

Selected Academic works

This is a compilation of selected studio and academic works that I have guided (in studios is a collaborated work with me being the Studio Coordinator or Incharge) and executed at the School of Planning and Architecture, Vijayawada, An Institution of National Importance, Ministry of Education, Government of India since October 2009 till date.

ACADEMIC PORTFOLIO

Karteek G., PhD.

architect | urban designer

Contents

| | |
|-------------------------------------------------------------------------------|------|
| Urban Design Studio Work, V year B.Arch - 2021- URBAN RETROFITTING | 2021 |
| Urban Design Studio Work, V year B.Arch- 2020- Reinvigorating Public Spaces | 2020 |
| Urban Design Studio Work, V year B.Arch- 2019- Regeneration of the Urban Core | 2019 |
| Urban Design Studio Work, V year B.Arch- 2017- Urban Infill | 2017 |
| Theory of Design- III Year B.Arch | 2017 |
| Architectural DESIGN STUDIO WORK- 2014- Capitol Complex | 2014 |
| Urban Design Studio Work, V year B.Arch, 2013- MUSI Riverfront Development | 2013 |
| BOOKS- 2020 & 2021 | 2020 |

Project:
URBAN RETROFITTING

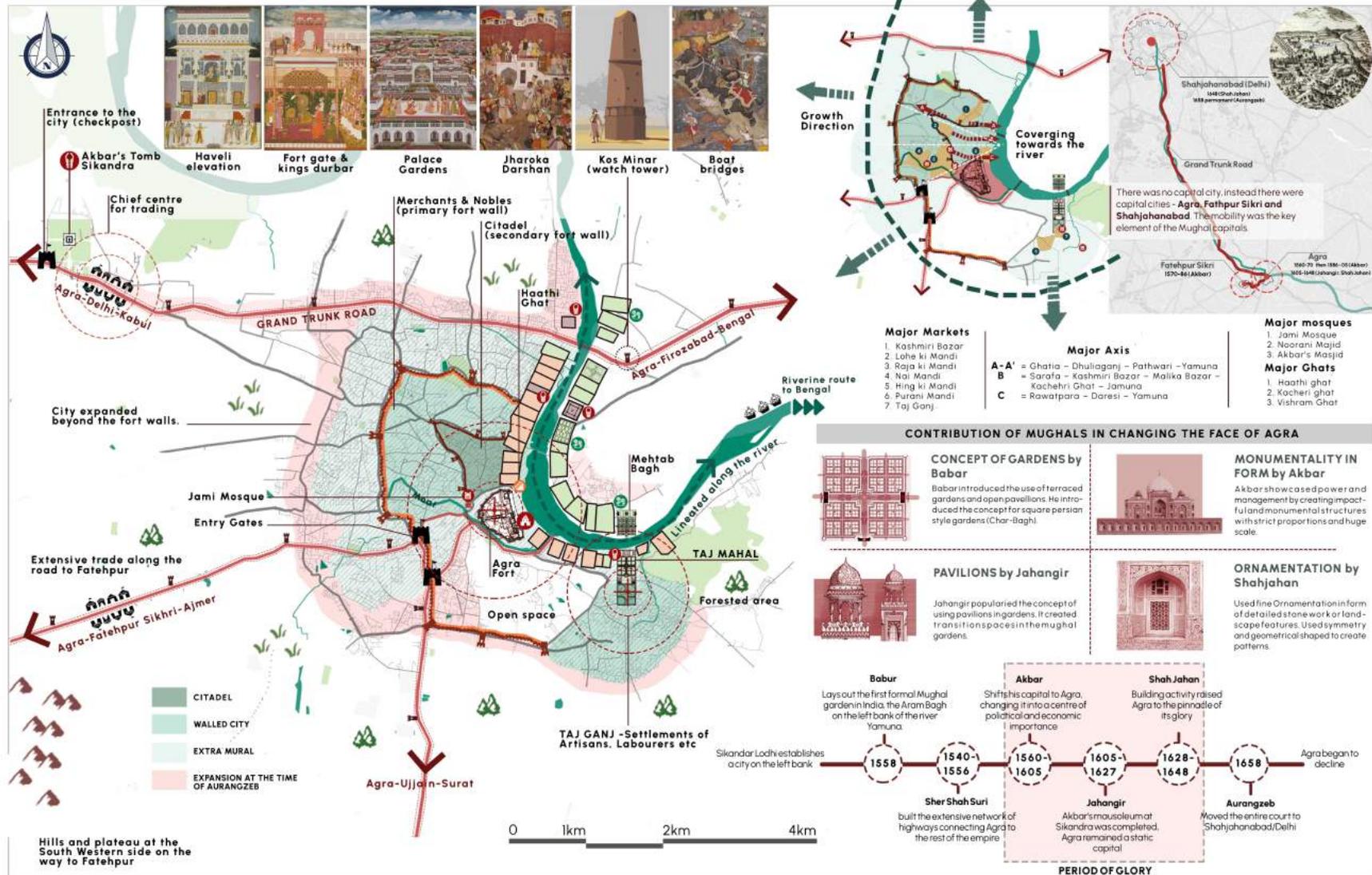
Year:
2021

Batch:
B.Arch V year

Brief:
SMART CITIES ARE CITIES THAT WORK.

