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Gentrification of a Historic City: An Analytical Study of Changing Urban Dynamics in Pune, India

Prof. Joshi Shruti

Abstract

Gentrification is a phenomenon in which low-cost, physically deteriorated areas undergo physical renovation and an increase in property values, along with an influx of wealthier residents who may displace prior residents. Gentrification does achieve its stated goal of renovation and renewal, but it can also create an entirely new set of social and economic problems for those who have been displaced as observed in Pune, India.

Pune is one of the rapidly growing industrial cities located about 200 km from Mumbai. Emergence of industries particularly from Information Technology Sector has changed the total socio-economic structure of the city in the last decade. Building activities to cater requirement of emerging software companies in addition to multi-national companies has changed the cityscape of this historic city with an un-believable speed. The changing employment structure of Pune since 1990 has proved a major impetus to gentrification. An increase in industrial, professional and managerial employment and high paying capacity of employees of software sector has resulted in increased demand on selected city residential areas. The city is experiencing an unprecedented increase in cost of real estate. Now houses serve a dual function to live-in owners. Previously they were considered as a source of shelter, a respite for private life, a realm of personal control. But in the context of present capitalist economy, house ownership became a form of investment since it represents equity with sizable potential revenue from its sale. Owning a home in Pune was not inherently a speculative investment but the market governance of urban real estate gives it this character.

Urban developers convert lower income neighborhoods and inner-city residential units into more upscale communities with high-rise apartments and wealthier tenants for renovated homes. The increases in property cost in the prime residential areas have resulted in the dispersal of communities whose members find that housing in the area is no longer affordable. The use of the land in a larger city area also has been changed. New retail and restaurants are built, eventually followed by luxury housing. This phenomenon has resulted in a drastic change in culture and character of the historic city of Pune. Neighborhoods prior to gentrification often have a unique style formed by their longtime residents. As newcomers displace these residents, ideas about what is attractive change, and standards for architecture, urban landscape, and public norms have been changed as well.

This paper attempts to analyze gentrification pattern and process in historic city of Pune, India. It analyses the suddenly changed morphology of this city, which was once known as “pensioner’s paradise”. Present research is based on study of various parameters involved in gentrification process in addition to the analysis of Social Indices and its effect on current Housing Market. It examines the effect of industrial development and consecutive economic growth on living environment. An effort has been done to compare the findings of this research to local knowledge and, ultimately, determine whether past trends can be predictive of the future one.

Compact Cities for Green Habitat

Dr. Gokhale Vasudha *, Prof. Shirolkar Meera, and Anuja Inamdar

Abstract

Cities are meant to accommodate several urban functions and they do need to expand naturally. This may result in an uncontrolled urban sprawl and increased consumption of energy in much respect. The ideal concept is to construct the urban elements in an efficient and organic way but within compact limits. Considering the importance of minimization of energy consumption present paper discusses the concept of a compact city aimed to create a green habitat for future generation. It critically analyses the various advantages and disadvantages of this concept. It presents some of such examples in order to evaluate its suitability and relevance in the present context. With discussing UN initiative in the development of compact cities of future it provides a critical study of Melbourne model. This is to find out the suitability of such a development for the development of green architecture in India.

Role of NGO, Public and Private Partnership -PPP in Infrastructure Management

Prof. Anagal Vaishali *

Abstract

Role of Government at the national, local level; Formal and Informal private sector and NGOs or CBOs in infrastructure development is matter of serious discussion. An effective urban infrastructure development needs participation of Public sector, Private sector and NGO's as well, depending on various parameters. Present paper discusses present status of urban infrastructure development and management and need of NGO, Public and Private Partnership in infrastructure management. It illustrates the causes of failure of public sector in infrastructure management and role of private participation for possible recovery. Various actors are identified who can play a role in public - private partnerships in order to demonstrate how their strengths could be brought together for effective infrastructure management. The paper put forth the problem regarding equity of end user cost for higher and low income groups and compares efficiency of infrastructure management in the case of Public Private Partnerships and NGOs with public sector. It discusses role of each partner along with role of government, their scope in participation and limitations for their working and also the pros and cons of such partnerships. It also discusses unheeded interests of private and NGOs partners and how it will limit their scope of work and how this scope can be enlarged to increase their participation in infrastructure management.

Housing Reform Policies For Emerging Superpower- India

Prof. Abhay Anil Pawar

Abstract

India - The world's largest democracy has emerged as a major power after the independence. India today is one of the six fastest growing economy of the world and the nation is also in process of becoming super power in world. All these are signs of prosperity. But to share the economic prosperity with all sections of the society and address urbanization concerns of the nation effectively, serious improvement actions and successful implementation of housing policies are required. The paper provides thorough analyses of housing policy problems associated with planning, system management and micro-finance and suggest solutions to address these concerns.

