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Architect - Director of the Auroville Earth Institute,  
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**Chief Guest of ICAPSE 2020**

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## ART

Ar.INDIRA KOLLI M.Arch  
Principal

Art is an expression, creativeness, imaginative thought process. Though we communicate very well verbally, some times we may not express, what exactly we want to express. Information what we will get by seeing is more accurate than hearing. So we architects should have an ability to create. Not only having creative ability in Architectural design, but also should have an ability to express our thoughts much better way through sketching. Sketching is an additional ability to enhance our work. Every architecture student must have an ability to sketch things. Here I am going to discuss how our ancestors how best they communicate, where there is no verbal communication. If we see history (prehistoric times) primarily they depends on hunting for their food. People they give knowledge to felloebeings on hunting, choosing type of animal through sketching and painting on cave rocks. Often I heard questions raised by students, Why we have to learn History of Architecture? Here I discussed small incident of historic aspect, sketching is how important in their life, ofcourse art is not only communicating people those days, also it is an their leisure time activity. so there is a message for my dear architecture students, History of Architecture is so important for us and Its vassal of ELIXIR

Note:Source of images is Internet



Pre Historic Art

## “TRAVELOGUE MEMORIES OF PUDUCHERRY”

“Memories worth to share”

Ar.S.CHINNADURAI M.Arch  
Head of the Department



White Town - Heritage Town - Pondicherry Museum - Bharati Park - Cafes

White town/ Heritage town is where every perfect shot of colourful buildings that you may have seen of Pondi is clicked. The streets here are like a maze of blocks. Every block has its fair share of cafes, boutiques, hotels and villas. All the places are at stepping stone's distance, so we preferred walking and exploring. In fact many people simply hire cycles and tour around white town!

Best thing here is how you can leave your urban life behind and find pleasure in small things. You can simply walk where your heart leads you and enter the cafe you like. Some of places we explored are Pondicherry Museum, Bharati Park, some bookshops and libraries and lots of cafes! French, Italian, Mexican, Indian, you name it and you'll get it. We loved all white decor of Artika Cafe Gallery, Bombay Kulfi that we had in Pondi, and the best waffle ever @ Cafe des Arts.

## ANCIENT CLIMATIC ARCHITECTURAL DESIGN APPROACH

Ar.R.REGHU M.Arch  
Assistant Professor

### Introduction

Undeniably, climatic architectures in most parts of the world date back to thousands of lifetime of olden days. In antique climatic building, the climatic factors have forever been significant matter in the plan to supply a sequence of apposite response according to the best compatibility among the atmosphere and being thermal comfort. In addition, in conventional planning, based on environmental position, buildings were designed to deal with the outside environment through the roofs, external surfaces, windows, ventilators, courtyards, basements and other elements. However, with the beginning of current design and the growing usage of HVAC (heating, ventilation, and air conditioning) systems, the consequence of climate was delivery less awareness and parallel architectural pattern were second-hand in poles apart parts of the planet with different climatic surroundings.

### Courtyard Houses approach

Courtyard houses – as four time of year building – supply controlled climatic spaces. Due to its inward-facing form on four sides closed in by covered parapet, heat relocate from the inside to the outside and outside to the inside is inadequate. Based on creating the highest gloominess in summers and highest solar heat amalgamation in winters, these buildings are separated into summer and winter zones located in the back or front of the sun path, correspondingly. It means the patio is positioned in midpoint of structure and the summer and winter parts are located in two dissimilar guidelines of the innermost courtyard where the population were re-located into these zones according to the changing seasons. In the summer, because of the meticulous direction of the summer zone, the direct solar energy can be avoided and only gentle solar radiation and daylight sparkles should be allowed for day lighting purpose. On the other hand, due to the orientation of winter zone in front of the sun path, direct solar radiation is entered into the house by windows facing the sun.

### Benefits

The studies of the patio houses designate that these strategy have high competence in provided that cool indoor in the summer and warm indoor in the winter for population (comfort zone). Moreover, patio building is as an energy well-organized architectural design in momentous typical weather conditions, with the prospect to achieve as much as a 30 % decline in cooling and heating costs through distrustful landscape planning. Hence, this architectural technique can be used to offer annual energy saving and achieve proper thermal comfort for inhabitants

### Conclusion of Ancient Climatic Design

It necessity be renowned that antique climatic construction method have forever paid some admiration to the climate. though, traditional building approaches should be measured, evaluated and urbanized but not artificial. That means conventional architectural solutions should be studied, in particular, using soil thermal permanence feature and particular orientations; however, the barriers and boundaries should be separate. In this part, two types of antique climatic intend approaches namely square houses and soil sheltered house were mentioned.

