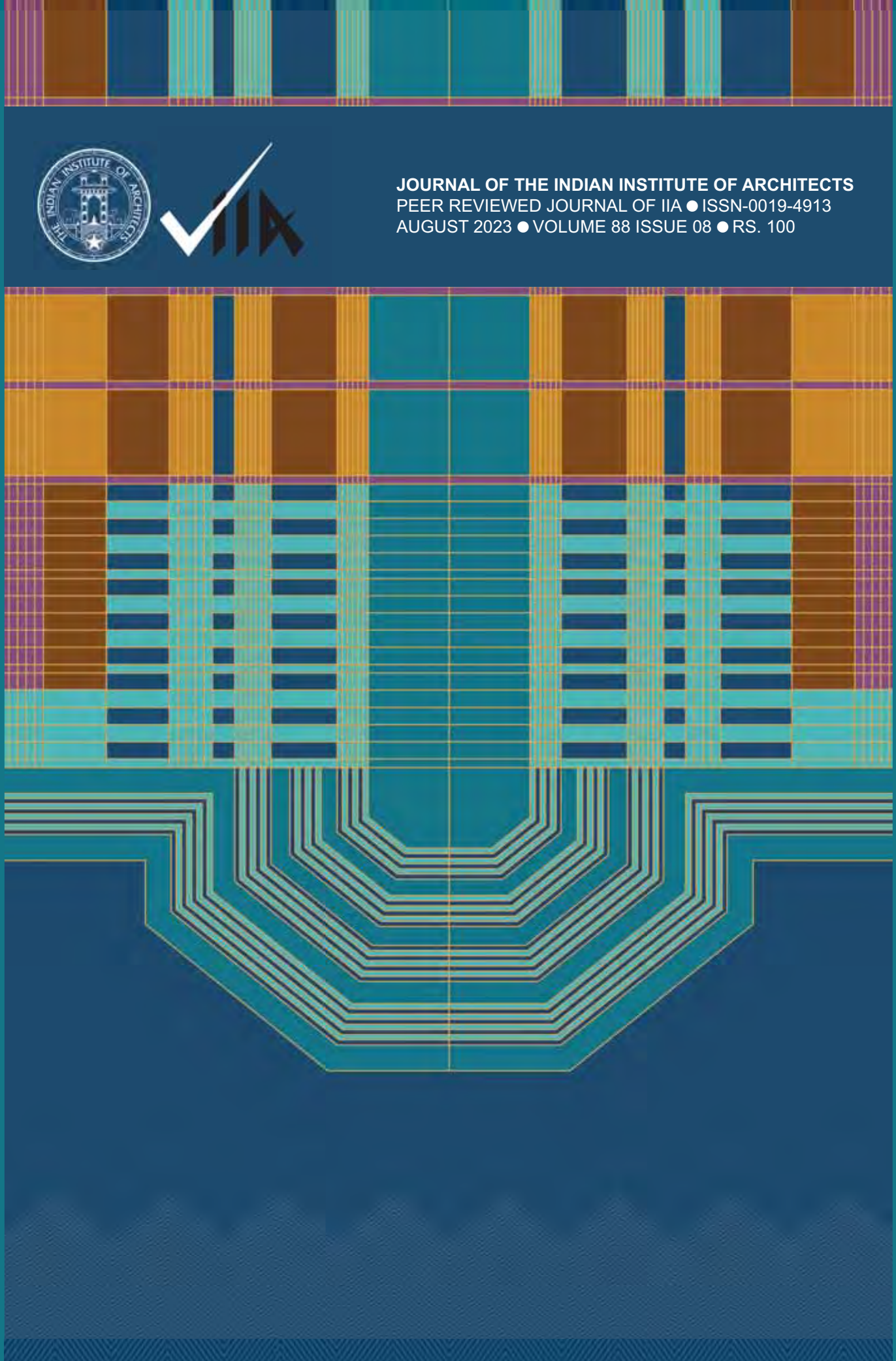
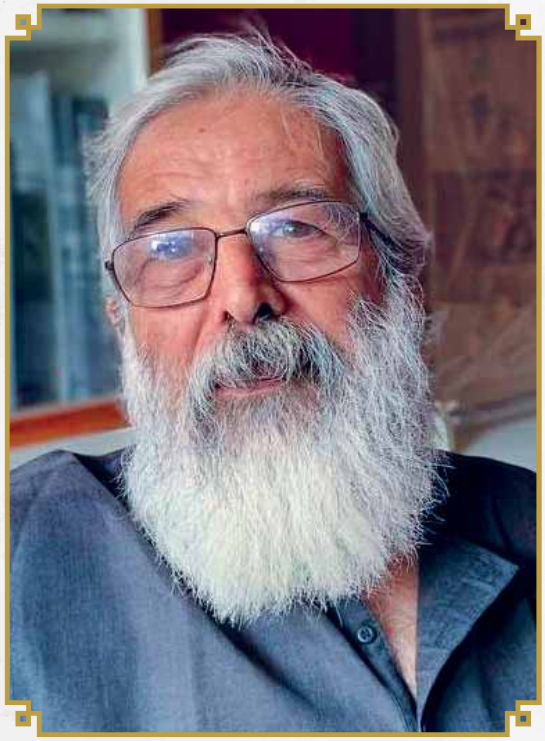


JOURNAL OF THE INDIAN INSTITUTE OF ARCHITECTS
PEER REVIEWED JOURNAL OF IIA ● ISSN-0019-4913
AUGUST 2023 ● VOLUME 88 ISSUE 08 ● RS. 100

Balkrishna Doshi: Guru Ratna Award 2023

Prof. Neelkanth Chhaya



Congratulations

On behalf of the entire architecture fraternity, we extend congratulations to Prof. Neelkanth Chhaya, who has recently been conferred the Balkrishna Doshi: Guru Ratna Award 2023 by the Vastu Shilpa Foundation. He is the inaugural recipient of this commendation and is bestowed this honour in acknowledgement of his unconventional and explorative yet responsible and sensitive pedagogical approaches, which have helped shape innumerable young minds.

This award has been constituted by the Vastu Shilpa Foundation in commemoration of Balkrishna Doshi, to honour educators from the Indian subcontinent for their outstanding contributions in the domains of art, design and architecture.

A manifesto for learning to be an architect in the age of uncertainty:

Changing the Metaphors of Learning: From Selective Cultivation To Creative Dialogue.

We used to think of learning as a process that cultivated specific ways of thinking and acting.
The teacher was the gardener, the learner was the plant.
The gardener selected the plant to be grown,
keeping in mind the flowers or fruits that he wanted.
The gardener knew what the final shape of the plant should be
and how the new tree could be part of a beautifully harmonious garden.
The gardener mulched the soil, removed weeds, watered and protected the sapling,
trimmed it to let it grow into a shapely and sturdy form.
The gardener was active, the plant passive.

This worked in a world where change was slow,
and what was learnt could be applied with confidence.
Yet now, the world is constantly changing, at ever-increasing rates.
We are faced with previously unimagined challenges.
No longer can we rest content only with defined knowledges and methods.
A new imagination of what learning should be is called for.

Might there be other ways of learning?
Ways that were not based on certainties of input and outcome?
Ways where the learning process allowed the inner needs of each learner
to connect to many, often unseen resources?
Ways that did not have a fixed outcome in mind, but which enjoyed and revelled in
the occurrence of unforeseen, surprising, and unprecedented configurations?

The new metaphor might be the forest.
Countless species in constant interaction.
The air, the sunlight, water; nearby and far away – all these affect all.
Under the ground, the ceaseless traffic of messages and materials
between the denizens of the forest.
Each affects every other.
Each sends and receives messages
of possibilities of exchange and collaboration for an unseen future.
No controller, no controlled – all are participants.

Might learning be happening all the time without our being aware of it?
How do we – beginners and experienced practitioners – participate in this dance?
How do we nurture dialogue and keep alive the delicate tentacles that connect?

This is the challenge of learning and teaching architecture today.

Neelkanth Chhaya, 2nd September 2023.

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Printed & Published by Ar Lalichan Zacharias on behalf of The Indian Institute of Architects.

Designed by **India Printing Works**
Printed by **Arihant Digiprint**
Shed No.1, Ground Floor, CTS No.15, 16, 20, 21 & 37, Italian Compound, Dindoshi Village, Ittbhatti, Goregaon East, Mumbai-400063

Published at The Indian Institute of Architects, Prospect Chambers Annexe, 5th Floor, Dr. D.N. Road, Fort, Mumbai-400001.

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JIIA IS A REFEREED JOURNAL
ISSN 0019-4913

REGISTERED UNDER SOCIETIES REGISTRATION ACT XXI OF 1860.

JOURNAL OF THE INDIAN INSTITUTE OF ARCHITECTS
VOL. 88 - ISSUE 08 - AUGUST 2023

www.indianinstituteofarchitects.com

EDITOR'S NOTE

I extend a warm welcome to all fellow architects. It has taken us 77 Independence Days to celebrate our Indianness with ISRO's successful landing of *Chandrayaan 3* on the moon. It is also a time of prideful reaffirmation of Indian knowledge of the sciences and the shedding of the remnants of colonisation. The learning that has been important here is also the comparatively meagre figure of INR 600 crore with which this success was achieved. This leads us inward, to ourselves, to re-cognize and endorse our own knowledge systems with which we can take our country ahead.

The cover theme this month, *Taana Baana,* commemorates the weaves of Maheshwar, a city that has been known to exist since the days of the *Ramayan.* The rich weave, not only of the fabric, metaphorically stands for all the closely interwoven aspects of life, social, cultural, and, of course, inextricably linked with the architecture of the city's *ghats.*

The new Team at IIA has been gearing up for various ventures to help enrich the fraternity through several activities and programmes. We urge all architects to associate with IIA and would like to reiterate the platform of JIIA to address the young architects of India and to engage and reach out to a larger section of society. We applaud the initiative taken by Prof. Jit Kumar Gupta, IIA Trustee and long-time contributor to the IIA Board of Education and Examination, by writing the *Readers Volume on Housing.* Even though its primary intention is to help those preparing for the IIA examinations, it will be a source of information for all students of architecture. We appeal to all readers for such initiatives and suggestions to enhance JIIA.

We would like to congratulate Ar. Neelkanth Chhaya as the inaugural recipient of the *Balkrishna Doshi: Guru Ratna Award,* 2023. His exceptional contribution to education is legendary.

The September issue will be dedicated to the education and educators of architecture. We would welcome contributions from all readers of this Journal.

Warm Regards
Prof. Vinit Mirkar
Editor

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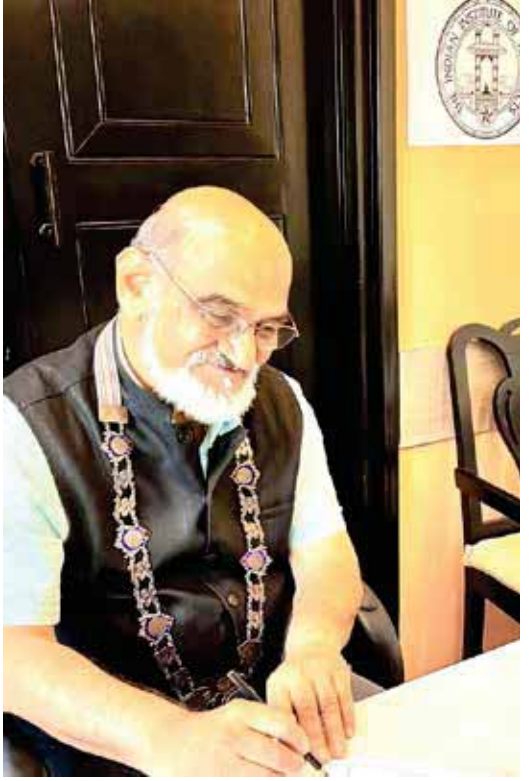

Greetings to all Fellow Architects in this momentous month on the occasion of our 77th Independence Day.

And heartiest congratulations for India's big achievements by our ISRO scientists for the successful landing of Chandrayaan 3 on the moon.

As we embark upon our new Term, all our Boards and Committees will be putting up their Visions in the upcoming event, the IIA Leadership Conclave at Odisha. Other events to look forward to are the *ACA20 ARCASIA Awards for Architecture 2023* (AAA) to be held this year at Boracay Island, Philippines from 17 to 23 September 2023 and the *Rajasthan Architecture Festival* at Jaipur from 6 to 8 October 2023.

It must be noted that IIA, with its number of members, shows itself as the country with the most human potential than any other country of Zone A. Hence, we need to express this budding prospect by attending and participating in the programmes of ARCASIA, which are attended in large numbers by the architects of all other countries as well.

This goes hand in hand with the effort to encourage more and more young architects to join IIA, where their performance can be felt in the other member countries of ARCASIA as well as in the UIA.

Our Hon. Prime Minister has announced that India is on its way to becoming a developed country by 2047. And so, now onward, we must start preparing to fulfil the opportunities presented. India has the largest population of youth, which makes it the youngest country. I appeal to all young architects to take the lead and show our strength. The future is yours.

Hon. Prime Minister Narendra Modi's declaration of the *Vishwakarma Yojana* scheme aims to improve the quality and scale of skilled and unskilled workers. We, at IIA also are planning for systematically training such workers for the construction industry. Our aim is an inclusive and progressive IIA.

We appeal to all the Members and affiliated colleges to keep sending articles for publishing in our Journal of IIA.

Warm Regards
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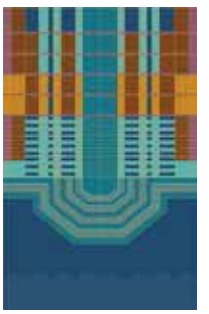
ताना बाना

By Ar. Juhi Prasad Singh



ताना बाना कपड़ा उद्योग का एक अभिन्न पहलू है। यह शब्द कपड़े में पैटर्न बनाने के लिए विभिन्न रंगों या रेशों के धागों की बुनाई की प्रक्रिया का वर्णन करने के लिए उपयोग किया जाता है। ताना बाना दो संस्कृत शब्दों से बना है जहां ताना का अर्थ है 'वार्प' और बाना का अर्थ है 'वेफ्ट'। महेश्वर में बुनाई का ताना-बाना, सामाजिक और वास्तुशिल्प ताना-बाना एक-दूसरे से बारीकी से जुड़े हुए हैं। वस्त्रों में बुनाई के रूप और पैटर्न महेश्वर किले और उसके आसपास की वास्तुकला और परिदृश्य का प्रतिबिंब हैं।

माहेश्वरी कपड़ा अपने चौड़े बॉर्डर, ज्यादातर चेक और धारियों वाले सरल और सूक्ष्म ज्यामितीय पैटर्न के लिए जाना जाता है। वे महेश्वर के किले की दीवारों पर पैटर्न और स्थानीय वास्तुकला संबधी कई अन्य तत्वों का भी अनुसरण करते हैं। वे कपास, रेशम और ज़री के अद्भुत क्रमपरिवर्तन और संयोजन हैं। विभिन्न प्रकार के अंचलों के आधार पर, माहेश्वरी साड़ियाँ के कई प्रकार होते हैं जैसे महेश्वर बगड़ी किन्नर, ज़री पट्टी, रुई फूल किन्नर, चटाई किन्नर, बाजुबंध किन्नर आदि। इनमें से कई पैटर्न प्रकृति से प्रेरित हैं। धागों की रंगाई भी इस प्रक्रिया का एक महत्वपूर्ण हिस्सा है और इसमें रंगों का एक 'स्पेक्ट्रम' होता है जो माहेश्वरी कपड़े की पहचान भी बन गया है।

यह चित्रकला शानदार पंखे के आकार की सीढ़ी से प्रेरणा लेता है जो शाही बाड़े से नीचे नर्मदा नदी तक जाती है। सीढ़ियाँ महल परिसर और नदी के बीच एक भव्य 'इंटरफ़ेस' बन जाती हैं। यह चित्रकला महेश्वर के कपड़े की बुनाई और महेश्वर के घाटों की स्थापत्य गुणवत्ता का मिश्रण है। धागों की सादगी भरे और शोभायमान बुनाई को श्रद्धांजलि, जिसका भारत के सांस्कृतिक ताने-बाने पर बहुत प्रभाव है।

Taana Baana is an integral aspect of the textile industry. It is a term used to describe the process of weaving threads, of various colours or fibres, to create intricate patterns in the fabric. *Taana baana* comes from two Sanskrit words where *taana* means warp and *baana* means weft. In Maheshwar, the fabric of the weave, the social fabric and architectural fabric are closely woven with each other. The motifs and patterns of weaves in the textiles are a reflection of the architecture and landscape in and around the Maheshwar Fort.

Maheshwari fabric is known for its broad borders, simple and subtle geometric patterns, mostly in checks and stripes. They also follow the patterns on the walls of the fort of Maheshwar and many more elements of the local architecture. They are wonderful permutations and combinations of cotton, silk and *zari*. Based on a variety of borders, there are types of Maheshwari sarees such as Maheshwar *bugdi kinar, zari patti, rui phool kinar, chatai kinar, bajubandh kinar,* etc. Many of these patterns are linear in nature. Dyeing is also an important part of this process and there is a spectrum of colours which has become the identity of Maheshwar fabric as well.

The graphic takes inspiration from the magnificent fan-shaped stairway that leads from the royal enclosure down to the River Narmada. The steps become a grand interface between the palace precinct and the river. The graphic is a juxtaposition of the weaves of the Maheshwar fabric and the architectural quality of the *ghats* of Maheshwar. A tribute to the simple and beautiful weaving of threads which has a great impact on the cultural fabric of India.

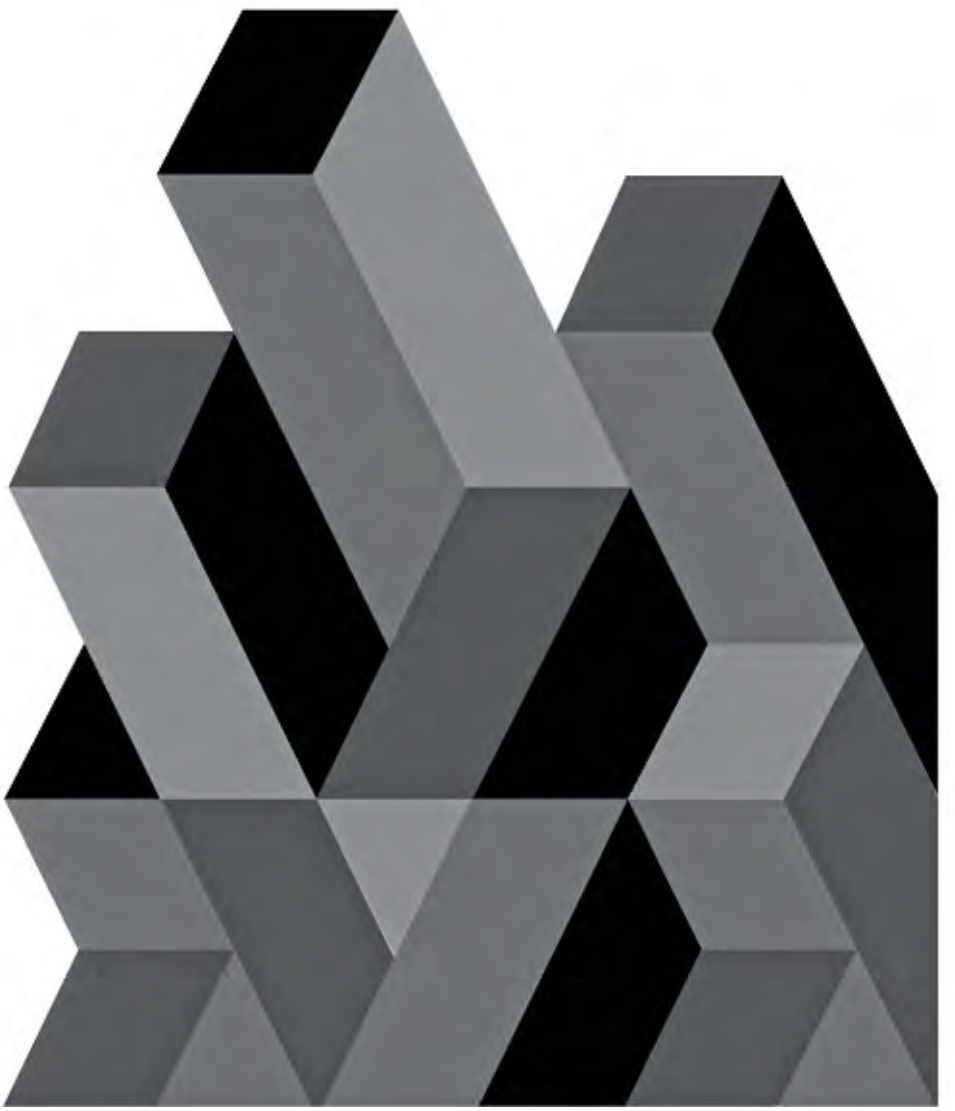
Cover Concept & Graphic by:

Ar. Juhi Prasad Singh
Assistant Professor, Rachana Sansad's Academy of Architecture, Mumbai
Co-founder of *Artmosphere*

ARTICLE

Architecture as a War Casualty
Case of Ukraine war

By Manasi Aglawe & Dr. Vasudha Gokhale



Background

On 24 February 2022, Russia launched a full-scale invasion of Ukraine. At a striking pace, the war caused massive destruction of the built environment and consequent economic and humanitarian crisis. Just one month after the start of the war, thousands of Ukrainian civilians had died, the infrastructure of the biggest cities had been destroyed and over 3.7 million Ukrainians had fled to neighbouring countries. This article portrays the impact of warfare on Ukraine through the elicitation of media, in order to investigate and analyse the damage to Ukrainian cities from an architectural and planning perspective. The impact of war is considered through the theory of manoeuvre warfare and Attribution Theory. The fierce resistance offered by the architectural fraternity across the globe and the role played by Ukrainian architects against the reckless destruction of the built environment is discussed. The pointless and arbitrary wrecking of civilian buildings resulted in an enormous scale of destruction all over Ukraine. Damage to schools and healthcare facilities demonstrates atrocities of the Russian army violating basic human rights and norms flagrantly. The attempt here is to create an awareness among architects, planners, and decision makers who can help in post-war activities and return to normal life.

1. Introduction

Architecture evolved primarily to protect people from natural forces. It later developed, in its varied forms, to include residential, civic, industrial buildings and infrastructural facilities. It is not merely a means for survival or protection but represents the identity of a community and is intricately tied to political power (Piquard, 2011). Since it is recognized as an expression of culture, it is usually the first to be attacked and destroyed during wars. War and architectural development possess an everlasting and often obsequious relationship (Solomonenco, 2022). Buildings, urban centres, residential districts, roads networks and infrastructure constitute urban form and shape human experience. Their destruction is inherently associated with winning and losing wars (Calame, 2005). Warfare damage has an impact on architecture and society on many levels such as infrastructure, homes, working places and places of worship (Bădescu, 2022).

War is defined as an intense armed conflict characterized by extreme violence due to military action, resulting in mass scale destruction, and mortality. It occurs between governments, states, societies and militants. Its effect extends beyond legitimate military establishments targeting civilian's casualties and suffering. It is often considered an ancestral and universal component of human nature. As wars are recognized as an inseparable part of society, war strategies invariably need realization of non-military aspects such as economic, moral, psychological, political and technical (Clausewitz, 2003). The widespread destruction of architecture affects not only the structure and spaces around, but also impacts distantly located spaces and structures. Destruction to architecture reduces its meaning and function (Ghazal, 2016). Destruction to the built-environment is the physical manifestation of violence through space (Bevan, 2006). Historically the civilian urban population have been severely affected by the insurge of warfare leaving people separated from their homes which may no longer exist (Biedarieva, 2022). Besides, the brutal and shocking invasion experience caused emotional setbacks for individuals and communities (Mahgoub, 2008). Wars represent a recurrent form of change in architecture affecting the human life around it. It leaves fragments of buildings and spaces, amidst the wreckage of humanity. It is stated that perpetrators of war combine building's fate with people's fate (Herscher, 2008).

2. Impact of War to Cities: Historic Evidences

The earliest prehistoric evidence of warfare was found in Jebel Sahaba where in a 14,000-year-old Mesolithic cemetery, 45% of the skeletons showed signs of violent death. From historical times armed conflicts and wars are a cause of huge damage to the infrastructure, architecture, heritage and culture of cities and nations (Olukoya, 2016).

- In 713 CE, Armazi, Georgia- was wrecked and abandoned by Arab forces under Marwan ibn Muhammad and never rebuilt.
- The eponymous capital of Vijayanagara was abandoned following the defeat of the imperial army at Talikota in 1565. The city was burned and looted and most of the temples, residential complexes, gateways, and artefacts were razed to ground forever (Morrison, 2013).
- In 1767, the old capital of Ayutthaya Thailand, was captured and destroyed by the Burmese army and never rebuilt.
- In 1939, the Luftwaffe bombed the Polish capital, Warsaw, heavily during the invasion of Poland. The city was shelled and bombed, setting everything on fire, including churches, palaces and libraries that dated to the 13th century, and were all razed to the ground.
- The bombing of London in 1940, lasted for 37 weeks, with 57 nights of successive bombing.

Over a million structures were destroyed including the Palace Block and over half a million apartments constructed in the 1960s.

- Operation Meetinghouse of March 1945 was the single most destructive bombing raid in history of Japan. In Tokyo, 286,358 structures and homes were incinerated over the three years. Due to the large-scale destruction the Japanese emperor decided to surrender.
- The German capital Berlin was hit by 607 tonnes of TNT over five bombings in 1944. This event was coupled with violent road fighting in the ending stages of the war, destroying 80 of the megacity centres.
- Examples of destruction of the following kind are legion: Armenian heritage in the Ottoman city of Van from the early 20th century onwards; Jewish synagogues and shops in Nazi Germany; the towns of Vukovar, Dubrovnik, Sarajevo or Mostar in former Yugoslavia in the 1990s; the razed or renamed Arab villages of today's Israel, and so on.

Many cities witnessed total destruction and were never rebuilt. However many resisted warfare and survived due to the resilience of fellow residents and governments. The current Ukraine war is one such glaring examples.

2.1. Theorizing Warfare

Wars are carried out for political aims that are imposed externally by other state actors in their own interests, generating a range of adverse conditions threatening civilian well-being. As philosopher Carl von Clausewitz puts it, 'War is an act of violence aimed to compel the opponent to fulfil the will of a hegemon.' It is political instruments that dominate or govern through violence (Clausewitz, 2003; Kimhi, 2011). From a psychoanalytic perspective warfare is a mass ousting of accumulated internal rage resulting in discharge of mankind's inner fear and large-scale destruction. It is stated that inherent violent and aggressiveness of human beings transfers their grievances to hatred against different nations, races, ideologies and religions fueled by displacement. It is motivated by a security dilemma, representing people's inability to understand the difference between offense and defense. The theory of the Balance of Power, war is a persistent action towards power acquisition of a likely hegemon resisted by the state under threat. The survival of the state under attack depends on capability of military power against domination (Organski, 2014).

The Power Transition theory postulates that war occurs when a rising power challenges a hegemon aiming to suppress them preemptively (Organski, 2014; Bowdish, 2013). The theory of Manoeuvre Warfare established by the Boyed philosophy of warfare includes unexpected, focused and rapid actions creating deteriorating and turbulent situations which the enemy cannot sustain. It aims to destroy the enemy's physical, moral and mental harmony, collapsing their will to resist, draining and paralysing their strength leading to critical vulnerabilities and generating weaknesses (Bowdish, 2013). The Attribution Theory argues that human behaviour is a combination of internal forces represented by efforts and abilities and external forces such as task difficulty (Kimhi, 2011).

Attritional warfare aims to defeat the enemy's material forces including military power and infrastructure. It includes strategic belligerent attempts, resulting in continuous personal and material losses leading to the total collapse of the opponent (Gaver, 1996). One of the best-known examples of attrition warfare is the Western Front, the main area referred as 'theatres of war' in military terminology during the First World War. Instead of manoeuvres both opponents believed that they could defeat the enemy with prolonged and repeated attacks to grind the other down (Lazar, 2009; Piquard, 2011). Manoeuvre warfare creates strategic and operational situations to break-down the opponent's will and spirit. However, Attritional warfare aims to smash and destroy opposing force's capacity, assets, military force, progressives until nothing is left to resist (Hagelkvist, 2015 ; Bykov, 2022).

3. Methodology

The method used is media elicitation. Mass media is considered as the primary source of information after environmental or man-made disasters which include television, radio, or printed media, internet-based (Palen, 2007)as well as it emerged as an important communication tool (Kawasaki, 2012). The data was collected from Ukrainian newspapers, television channels and also from the social media handles of individuals living in the area between 24 February to 30 June 2022. The data sample is presented in Table 1.

4. Findings and Discussion

Reportedly in Irpin, 70-75% of buildings were damaged, out of which 900 buildings have been completely destroyed including individual houses and high-rise buildings, industrial and administrative buildings. The breakup of damages to different building typology is presented in fig.1.

4.1 Destruction to the Built Environment in Ukraine

Bombing and shelling has caused a lot of damage in the cities of Ukraine. Russians started to attack civilian infrastructure. Bombardment targeted residential areas of Izyum, Vasylkovo, Bila Tserkva and Kalynivka made thousands of people homeless. Many of them were killed or forced to leave their homes and live in shelters provided by the Ukrainian government. Shelling targeted many private residences (Fig.2) and apartment buildings (Reach, 2022) destroying them and killing civilian population (Fig.3).

The war has disrupted the education of 7.5 million Ukrainian children, destroying around 1600 educational facilities by shelling and bombing (Fig.4). The attack on hospitals such as the one in Vuhledar on the very first day of the war, killed 4 people and injured 10. It was followed by bombing the city hospital in Kharkiv, making the situation even worse. In March Russian missiles attacked a maternity hospital in Mariupol. Russia's target on Ukrainian healthcare infrastructure resulted in destruction of about 934 such facilities (Fig.5). Due to threat from air-strikes people were forced to take refuge in basements and metro stations, while damages to hospitals left doctors attending patients in the basements of hospitals.

In the northern city of Kharkiv, Russian attackers hit Freedom Square, one of the largest public squares in Europe, and home to Derzhprom, or the State Industry Building. The functions of various public spaces were redefined to accommodate victims. In addition to being converted into everyday food preparation facilities, subway stations (Fig.6), warehouses, basements of buildings (Fig.7) and churches are used as shelters.

In addition to loss of precious lives, far-reaching economic consequences are a matter of concern. According to IMF, Ukraine's economy may contract by about 45.1% in 2022 due to trifled exports and shuttered manufacturing and business establishments (Haddad, 2022). Numerous historic buildings, public squares, and precious artwork are razed to the ground across the country. The severe bombing on the Freedom Square located in the northeastern city of Kharkiv resulted in human casualties and destruction to notable architectural marvels. Kharkiv Regional State Administration building (Fig.8), the Palace of Industry and many buildings located in the vicinity such as Kharkiv State Academic Opera & Ballet Theatre and Kharkiv Philharmonic suffered heavy damage. Large-scale activities started to protect and preserve architectural, cultural assets from war induced destruction (Bykov, 2022). The statue of Jesus from Christ Armenian Cathedral of Lviv was transported to a bomb shelter (Fig.9).

Many statues located in the city's historic district were wrapped in fireproof insulation such as sandbags or flame-retardant blankets. Many precious collections were removed from museums and hidden elsewhere. Current situation in Ukraine is still dynamic and tense that is likely to entail substantial civilian and military losses in addition to significant economic implications for Ukrainian and global economy (Kusa, 2022).

