

## 8 Architectural Imagination in the Two Documentaries *Kanade* (2021) and *Building Visions* (2022)

As more and more critical architects in India have realized the limitations of solving housing problems through the design of buildings alone, they began to focus more on aspects such as the (re)distribution resources and the provision of better employment opportunities for future residents. Some of them also dedicated a lot of their time to extensive research and experimentation in low-cost and low-technology solutions, two key aspects of the critical regionalist approach to architecture and housing design. This chapter introduces two films that give us valuable insights into the intensive engagement of architects with local building materials and the knowledge associated with these. Both films and the three architects in focus – the two brothers Shankar and Navnath Kanade in the film *Kanade* (2021) and Anupama Kundoo in the documentary *Building Visions* (2022), show us how the protagonists expand the architectural imagination by linking their research on local building materials, techniques and knowledge to contemporary designs and building methods. By doing so, they also invite us to question binary opposites like ‘modern vs. traditional/ vernacular’, a dichotomy which is generally dissolved by genuine approaches to critical regionalism in housing.

### **8.1 Housing as Dwelling: *Kanade – A Documentary about the Architects Shankar Kanade and Navnath Kanade* (Teepoi, 2021)**

*Yes, this is our house. As soon as the sun sets, a space that draws me back in – that’s the kind of home I want, that’s what I had told Navnath and Shankar. That’s not in the walls alone or just the windows, not in a ventilator, but wholly captivates me as a dwelling. That is what poetry evokes too. Reading a sentence by itself is futile, or even a stanza alone, but on reading it as a whole, there is curiosity experienced – that experience is poetry (Kanade 30:27–30:59).*

This is how the actor, playwright and English professor Lohithaswa T.S., who passed away in November 2022, expresses his intimate relationship with the residential building that the two architect-brothers Shankar and Navnath Kanade designed and realized for – and together with him. He is one of the central figures who share their experiences in detail in the documentary film *Kanade* made by the film collective Teepoi from Bengaluru (2021) and who describe both their special relationship to the two brothers and to their unique architecture.

A particular focus of Teepoi’s work is on the architectural documentary film, which they use specifically as a non-commercial medium for disseminating knowledge and discourse about architecture in India. As they describe on their excellently designed website, Teepoi’s co-participants came into contact with the architecture of the two brothers Shankar and Navnath Kanade rather by chance in 2012, when they were looking for a suitable location for a short fiction film and happened to find a residential unit within an unconventional housing complex, which seemed puzzling and seamless to them. This place was Keremane, built in 1995, a coherent group of independent row houses bordering a lake (*kere*) which exhibits some of the distinctive features of the architecture of the two Kanade brothers through which, according to Teepoi, “the Modern movement in Bangalore city” can be explained: “This was not just a phase but a combination of the right set of people, present at the right, at the right time. Sufficient within its context – with nothing left to add or remove.”<sup>68</sup> Although they were rooted in the Modern movement, “the Kanade brothers allowed their work and lifestyle to be guided by the environment around them” (*ibid.*).

A key feature of this formative influence on their work is the use of locally available building materials, such as *chapadi* (granite stone), which was still abundant in Bengaluru at the time. Wherever possible, they tried to avoid concrete and use materials instead that were commonly available and accessible. Inner courtyards within the units are also characteristic of the Kanade brothers’ style. They

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68 See <https://www.teepoi.com/kanadefilm> (last access Jan 3, 2024).



**Fig. 7.** Karishma Rao and Vishwesh Shiva Prasad from Teepoi during a film screening event at Humboldt-Universität zu Berlin in May 2023. Source: photograph by author, 2023.

facilitated cooling and ventilation of the buildings. Cooler air can enter through the windows built deeper into the walls, while warmer air can exit through the openings in the roof. This allows continuous ventilation of all rooms and floors in the house, which are open and interconnected. As the well-known architect Sanjay Mohe, who has known the two Kanade brothers very long and well, mentions in the film, he asked Shankar and Navnath Kanade many times if they did not consider it a certain limitation to always use the same materials (39:27 min), “but they just believe in that and it has to be local and if it has to be brought from somewhere they would say no, we would rather use something local” (39:37 min). As one resident (31:50 min) in Keremane, (late) Ms. Sumithra, mentions in the film, she was often asked why the red bricks were visible and the walls of her apartment were not plastered, which apparently not all visitors liked. “These bricks being visible and very little plastering, I liked that a lot” (33:31 min), she points out, and adds that this aspect, as well as the fact that it was a “low-cost house” for which the family paid no more than 5 lakh rupees at the time (about 5700 EUR) (33:48 min). Contrary to the widespread belief that an architect unnecessarily increases the cost of building a house, she therefore advises that an architect should always be consulted for any building project.

