Conceptualizing Trend as an Entity and Critiquing - India Adapting Towards Global Trends, ToReach World Class

Priyadarshini Karikalan
Architect, Urban Designer
Urban Milieu Studio, Bangalore, Karnataka

Ankita Babu Toro
Architect, Urban Designer
BMS College of Architecture, Bangalore, Karnataka

Abstract - 'Design' always calls for 'Originality'. But, if we want to set ourselves abreast to the world scenario and bring in new global equivalents, we have to catch up with today's requirements. There are criteria like technological advancement, globalization, and transformation that sets the tone for what's trending now. But what is Trend? - It's important to understand before we blindly follow it. Here we investigate trends as a typological paradigm on, architecture, urban context and built environment.

Design in Architecture from conceptual to built, apart from being original, will have many external influences, whose incorporation leads to a better Design. The trend doesn't categorize as cookie-cutter reproduction (copying/pasting) but rather has a mutative tendency, depending on its relevance, resulting in emergent typologies. It's a strategic network
Then the question arises –
What governs trend-setting in built categories - Looking at Trigger - carrier impact theory.
Further investigation on-
Can trend-setting be Theorized from parallel fields of analytics?
Can a trend produce directional, performative results?

After gaining popularity, trend gains momentum, but it has a life cycle can repeat based on its period of survival, to be short term, long term, die or resurface. It has an inherent property of mutation (transformation/change/alteration/modification), all of which can be captured in line or curve graphs. Impacts reflect at the micro-macro scale, some are need of the hour ex - covid, war, flash-floods, tsunami, climate-change, fossil-fuel exhaustion, environment-oriented designs that are beyond human control. Hence newer typologies emerge as per relevance. Some trends have positive effects and some have negative impacts.
The Paper also evaluative and looks at trend as

- **Noun** - labels i.e. biophilic, bio-mimical, to achieve a result.
  inclination towards a particular direction - sustainability, climate oriented - resilient, smart solution, inclusive, achieve diversity/equity.
- **Verb** - what is trendy, what is trending in the architecture and construction world - structural advancement, new Materials, AI implications, immersive virtual engagement, parametric, prefabrication, technological advancement

Finally, we critique global to local trends in India as a comparative. Where are we heading? shredding of ancient knowledge to fit - in to embrace global presence or to fit - out relevance to the problem to reach world class levels.
Trends in architecture are very strategic - business strategy works on this model and the architectural and urban scenario adapts. For e.g. Indian FDI policy is not very intrusive. Socio-economic changes are seen, due to trends, that are brought in the global supply chain, through collaborative Industries, as a market capture. The World is becoming a single oyster where colonization and expansionism are exhausted, but having a global market capture will become new impositions, where world allies will invest for better business ventures and profits. So trends should not be speculative rather 'prophylactic'. For e.g. Sagarmala proposal, aligning investment projects to port-cities and enhancing projects to capture supply chain market at regional level - a prescriptive program format with directional development, the projects will follow a guided trend but relevant to its context.

I. BACKGROUND

Design in Architecture, Urban Scenario or built - unbuilt is very subjective in nature and has a relation with its environment. For any design, the core idea for it calls for originality, but certainly not by ignoring the context. To make it relevant to the present day and future proof it, having technological advancement, and equating it to global standard becomes the need of the hour and not falling prey to transformation triggers, which dilutes the essence of the place. It is important to understand the concept and the impacts that trends can have. Here in this paper, we try to Investigate and Conceptualize Trend as an Entity. Also critique how - India can adapt towards Global trends or be a trendsetter, and reach World-Class.

II. INTRODUCTION

Every city has its own set of determinants - natural, social, cultural etc. there is a general notion for it to drive towards new technological advancement, to stay in par with the current scenario, where it tries to reset with a system upgrade from time to time with new building typologies. Where there is a

2.0, 2.1, 2.2, being released day to day in a seamless way like a software updation. Why does this happen? or is there a need for it to happen? Does it have an automatic updation or and how is this change slowly seeping into our everyday production of space?