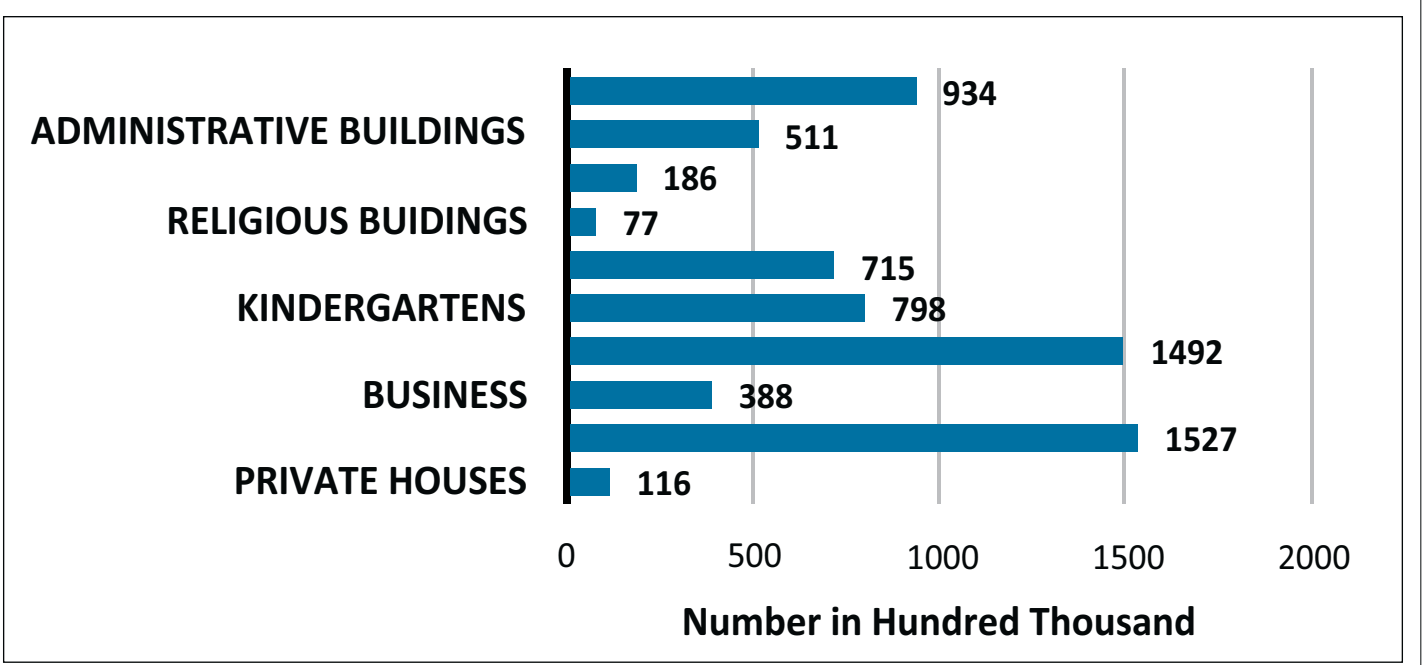


Fig.1: Damages to various building typologies
(Source: Reach, 2022)

Table1: Damages to the built environment in Ukraine

(Source: Compiled by Authors from the sources mentioned)

Date	Damages to architectural facilities and infrastructure	Casualties	Image
(i) 24 Feb. 2022	Russia starts war against Ukraine	0	
(ii) 24 Feb. 2022	Bridge over Seym river was blown up	0	
(iii) 25 Feb. 2022	In Chuhuiv, enemy shell hit apartment building, killing a boy	1	
(iv) 25 Feb. 2022	Russian military shells hit hospital in Vuhledar: 4 civilians killed, 10 wounded	4	
(v) 25 Feb. 2022	Residential building targeted in Irpin	NA	
(vi) 3 March 2022	A large shopping center and warehouse is in flames in Mariupol, Ukraine. Location confirmed.	NA	
(vii) 3 March 2022	Russian aircraft attack two schools in Chernihiv and private homes - nine dead and four injured	9	
(viii) 21 March 2022	At least 8 killed by Russian missile attack on Kyiv shopping mall (PHOTOS)	8	
(ix) 23 June 2022	WATCH: 'Kamikaze Drone' Strikes Major Russian Oil Refinery	NA	
(x) 25 June 2022	Ten years' to build around Ukraine port blockade	0	

Fig.2: Damage to a residential building
(Source: Retrieved, January 15,2023 from https://www.kyivpost.com/)

Fig.3: High-rise apartment damaged by shelling in Kyiv, Ukraine on 14 March 2022
(Source: Retrieved, January 15,2023 from https://www.reuters.com/)

4.2 Response of Architectural Fraternity

The war held sway on many business establishments, firms and markets directly or indirectly associated with Russia, and Ukraine architectural firms are amongst those affected. Since the Russian invasion of Ukraine in February 2022, the architectural fraternity started catering to the immediate needs of residents. Currently their focus is on designing housing for displaced people. However once the war is over, rebuilding Ukraine will be a challenge. Kharkiv School of Architecture, one of the oldest institutes imparting architectural education, faced an initial disruption because of heavy shelling in the city. The institute was relocated to L'viv, a city in Western Ukraine. The school continued teaching, shifting the focus focuses on training architects for rebuilding, retrofitting the damaged built-stock.

Fig.4: Damage and debris in a classroom of a school at Kutuzyvka, Kharkiv
(Source: Retrieved, January 15,2023 from https://www.rferl.org/)

Many international architecture firms raised their voice against this war including leading Dutch architectural firm, OMA and UN Studio, London-based Zaha Hadid Architects (ZHA), David Chipperfield Architects, London, Snohetta and Herzog & de Meuron, Foster + Partners , London and multinational infrastructure consulting giant AECOM, Dallas. The resistance against Russian invasion was in form of paused or suspended projects having Russian involvement. Moreover, architectural organizations such as the Royal Institute of British Architects (RIBA) deplored the Russian invasion of Ukraine asking the architectural fraternity to work for rebuilding damaged built environment. The president of the National Union of Architects of Ukraine (CANY) and the first Lady Olena Zelenska, an architect from Kryvyi Rih National University pleaded to the International Union of Architects (IUA) requesting suspension of the Union of Architects of Russia's membership. Remarkably more than 6,500 Russian architects and urban planners condemned the war against Ukraine in a letter signed by them.

Ukrainian architects demonstrated their solidarity extraordinarily as just 3 months later: about 120 architects started working on restoration and development of the heavily destroyed town of Irpin. A three-stage activity was initiated, including restoring safety, removal of landmines and reinstating critical infrastructure. It was followed by clearing debris, restoration of transport networks and finally construction of new housing, schools and hospitals. The challenge is extraordinary as huge residential building stock is heavily damaged, in addition to numerous public buildings, schools, hospitals and cultural sites.

5. Conclusion

Wars have always been a liability for mankind where destruction common phenomenon. Destruction to architecture is an evidence of violence, committed directly against it or around it. The traces of destruction in Ukraine represent the manifestation of war crime against humanity. Ukrainian cities and buildings are perceived as a target as control of space became an instrument of power or oppression.

As per Clausewitz, to overpower an enemy, it is necessary to match the warfare efforts with the enemy's resistance power. However, in the case of the Ukraine-Russia war, an unexpected Ukrainian resistance faced overwhelming Russians projections. It is noticed that Russian's planning and execution suffered with poor assumptions concerning the response of the Ukrainian military, population and world powers and people across the globe. Russian invasion in Ukraine represented revisionist power's risk-taking behaviour. However, being aware of huge losses, Ukraine demonstrated risk-aversion behaviour. The Russian army also shelled cities, villages, and infrastructure that were not part of its military operations. The Ukraine-Russia war can be described as a war of attrition as the two opponents vied for an indefinite period, showing equal determination and belief to win that is an important aspect in a war of attrition.

Fig.5: Damage to the Vasylivka Multidisciplinary Intensive Care Hospital.
(Source: Retrieved, January 15,2023 from https://www.directrelief.org/)

Fig.6: Use of subway stations as shelters
(Source: Retrieved, January 15,2023 from https://www.bbc.com/)

Fig.7: Use of basements as shelters
(Source: Retrieved, January 15,2023 from https://www.bbc.com/)

War can cripple a nation with structural, societal, and cultural damages. The Ukraine-Russia war demonstrated the way, space and architecture is destroyed by confiscation and violence, making buildings and spaces inaccessible. It is evident that tenancy and resistance showcased by the architectural fraternity restrained legitimization of warfare. Despite the mass-scale destruction to the built environment, the role played by Ukraine's civil population and architects provides a blueprint for effective resistance confronting a superior power invading a small nation. Russia-Ukraine is existential in nature for both opponents as it is a matter of survival and preserving sovereignty and survival as a nation. However, for Russia it is for satisfying the ambitions of great power, a status it lost after the collapse of the erstwhile Soviet Union.

The scale of destruction expresses shock, a sense of helplessness and the banality of death. However, the response of the people, particularly the architectural fraternity, portrays Ukraine as a strong entity that stands tall and continues to fight back.

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Fig.8: Kharkiv State Administration building destroyed by Russian missiles mothballed.
(Source: Retrieved, February 12,2023 from https://www.pravda.com.ua/)

Fig.9: The idol of Jesus Christ has been moved from the Armenian Cathedral in Ukraine.
(Source: Retrieved, February 12,2023 from https://www.catholicnewsagency.com/)

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Essays, interviews, articles (1500- 2500 words), book reviews (600 and 750 words), travelogues, sketches and photo-essays in the areas of architecture, planning, urbanism, pedagogy, heritage, technology, ecology, theory and criticism, visual design, practice or any other relevant subject pertaining to the built environment. (Details of the format will be available on the JIIA website).

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ARTICLE

Broken Brims of Bombay

By Ar. Shivani Gaikwad

Figure 1: Bombay Before Reclamation
(Source: Author)

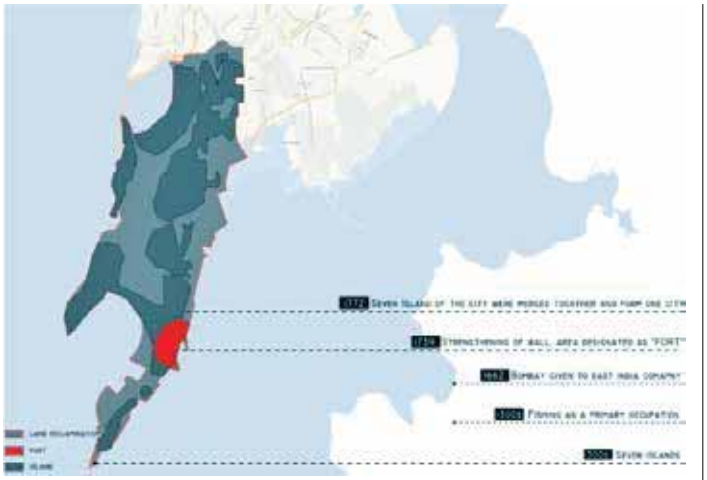

Figure 2: Bombay after Reclamation
(Source: Author)

HISTORY

Mumbai is known as the financial, commercial and Entertainment capital of India. Before the East India Company built its fort. At the dawn of time, Bombay was a dumbbell-shaped island tapering at the centre, to a narrow shining strand . . . when Mazagaon and Worli, Matunga and Mahim, Salsette and Colaba were Islands, unlike now where the Seven Isles turned like an outstretched, grasping hand, reaching westwards into the Arabian Sea.

Developed with a desire to maintain trade links with other countries, the British never expected it to become a large town. Being physically separated by sea, the waves of migrants were directed to the city by the neighbouring areas and thus it started being identified as a sanctuary. Unlike Manhattan, Bombay was not apparently built on a master plan so it is not a surprise that the city does not have a systematic pattern of symmetrical grids and streets. Bombay was never built in a singular image, as settlements kept adding to the core and trade was flourishing. Land acquisition was fragmented due to which it grew precinct by precinct like a collage. Later, a suggestion was passed for an enclosed town with a fortified wall. Flourishing trade links led to the creation of many commercial and residential areas within the fort walls. Building rules were imposed on structures. All structures violating rules were thus demolished which led to the demand for new areas of settlements which was primarily possible by partial reclamation of land.

Textile mills started developing by the middle of the 18th century, due to port land and ease of transportation. The seven islands of Mumbai were reclaimed as a single one and a harbour line was introduced. Due to land reclamation and the railway route, there was a spurt of economic growth in the city. An increase in the number of textile mills resulted in the growth of residential areas which were generally chawls for the textile mill workers. Commercial areas were formed adjoining the ports which consist of godowns for the storage of goods. There were 1000 houses within the walled town and 7000 were developing outside. The newly-appointed governor thus demolished the fortified wall and set up four large stone markers which were to serve as the new boundary limit for the town of Bombay. By 1872, a large number of immigrants came to Bombay region which led to the formation of the Municipal Corporation. The town was thus divided into 26 wards. Due to the establishment of the Corporation and expansion by reclamation civic infrastructure was developed efficiently. In the 1900s, the Dadar, Matunga and Sion schemes in north Bombay were completed, so as to provide additional space for expansion in the suburbs. Special emphasis was given to providing open spaces and recreational areas in Mahim. Thus, Shivaji Park which is about 66 acres is situated at the centre of Mahim.

The character of the city in terms of physical, social, and cultural forms was altered due to the immigrants. The planned interventions by the authorities were to gain maximum advantage of the industrial and commercial base by forcing the urban form to adapt to the changes. And so the urban form went through a huge transformation due to industrialization and positive reclamation.

Trade flourished in the late 1900s and there was a demand for a new port, which was introduced in Navi Mumbai as JNPT. In order to absorb the immigrants and reduce the growth of the population there was a need for a new city. In 1971, Vashi Bridge

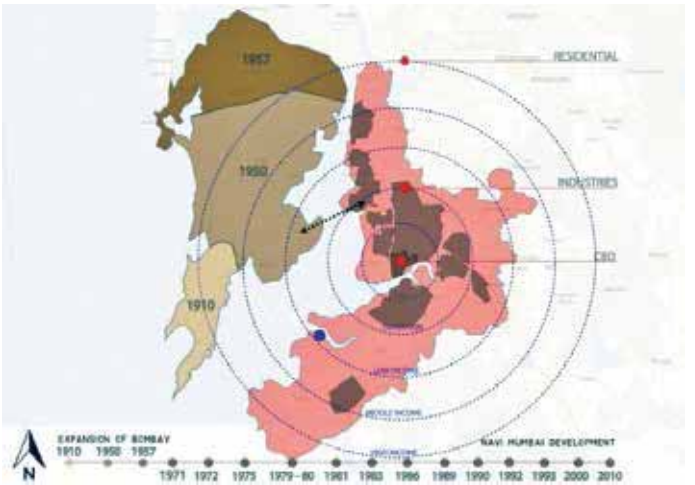

Figure 3: Need and Development of Navi Mumbai
(Source: Author)

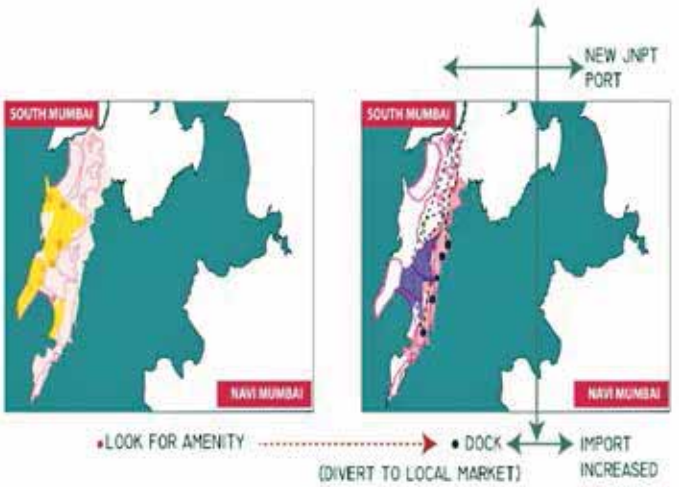

Figure 5: Flourished Trade routes and so development of JNPT at Navi Mumbai.
(Source: Author)

was constructed as the connecting link. And thus the development started from Vashi and Sanpada. Later 14 nodes were developed. The major growth occurred to the north of Navi Mumbai due to Thane Vashi Creek, with Thane acting as the connecting junction.

In 1990, JNPT and Kharghar were the largest developing nodes formed. Due to proper connectivity with the road and sea routes, Belapur was declared as the CBD area where Navi Mumbai International Airport is being proposed. CIDCO is the planning authority due to which Navi Mumbai is divided into two parts as North Navi Mumbai which consist of 10 major nodes, showing the maximum growth; And South Navi Mumbai which consists of the major 4 nodes.

INFORMALITY IN BOMBAY

Informality in Mumbai can be seen through various lenses. Even though it has an optimistic side it gives us an opportunity to learn together the urban policies and planning. Informality is seen in the city from economic and social interaction to cultural formation. The word 'slums' are typically referred for informal housing in the city. Dharavi is one of Mumbai's oldest informal settlements and spreads over an area of 2.4 sq. km.

Before the 18th century the piece of land flanking Mahim Bay was inhabited by the *Koli* or fisherman community due to its location near the creek. With land reclamation, the creek dried out but the newly surfaced marshy land on the edge of the city provided space for people to move in. Migrants from the neighbouring states started occupying the land forming small work communities. Over a period of time with the city sprawling northwards, Dharavi which was initially located on Mumbai's outskirts occupied a more central location. Dharavi not only occupies a prime location geographically but is also an integral part of the city's economic success.

There exists a symbiotic relationship between Mumbai and Dharavi: the city benefits from Dharavi's small-scale industries, manufacturing units and available labour workforce, while the informal settlement benefits from the availability of resources and raw materials, connectivity and a user market spread locally as well as globally. In a city where the rail is the most important mode of transport, Dharavi is flanked on its two sides by the central and western railway lines.

PROBLEM

The reason for the development of slums is a broader aspect. Today 50% of the human population lives in cities, and that portion is only increasing. But are the cities prepared for this influx? The question is what can we learn and later improve from the already existing informal developments? And how new methodologies of research can be used for urban planning of such spaces? There is a serious breakdown, where on one hand we talk about the demand for houses and on the other hand the government states that there are about 6,50,000 houses left vacant. So, even though there exists a demand, wrong products are being pushed into the market. One of the solutions could be that the project should be best-suited to the current investors of real estate.

Researchers say that anyone born between 1981 to 1996 (aged 27 to 42 in 2023) are called 'millennials' which are currently the real estate investors. Millennials update their social media and share their

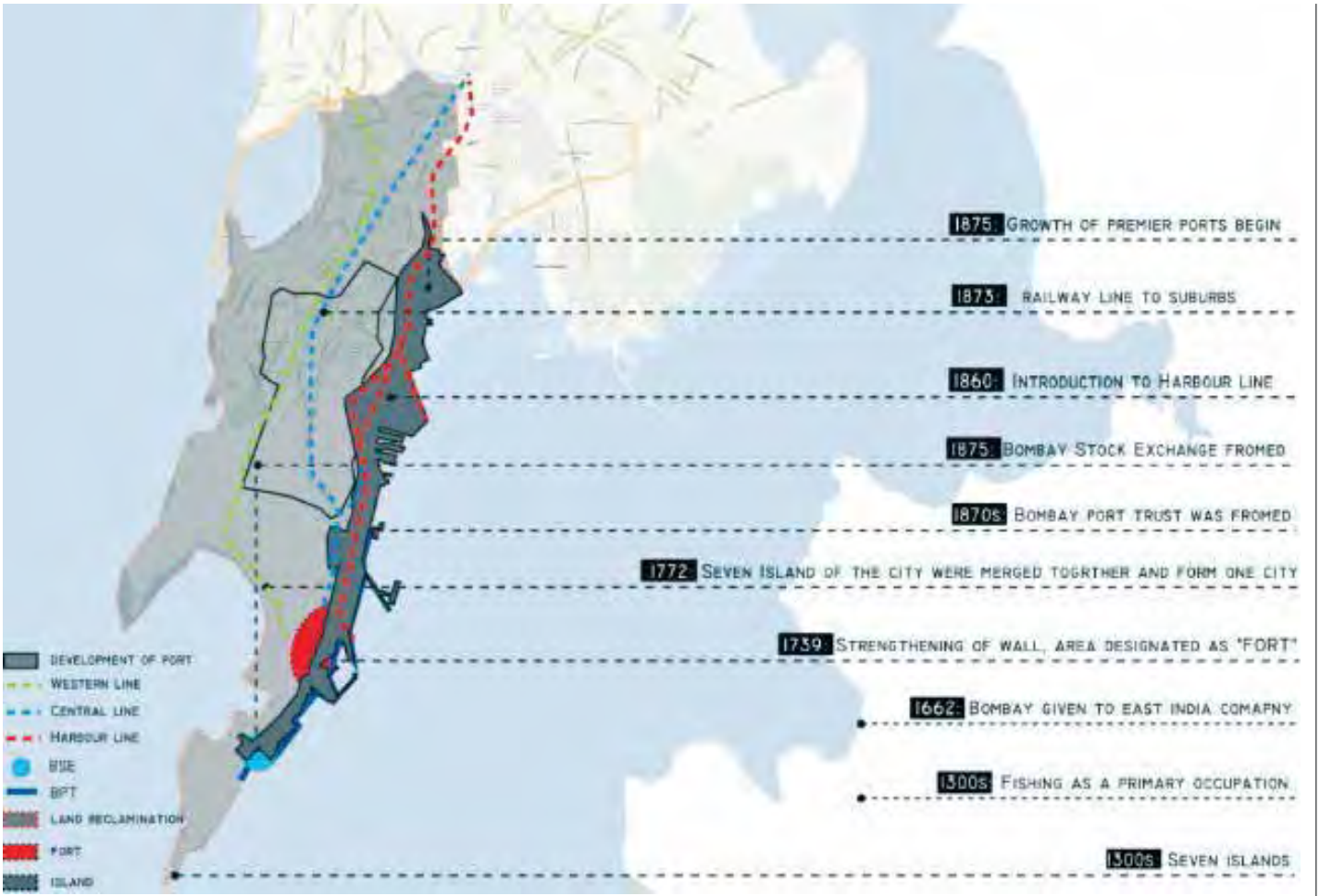

Figure 4: Development of Ports along the Sea and its impact on overall development of City.
(Source: Author)

Figure 6: Dharavi Settlements
(Source: https://in.pinterest.com/pin/480477853994925950/?ip=true)

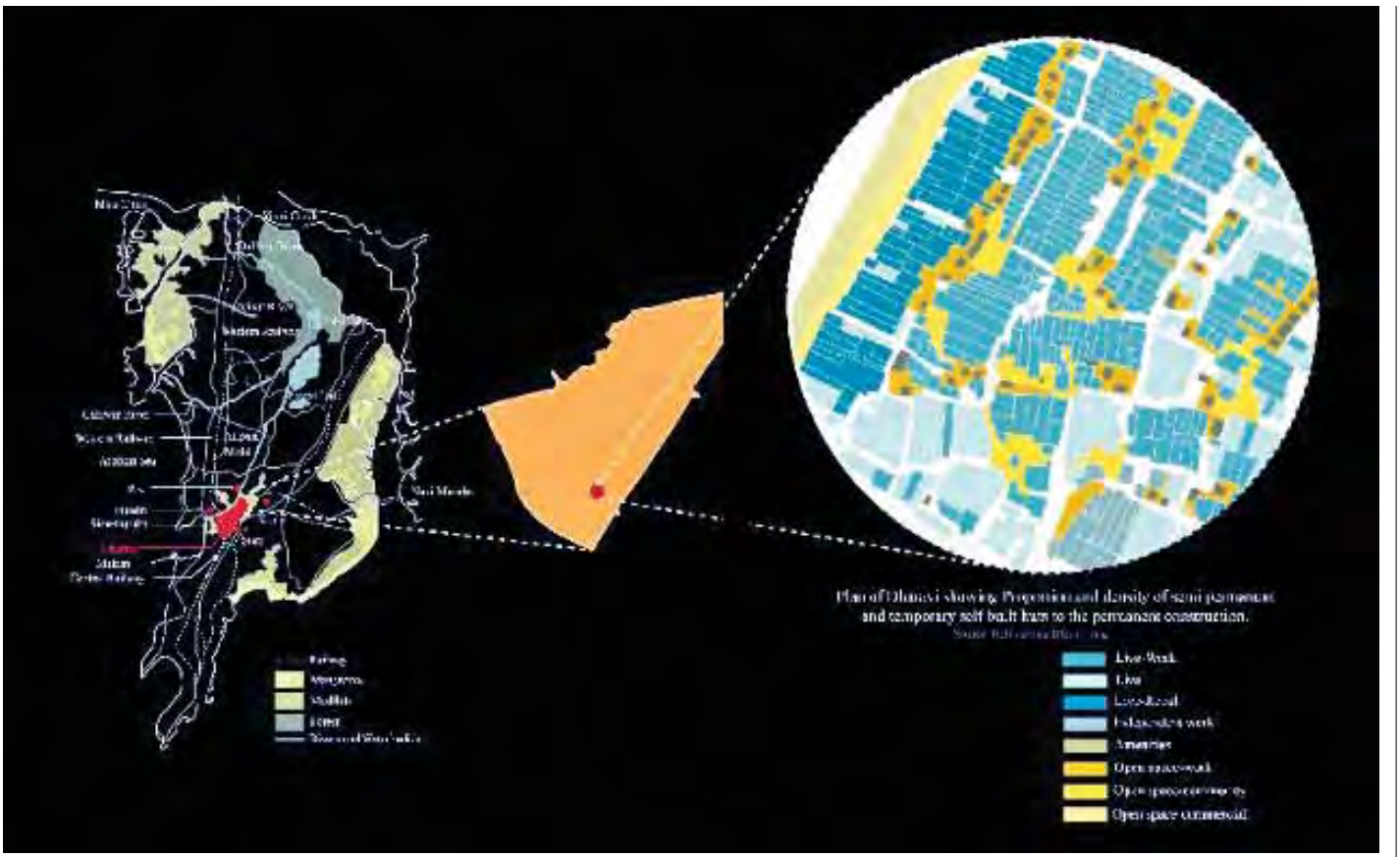

Figure 7 Live Work Scenario in Dharavi
(Source: reinventing dharavi.org)

busy life on a daily basis. Do the millennials share too much? And are losing their boundaries? But when it comes to housing, costs, social infrastructure, safety and proximity to work are the factors considered by the millennials while choosing a house. If the financial habits of real estate and millennials are considered, research says that, the majority of the millennials prefer renting a house rather than owning a house. So, can 'subscription living' which offers primary homestays with a choice of accommodation be the solution for these needs?

POSSIBLE SOLUTION

If the SRA norms are considered, the size of the kitchen is the smallest as compared to the other spaces. The Neuferts data also suggest that the size of the kitchen is the smallest among the other spaces. So the new norms specially designed for subscription living can double the size of the kitchen as compared to the sizes mentioned in the other two norms and standards.

The new needs, necessities and desires can be considered as the future goals, for which these steps of subscription living can enable us to understand the resilient strategies. To lessen the vulnerabilities both techno-rational and socio-economic approaches can affect the settlements in various ways.

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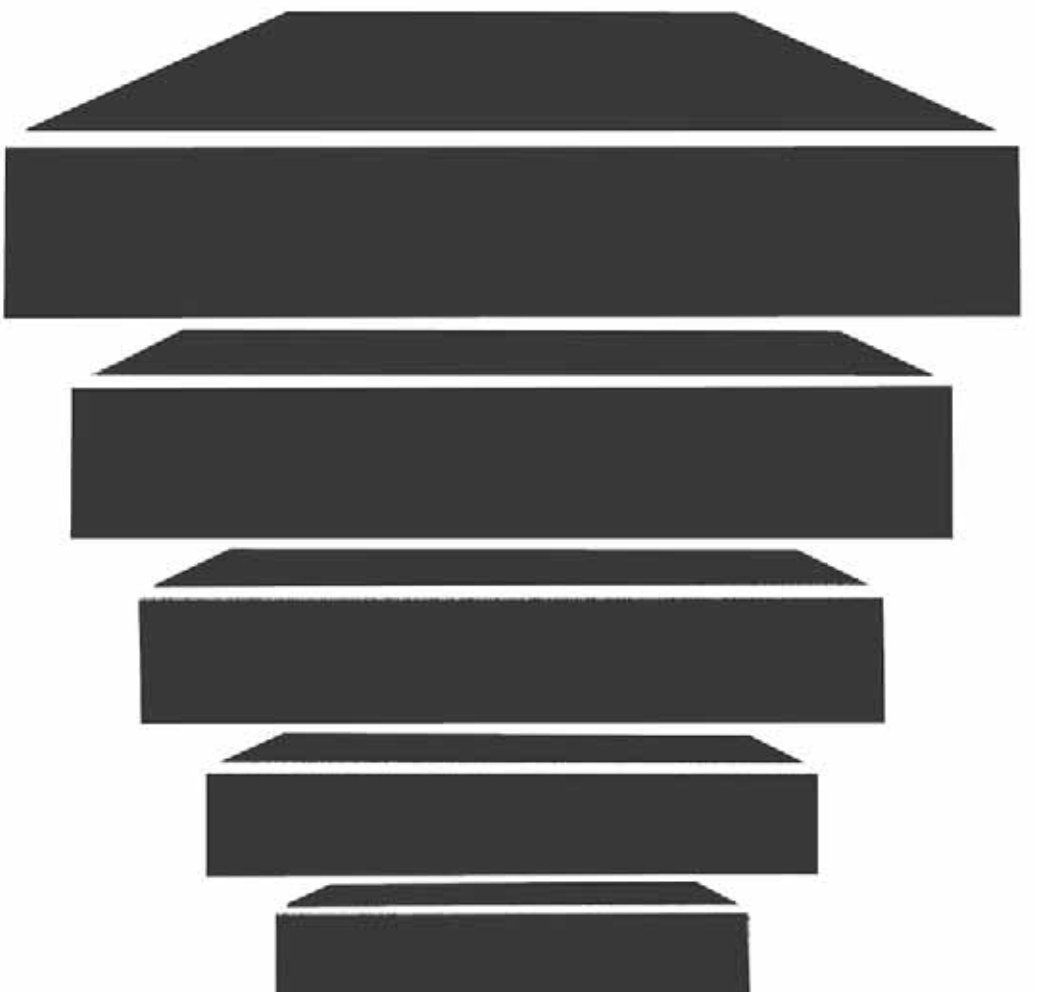
Landscape Design for Climate Action

A Step towards Ecosystem Conservation of Satpura Park and Futala Lake, Nagpur

By Ar. Bhagyashree Girgaonkar & Ar. Poonam Saini



1. Introduction

Urban green spaces provide ecological, socio-cultural and economic benefits which are essential for sustainability of the cities in the current climate crisis. These spaces play a vital role in minimizing environmental issues and also contribute to the increase in biodiversity in highly urbanized situations. The rising population worldwide has led to an increase in built-up areas and influenced the change in land use and land cover (LULC) in urban areas. Urban parks are prominent places for conservation of biodiversity in the cities. They not only provide a pleasant and natural environment but also help to increase the quality of life in urban areas (Sadeghian & Vardanyan, 2015).

Nagpur, the 'Tiger Capital' and 'Orange City' of India, is the 3rd largest city of Maharashtra after Mumbai and Pune. Nagpur is named after the great River Nag, which flows through the city. The 300 years of rich historical past of the city makes it even more unique. Nagpur has tropical savannah climate with dry conditions prevailing most of the year (Nagpur Environmental Status Report, 2017-18). The city is dotted with lakes, gardens and parks that provide relief to the urban environment. In 2010, the city ranked second greenest in the country and now ranks 28th in Maharashtra to chase the dream of development (Chakraborty, 2021). The establishment of urban parks and open spaces with an aim of preserving biodiversity in the city will help to combat climate change and restore ecosystems.

The Satpura Botanical Garden used to be one of the famous gardens in Nagpur which was opened to the public in the year 2002. Spread over an area of 20 hectares, the selected site Satpura Botanical Garden lies adjoining Futala Lake. The lake was built by the *Bhosle* King of Nagpur and is spread over 60 acres (Salahuddin, 2020). Students and researchers from different universities used to visit this place as a part of their educational excursion. The garden was established during 1995-2002 under Nagpur Development Plan. The site belongs to Dr. Panjabrao Deshmukh Krishi Vidyapeeth. The garden has been closed since 2015 and due to lack of maintenance, the existing vegetation is heavily impacted. The government has decided to rejuvenate the Satpura Botanical Garden into a park that will provide different recreational activities for the public and also provide ecological stability in the area. The landscape development of Satpura Park along Futala Lake through ecological design approach helps to tie up the connectivity of the space with surrounding natural context and people by carving out the spaces as per the need of site and the users.

2. Categories of Urban Parks

Urban parks act as natural buffers for the stabilization of various ecosystems. Urban parks provide ecosystem services to the cities that range from preserving biodiversity to controlling the urban climate. They provide environmental benefits such as pollution control and enhancement of biodiversity; socio cultural benefits of providing places for recreation and leisure, human health and well-being; economic benefits of water management, energy saving and adding to increase in property values (Sadeghian & Vardanyan, 2013). According to the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines, the categories of parks are: Housing Area Park, Neighbourhood Park, Community Park, District Park and Sub-City Park (City Development Plan for Nagpur-2041, 2015). The selected site Satpura Botanical Garden comes under the category of District Parks to serve a population of 40.51 lakh (Manzar, 2013).