The film portrait takes us very close to Shankar Kanade's simple life and the central role of architecture in it. For Shankar in particular, everything revolved around architecture throughout his life, so that architecture literally shaped a way of life for him. Born in Nagaj in the federal state of Maharashtra (Shankar in 1937, Navnath Kanade in 1944), the two brothers grew up in deprived circumstances, and the period of Shankar's architectural studies at the Sir JJ School of Art (Architecture Department) in Bombay was also marked by a precarious situation. In the late 1970s, Shankar Kanade set up his first architectural practice in Bengaluru, where his younger brother Navnath followed him after having spent several years in the United States. During this time, Navnath collaborated with Italian architect Paolo Soleri, who coined the term arcology (composed of architecture and ecology). Although they created a number of striking buildings together (in addition to Keremane, Jal Vayu Vihar, completed in 1991, is also presented in the film, as are several other earlier and later works by the two architect-brothers), it becomes clear, especially through the interview statements of Sanjay Mohe, that the Kanade brothers have not received the recognition, either in terms of the number of their commissions or attention, that they would have deserved due to their outstanding work and abilities. Interestingly, in Mohe's view, this would also have made a significant difference to the city of Bengaluru itself and to the city community. What prevented this recognition is a question that is not clearly answered by the film, but which may preoccupy viewers beyond it.

As becomes once again very clear at this point in the film *Kanade* (39:38 min), the architectural documentary film can therefore play an important role in the preservation and communication of knowledge about architecture and architects. Furthermore, the Kanade brothers now also receive more public recognition for their important contribution as educators through the documentary as well as the accompanying information materials provided on the Teepoi website:

The role of Shankar and Navnath Kanade as teachers has had its effect on generations of students who now practice with the wisdom imparted by them. Students benefited most from them while in the impressionable age as first and second years, unlearning years of textbook knowledge. Beyond that even architectural institutions expect less exploratory, and more presentation driven outputs from students, which they could not connect with.<sup>69</sup>

We also gain a valuable insight into the forms of professional networking, sociability and knowledge sharing among architects in Bengaluru at the time, in this

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69 See <https://www.teepoi.com/kanadefilm> (last access Jan 3, 2024).

case, in the form of the BASE group. According to Teepoi, BASE stands for “Beer and Slides Evening” and it is therefore perhaps no coincidence that the special sonic and visual pleasure that comes with the projection of slides also plays a role in the film *Kanade*. As can be read on the Teepoi website, the BASE group of young architects met every week on Tuesdays in one of the participants’ homes or offices. They showed each other slides of their current projects or recent trips and discussed them together. Among the guests regularly invited to the BASE group meetings were also well-known persons such as Charles Correa, MF Hussain and BV Doshi. Together with Doshi, the group also visited the construction site of the Indian Institute of Management in Bengaluru, which he had co-designed.

There was mutual respect for each one’s work and a spirit of sharing. Apart from working on competition projects together, one would seek the expertise of another in executing live projects – a scenario that is hard to imagine today (ibid.).

Through the visual archive, however, not only the memory of their architecture and interesting way of life is preserved and now becomes more publicly visible than before. With a view to Arjun Appadurai’s critical reflections on a “repertory of unbuilt possibilities” (Appadurai 2012: 330), Sanjay Mohe’s statement regarding the important difference that the Kanade’s architecture for the city of Bangalore/Bengaluru itself, as well as for its inhabitants, would have made, had they been given the opportunity to develop on a larger scale, raises exactly the question, to what extent such an archive can also provide “deeper resources for the future of the local, the regional, the national, and all those other addresses in which we actually live and wish to imagine our futures,” as Appadurai puts it:

But there is a wonderful critical potential in the future of architecture in places like India. That future does not lie in the tomorrow of elsewhere (like Shanghai, in some fantasies for Mumbai) or in the floating terrain of international brand architecture whose main purpose is to sell an accidental group of architects, but it might lie in a systematic effort to struggle against the grain of that amnesia that I have argued is the very basis for the work of building, and thus of architecture itself. But if the critical spirit of architects, of critics, and informed citizens could be alerted to the histories of the unbuilt, we might find deeper resources for the future of the local, the regional, the national, and all those other addresses in which we actually live and wish to imagine our futures (Appadurai 2012: 331).

