in game design, product design and user studies, among others. And much of his work has been around designing products of everyday use for homes, offices and industries. He has designed 0 cost games for children, through which he has explored games as a way of learning.

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Ameya Athavankar is a design researcher, with experience in design consulting across disciplines. He joined IDC, IIT Bombay as a design consultant for the affordable housing project. He is a co-founder of twobythree, a design research and strategy firm.

Ameya Athavankar
Co-founder, twobythree



Prasad Anaokar is a serial entrepreneur with years of experience in architecture, design & IT industry, Prasad co-founded Infologys & eArchstudio. He worked as a design consultant at IDC, IIT Bombay before co-founding twobythree - a Mumbai based design research and strategy firm.

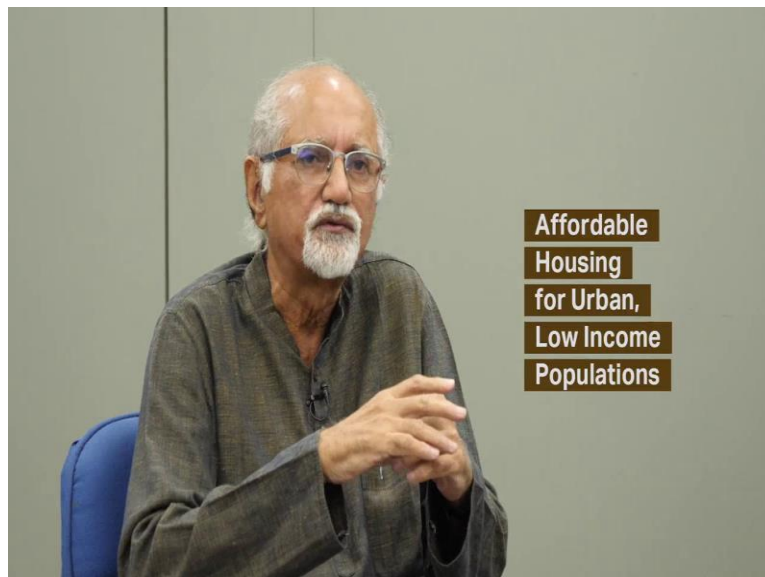
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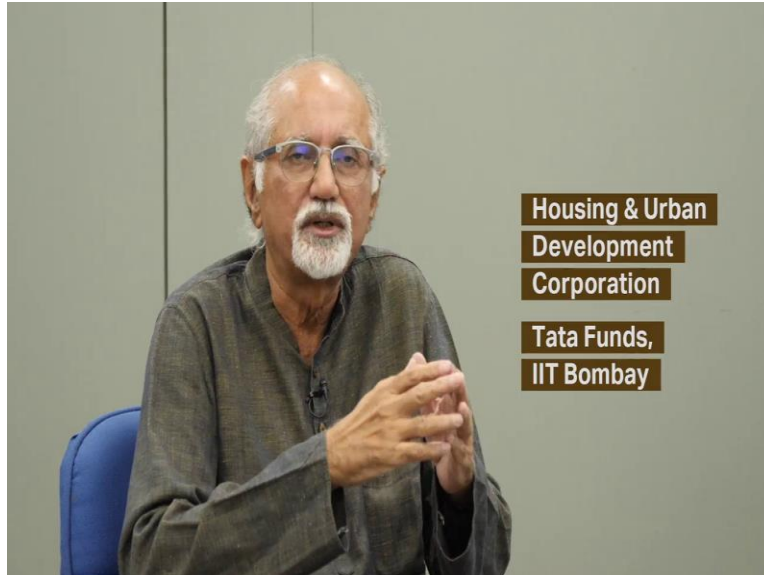
And he has designed low-cost housing for urban populations with two of his colleagues, Ameya Athavankar and Prasad Anaokar many of his projects; professor Athavankar has used an ethnographic approach to learn about his participants, their needs and their context. In this section, he, along with Ameya and Prasad, will share with us some of the insights that this approach has brought to their work. Let us listen to what they have to share.

Professor Uday Athavankar: We study people to make them a source of innovation for us. In conventional design language. This part of designing is called as user studies. We still not use the word ethnography right now. We will come to that as we go along. It is relevant because it overlaps with many other professions we study people and study cultures.

It has some overlap with visual ethnography, and we will actually discuss this overlap as the case study unfolds. At this point, I would like to introduce you to two of my colleagues, Ameya and Prasad.

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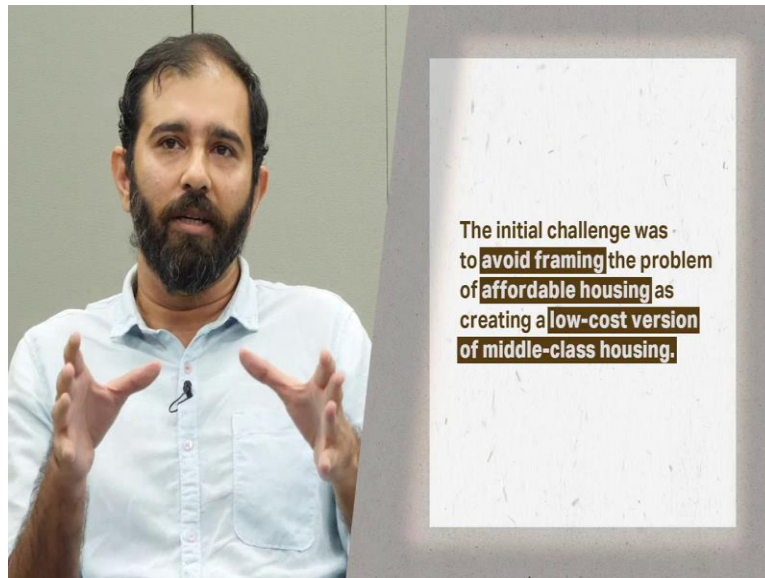




We were involved in the Project for Affordable Housing, which was funded by Housing and Urban Development Corporation and partly Tata funds in IIT to investigate how we could cater to a slum rehabilitation scheme.