2.1. Types of Green Spaces in Nagpur

The typologies of various green spaces are shown in the map of Nagpur city (Fig.1). From the sketch it is observed that the green spaces are more along the periphery and less within the city due to the increase in built-up area in the city's core.

3. Need for the study

Vegetation in urban areas is facing challenges due to changing climatic conditions across the globe. Urban parks and open spaces help to mitigate the environmental issues like pollution, increase in temperature, excessive rainfall and floods, provided they are planned with utmost care by considering ecological relationships.

Nagpur being one of the hottest cities in Maharashtra, the temperature remains beyond 40°C throughout the summer and may be as high as 46°C. The provision of parks and gardens in the city provide relief to the city dwellers from the increasing temperature and help to regulate the microclimate. The sustainable landscape design of the park will provide a range of ecosystem services and habitat for birds and animals essential for sustenance of life in such climates.

4. Study Area-Satpura Park along Futala Lake, Nagpur, Maharashtra

Located on Seminary Hills, along the edge of Futala Lake, Satpura Park is spread over an area of 61 acres and houses numerous rare species of plants. The site within its 1 km radius, is surrounded by institutional

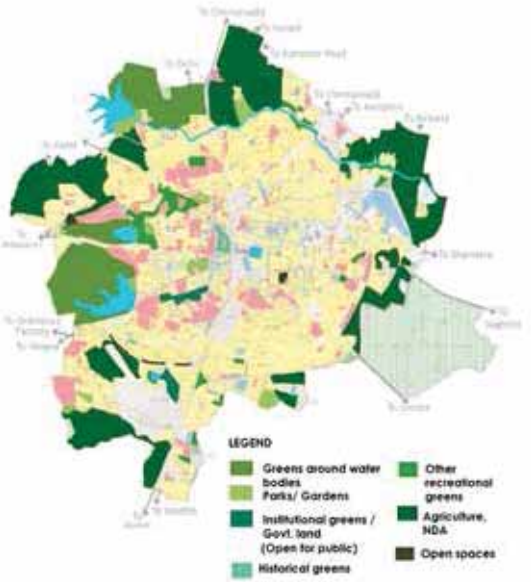


Figure 1: Mapping of Greens in Nagpur
(Source: Prepared by Author, referred from Nagpur Master Plan 2011)

and residential land use towards the north, recreation and amenities in the south east, agricultural land in the west and Futala Lake in the south. A 16 metre-wide road passes towards the north east and the Mumbai-Nagpur Highway from the Amravati Road towards the south (Fig.2).

4.1. Natural System Analysis

The existing site has got only one entrance and exit from a 16 metre-wide road towards the north. The site is known for its undulating landforms with ridges and valleys. Futala Lake acts as the main catchment area for the larger watershed of Satpura Park. However, the site also has a pond, a water cascade and streams that help in recharging ground water regime within the site. A conservatory, greenhouse, fern house, cacti-house, viewer's gallery and kids play areas are also present on the site (Fig.3). The site has sparse to dense vegetation and scrub along

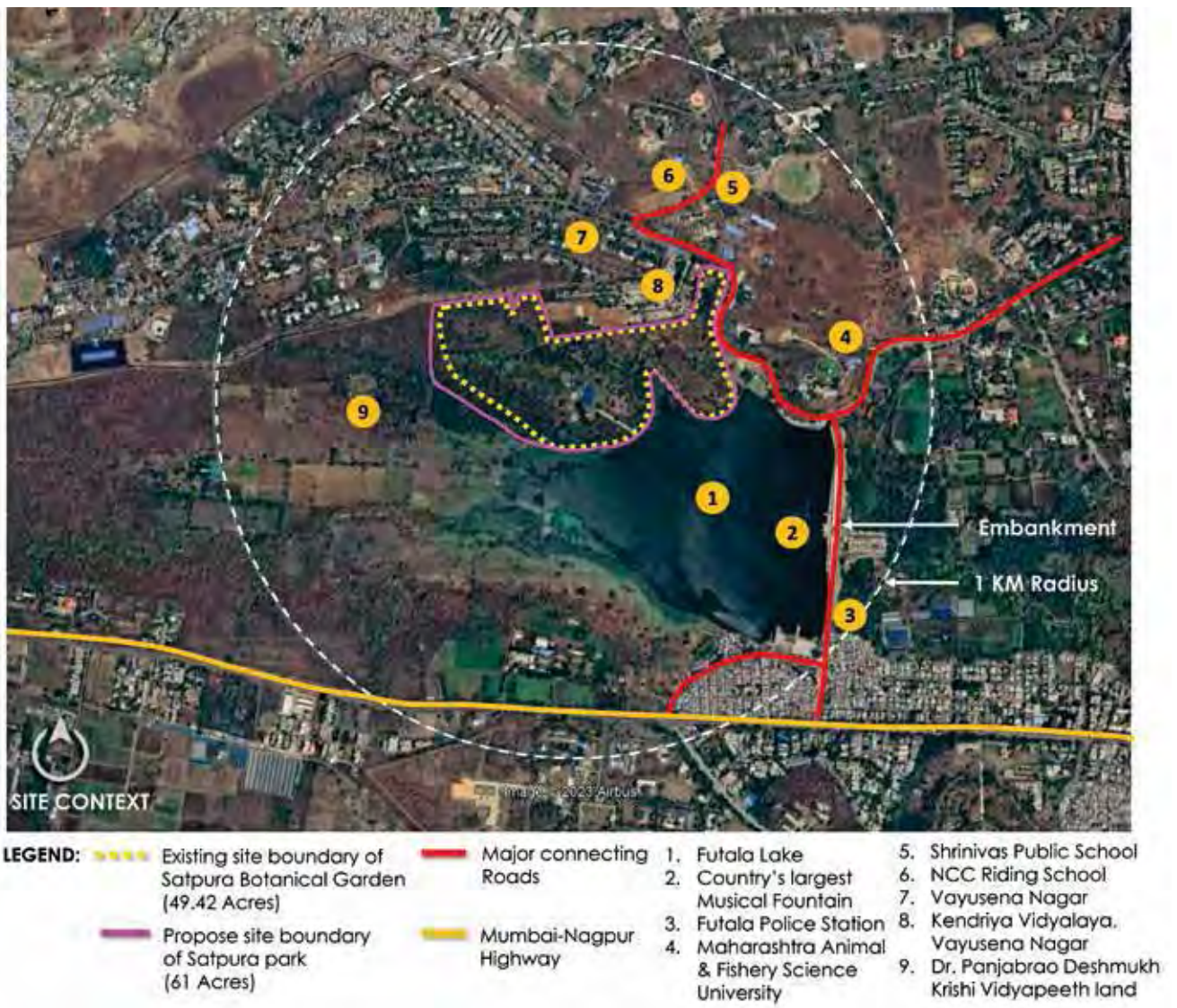


Figure 2: Site Context
(Source: Prepared by Author, Base map- Google Earth Pro)

Figure 3: Existing Base Plan of Satpura Park
(Source: Author)

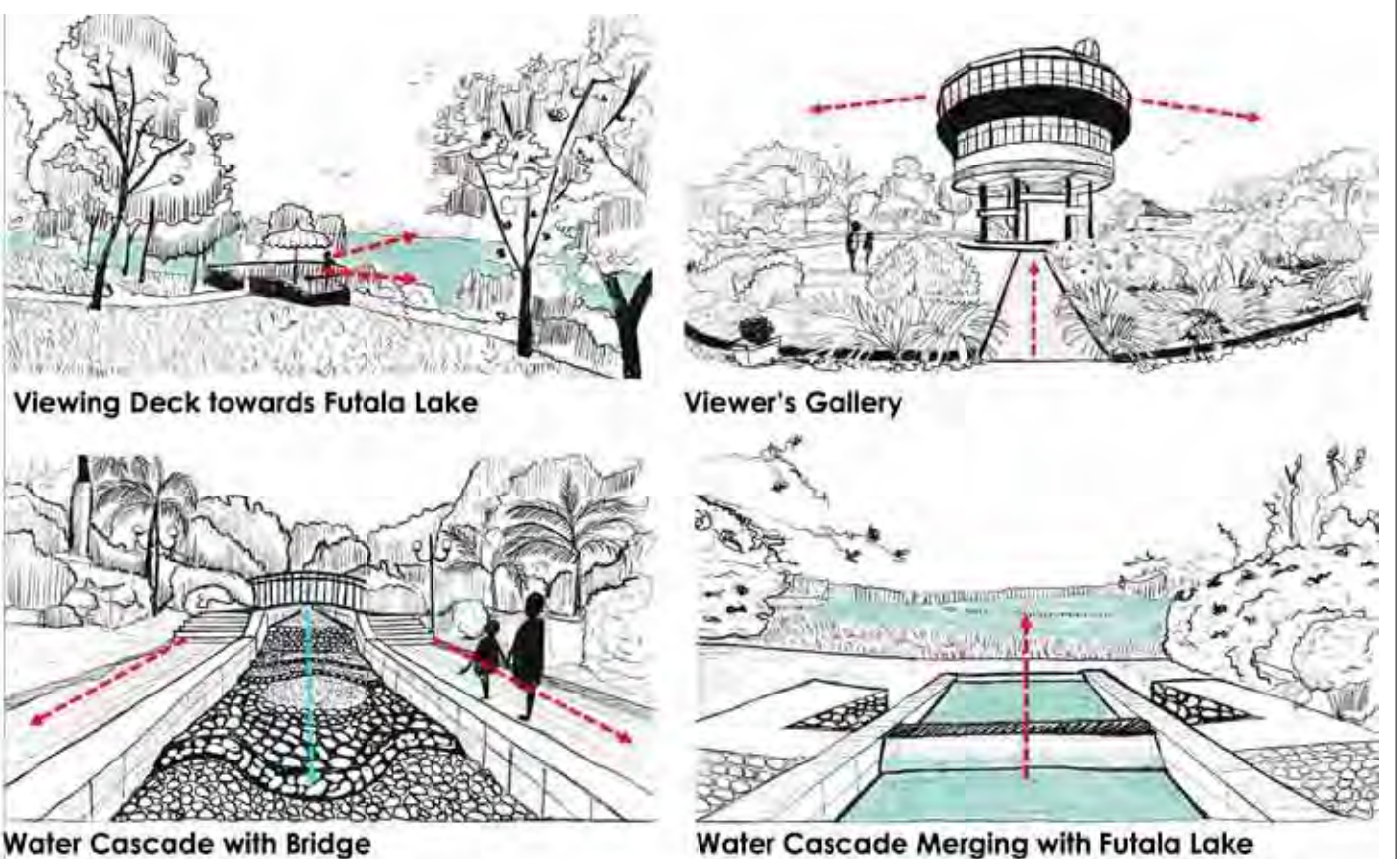


Figure 4: Visuals of the Existing Satpura Park
(Source: Author)

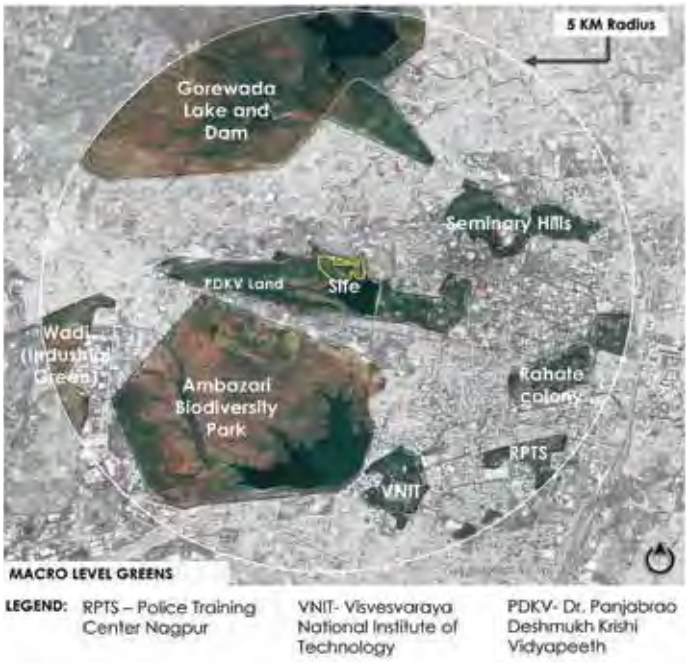


Figure 5: Surrounding Green Network
(Source: Prepared by Author, Base Map- Google Earth Pro)

the periphery. The conservatory has more than 70 species of exotic and native plants.

The natural system analysis of the site highlights various facts about the proposed use of spaces with reference to topography, vegetation and hydrology:

- Due to the location of the site, there is an opportunity to create a larger level of blue green network, which will enhance the biodiversity of the site and its surroundings (Fig.5).
- The lay of the land can be put to different uses to design the spaces by considering high and low points of the site.
- Addition of activities like terraces for relaxation and adventure sports without disturbing the natural terrain shall help in demonstrating an ecological approach towards the landscape design, by doing minimum disturbance to top soil and microorganism.
- Removal of scrub and addition of native vegetation will enhance the biodiversity of the park.

5. Design Concept and Design Development

The Futala Lake adjoining the Satpura Park is around 200 years old and it has been a hotspot for the general public and tourists due to the socio-cultural activities happening around it. The undulating landforms, meandering pathways and blending of vegetation and streams with the lake together syncs with the surrounding natural landscape. This gives rise to a thought of generating different 'loops' on the site which will offer a variety of ecosystem services.

Figure 6: Landscape Concept Plan
(Source: Author)

Figure 7: Comprehensive Landscape Development Plan
(Source: Author)

Therefore, the concept is to create a 'Loop of Memories', a place where people can share art, space, knowledge and moments along with remembering the historical background of the city. Various loops provided in the park are:

- **Loop of Pathways:** Provide opportunities for interaction among users of different age groups
- **Loop of Trails:** Provide changing views and experience while strolling
- **Loop of Waterways:** Act as an element of surprise to the users while moving along the pathways
- **Loop of Vegetation:** Act as a buffer and connecting link between the site and water bodies, and also provide physical or visual barrier while creating an avenue along pathways

5.1. Design Strategies

- To create a loop of pathways connecting the different activities and to encounter various landscape elements while approaching them.
- Merging the blue-green network which revives the human-nature synergy, supports the local ecology and enhances biodiversity.
- Providing a social hub in the park which will act as a connecting link between the educational and recreational activities.
- Activating the edges and existing water bodies.

The design ideation is to provide a sequential experience of spaces for the users which leads to the different activities and serves both recreational as well as educational opportunities for them. So, the site has been divided into three zones– ecological zone, socio-cultural zone and recreational zone.

5.2. Landscape Design Proposal

The proposed design aims to establish sustainable practices to support local ecology and function as a recreational and educational space for the general public and tourists. The spaces are designed to achieve a blend with the surrounding vegetation and lake.

The site has been proposed with two entrances and exits in the new scheme, the primary entrance from the north and the secondary from south west for the ease of accessibility. The pedestrian pathway and bicycle track leads to the park forming a loop according to the site profile and connecting different spaces. The topography of the site is respected with minimum intervention on land so as to retain the topsoil. **The ecological zone** of the park has dense vegetation along the periphery, Futala Lake edge and valleys which provide different habitat for birds and a trail within it provides a leisure walk through the nature areas. Ponds act as an element of surprise for the users and a soothing sound of fountain evokes refreshing energies among them. The **socio-cultural**

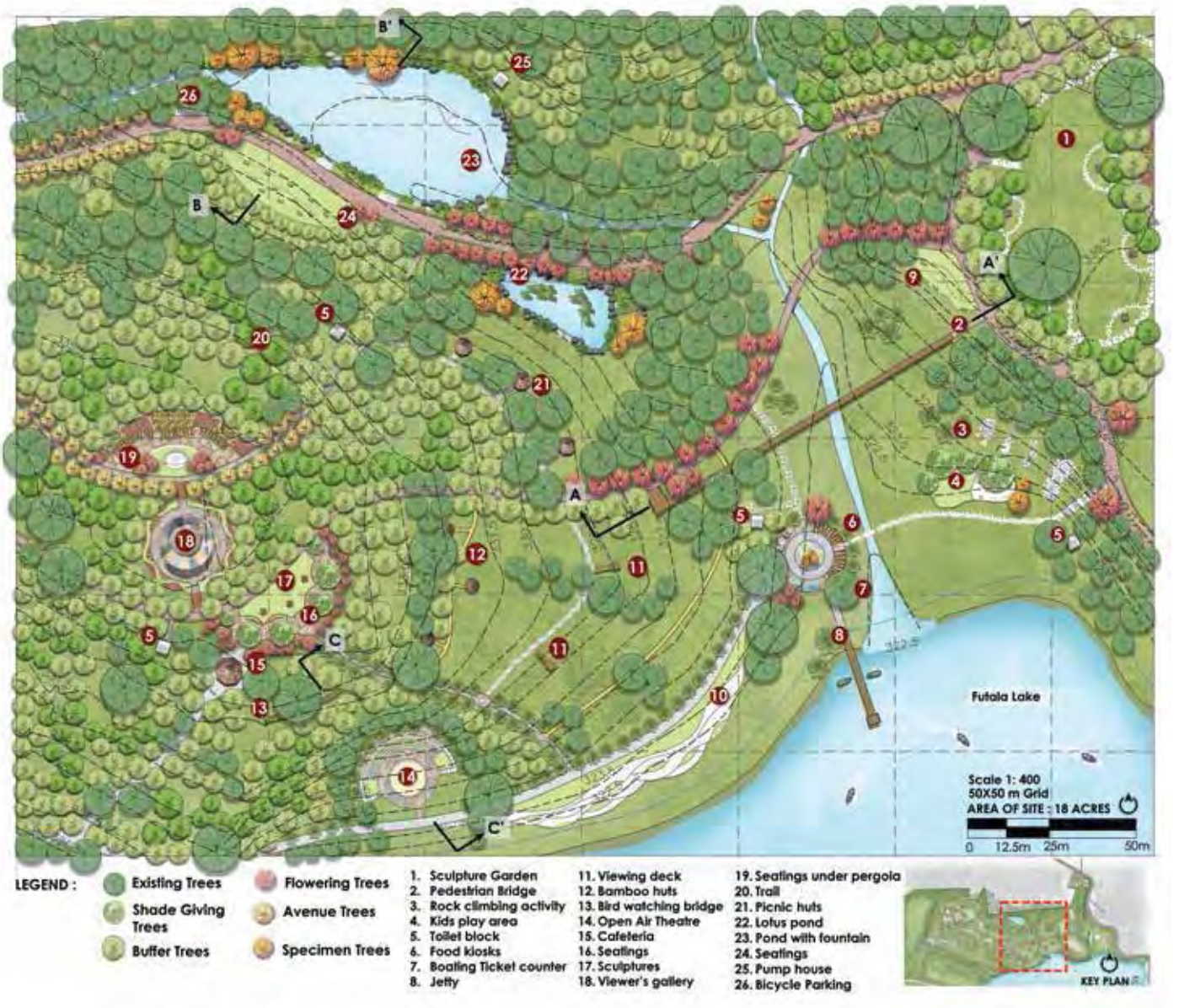


Figure 8: Detail Area showing Vegetation Massing
(Source: Author)

zone has interactive spaces for people of different age groups. Activities like viewer's gallery, seating steps, cafeteria and food kiosks are provided in order to create an engaging environment among the users. The open-air theatre has been placed in such a way that the audience can get a view of the Futala Lake and a glimpse of the country's largest musical fountain towards the south west. The **recreational zone** is provided with activities like, a kid's play area, boating, jetty and a pedestrian bridge between the leisure valley connecting the two spaces. The users passing over the bridge get a picturesque view of Futala Lake and the activities happening in the leisure valley.

Locally available materials are used such as sandstone paving and ledge walls, bamboo huts, play equipment made from wood to create a woodland and wood-plastic composite (WPC) boards for deck and jetty. Picnic huts and viewing decks are provided in between the vegetative buffer which acts as a place for relaxation, meditation and socialization while giving a scenic view of the surroundings. The existing water bodies like ponds, streams and Futala Lake edge have been activated; which not only attracts people but also aquatic life and birds enhancing the ecosystem. These ecological design approaches in the park result in the increase in environmental benefits, socio-cultural benefits, health and economic benefits and habitat benefits and also provide ecosystem services like provisioning services- water, food, raw materials, etc. regulating services- air quality, microclimate, prevents soil

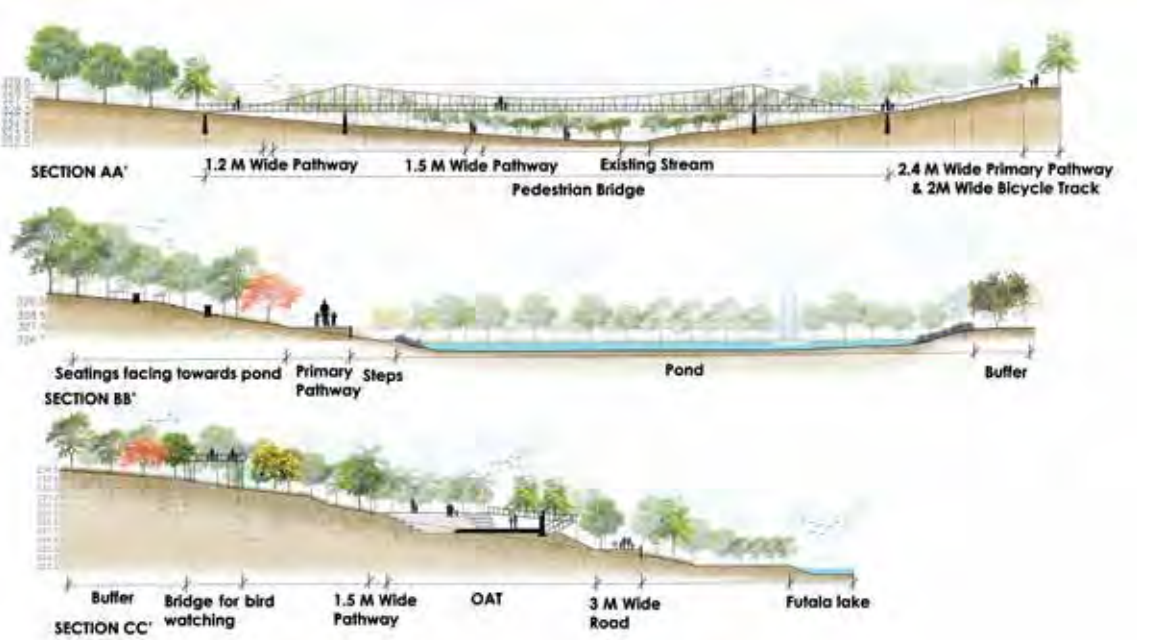


Figure 9: Site Sections
(Source: Author)

erosion, pollination, water purification, etc. cultural services- recreation, education, aesthetic values, etc. supporting services- biodiversity, nutrient cycling, soil formation, photosynthesis, etc.

5.3. Planting strategies adopted

Trees with dense canopy are planted along the periphery to create a buffer which acts as a screening and generates a sense of wilderness along the trail. It also helps to reduce the temperature of surrounding urban fabric.

- Trees like *Bauhinia variegata, Pongamia pinnata (L.) Pierre and Mimusops Elengi* are planted strategically at parking lots, pathways and seating areas, helping in microclimate modification by absorbing excessive heat.
- Flowering trees planted along water bodies accentuate the water edge and provide habitat for birds.
- Trees like *Millingtonia hortensis, Azardirachta indica, Bauhinia racemosa* and *Dalbergia sissoo* are the keystone species of this park.
- A row of *Roystonea regia, Polyalthia longifolia* and *Plumeria alba* creates an avenue and an existing row of *Delonix regia* provides shade along pathway.
- Small shrubs along pathways and edges act as physical barriers and large shrubs along service roads act as visual barriers.
- Focal points have been created using specimen trees at entrance plazas, nodes and near seating areas.

6. Conclusion

Green spaces within a busy urban environment of Nagpur provide a place for relief to the city dwellers. Urban parks serve as an ecological connector between city's urban, suburban and rural environments. They help to mitigate climate generated risks by improving microclimate, reducing the heat island effect, sequestering carbon and preventing soil erosion. Satpura Park is designed by considering the ecological, socio-cultural, recreational and economic aspects that will help in creating a unique identity to the city. The park will act as a breathing space in the city's core. The play of levels in the park will provide users an experience of multiple changing views and the water bodies will act as an element of surprise while moving. Various landscape elements encountered by the users while walking along trails and pathways will be a source of spiritual and educational experiences. The native plant species evoke a sense of place and help to connect with the environment at a deeper level. The site being rich in natural habitat, the ecological design approach will help to tie up the connectivity with the surrounding natural environment and users. It will also contribute towards harbouring biodiversity, providing a range of ecosystem services and strengthening social ties.

The analysis and design proposal presented in the research article is a part of her master's thesis programme at the School of Planning and Architecture, New Delhi (IIA-affiliated).

Figure 10: Visuals of the proposed scheme
(Source: Author)

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ARTICLE

Communism and Modern Architecture

By Aiswarya Padmakumar and Dr. Sunil Edward

1. Introduction

Nineteenth century saw tremendous changes in technology, politics, business and society. Art and architecture too transformed with the influence of these. Modern Architecture, the architectural style that emerged during this time, is primarily seen as the outcome of the Industrial Revolution that happened then. However, the other movements and events that contributed can't simply be neglected.

One such movement that happened at that time was the emergence of the political ideology of Communism, which gained immense popularity around the world. This paper argues that Communism was one among those many factors that contributed to the development of Modern Architecture.

2. Communism and Communist Manifesto

Communism was one of the world's dominant International political movements of the time that emerged during the mid-nineteenth century, concurrent to the Industrial Revolution. Its ideological principles were grounded on the Communist Manifesto created by Karl Marx and Friedrich Engels in the 1840s that urged for a single class of people and not divided into bourgeois and proletariat classes (History.com, 2018). It was first established in Russia with the October Revolution of 1917 and later spread to many parts of the world (Themes in World History, 2006).

The Workers' Party (party of the Communist Bolsheviks) was formed based on the Communist ideology to strive for the interests of the working class and initially fought for winning the freedom of association of workers and peasants. Communism was capable of drawing many intellectuals, even from countries with strong democratic traditions like Great Britain and the USA, and sometimes even became a significant political force in some of those countries (Brown, 2009, 10).

As Communism attained popularity, its ideas started to influence people in other fields also, artists being prominent among them. Russian leftist artists started looking for new methods to go in tune with this revolutionary transformation. They created new art styles to depict the new era of proletarian rule and to disseminate Communist ideology. Abstract art (Fig. 1) began to replace pictorialism, which was the art of the privileged (Kramer, 2011). One of the most important leftist modernist movements of the time was Constructivism (c. 1920) (Fig. 2). The movement advocated utilitarianism and 'industrially' created structures, declaring a major break with earlier architectural traditions (order system). It solved the creative problems by joining diverse rectangular components that lacked adornment (A. Bazdyrev, 2015).

3. 19th Century Architectural Scenario and the Emergence of Modern Architecture

The 19th century witnessed adoption of classical architectural style components in the design of public buildings to give it a sense of authority. The Birmingham Town Hall (1834), Old Euston Railway Station and Paris Opera House are best examples of this trend (Encyclopedia of Art History, n.d.). The elite class demanded faultless replication of the classical style and order. Rediscovery of the Roman city of Pompeii and other sites (1748) that were buried by the Vesuvian eruption ignited the passion for antiquity among people, which swept across

Fig. 1: Beat the White with Red Wedge by El Lissitzky (1919)
(Source: Red Wedge Beats the White Circle, 1919 El Lissitzky, 2014)

Europe (Jashemski, n.d.) and contributed towards the renaissance of classical styles. The desire for relics resulted in the emergence of Neo-Renaissance and Neo-Baroque architectural styles, and the new design approach came to be known as 'eclecticism'. Eclecticism was characterised by incorporation of traditional motifs and forms, ornamental aesthetics and decoration, and structural aspects and components from the past architectural eras. The style was revivalist in nature and gained popularity (Natarajan, 2014).

At the same time, the 19th century also brought in what we term now as the Industrial Revolution, which resulted in a variety of new typology of buildings and construction techniques. Some of the new typologies of buildings demanded new types of construction, like railway stations which needed longer spans to be covered, which could not be solved earlier by traditional construction methods and demanded newer construction materials and methods (Natarajan, 2014; Encyclopedia of Art History, n.d.). These buildings were still created by the mainstream architects and they lavishly used these new techniques to solve the technical side but to match the taste of the day they covered these buildings with Classical or Mediaeval styles. One of the best examples is the Paddington Station by Brunel and Wyatt. The glass and iron vault which span the large area (inside, but it) is supported on 'Gothic' columns outside (Gaber, 2017). Another noteworthy example is the Gare du Nord railway station in Paris by Jacques Ignace Hittorff (Fig. 3), which like many other railway stations constructed during the 19th century Europe, had its train shed and associated facilities made of modern materials and were purely utilitarian in nature, but had a neoclassical style terminus envelope cover around the building as its 'architectural style'. Those architects almost considered structures built with modern materials and techniques not worthy to be displayed.

An incident to understand this trend happened in 1887, when the construction of Eiffel Tower started in Paris. Most of the prominent artists and architects of the time strongly opposed its design and construction which they termed 'as monstrous and ugly'. They saw the proposed design as a threat to Paris' beauty which was then intact with classical and neoclassical style buildings. These are very obvious indications of how classical and neoclassical styles were highly desirable and how modern approaches were firmly resisted by the society then, especially the bourgeois.

It is at this point of time in history that movements like Constructivism emerged. It encouraged some artists and architects to choose simpler forms that followed functionality over 'classical' visual aesthetics. It further emerged as a new style rejecting ornamentation and embracing minimalism. It was also the first time architectural forms were produced by humans to express human problems and goals rather than communicating the universal conceptions and ideas that earlier styles stood for. It was also the time the number of clients who approached architects gradually shifted from elites to the middle class.

Modern Architecture is characterised by asymmetric compositions (opposing following classical styles), wider RCC flat roofs (which was an outcome of new construction techniques), use of modern building materials, emphasis on horizontal lines, functionality, geometric forms, preference for white or neutral colours, lack of adornment, open interior concepts, etc. (Chermayeff & Mendelsohn, n.d.; Thomann, 2022). Architectural historians have refrained from defining Modernism by a rigid set of architectural traits because of the wide variety of materials and features found during the time. Modern Architecture also holds immense importance in the history of architecture as the first attempt to create an architectural style that had no direct points of orientation and creating true works rather than following traditional styles (Morgenthaler, 2016).

4. Art & Architectural Developments in the USSR & its Impact on Europe.

The abstract art movement, Suprematism (1913) (Fig. 1), founded by the Russian artist Kazimir Malevich

and popularised by his student El Lissitzky, became a means of disseminating Communist ideology and was widely used in making Communist Propaganda posters (The Charnel-House, 2014; Red Cavalry Riding, 2022). The style favoured pure geometric form, limited the use of colours and rejected pictorialism (Prezi.Com, n.d.) of the elite society. It later acted as the reference style to the Dutch art movement, De Stijl (1917), which in turn influenced the starting of the famous German Art School, the Bauhaus School of Design (1919), which sort of 'guided' the Modern Architecture movement in its early stages (Kramer, 2011).

Under the Communist government, *Narkompros* (the People's Commissariat for Education) (Fig. 4) was formed in 1917, soon after the October revolution, to take care of public education and issues related to culture. *Narkompros* established a series of arts schools in 1918 called *SVOMAS* (the State Free Art Studio) (Fig. 5), with the aim to spread awareness and competence in arts among previously underprivileged workers and peasants. *SVOMAS* did not have entrance examinations, avant-garde artists were its faculties and students were free to choose their professors. Wasilli Kandinsky was the head of *SVOMAS* studio in Moscow. Walter Gropius, who was the founder of Bauhaus school, used to write letters and discuss art education with Wassily Kandinsky, and their letters explicitly convey how *SVOMAS* had been the reference for the making of Bauhaus (1919) (Narkompros, n.d.; Bokov, 2021; Godz, 2020; Cmap, 2018).