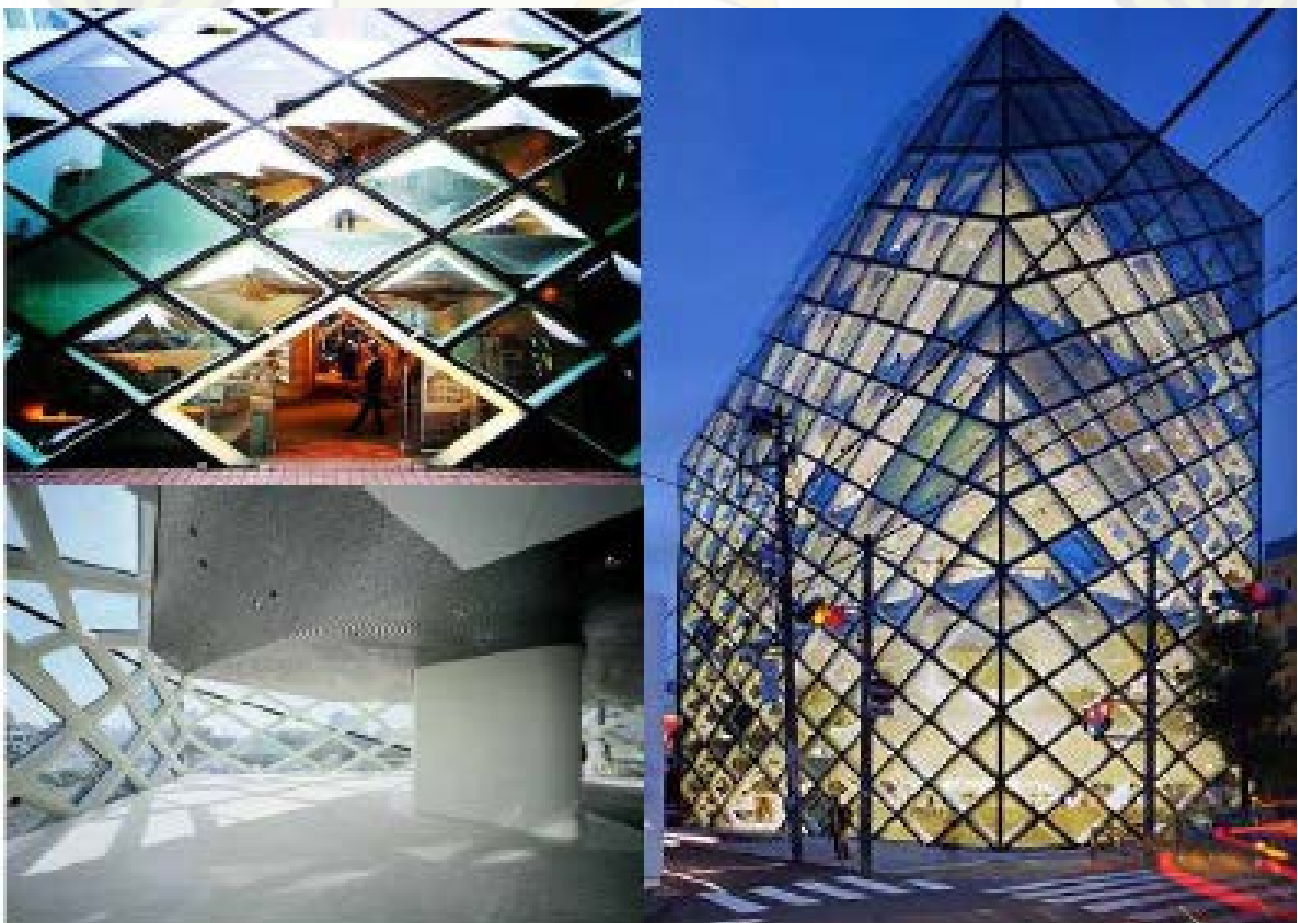
# THE PRADA STORE – AN INNOVATIVE FAÇADE TREATMENT

An Unique design by Herzog & de Meuron

Ar.M.RAGHAVENDRAN M.Arch  
Assistant Professor

The Tokyo store is a strikingly unconventional 6-story glass crystal that is soft despite its sharp angles – as a result of its five-sided shape, the smooth curves throughout its interior, and its signature diamondshaped glass panes, which vary between flat, concave and convex “bubbles”. The Aim of the architects regarding the building facade is to appear as a sculptural element in the middle of the compact urban fabric.

As they approach the building, the form stands out in the skyline basically composed of concrete boxes. It is an irregular volume, its 6 floors have been crafted so that the volume does not seem so high. For this reason, some of its corners have been lowered. The volume consists of a diamond grid - made of metal pipes, whose openings have been clad with glass panels, either concave, convex or flat, some transparent, others translucent, giving texture & variety to the surface. The frame defines the shape of the openings (including the entrance) and behaves like an element that unifies the irregular and gently angled shape of the building. “The rhomboid-grid has also structural purposes, behaving like a flexible mesh that supports, along with the elevators, the concrete slabs and allows more elasticity to the union of metal and glass in case of an earthquake.” In this way the interior becomes much more exposed, to be shown to the outside, behaving like a giant shop window.” Jacques Herzog describes these glass panes as “an interactive optical device. Because some of the glass is curved, it seems to move as you walk around it. That creates awareness of both the merchandise and the city—there’s an intense dialogue between actors.