Our urban centers are characterized up a considerable amount of population who do not have access to formal housing. The urban population of India will be almost 50 percent by 2050. The half of urban population will be living in slums. For growing city like Pune, have 40 percents of its residents living in slums, which was 25 percent 10 years ago. Further, in spite of appreciated performance in housing matching the demand and supply, there are many reasons, which had created large backlog of housing leading to housing concerns in India. Housing Concerns may be broadly classified as, 1. Planning Concerns, 2. System Management Concerns and 3. Micro Finance concerns. This paper critically analyses these concerns and suggest recommendations for the improvement in housing sector in India.

Infrastructure Development for Disaster Management: Role of NGO's

Dr. Gokhale Vasudha *, Hingne Neeraja

Abstract

India lies in a region highly vulnerable to natural disasters. Between 1991 and 2000, almost 40 percent of natural disasters occurred in Asia and the total affected people in the region counts for almost 90 percent of the world total. The critical role of the NGOs in disaster reduction and response has been widely acknowledged, still more input is needed from them with reference to infrastructure development, in order to save future generation from the impact of natural disasters as far as possible. The important function of the Non-Governmental Organization - NGOs is that of being a link between the Government and the community. It has been observed in the 5 major natural disasters occurred in last decade that NGO's had played a crucial role in disaster management related activities. They have been proved to be of immense help in infrastructure related development as far as occurrence of natural disasters is concerned to a certain extent. However, networking and collaboration among them has been found weak in majority of cases due to the lack of resources and organizational constraints. This paper presents an analytical study of the role of NGO's in infrastructure development for disaster management. It examines the work done by a number of NGO's in Sumatra tsunami in Tamilnadu the worst hit states of India. Considering the importance of participation of NGO's in infrastructure development it is an endeavor to suggest strategies for improving the efficiency and effectiveness of disaster risk reduction and response activities in the country.

GIS Application for Infrastructure Development with Reference to Occurrence of Natural Hazards

Dr. Gokhale Vasudha, Barve Swapnapriya, and Sonal

Abstract

Communities worldwide have been facing an increasing frequency and variety of disasters, which have had a number of direct and indirect causes as well as effects. Recent disasters from 1995 to 2007 show an increasing predominance of disasters that have their precedence in environmental causes, or impacts intensified by poor environmental management. A Geographical Information System- GIS specifies a set of procedures in a non-graphic or descriptive database of real-world objects that can be represented graphically and whose dimensions can in some way be measured relative to the area of the world. Apart from a non-graphic specification, GIS also has a graphic database of geo-referenced or spatial information, which is linked to the descriptive database. GIS is important for aiding hazard prevention and for simulating the damage that would be caused in the event of a natural disaster. It can be used to interpret information by creating thematic maps that show the spatial distribution of the information, which show spatial patterns, trends or relationships, making it easier to analyze the information. Considering the wide application of GIS in infrastructure related development with reference to natural disasters in urban habitat present paper discusses the important role of GIS in the present context. It demonstrates with examples the procedure of analyzing available information with the use of GIS including various stages involved in this process. This is aimed to examine the utility of GIS in disaster management, which is focused to develop infrastructure capable of reducing the impact of disasters in future.

Redefining Vernacular Architecture in the Context of Contemporary Development

Divekar Asmita*, Dr. Gokhale Vasudha, and Kadam Ketaki

Abstract

Vernacular architecture incorporates building techniques, environmental adaptations, colors, building materials etc and goes hand in glove with the given environment. The frenetic bustle of the city coupled with the intense work pressure of corporate life has resulted in a crying need for an environment that is relaxing, comfortable and located in the lush and bountiful lap of nature. Vernacular architecture that encompasses the native and traditional architecture of a region with a blend of nature is the answer. In this corporate-cultured world, we need to take a step back, breathe a little, live a little and what could be better than a place that would have a touch or traces of vernacular values to rediscover our sensitivities and ourselves. Absolute Vernacular is many times not feasible nor practical considering this fact a balance has to be achieved in creating architecture does which is modern as well keep vernacular values intact. An effort is required to create an architecture which is modern still very much vernacular in character, which can redefine vernacular architecture in modern context.