Unfortunately, *SVOMAS* lasted for only 2 years until 1920, when *VKhUTEMAS* (the Higher State artistic and technical studios) replaced it. *VKhUTEMAS* became a centre where three avant-garde movements in Art and Architecture: Constructivism, Suprematism and Rationalism flourished. *VKhUTEMAS* comprised of eight art and production departments: Architecture, Painting, Sculpture, Graphics, Textiles, Ceramics, Wood and Metal Working (Fig. 6), similar to Bauhaus, and its approach was based on the most cutting-edge technological innovations, scientific advancements and artistic movements. The politically active institution meanwhile acted as a kind of social condenser that helped the Soviet government in organising the society.

Actually the curriculum of 'Space' course was first introduced in *VKhUTEMAS* (Fig. 7). It focused on how the structure was perceived, introduced concepts of deep space and volumetric form, gave classes on façade design and let students explore the effects of dynamic forces like rotation and gravity. In fact, it was in *VKhUTEMAS* that Architects started conceiving work in 3D by working on models. Many models made by students resemble later Modernist Architectural projects (Narkompros, n.d.; Bokov, 2021; Godz, 2020; Cmap, 2018; CCA, 2018).

VKhUTEMAS is frequently referred to as 'Soviet Bauhaus' by western media. However it is very deceptive to suggest that the school is a derivative of Bauhaus school, since its pedagogical approach had already been introduced in 1918 (prior to the founding of Bauhaus in 1919) with the founding of *SVOMAS*. Bauhaus and *VKhUTEMAS* accommodated around 127 and 1500 students respectively. That is to say that while Bauhaus was to educate individuals, *VKhUTEMAS* was to educate the masses. It can be deduced that *SVOMAS* served as a model for the foundation of Bauhaus, which in turn served as a

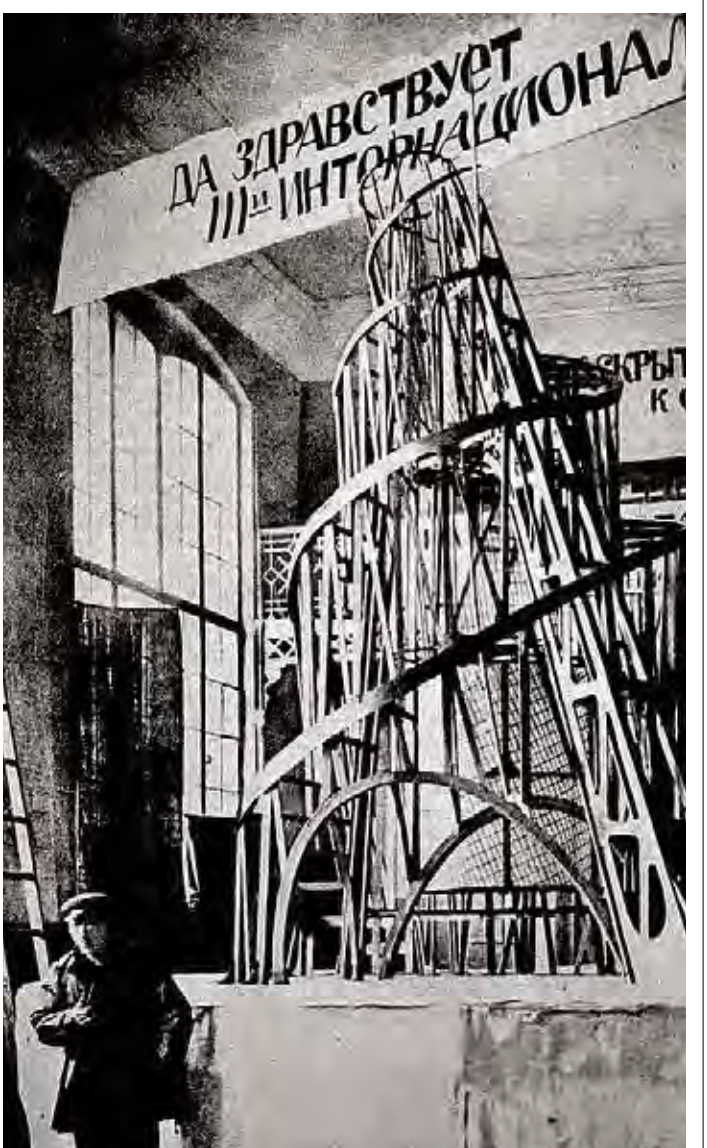


Fig. 2: Model of Tatalin's Tower (1920)
(Source: Punin, 2017)

Fig. 3: Gare Du Nord Railway Station by Jacques (1864)
(Source: Paris France June 20 2022 Aerial Stock Footage Video [100% Royalty-Free] 1091641939, 2022)

template for VKhUTEMAS (Bokov, 2021). It is fair to argue that the two schools evolved over time by learning from one another (Fig. 8).

The state of confusion as to how the New Proletariat Architecture would look like resulted in creating a very universal approach towards architecture, not related to any classical styles. New architectural design gave importance to *NoviyByt* (new collective lifestyle) and to the planning of *Sotsgorod* (Cities of Utopia) inclined to innovation and re-imagination of how humans would live, just like Modern Architecture. *Rabochiyklub* (workers' club) was seen as a key element of the new collectivity, as a platform for proletarian culture and as the core of class struggle. Around a hundred workers' clubs and palaces of culture were built between the late 1920s and mid 1930s in Moscow and surrounding regions (Fig. 8). The architecture of these clubs embodied the layered complexity and became a platform for formal and spatial experimentation, and eventually evolved into distinctively new building typologies that resembled Modern ideas of flexible spaces. The clubs were polyfunctional and had spaces for personal reflection and quiet rest, game rooms and classrooms and so on, with special emphasis on spaces for collective activities. Strategic adjacencies and partitioning mechanisms were equipped to create spaces that could perform both separately and together. If reduced

2b Narkompros delegates at meeting for reform of higher education held at Moscow University in the summer of 1918. From left: Professor M.A. Reisner, Lunacharsky, Professor P.K. Shternberg, M.N. Pokrovsky

Fig. 4: Narkompros delegates at meeting
(Source: Fitzpatrick, 1970)

to a three-dimensional diagram, many workers' clubs would resemble core design exercises of the 'Space' course in *VKhUTEMAS*, whose experimental pedagogy was instrumental in articulating the formal grammar of Modern Architecture. These clubs later evolved into new typologies like communal housing, palaces of labour, administrative buildings and community kitchens, which acted as prototypes for many modern public projects around the world (Bokov, 2017, Architecture-history, n.d.; Vronskaya, 2017; Wolfe, 2017; Paramonov & Scheffler, 2016; Lohse, 2017).

Functionalism accompanied by maximum standardisation was employed in Soviet Russia during the first five-year plan (1928-1932) to solve housing issues. In order to address the USSR's post-World War II housing shortage, prefabrication and standardisation of area per person for each space was found to be particularly favourable and helped in speedy construction. Low-cost, concrete panelled or brick, 3-5 storey apartment buildings called *Khrushchyovka* (Fig. 9) were widely adopted for solving housing problems and caught the attention of people on an international level with its speed and scale of how the cityscape had changed through all of these constructions (A. Bazdyrev, 2015; Britannica, 2022).

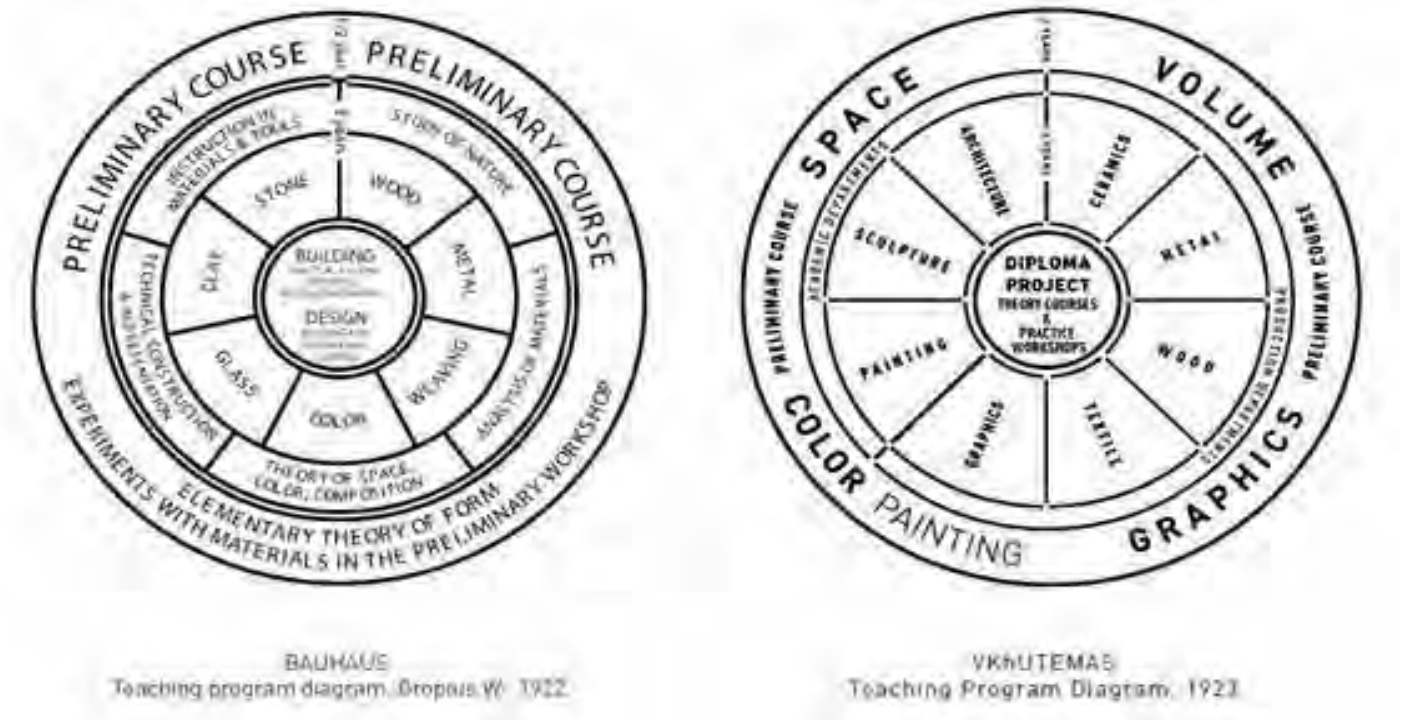
The art and architectural developments in the USSR of the 19th century would be clearly indicative of the influence of Communism on them, especially the conscious attempt to split away from classical styles during its developmental stages. Literature and case studies of those developments showed how those changes, that were brought about to act as a tool for enacting Communist ideology, turned out to have a huge impact on architectural styles that followed.

5. Communism and Modern Architecture

Architecture could have taken an entirely different route without the influence of Communism. During the early periods of Communism, the architects' community in general was consciously marking itself away from the structural developments and new construction materials, by viewing (looking down) those as just tools to be used to reach the higher platform of classical architecture. They feared that if the resulting 'building construction practice' of all these new materials and construction techniques emerged as a new architectural style then it would destroy what they defined as beauty and virtue in architecture. Like the many railway station buildings which were made possible only by the structural spanning capabilities of modern materials, only to be finally covered by a classical style for it to be termed worthy of 'architecture'. The famous protest by architects against the Eiffel Tower is a good example for this.

The artistic notions that Communism put forward were far different from what had existed then. Abstract art, which was characterised by simpler forms and represented the underprivileged class,

Fig. 5: Wassily Kandinsky and his students in advanced art workshops in Moscow (1918)
(Source: Wassily Kandinsky and His Students in Advanced Art Workshops [Vkhutemas] in Moscow - Galart, 2022)



BAUHAUS
Teaching program diagram. Dropsis W. 1922

VKhUTEMAS
Teaching Program Diagram. 1923

Fig. 6: Educational Structure Comparison: Bauhaus & VKhUTEMAS
(Source: (C-MAP, n.d.)

replaced Pictorialism, which was attributed with ornamentation and represented the privileged class. This shift resulted in similar art movements across the world and was reflected in architecture as well. Suprematism was the most notable out of those and influenced the famous Dutch abstract art movement De Stijl. Constructivism, a 'leftist' modernist movement of the time, advocated important aspects of Modern architecture as its features; such as utilitarianism, industrially created structures and major break with earlier architectural traditions. Soon many architects on the other sides too realised the futility of blindly following the past and realised the need to acknowledge the benefit of modern construction materials, techniques and above all the necessity of the emergence of a new style.

As part of the Communist ideology to uplift the Proletarian class, institutional reforms were brought about to open up opportunities in Art and Architecture. *Narkompros* Commissariat was set up as a department to solely take care of public education and culture, under which *SVOMAS* (the Art education school) was established. In fact, the well-known Bauhaus school, the pioneering school for Modern Architecture, took *SVOMAS* as the reference model during its founding. *SVOMAS* was superseded by the '*VKhUTEMAS*' art and architecture schools, which completely changed the trajectory of architectural education. The institution was the first to establish the curriculum course 'Space', which marked the start of architects conceptualising work in 3D by creating models. Thus, Communism can be credited with having a significant influence on the development of architectural education and the ideas that came to define modern architecture.

The Communist government gave importance to *NoviyByt* (new collective lifestyle) and the planning of *Sotsgorod* (Cities of Utopia) in the making of the New Proletariat state. Workers' club '*Rabochiyklub*' was the new important typology in Soviet Russia and was the core of Proletarian culture. It underwent several experimentations in form and space similar to the Modern ideas of flexible spaces. These clubs ultimately developed into new typologies like communal housing, palaces of labour, administrative buildings and community kitchens that served as models for numerous modern public projects around the globe. Besides, the pace and scale of the cityscape's transformation as a result of the standardisation, prefabrication, and cost-cutting of housing options, fascinated people all over the world.

6. Conclusion

The above-mentioned Art and Architectural developments of the USSR may have been devised for implementing Communist ideology, but as elaborated above, they gradually developed in such a way as to have a huge impact on the development of the modern architectural movement. These political strategies which aimed at creating the

Fig. 7: A Classroom at VKhUTEMAS with Space course models *(Source: Locke, 2022)*

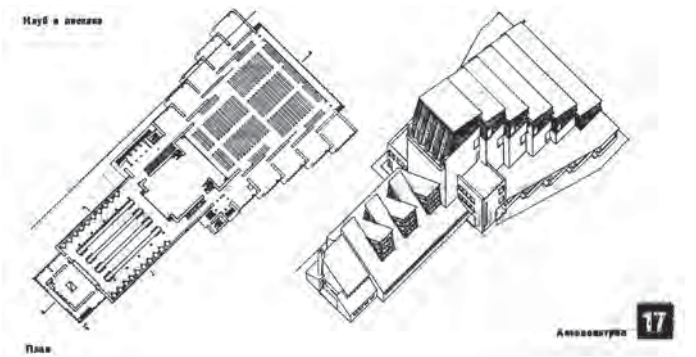


Fig. 8: Nikolay Ladovsky, Kostino Workers Club, Stroitelstvo Moskvy (1929) *(Source: Bokov, 2017)*

Utopian Proletarian Society played a very crucial role in creating an architectural style which is inclined to innovation and re-imagination of how humans would live, instead of blindly following the traditional classical styles based on symbolic representation. The architects' community of that time was a little reluctant to embrace modern building materials and techniques, perhaps genuinely, due to the traditionally inherited view of beauty and virtue in architecture. On the other hand, leftist architects were also, perhaps genuinely, overenthusiastic to topple anything that was bourgeois and its architecture. The new style gave importance to functionality over aesthetics, rejected ornamentation and stood up for minimalism. It is evident that the so called 'pioneers' of Modern Architecture were actually influenced by similar movements that were initiated in Russia, especially the idea of rejecting ornamentation and holding fast to simple geometric forms for the buildings, similar to the discarding of practices like the enveloping of utilitarian buildings in classical architecture and replicating classical styles with modern materials. These occurrences do substantiate the argument that Communism is one among the many causal factors that resulted in Modern Architecture. The study is also an insight of how some factors like the political system can have a huge influence on architectural decisions, especially during dubiety (Fig. 10).

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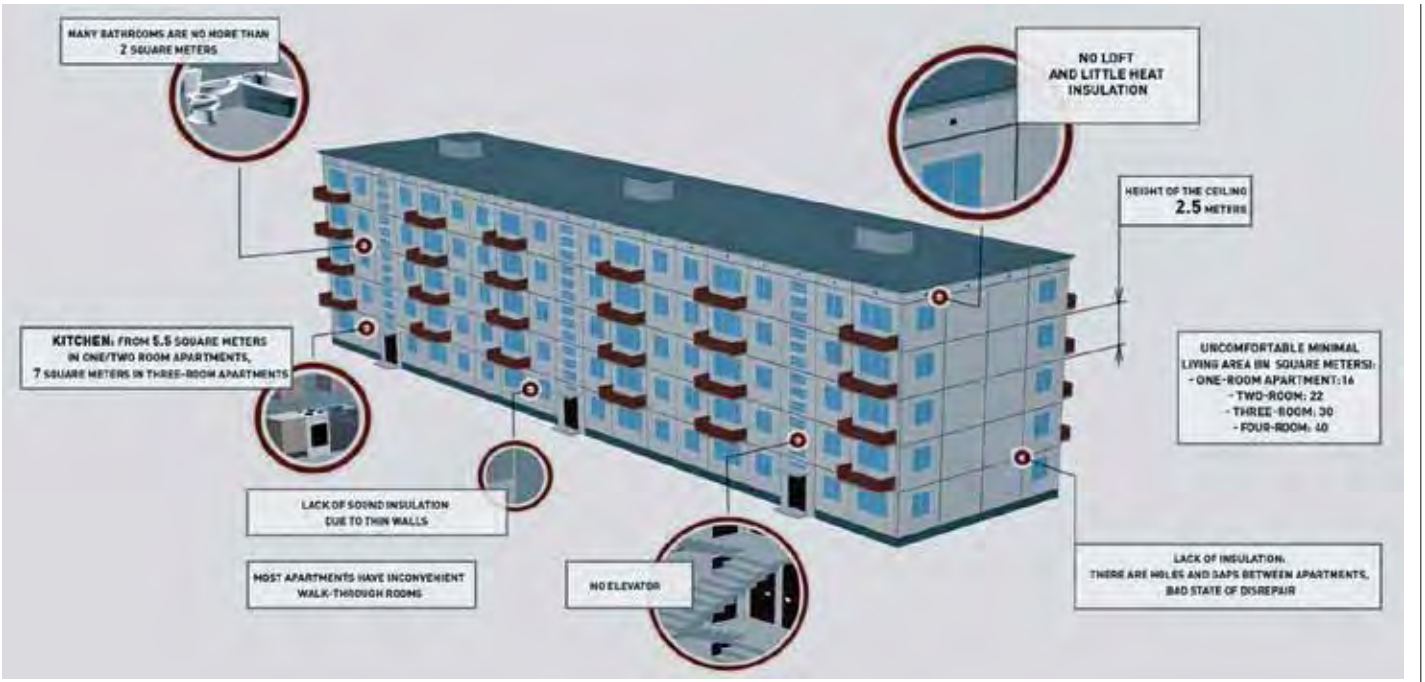

Fig. 9: A typical Khrushchyovka
(Source: The Condemned: Living in a Khrushchyovka, n.d.)

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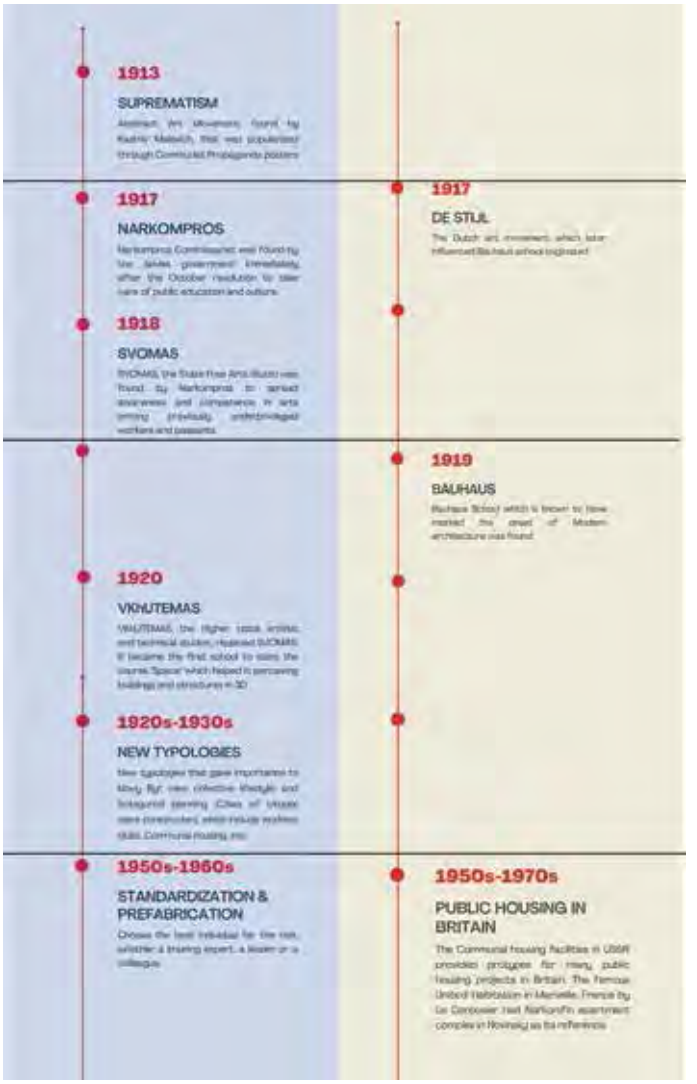

Fig 10: Timeline comparing Architectural developments in USSR and the evolution of Modern Architecture in Europe
(Source: Author)

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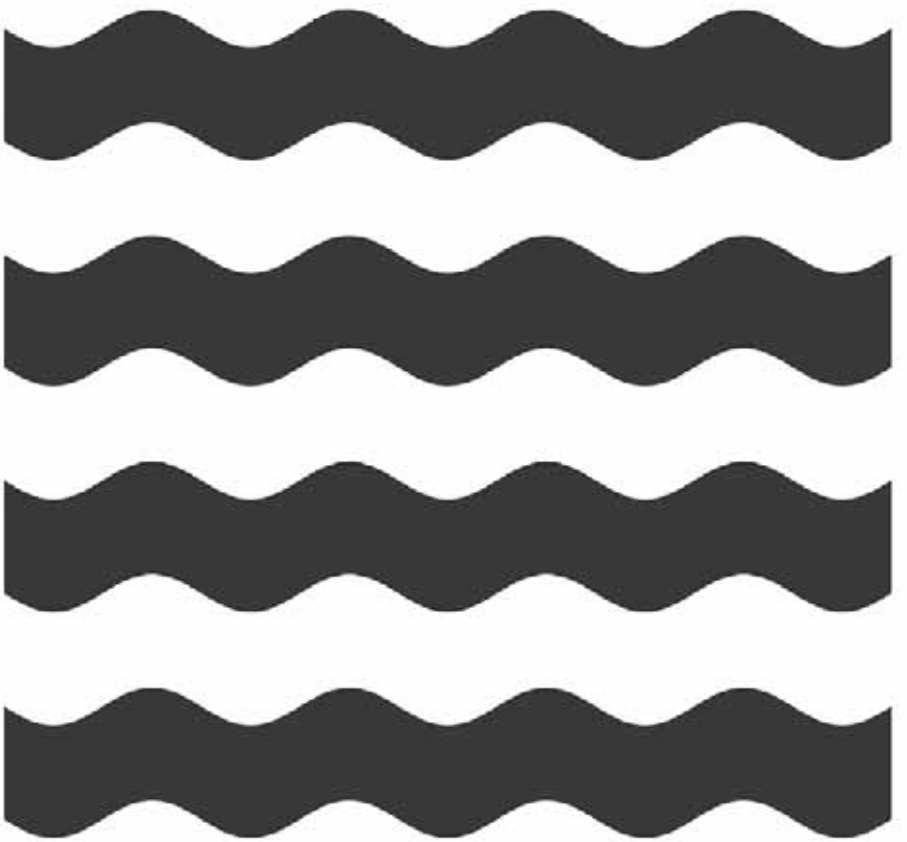
Evolution of Goa's Architecture through Architects' Homes

By Ar. Raveena Deshpande & Ar. Fernando Velho



Abstract
Architecture is a client collaborative profession. Often, architects hold back on proposing risky experimentation/ their unfiltered ideas owing to cliental constraints. This holds back architectural expression. This article is motivated by an interest in how architects design for themselves, i.e., their homes, to understand their inherent expression. Moreover, it assesses how architectural thought, and thus formal residential architecture, in Goa has evolved since Goa's liberation (1961) by studying architectural thought through architects' homes across time in Goa. The study concluded by discovering that Goa's architecture has evolved from being ideology-centric to being a reaction to late capitalistic forces coupled with popular influences.

1. Introduction

Often, architects are bound by the will of their client, reluctantly sacrificing design choices in order to suit clients' needs (Yilling, 2019). This changes when architects build their own homes. They have a free hand to explore creative ideas without cliental restriction and create spaces that embody how they design and what they stand for. Thus, architects' homes represent the architectural thought of the architect.

Since architecture is unique to a time and place (Roaf & McGill, 2018), architects' ideologies and thoughts are bound to evolve with time. Many architects, in their own houses, experiment with forms, plans and structures which they would otherwise not do for the risk of losing a client. (Wagner & Schlegel, 1974). Architects' homes provide insight into architectural thought of a time and place and could be sources of architectural evolution when studied over a period of time.

This study analyzed nine homes which architects built for themselves and explored architects' most inherent ideas in the context of Goa, India. The homes studied were built over a period of 60 years. They were divided into three chronological categories to trace the evolution of inherent architectural thought in Goa from Goa's Liberation in 1961 to the present day.

2. Aim and Objectives of the Study

The study aims to analyze homes architects design for themselves across time with the intention to trace the evolution in residential architecture in Goa

To achieve the aim, the following objectives have been achieved:

1. To understand cases where homes master architects build for themselves over time and establish that such buildings reflect evolution of architectural ideologies/ experimentation.
2. To identify parameters for studying such homes
3. To study architects' homes in Goa in three chronological categories (architects who graduated from college: before 1982, 1982-1995 and after 1995.
4. To analyze evolution patterns in residential architecture in Goa

3. Methodology

The article has a tripartite objective:

a) dividing the homes in three chronological categories (before 1982, between 1982 – 1995 and after 1995)
b) to identify parameters for studying such homes
c) to analyse evolution patterns in residential architecture in Goa.

The study was carried out in two phases. The first phase included studying homes master architects have built for themselves and establishing the merit of studying such buildings. Additionally, this segment of the study understood how the homes of architects and architecture, in general, should be studied. The first phase was accomplished through a literature review (secondary data) to create a data analysis framework.

The analytical framework was applied to the physical inspection and subsequent analysis of the homes of nine architects in Goa. This comprised the second phase of the study. The architects and homes selected for the study were categorized into three chronological categories since Goa's Liberation in 1961 to assess how architectural thought has progressively evolved over time.

This was taken further by inquiring about evolution in Goa's architecture, through discussions with faculty members at Goa College of Architecture (GCA), the dissertation guide, and the architects whose homes were studied. A comprehensive narrative of evolution in Goa's architecture was prepared alongside a timeline of when each of the inspected nine homes was built. This helped evaluate whether/how the architects reflected/reacted to the architectural scene of Goa at the time of building their home (refer to Figure 1).

4. Literature precedent and findings

Linsy Raaffels' master's (2016) and co-authored doctoral thesis (Bertels, et al., 2020) on architects' homes in Brussels served as literary sources to

establish the relevance of the study. They categorize the structures architects build for themselves into two types:

1. A model project- one that encapsulates all the architect's ideas. Examples of such projects are Philip Johnson's *Glass House* (1949) and B.V. Doshi's *Sangath* (1981).

2. An architectural experiment- one where the architect pushes boundaries he/ she hasn't been able to in other projects owing to cliental restriction. Examples of such projects are Anupama Kundoo's *Wall House* (2000)- a material and lifestyle experiment- and Frank Gehry's *Santa Monica House* (1979)- a stepping stone to discovering his architectural language.

A background study into the homes of the Masters across time paints a clear picture of the progression of architectural ideas from the mid-1900s to the 1980s.

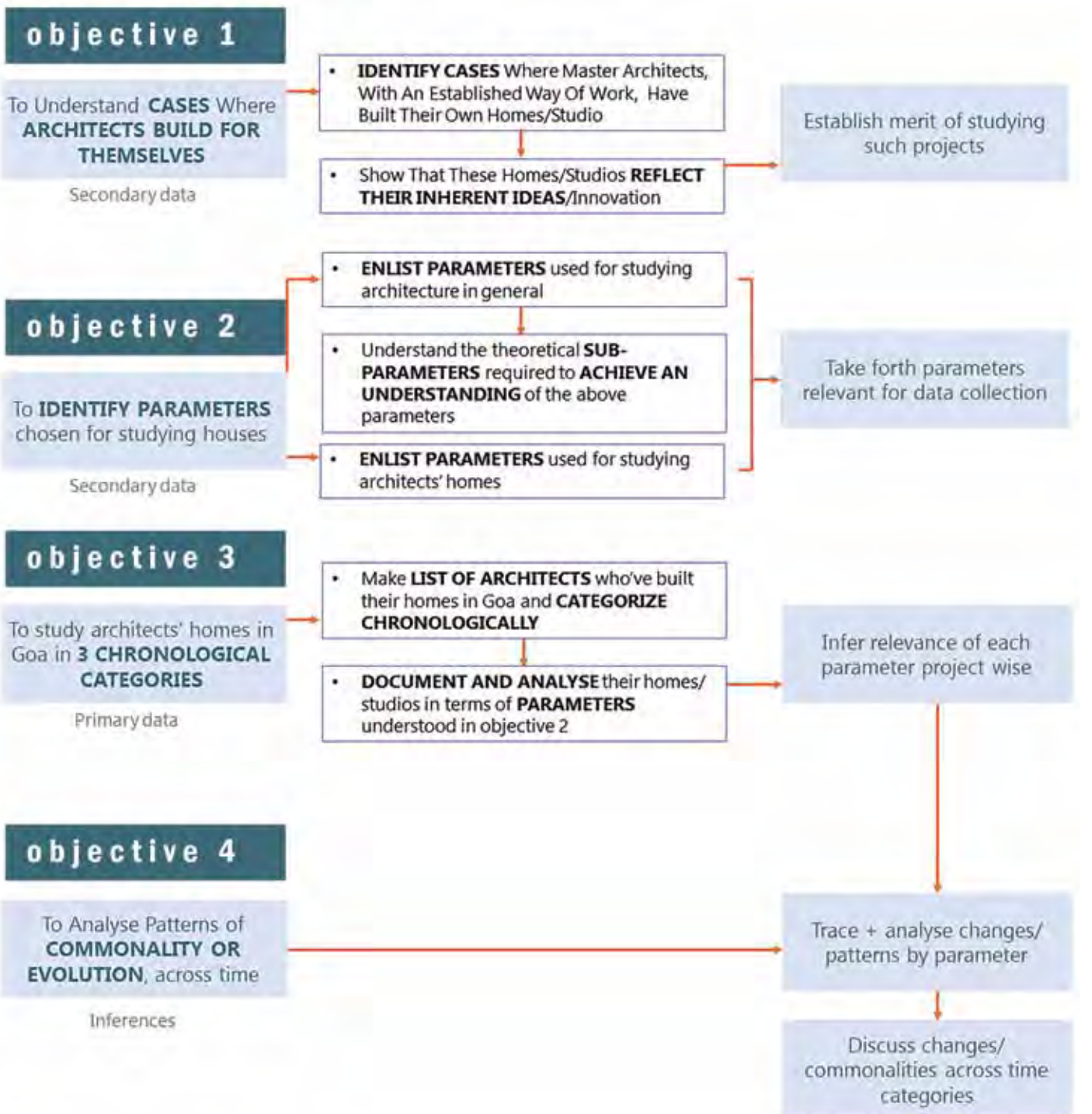


Figure 1: Methodology Diagram
(Source: Authors)

One sees the evolution of architectural thought from modernism to postmodernism to deconstructionism through architects' homes. This sets a precedent for this article. Here, the progression of ideas shown in Table 1 has been applied to Goa where architects' homes have been studied across time to evaluate progression in architectural thought.

Furthermore, the research found literature precedent and parameters to analyze architectural work and thought diagrammatically in literature through *Form, Space, and Order* (Ching, 1979) and 'An Analysis of Form' (Baker, 1996).