To attract business and if we need to catch up with the advancement of where the world is heading, there is a constant check for this kind of upgradation even at a city structure level, that we are seeing by way of trends module.

A. Trend as an Entity.

'A trend is a pattern of gradual change in a process, output, or condition. It is an average or general tendency or inclination towards something' as a general definition.

Trend in Architecture, urban or built environment cannot ignore the local context, geographical conditions, socio-cultural attitude, political climate, economic conditions. The synchronicity to the context with other attributes and variables in transition culminates as a trend. A module of entering a 'lackadaisical race' will become a meaningless fashion following. One classic example of the blasé attitude is how India is perceived by the Western culture or portrayed perspective to the world as a 'transitional colonized modernism', when the truth is - British colonial rule were able to influence (change urban fabric by imposing a modernist trend as an imperial imposition on its colonies, with stark difference in the white towns and the traditional background in a blatant way) only to a certain part with a ruling span of over cumulative 200 years. As a strong diverse land of cultures and geographies, the transition seems to fail efficiently. The modernist trend did not wipe out the existential cultures inside-out but they rather co-exist and a new trend emerged. And as writer Jothy Hosagrahar (Indigenous Modernity, 2016) says Delhi colonial modernization was Indigenous in approach, to a sort of cultural appropriation which was adaptive in nature. There is a vast difference in both the taxonomies – Fashion and Trend. Trend has a pragmatic relevance. Then question arises, how are these trends generated? Something that's newly introduced in the market does not qualify as a trend, but rather becomes a trend setter. The trend gradually picks up speed and gains momentum, in the process many iterations emerge becoming popular to form "what's trending now?".

"It's the general way in which a particular situation is changing or developing." in interior design field for instance seeing through residential purpose, the aesthetics keep fluctuating with time more easily, to what's trending, there is sometimes a disconnect with the culture of the place and the user, for example the tendency to depict a bohemian style, Scandinavian style etc. after a couple years they go out dated. Is it worth it to invest in such a clout in design. Maybe but, what about the longevity of the imposed commodification of culture? The race of what's trending now carries perils of a short-lived agenda. Short lived trends are apt for temporal spaces.

Trends is a pattern study that can be mapped on any analytical graph system and the results would show the subjective output against parameters as a positive or upward momentum or have a negative or downward turndown effect based on the value of output. In finance, they call it a 'bullish - bearish' pattern which is the rise and fall of pricing accordingly. The algorithmic analysis gets more sophisticated with the parameters and the mathematical sequencing.
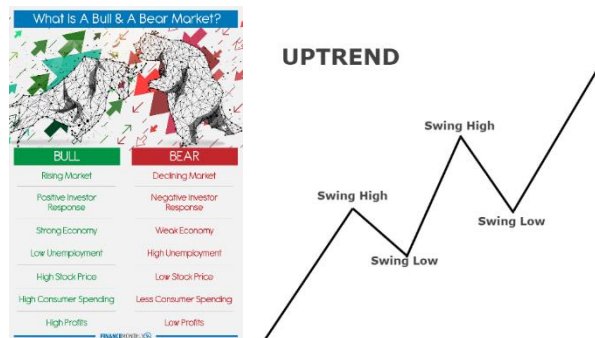

Fig 1 & 2 – bullish-bearish price rise and fall trend

First, confirm that you have the correct template for your paper size. This template has been tailored for output on the A4 paper size. If you are using US letter-sized paper, please close this file and download the file "MSW_USltr_format".

Maintaining the Integrity of the Specifications

The template is used to format your paper and style the text. All margins, column widths, line spaces, and text fonts are prescribed; please do not alter them. You may note peculiarities. For example, the head margin in this template measures proportionately more than is customary. This measurement and others are deliberate, using specifications that anticipate your paper as one part of the entire proceedings, and not as an independent document. Please do not revise any of the current designations.