Most importantly, work for whom? And, what do we mean by cities that work? Cities are confluences of people; places where people live, come to meet, exchange ideas, earn livelihoods, access education, health and other services and enjoy a life of good quality. People are at the core of the city. Therefore, cities should work for their people. Cities that work for their people will continuously become better versions of themselves with each passing day.

The purpose of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes. Area-based development will transform existing areas (retrofit and redevelop), including slums, into better planned ones, thereby improving liveability of the whole City. New areas (greenfield) will be developed around cities in order to accommodate the expanding population in urban areas.



URBAN DESIGN STUDIO
AGRA

URBAN ANALYSIS
OF THE CITY
sem- 9
2021-22

Agra - Mughal Era
Group 3
1170100667 1170100668 1170100674
1170100685 1170100703 1170100710 1170100718



Project:
Reinvigorating PUBLIC SPACES

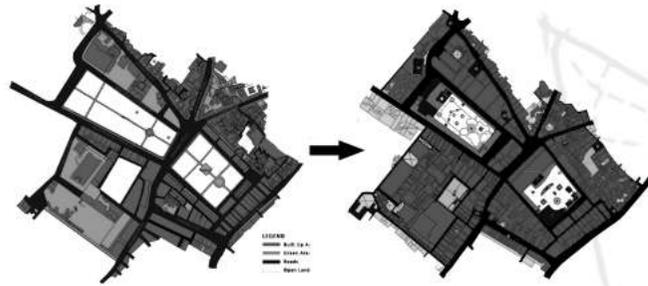
Year:
2020

Batch:
B.Arch V year

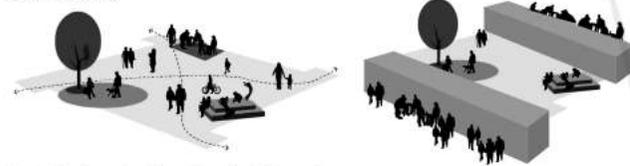
Brief:
Urban Design was always and will be focused towards improving the public realm. Urban design is also defined as an interface between Architecture, Landscape architecture and Town planning. However, one has to understand that Urban design is an interdisciplinary, collaborative, integrated approach of design concerning skills and expertise of wide range of professionals.

With the new pandemic havoc created around the world, people have a new social norm to be followed. Those were the good old days when we could appreciate our public spaces and life between buildings. And now our public realm is infected and causing concerns to our society and well-being. Dense urban districts, became a choice of life for many citizens but today they are considered as hot spots of spreading the infection. Our old cities like Shahjahanbad, Old Hyderabad, Walled city of Jaipur were vibrant and convivial. Its time now to rethink about our public spaces concerning some larger city level issues. But the pandemic has not only creating pressure on our daily lives but has shown that something like this can affect the external and internal space usage as well. Perhaps the dilemma is whether some of the theories once advocated in the field of Urban Planning and Design are still valid? With the increasing emphasis on social distancing norms worldwide, the question is whether we would advocate the same principles of design or we move in to the future with unknown possibilities.....

Morphology



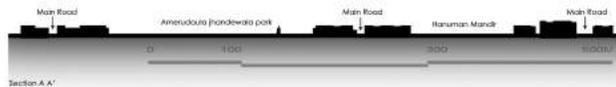
Urban Morphology



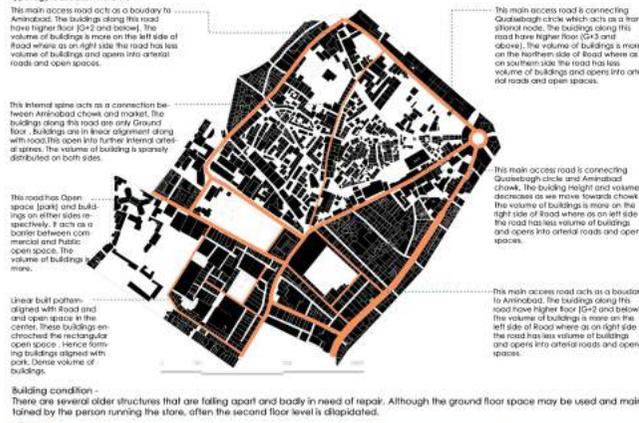
The market area is concentrated around two main parks. These parks form large open spaces around which commerce can flourish.

Now the park is neglected and the shops have almost enveloped. Half the area of the main Aminabad Park was converted into small temporary shops.

Road edges and sections-



Typology based on volume -



02
Sheet No.

ARCHITECTURAL DESIGN STUDIO
URBAN CONTEXT

Urban Analysis 2020-21 - Group 01 - AMINABAD, LUCKNOW

1160100545 | 1160100580 | 1160100588 | 1160100604 | 1160100605 | 1160100626 | 1160100627 | 1160100630 | 1160100640

All buildings in this area are traditionally built up to ground and two floors or in some cases ground and three floors. The attached plan will show that most buildings along a single street are of a similar height.

FAR - 2.5
Newer construction has been allowed an increased FAR of 2.5 and a ground coverage of 65% which means that buildings are now allowed to go up to four floors and a basement, since that is not counted towards FAR calculations. Most new construction is being built with a plinth height of 1.5m and a lower ground floor that is at -1.5m level.