5. Introduction to Study Area

For this research, case studies of homes, built by architects for themselves since 1961, were conducted. The cases were divided into three chronological categories on the basis of when the architect graduated from undergraduate architecture school (refer to Table 2), considering that their time in school and architectural education would shape their thought significantly.

- *Category 1* includes architects who graduated before 1982. The Goa College of Architecture (GCA) was established in 1982, prior to which architects studied outside the state and returned only to practice. This category evaluated the homes of such architects.
- *Category 2* comprises architects who graduated between 1982 and 1995- a combination of architects having studied at G.C.A, and a few who studied outside Goa.
- *Category 3* covers architects who graduated in 1995 onwards-all of whom have studied at G.C.A. The year 1995 was taken as a limit considering that economic liberalization in India took place in 1991 and would take students of architects 4 years to go through architecture school till they graduated, and the effects of liberalization were brought into practice.

6. Analysis

Three homes from each category were analyzed, in detail, at four levels described below. An example of the summary of analysis of Rajni and Roheet Hede's home is has also been provided, with respect to: (refer to Figure 2, 3)

Table 1: Progression of Architectural Ideas seen in Master Architects' Homes over time
(Source: Compiled from literature review by Authors)

Architect	Year of Birth	Personal Homes	Completion Year	Movement
Luis Barragan	1902	Casa Barragan, New Mexico	1948	Modernism
Philip Johnson	1906	Glass House, New Canaan	1949	Modernism
Robert Venturi	1925	Vanna Venturi House, Philadelphia	1964	Post Modernism
Frank Gehry	1929	Gehry Residence, Santa Monica	1978	De Constructivism

Table 2: Time-Wise Categories of Architects Based on when they graduated
(Source: Authors)

Category 1		Category 2		Category 3	
Architects who graduated before 1982		Architects who graduated between 1982-1995		Architects who graduated after 1995	
Name + Year of Graduation	***Year of Home Completion***	***Name + Year of Graduation***	***Year of Home Completion***	***Name + Year of Graduation***	***Year of Home Completion***
Bruno Souza (1956)	1982	Ini Chatterjee (1987)	2018	Roheet Hede (1995)	2020
Gurudutt Sanzgiri (1967)	2020	Milind Ramani (1989)	1995	Swapnil Valvatkar (2001)	2018
K.D. Sadhale (1968)	1979	Pritha and Sunil Sardesai (1989)	2015	Ankit Prabhudesai (2011)	2015

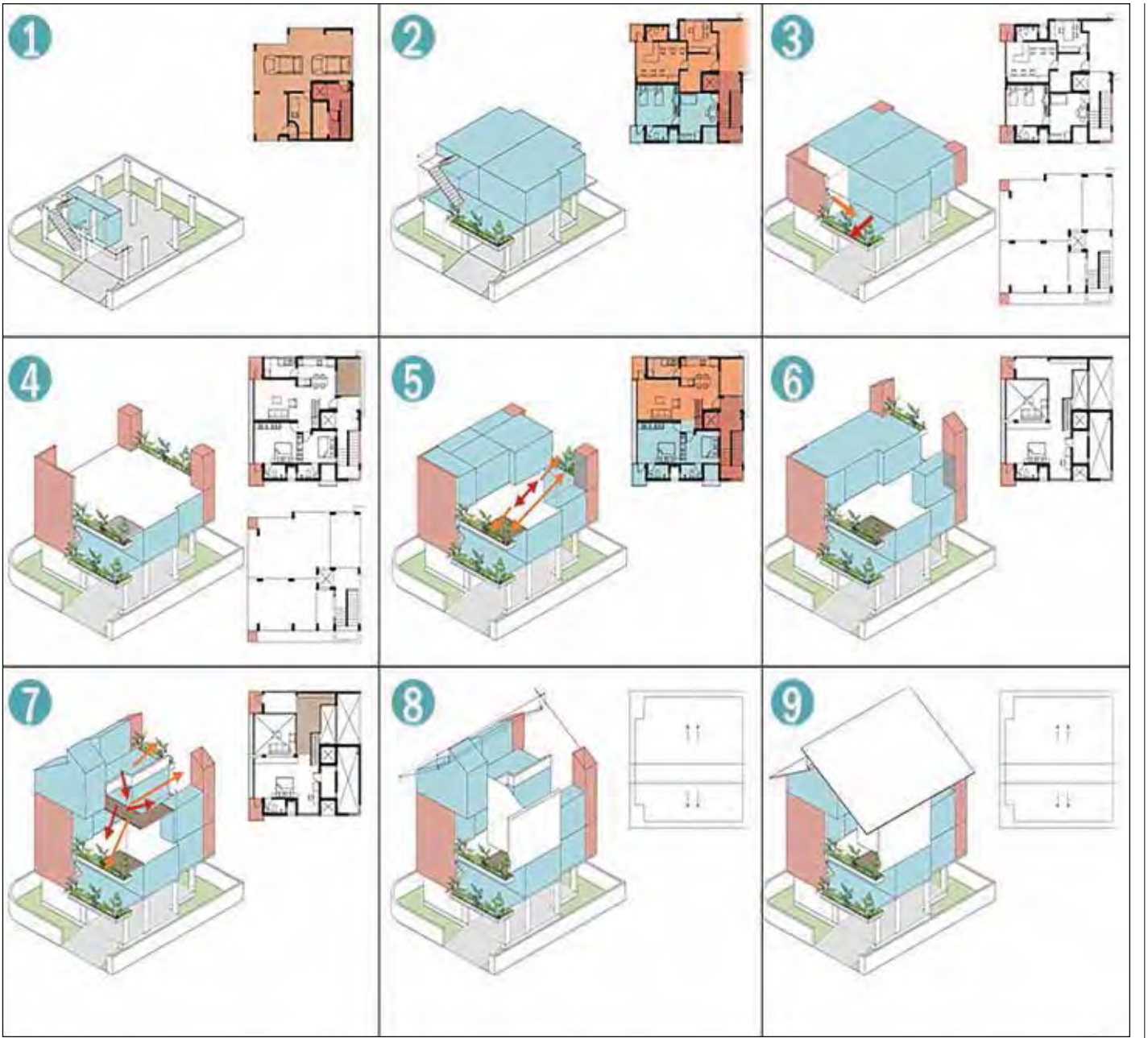


Figure 2: Summary of understanding the design of Roheet Hede's home
(Source: Authors)

1. Understanding the design, massing, connections, and design intent
2. Understanding detailing, material, planar composition, structure, and other specifics
3. Understanding the home in the oeuvre of the architect and evaluation of how inherently it reflects their architectural beliefs/ experiments (refer to Figure 4)
4. Understanding the home in terms of parameters used to evaluate architecture through an established framework from literature- D.K. Ching's Form, Space and Order (1979).

7. Discussion

Upon studying the nine homes across three chronological categories, the study found a change in the architects' approach to design from the late 90s to the early 2000s. While these changes are progressively evident in the design of each home, this section discusses why these changes took place. It discusses developments in Goa that influenced this evolution in the architectural scene step by step. For ease of explanation, the description is divided into three 20-year- long phases: *Phase 1* (1960 – 1980); *Phase 2* (1980 – 2000); *Phase 3* (2000 – 2020).

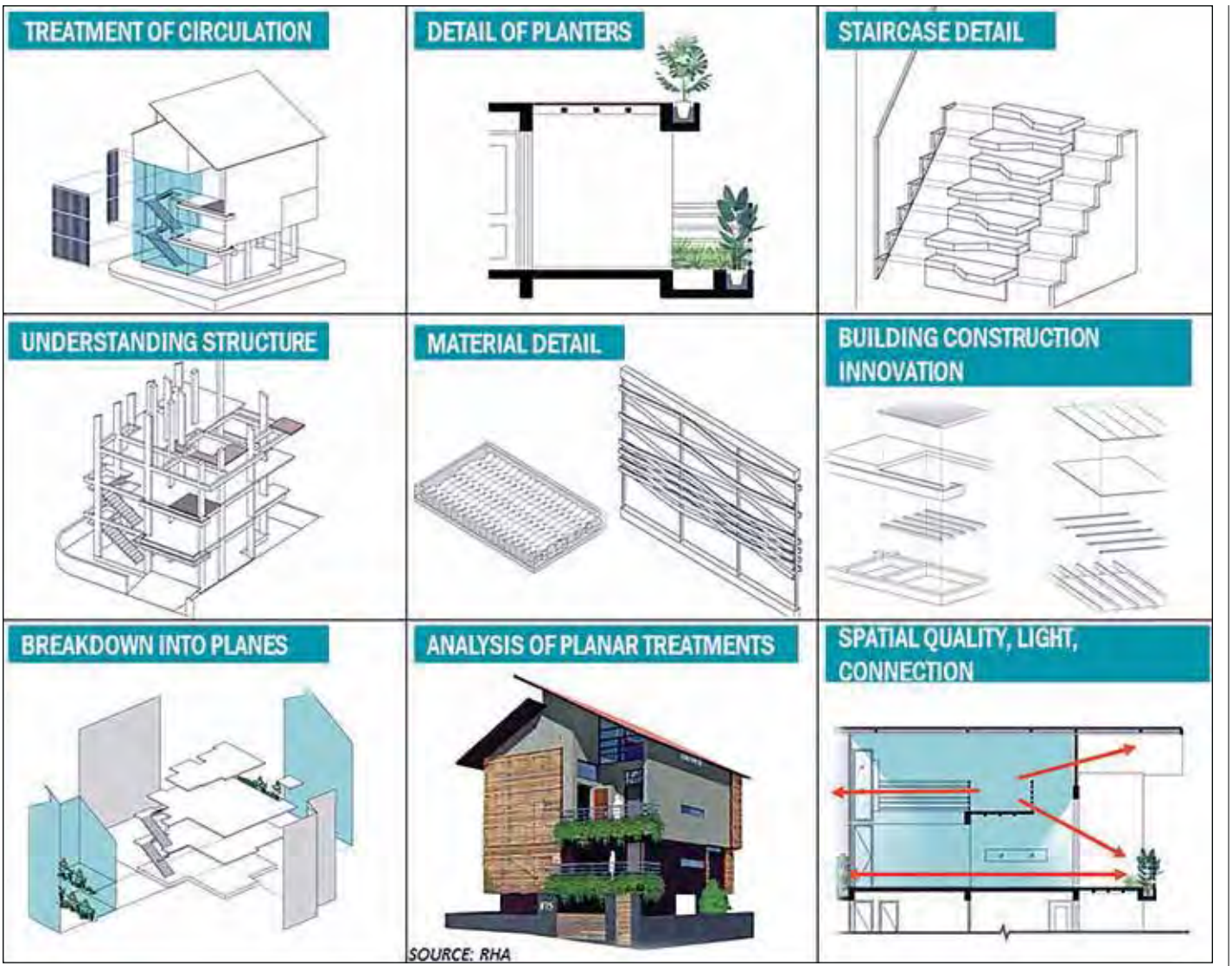


Figure 3: Summary of understanding specifics of Roheet Hede's home
(Source: Authors)

7.1 Overview of phases

***Phase 1* (1960-1980)**

This phase saw the shift from pre-liberation, engineer-driven architecture to one based on ideology that dominated Goa's architecture at the time. The latter was brought in or developed by architects who studied outside the state (category 1), before the establishment of the Goa College of Architecture (refer to Figure 5).

- *Status quo pre-liberation*

Goa was liberated from Portuguese rule in 1961. During the colonial era, Goa's predominant house form was the Indo-Portuguese house - the Goan home with Portuguese influences. Leading up to liberation and shortly after, Goa did not have a college of architecture. There were no architects other than Ar. Pissurlekar at the Public Works Department (PWD) - who designed all large-scale public buildings (Sanzgiri, 2021). At the time, house plans were drafted by PWD draftsmen or engineers and constructed by local masons from Sanguem, Pernem talukas (Gaonkar, 2021). The Goa, Daman and Diu Town and Country Planning Act was in effect till 1979 (Khandeparkar, 2020). The influence of Art Deco in Goa was fading (Vaz, 2009).

- *Emergence of Formal Architecture in Goa*

The 1960s saw locals move outside Goa to study architecture. They studied at the Sir J.J. College of Architecture in Mumbai or in other parts of the world. At the time, Modernism in architecture was a popular movement which greatly influenced the architects. They moved back to Goa and practiced Modernism. Modernism in Goan architecture can be seen in architect Ralino De Souza's home as early as 1964 (Lawrence, 2013) and Bruno Souza's Casa de Povo built in 1960.

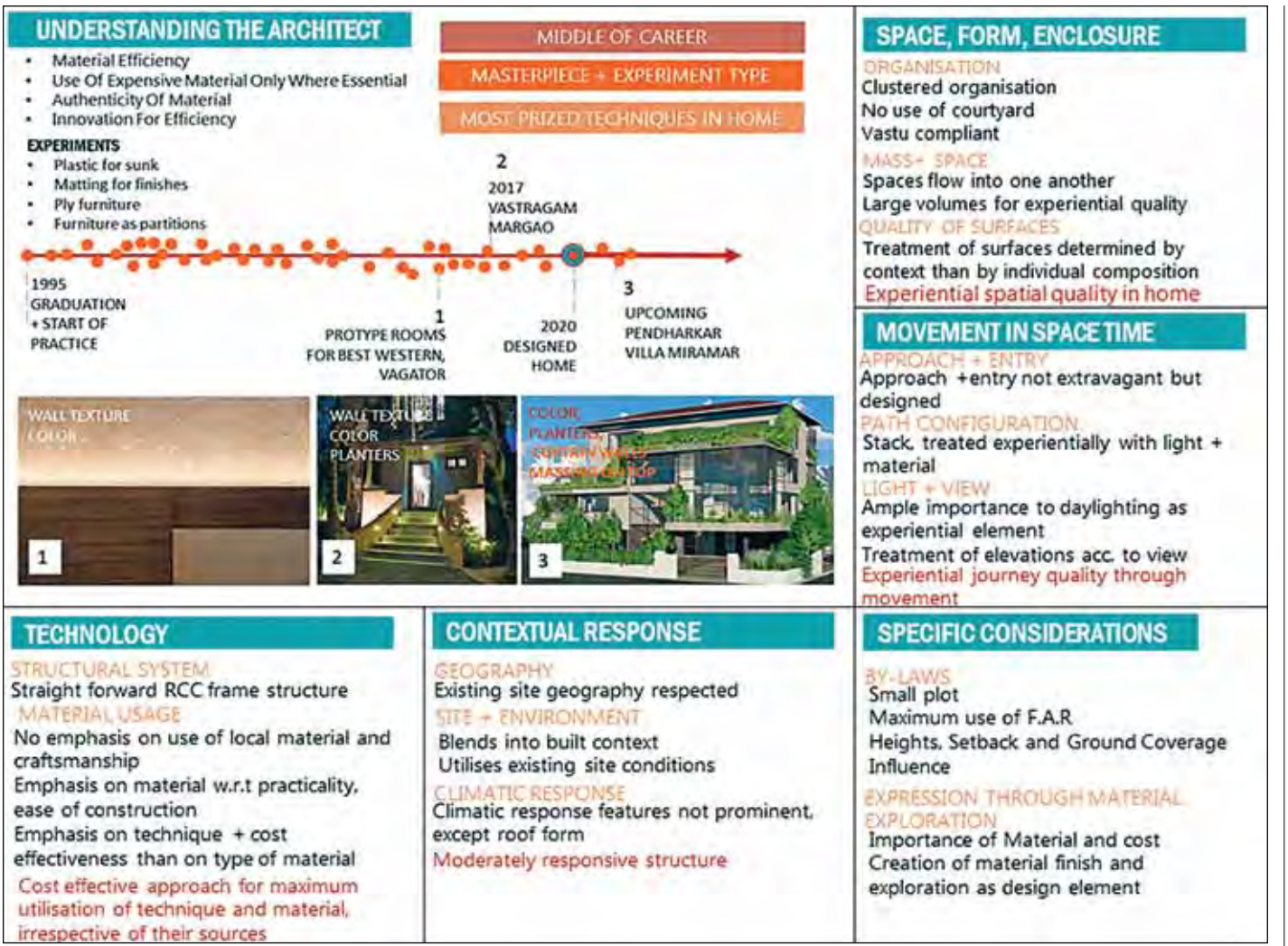


Figure 4: Summary of Architect's Oeuvre with parameter-wise analysis of Roheet Hede's home
(Source: Authors)

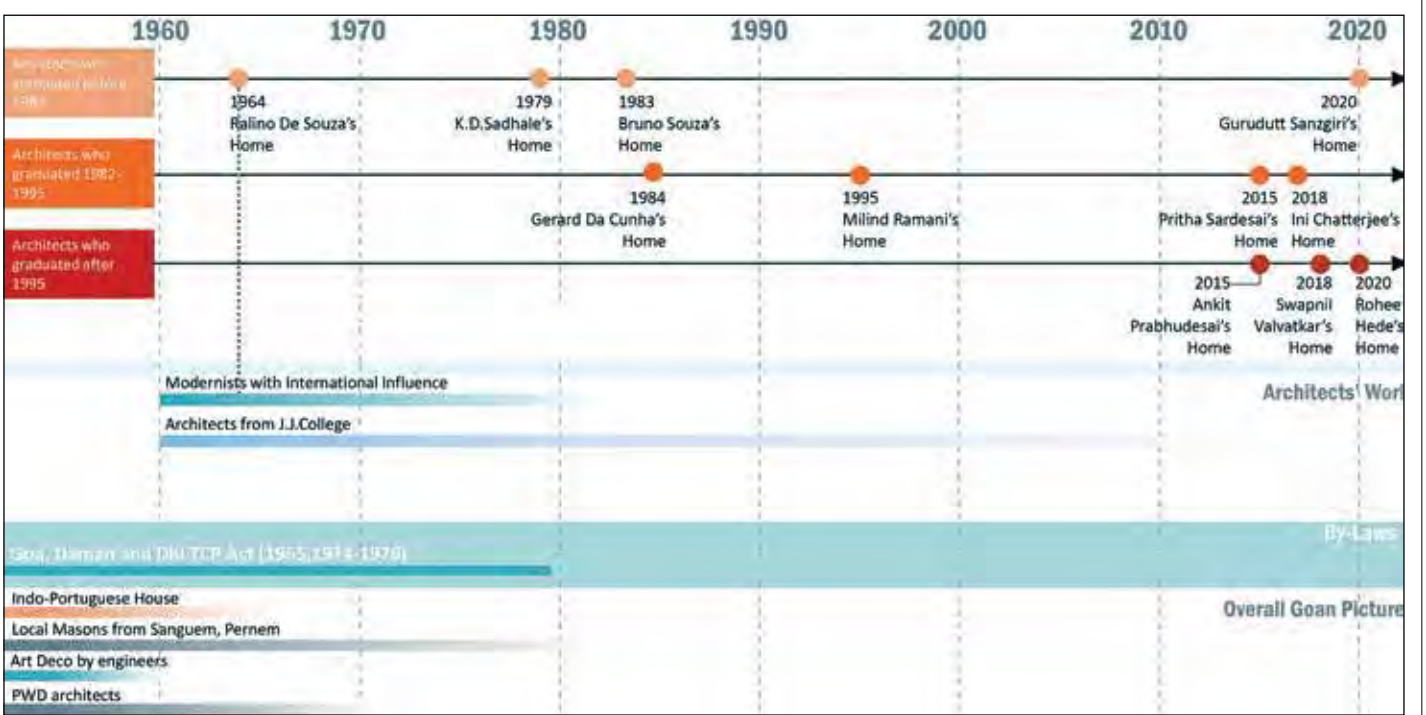


Figure 5: Phase 1 in Goa's architectural evolution post-Liberation
(Source: Authors)

Phase 2 (1980-2000)

This phase showed the popularization of post-modernism in India, and the world, which resulted in the celebration of regional character and expression in Goa. This in turn popularized exposed laterite as means to express regional identity in Goa (refer to Figure 6).

Goa, till the late 1970s, saw numerous buildings by architects who had studied outside the state and moved back to practice Modernism. In the rest of the world, however, the early 70s saw a new architectural movement gaining prominence. Defined as 'post-modernism' only in 1984, 'the movement/ ideology rejected the placelessness of modernism' (Jeffries, 2011) and strove to incorporate elements that rooted architecture to a place, giving it an associative ornament.

At the outset of the 1980s, Ar. K.D. Sadhale (2021) built his own home in 1979. In an attempt to resist modernism, Sadhale turned to traditional revivalism. He celebrated the local by using exposed laterite and traditional ornamentation. Around the same time, Ar. Gerard da Cunha built his own home in 1983. Having worked under Laurie Baker, da Cunha used exposed brick, laterite, and cost efficient material (Karbotkar, 2020).

In the wake of international postmodernism and local revivalism, Goan modernists began to contextualize their work. There was a rise of traditional elements in their modernist buildings as seen in Bruno Souza's home built in 1983. This demand for more labour was met by an influx of workers from Dharwad and Bijapur in Karnataka. In the later 1980s, new building By-laws (Red Book, 1989) were established by the Planning and Development Authority.

Phase 3 (2000-2020)

This phase explains how post-modernism and late capitalist forces liberated architecture from traditional ideology. Goa's architecture needed to respond to these forces. Architects broke away from ideological expression. Instead, architecture today is being expressed as an efficient and aesthetic response through the most optimum amalgamation of influences, ideas, and ideologies (refer to Figure 7).

- *Land price and shortage of skilled craftspersons*

In the late 1980s, land prices began to increase. This led to commercial demand for high-rise buildings as opposed to prevalent G+1 structures (Sanzgiri, 2021). In the mid-1990s, there was a shortage of skilled traditional crafts-persons due to the shift in economy from being trade centric to being profession centric (Velho, 2021). These developments made practicing architecture with a local character difficult and regional influences began to dwindle (Sardesai, 2021). These new conditions of demand for maximum utilization of land owing to its high price and difficulty in regional expression due to the lack of craftsmen necessitated more technically, structurally, and climatically efficient approaches to architecture. Ar. Milind Ramani's home is an example of the technically efficient architecture that came about as a result.

- *Charles Correa*

Another factor contributing to the current situation was Charles Correa's *Kala Academy* which was completed in 1982. It had a large impact on Goan architects practicing today. Being in their schooling years during its construction, present-day Goan architects are highly influenced by Charles Correa's horizontality, and flow of spaces from Kala Academy. Kala Academy, too, uses an exposed lateritic finish to represent the local. Correa's influence is apparent in the homes of all architects from 'Category 3' who have built their homes in Phase 3 (refer to Figure 8, 9).

- *Tourism and Laterite*

The 2000s saw an increase in tourism and outstation clients demanding second homes in Goa. Outstation architects designing such homes were influenced by Gerard da Cunha's use of laterite for influential clients like Jimmy Gazdar. They began to use exposed laterite which soon became synonymous with Goan architecture.

- *Bye-laws as a Constraint*

The 2010s saw a set of new, stringent By-laws introduced through the Goa Land Development and Building Construction Regulations 2010 (Khandeparkar, 2020). These new By-laws allowed relatively less flexibility for architects to express design unless on large luxurious plots of land (Khandeparkar, 2021). The building By-laws in Goa are less flexible than in any other state (Prabudesai, 2021).

- *Resultant Architecture*

Homes of contemporary Goan architects show that they express regional character through the lateritic cladding. More recently, architects explore design through materiality (Roheet Hede, Ini Chatterjee's Home), some with underlying aesthetic influences of Correa (all GCA alumni homes). Goan architects are now constrained by the late capitalist forces of high land prices, shortage of skilled craftsmen, and stringent By-laws. However, architects today practice by amalgamating numerous influences, ideas, and ideologies rather than through a single ideology.

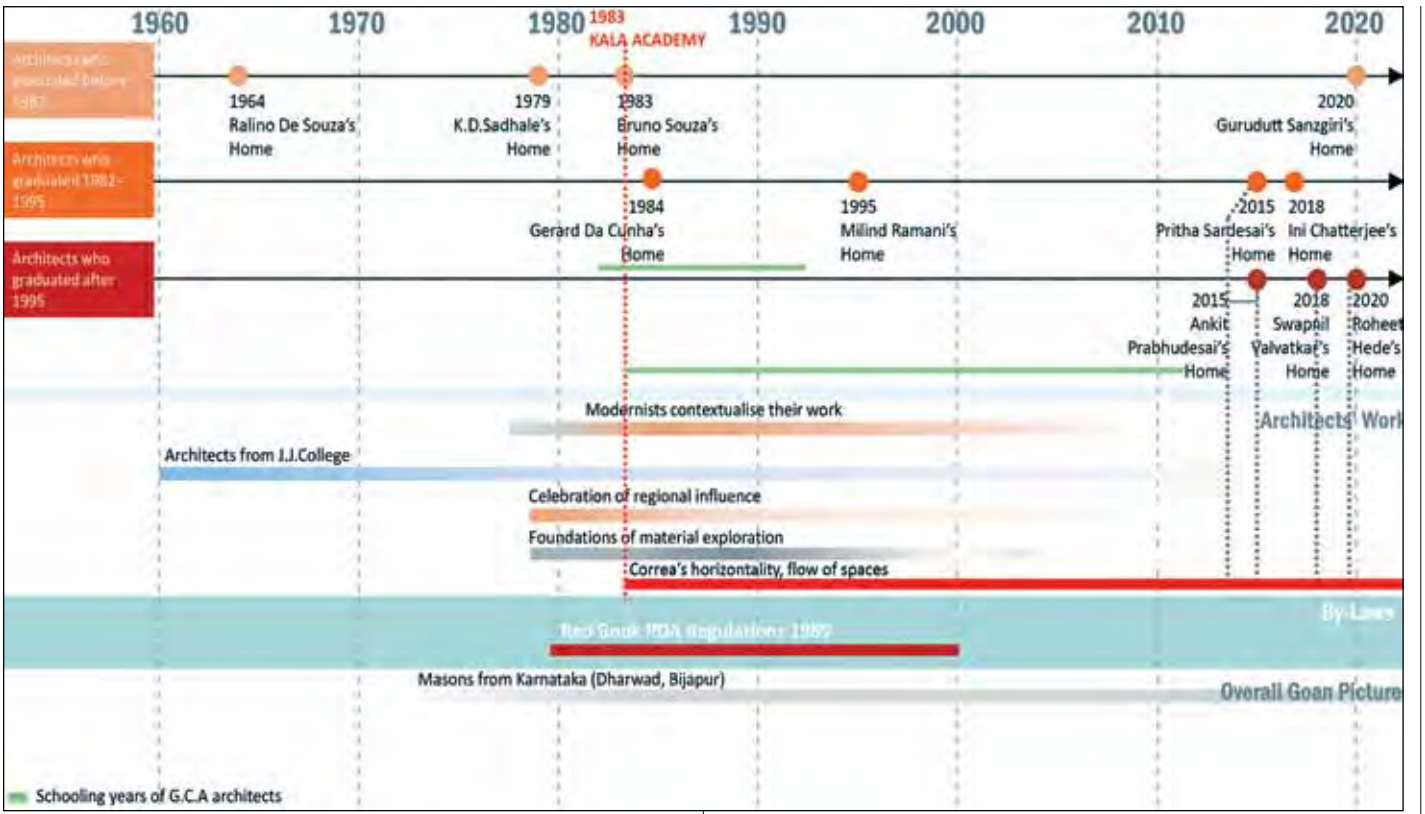


Figure 6: Phase 2 in Goa's architectural evolution post-Liberation
(Source: Authors)

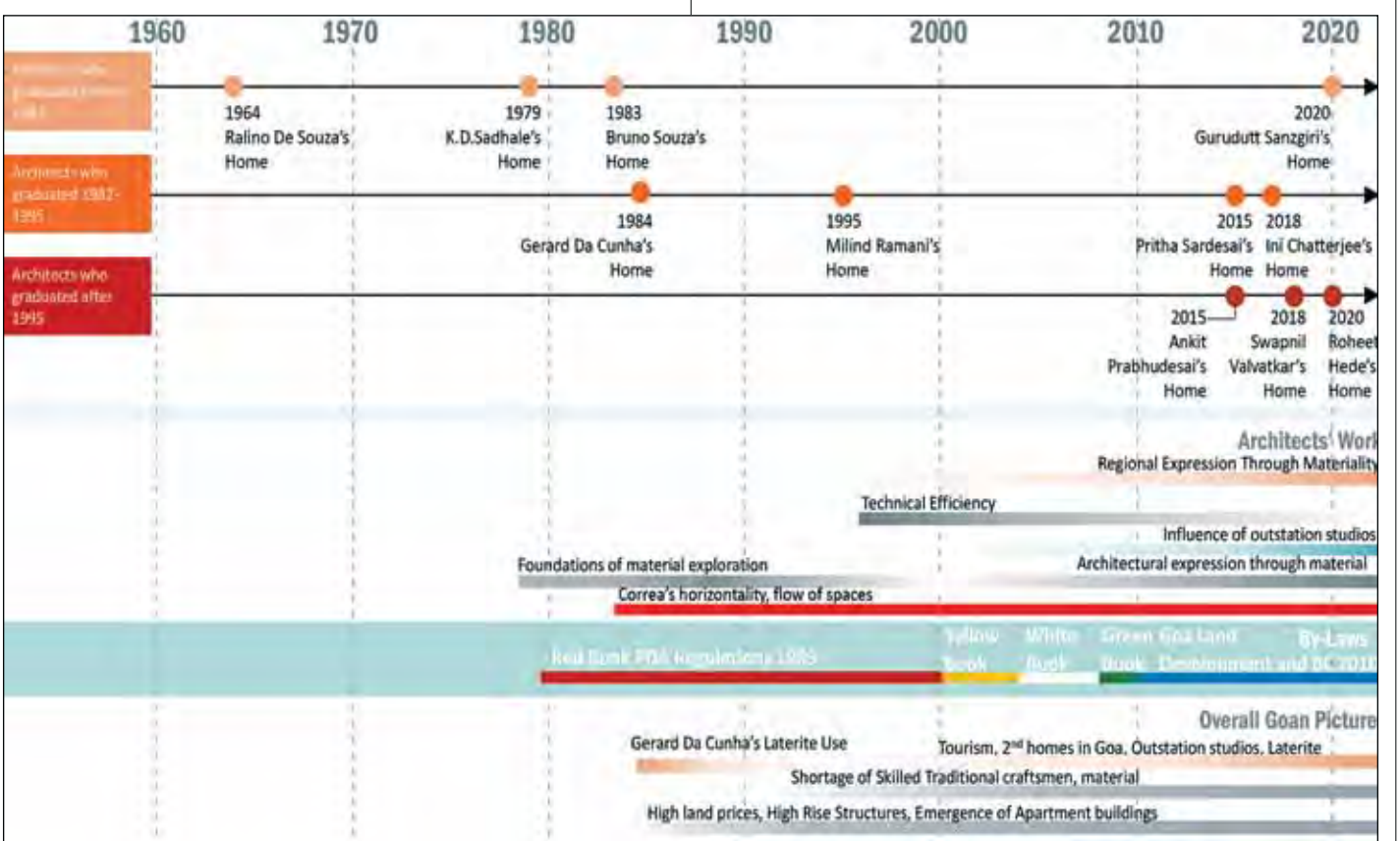


Figure 7- Phase 3 in Goa's architectural evolution post-Liberation
(Source: Authors)

Figure 8: Kala Academy, Panaji, Goa
(Source: https://kalaacademygoa.co.in/)

8. Conclusions

It can be seen from the study above that:

8.1 *A shortage of traditional craftspeople and rising prices of traditional construction materials have led to a change in architectural character and form. Additionally, increasing standardization of building practices due to globalization has led to architects expressing design through materiality.*

Earlier, architects could express regional building character easily with traditional crafts-persons and local building materials available. Since the early 1990s, there has been a shortage of skilled crafts-persons. Local building construction materials like timber, Mangalore tiles, and dressed laterite stone are difficult to source. These have been replaced by efficient industrial solutions like RCC slabs, steel, AC sheets, and concrete blocks. This change in material leads to a change in form and thus, building character.

8.2 *Goa's (formal, residential) architecture has evolved from being ideology centric to being a reaction to late capitalist forces coupled with popular influences.*

Goa's architecture has evolved over the last 60 years. Earlier, architects approached architecture with their inherent ideological convictions, beliefs, and concepts. These were fundamental to their design process and reflected in the built form. This is evident from the following homes: K.D. Sadhale's- embodying traditional revival-, Bruno Souza's, Ralino de Souza's - rooted in Modernism and Postmodernism, Milind Ramani's - symbolizing scientific and technical efficiency, and Gerard da Cunha's - based in eco-sensitive and waste and energy conscious design (refer to Figure 10).