B. Why is it important and how to incorporate trends in design?

With time, the construction, design, architecture, and urban design sector has a need to look into advancement and adapt to changing times, where there is a seamless transition with cutting-edge technologies, accessibility for a global reach, collaboration, remotely designed and executed projects, along with people's participatory approach, unlike times when design decisions were taken in isolation, a fit-out pattern considering the users for a better outcome. There is a blurring line between being traditional and shifting towards modern sophistication, where traditional does not necessarily mean outdated but rather simpler and more limited. currently now things can be predicted with an algorithm, simulation for a systematic approach.

C. Where is this trends module applicable, influence architecture?

Patterns forming a Typological paradigm is traced in the Architecture and Urban context. How a driver pushes a certain pattern and influence Trend Setting?

In world scenario Urban morphological field research considers the built environment, in which the concept of micromorphology has been used to describe such studies of

form at the level of elements of individual houses by way of its forms a trending pattern - by Paul Sanders (Larkham, 2006; Whitehand, 2001; Whitehand, Morton & Carr, 1999). Pattern-oriented analysis is to understand urban pattern correlation with behavioral relation for an urban experience. Here environmental psychology and perception play a crucial role. Role of the pattern of continuity in a spatial configuration or built forms for a dynamic sensation, provide physical orientation, improved connectivity, and mobility, for a coherent sequential rhythm. The quantitative analysis can be used to provide a semiotics conversion for a directional or prescribed design module for a sensory experience. This can be done through an iteration of different elements against user experience. Also adding a third space to an existing morphology. Any new research methodology concludes with a trend analysis of behavioral practice with relation to the built configuration with the change in attributes and variables.

D. Taxonomies of objective – oriented drivers

Trends based on Objective oriented drivers that acts as a driving force for taxonomies whose variables change, with the design specification to for a new variant

- Attribute - Nature-oriented
Objective - To be in harmony with Nature, Earth friendly, coexist with nature
Taxonomy – as variables: biophilic, biomimicry, vernacular architecture, sustainable design

- Attribute - Climate-oriented
Objective – climate-oriented design which take consideration of sun path and solar positions, rainfall, humidity, natural geography and also the disasters posed by the nature due to a global effect.
Taxonomy – Climate: Resilient Design, sponge city, climate responsive design, carbon neutral architecture, bioclimate, reuse retrofit,

- Attribute - Social oriented
Objective - is the conscious design that encourages a desired range of social behaviours leading towards some goal or set of goals influencing social system.
Taxonomy – Variables: participatory, equitable designs, inclusive design - women-oriented, child inclusive, elder citizen inclusive, people-centric design, social housing e.g. co-living,

- Attribute - Culture oriented
Objective - looking back at historical understanding cultural behaviours influencing diverse communities to co-exist.
Taxonomy – Variables: critical regionalism, regional modernism, Historic sites, culture oriented urban regeneration ex Korea - culture oriented regeneration.

- Attribute - Economy oriented
Objective - Investment return for the development recovered through self-recovering module

Taxonomy – Variables: circular economy framework, retrofit urban regeneration

- Attribute - Political oriented
Objective – Political symbolism, institutional authority to set a political climate and exert power through spatial representation
Taxonomy – Variables: polities, polices, politics, hussmanisation

- Attribute - Technological orientation
Objective – use of innovative technology as a medium to produce advanced development.

Taxonomy – Variables: parametric software technology based, BIM, Immersive technology

Trend needs to be social, ethical, Responsible, in nature for relevant trends – and be archetypal and pragmatic in nature.

E. Methodology of survey, Mapping the Effects of globalization, transformation and technological advancement

Political and Social impact with the expansion of the global economy and communication has influenced architecture and urban design. Transformation becomes haphazard if you don't understand its implications of globalization and speedy technological advancement which tends to become lopsided.

A. The paradigm shifts from traditional to modern, during the colonial period, and its reverse is also true and happening in the current scenarios. Countries like China want to go back to the vernacular ways of built form and community life.