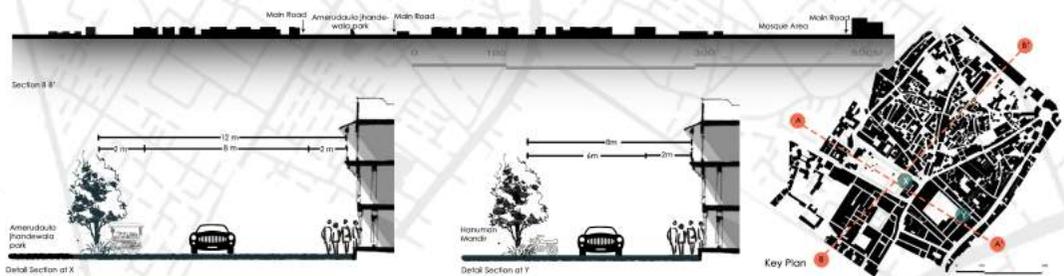
This allows two levels of retail floors on the lower ground floor and the upper ground floor. The third floor and above are then used for residential or office uses.

Inference-

Any interventions planned in this area will have to understand the regulatory environment in place and new comparative uses for higher floors would have to be worked out. New design guidelines are required to maintain the character of the area - buildings without setbacks and similar heights as the adjacent plots.



Street Pattern -
Its streets are irregular, curving and private serving courtyards houses.



Vertical differences in uses and intensity -

The distribution of uses and their intensity varies floor-wise. The ground floor is used mainly for the retail or small industries depending on the location of the building. On the second floor the use is secondary retail, small offices or light industrial use such as a clothes manufacturer or a courier's office, a small hotel or a residence. Traditional industries like chicken embroidery and cane furniture-making have been replaced by more profitable businesses. The upper floors are then residential or sometimes part of a small hotel or inn. The intensity of commercial use on the ground floor in prime locations is very high and every square foot of space is used. This includes covered sidewalk areas, side alleys and lots for activities like temporary storage of goods, installing a sewing machine during the day, keeping a water-cooler and so on. Small stores have been illegally constructed using the edge of the park as a rear wall and numerous temporary stalls are set up during the day. Many stores spread their wares onto the sidewalk during the day and fold it up when they close their stores.



Relation with immediate surroundings

- Zone - 1**
Characteristics: Built form pattern - Unorganised
Average storey height 10-15 m
Typology: South part has less buildings when compared to north though present along main road.
Permeability: Visually permeable to open spaces and physically permeable to open spaces
- Zone - 2**
Characteristics: Built form pattern - Unorganised
Average storey height 5-10 m
Typology: More commercial buildings and compactly arranged.
Permeability: No open space, Permeable to the built part
- Zone - 3**
Characteristics: Built form pattern - Unorganised
Average storey height 0-5m
Typology: Buildings ground open space are higher when compared to others
Permeability: Visually and physically permeable to open spaces
- Zone - 4**
Characteristics: Built form pattern - organised
Average storey height 5-10m
Typology: Higher height buildings along the roads
Permeability: No open space
- Zone - 5**
Characteristics: Built form pattern - Unorganised
Average storey height 5-10m
Typology: Chandelwala park is the main public space in this zone
Permeability: Visually and physically permeable to open spaces but not active zone.
- Zone - 6**
Characteristics: Built form pattern - Unorganised
Average storey height 5-10m
Typology: Jhona Park is the public space but its used as an integral part of Mosque.
Permeability: Visually permeable to open spaces and physically permeable to open spaces
- Zone - 7**
Characteristics: Built form pattern - Organised
Average storey height 5-10m
Typology: Ameerudaula park is surrounded by commercial units. This park now acts as a courtyard.
Permeability: Visually non permeable as it is completely surrounded by commercial units
- Zone - 8**
Characteristics: Built form pattern - organised
Average storey height 0-10m
Typology: The open space has become part of human made and surrounded by commercial units
Permeability: Visually and physically non permeable to open spaces