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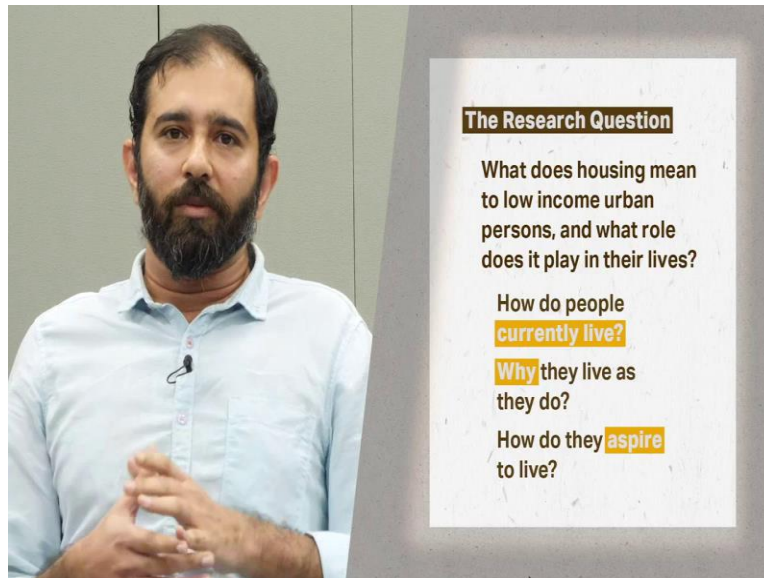


This project started around 2013. We have a team of architects and researchers with us, two of them are with me now Ameya and Prasad.

Amaya Athavankar: In 2014, we began working on a project on affordable housing, which is housing for urban low-income groups. After the economic downturn of 2009, there had been a new interest in this area, but most of the work that was being done in the area was still quite narrowly focused on the idea of achieving affordability through cost reduction.

Naturally, the approach tended towards taking middle or high-income housing solutions and adapting them to the affordability constraints of low-income groups. Our project was looking to take a different approach to this. Being initiated at IDC, the idea was to look at this the entire problem of affordable, delivering affordable housing solutions through a design thinking lens. So, it was very natural for us to begin by understanding the needs and aspirations of the people that we were designing for.

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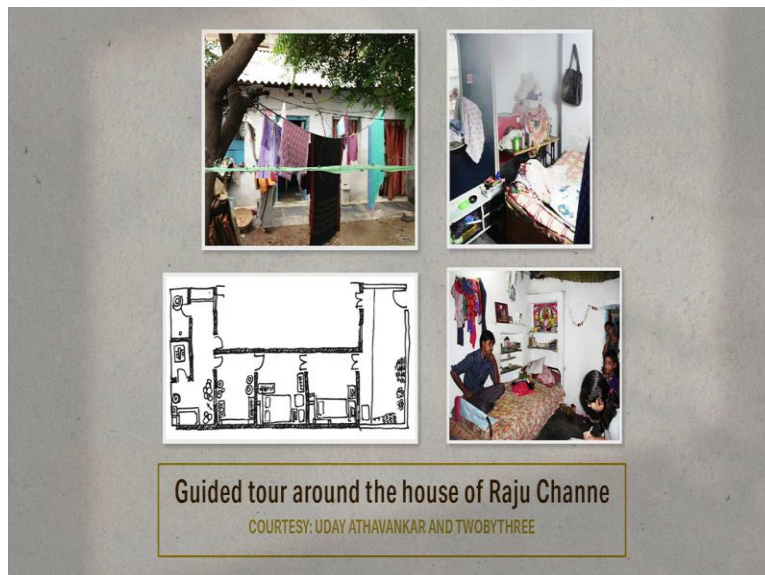
In this project we were looking to develop radically innovative solutions. So, we needed to look beyond what people in the target segment wanted to see in their house and really look for insights into what housing meant to them and what role it played in their lives. So, we felt that new design opportunities could emerge only if the problem was expanded, and a wider understanding of the problem was created.

So, we began our research with a broad question. We framed it as we wanted to know how people in their target group currently live, why they live the way they do, and how they aspire to live, as you may imagine. This included probing a very large set of past, present as well as future choices and behaviours. Lot of topics require the use of different ethnographic methods.

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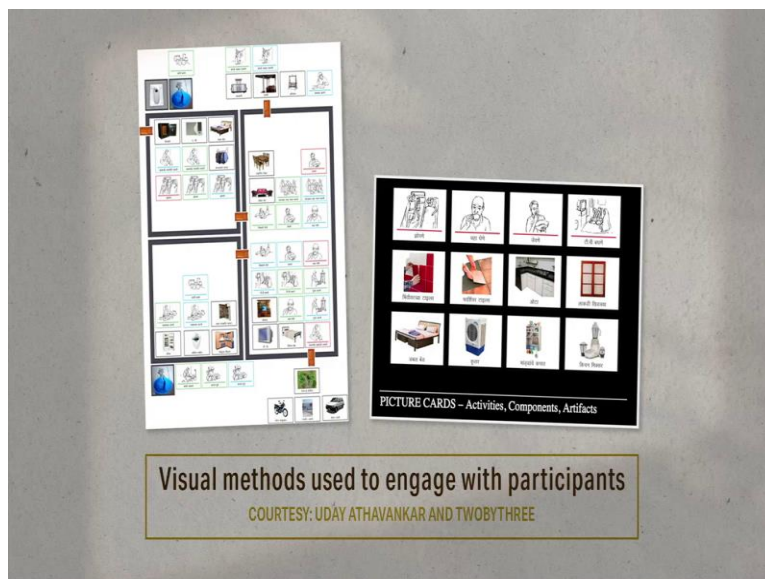
We asked household members to give us a guided tour of their houses. We also captured photographs and drawings to understand how households inhabited their current spaces, if and how they modified them and what they chose to populate them with.