B. Critical regionalism shifts from the postmodern era. The ideas is the have the heterogeneity of the region which was missing in modernity respecting the complex local socio cultural characteristics in terms of built form, construction techniques, building configuration e.g. use of terraces, multiple heights, the regional identity is capturing the technologies, customs and beliefs. Understanding its logical principles and driving forces Socio-cultural imprints of the city for a responsible decision making.

C. Role of technology - Metaverse, Bim, Parametric, AI, Immersive, Machine Learning, automation - remote sensing. These technologies enhance how the built can be understood at a computational simulation, algorithmic complicated structures are modelled and execute, Predictive Analysis through AI technology, Advanced Virtual Visual experience before Built.

D. Work from home culture - collaborate, emergent remotely working typology ignore labour class, execution of projects, on site team. in today's date constructure typologies are shifting towards

prefabricated fast construction technologies, Then a cast in situ.

E. need of the hour immediate unanticipated threats - covid, war, flash flood, tsunami, climate change, fossil fuel exhaustion, environment-oriented designs which are beyond human control. Some of the forgotten practices which showed in our house typology - washing your hands n feet, keep your shoes outside, spaces for guests were separate, as a hygiene practices at homes, for eg when plague hit Bangalore in a severe condition new town - Malleshwashwaram, and Basavanagudi were created and now we don't have that kind of space. Hence the lost knowledge makes us more vulnerable towards epidemics and pandemics. Likewise, there understanding of climatic challenges when ignore cities is not compatible to handle such clog in its acupressure points.

F. Collaborative design - specialized expertise come together for field expertise to achieve holistic analysis to give an insight for efficient and Productive analysis, which needs to be incorporated for better design. For e.g. Landscape Architect, transport designer, Urban Designer, geographer, Historian, sociologist anthropologist climatologist, philosophers they read the existing city patterns as trends in detail.

G. Establish a strategic network – for e.g.: Starbucks modules, unlike D'mart, capture contextual adaptation making each unit unique, and provoking trendiness (global to local adaptation).

F. What governs trends setting in built then?

When we analyse trends through Driving factors establishes a *Trigger - carrier* impact theory. Where the trigger acts as a *catalyst* and the *carrier* becomes a medium of representation, reciprocating to the *imprinting trend*

E.g. **-** Less understood are underlying drivers such as the mobility of capital, inter-city competition for global investment, the relationship between branding, corporate symbolism and global consumerism, cultural display and tourism, and the emergence of a global professional elite.

Typologies based on Trigger Carrier Impact Theory.

- *Inflation (Trigger)* pushes affordable typologies (Carrier), Housing Sector - examples are the Imprinting trends - studio apartment, co-living spaces, mobile homes. Corporate inflation – for e.g.: co-working space

- *Brand chains* (trigger) - standardized trend - a *static designs (carrier)* for brand recognition imprinting trend (imprinting trend) for e.g.: KFC, Third wave coffee, Ikea, subway, 7 eleven, D'mart.

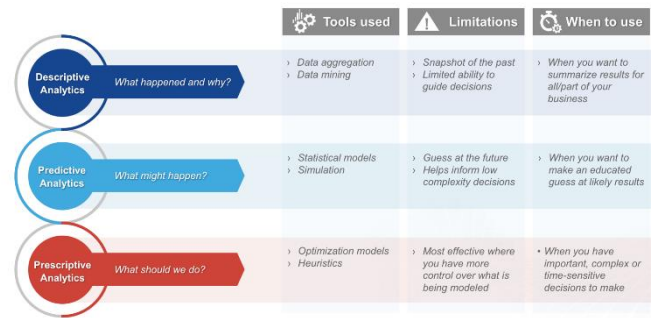- IT Sector Building - Westernized (trigger) glazed facades (carrier) Corporate symbolism - imprinting trend