Project: Regeneration of the Urban Core

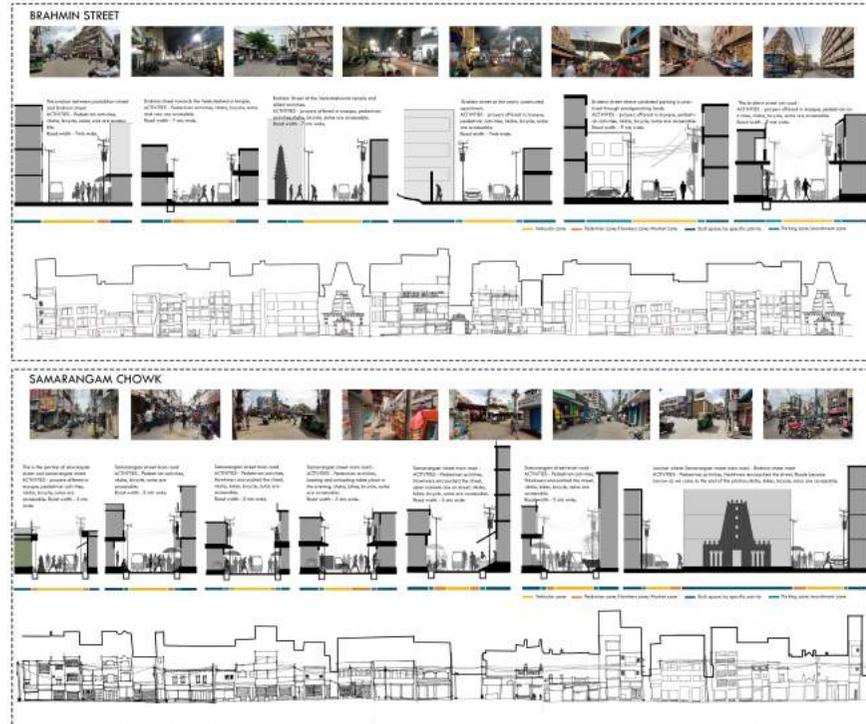
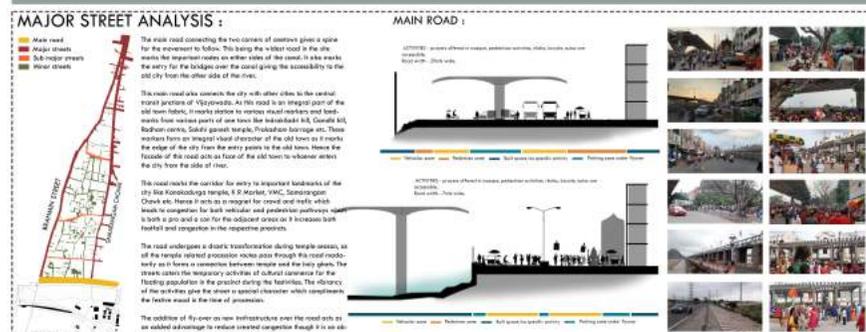
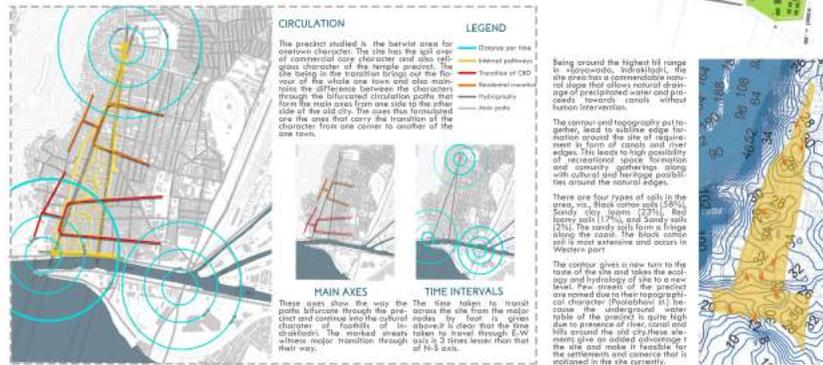
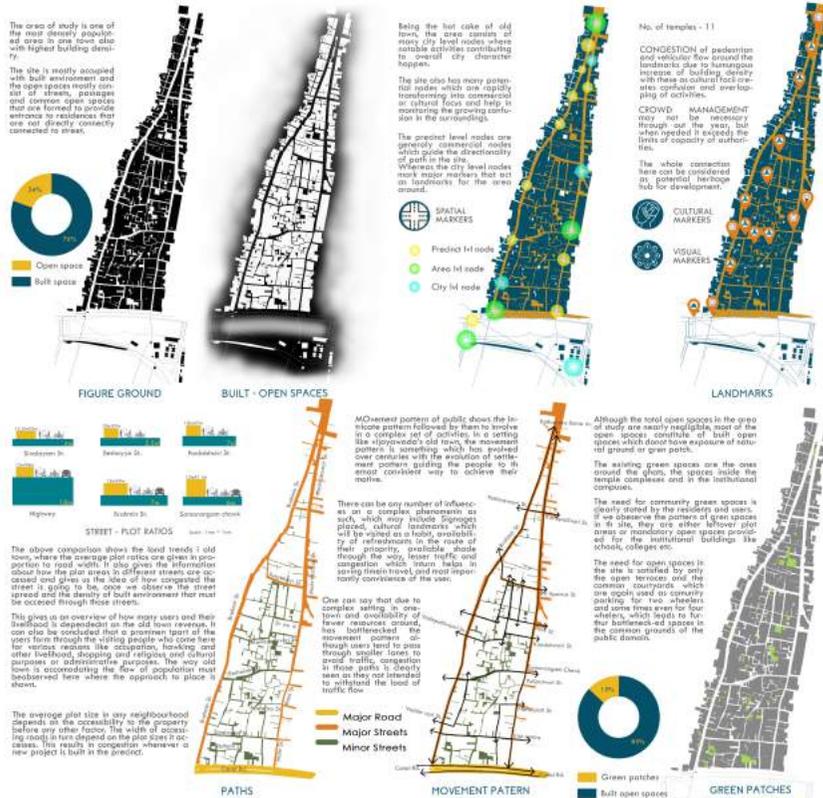
Year:
2019

Batch:
B.Arch V year

Brief:

As cities come under increasing pressure from influx of people - coupled with rising population growth and demographic changes - the demands of trying to house, transport and supply residents with essential services is stretching cities' resources. Urbanisation has certainly escalated problems such as housing shortages, inequality, unemployment, crime and climate change. Adding to the urbanisation challenges are governments' aspirations to transform their cities to be smart, liveable places. This common thread has given rise to a growing global trend of urban regeneration. At its core, urban regeneration puts communities at the centre of decision-making when it comes to place-making. The ultimate goal is to create an authentic place that meets the needs and aspirations of the community.