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But housing in living patterns also change and evolve over time, and we used a bunch of visual methods to capture this temporal dimension.

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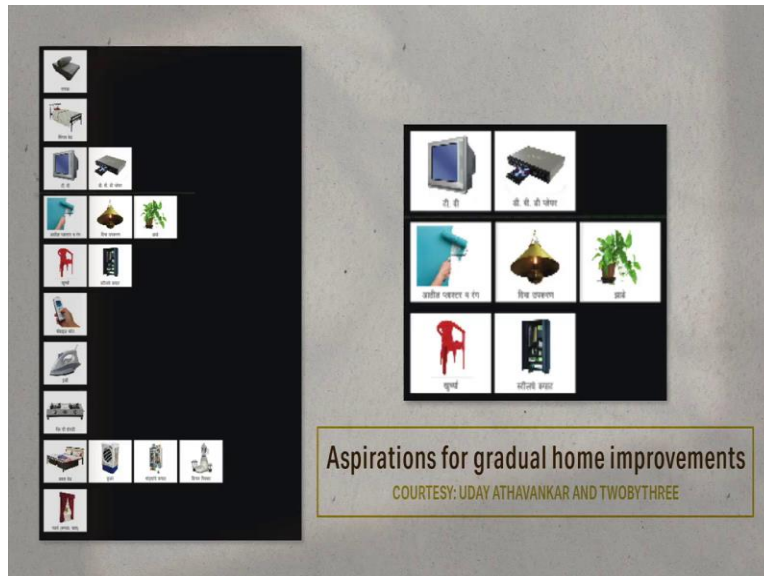




Using these, the participants were asked to create a timeline of changes to their household, to their house, rathe. As they build the sequence, the researcher will encourage them to share the stories behind these decisions. This exercise revealed to us a lot of rich and detailed stories about the decisions and events like say weddings or childbirth or educational milestones, employment changes that shaped the house as well as the household.

Prasad Anaokar: Interesting thing that we saw was how they would sequence their belongings in the household.

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Prasad Anaokar: And the sequence would go one after another, and suddenly there were like 3 or 4 items in a straight line and horizontal line, and we realised that most lot of households had that. And when we asked them what that was, they said was this is what they got in a dowry.

Ameya Athavankar: If we had to really come up with radical solutions based on powerful insights, what we needed to understand was not only the pushes or the current struggles of the household with their housing but also the pools or their desire for progress that would drive change towards betterment.

Prasad Anaokar: What we realised we were looking for a more deeper engagement with them so that they could reveal a lot more than what they have currently experience and to an extent that they would reveal something that they would have not experienced before and what they would like to experience, which is a very difficult thing to do.

Professor Uday Athavankar: We feel that people are willing to tell you the truth. And my experience of doing this for several years is that lot of people try to study you and give you responses that you want to hear rather than what the actual truth is

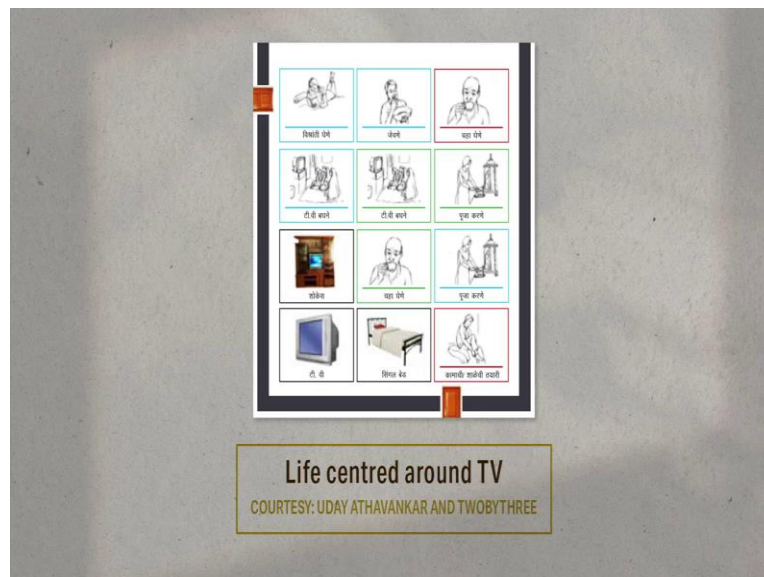
Ameya Athavankar: We developed an elaborate set of visual props the bunch of activity cards, furniture's, products, building elements and a set of combinable frames that represented rooms. Households had to sit together, and they had to work together to use these to create or represent a house that they would love to live in.

Prasad Anaokar: Like for example, most of them in tier two cities, the first thing that they did was put a TV in the centre of the room, and then they would arrange everything, all the furniture around the TV. So, we figured out that TV was an important member of their household as much as a family person because that is what they put it centre of the house.

Professor. Uday Athavankar: Any specific instance where this came out very strongly?

Ameya Athavankar: I think most cases the TV was, almost plays, one of the first items to be located in the house and also very highly contested among different family members was the location on the TV, whether it should be in the living room.