Fig 3 - Trend Analysis based on parallel analytical Fields

G. Here we Theorize trends setting from parallel fields of analytics

TABLE 1

Descriptive Natured Trend
This is based on history and behaviour in the form of trend. It is more of a Normative.
Data history predicts as a base
For e.g.: infrastructure development would require the history of the trip generation and congestion areas. Based on it, where we need flyover, last man connectivity, which roads must be widened as part of planning is decided.
Here stakeholder identifies the rules how the system works,
It is about the existing structure of the system

TABLE 2

Prescriptive natured trend
Captures design decision made prior to construction.
It is intended module and how the module should be implemented. for e.g.: Manifestoes in masterplan is a political agenda directing development. Bye laws set rules as a building construction guideline
Prescriptive is provisional
Checks if the objectives meet the end user requirement

TABLE 3

Predictive Natured trend
Aided by advanced branch of data engineering which generally predicts some occurrence or probability based on data.
Make recommendations based on the historic data analysis for future occurrence or events eg - sinking cities already are predicted for it rise sea level - resilient water system planning, elevated construction, amphibic construction, floating architecture for more precise accuracy.
System historic data predicts possibilities
Uses sophisticated machine learning techniques
Process - data mining, data handling - analysis done by algorithms,

H. Based on Historical Kowledge New trends emerge as Functional Typologies

Performative Trend - although glass and steels are used as fashionable material there a shift in how these are used in today's date where sensory performance of these material are enhanced by use of technology to detect which parts need to be shaded at different parts of the day using simulation and scientific based understanding making it a smart building automation, a performative response for e.g. : the external wall having automated sun shades changes its orientation with the transitioning sun.

and meta oriented Trend – Having a contemporary expression with traditional wisdom. Incorporate Active design and passive Efficient methods and articulate the building characteristic through detail elements like – services incorporations – wind mills, façade designs – jalli,

I. Life cycle of Trends

What is trend setting – Case Example for Trend Modulation Through parametric architecture - Zaha Hadid - one of the pioneers of deconstruction architecture, the medium such as traditional software's like - AutoCAD to generate the drawings had limitation. There was requirement for production of alternative 3D software's, until then the aid of Catia was used. Hence software technologies with Mathematical simulations and algorithmic aid - new software technological development iterated a trend-setting. These new software's developed aided this new genre of architecture with dynamic forms patterns that could be explored by others. Hence setting up a trend which picked up momentum with its widespread use.

With the technology, much-simplified complicated geometries can be achieved in shorter span also aided to build and to measure accurately from drawing to site execution.
Software's like Rhino - grasshopper, Inventor, Fusion 360, Blender Emerged.

J. Understanding Trends Life Cycle.

For any cycle there needs to be a Start point, its life span, and End Point and the cycle either culminates or restarts as a new cycle. Hence there needs to be a trendsetter (Starting Point) who becomes the pioneer.
that can be repeated over and again. The life span will be either short-term, long term based on the period of prolonged survival or it can also die or resurface.
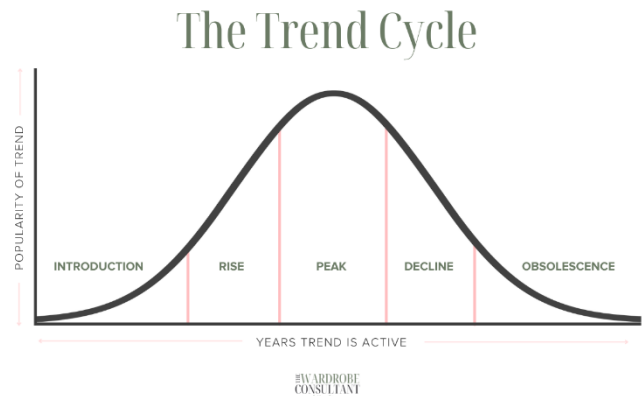
Diagram

Fig 2 – trend life cycle for a single cycle

K. Understanding Mutative Qualitative Analysis. How does Trend Operate.

- what are the criteria for trends mutation?
- impacts that influenced its evolution over a period of time in architecture independently and urban scenario collectively as a built unbuilt, tangible intangible influence.