The intent of the project is to create a comprehensive vision for the One town area (Old town) of Vijayawada region in order to address current demands and issues, as well as future uses. The design proposals will weave together the diverse communities of the city and the particular region into a unified landscape that performs, in the greatest sense of the world. It will operate at the scale of the city components but adapt to local, unique sites; explore multiple functions for diverse constituents; transform, revitalise and inspire the community.



Project:
URBAN INFILL

Year:
2017

Batch:
B.Arch V year

Brief:
It is important to design and regulate environments based on the physical needs, economy of the space, cultural attributes and aspirations of the people and the city. But it is equally unfortunate that the presently followed regulations have not been derived by such systematic study. They are basically borrowed from the western countries and find no relevance in our socio-cultural society.

In this Studio, one such case identified is the railway land along BRTS (Bus Rapid Transit System) corridor, adjacent to Satyanarayanapuram in Vijayawada which is low dense and low rise with unintended form and character of residential developments, which does not respond to a transit corridor like BRTS. And since the new capital Amaravati is coming up, there will be lot of in-migration and upgradation of infrastructure, which will further increase the housing and other recreational demands. Currently, these can be observed in the city through recent initiatives. In addition, it is an opportunity to revitalize the existing city with better infrastructure and liveable environments since there is a need to improve Urban housing conditions and promote higher densities.

The intent of the Studio project is to study the city and the area for further investigation of the issues related to Morphology, Open spaces, Movement network, Building uses/ activities and design an environment imageable and liveable along a transit corridor. Possessing an ample amount of land under Railways, thus has a high demand for urban infill and can be developed under public-private-partnership.

| RESIDENTIAL | | | | | | | |
|---------------------|---------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------|-----------------------|--|
| SLUMS AND SQUATTERS | INDEPENDENT RESIDENCES (Single owner) | SHARED HOUSEHOLDS (Multiple owner) | LINEAR APARTMENTS (Singly loaded) | LINEAR APARTMENTS (Doubly loaded) | H-BLOCK APARTMENTS | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| COMMERCIAL | | | INDUSTRIAL | INSTITUTIONAL | MIXED-USE | | |
| INDIVIDUAL SHOPS | ROW OF SHOPS | SHOPPING COMPLEX | WAREHOUSE | PRIMARY SCHOOL | GROUND FLOOR MIXED-USE | MULTI-LEVEL MIXED USE | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Project:
Theory of Design- METAPHORS

Year:
2017

Batch:
B.Arch III year

Brief:
Architecture is always a fascinating art and through times the meaning of architecture and its interpretation has developed exponentially. It has blurred the boundaries of fantasy, imagination and reality through its creative stand and creation is a dream. Only the Architect who operates in the sphere of Imagination and Fantasy will be able to realize extraordinary projects (Anthony, 2008). And something unimaginable is a paradox. "A paradox is not a conflict within reality. It is a conflict between reality and your feeling of what reality should be like." -- Richard Feynman. Architecture is a fiction as much as reality.

Metaphor is an analogy between two ideas, creating a relation between the building and an element of nature. Metaphor is a powerful channel to make the work more creative and unimaginable, which many Architects and designer have used and have been using. Metaphor can be a starting point and then one can analyze the design content and essentials and then create possibilities of creativity (Anthony, C. Antoniadis, 1992). The potency of a metaphorical image lies in its ambiguity, because, not just one thing, it can be many (Richard MacCormac, 1996).

The idea is to design an abstract built space admeasuring 10m x 10m in suitable scale, interpreting the given intangible and tangible metaphors in the design process, in an A3 poster along with a model. The students are expected to understand the intangible and tangible metaphors as a means to strengthen the essence of the design process. The human scale should be considered in deciding the configuration of the built space.



Department of Architecture,
School of Planning and Architecture,
Vijayawada.