8.2a Postmodernism + Late capitalist forces

Jean-François Lyotard's *The Post-Modern Condition* was published in 1979 - the same year that Sadhale built his home. This book established Post Modernism as a movement in architecture. Post-modernism is a 'movement/ideology that rejects the place-lessness of modernism' (Jeffries, 2011) and strives to incorporate elements that root architecture to a place, giving it an associative ornament. Indian modernists like Correa and Doshi adapted to using Indian metaphors and concepts of organization in their later works (Curtis, 1988; Kanekar, 2019). Similarly, Goan architects began to search for elements in design that could root their architecture to the local context - like the use of exposed laterite.

From the mid-1980s, late capitalist forces came into play. Land prices increased, requiring architects to make maximum use of the Floor Area Ratio (FAR) and build tall (Sardesai, 2021). With the economy shifting from being trade based to being profession-based,

Figure 9: Architects' homes in Goa influenced by Correa with horizontality and exposed lateritic finish
(Sources: Left- Prashant Bhatt, 2015; Right - Authors, 2021)

skilled traditional crafts-persons become scarce (Velho, 2021). The prices of traditional construction materials escalated, hence were replaced with cheaper, more efficient industrially produced solutions (Sanzgiri, 2021). In 2008, stringent building bye-laws came into play. These did not allow architects to have enough wiggle room to express design (Khandeparkar, 2021).

8.2b Resultant present-day architecture

Goan architecture is moving towards being a reaction to these numerous late capitalist forces. This is coupled with Goan architects having strong underlying influences (popular influences) of Correa's horizontality and flow of spaces (Sardesai, 2021; Hede, 2021; Prabudesai, 2021) as well of architects worldwide through internet exposure.

Literature precedent for influences of late capitalist phenomenon on architecture

The phenomenon of late capitalism and post-modernism affecting aesthetic production is universal. Fredric Jameson (1984), a post-modern theorist, argues that Postmodernism is the age of the end of traditional ideologies, and this can be seen in a new wave of aesthetic productions (Dino, 2011). Aesthetic production in the post-modern era has become integrated into commodity production - adapting to cater to capitalistic and popular media trends.

Present-day Goan architects do not conform to a single belief or ideology. Rather, they design flexibly. Today's architects are able to amalgamate various ideologies (from the masters), trends (resulting from post-modern urgency to produce numerous novel trends frequently (Jameson, 1984), innovations (in material and possibilities), and their own creative ideas in response to restraining late capitalist forces, byelaws, the material market, and societal demands.

9. Takeaway

Goa's architecture, when viewed through an architect's lens, is becoming increasingly governed by market forces, lack of traditional materials, labor, etc. However, as explained by Ar. Swapnil Valvatkar, treating every design constraint as a challenge, and responding to it with the best possible aesthetic and experiential design solution is what constitutes architecture in the present-day context. As a result of numerous constraints, architects do not conform to a single ideology. Rather, they amalgamate various ideologies, trends, and ideas as the best possible design solution to a given problem.

Figure 10: Architectural evolution from being ideology-centric to being a reaction to late capitalistic forces coupled with popular influences *(Source: Authors)*

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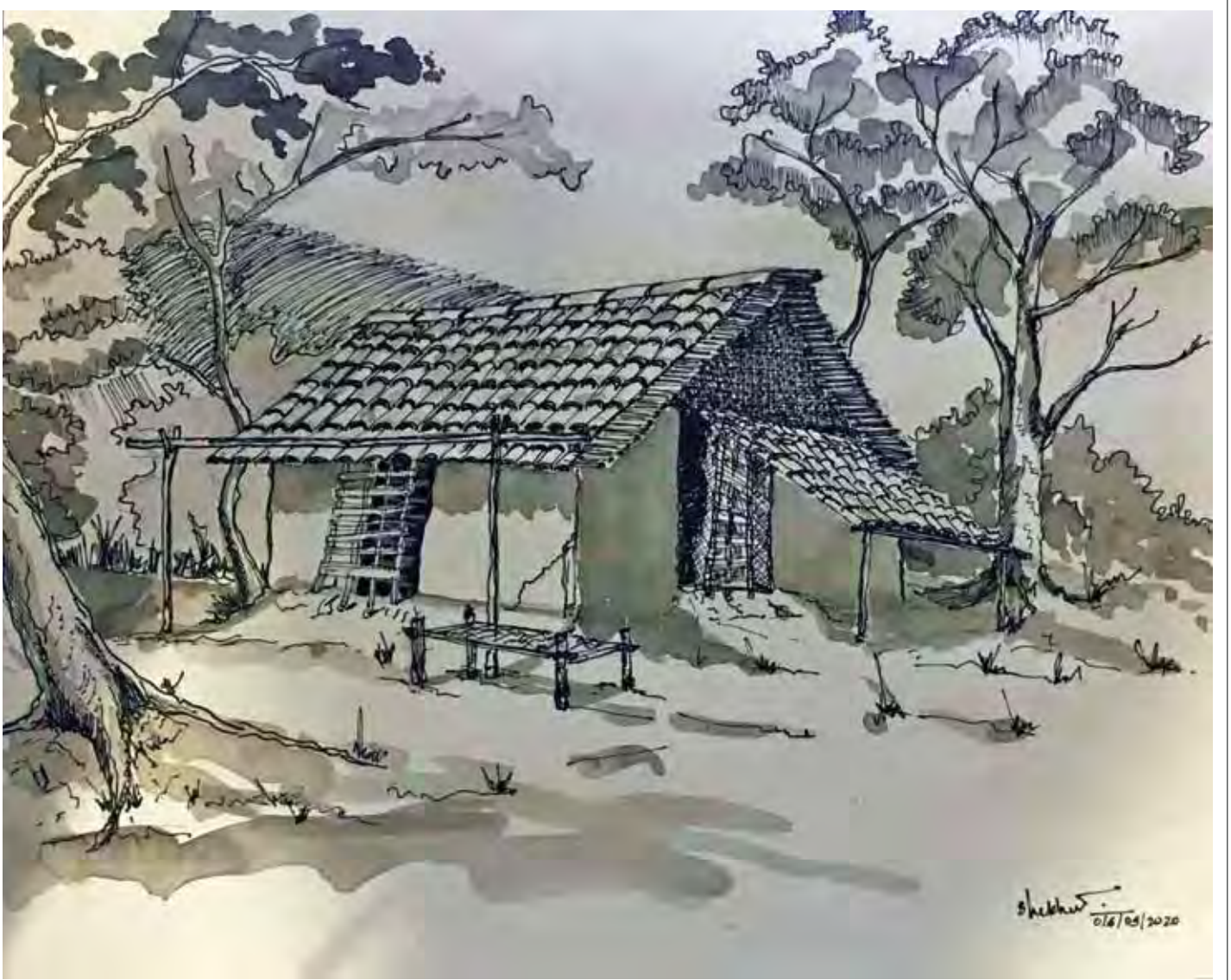
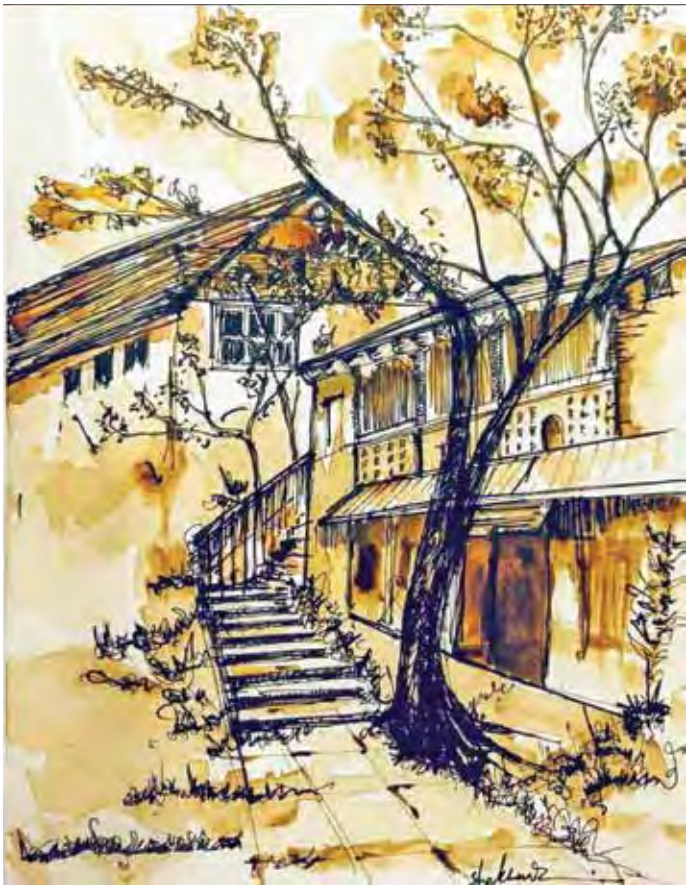
DEVELOPING MY PASSION TOWARDS DRAWING

By Ar. Shekhar Bagool

"I developed a liking towards this art form of drawing during my childhood days. It subsequently progressed with the drawing classes in school, where my drawing teacher observed my creative skill and encouraged me to pursue it further. Which I did. And here I am with this chosen collection of my creative work done with different mediums." According to me, drawing helps us to find interest in the mundane. Even when I



A Village House



House in Kolhapur

Bylane, Barcelona

Dean's Bungalow Sir JJ COA

am not drawing, I am constantly expanding my visual library, noticing the little nuances of everyday life - like the perspective of a building across the street or the proportions of a stranger's face. The mediums I work with are water colours, acrylics, pen and ink, pencil and monochromes.

Sketching and drawing is a great way to improve creative skills and to start thinking in a different way. Art shows you that there is always more than one way to solve a problem. Art encourages open ended thinking and creativity. These can be helpful for personal development and solving problems - a necessary skill for architectural practice.

Drawing, like many other art forms, aids in relaxation and stress relief by forcing us to pay attention to details in the environment, which mimics the experience of meditation. Spontaneous drawing is also said to relieve stress and improve focus, as it relieves your brain from the strain of continuous concentration.

Roman Church, Italy

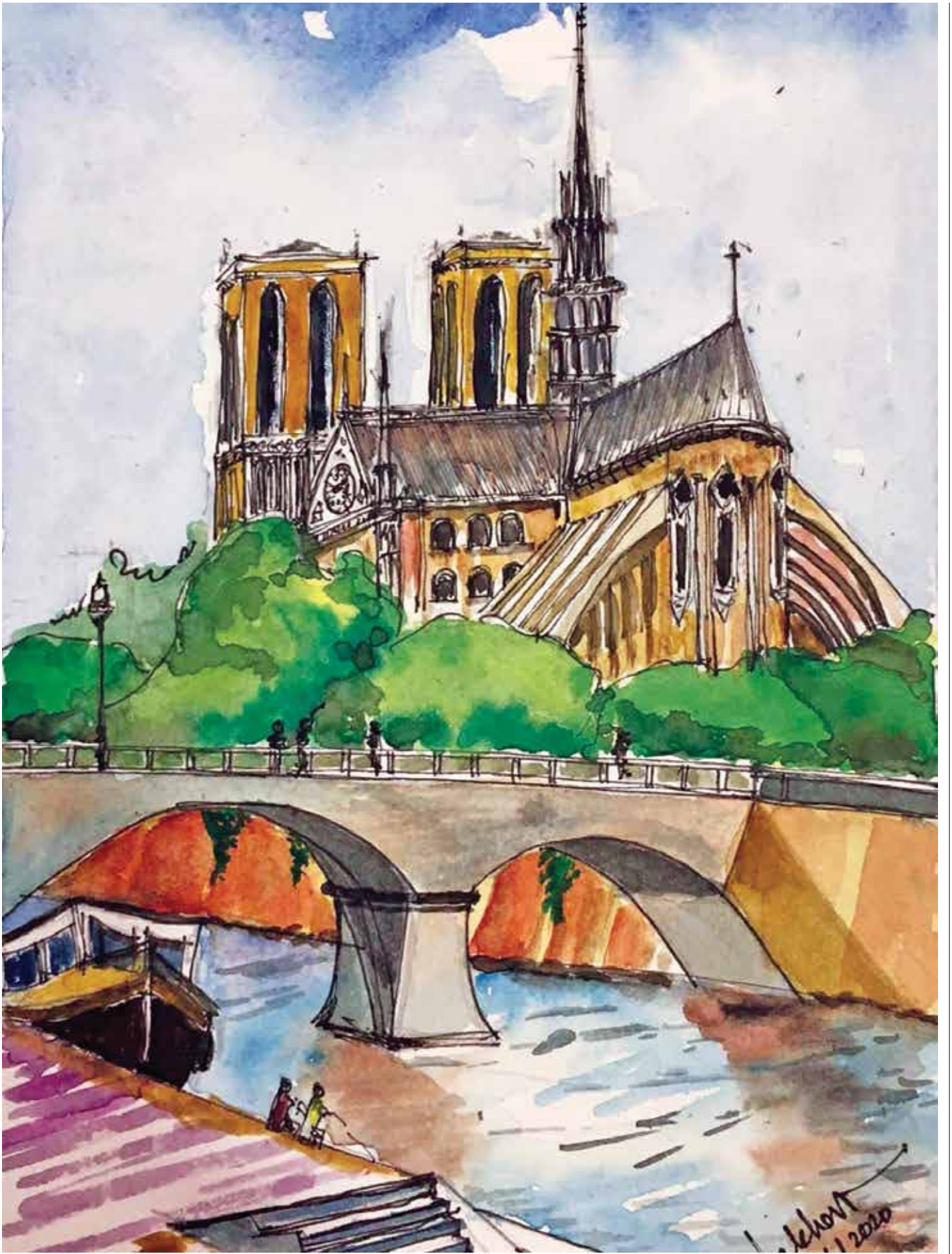
Basilica di Santa Maria della Salute, Venice

Basilica di Santa Maria della Salute, Venice

New York Skyline

Colosseum, Rome

Trevi Fountain, Rome



Notre-Dame, Paris

Hotel Marina Bay Sands, Singapore

With drawing, one has a singular picture in mind that you are working to create. As that picture comes together, you feel accomplished. This sense of worth and productivity can help soothe the potential feeling of non-fulfilment of desires.

Drawing, sketching and painting improve emotional intelligence. Drawing is a creative activity in which one often puts down emotions on a piece of paper. A piece of art can express all of the good things and the bad things in life, so that those can be lived fully, processed, and potentially let go. It is a healing process, which heals the mind and soul and helps to develop the brain to think more creatively.

All sketches are drawn by the Author with ink on paper.

London Skyline by Thames

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NARRATIVES OF THE CULTURAL LANDSCAPE OF MAHESHWAR

By Ar. Juhi Prasad Singh

The legacy of handlooms in various parts of India has always been a symbol of glorious craft heritage, an important source of livelihood and also defines the cultural landscape in many ways. These crafts are woven skilfully, through generations, and each state has its own unique language and aesthetic signature. All crafts in a particular landscape are connected to each other, whether it is architectural crafts, textile crafts, or handicrafts. They inspire each other in symbolism, materials, construct, meaning, function and together begin to form the cultural landscape of that place.

This narrative is about one such magnificent craft practiced by the weaving community of Maheshwar in India. Maheshwar is an amalgamation of the traditional weaver community around the pious river Narmada and the great architectural heritage of the Maratha-Holkar dynasty. There are multiple aspects to the narrative of Maheshwar which are learnings: such as the story of Maharani Ahilya Bai whose valiant efforts led to the physical manifestation of the Maheshwar Fort precinct, the architectural styles of various built forms in it, great spatial configurations of the town and its historical significance in India. This narrative will focus on the aspect of the cultural landscape of Maheshwar, social fabric of the town and the idea of narrative drawings in architecture.

The team of students and faculty of Rachana Sansad's Academy of Architecture, Mumbai, worked on documenting and understanding the narrative of the social fabric of Maheshwar. A group of forty students and four mentors visited Maheshwar and worked on ways of documenting these tangible and intangible aspects of the Fort precinct and exploring the ways of visual communication. It is becoming increasingly important for academia to record not just our architectural typologies, elements and styles but also the intangible aspects of architecture. I personally believe that it is important for practicing architects and aspiring architecture students to develop methods of communication in which life and architecture are both depicted and can be valued by people from various fields and strata. One of the objectives of the documentation was to create narrative drawings that capture intangible aspects of the town and can be appreciated by not just architects but everybody.

The Cultural Landscape of Maheshwar

There are various reasons why Maheshwar is a significant example of cultural landscapes in India. Maheshwar is a continuum of natural-cultural-landscape. It is a conjunction where physical aspects, biological aspects, spatial aspects and even spiritual aspects come together. It is a continuing landscape which retains an active social role even in contemporary society, associated with traditional ways of life and some traditional processes continue to progress.

The town of Maheshwar is situated in southwestern Madhya Pradesh in central India. The town lies on the north bank of the holy River Narmada which is a significant natural feature in shaping the town. There are broad *ghats*, stepped bathing places overlooking the precinct of the Fort, the palace of Ahilya Bai and the temples. On the opposite bank of Narmada lies an early site of Navdatoli, where painted pottery and other artifacts were also excavated.

The Fort precinct forms an interface between the river and the town. There is a series of *ghats*

Figure 1: Narrative drawing of Maheshwar fort precinct

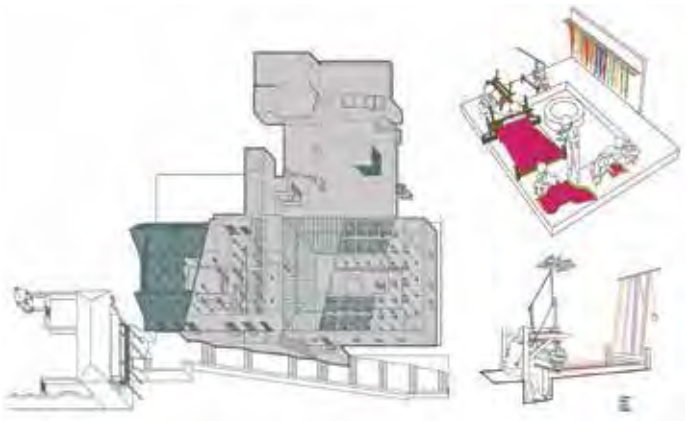

Figure 2: Rehwa weaving center at Maheshwar

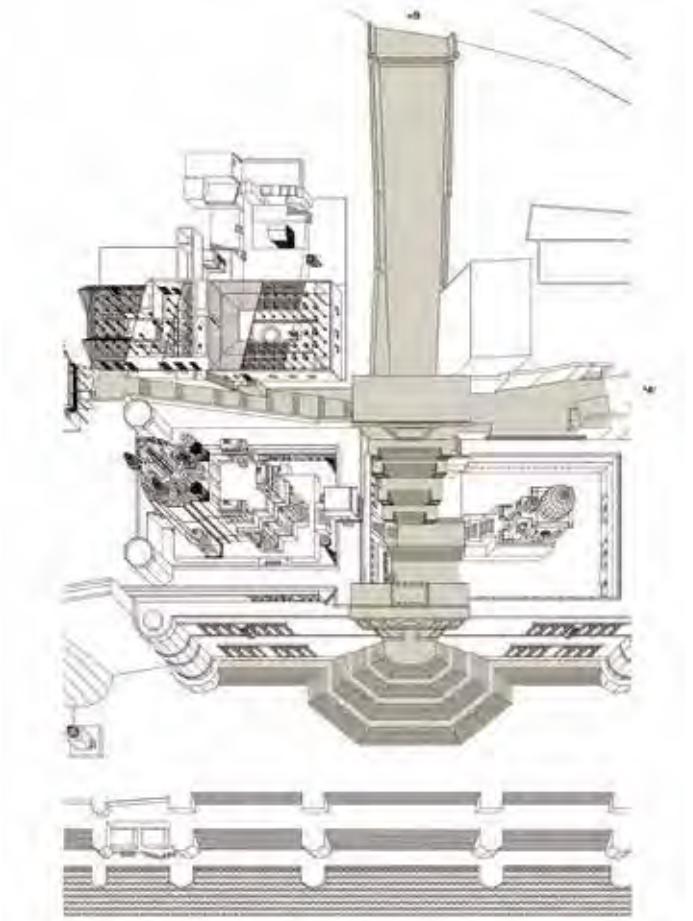

Figure 3: Public spaces and temple complex of Maheshwar fort

that form a very interesting section of the town descending into the river. Narmada is the longest westward flowing river that drains parts of Madhya Pradesh and like the Ganga, Narmada is worshipped as a goddess as it gives life and livelihood to millions of people residing on the banks. Maheshwar is also an important *kshetra* on the *Narmada Parikrama* and thousands of devotees come from various parts of India for *darshan* of Narmada Devi.

It is the religious significance of the geographic landscape of Maheshwar which forms the physical manifestation of the town fabric. Multiple *ghats* form bathing platforms as part of the rituals of people (both local and tourist devotees), the beautiful old temples, shrines and tanks become places for offering prayers, for singing *bhajans* and for meditation. The paths leading to these *ghats* are lined with shops and become vibrant marketplaces along the river. The large trees along the river and the fortification become places of informal gatherings, congregation spaces, play areas for children and also a stage for various festivals. The stairway from the fort forms an important identity of the Maheshwar *ghat*: it looks like a grand pavilion which gives a panoramic view of the river. These *ghats* with a variety of levels act as places where locals perform their daily activities like washing clothes or congregating and thus the *ghats* look like an extension of the households open under the vast sky. The Baneshwar temple is a structure located on a small island right in the middle of the River Narmada. There are many boats along the Maheshwar *ghat* which becomes an important mode of travel. The water level also fluctuates and the way in which the *ghats* meet Narmada keep changing the spatial configurations of the precinct. There are also markings of the flood levels over the last hundred years on the *ghats*.

Ghats, as an Indian typology of architectural interface of river with land, are active and multifunctional spaces for daily life, for festivals and rituals. They also support a lot of commercial activities with its built and natural components. In Maheshwar the *ghats* start to take form from the highest point of the *Rajwada,* the palace, with a gateway and a plaza with Maharani Ahilya Bai's statue. Steps start to connect the weaving workspaces to the temple complex and eventually to the grand stairway. Then it descends gradually into the ever-fluctuating river edge. Also the impact of the natural elements is seen extensively used in the motifs and carvings of the temples, the *Rajwada*, *jharokhas*, stairways, pavilions, *chattris,* the engravings on the fort and many more elements. The patterns of the River Narmada, the flora and fauna of the region and the topography have influenced the built fabric immensely. These architectural interventions show the human-nature connection, which is one part of the cultural landscape.

The weaving patterns in the fabric of Maheshwar are also abstractions of the forms of nature around. They are mostly geometric patterns, which are a reflection of the built and natural fabric of the surroundings. From the scale of town-planning, with its considerations of river and its hydrological patterns, weaving workshops, related commercial activities and residences of the weavers, to the

Figure 4: Narrative sketches done on site by the Author

architectural detailing and eventually to the scale of the weaving patterns on the Maheshwari textiles are representations of the cultural landscape of Maheshwar.

Social Fabric of the Town

In the built fabric of the precinct, the temples, the weaving workshops and *Rajwada* are placed on various levels. I would like to discuss the weaving community and its effect on the fabric of the town. This is where one can find the human–human connection of the cultural landscape. As mentioned by the weavers in the precinct, we could mostly find the weavers from the Muslim community and the *Maru* community. Fabric and crafting a fabric are looked upon as a sacred commodity and process amongst the locals. The woven fabric was crafted not just for the royal families as gifts but also used in the daily life of the locals of Maheshwar. During the revival era of the weaving community in the early 18th century, there was a symbiotic relationship between the Holkar family and the weavers.

The legacy of the craft has been celebrated in India since ages and the Maheshwar weaving community is a part of this legacy. Traditionally, the woven fabric was only in cotton but with changes in the loom, silk was also introduced. The reason why it is important to discuss the process of weaving and the loom here is because it has its effects on the way the architecture is built around this process. The Maheshwari fabric is unique in both its process and in the outcome itself.

The uniqueness of the craft of Maheshwar weaves lies in the warp and weft of the looms that turn thread or yarn into fabric and leads to the etymology of *taana baana* in textiles. There are various processes involved in weaving one piece of fabric: preparation of thread, dyeing the thread, warping, street-sizing, aligning the thread on the loom, weaving and processing the yarn and weft. Just for a small piece of fabric at least eight weavers are involved and it takes around a week to set up the loom itself. Only natural materials are involved in the process and even dyeing is done in-house in Maheshwar. In the world of mass production and replication, the time, human effort and cultural symbolism involved in the process of Maheshwari textiles weaving, make it a valuable asset.

The raw materials involved in the weaving process are cotton, silk and *zari* which are purchased from Coimbatore, Bangalore, Surat and various other places. The tools play an important role in the spatial configuration of the workshops and the surrounding areas. There are mainly two types of handlooms that are used in Maheshwar- the older pit looms and the newer frame looms. The pit looms, which

Figure 5: The ghats of Maheshwar

Figure 6: Students and faculty team of documentation work

Figure 7: Weaving looms of Maheshwar

have been used since historical times, are heavy, wooden looms installed in a pit, about 3 feet deep. The weaving is controlled by a mechanism called 'dobby'. The workshops in the precinct are designed to cater to all these various processes of weaving. The corresponding architectural symbolism is also seen in the weaving patterns and the borders of the textiles. From the lifestyles of locals, daily activities of locals, rituals and festivals performed by devotees and tourists, the employment provided by the weaving community forms a significant human – human interaction.

It is these ideas of human-nature and human-human interaction which makes up the cultural landscape of Maheshwar. The natural setting, the architectural intervention, the people and the craft heritage of this place makes it significant to document and learn from, as designers.

Idea of narrative drawings in architecture

As part of the documentation process, we focused on the aspect of cultural landscape of Maheshwar. I believe that it is becoming significantly important for designers to be able to deduce the tangible and intangible aspects of architecture and represent them in with techniques that can be understood and appreciated by a spectrum of people. A team of forty students from Semester 2 of B.Arch and four mentors worked on the documentation and analysis of the chosen site.

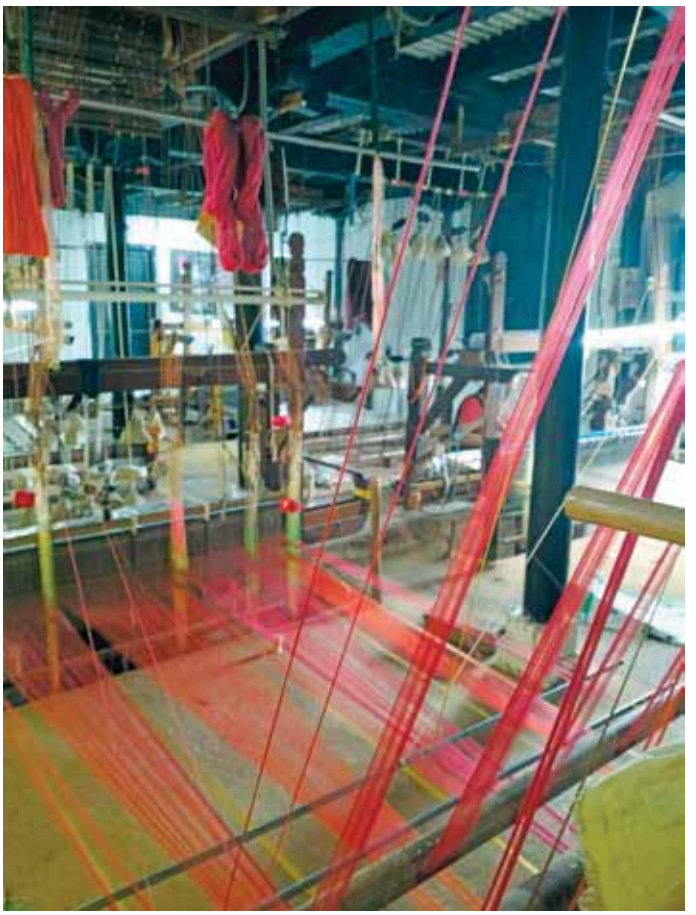

Figure 8: Weaves of Maheshwar

Figure 9: Weaves of Maheshwar

Narratives of these kind have always been communicated in form of art such as *Kangra* paintings, miniature paintings, *Phad* paintings and many more such art forms. Inspired by these traditional Indian forms of representation, we chose to work on a narrative drawing representing the natural, built fabric of the town and people with their associations to the place. The color palette and style of line drawings were also inspired by the woven fabrics of Maheshwar.

These narrative drawings help to evoke emotions, capture cultural aspects and narrate the story of the intangible. It ignites the imagination of architects to design experiences in spaces and documenting these aspects of architecture are a great beginning to this.

Documentation Team:

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- ***Faculty Mentors & Staff :***

Ar. Amit Jain, Ar. Amey Mhatre, Ar. Tushar Shetty, Ar. Juhi Prasad Singh, Ar. Saurabh Mhatre, Nandadip Karambele.

All Images Courtesy: Author

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Email: juhiprasad26@gmail.com

DESIGN FEATURE

Harris Residence

By Studio Acis

Fact File

Location of Project	Kanhangad, Kerala
Plot Area	1.52 acres
Built Area	9570.6 sq.ft.
MEP consultant	Educe Engineering Consultants
Structural Consultant	Er. Abhilash
Project Completion	2021

Figure 1: The façade is the second shell that creates a *chuttu verandah* around the home.
(Source: Author)

In architecture, perception goes beyond just vision. This is what caters to a deeper sense of connection within the built spaces. The key motive for this residence was to minimize the feeling of detachment within the built and unbuilt spaces. This was achieved through a careful study of the natural environment, which provided inspiration for the design of the building. The result is an example of how architecture can be used as a tool for enhancing one's connection with nature and creating a more fulfilling life experience.

The architect's proposal for this project was to create a living space in the middle of 1.5 acres of barren land. The space presented no constraints which enabled the architect planned to define his own geometry and added it to the site. Cuboidal masses were placed along a grid pattern, creating a character that is rooted in solid -void relationships.

The transition from uncontrolled to controlled landscape was seamlessly created by a second skin encasing the house; something that simplifies the path from the busy streets to the residence. It

Figure 2: The second skin creating a seamless transition between the outdoors and the indoors.
(Source: Author)

Figure 3: At the blend of nature and built form
(Source: Author)

Figure 4: Visual connection between the different levels
(Source: Author)

Figure 5: Converting a negative space, an active one
(Source: Author)

Figure 6: Western sunlight been filtered using double skin structure and vegetation
(Source: Author)

Figure 7: Natural light let in by generous openings
(Source: Author)

also provides the building with differing layers of privacy as needed: open spaces, semi-private spaces and complete privacy. It runs along the periphery in a continuous fashion. A modernized version of traditional verandah, this chuttu-verandah was inspired by the functions and elements of a naalu-kettu (Traditional architecture of Kerala). It acts as a buffer zone and remains detached from the Eastern side while being 2 metres away from the Western side of the house. Hence, the latter has been provided with minimum windows. The gap in between the external second skin encompasses a lush green landscape. The second skin merges with the structure on the northern side with the swimming pool being shaded from the sunlight. The family living opens to the courtyard, thereby enhancing the time spent together as a unit. The green facade that overlooks the backyard protects the building from the harsh effects of the Western sun.

The greenery, along with the second-skin allows the soft filtered light to enter the interiors. The facade treatment is done based on climate and function with the provisions of louvres, vertical gardens, jaali for the purpose of privacy, aesthetics and functionality.

Figure 8: Creating a focal point, the home theatre is encased in warm and acoustically apt materials.
(Source: Author)

Figure 9: The view from the street -the three shells fabricate an infinte nesting.
(Source: Author)

Figure 10: The entrance -the second shell and the inner most shell-the home in one frame.
(Source: Author)

Harris Residence is a culmination of traditional concepts with a modern outlook. It is an attempt at creating an opportunity for the users to communicate and rejuvenate the personal connection with oneself and each other.

Ar. Rakesh Kakkkoth (A19857) - Principal architect and Director of Studio Acis, has graduated from TKM College of Engineering Kollam, Kerala in 2006. Since then, he has deeply engaged in architecture, working under various senior architects in Kerala until 2011. He then set up an independent practice, as was his dream. Now, the office has grown, with projects spread over most districts of Kerala. Along with his practice, he is working as an Asst. Professor to the Asian School of Architecture and Design Innovations (ASADI).
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YOUNG PRACTICE

Bricolage Bombay Etceteras around Architecture

Reading Architecture Drawing, Games, Cinema and Digital Experiences.