Present paper investigates relevance of modern building technology and vernacular methods in the construction of a farmhouse located in Nasarapur near Pune, Maharashtra. While the current housing scenario in our cities leaves much to be desired in this direction a few architects are slowly showcasing this style of architecture.

aharashtra, where the climate permits the heady mix of buildings entwined with nature, is a perfect setting for the proliferation of this type of architecture. This paper demonstrates that how modern building material and technology can be utilized in a way that is in total harmony with the locally available material. It will present an analytical study of material and techniques used in the construction of selected building in order to find out various intelligent solutions, which can promote vernacular techniques in combination with modern ones. The built environment is to be analyzed that is developed with an intrinsic understanding of the underlying principles of vernacular architecture. Considering the advancements in building construction and technology is the need of 21st century the present paper suggests an intelligent mix of modern material technology with vernacular ones. The main focus is to promote technological development in construction sector with keeping our intrinsic vernacular value intact for posterity.

Role of Remote Sensing and GIS In Infrastructure Planning

Prof. Barve Swapnapriya

Abstract

In present day scenario, cities are becoming hub of almost all human activities. Be it job opportunities, educational facilities, economic development, cities have always attracted human being. The basic point to be considered here is, there was a time when any settlement was done after planning. But nowadays, due to lack of proper information and decisions and also its extreme need of immediate application new townships are coming up without previous planning, i.e. without any specific system, rules and regulations. This formed new concepts of urban sprawl and urban agglomeration. This paper is an effort towards establishment of an integrated approach as far as the use of R.S. and GIS in urban planning is concerned. It put forth the capability of R.S and GIS system to provide necessary physical input and intelligence to any planning aspects. It endeavors to suggest means and strategies in present status of this technology in order to tune with time and trends. It will stress for adoption of its large-scale use because there is an urgent need to upgrade and strengthen our skills of profession so as to fit into ever-changing society. The time has certainly come when planners have to become experts not only in their own fields but also in the field of R.S and GIS considering this present paper discusses the many fold use of R.S and GIS in Urban Planning in all respects.

Alternative Building Technology for Future Development in Residential Sector of an Urban Area: Case Study: Apartment Building at Karve Nagar, Pune, India

Dr. Gokhale Vasudha *, Prof. Ohatkar Meera, and Agarwal Aditi

Abstract

Traditional constructional practices are labor-intensive time consuming as well as they suffer with substandard product in the lack of quality control. There is a lot of hesitation in switching over to new materials, new techniques, if adopted, can lead to sound and economical structures but do not become popular as the engineers and architects lack initiative to study and try them.

This paper presents a critical appraisal of such an attempt focused to introduce alternative material and technology for the construction of a residential building in Pune, India. It analyzes the use of cost effective, fast constructional operation in this steel building, which possesses many advantages. Present paper attempts to introduce a viable alternative to a conventional construction that is faster, safer and will prove cost effective in long term. This endeavor is necessary to establish a vision of change for innovation within the perspective of revaluing the construction industry, which is essential to develop a culture of self-sustaining improvement in the present context.

Adaptive Use of Advanced Technology in Vernacular Context: Case Study of Farm House at Nasarapur, Pune

Prof. Athavale Suresh, Ar. Shruti Joshi*, PetheAvanti, and Chitnis Anushri

Abstract

New trends in architectural and civil engineering disciplines are predominantly adopted from our western counter parts, which are to be modified and used with an utmost care considering the prevailing living environmental conditions of the area in question. An intelligent combination of advanced techniques and materials and vernacular practices can be an answer to this question. Present paper is aimed to put forth an approach experimented in a farmhouse located in Nasarapur, Pune. This paper is aimed to highlight various aspects of modern materials and technology with reference to their suitability in Indian context. It stresses the adaptive use of modern trends, which will create sound structures with a sense of belonging to the place.

System Approach for Energy Efficient Residential Buildings in India

Prof. Keskar Poorva and Ar. Dalal Prajakta

Abstract

Energy intensive architectural development is invariably resulting in fast depleting natural resources as well as degrading the living environment. Architects and engineers are responsible for a large amount of environment pollution right from manufacturing of building materials to creating a built environment. Buildings are one of the largest consumers of the energy resource when it adds to the built Environment. The effect of the built environment has a considerable impact on the un-built environment. The construction and operation of buildings consume the majority of the world's natural resources and energy, and contribute to the bulk of landfill waste. Therefore any conscious effort on our part towards energy efficient architecture with due respect to the immediate environment can significantly contribute towards sustainable development. Present paper discusses various parameters with reference to energy efficient buildings for housing in India. It aims to present a comparative analysis of various energy efficient construction and design strategies in order to find out their impact on living environment. The importance of eco-friendly materials is stressed with an in-depth study of some of such materials, which can be used at large scale in construction of energy efficient buildings in India. It proposes a model for energy conscious buildings design, to reduce energy use and levy the smallest possible environmental impact, while enhancing occupants' comfort and productivity.