Trends have an inherent property of mutation
i.e. transformational trend, changing trend, adaptive Trend, modifying Trend

Elaborate
- **transformation trend** - from primitive to advance technology e.g. - shift to performative and meta trends
- **Changing trend** - new inventions replacing or upgrading to older methods for e.g.: - material innovation hempcrete, climate orientation, textile reinforced motor, 3d printing construction approach, digital city, in urban scenario,
- **Adaptive Trend** - "*Form could start following environments*," Thorsen. *"Changes in the use of existing buildings"*
  E.g. - retrofit adaptive reuse
- **Modifying Trend -** reform without changing the whole system - spatial modification for inclusive designs e.g. - for spastic (differently abled, blind) for a accessible architecture.

All which can be captured in line or curve graphs.

Unlike style trends are Analytical, participatory and Anchoring - The effects are seen at micro or macro scale

- Analytical - climate orient - simulation understanding - scientific model - LEED accreditation, IGBC GRIHA, help to assess through building analytic for better performance.

Urban context - resource management (user and the use e.g. - transportation infrastructure - it depends on number trips, last man connective increase or decrease the accessibility)

- Participatory - stakeholder involvement so there is an assessment. Its helps in quantifying the issues and also the range at micro and macro level impacts with the help of computation - to achieve equity, justice, inclusivity and policy making

- Strategic Framework Trend
  Drive in – caters to quick service strategy
  China uses Olympics strategy– as an anchor for Beijing to support other business and put China on Map. International green model strategy - to cater to global warming. Sustainability framework
  Frame work - Resilience, climate orientation.

L. Other Popular Ways of Reading Trend

- Trends have positive effect TOD projects (compact city), inclusive designs, universal design,

- Trends as a negative impact - gentrification, ghosting in cites, sprawling at peripheries

Paper also explores interpretations evaluative and look at trend as an

- Noun - labels biophilic, biomimetic, to achieve a result. inclination towards particular direction - sustainability, climate oriented - resilient, smart solution, inclusive, achieve diversity/equity.
- Verb - what is trendy, what is trending in the architecture and construction world and its allies - structural advancement, new Materials, AI implications, immersive virtual engagement, parametric, prefabrication, technological advancement.

*M. Finally, we critique **global to local** comparatives of architecture in India.*

Where are we heading? shredding of ancient knowledge to **fit - in** to embrace global presence or to **fit - out** relevant to a problem

Know that we Established that trend in architecture is not like a fashion following, it's a very strategic allocation - business strategy works on this model and the architectural and urban scenario adapts. Otherwise, every design should have been very unique. for e.g.: Indian FDI policy is not very intrusive. **_Socio-economic_** changes impact seen due to trends brought about by the global supply chain to collaborative industries as a market capture. The world is moving to be a single oyster where colonization and expansionism are exhausted but having a global market capture will become new impositions where world allies will invest for better business ventures and profits. So, trends have to not be speculative in nature but rather prophylactic. Ex Sagar mala proposal, aligning

investment projects to port cities infrastructure development and enhancing projects to capture supply chain market at the regional prescriptive level.

India's transition towards vision to have a market presence at a global platform expanding their reach from a local market to international market for better global connects

For aligning with the international markets, first it requires to strengthen the local networks so that there is a common agenda and tailored to local context with a Strong Local to Global Strategy that has to be developed. It becomes important to build a partnership with the local needs to be adaptive, sustainable and inclusive and equitable in nature. Indian FDI policies having various layers of guidelines, that are not very intrusive in nature so that any international business does not produce a unstable market for only sale and not provide opportunity for assembly, manufacture and service sector. Although they are business and economic strategies it effects our economic growth, opportunities

towards development – infrastructure development, supporting businesses that depend on tourism, technological advancement, local to Global exposure and embrace the Global scenario not replacing the city Identity rather learn to coexist.