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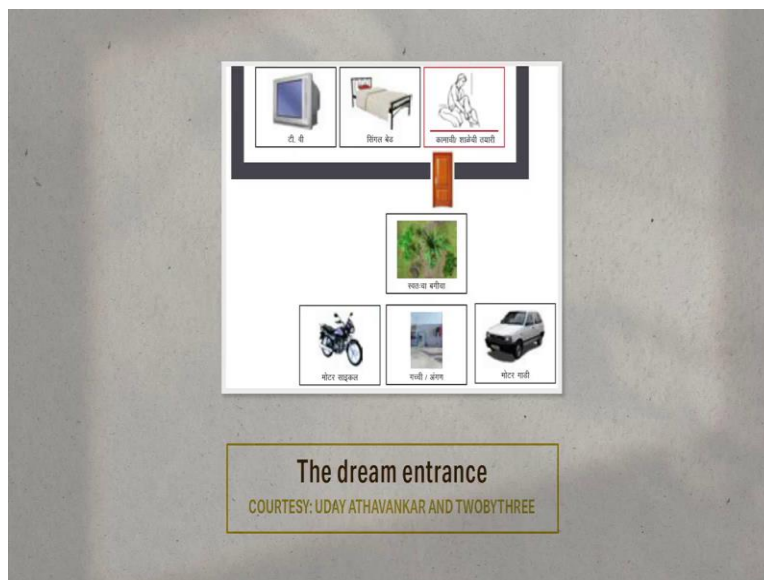
Whether it should be in one of the most private or secluded rooms and so on. But most often they would agree upon keeping their TV as a centre in the living room where everybody could watch it. So, here it was almost like the TV was like the centre of the, you know, the whole house kind of revolved around that particular item.

Prasad Anaokar: There was an incidence when we were mapping a person's behaviour within the house where he perform different activities, literally all the activities were performed in front of the TV, literally including studying. So, that was how much TV was important to them.

Now, if this exercise was to work, it would have to be very open-ended and, you know, encourage a lot of playful exploration. So, the household was asked to think as if they had won a lottery, and there was no budgetary constraint on their actions.

Prasad Anaokar: All of them wanted to have a grand entrance experience because the entry to the house somehow was very important for everybody.

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I mean, they put the jhula, the flowers, the very decorative doors. They would want to have parking for their cars or bikes right in front of the house. So, all of it sort of created an aura of opulence that they wanted to show to people.

Uday Athavankar: You had that experience of somebody describing the requirement for a bathroom. Maybe we should discuss that.

Prasad Anaokar: It was interesting it is probably another example how the natural language takes over when things are more playful, so we had asked them to arrange a house which included you know putting room around and including the bathrooms and all that. So, our initial thought was that maybe, perhaps because they were this semi tier two cities, they would sort of put the bathroom a little bit outside because we had earlier seen a pattern of that happening.

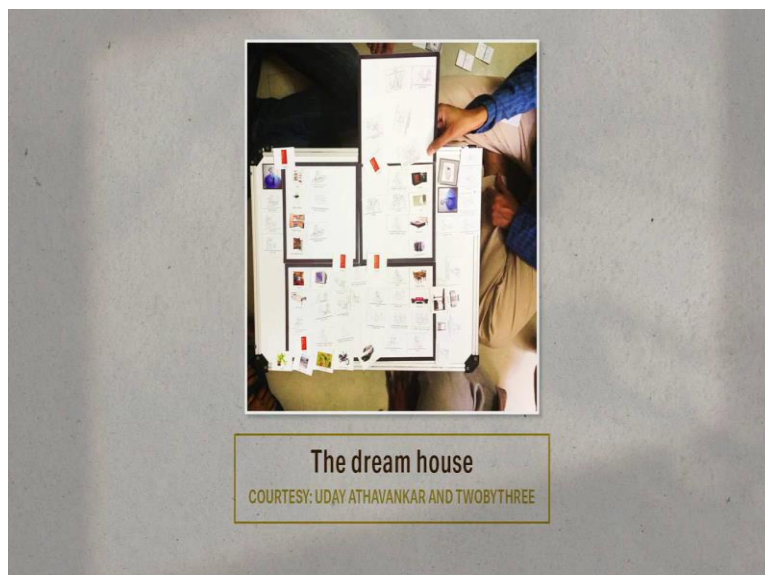
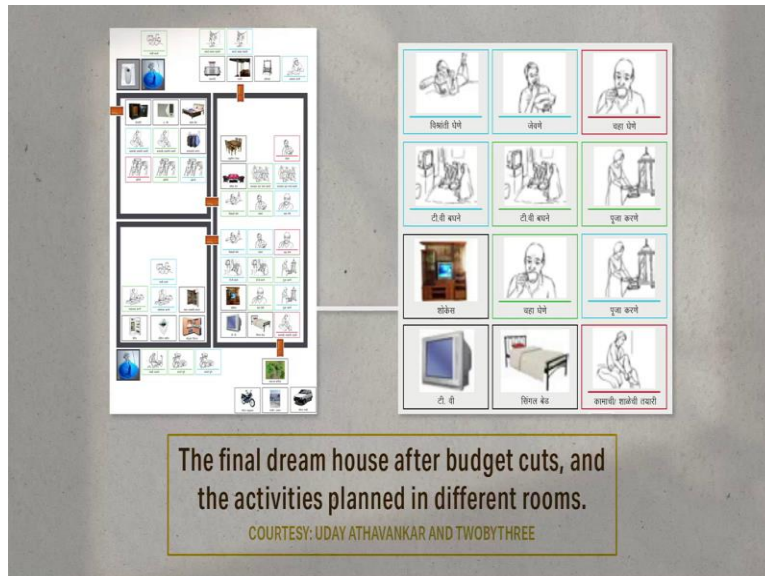
But this lady actually made the bathroom the centre of attraction, so to speak. And what she said was interesting that she said "ek bathroom chahiye bada chahiye, magar bathroom dhinchak wala chahiye". That sort of language I do not think you would see in a regular interviews or things. But it was interesting the way she described the bathroom, and we asked her where she got the idea of this dhinchak bathroom.