Batch 2014-2019
Karfeek G
Assistant Professor
Department of Architecture

WORLD OF METAPHORS

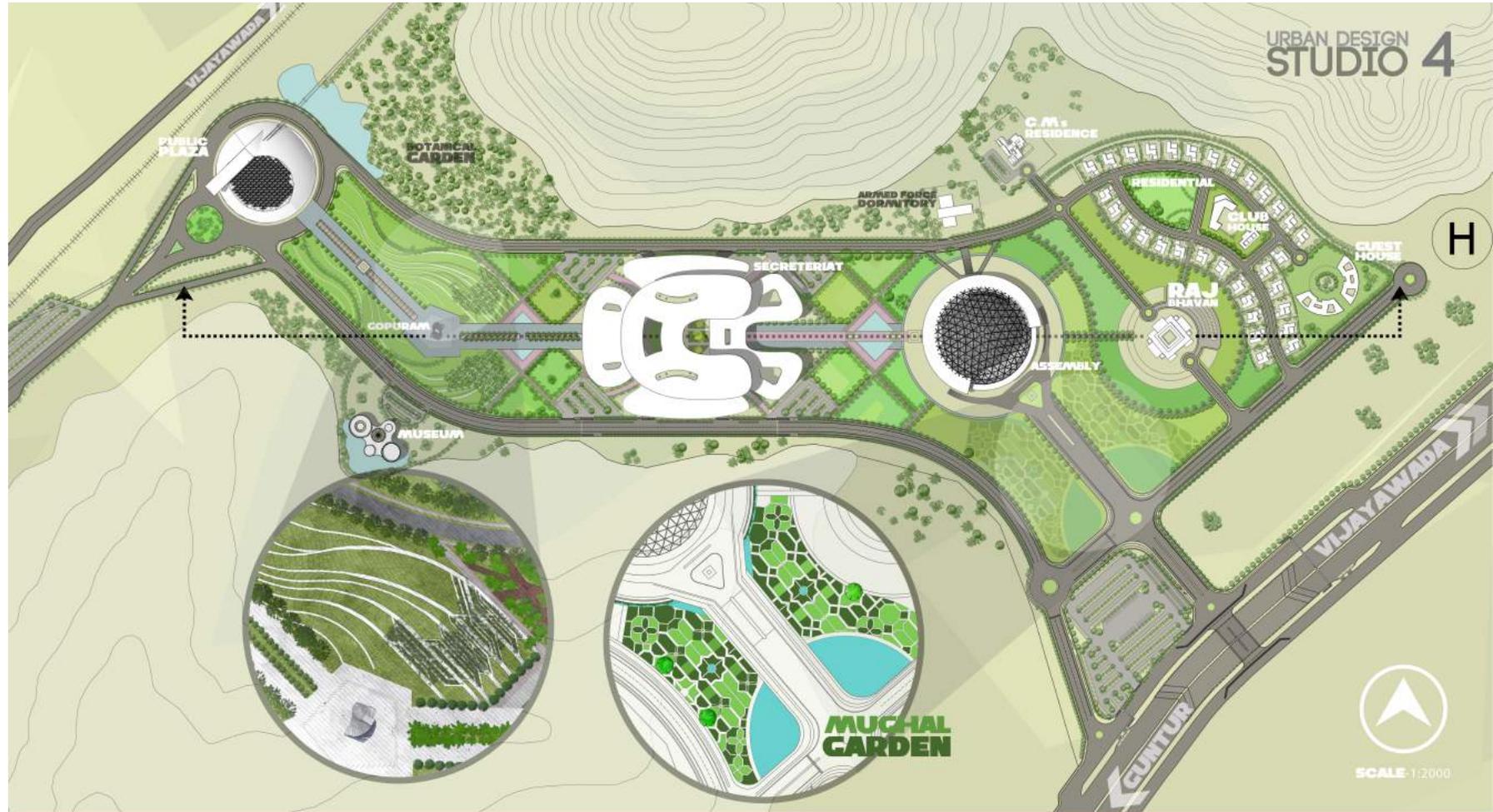
Project:
Capital Complex Vijayawada

Year:
2014

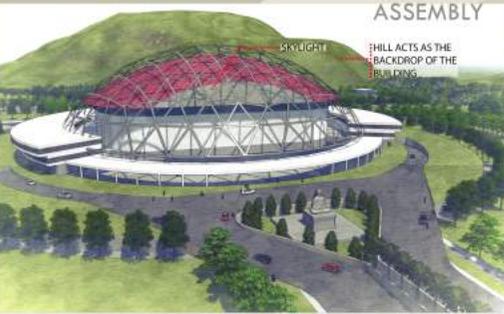
Batch:
B.Arch V year

Brief:

In this studio, the students were asked to explore, what it means to be a capital city in the twenty-first century. The task was a 'Green Field Urban design' where the programme was designing the administrative centre for the newly bifurcated state of Andhra Pradesh. By designing this large scale multi-functional urban intervention, students were expected to address a range of complex issues, such as the relationship of the new city with its immediate natural environs, transportation and infrastructure networks; and functional relationship between diverse building types. It was also expected that the students shall explore the complexities in the relationship between public and private spaces; between built and un-built environment; local vernacular ethos and global aspirations; historic imagery and futuristic visions.



3D VIEW



SECRETARIAT VIEWS

BUILT BLOCKS ACTS AS THE BOUNDRIES TO THE SECRETARIAT CAMPUS ITSELF

TRANSPORT HUB ACTING AS

- metro station
 - auto stand
 - shuttle bus station
 - chartered bus stop
 - staff parking
 - battery operated vehicals for physically handicapped
 - bicycle stand
 - commercial centre
 - information centre
- TRANSPORT HUB AND PUBLIC PLAZA



Urban Design Studio

Project:
Musli Riverfront Development

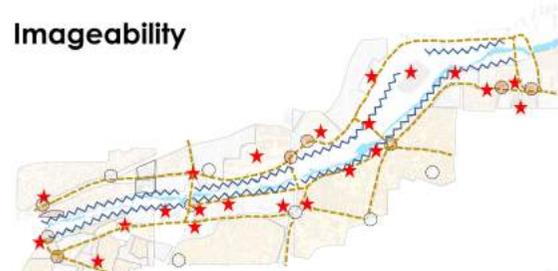
Year:
2013

Batch:
B.Arch V year

Brief:

The Studio was focussed on Urban Design along the riverfronts. The main objective of the Studio was to bring forth diverse range of issues of development and conservation along the diverse cultural urban riverfronts - Musli Riverfront, Hyderabad and Krishna Riverfront, Vijayawada. The interim workshop during the studio also had bought, a wider platform disseminating knowledge in riverfront developments, addressing variable issues like conservation, ecology, and human interventions. The studio concluded with key urban design interventions along the two diverse riverfronts addressing key issues of riverfront development.