For E.g. – Sagarmala project would align the port cities development for a better networking with international trade and cargo, also this enhances the opportunities for local surrounding to build variety businesses. So, the new port towns should be of prescriptive or predictive model of city planning and the projects guidelines should have a local global compatible strategy. Where the local should not get totally wiped out eventually. If we consider port city like Mangalore with new port and the Industrial zone was created this encouraged internal migration in a very large scale. Therefore, city getting replaced from agriculture to other developments which slowly is replacing its cultural identity. The agriculture land were occupied by many indigenous communities with a detail association of using the built and unbuilt understanding the Seasonal changes, they respected the local context - be it geography, the different kind of forests or Kadu. With the built typologies being sustainable in nature. Now with the industrial and new port facilities the city bombarding with migration is losing its identity. The agricultural lands have been replaced and a haphazard development with advent of new large enterprises entering along with high rise construction builders who blindly are flattening the contours which obstruct the water moment and cities facing urban floods. So, the environment also is getting affected. A false claim of Global warming being the core reason but the actual reality is something else caused due to the mismanagement of land dynamics

III. Discussion

If we read the agglomeration layers of how Bangalore was expanding rapidly in past 2 decades, we can see how it got deteriorated even with a prescriptive module, which needs to shift to predictive model. The different attributes like– natural

elements, association value, lung spaces requirements, need to be identified and the variables have to be set on computation model for an algorithmic understanding of user and the built and unbuilt relation.

For e.g. if we want to have a prescribed trend of having walking city – 15 min city for an efficient and sustainable development a TOD strategy can be applied with a compact city model of 100 m radius around the station areas having a last man connectivity to others parts such that it support businesses with residential accommodation within its close range i.e. have a mixed use development, so that there is reduction of commutation from one part of the city to other parts Best suited example is Copenhagen with finger plan.

Another prescriptive model between each agglomeration zone is to have a green buffer as transition zone so that with the pressure of development these zones are not occupied as an irreversible replacement that happens when it is part of the city. Agglomeration also has tendency to occupy all belt and open space as the city sprawls. A utopian approach. So how can trends pattern follow in the context of the new city expansion diagram but about the existing built fabric – which engulfed all its buffer zone? Iterate - Eco sensitive and mark the no development zones. A predictive model based on existing data analysis.

IV. CONCLUSION

A. What is Fit in Phenomenon and What is Fit out Phenomenon?

Fit In Phenomenon is a drift towards how to fit in to current trend without understanding the repercussion of the results.
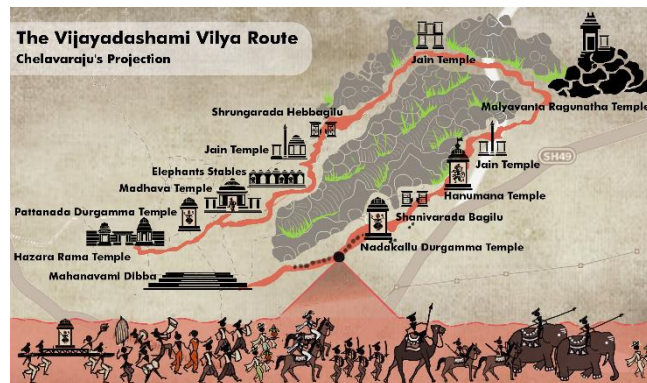
When the typologies like Malls were entering Indian market, shift although was a modern adaptation for band exhibitions, these typologies forget the city context and focus on brand setting. It is also not an equitable typology where the marginalised communities, informal vendors do not have a scope of coexistence. But if we see in Dubai souks which are the traditional markets cater to the local vendors. So here we see Mall is a fit in pattern and focus on brand setting.

To understand Fit out pattern –

One way having a code-based design helps to direct the develop towards a set agenda having Socio - community oriented fabric having a historical landmark. Ex Mysore Dashara festival path, Jaipur market street, by doing so the city is not getting infested by irrelevant trends that doesn't blend with the context.

https://jaipurtourism.co.in/bapu-bazar-jaipur

http://restory.chaha.in/dasara/

How India can Reach World Class Through Trend Module Being a Trend Setter

To become a trend setter and want to equate with the global Scenario we have to consider not only having technological advancement but also associate with is historical knowledge in relationship with built environment.