And what she said was also interesting that she said that she was a tailor and she basically stitched wedding dresses so she would go to these rich people's houses and get their measurements and, you know, stitch dresses and sell it to them. So, she said she actually saw one of these bathrooms in one of her client's house, and that is what she wanted to sort of replicate here.

Ameya Athavankar: I think what was unexpected for us was that we never expected the bathroom to be like a symbol of luxury and such as such a delightful experience for people. I think it was partly that and partly I think she was also reacting to the fact that most bathrooms in their current situation are extremely tight spaces. And I think you have to probably imagine the challenge of dressing up in a sari, let say in like a 3 by 3 kind of a bathroom, which is essentially a wet space after this, the first step where the ideal situation had been imagined.

We started introducing constraints. We told the household that they had exceeded their current budget and they needed to give up some of their some of their houses as well as their positions. This started a bunch of negotiations. It turned out to be an extremely engaging experience for people.

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Prasad Anaokar: That had helped us understand how they what they prioritise and why they prioritise and what are the reasons behind their choices.

Ameya Athavankar: What this exercise did is it opened our eyes to the aspirations of low-income people, which was extremely different from what we had imagined.

Prasad Anaokar: What we saw was some of the techniques that we used, which were constructive and playful, helped us to create these engaging environments and hence build that related trust. People started off with telling us that we do not have time so we could wrap it up very quickly. And since I got to go to work or I know you are including in my income time and

so and so forth. So, but when we started these activities, they just played for an hour, hour and a half.

So, some of our interviews or we did not call it interviews. But some of these activities that we did with them went on to like 90 minutes or sometimes even beyond that. So, the playfulness of the activities also helped people to lose their inhibitions because they thought they were playing a game. So, they would actually reveal a lot of things that they would never reveal in an interview. Like, for example, their income, when you would put it in a game-like environment, you found out that they would not think twice before sort of stating what and where their spending is, where.

Professor Uday Athavankar: interestingly, a lot of it comes out in the form of a language or an expression.

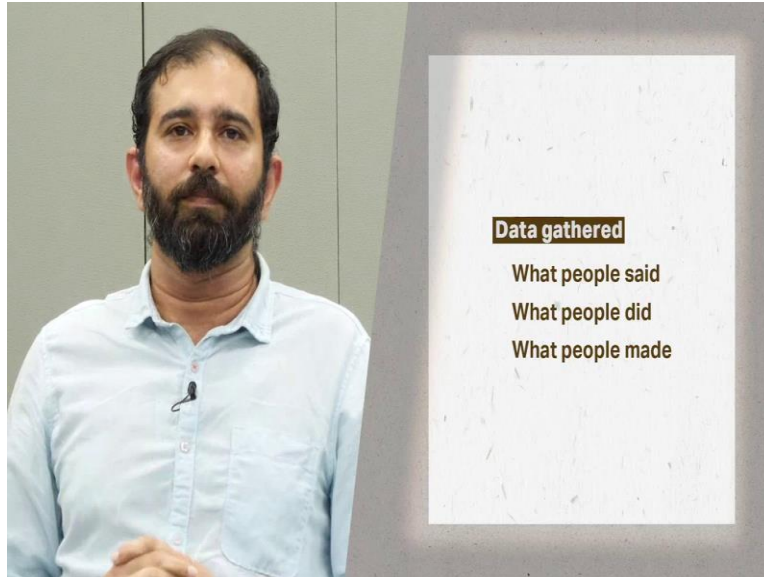
Prasad Anaokar: Yeah,

Professor Uday Athavankar: That seems to be interesting. Is there a reason why this happens that people speak very differently than you when you use your tools?

Ameya Athavankar: I think one of the reasons is at least this is what we have been reflecting on now, having done this study, is that what these tools do are, is that they put the participants in control of the entire process. That part, he has autonomy. He has control over the entire session. It is not as if it is not a conventional interview, interviewer, interview interviewers a relationship anymore where I ask a question, and then you are supposed to respond.

So, people are taking charge of activities, they, themselves are expressing what they want, and therefore it becomes very natural to speak the way they do, usually with each other or amongst themselves, rather than having formal interview responses.

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To put it in a nutshell, we focused on capturing three sets of data, what people had to say, what they did in terms of current behaviours and what they made. And what they said as they made those particular artefacts.

Prasad Anaokar: After looking at all the people's aspirations as well as their priorities and choices, the most interesting thing that came out of it was that what they were looking for was not really housing. Currently, most of the reports were focusing on creating housing solutions or getting affordable, bringing affordability to the housing construction.

But what we realised was what people were looking for was not just housing, they were looking at solutions which are beyond housing, which was beyond just the hardware, which was the house what they were looking for was a living, a more broader solution that included things like clean water, access to sanitation, access to 24/7 electricity, proximity to work, schools for their children, and so and so forth.