## 8.2 Architecture as a ‘Synthetic Profession’: Anupama Kundoo and Her Experiments with Low-Tech Building Materials

*My work begins with and remains close to the deep human need to have purpose, refuge, and social engagement. It speaks through details; details that foster intimacy and variety, sensory and spatial. My work is about the innovation and socio-economic abundance that results from research and investment in materials and building techniques. The act of building produces knowledge just as much as the resulting knowledge produces buildings* (Anupama Kundoo).<sup>70</sup>

Anupama Kundoo is another particularly interesting architect and designer who is known for her longstanding engagement with locally available building materials and practices. After her graduation and first professional experience as a young architect in Bombay, she made the courageous decision at the age of 23 to stop being pressured for commissions and a regular income and instead take the time to develop and deepen her own understanding of architecture and design, especially through the careful observation and study of local building techniques and materials. The place she chose to do so in 1990 was Auroville, a planned city experiment in South India. Auroville was founded by Mirra Alfassa and inaugurated in 1968, with support of the United Nations and in the presence of 5000 people. Youth from more than 120 nations were present at the inauguration ceremony. Today, around 3,300 people from close to 60 nations live in this international city which continues to sustain itself. From the start, Auroville has provided a conducive environment for eco-experimentation, starting from the transformation of once-desert land into forest and solar panels powering much of the town to organic farming and sustainable construction. It has also been a hub for architectural experimentation throughout and therefore attracted a number of committed architects, designers and urban planners too. Anupama Kundoo had visited Auroville only once before and returned in 1990 to stay for many years and create several of her buildings. For the houses she built there, Kundoo experimented with different materials and building techniques.

Her first house there was called Hut Petite Ferme and at that time, she experimented with several materials including granite, clay and coconut fibre. The second house that Anupama Kundoo built for herself became a prototype for many of her subsequent projects. Working with local craftsmen, she opted to use

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70 I found this quote on Anupama Kundoo’s website (<https://anupamakundoo.com/>) which is no longer active. However, the quote is still ‘preserved’ on many other websites, especially of institutes where Anupama Kundoo gave presentations in recent years.

preindustrial (*achikal*) mud bricks, which are less energy-intensive to produce than factory bricks. She also developed vaulted terracotta roofing systems, to make use of the skills of Auroville's potters. Other widely recognized works by Anupama Kundoo include the Voluntariat Homes for Homeless Children (Pondicherry, 2008). These dome-shaped housing units were designed by Kundoo to accommodate children from challenged backgrounds; images can be easily found on the internet. Here, she explored an innovative form of construction that is both low-cost and environmentally friendly. The structures are built from mud bricks made on site, which are then fired *in-situ* to make them more durable and water resistant. For her Full Fill Homes (Chennai, 2015), Kundoo uses ferrocement – a low-tech form of reinforced concrete – to create the modules of these affordable housing units. The box-shaped modules can be assembled in a matter of days and incorporate niches that become highly functional for storage. Anupama Kundoo describes her perspective on architecture and design in the above-mentioned video interview “More Common Than Different” (filmed in her studio in Berlin in 2020) as a “synthetic profession” that needs to integrate all kinds of concerns – ecological, economic as well as social.

### **8.3 *Building Visions – Auroville, India* (Diego Breit Lira, 2022)**

Diego Breit Lira's documentary *Building Visions – Auroville, India* (2022) introduces Auroville as an 'oasis' compared to cities like Mumbai or Delhi. The film also showcases the place as an experimental laboratory and model for other cities (16:33 min) that attracts dedicated architects from all over the world. The film lays a particular focus on Anupama Kundoo's research into alternative building materials such as the aforementioned production of *achikal* bricks, which are produced and fired locally, and the roofs made from round terracotta vessels, but also her experiments with ferrocement, which is characterized by its simple production method and the lowest possible steel consumption.

The kilns are made of the same material they are supposed to burn (11:54 min). The *achikal* bricks inside the kiln end up being harder and stronger than the outer ones, but, as the narrative voice informs us, “they are all used”. Used skillfully, the stronger bricks later support the weak ones. When all the bricks have been fired and removed, the kiln also disappears and a field is all that is left behind (12:29 min). We also learn that *achikal* bricks are thinner and lighter than normal bricks and therefore require less energy to produce (07:10 min).