Ar. Vinit Nikumbh

Bricolage

/ˌbrɪkəˈlɑːʒ/

- Noun (in art or literature) construction or creation from a diverse range of available things. "The chaotic bricolage of the novel is brought together in a unifying gesture."
- Something constructed or created from a diverse range of things. "bricolages of painted junk"

(Source: Oxford Languages)

We started our studio "Bricolage Bombay" to work on projects committed to exploring architecture and interior design through the use of technology. Our work explores space through the mediums of games, digital media, and installations. This collaboration birthed MuSo, a testament to how the built environment can not only nurture ideas of sustainability but also serve as a catalyst for change. The LEED-certified MuSo building showcases the seamless integration of technology, immersive experiences, and educational features, culminating in an unparalleled children's museum.

My journey in the field of architecture led me to complete my Masters in Architecture and Media at Cornell University, New York. I have had the privilege of working alongside leading architects in both Mumbai and New York, gaining invaluable experience that shaped my vision. Inspired by the fusion of art and construction, I founded Bricolage Bombay, an architectural studio that embraces experimentation and redefines the art of drawing. At our studio, we believe drawing is not just a means to an end but an essential part of the creative process, leading us to explore a myriad of mediums and narratives. Seen in figure 1, is one of these mediums – a digital video game and narrative are overlaid as personal stories on a game map – a city axonometric.

The idea of the studio was based on a changing world - a new world with liberalized ideas and new media opening up. The digital revolution with social media and the digital screen opened up a new way to read space and time. We worked on several projects to clarify our interactions and manifesto. These projects dealt with drawing, time and space. For us, drawing is not limited to conventional blueprints. It serves as a gateway to diverse ideas and reflections. We draw inspiration from various sources like video games, virtual reality, cinema, and visual art to infuse richness and depth into our projects. Our drawings take many forms, serving as an investigation into the questions we seek answers for during the design phase. Drawing, to us, is a powerful tool to

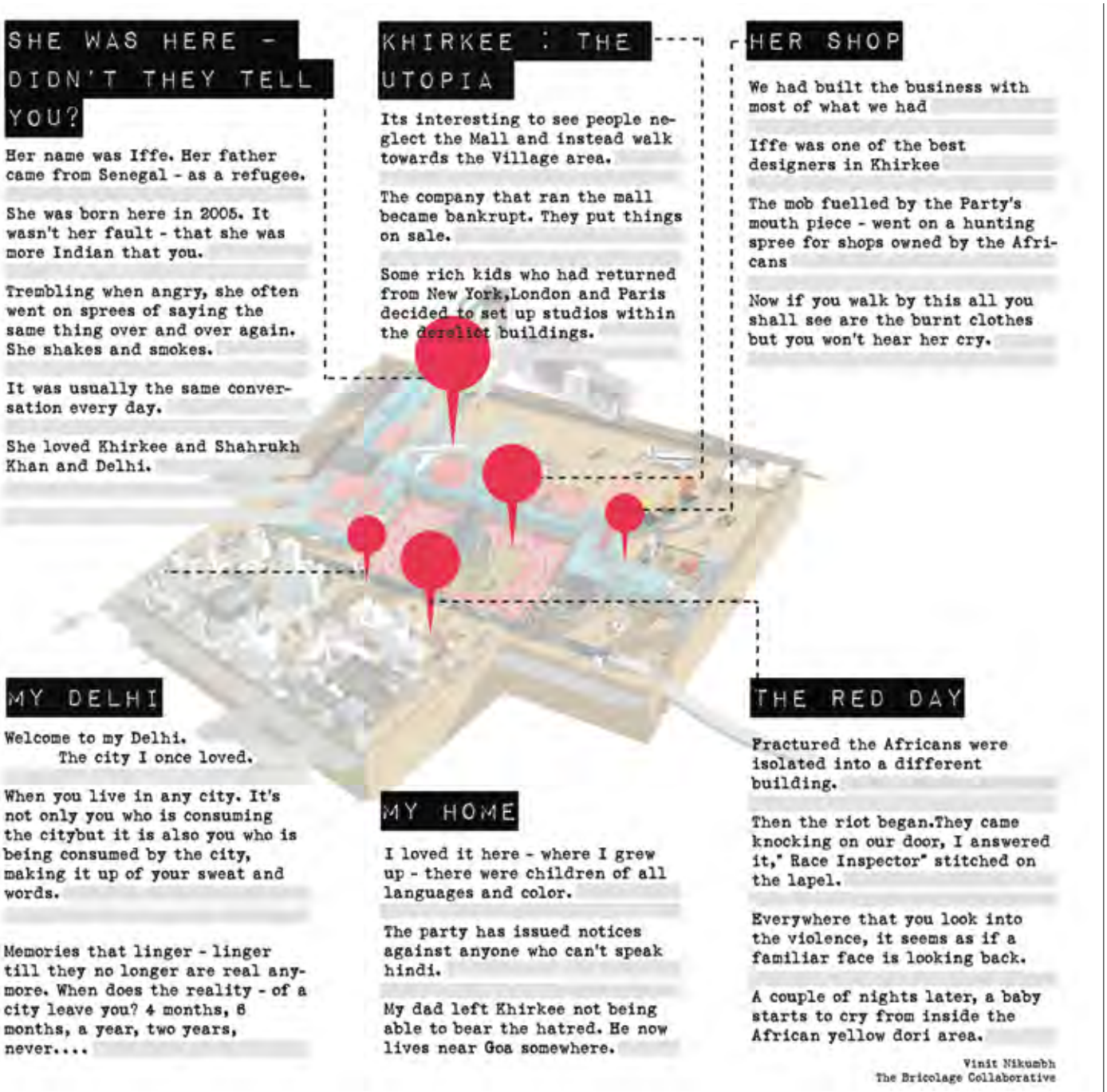

Figure 1: Khirkee 2027 shown at the India Art Fair in Delhi and Southbank Show in London
(Source: Author)

communicate softer narratives and evoke emotional responses, much like poetry.

Drawing as Narrative

Can you use drawing to talk about softer narratives, draw emotional responses and become fluid like poetry? We designed and built a fully-functional video game in collaboration with Khoj Collective in Delhi, becoming the first design studio in India to make a fully-functional playable prototype of an art game. A cross between comic book aesthetic and FPS (first-person shooter) model framework, Khirkee 2027 is a narrative-based game set up in a dystopian near future. Khirkee 2027 had several exhibition shows across the world including the India Art Fair 2017 and at the Southbank Centre in London as a part of the Digital Artists Exhibition of Indian Artists. Seen in figure 2, is the opening frame as seen on a computer screen. The player can choose a game play role – in this case the girl and start the gameplay journey. This game is modelled on the framework of a FPS game but unlike the conventional FPS games where the objective is the act of killing, in Khirkee 2027, you are invited to play as a girl, a migrant. There are no guns;

Figure 2: Khirkee 2027 shown at the India Art Fair in Delhi and Southbank Show in London
(Source: Author)

Figure 3: Khirkee 2027 shown at the India Art Fair in Delhi and Southbank Show in London
(Source: Author)

instead, there are questions of identity, racial politics, and gender. The game starts in 2027, when the player wanders seeing Khirkee through the lens of the main protagonist who is a girl, a second-generation migrant/refugee and a victim of racial tensions. The project uses the landscape of Khirkee 2027 as a narrative device - like a cross between a graphic novel and game. It operates like a controllable cinematic experience - based on the player's wanderings, the landscape narrates stories. During the wanderings you may come across the home of the girl, parts of the neighborhood she frequented and if lucky, the people she loved the most. If you wander long enough - the stories, the dates and the etcetera's lead you to the exact sequence of events that led to this *khirkee*. A *khirkee* that no one likes.

We used gaming as a means to read space and deal with difficult urban design issues. Softer ideas of gender and migration often get lost in the translations of GIS maps and elaborately photoshopped schemes showing pre and post images of guidelines. We felt that these ideas of drawing are redundant in dealing with complex urban issues. The exploration of a gaming software allowed us to deal with this in a softer way where the game becomes a way of drawing emotional and experiential response to a situation in the city. We also wanted to deal with stories as coded poetry. Seen in figure 3, is the story "Red Day" that talks about the day the riots started.

The digital realm has opened up new dimensions for drawing, and at Bricolage Bombay, we enthusiastically embrace this evolution. We dive into the world of GIFs and memes, where compressed timeframes create a captivating visual language. Workshops conducted by our team empower students to create stunning visual simulations through GIFs, allowing them to communicate and resonate with contemporary audiences like never before.

Drawings as a way of Reading History

We were invited to work on an installation on the life of Ambedkar. This was a project initiated by the Columbia Global Centers in Mumbai and was done in collaboration with Kamla Raheja Vidyanidhi Institute for Architecture and Environmental Studies. As a part of this project, we looked at the geographies that Ambedkar lived and worked in Mumbai. We looked at *maidans* and the housing typologies where Ambedkar's work took place during the freedom struggle. The final multimedia installation was worked out to be an interactive map of the city and for this, a 3D model of the entire city of Bombay was generated. The model showed zones where Ambedkar's life panned out and locations of historical importance - of his speeches and *satyagrahas*, were mapped. The installation had several static panels and it also had interactive boards - TVs that got activated by sensors and told the story of a specific location in the city. Although it was not a fully gamified project, different stories were uncovered based on the visitor's choice

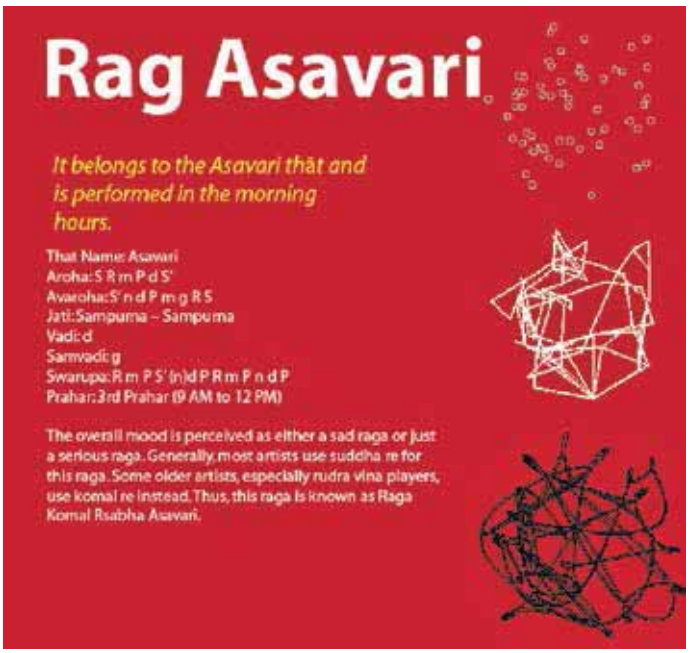

Figure 4: Reading the *Raga* - using drawing to understand musical movements
(Source: Author)

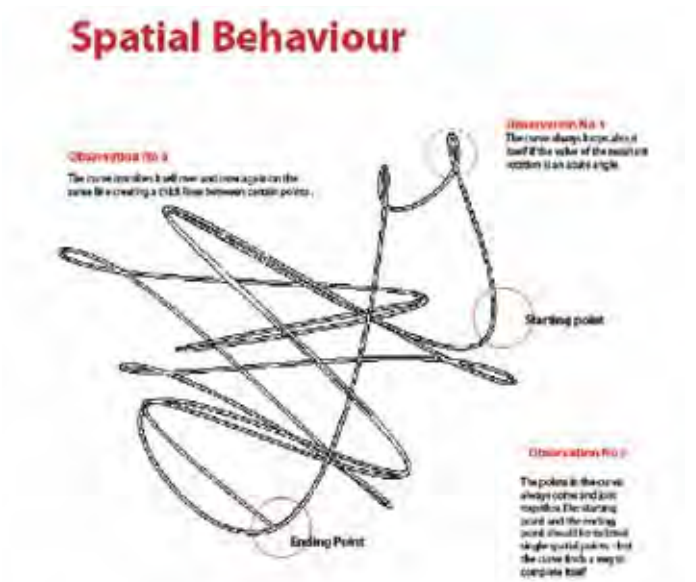

Figure 5: Reading the *Raga* - using drawing to understand musical movements
(Source: Author)

of topics to engage in. Coming from a design research-heavy background, where maps and photos guide historical representations, we found that simple spatial gamified representations of Ambedkar's story connected immensely to the audience.

Drawing as Translation

"Reading the Raga"

This ongoing study by the studio tries to work with the visual idea of a *rāga* (Sanskrit rāga राग) which is the melodic mode used in Indian classical music. In the Indian musical tradition, *rāgas* are associated with different times of the day. A *rāga* is a melodic framework, within which improvisation takes place.

Our main focus of this exploration was translating one medium into another i.e. music to drawing. We worked with several musical pieces and decoded them into frequencies – which is a parameter of sound to understand data. This data was parsed through a code generator that created visual representations of these *rāgas*. The idea was to understand why certain *rāgas* are prescribed to be listened to at certain times of the day. This study also draws from Iannis Xenakis's work on the UPIC machine. This study explores *rāga* as a mathematical unit of measurement of frequencies heard in Hertz. Then these Hertz numbers are translated into visual drawings. Figures 4 and 5 show visualizations of Raga Asavari.

We are constantly trying to investigate into newer ways of using drawings as a medium of making. The digital offers us many new ways to explore ideas of drawings – like virtual reality (immersive drawings) and augmented reality (reactive drawings). This new digital space has ideas of drawing embedded in it that go beyond means like gravity. The human is then a receiver of data in space – like computer space, internet space, the smart phone screen space, the virtual reality space and augmented reality space.

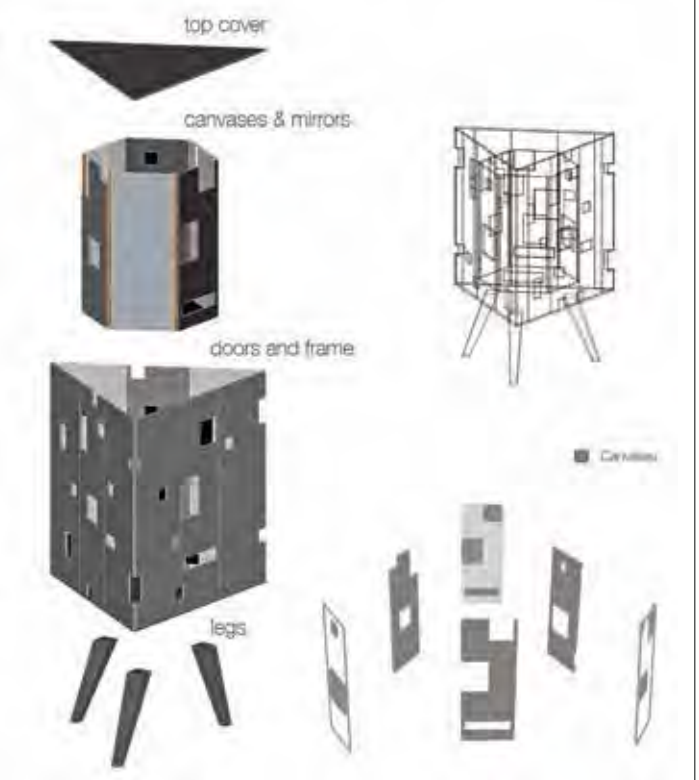

Figure 6: A diagram for a machine to produce drawings collaborative exhibit with artist Brinda Miller
(Source: Author)

Of making Design and Media meet

"Making" is something that we have started learning from the craftsmen at site. Construction sites taught us that one has to work with craftsmen and materials on the design table. Models operate as physical representations of space. Whenever we work on any architecture design project, we begin by sketching and making physical models. The most primal and rudimentary techniques clear out a lot of issues on the model making table. Once the model is complete, it becomes a great tool to visualize and think about details. For all our projects, we rely on making several models. With the advance of technology, we have also started making digital models that can be navigated in VR.

This *making* translates to furniture design for our projects as well. Figures 6, 7 and 8 show the diagram to make a machine that can produce drawings. This is loosely based on pre-cinematic devices like Nickelodeons. The second image shows the build as seen from outsides and peepholes in it and the third image shows the piece with a human face inside being multiplied several times in the mirrors and art work by Brinda Miller. We refrain from using fixed norms for office furniture as it is cold and does not fit our aesthetic and choose to craft the space with real wood furniture that would align to different functions. Each piece is inspired by several designers and we learn a lot during the prototyping and the making of these pieces. To align to the real materiality of the furniture pieces, we use Indian stones to do all the flooring. Offices should breathe and be meditative spaces - and this alone was the direction behind these pieces.

We started experimenting with 3D printing as a way to enhance our manufacturing skillset and more importantly - to learn how to prototype. The transformation of an idea from a sketch to a 3D model and to a fully finished prototype that can actually be used only after a little post processing was exhilarating.

As a design practice, we always empathize on the idea of *making*. We also try to work with natural materials that cause the least environmental damage - hence the use of recycled wood instead of a veneer, lime plaster instead of texture paint. Small decisions such as choosing natural stone over tiles is done in our attempt to reduce the chemical footprint of our projects. We also try to hit the scrapyard and hunt for found objects. A wall in a restaurant that we designed was made as a composition of multiple used *saree* blocks and scrap panels from old doors and windows that our team had foraged from different scrapyards in the city.

We believe that it is the responsibility of Indian designers first to truly understand the depth of Indian crafts. It is a shame that in the foundational courses in any design program in India, the study of what is "the idea of the Indian" or Indian-ness in craft and design is mostly missing. Most of the education of the design discipline survives on ideas of the Bauhaus and Modernism when none of these are our movements. Like how cinema is always contextual, so is design - born of the land, language, food, and people. Design schools often idolize European, Japanese, and American designers. Design students in India would be unable to name more than three Indian craftsmen - but would know Johnny Ive and Philipe Starck and Frank Gehry! Why will make in India be considered cool if there is no lineage of any Indian crafts? Marginalization by the British and now disownment by the modern and technologically-savvy generation is truly erasing craftsmanship from the country. The arrival of machines is not helping. I feel more than ever it is now the job of the designers to work together with craftspeople as collaborators

Figure 7: A diagram for a machine to produce drawings collaborative exhibit with artist Brinda Miller
(Source: Author)

Figure 8: A diagram for a machine to produce drawings collaborative exhibit with artist Brinda Miller
(Source: Author)

Figure 9: A Muso Vision - pre construction render
(Source: Author)

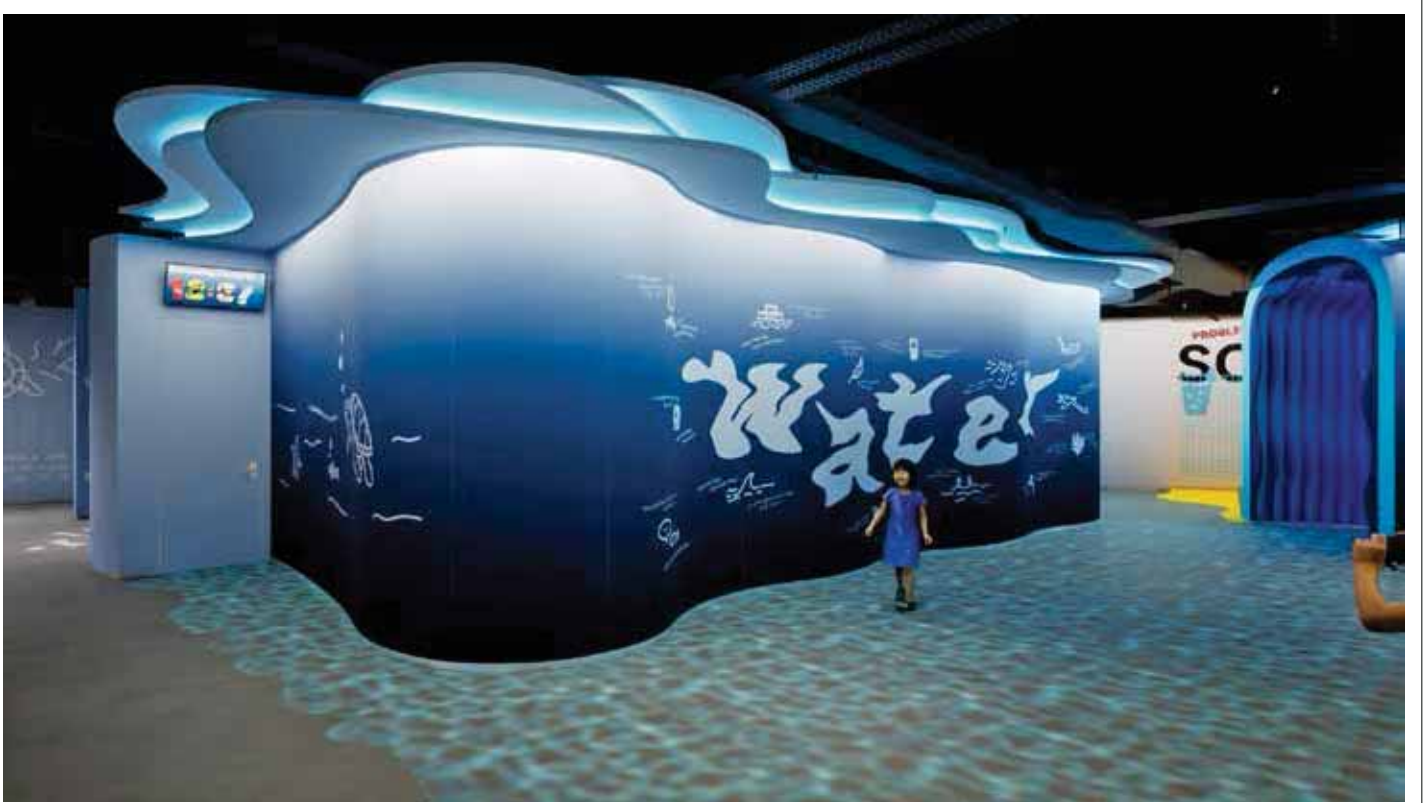

Figure 10: Interconnected water touch wall – an exhibit at Muso
(Source: Author)

and not as executors of their ideas. Most of the Indian designers think of Indian-ness as one more theme from the bag of hundreds of themes. Maybe this is because we are such a large nation and the idea of India is always in flux. We believe that change should start in design education and emotional value structure and not at the end i.e. in practice. We should teach our children to love our crafts and make them aware and teach them a form of craft in school itself.

How Architecture needs to respond to Technology?

For the longest time, our studio had a lot of issues getting our ideas implemented in a meaningful project. We also upgraded the studio in terms of software and added additional skillsets to start applying these ideas. This was made easier by using Unreal Engine, a game design engine used as an architectural tool. We used these amongst many other to deliver digital experiences and games.

In 2017, we got the perfect opportunities to try out all our ideas on a design project that set out to be an ambitious building to change children's education in this country (see figure 9). I was thrilled to be called to work on a project by Tanvi Jindal, the visionary founder of the Museum of Solutions (MuSo). Inspired by her belief that children hold the key to transforming the world, Tanvi has sought to build a revolutionary museum that would foster collaboration, critical thinking, compassion, and courage among young minds.

MuSo, prioritizes creativity, critical thinking, collaboration, compassion, and courage. MuSo stands as a beacon of creativity, resilience, and hope, empowering children to reshape the world through imagination and innovation (see figure 10). Because of artificial intelligence and the rapidly changing world today, architects and architecture practices have to adapt and take up new roles rather than just being shape and plan creators.

We are trying to do this by providing meaningful design services for digital spatial creation. As of now, there are no professional architects engaging into the design of these environments – yet they are all around – especially in the near future. With hardware catching up with software, these experiences would not be left to standalone design ideas – they will have to be constructed and distributed along various platforms.

"A piece of drawing is architecture.
A set of spatial instructions is architecture.
Designed cinematic spaces are architecture.
A designed experience in a video game is architecture."

Why is then the idea of architecture linked only to the idea of being built or the physical materiality of it?

Ar. Vinit Nikumbh (applied for IIA membership) has been a design faculty member at Cornell University and the School of Environment and Architecture, amongst notable others. Vinit was selected by the UDRI as a research fellow to work on issues of urbanism in Mumbai and is a registered architect with the Council of Architecture in India. He has designed and exhibited games at the Southbank Show in London, the India Art Show in Delhi, and with leading artists like Oleomingus, Thukral, and Tagra. Email: vinit@bricolagebombay.com

Connected Narratives

By Ar. Chintan Shah

These are the photographs that I have taken while travelling to different places in India and Sri Lanka. The pictures are from different categories of architecture, landscape and still photography. Every picture has certain narratives involved with it, which forms a contrast between the background and the foreground (images 1 & 7), or highlighting certain elements under imaginary frames (images 2, 3 & 4); some depicting endless landscapes (images 5 & 6) and photography conveying social messages (images 8, 9 and 10). Although all the photographs have their own unique story to convey, still, all are connected to one another, in the form of our relation with the built and the natural settings.

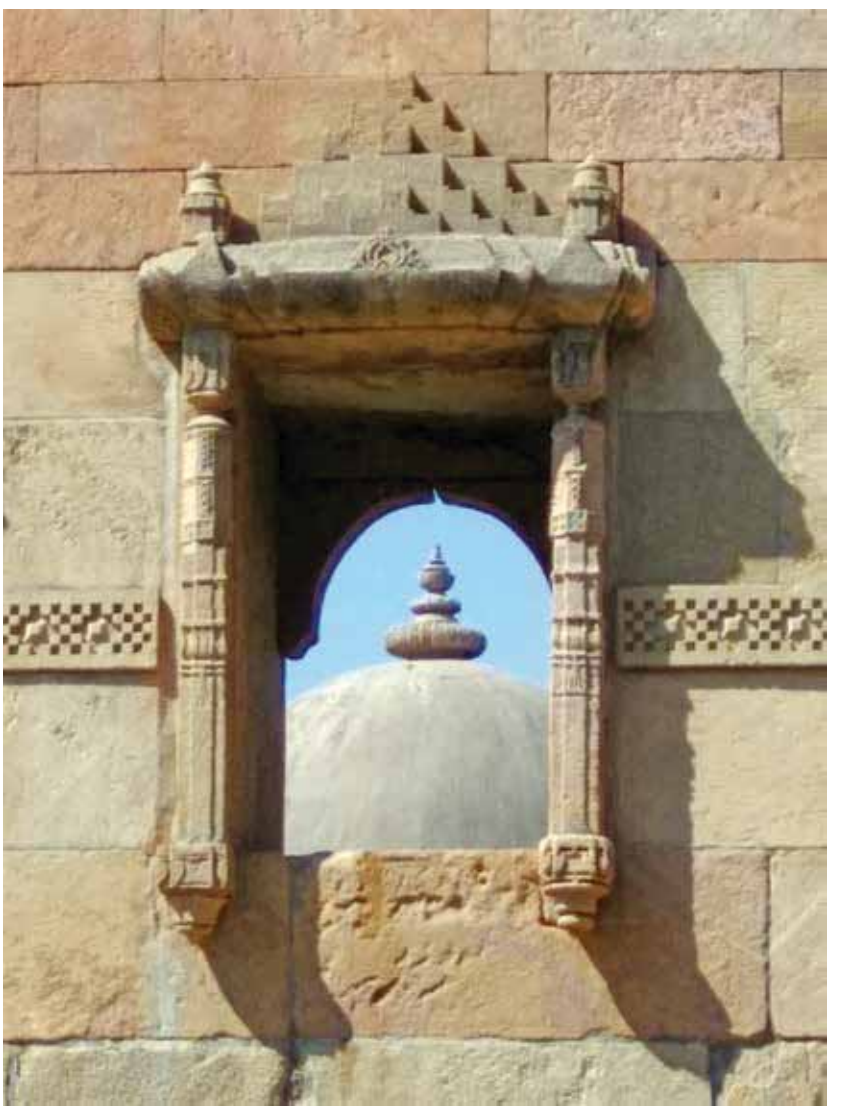

Image 2: Indo-Islamic architecture, Champaner, India

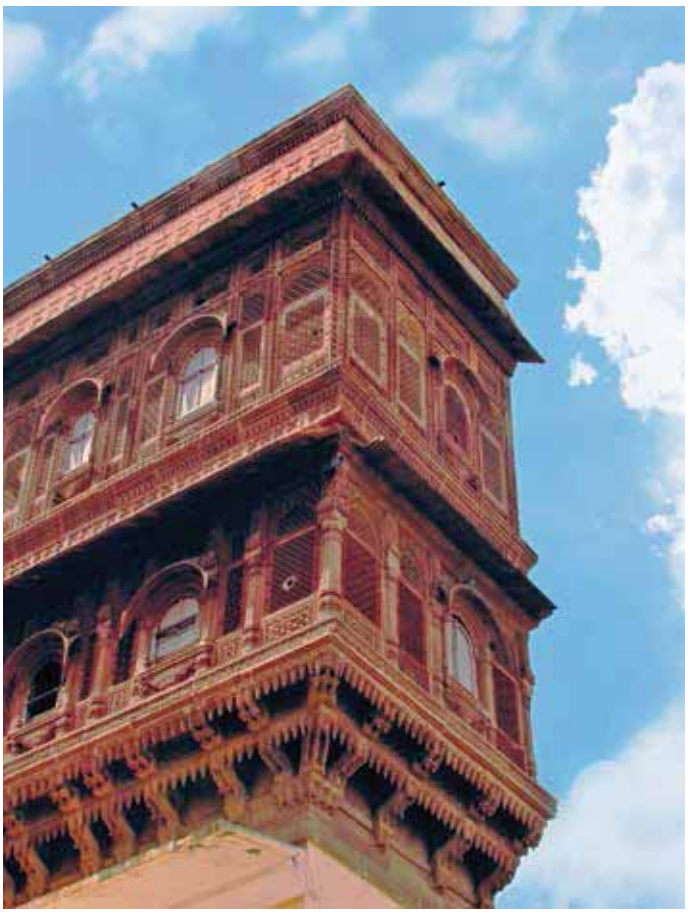

Image 1: When architecture gets wings, Jodhpur, India

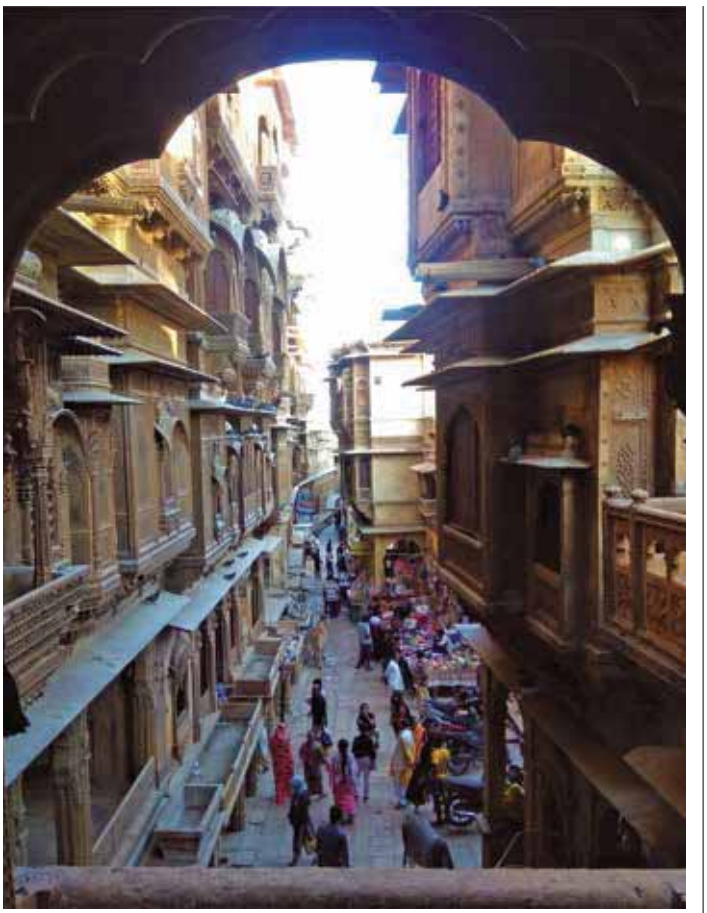

Image 3: Space between the havelis, Jaisalmer, India

Image 4: Break the barrier, Nashik, India

Image 5: Endless journey, Pushkar, India

Image 6: Walk into heaven, Galle, Sri Lanka

Image 7: Sacred river, Nashik, India

Image 8: No to tobacco, Nashik, India

Image 9: Old is gold, Nashik, India

Image 10: Shree-man, Nashik, India

All Images Courtesy: Author

Ar. Chintan Shah (A20303) is a graduate of KLSGIT, Belgaum and works as an Assistant Professor at IDPT, Sarvajanik University, Surat. He has completed his Masters in City Design from the same institute. He is also practising and has completed architecture and interior design projects of different scales and complexities. He has been awarded winner of national competitions related to design and writings.