So, one of the interesting things that we found out was that while the marketers are segmented, the entire Low-Income Group into a single segment with the assumption that everybody within that segment who has an income between 90,000 a year to 3 lacks a year, had similar priorities, similar desires, similar likes and dislikes, and so and so forth. What we saw was that was not true because, within that income group, there were different people who were qualitatively different

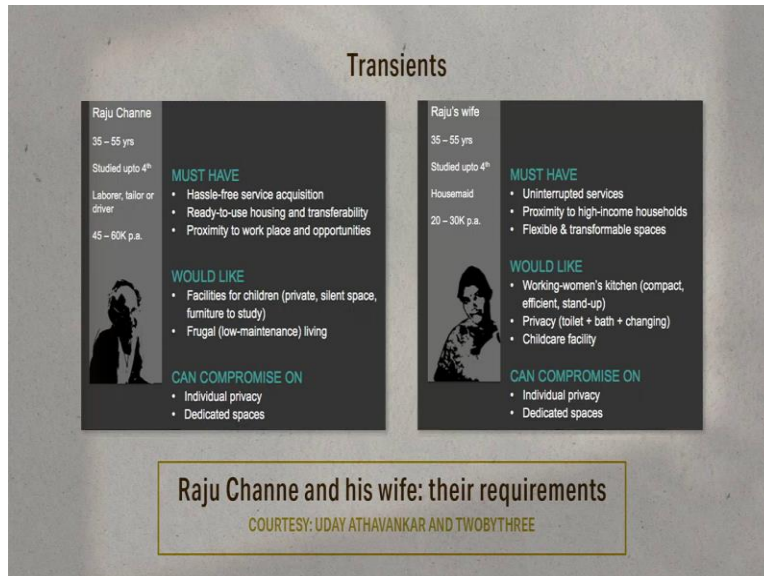
from each other and whose housing needs and priorities and choices and likes and dislikes changed based on several factors.

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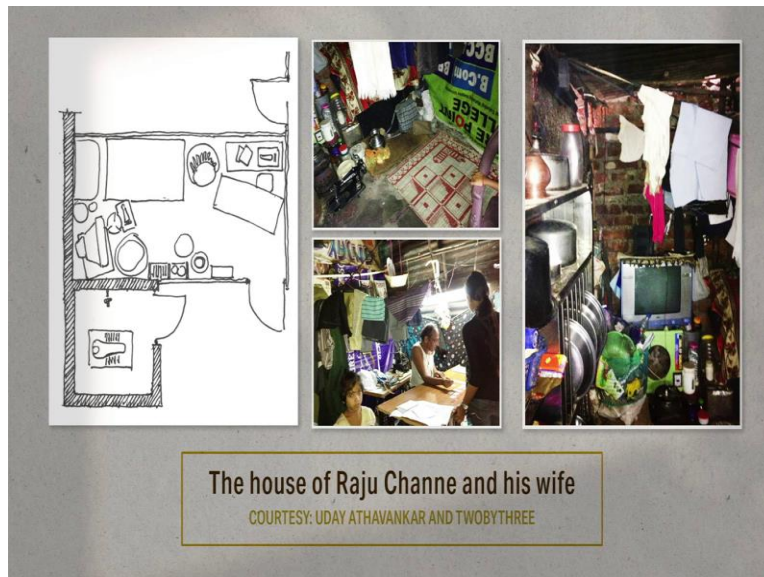
Recent Migrants	Future Migrants
Raju Channe 35 - 55 yrs Studied upto 4 th Laborer, tailor or driver 75 - 90K p.a.	Amil Mohbe 25 - 45 yrs Studied 5 th - 9 th Skilled laborer, Vendor 1 - 1.5L p.a.
Imtiaz Patel 15-25 yrs Studied 5 th - 9 th Worker, driver 48 - 96K p.a.	Deepak Kamle 15-25yrs HSC or Graduate Accountant, Teacher 1.5L - 3L p.a.
Transients	Hedonists
Settlers	Risers

The study identified different kinds of households.
COURTESY: UDAY ATHAVANKAR AND TWOBYTHREE



Ameya Athavankar: So, we discovered about four distinct personas based on their lifestyle choices were very different, distinctly different from one another. They were the transients who were, you know, below about five years of residence at a particular location. These were people who did not manage to save much their skills, and their occupation was such that they were not specialised skills.

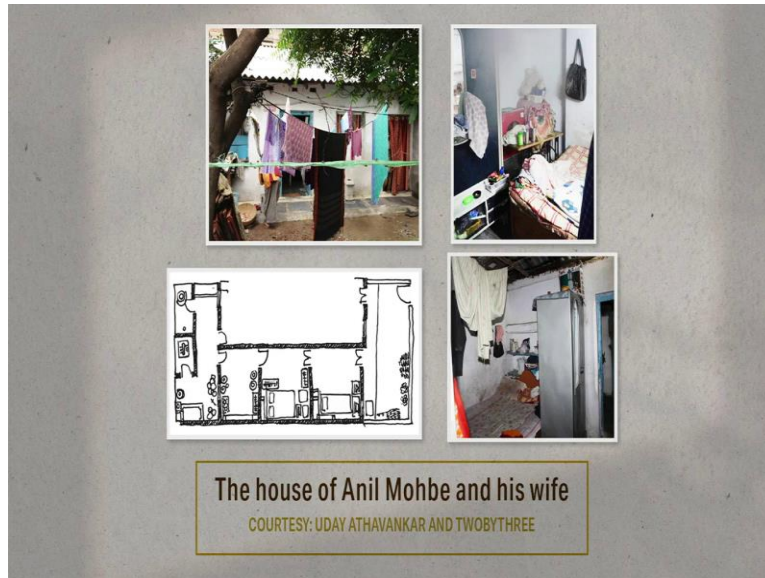
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Therefore, the kind of investments they would make in improving their house or setting up their house were sort of minimal. Their lifestyle was extremely frugal, and they were they would make a lot of compromises just to make ends meet.