The terracotta roof – made by potters from the region – does not need additional supports made of wood or steel. In the film, Kundoo explains that when she first came to Auroville, nobody wanted to buy the pots made by the potters. At that time, she says, it was not important to retain the pot as such, but the craft

itself, as it should not disappear: “It took centuries and generations to develop these skills” (07:44 min). She also mentions that she “didn’t plan to become a material researcher” (7:57 min), but that she was dissatisfied with the quality of the building materials she had been provided with, so she began to look into it more deeply.<sup>71</sup> Kundoo also noticed that the existence of these potters was threatened by the ongoing urbanization. She wanted to find a way to use their work and incorporate it into architecture, as urbanization should not threaten the existence of the potters but secure it in her view (09:50 min). Even though she does not refer to it explicitly, Kundoo’s own words are entirely in the spirit of critical regionalism when she says: “While the emerging space is contemporary in its architecture, the materials and production are locally rooted. This gives the architecture a traditional (‘vernacular’) character” (10:17 min). At the same time, Kundoo emphasizes that renewable raw materials such as earth, bamboo or clay are not available in unlimited quantities everywhere (18:21 min). And not everyone has the privilege of doing without steel and cement, even if they are harmful to the climate. Therefore, she is looking for ways to use these materials much more sparingly:

Due to the construction boom in India, steel and cement are scarce and have a high monetary and environmental price. There needs to be a judicious use and more even distribution of these materials. Used intelligently, I believe in ferrocement as the material of the future. Ferrocement is cheap and has hardly any weight, yet it is a pretty strong material. It takes only a few raw materials to make it and ferrocement can be made into almost any shape, which makes it very versatile as a building material (20:21 min).

As the film goes on to show, with some basic skills, anyone can build something and Anupama Kundoo wants to encourage people to create homes themselves. Therefore, the Full Fill Home can be seen as a prototype: they consist entirely of ferrocement and the elements can be arranged in completely different ways. An individual building consists of thin modules that can be carried by a maximum of four people. Most importantly, anyone can create their own living space with the simplest of tools. They provide temporary, not necessarily permanent solutions wherever housing is urgently needed.<sup>72</sup>

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71 It should be mentioned in this context that her interest in material research also led her to her PhD research at Technische Universität Berlin. Drawing on Ray Meeker’s Experiments, Anupama Kundoo provides a detailed study of baked *in situ* mud houses of India in her PhD thesis which she submitted at TU Berlin in 2008. The dissertation is available online at <https://d-nb.info/990560554/34> (last access Jan 3, 2024).

72 Photos of the prototype can be easily found on the internet.



In a lecture titled “Architecture in Context. Design Challenges in Contemporary India” (2019),<sup>73</sup> Rahul Mehrotra uses the distinction between “Absolute vs. Transition” (27:12 min) to explain how architects need to challenge the rhetoric of “universalizing solutions” as well as the prevailing idea of “permanent housing” which is currently supported by the Pradhan Mantri Awas Yojana, a programme introduced by the Indian government in 2015 to provide affordable housing to all citizens by the end of 2022.<sup>74</sup> According to Mehrotra, however, “absolute solutions” represent the desire to create a coherent urban form and to control its aesthetics, but the focus should be on the temporary and temporal. Similar to Kundoo’s considerations, he therefore argues that instead of building more empty houses on cheap land where people are cut off from their livelihoods, land with services should be made available where people can build their own houses and also allow for phased development.

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73 The lecture can be viewed online at <https://www.youtube.com/watch?v=YsNpJp4DKTw> (last access Jan 3, 2024).

74 In 2015, the Indian government introduced the Pradhan Mantri Awas Yojana (PMAY) to provide affordable housing to all citizens by 2022. Through this credit linked subsidy scheme (CLSS), the government aimed to provide its beneficiaries an interest subsidy to avail loans to purchase or build a house. The scheme was launched to aid the middle-income community, economically weaker sections (EWS) and low-income groups (LIG). Depending on the areas it serves, the scheme is divided into two sections, Pradhan Mantri Awas Yojana-Urban (PMAY-U) and Pradhan Mantri Awas Yojana Gramin (Pradhan Mantri Awas Yojana Rural) (see <https://pmay-urban.gov.in/>, last access Jan 3, 2024).