## ARCHITECTURE IN SCIENCE FICTION MOVIES

Ar.T.JOSEPHINE SABEENA B.Arch  
Assistant Professor

Architects and designers typically notice themselves experiencing movies a touch otherwise than the immense public, particularly once it involves the science-fiction genre that includes buildings, cities or urban landscapes that area unit “out of this world”; they see the buildings within the background (or foreground in some cases) and start to analyze however they’re designed. Some sci-fi movies or TV shows urged technologies that have galvanized generations of scientists to analysis and develop them. In different cases, the photographs of buildings and cities visualized some thirty or forty years ago, predicting the long run, have a placing similitude to some gift day urban environments; there are movies with visions radically completely different from what we’ve got these days.

Sci-fi will typically function a warning however typically enough are often a supply of inspiration. Many movies have nonheritable a cult standing, not solely in in style culture however conjointly within the scientific community, their pictures turning into virtually picture, documented by several architects, Some movies Drew inspiration from varied field studies or models of utopia, on works from the avant-garde or competition entries. Analyzing field illustration in over 100 and fifty feature films, live-action or animated, this study offers a synthesis of field style options likewise as highlights directions for additional development of building technology whereas creating the case for the study of media-architecture. Lessons in style when surfing all the varied themes in sci-fi movies and their use of field representations (real or made for the film set) 2 basic trends can be determined: before the 1990’s most futurist visions turned around machines and their expressions with a dominantly dark tone adding smoke and steam to mechanism – we will decision this recorder environment; when the flip of the century the long run is dominantly white, clean, semitransparent and shiny – we will decision this white cube setting.

This may be conjointly related to the digital revolution and also the amendment of paradigm in our current society. Initially look, the common divisor for creating a building look from the long run is to create it look bright however cold, polished and in light-weight colours with varied. Glass is employed in abundance once picturing associate degree utopian future whereas heavier materials combined with smaller windows area unit used for dystopian societies. The preferred materials area unit white polished concrete, glass (mostly with a reflective light-blue tint) and shining steel parts. Aluminiferous covers area unit used principally once imagery a darker future. One important facet is that the scale over sizing buildings offers them a way of dominance over the population, so underlining their importance within the narrative.

Another technique to create a designed setting look advanced is to use typical models of buildings and overlay them with clear media. Once to realize an older “vintage” look or to offer the sensation that one thing isn’t therefore technologically advanced the oft used methodology is to recall industrial styles from steam-punk to cyberpunk: giant apparent pipes, cogs and wires, exhaust tubes, turning wheels, displays and devices with a lot of mechanical controls instead of digital. This system of situation varied parts along is mostly wont to denote an absence of interest within the aesthetics of designed environments – armed or company exploitation facilities, shanty cities or different settlements that area unit typically poor and/or overpopulated.



## INVERTER AIR CONDITIONER

Er.Z.JENNER M.E.  
Assistant Professor

In most of the buildings, space cooling is one of the important criteria to make the occupants feel more comfort. So to make them feel comfort, room air conditioners are used. Since the energy demand is increasing, the air conditioners used for air conditioning should be energy efficient. The inverter Air Conditioners has the features of good energy efficiency compared to normal air conditioners. An inverter type air-conditioner adjusts the speed of the compressor depending on the cooling load thereby consuming less current and power. The inverter AC operate at maximum capacity as soon as they startup. So the cooling can be reached more quickly. After the indoor temperature reaches the set temperature, inverter control adjusts to low capacity operation to maintain this temperature. This makes the Inverter AC more energy saving than the non-inverter AC. Inverter AC adjusts temperature finely according to the changes in the surrounding temperature. This makes the occupants feel more comfortable than the normal AC which stops when the set temperature is reached.



## BEZOS CENTER FOR INNOVATION

Ar.K.ASWIN PRAKESH M.Arch  
Assistant Professor



Generously supported by Jeff and MacKenzie Bezos, the Bezos Center for Innovation is a groundbreaking exhibition dedicated to the theme of innovation, featuring multimedia, interactive and hands-on experiences as well as artifacts, images and oral histories that explore Seattle's creative history and ignite the innovator within.

The 5,000 square foot exhibit is layered with rich narratives whose interactive nature facilitates discovery and enables visitors to become fully immersed in the creative process. The exhibition begins with the question, "What is innovation?" Alan Maskin, lead designer for the project notes, "The exhibit frames a dialogue around innovation—visitors have multiple opportunities to engage and offer their own perspectives...as part of the interactive experience visitors are invited to post innovation challenges, while future attendees will have the chance to write, draw, or build solutions to these posed problems—creating a crowdsourced collaboration and activating the collective conscious."

The "Idea Lab" invites visitors to communally identify and solve some of today's most pressing challenges. In "We Shape our City," visitors can take self-portraits in a photo booth and add their faces and ideas to the discussion. "Seattle Patent Tree" provides a three-dimensional history of the Puget Sound region's inventive spirit, allowing visitors to take away original concepts of their favorite "Made-In-Seattle" ideas. "Go Big!"—a 9' x 12' graphic novel—tells the history of Seattle-based organizations through five short stories about connecting, healing, working, shopping and moving, and "Launch Pad" encourages visitors to engage in an interactive exploration of the skills of innovation.