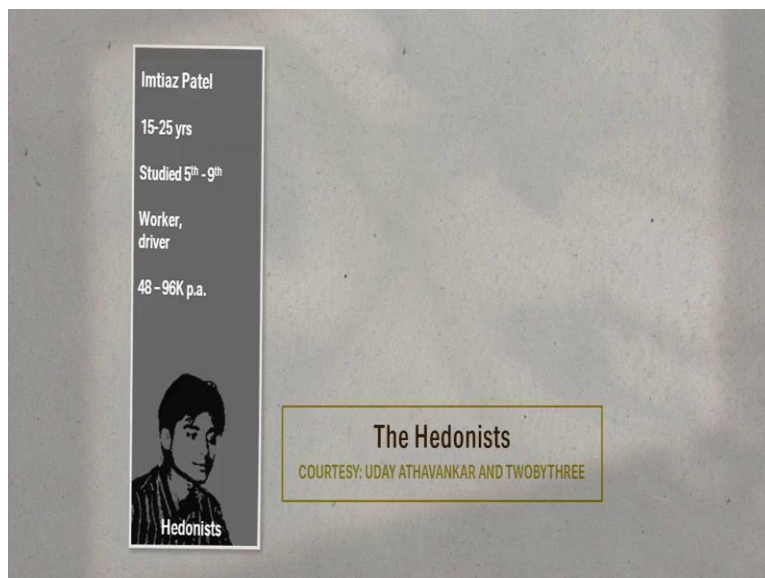
The second category, on the other hand, was settlers. These were people who had a foothold in the city. They had some amount of savings. Their skills were a little bit more specialised. So, you typically talking about people like, let us say a rickshaw drivers or ordinary private drivers and so on.

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You could see that they were investing in upgrading their house as well as their lifestyle. One of the typical characteristics of this particular persona was their investment in their children's future. So, education for this persona as compared to the first one was a big priority. For the third and fourth one are different from the first two in that these particular personas are they have grown up in post liberalised economy in India. So, their choices tend to be much more they are more comfortable with consumption. So, the two personas or hedonists and risers.

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Hedonists are typically people who do not have the education currently to rise beyond a certain economic class. But their choices do not reflect the same frugality as the transience. They are quite comfortable with consumption. These are the people who will let us say buy Chinese goods, are imitations of, you know, high-cost luxury items. Another particular pattern in this particular, this category was that a lot of them, lot of their choices were very different from their parents.

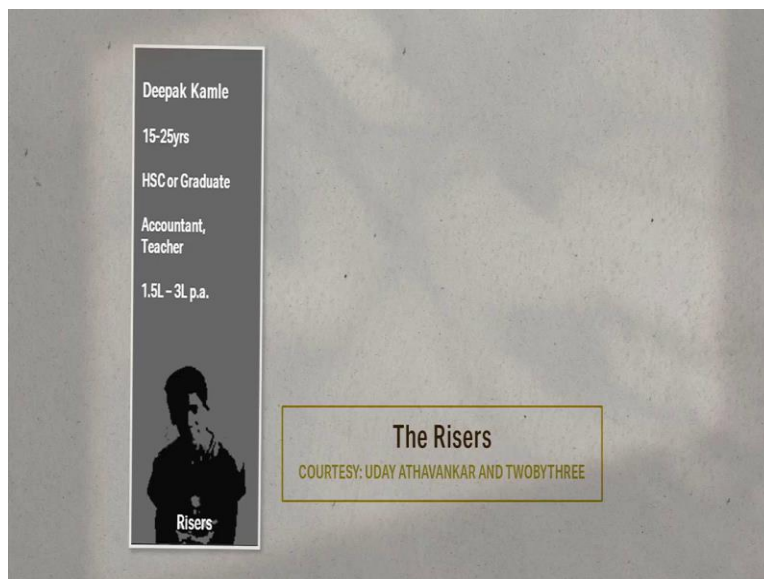
So, if you look at look at the parents, the choices were extremely frugal, functional and ensuring that the house works very well in stark contrast to hedonists who essentially have a tendency to sort of exceeding their means a little bit for more focused on, perceptions and, you know, projecting this idea of being upward early mobile onto their house.

Professor Uday Athavankar: You mean they are interested more in image.

Ameya Athavankar: Yes,

Professor Uday Athavankar: Okay.

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Ameya Athavankar: The fourth Persona are the risers; these are the people who have let us say graduate education and so on. They are likely to follow a path and you know coming to the conventional, consumption class as compared to the third the hedonist's Persona these people

believe in buying the western class products. So, typically, a car like Tata Nano would be aimed at somebody like riser persona.

Prasad Anaokar: What they required was a lot more than the house.