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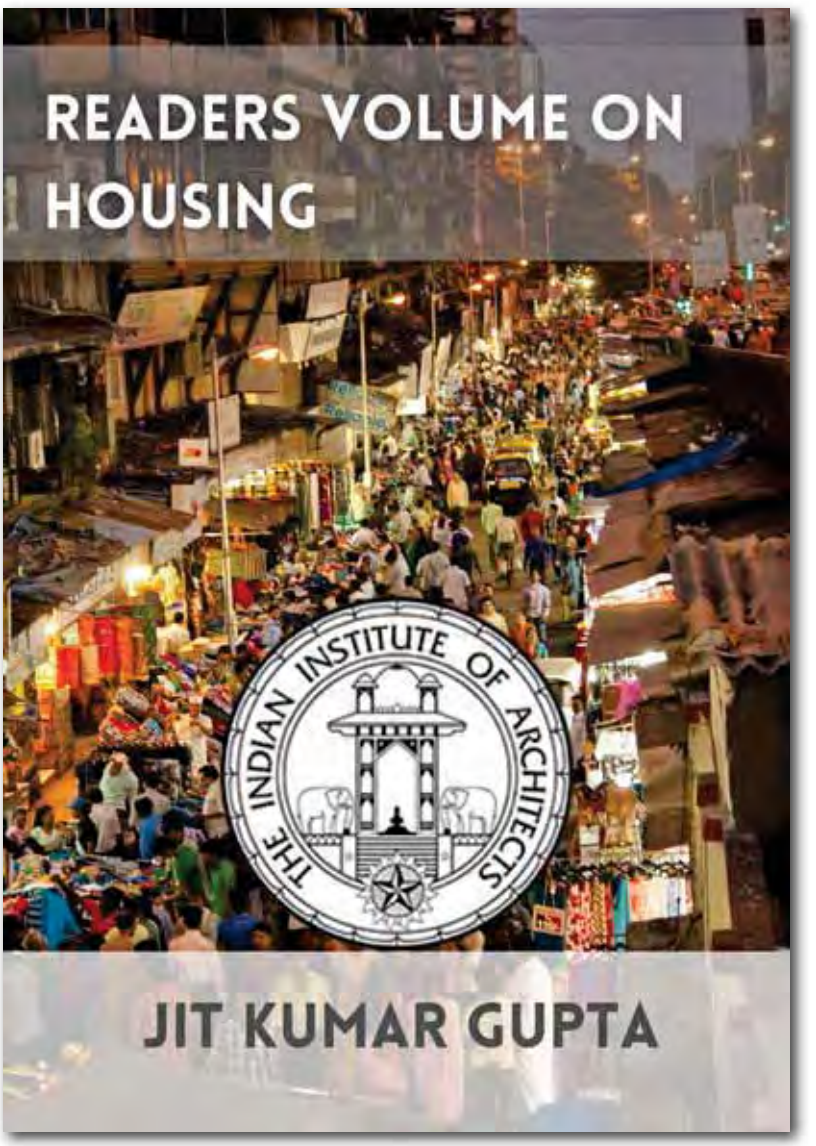
Readers Volume on Housing

For Students of IIA Associate Membership by Examination

Author: Prof. Jit Kumar Gupta
Reviewer: Ar. Sriparvathy Unni



Fact File
Genre: Research
Language: English
No of pages: 227
Published by : The Indian Institute of Architects

Readers Volume on Housing by Prof. Jit Kumar Gupta is a comprehensive two-part manual that elucidates the concepts of housing theories and principles, providing readers with an extensive repository covering the gamut of housing. The book caters to both students as well as seasoned planners and architects. While Part 1 focuses on fundamental housing theories and principles, Part 2 extensively examines the nuances of housing policies, governmental guidelines, and the detrimental effects of migration and unregulated urbanization on the housing sector.

Synthesizing years of experience in urban legislation and architecture with decades of professional experience as an urban planner, policy maker and academician, Prof. Jit Kumar Gupta examines the various housing typologies that exist in the Indian context. The book delves into developmental classifications, presenting factors that highlight ownership adaptability and land-use constraints. Confronting ongoing trends of corporate appropriation, development, and negligence, Prof. Gupta puts forth a compendium that offers community stakeholders a blueprint for the preservation and enhancement of the housing sector. The book also probes the essence of 'housing,' delineating its intrinsic value in fostering individual and communal growth. Emphasis is placed on affordable housing, the foundation for societal and national development bolstered by the United Nations' "*Housing for All*" agenda. Additionally, the book highlights the transformative global concern stemming from the dearth of affordable housing in burgeoning urban centers.

Beyond shelter, the author explores different facets of housing that encompass various aspects of human life, growth, and development. To holistically meet needs like living, occupation, culture, and mobility, housing must integrate essential amenities such as water, sanitation, healthcare, education, and security. Integral to planning, these services should be well-defined. By meticulously compiling comprehensive data, the book serves as a concise guide for designers.

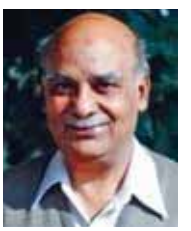
Ensuring appropriate housing is a cornerstone for empowerment, productivity, and societal development. Fulfilling this basic need is pivotal in driving progress, aligning with housing policies and programs instituted by parastatal bodies and government agencies. The book delves deeper into the idea that affordability is not limited to merely the cost involved in being able to buy or rent a house, but also the ability to maintain the house and afford to live in it, which involves access to transport, infrastructure, and other services. The book also describes common challenges in housing affordability, such as housing costs outpacing incomes, increasing disparity in housing affordability, scarcity of land, energy poverty, and demographic shifts. Furthermore, it investigates the factors affecting the provisioning of adequate shelters for the marginalized segments of the population.

The second half of the book primarily highlights the technical aspects of housing policies at various levels, as well as housing finances and government institutions that address the increasingly widening gap between demand and supply of shelter. The comprehensive points covered in the book include assessing current and future housing shortages across economic strata, critically evaluating resources for housing, defining the government's role as an enabler and provider, creating diverse affordable housing options, facilitating continuous housing growth and retrofitting, involving communities in planning and construction, promoting and regulating private sector involvement, establishing regulatory mechanisms, incentivizing sustainable construction technologies, enhancing research and development, developing a supportive legal framework, streamlining approvals and financing, collecting comprehensive housing data, encouraging landowner participation, mandating disaster-safe housing, rationalizing taxes and fees, and providing affordable shelter for slum dwellers and the homeless. The book also examines the relevance of national and state-level housing policies and outlines the responsibilities of initiatives like NSDP, SJSRY, VAMBAY, JNNURM, and more. An extensive analysis of India's housing finance systems is presented, highlighting the role of local and state level authorities including: Improvement Trusts, Housing Boards, Urban Development Authorities, as well as national level institutions like HUDCO, National Housing Bank etc. that strive to enhance housing stock and its availability.

From assessing shortages to fostering community engagement, private sector involvement, regulatory frameworks and incentivizing sustainable technologies, the book presents a holistic perspective. It delves into slums, their origins, growth, prevalent issues, challenges, and the formulation of effective strategies and government initiatives aimed at addressing slum-related concerns. Lastly, the book's concluding section focuses on neighbourhood and

sector planning, outlining principles and practical applications. This section offers a concise overview of various planning principles and their practical implementations.

The book offers not only a holistic understanding of housing in India but also a detailed insight into the finer issues, scopes and challenges, making it a must-read for anyone who wants to study about housing in India. Through the use of precise language, the author is able to convey a wealth of information in a clear and concise manner. In its entirety, the book provides a rich tapestry of profound housing insights, reflecting a deep pool of knowledge and experience.



Author
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Reviewer
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UPCOMING EVENTS

20th Asian Congress of Architects (ACA 20)

The 20th Asian Congress of Architects (ACA 20) is being held on 17-22 September 2023 at Boracay Island, Philippines. The theme is *Paghahabi: Weaving a Future-Ready Environment*.

This landmark event of the Architects Regional Council Asia (ARCASIA) hosted by the United Architects of the Philippines, brings together renowned architects, industry professionals, researchers, distinguished speakers and enthusiasts from across Asia. The Congress theme will be an enriching platform for exchange of ideas, collaboration and learnings.

More information at : https://aca20.unitedarchitects.ph/ for more updates.

IIA Leadership Conclave 2023, Bhubaneswar

The *IIA Leadership Conclave 2023* at Bhubaneswar, is an enlightening capacity-building program scheduled to unfold on 9 - 10 September 2023. The Conclave aims to groom new Office Bearers of all Chapters, Centres and Sub-Centres, enabling them to understand, plan, elevate and empower IIA by strengthening their skills, knowledge base, competencies and abilities. This illuminating Conclave is set to be celebrated with the enriching theme of *SAMARTH: Empowering Architecture*, transcending the conventional notions of future leaders and inviting us to envision our roles as architects with a sustainable perspective.

Throughout the Conclave, participants will share insights, exchange ideas through seminars, panel discussions and technical sessions, alongside a Building Materials & Products Expo. Envisioning the future through empowerment, the National Conclave is integrated with the *Design Carnival*, the state-level annual function for the industry stakeholders, themed *Futurescape*. This event holds special significance for students, the future leaders, offering design competitions, workshops and cultural programmess that promise to be insightful and engaging.

Rajasthan Architecture Festival

Rajasthan Architecture Festival (RAF) is one of the key initiatives of IIA Rajasthan Chapter. The second edition of the Rajasthan Architecture Festival is going to be held at Jaipur on 6-8 October 2023. This event aims to act as one of the key platforms which is instrumental in taking forward the ongoing discussions of architectural practice in Rajasthan and India. The First Edition of RAF was attended by more than 1500 architects from around the world and the Second Edition is set to be even bigger with 2000+ architects participating in the festival, creating a dynamic and effective platform for the design fraternity.

Rajasthan Architecture Festival is a landmark event that integrates the architecture community by providing a platform to create a dialogue, strengthen engagement with stakeholders, and exhibit the latest products and innovations in the field. The event aims to become a medium to connect, communicate, and advance in the field of architecture. The festival celebrates the architecture and culture of Rajasthan through workshops, installations, heritage walks, engaging exhibitions, cultural evenings and many more.

More information at: https://iiarajasthan.com/raf#iia

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INSIDE COVER Front & Back Together	**14,00,000**	**24,00,000**	**42,00,000**
FULL PAGE	**7,00,000**	**12,00,000**	**18,00,000**

NEWSLETTER AUGUST

ARCASIA 2023

ARCASIA held a two-day meeting of the Presidents of the countries of Zone A at Male, Maldives. The IIA President, Ar. Vilas Avachat, had the opportunity to attend this event, where he presented the Country Report for India.

It has been a long cherished association with ARCASIA, which originated in 1967 during the conference of Commonwealth Association of Architects (CAA) at New Delhi. Along with IIA, five other Asian Institutes joined as pioneers - Sri Lanka, Pakistan, Malaysia, Singapore and Hong Kong. In September 1970, it was resolved to form *The Architects Regional Council Asia,* popularly called ARCASIA. There are three zones in ARCASIA- A, B and C.

ARCASIA now has 22 affiliated countries. Along with the original six, these include: Japan, Indonesia, Bangladesh, Nepal, Vietnam, Philippines, Macau, Lao, Myanmar, Siamese, China, Bhutan, Korea, Brunei, Mongolia and Maldives, with its hundred architects, is the latest addition, which joined ARCASIA on 19 August 2023, witnessed by the IIA President, Ar. Vilas Avachat. It has been added to Zone A, together with India, Sri Lanka, Bangladesh, Pakistan, Nepal and Bhutan.

There are six Committees in ARCASIA:

1) Committee of Architectural Education (ACAE)
2) Committee on Professional Practice (ACPP)
3) Committee on Social Responsibility (ACSR)
4) Committee on Green & Sustainable Architects (ACGSA)
5) Committee on Young Architects (ACYA)
6) Fellowship

Two IIA members hold the posts of Chairpersons: Ar. Tushar Sogani, Chairperson of ACGSA and Ar. Mukul Goyal, Chairperson of ACPP. Both presented their Committee Reports on 19 August 2023 at Maldives, much to everyone's appreciation.

IIA President, Ar. Vilas Avachat delivering his address at the event

Ar. Mukul Goyal and Ar. Tushar Sogani with other ARCASIA Committee members.

Ar. Vilas Avachat, President of IIA, with other ARCASIA representatives.

IIA President, Ar. Vilas Avachat (centre) with President ARCASIA, Ar. Abu Sayeed M. Ahmed (left) and Vice President Zone A of ARCASIA, Ar. Russell Dandeniya (right).

IIA Gujarat Chapter

The First General Body Meeting of the Indian Institute of Architects, Gujarat Chapter for the term 2023 - '25 was held on Friday, 14 July, 2023 at 3 :00 p.m. at AMA Ahmedabad, Gujarat. The past Chairman, Ar. Anand Tatu, handed over the charge to Ar. Mauktik Trivedi.

Ar. Mauktik Trivedi and the team assured all members during the General Body Meeting that all the incomplete tasks of previous terms would be completed, with a shared new vision. The event was followed by discussion on the future prospects and roadmap of the community. Accounts and new initiatives for public participation were some of the crucial concerns of the meeting. The execution of strategies initiated with taking members poles for the future development of the Chapter.

Coming together was the beginning...
Keeping together is progress...
Working together will be success..."

Handing over from (Left) Ar. Anand Tatu (past Hon. Chairman), Ar. Devdatt Pandya (past Hon. Treasurer) and Ar. Tarang Mehta (past Hon. Secretary) to (Right) Ar. Mauktik Trivedi (Hon. Chairman), Ar. Ravi Ramparia (Hon. Secretary) and Ar. Bhavesh Mehta (Hon. Treasurer).

IIA Kerala Chapter

IIA Kerala Chapter held their Installation Ceremony on 11 August 2023 in Calicut to welcome its new Office Bearers for the Term 2023-'25. The Leadership Team includes Chairman, Ar. Vinod Cyriac; Vice Chairperson, Ar. Monolita Chatterjee; Joint Secretaries- Ar. Nihad Ovungal and Ar. Sudheesh Sudharman and Treasurer, Ar. Shintu P. George, along with Executive Committee Members, Ar. Anupama Sivaram, Ar. Archana R., Ar. Indugeetha, Ar. Joseph Chandy, Ar. Latha Raman, Ar. Manoj Kumar Kini, Ar. Nimisha Hakkim, Ar. Shyamkumar Puravankara, Ar. Sujith Kumar and Ar. Vivek P.P.

The installation event was followed by a two-day event, *Kalari 2.0* - Kerala Architecture Leadership and Resource Initiative. The event was envisaged as a four-module event. The first module consisted of a panel discussion on *Architecture, Democracy, and Politics*. Eminent politicians and advocates discussed architects' roles in public architecture and the gap between architects and politics. The discussion highlighted the need for government-level discussions to improve architectural quality in public and government buildings. It advocated a need for the architects to come forward and be involved in politics so that a vision for 'spaces in the society' can be addressed in a more fruitful way. The session also addressed gender politics and the lack of women-friendly standards.

The Kerala Chapter Office Bearers and Executive Committee Members for the Term 2023-'25.

The second module featured a panel discussion on the influence of mainstream media on architecture. Senior journalists from prominent media houses shared insights into the role of architects in social causes. This also explored how media can champion the advantages of architects contributing to space design. It touched upon the potential to unite all professionals in the construction field, aligning their efforts with a shared vision to enhance architectural spaces within the society.

The second day's discussions revolved around life, death, mental health, and how architects should address these topics. The role of architects in dealing with these issues was explored, along with whom to consult and when.

The third module involved a conversation with Dr. Manoj, who heads the Mental Health Action Trust (MHAT). MHAT works on mental health in tribal and marginalized communities through volunteers from schools and colleges. An MoU between MHAT and IIA Kerala was discussed, focusing on mental health initiatives in neighbouring villages.

The fourth module included a visit to the Institute of Palliative Medicine (IPM), led by Dr. Suresh Kumar, a pioneer in palliative medicine in India. Architects interacted with inmates and volunteers and plans

for collaboration were discussed. An MoU with IPM was proposed for campus revitalization and implementation with the help of a funding agency.

The event also featured a theatre workshop. Furthermore, the installation of various Centres within the Kerala Chapter also took place in August 2023. Overall, the ceremonies marked the beginning of a new IIA Team committed to making architecture more accessible to the masses.

IIA Maharashtra Chapter

After the recently-held elections, IIA Maharashtra Chapter saw the installation of its various centres. The Chapter Installation took place at the Navi Mumbai Centre, with Ar. Sandeep Prabhu from Thane as the Chairman, Ar. Sunil Bhale from Sambhajinagar, Aurangabad, as the Vice Chairman, Ar. Shekhar Bagool from Navi Mumbai, Ar. Upendra Pandit from Satara as Joint Honorary Secretary and Ar. Raviraj Sarwate from Nagpur as Treasurer. This function was held on 21 July 2023 at the First EC meeting of the IIA Maharashtra Chapter.

IIA Pune Centre Installation

Out of the 24 centres, Pimpri Chinchwad held its Installation on 1 July; Kalyan Dombivali Centre held its Installation on 15 July and Sangli and Satara planned on 28 and 29 July respectively. Pune had their programme of installation on 9 August. The formal Last GBM of the previous team and the First GBM of the new team have been held. Other regular EC meetings at the centre level have also been held. The chapter-level follow-up with the Building Plan Management System (BPMS) to sort out issues with software applications has been happening on a regular basis.

IIA Himachal Pradesh Chapter

Virtual Executive Committee Meetings

Due to continuous heavy rains in the state of Himachal Pradesh and adverse situation caused, the Executive Committee Meeting of Himachal Pradesh IIA Chapter was held in the virtual mode on 12 August, 2023. All members were welcomed by Ar. Shushil Sharma, Joint Hon Secretary IIA HP, who apprised them about the agenda. The meeting was chaired by Ar. Nand Lal Chandel, Chairman, IIA HP Chapter. He highlighted two important items before the members of the Executive Committee:

First, that the national body of IIA has issued directions that Office Bearers should attend the *Leadership Conclave SAMARTH* at Bhuvneshwar, Odisha scheduled on 9 - 10 September, 2023. During this Conclave, the Office Bearers of all Chapters shall be imparted training in various aspects of IIA and this will be considered for the evaluation for Best Chapter/ Centre/ Sub-Centre Awards. Ar. Chandel also appealed to all IIA members to participate in ARCASIA's *Asian Congress of Architects* (ACA) scheduled to be held at the Island of Boracay in Philippines from 18 - 22 Sept, 2023.

Second, Ar. Nandlal Chandel expressed his joy in sharing that the National Body of IIA has approved the proposal of setting up of two IIA Centres - at Shimla and Dharamshala. He appealed to the Executive Members to identify active team members for both centres, so that their Installation Ceremonies can be held immediately after the restoration of roads and other conditions in the state. All the members expressed their enthusiasm for this event. The meeting ended with a the hope for IIA HP Chapter to touch new heights and set a new bar during this Term 2023-25.

An EC meeting was also held on 19 Aug, 2023 to discuss the IIA HP Chapter Foundation Day celebration to be held on 24 August, 2023.

Draft Committee of Technical Report for Hon'ble Chief Minister, Govt. of Himachal Pradesh

Various EC meetings of IIA HP Chapter were held regarding various hazardous taking place in the state of Himachal Pradesh. All members of IIA showed their concern. After detailed conversations in the Executive Committee meeting of IIA HP Chapter held on 19 August, 2023, it was unanimously decided to constitute a Committee headed by Ar. Rajiv Sharma, Chief Architect, HPPWD, to prepare a Draft Technical Report comprising the issues of the architectural profession including private practices, govt. sectors and educational institutions. The Report will be submitted to Honourable Chief Minister and other concerned authorities for their knowledge, perusal and resolution of issues.

The Committee comprises Dr. (Ar.) Satish Katwal, Head, School of Architecture, Nagrota Bagwan; Dr. (Ar.) Venu Shree National Institute of Technology, Hamiorpur; Ar. Sushil Sharma, Shimla and Ar.

Abhinav Kaundal- both distinguished practising architects. The Draft Report will be discussed in the next EC meeting and will be presented to the Govt. of Hmachal Pradesh.

Ar. Nand Lal Chandel, Chairman, appealed to all members to send their suggestions and concerns pertaining to the profession of architecture to Ar. Sushil Sharma, Jt. Honorary Secretary by 30 August, 2023 for inclusion in the Report. It has also been decided that a contribution by IIA HP Chapter shall be given to Honourable CM, Govt of H.P. while handing over the Report.

10th Foundation Day of IIA HP Chapter

Due to various disasters taking place in the state, it was decided not to celebrate the Foundation Day. Instead, twenty nine members gathered online on 24 August, 2023 to pray for the departed and for courage for the survivors. It was also decided that members of the Executive Committee shall contribute generously towards the CM Relief Fund. The gathered members also shared their views on the various issues associated with the fraternity of architecture. It is hoped that state of Himachal Pradesh, also known as Dev Bhumi, shall soon be free from all worries, and life shall be restore to normalcy.

IIA Karnataka Chapter

Inaugural Spotlight Event and Executive Committee Installation 2023-2025

Installation of the new Office Bearers and Executive Committee members of the IIA Karnataka Chapter headed by Chairman Elect Ar. B.R. Mohan was held on 26 August 2023 at The Grand Magrath, Bengaluru. The ceremony marked the induction of the latest team of Office Bearers and Executive Committee members. Among the esteemed attendees was Ar. D. Santhana Krishnan, the Guest of Honour, along with Ar. H.C. Thimmaiah, former President of the IIA and other notable architects and academicians from Bengaluru. The event drew participation from the Chairman and Executive Committee Members of all the centers within the Karnataka Chapter.

In his acceptance speech, Ar. B.R. Mohan, the reelected IIA-KC Chairman, reflected on the accomplishments of his previous term, commending his team's relentless dedication and hard work. He outlined an ambitious new vision for the upcoming term, focusing on the continual growth and development of IIA-KC members, fostering robust collaborations with other professional bodies, institutions, and industry stakeholders. Additionally, he emphasized the chapter's commitment to engaging with the public, policymakers, and other stakeholders to advocate for the recognition and safeguarding of the architectural profession.

New Team of the IIA Karnataka Chapter 2023 – 2025 at the installation ceremony on 26 August 2023

The audience was provided with insights into the team's strategic vision and the comprehensive roadmap of the various committees for the next two years. The installation ceremony was followed by the launch of *BLUEPRINT Feature Focus*, a curated anthology of feature articles from Blueprint, IIA-KC's bimonthly newsletter from 2020 to 2022.

At the inaugural event of the new term, distinguished Sri Lankan architect, Kosala Weerasekara captivated the engaged audience with a presentation of his remarkable work. Ultratech Cement extended its support to the event, which saw a turnout of over 270 attendees.

Centre Installation : IIA, Hubballi-Dharwad Centre

On the 24 August 2023, the formal installation of the new office bearers for the IIA Hubballi-Dharwad Centre was held, under the leadership of Chairman Elect Ar. Anoopkumar Gupta at Hotel Naveen in Hubballi.

Adding to the prominence of the occasion, distinguished Sri Lankan Architect Ar. Kosala Weerasekara graced the event as the Guest Speaker. The ceremonious installation was conducted by Ar. B.R. Mohan, Chairman of IIA-KC, and it resonated with the presence of more than 150 Architects from the Hubballi and Dharwad regions.

The professional excellence and contribution to IIA by Ar. Somashekar Dhotrad (posthumous) and Ar. Sandeep Kulkarni (posthumous) was recognized at the event. This momentous event was made possible through the support of Koliwad Marbles & Granites, the main sponsor, and TurboSteel, the co-sponsor. With their generous backing, the IIA Hubballi-Dharwad Centre's inauguration stands as a testament to the collaborative efforts that drive the architectural community forward.

IIA Haryana Chapter

The second Executive Committee Meeting (2023-'25) of IIA Haryana Chapter was held on 27 August 2023, at Club Florence, Golf Course Extension Road, Gurugram. It was attended by 22 members including co-opted members, special invitees and observers. The meeting started with confirmation of minutes of the previous EC meeting held on 30 July 2023. IIA Haryana Chapter Chairman, Ar. Vivek Logani welcomed all the members and presented the report on activities of the last month. He also appreciated the efforts of members involved in preparation and execution of the 25th Foundation Day Celebration program on 27 August, 2023 at Club Florence, Golf Course Extension Road, Gurugram in a very short period of 15 days. The report on membership of various committees and action plan was also discussed.

29 August 2023 being the 25th Foundation Day of IIA Haryana Chapter, it was decided to celebrate the Silver Jubilee year by organising various activities and technical sessions to increase the involvement of members. Centres and Sub Centres came forward and submitted their activity planner.

25th Foundation Day Celebration

IIA Haryana Chapter celebrated its 25th Foundation Day on 27 August 2023 at Club Florence, Golf Course Extension Road, Gurugram. It was celebrated with great enthusiasm and active participation of members. About 175 architects attended and enjoyed the celebration program. The program started with *Saraswati Vandana* performance by Ar. Shilpa Kumar from Hisar. The Guest of Honour, Ar. Vijay Garg, Ex-President, Council of Architecture, inaugurated the event and addressed the members.

IIA Haryana Chapter Chairman Ar. Vivek Logani, informed the members of the inception and growth of Chapter in last 24 years. He also laid out the detailed program related to Professional growth, membership growth, architects' welfare programs, architectural education related activities and involvement of architectural students in IIA activities. The Chief Guest Mr. Suraj Pal Amu, spokesperson of BJP Haryana, congratulated the members of IIA Haryana Chapter for celebration of 25th Foundation day and assured of his support in resolving the issues faced by Architects with respect to government departments. Mr. Anil Vij, Home Minister of Haryana, called and congratulated Chapter Chairman, Ar. Vivek Logani on the occasion. He assured the inviting a delegation of Haryana architects to resolve the issues faced by them. Past Chairmen Ar. Satish Singla and Ar. Punit Sethi also addressed the members. The program was ably supported by leading companies in the construction industry. Active participation of members by way of cultural program presentations and live music concert by students of architecture was appreciated and enjoyed by all. The celebration ended on a high note with cake-cutting, presentation of mementos and a Fellowship Lunch.

IIA Punjab Chapter

2nd Executive Committee Chapter Meeting and Installation of IIA Patiala Centre

IIA Punjab Chapter held its 2nd Executive Committee (EC) meeting in Patiala on 26 August. Strategic discussions for upcoming activities were at the forefront. Simultaneously, the Installation of the IIA Patiala Centre took place, marking a significant milestone for architectural enthusiasts. The event was embellished with an enlightening expert talk on modern plumbing systems. Other deliberations centred on charting the course for future initiatives. The meeting culminated in the formation of new committees, each headed by accomplished architects, who will steer the Chapter towards achieving its objectives.

The newly appointed committee heads are as follows:

- Architectural Education Committee: Ar. Prabhjot Kaur
- Financial Affairs and Event Committee: Ar. Sanjay Kumar
- Sports Committee: Ar. Niranjan Kumar
- Smart City Committee: Ar. Rajan Tangri
- Architects Welfare Committee: Ar. Rajnish Walia
- Women Architect Networking Committee: Ar. Indu Bala Ahuja

These committee heads will collaborate closely with the Chapter Team to ensure successful implementation of various projects and initiatives.

This was followed by the Installation of the upgraded team of IIA Patiala Centre. The event was graced by the presence of the IIA Punjab Chapter Chairman, Ar. Pritpal Singh Ahluwalia. The Installation Ceremony marked the beginning of a new phase for the IIA Patiala Centre, promising innovation, growth, and transformative architectural endeavours. In the gathering, senior architects from Patiala volunteered to contribute Rs 1,72,000 in a single day from Ar. G.S. Reshi (Rs. 1,00,000); Ar. L.R. Gupta (Rs. 21,000); Chairman, Ar. P.S. Ahluwalia (Rs. 21000) and the IIA Patiala Core Team (Rs. 30,000). This has been a notable achievement.

Attendees were treated to an expert lecture by Er. Sahil Kansal, who provided insights into modern plumbing solutions. KK Eco tech Pvt. Ltd. offered an in-depth explanation of various components of plumbing in contemporary construction practices. The session attracted the participation of more than 85 enthusiastic architects and architecture enthusiasts.

Dignitaries at the lamp-lighting ceremony during the second Executive Committee Meeting of IIA Punjab and Installation of IIA Patiala Centre

The confluence of the second EC meeting, the installation of IIA Patiala Centre, and the expert talk on plumbing systems underscored IIA Punjab's commitment to architectural excellence and knowledge dissemination.

List of Errata

We regret some of the information being incorrect or missed out in the July 2023 issue of **JIIA:**

1) We regret the misprint of the Author's name in the article, *Genre of Olfactory: Aromatic Heritage & Cultural Tourism-Kannauj* (p.60). The Author of this article is **Dr. Nirmita Mehrotra.**

2) We regret the misprint in of the Author's details in the research paper, *Study of Usage of Open Space by Senior Citizens: Case of Residential Open Spaces in Pune, Maharashtra, India* (p.22). The Author of this paper is a **Final Year B.Arch.** student at the Marathwada Mitramandal's College of Architecture, Pune.

3) *Chapter Chairpersons 2023-2025.* (p.11).

Ar. Ritam Sircar, **Chairman**, West Bengal Chapter

4) *Chairpersons of Sub-Centres 2023-2025* (p.13).

14	Vindhya	**Ar. Raviraj Singh Parihar**

Viega Unveils New Experience Centre in Mumbai, One Lodha Place, Lower Parel

Viega, a leading international manufacturer in the plumbing industry, is thrilled to announce the grand opening of the Viega Experience Centre in Mumbai's prime location, One Lodha Place, Lower Parel. The innovative space is designed to provide an immersive and comprehensive understanding of Viega's cutting-edge products and solutions.

The state-of-the-art Experience Centre showcases Viega's extensive range of offerings, from the aesthetically elegant and efficient flush plate range to the renowned Advantix series of shower channels. It serves as an interactive hub for architects, engineers, designers, contractors, and customers, allowing them to explore Viega's world-class technology first-hand.

Dr Sandra Bell, EVP and Board Member, Viega Holding GmbH, stated: "The opening of Viega Experience Centre in Mumbai is the next milestone for Viega worldwide. India is one of our key growth markets where we see immense potential and alignment with our core values. The state-of-the-art centre will foster innovation, collaboration, and partnership. It shows Viega's commitment to enhancing our local presence and strengthening our relationship with our Indian clientele. "

Mr. C P Vinod, Managing Director, Viega India Innovative, commented, "We're excited to open our doors in Mumbai, a city known for its vibrant architecture and design community. The Viega Experience Centre will be a destination for innovation, inspiration, and collaboration. Our goal is to bridge the gap between technology and its real-world applications, empowering our partners and clients to make informed decisions.

Our team has invested a lot of effort into creating the perfect space for customers to get acquainted with and experience our products first-hand. We believe that this will help us foster meaningful relationships with our customers and further establish Viega as one of the most innovative and reliable plumbing solution providers in India."

Key Highlights of the Viega Experience Centre:

- **Interactive Showroom:** Live demonstrations and hands-on exhibits allow visitors to engage with the products and technologies.
- **Design Collaboration:** Providing design professionals with a space to explore, experiment, and collaborate on projects.
- **Sustainable Innovation:** Highlighting Viega's commitment to sustainability through its eco-friendly products and practices.

The Viega Experience Centre is **now open** for visitors.

Pre-book your slots by writing to innovations@viega.in or contacting Viega.India on social media.

88/08
IIA PUBLICATION
POSTAL REGD. NO.MCS/007/2021-23

RNI NO.9469/57
POSTED AT PATRIKA CHANNEL SORTING OFFICE, MUMBAI-400001
PUBLISHED ON 14TH OF EVERY FOLLOWING MONTH AND
POSTED ON 15TH & 16TH OF EVERY FOLLOWING MONTH

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Eligibility: Final Year Undergraduate students of Indian Colleges

RPS-06/2022

34th JKAYA shall open for participation for sending entries From 1st January, 2024

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