## HOW ARTIFICIAL INTELLIGENCE WILL CHANGE ARCHITECTURE

Ar.R.ANAND GODSON M.Arch  
Assistant Professor

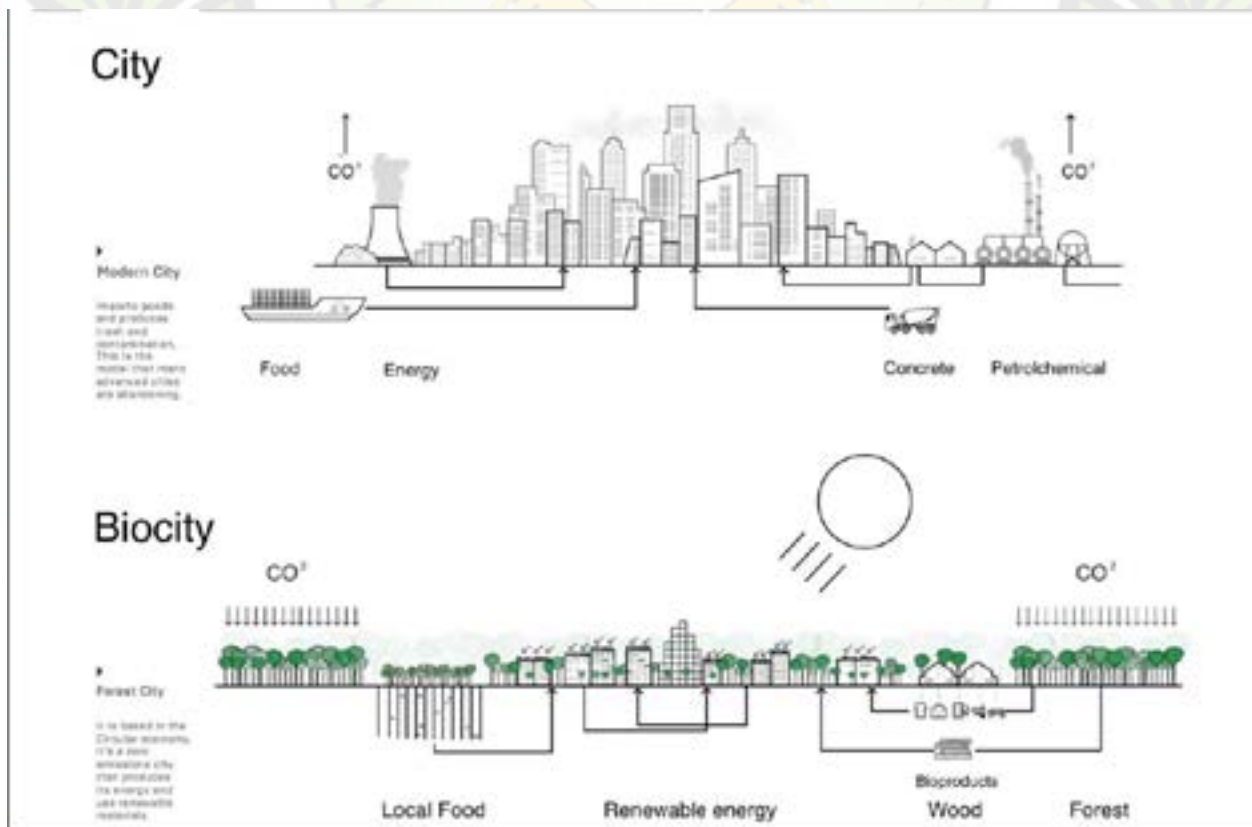
The advance of AI technologies can make it feel as if we know everything about our cities—as if all city dwellers are counted and accounted for, our urban existence fully monitored, mapped, and predicted.

But what happens when we train our attention and technologies on the non-human beings with whom we share our urban environments? How can our notion of urban life, and the possibilities to design for it, expand when we use technology to visualize more than just the relationship between humans and human-made structures?

There is much we have yet to discover about our evolving urban environments. As new technologies are developed, deployed, and appropriated, it is critical to ask how they can help us see both the city and our discipline differently. Can architecture and urban design become a multi-species, collaborative practice? The first step is opening our eyes to all of our fellow city dwellers.

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Artificial Intelligence remains a Pandora's Box of possibilities, with the potential to enhance the safety, efficiency, and sustainability of cities, or destroy the potential for humans to work, interact, and live a private life. The question of how Artificial Intelligence will impact the cities of the future has also captured the imagination of architects and designers, and formed a central question to the 2019 Shenzhen Biennale, the world's most visited architecture event. As part of the "Eyes of the City" section of the Biennial, curated by Carlo Ratti, designers were asked to put forth their visions and concerns of how artificial intelligence will impact the future of architecture.