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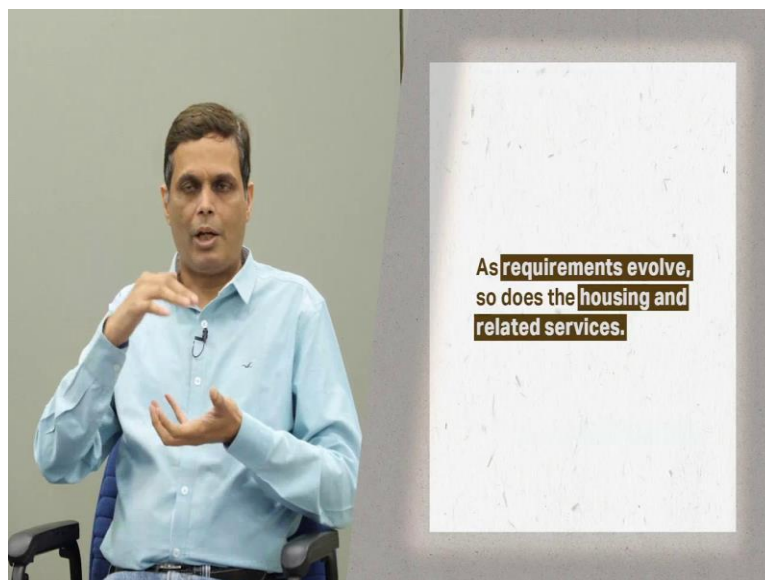
So, the solutions that it required, a lot of services it required a lot of policies that helping them achieve their priorities. So, all this combined together, the hardware, which is the house, the software which we call the services and the policies etc. When combined together, it gave rise to something what we termed as service micro living. We focused more on the transience and the settlers in the early part of the phase because currently there were no solutions for that groups.

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The service Micro Living was a solution which was designed in urban cities, which was focused on these two sort of groups. So, what it entailed was a small rental units, but which were expandable.

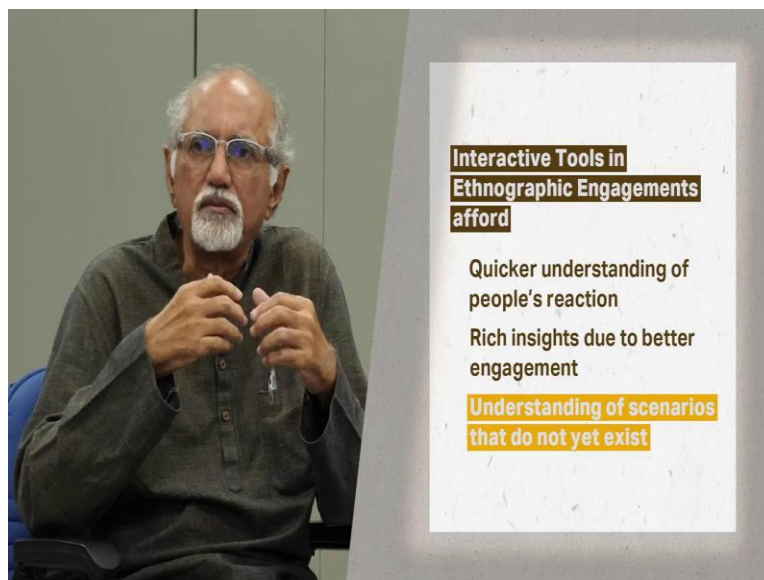
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So, over a period of time, they grew into something more than what was currently required as the families grew.

It had something like a serviced kitchen, which was a common kitchen, also service sanitation facilities. It also had a subsidised groceries, flexible living plans, which were something again to what we have in cell phone, like a post-paid or a prepaid financing options. And most important thing was that they were all located in prime urban locations. So, they were perfect solutions for their slum rehab that. When we started this project, what HUDCo was sanction in this project for.

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Professor Uday Athavankar: So, what these tools achieve is a quicker understanding of the situation, and how people react to the product or they can potentially react to product. Tools also seem to ensure engagement and involvement of the user. So, the data that you get from it is fairly reliable. And also something that can be converted very easily into insights.

What really is required in design is what could happen in future and how could design intervene in that future and for that these tools have some additional techniques which get them to react to things that do not exist right now. So, to a certain extent, you can say that these tools are basically proactive, and they try to look at what could happen in future and give you sufficient evidence that it may succeed.

What a very range of projects and what an interesting set of insights. Let us reflect on what we learn from this presentation. That is one thing that we see in all of the research engagements that professor Athavankar has described, and that is the social norms and cultural beliefs that define people's behaviour. For the design product to be acceptable to the participant it had to agree with his cultural beliefs. This attention to the cultural context is something we see in the housing design project as well.

While a common approach to designing affordable housing would be to make cheaper versions of middle-class houses, but this was not the approach that the team took. They, in fact, spent time and effort to understand the context of their participants. And it was through these ethnographic engagements that they were able to understand the very different needs of the population they were catering to. You may recall that the team finally came up with four personas of people, while these personas broadly matched and age group or an income group, they were based on a much deeper understanding.

The personas represented different needs and desires that people attached to the idea of a house. In designing for these personas, the team try to cater to these varied sets of needs. This links back to one of the earlier discussions in our course. We had talked about the need to look at the diverse range of participants. This project shows us the diversity need not be limited to age groups or gender or even household sizes. There is also a diversity in how participants relate to a phenomena and the meanings they associate with it.

Professor Athavankar's work shows just how we may be alert to these variations and design for them. Many of you must have been impressed with the interactive game that Professor Athavankar and his team used as tools for engaging with participants, listening to their discussions made me think of our conversation on researching with the visual. We had discussed how we may use various kinds of images and visual media to learn from participants. This project is an excellent example of that approach.

In some of the instances that Ameya and Prasad mentioned, we see how engaging it can be for participants to work with such material. And we see how using such tools can lead the research towards unexpected directions. The team had initially thought of these tools as a way to overcome language barriers between themselves and the participants. But they proved to be much more than that.

In playing games with the researchers and thinking of hypothetical situations, participants reveal the actual desires and aspirations, and they revealed the practices of the everyday lives, which sometimes differ from the practices they claim to follow. This was an outcome of them feeling comfortable enough to let down their guard. It was also because the interactive tools brought in a new element to the research engagements, that of fun.

In our next session, Prof. Sahana Murthy will introduce us to a different form of ethnographic research Cognitive Ethnography. See you there.