Imageability



- Built form Character:** Most of the structures on the Atalgarh road are G+1 whereas the structures on the northern side of the road are G+2 and more.
- Typology:** Buildings adjacent to the river side are mostly of lower height residential slums whereas on the street side these are commercial and mixed use.
- Permeability**
- Visual:** Irregular growth of residential areas on the inner side obstructs the visual permeability to the river.
- Physical:** The area is not physically permeable due to the unplanned growth of the residential area on the river side.



- Built form character:** there lies a monotonous character on northern side of Asaf Jaha road. there appears a regular distinct built character on both sides of Musani alam road.
- Typology:** The CHM buildings smaller volumes upto Ground buildings on asaf jaha road residential settlement with major mixed use buildings abutting the husani alam with rise upto G+3.
- Permeability**
- Visual:** CHM plots are obstructing the visual permeability to river for pedestrian on the road. Fences on punctuated road obstruct the river view.
- Physical:** the stretch of CHM buildings on asaf jaha roads less permeable, entry to those enclosed open spaces and built volumes is restricted. Residential streets are permeable for pedestrians but not for a vehicle.

- Built form Character:** Largely varying and composite composition of built forms, varying from very huge to meager land covers.
- Typology:** Osmania General Hospital Old Building is a huge public structure of approx. 24 m. Other public structures' height varies from G+3 to G+2 while residential & mixed has mostly G to G+2.
- Permeability**
- Visual:** River is visually permeable along the road adjacent to the river.
- Physical:** As we move further west connectivity is completely disturbed due to encroachment along the river bed.
- Special Predominant Typologies:** Osmania General Hospital.



Edge: Musli River edge showing earlier plans of re-development near Osmania General Hospital



District: Covering either sides of Miralam Road, near Purnanapal general



Landmark: Osmania General Hospital

- Built form Character:** Average building heights are G+2 and G+3. "Harden Lodge" is the tallest building G+3 of Osman Shahi area.
- Typology:** Residential development ranging G+2, G+3 and G+4 seen in the Osman Shahi area, mixed use along the main road.
- Permeability**
- Visual:** Because of a waste disposal chamber the front view of Imbarc park from Satapur Pul is visually hampered.
- Physical:** An encroachment by a transport company creates physical impermeability along the river bed.
- Special Predominant Typologies:** G+3 and G+2 typologies with commercial and mixed residential uses.



Height of buildings ranging G+2 to G+4



Residential area along the inner roads near Saitto market



Form along Chodarghat main road, institutional and commercial

- Built form Character:** The High Court stretch has several huge structures. On the south of High Court road, the old city extension, had densely built low height buildings.
- Typology:** The public buildings along the river have varying floor levels but similar heights, 18-24m. Southern area of this stretch has low rise residential to mixed use structures.
- Permeability**
- Visual:** Visual access to the river is fine along the High court stretch and is lacking along the Govt. Maternity hospital stretch.
- Physical:** there is no physical access to the river in the Govt. Maternity hospital stretch.
- Special Predominant Typologies:** Apart from some huge public buildings the most predominant types seen are G+2.

- Built form Character:** Commercial and institutional of G+3 and G+4 along Chodarghat main road.
- Typology:** Buildings along the river are mostly of lower height (G+1 and G+3), institutional and commercial along the main roads, residential along the inner roads.
- Permeability**
- Visual:** Because of building heights along the main road, any important religious structures with aesthetic values are visually inappropriate.
- Physical:** Physically permeable due to the planned growth of the residential area at Osmania and Saitto market road area but impermeable along the river side due to unplanned slum growth and existing groveyards.
- Special Predominant Typologies:** G+3 and G+2 typologies with commercial and residential uses.



Asaf Jaha road permeable CHM plots



Old Maternity and Mecca Madina

- Built form Character:** Mostly historical and commercial places of G, G+1, G+2 from Darululha to Nayapet.
- typology:** Buildings along the river are mostly G+2, G, G+1; commercial area mostly of G, G+1 heights. Larger volumes of historical structures.
- Visual:** River is visually not permeable due to obstruction of trees along the pedestrian road.
- Physical:** Physically permeable due to the reclamation project started near rubber dam opposite Satapur museum.
- Special Predominant Typologies:** G-1 and G+4 typologies with commercial and residential uses.