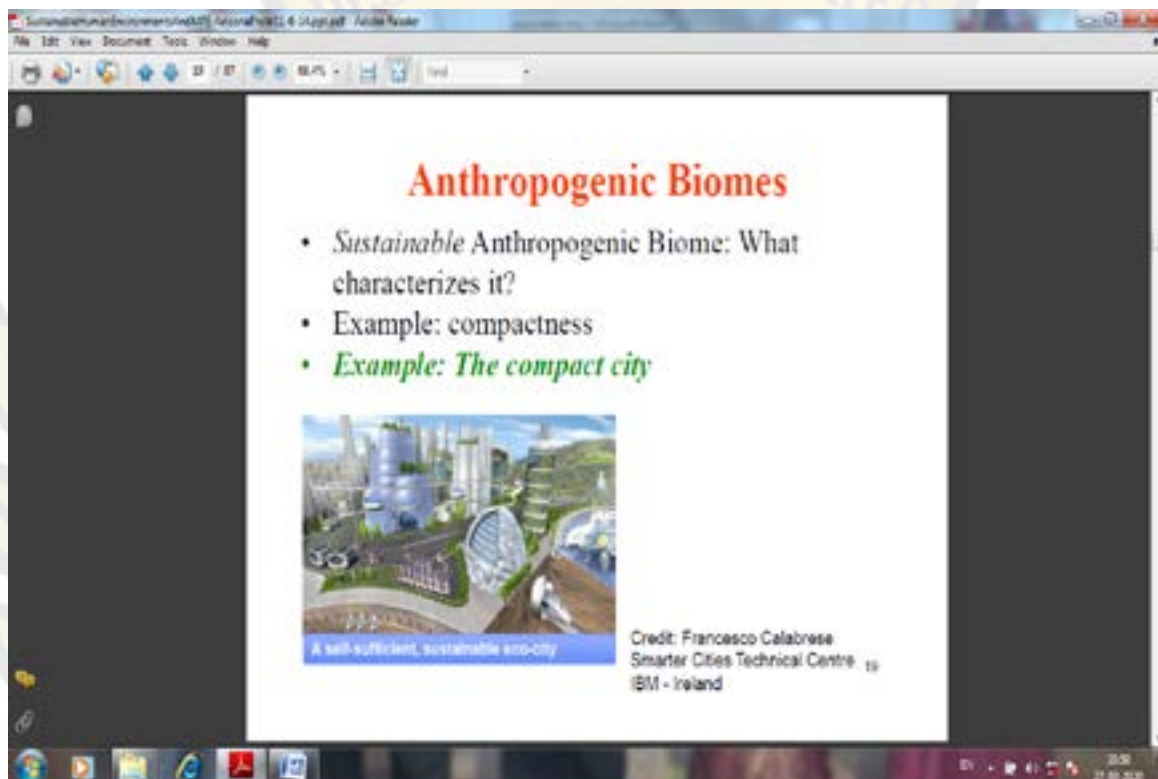


## ANTHROPOGENIC BIOMES: MATH SCIENCE CHALLENGES

Mr.P.S.STEM EDILBER M.Sc,M.Phil  
Assistant Professor

Modeling cities as complex, interconnected ecosystems  
Modeling the interactions of humans and their urban environment  
Limits to growth  
Fairness in using and distributing resources  
Monitoring networks/early warning systems for natural and other hazards  
Incentives for best practices by citizens  
Improving paradigms for inclusion and ownership of natural resources  
Optimizing models for use of networks – physical and social

Example for compact city



The image shows a screenshot of a presentation slide titled "Anthropogenic Biomes" in red text. The slide content includes:

- Sustainable Anthropogenic Biome: What characterizes it?
- Example: compactness
- *Example: The compact city*

Below the text is a 3D architectural rendering of a futuristic, compact city with green spaces and modern buildings. A blue banner at the bottom of the image reads "A self-sufficient, sustainable eco-city".

Credit: Francesco Calabrese  
Smarter Cities Technical Centre  
IBM - Ireland

The slide is displayed in a window with a standard Windows taskbar at the bottom. A large, faint watermark of the Sigma College of Architecture logo is visible in the background, featuring a banner with the text "SIGA".

## WATERSHED MANAGEMENT AT URBAN-SCALE

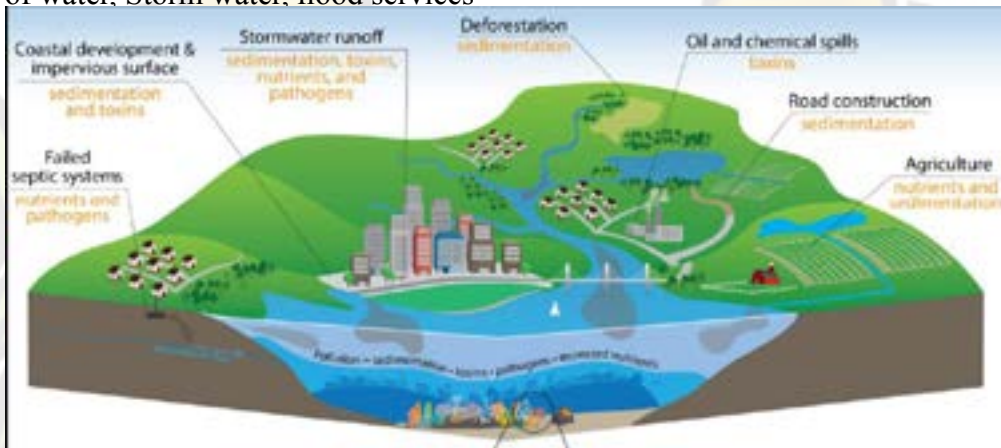
Ar.M.PRIYADARSHINI M.Arch  
Assistant Professor

### Urban watershed management:

Urban water management considers the total water cycle, facilitates the integration of water factors early in the land planning process and also encourages industry and all levels of government to adopt water management with urban planning practices which benefits the, environment, the economy and the community