How can this be achieved? We need to have strong frame work to strengthen the Local to Global association. 1st it requires trend analysis decoding the local context which needs to be the foundation. A Predictive trend analysis based on historic data applied to a range – micro macro radius.

This encourages the concept of glocalization. Requirement of resource management strategically positioning supply chain. With pandemic the Glocal dependencies had a impact and was in stand still,

With the help of predictive-prescriptive analysis newer typologies should support resource management attract more service-oriented business for ex – Apple assembly is now part of Indian market.

The idea for bringing in Sagarmala typology connecting the important ports of India was to strengthen the network. Next is to provide infrastructural requirements for the logistic movement of these port town then here will be inland movement and connect with service industry. So, in the process you are not providing a speculative anymore but aligning to the strategic network which acts as a **prophylactic** In nature attributing at a regional policy.

When we consider trend in built form and think of achieving world class the general notion will be to apply new typologies of the parametric architect or any futuristic design to attract international attention. But in doing so we have to incorporate the parameters such local context, Socio community associations, existing fabric, Geographical setup.

REFERENCES

[1] Jyoti Hosagrahar, 2005, "Indigenous Modernities Negotiating Architecture and Urbanism" : CRC Press/Taylor & Francis

[2] Henri Lefebvre, 1992, "The production of Space".

[3] Stremah, 2017, WIT "Transactions on the Built Environment."

[4] Haining Wang, 2023, "City – level Socioeconomic divergence, air pollution differentials and internal migration in China: Migrants vs talent migrants"- Science Direct.

[5] Eleni Papadonikolaki, Ilias Krystallis and Bethan Morgan, 2022, "Digital technologies in Built environment Projects: Review and Future Directions": Sage Journals

[6] Patrik Schumacher, 2022, "The metaverse as opportunity for architecture and society: design drivers, core competencies"

[7] Qiangqiang Zhang, 2022, "Three – Dimensional meta- architecture with programmable mechanical properties": Taylor & Francis online

[8] Idil Aycam, figen Beyhan, 2018, "Performative Architecture: A Holistic Approach for Sustainability": SPRINGER LINK

[9] Olgu Caliskan, 2017, "Parametric design In Urbanism: Acritical Refelction" CRC Press/Taylor & Francis

[10] Studio Archohm, Shabnam Dhar, March 1, 2022, "Five Architecture Industry trends for 2022"

[11] Jiahui Diao, Shaoming Lu 2022, "The culture- oriented urban Regeneration: Place narrative in the Case of theInner City of haian (Zhejiang, China)" : Research Gate

[12] Sayli Udas- Mankikar, 2020, "Formulating open – Space Policies for India's Cities: the case of Mumbai".

[13] Boot camp, Priyansh Sharma, Feb 10, 2022, "A cultural shift in Architecture Design in 21st century India: On the influence and consequences of built Environments"

[14] Archinect Features, Ar. Apurva Dutta Feb 15, 2018, "The Changing Culture of Architecture in Modern india".

[15] Heldi Peiper, September 13, 2022, "Reimagining the third Place: How Starbucks is evolving its Store experience".

[16] Architecture & Design, George Evans, March 07, 2023, "The influence of Globalization on Architecture Styles- The Changing Face Of Architeture".

[17] G. Lakshmi Chitanva Reddy, 2017, "Transit oriented Development of A Cultural and business hub".

[18] Jyoti Ahlawat, 2016, "Architectural Phenomenology exploring the experiential potentiality of architecture".

[19] Stormwater management, 2020, "How to Design for Biodiversity: Blue green Urban"

[20] Orestis- Kosmas Charalampidis, 2020, "Patterns in the city- A tool for pattern correlation".

[21] Tong Zhang, 2022,Critical realism: "A Critical Evaluation": Taylor francis online.