Chaitrakona Building blocks are G+1, G+2 and G+4



Residential building with mixed use in Osman Shahi area



morphological study

Musli River Front Development

B.Arch, V Year, Section - B

School of Planning and Architecture, Vijayawada



School of Planning and Architecture, Vijayawada
No. 10, P. O. Box 10, K. V. Road,
Vijayawada - 521 004
Dist. Eluru, A.P., India
Ph: 884 2447 431
www.spa.vu.ac

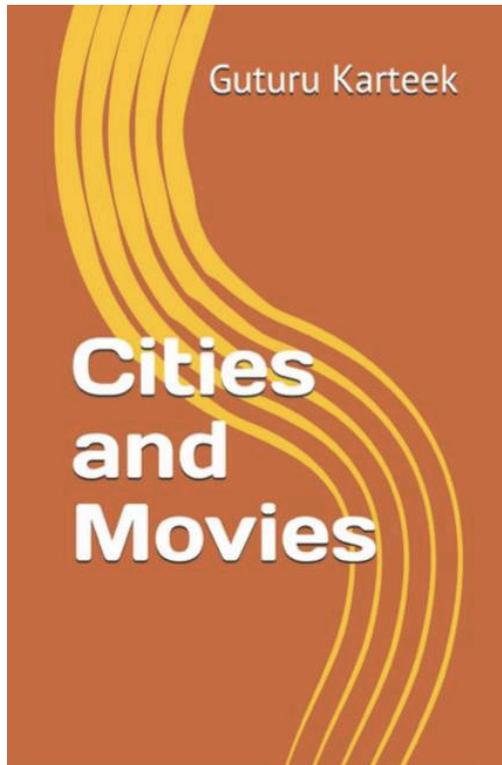
02

Book:
Cities and Movies

Year:
2020

Synopsis:

The following book compilation is part of the work done by students of Architecture School of Planning and Architecture, Vijayawada, wherein each chapter is based on a movie/series or a game that released before the year 2014. The movies are not limited to one film industry but spans across Hollywood, Bollywood and Tamil Cinema. The objective here is to describe the layers of city character, people and visuals into which the stories are interwoven. While some depictions are fictional either based on comics and/or mythologies, some creates a whole new world where there are different continents. There are the futuristic visions (of the artists) of present-day cities and cities set in historic periods and some totally imagined futures. Some even take us to other planets set in future where the lifestyle is in complete contrast to that of humans on earth where people deal with consequences of human interventions. The Directors, Producers, Writers, Visual Effects team and all other who have contributed to the creation of these movies have been given the due credit at relevant portions of the compilation.

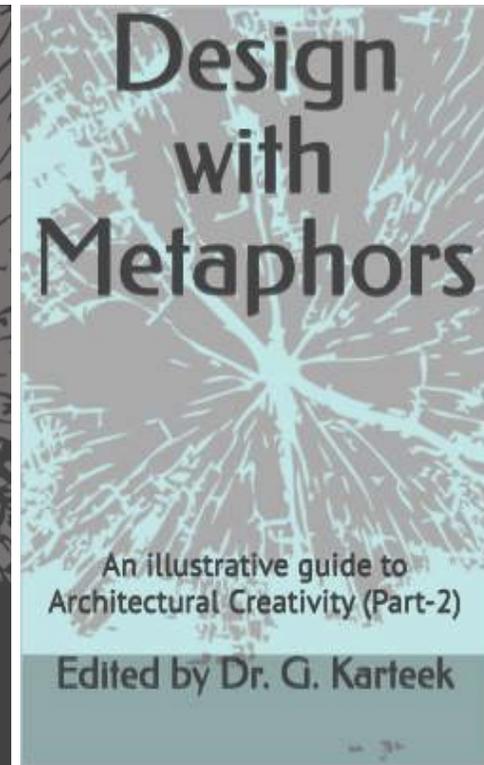
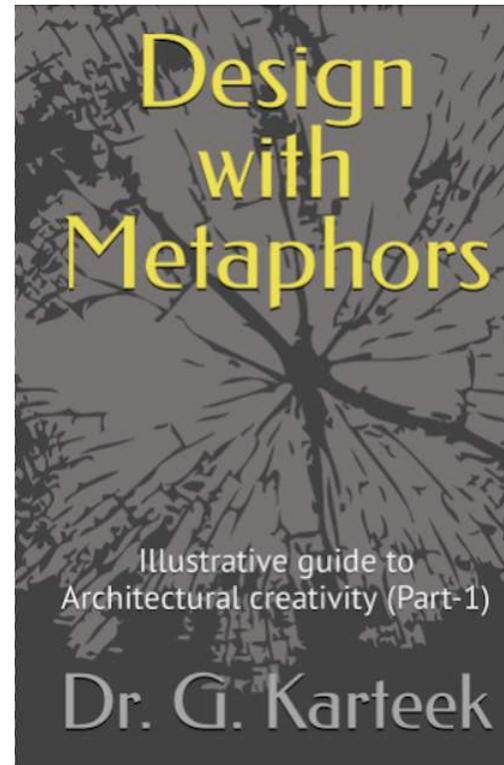


Book:
Design with Metaphors, Part-1 and 2

Year:
2021

Synopsis:

The intriguing relation between architecture and metaphors is considered to be one of the channels to make architectural design more creative. Creative designers intend to use metaphors as a powerful channel of expression rather than trying to suffice the requirements of a given design problem. During this process, one can unlearn the experience of generic design process and explore something out of the box and creative. This makes the design outcome reach beyond the generic modulations of space and structure. While teaching Theory of Design, I realised that the theoretical learning should be explored beyond the books. And this exercise was to unleash the possibilities that architectural design can demonstrate through the use of tangible and intangible metaphors. These selected design illustrations using tangible and intangible metaphors are excerpts from the Theory of Design work by 3rd year Architecture students at School of Planning and Architecture Vijayawada, India is an attempt to show that spatial design can be more creative with the use of metaphors.



Thank You