Urban water refers to all water that occurs in the urban environment and includes the following:

- Natural surface water and groundwater,
- Sewage and other 'waste' waters,
- Water provided for potable use,
- (sewer mining, storm water harvesting, managed aquifer recharge, etc.),
- Techniques to improve the efficiency in water use and reduce demands, living streams, water sensitive urban design techniques, environmental water and protection of natural wetlands, estuaries and waterways in urban landscapes.
- recycling of water, Storm water, flood services



### Urban watershed management goals:

- Riparian and riparian restoration
- Water quality improvement
- Improve public awareness on waste management.
- Flood hazard reduction
- Protect and restore the health of waterways and wetlands.
- Provide water for productive, sustainable, liveable and resilient communities
- Create private and public places that harvest, clean and recycle water, which results in water resource, environmental and social liveability benefits.

### Major issues to urban watershed:

- Eutrophication
- Encroachment
- Cultural misuse
- Water Pollution
- Illegal Mining Activities
- Unregulated Tourism Activities

### Major effects of encroachment:

- Contamination
- Reduced recharge
- Pollution
- Endanger wild and human life

## SPEEDY AND LOW COST HOUSING

Ar.K.KEERTHANA B.Arch  
Assistant Professor

### Hollow Concrete Block Load Bearing Walls - Low Cost Housing Construction

Use of hollow concrete blocks for load bearing walls has many advantages such as:

They are way cheaper than stone bricks we conventionally use.

Because they are light in weight, they are very easy to handle and to work on.

There is a special advantage of insulation to space air void.

A very less amount of mortar is consumed.

The most important fact is that, these are environment friendly.

### Staircase - Low Cost Housing Construction

we can use an effective and efficient method which is also known as **Precast Staircase System**.

**Precast staircase system has several advantages such as:**

Its construction is cheap and quick

No laborious form of work is required to construct it.

It can be simply supported or can be supported with a cantilever.

### Filler Slabs for Ceilings - Low Cost Housing Construction

These are the normal RCC slabs where the bottom concrete is replaced with filler materials such as bricks, tiles, cellular blocks, etc. But they do not compromise the strength of ceiling in any ways, thus it is economical, reasonable and safe to use. They also provide various types of pleasing patterns as per your choice.

### Doors and Windows - Low Cost Housing Construction

Instead of following the conventional carpeting procedures we should always go by the frames for the doors. There are so many sizes and options that are available. This save cost up to 30% and saves time.

### Conclusion

It is now possible to build **Speedy and Low Cost Housing** without making any compromises with the strengths or materials being used. All the above stated techniques and methods also help in saving energy.

Low cost construction is concept which is generalized and based on three factors which are structural design, method of budgeting & cost cutting and materials used. So, all these three factors must be optimized for low cost construction.

## A VISUAL DIALOGUE

Ar.T.DINESH PANDIAN M.Arch  
Assistant Professor



Located in north Delhi, GTB Nagar, Hudson Lane, amidst a street lined with themed cafes, never fails to surprise with its overall cheery ambience. Each cafe here is unique, as is Epic with its artistic decor.

Making a well-deserved comeback from the 1980s is the Memphis design movement, reflected in the vibrant Full Stop Café, alive with loud pop colors, zany patterns, and bright neon lights.

Other highlights are a suspended community table, an acrylic chandelier, long vertical vision panels for natural daylight, different flooring patterns and styles, elements peculiar to the Memphis style such as Laminates and Terrazzo on table tops and on floor finishes, wide gateways in Sesame Street Colours and Squiggle prints, walls adorned in wacky geometric mirrored prints, and simple stippling artworks on black panelled walls. A cleverly designed air conditioning layout is a characteristic of this place, as it runs parallel overhead to the aisle while cooling the area uniformly and without any hot pockets.

There is a visible transformation in the quality of space once the visitor climbs the final flight of stairs. The bright neon and acrylic colours transform into emerald greens and tasteful Eames chairs covered in velvet. There is a cut-out overhead for an added feeling of comfort with a double height space. Indoor plants, black panels lined with green textures, a see-through bar back complimented by a brass monolithic bar, a dark green panelled wall with mounted typewriters and a lit-up crossword, brass sphere installations around the DJ console, and a Kadappa flooring, form the interesting creatives.

The elevator leads to a terrace where the design sports a partial indoor space complemented by lush outdoors. A truss with glass fitted in the voids at the top and walls, allows one to experience the skies, and at night, the terrace lights up to reveal the wall decor with wall mounted lights and patterned panels



## PERFORMANCE EVALUATION OF BUILDING

Ar.N.NISHYA M.Arch  
Assistant Professor

Performance Evaluation means Evaluating the lighting, Thermal and acoustical Performance of a building and understating the comfort zone of an occupant.

Performance evaluation of a Building is done using **cognitive, empirical and simulation method** (Simos Yannas).

**Cognitive-** Documenting existing Building and basic observation observed in site.

**Empirical-** The empirical study is done using measuring instruments like measuring tapes, lux meter, and hygrometer

**Computational Simulation** - Model of the Building is done with exact dimension and material in software and simulated for the particular climatic condition.

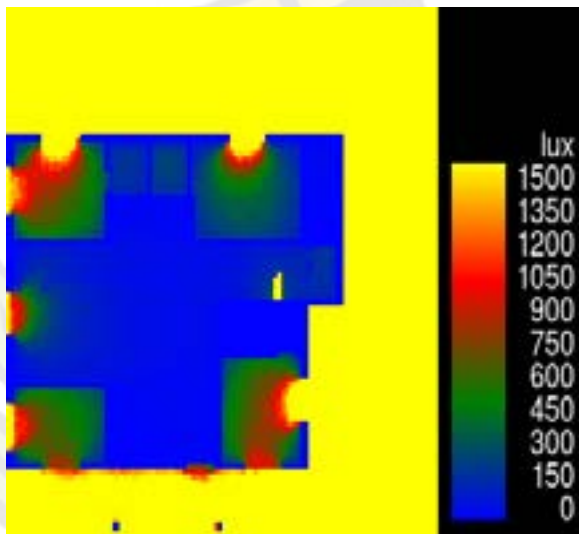


Figure 2 Lighting analysis done using Lux meter (example of Emperical Analysis)



Figure 1 Lighting analysis done using simulation Engine Revit Insight (example of Simulatio Analysis)



## STRENGTH AND DURABILITY ASPECTS OF REINFORCED SELF COMPACTION CONCRETE USING GLASS FIBRE

Er.C.JENIL KUMAR M.E.  
Assistant Professor

### Durability aspects of glass fibre reinforced self compaction concrete WATER ABSORPTION AND ABRASION RESISTANCE TESTS

For casting the specimen, square shaped moulds of 9 cm x 6 cm x 2.5cm were used. After three days of casting, the specimens were demoulded and cured for 28 days. It was then taken out wiped dry and kept ready for testing in water absorption and abrasion resistance.

The water absorption of each specimen was determined as

$$\text{Percent water absorption} = \frac{W_1 - W_2}{W_1} \times 100$$

Where,

$W_1$  = weight in 'g' of the saturated specimens

$W_2$  = weight in 'g' of the oven dried specimens

For the absorption resistance test, size of specimens considered was the same as in the water abrasion test. The average loss in thickness of the specimens was obtained by the following formula.

$$t = \frac{(W_1 - W_2) \times V}{W_1 A}$$

$t$  = average loss in thickness, mm

$W_1$  = initial weight of specimen, g

$W_2$  = final weight of specimen, g

$V$  = initial volume of specimen, mm<sup>3</sup>

$A$  = surface area of specimen, mm<sup>2</sup>

### ALTERNATE WETTING AND DRYING TEST

#### Marine environment

The test was carried out to study the effect of sea water on the durability of fibre reinforced self compaction concrete. The specimen include cubes of 10 cm x 10 cm x 10 mm, out of the six specimens cast in each set, three were used as control specimens and the remaining three were used for percentage reduction in compressive strength.

The specimen immediately after 28 days of curing were weighed and kept in marine water prepared in the laboratory and was subjected to 45 days of curing. Another set of specimens were kept in ordinary water for 45 days. Then they were taken out and subjected to percentage loss in mass and strength tests.

#### Composition of Marine Water Used

Composition	Concentration g/lit
Sodium chloride	24.53
Magnesium chloride	5.2
Sodium sulphate	4.09
Calcium chloride	1.16
Potassium chloride	0.695

#### Sulphate Environment

The test was carried out as per the above procedure, but the SO<sub>4</sub> concentration of 1500 ppm. The size of the specimens and the variables considered were the same as in the above tests. The test was carried out as follows. A solution of sodium sulphate having SO<sub>4</sub> concentration of 1500 ppm was prepared. The weighed specimen were kept in this solution after 28 days of curing. Then one set of specimen was subjected to sulphate solution curing of 45 days and the other set was put in ordinary water for 90 days. After this period, they were taken out, the surface were scraped to remove the surface deposits, washed and dried for 2 to 3 hours at 20°C

and weighed again. The loss in mass was determined, which represented the extent of sulphate

attack.

$$\text{Percent loss in mass} = \frac{W_1 - W_2}{W_1} \times 100$$

Where,

$W_1$  = weight of specimens put in ordinary water in 'g'

$W_2$  = weight of specimens, in gms, after being kept in Sulphate solution for 45 days of alternate wetting and drying.



## GREEN BUILDING

Er.E.M.JERIN SHIBU M.E.  
Assistant Professor

Green building (also known as green construction or suitable building) expands and complements the building design concept of economy, utility, durability and comfort. Green buildings were developed by the U.S. Green Building Council. A Green Building is one which uses less water, optimizes energy efficiency, conserves natural resources, generates less waste and provides healthier space for occupants as compared to conventional building. Green Building is different from the other building because it minimizes pollution, increases the comfort, health and safety for the people who survey in them. It also minimizes the waste in construction by recovering material and reusing them. The design, maintenance and construction of the building have tremendous effect on our environment and natural resources. It often emphasizes taking advantage of renewable resources, e.g., using sunlight through passive solar, active solar, and photovoltaic equipment, rooftop gardens, rain gardens, and reduction of rainwater run-off.



Green Buildings are designed to reduce the overall impact on human health and the natural environment by the following ways.

Using energy, water and other resources efficiently.

Reducing waste, pollution and environmental degradation.

Green building brings together a vast array of practices and techniques to reduce and ultimately eliminate the impact of building on the environment and human health. It often emphasizes taking advantage of renewable resources. Use of innovative technology not only strengthened the green building construction but also increases the overall life time of the building. The buildings are dynamic environments that respond to their occupants changing need and lifestyle.



Fig: 1 Green Building 3D Model

## GREEN CONCRETE

Er.R.RELIN GEO M.E.  
Assistant Professor

The specimen of cylinder of 300mm x 150mm was used to determine the compressive strength and split tensile strength of the concrete.

The test was done confirming to IS 516 – 1959 to obtaining compressive strength of concrete. This test was carried out at the age of 14 and 28 days. The specimens were tested using Compression testing machine. The compression testing machine's capacity is 2000 kN. The compressive strength of concrete for various ages are determined in the following table 1 and Fig 1.

% Silica	% Brick	Split Tensile Strength (MPa)	
0	0	1.63	2.78
5	50	2.00	3.51
10	50	2.38	3.90
15	50	1.60	2.71
20	50	1.40	2.25

Table 1

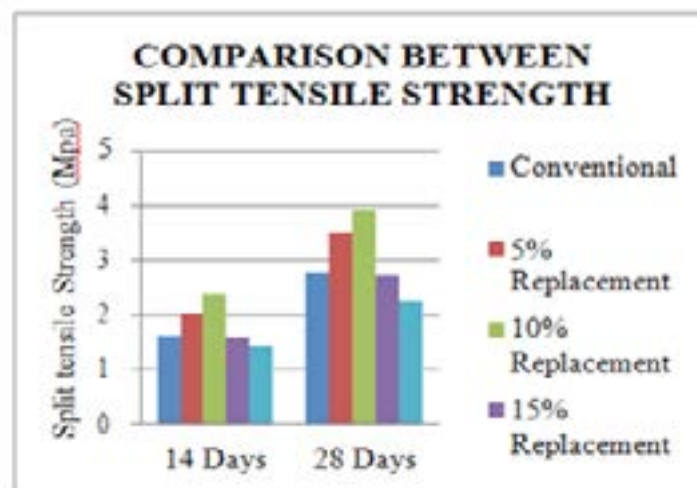


Fig 1

## BIOPHILIC ARCHITECTURE – CREATING ACCESS TO NATURE

Biophilic architecture is an approach to connect the users even closer to nature. The design tends to have natural elements into the building like sunlight, ventilation, landscape, and materials so that the built environment is more comfortable, productive to the occupants. Another important characteristic feature of biophilic design is to have biological shapes rather than the usage of straight lines.

The biophilic design uses several tactics to incorporate nature into space including access to the views of nature, improved air quality and ventilation, improved acoustics, natural materials, and calming colors.

The trend of using biophilic concepts in the offices has got a huge impact as integrating nature into the workspace increases productivity and creativity of the employees by reducing stress as offices don't look and feel like conventional spaces. Space creates a direct and in-direct experience with nature. As a whole, the design tends towards creating healthy and productive habitats for modern human beings.



When Concrete meets Biophilic - Singapore Changi Airport

## POST STRUCTURALISM AND POST MODERNISM

Structuralism is understood as how the system works to structure their individual elements to imply a meaning. ... Post-structuralist's approach argues that to understand an object, it is necessary to study both the object itself and the systems of knowledge that produced the object.

Post-structuralist authors all present different critiques of structuralism, but common themes include the rejection of the self-sufficiency of structuralism, and an interrogation of the binary oppositions that constitute its structures. Post-structuralism discards the idea of interpreting text or world with in pre-established socially constructed structures. In Architecture we may look into the work of SANAA and examine the cultural aspects of abstraction.



The development and morphing of SANAA acts in Rolex Learning Center as the patterns changes from square and rectangles to intersecting circles and stretched circles that can be seen in the plan, and a roof that can be described as ephemeral. This is a classic example of post structural cultural extensions

Post-structuralism is often interchangeably linked with postmodernism and deconstruction in general, as all these movements respond to structuralism's philosophy of language but they apply those insights to a wider range of topics and radicalize some of the structuralism's premises. The consideration of architecture as communication while recognizing its functionality came during the Modernism era, which revolves around the universal form and the principle of 'form follows function' phrased by American architect, Louis Sullivan. "Modern architects believed the 'functions' of diagrammatic objects would be transparent, or obvious to everyone

Post-modernism is characterized as 'double-coding' highlighting multivalent, unlike modern architecture which was criticized as univalent in terms of form. While modern architecture strives to create new, independent works of art, postmodern architecture embraced diversity with the merge of ideas, styles, and characters to promote parody, humor and irony.

In terms of design process within the discipline of architecture, structuralism revolves around the idea of binary, hierarchical, and structural thinking for example, black cannot be white and vice versa. Whereas in poststructuralism, French philosopher, Gilles Deleuze (1925-95) collaborated with the psychoanalyst, Félix Guattari (1930-92) introduced the concept of rhizome in *A Thousand Plateaus* (1980). "A rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo'." The term 'rhizome' promotes connective thinking in which post-structuralists criticized the reductive and The absence of binary forms.



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