Energy Conscious Architecture Contributing to Conducive Environment and Less Burden on Infrastructure

Prof. Joshi Prakash *, and Dr. Gokhale Vasudha

Abstract

Pune is one of the fastest centers for industrial, institutional, and administrative growth. Growth is centered in terms of physical building blocks and the consequent infrastructure related inputs needed for it. Increased building activity has spawned a whole range of fancy glass and aluminum composite panel elevations, which is a costly material to produce having its own pros and cons as an outcome. Use of energy intensive constructional practices and materials kick start irrational competition between and amongst the promoters of building projects paying little or no attention to energy inputs for it. Increasing standards of living in a sense indicate irrational overuse of appliances, and gadgets. Un-thoughtful designs, and large-scale use of energy intensive constructional practices are resulting in high loads ads up exponentially to higher national and global levels. In this context alternative models of development have to be looked at to harness the immense potential of renewable energy sources for creating conducive environment with fewer burdens on infrastructure. Present paper put forth the need of energy conscious and eco-friendly techniques for construction sector focused on harnessing natural energy, use of eco- materials, adoption of energy conscious constructional, management and design strategies and equipment design. It examines the energy intensive techniques used in the construction of the mega structures constructed recently in the city of Pune with reference to their impact on local and global environment. It endeavors to suggest strategies for construction with less environmental loading. It discusses techniques to be adopted in the construction sector for creating a healthy living and work environment in order to keep natural environment intact for posterity.

Building Codes and Their Implementation in Architectural Development With Reference to Seismic Safety: A Critical Review

Prof. Meera Shirolkar and Dr. Gokhale Vasudha

Abstract

Increased needs of an urban man are supposed to be the offshoot of industrial and economic growth in the country. Government through planning regulations such as zoning and through building codes regulates much of the physical development in our cities. Unfortunately increasing land prices may sometimes force common man not to follow code related provisions and building bylaws. The country has suffered severe earthquake damages in last decade. It has been observed that a considerable amount of damage was attributed to the substandard constructional practices resulted due to non-compliances of the provision of building codes. Design codes are the minimum specifications of the society's expectations of the structures. There is a need to ensure that the code related provisions are faithfully complied with.

Present paper investigates the damage scenario in past earthquakes, demonstrating failure of structures because of the lack of concern and awareness of the designers towards the provisions of Indian seismic codes. It discusses various provisions with reference to architectural development included in recently revised codes. Based on an in-depth study and survey of past earthquakes it stresses for the strict implementation of building codes in order to minimize damages and make our habitat seismically safer for posterity.

Role of Financial Agencies in the Creation of Sustainable Living Environment

Dr. Vasudha Gokhale , Neha Momaya, and Amruta Walvekar

Abstract

Architects, planners and builders see their role in promoting the concept of sustainability and facilitating the community's understanding as to what is a sustainable building but the concept is not in common use because of technological and financial constraints. Considering this an active support of government and semi government agencies are required for providing financial assistance and technical know-how. It has been observed that with the help of financial support and expertise provided by various agencies, the construction of sustainable houses is increased considerably in last the decade. Present paper discusses the role of various agencies with reference to sustainable architectural development in Japan. It presents various steps taken by such bodies towards the development of sustainable architecture and examines the effect of these schemes on architectural development and consequent on living environment. Need for such scheme is stressed in order to encourage common people to adopt various measures to make their buildings sustainable and save the global environment.

Traditional Urban Landscapes in Pune: History, Innovation and Sustainable Design

Prof. Kamalapurkar Shubhada

Abstract

The interface of water with the evolution of settlements is an integral part of the process of the settling of man in an organized way in the history of mankind. In India, traditionally this phenomenon have been acquired more significance with respect to cultural, social and religious aspects. Indian concept of planning of cities has generated the wisdom for developing various systems especially for water supply and sanitation initiated from early civilizations like Mohenjo Daro, Takshila, Nalanda and was extended to later developments in Fatehpur Sikri, Agra etc. In addition to its utilitarian uses water has been used for numerous purposes like as an aesthetic element, for defense, for social, religious purposes or even to exhibit power and prestige. Innovative water supply systems in many historic cities in India demonstrate the advanced knowledge of the engineering skills of the Indian master builders, the highly efficient well designed water supply system in the Pune, the terrestrial capital of India in 18th century is one of them. Exceptionally efficient water supply system, which was designed and constructed in Pune City during the rule of Peshwas, the Maratha rulers in the eighteenth century reflects an interesting interface and urban pattern at the city scale. This water system was a great technical achievement for that period and which still functions well even after more than two and a half centuries of its existence. This ecologically sustainable and an economically viable alternative for managing the natural water resources system needs to be conserved through an approach of revival, revitalization and redevelopment as well as its integration with the present day water supply system for the city of Pune. This can also be developed as a 'Model', which is valid even for of today growing cities.

Architecture and Planning Issues to the Occurrence of Natural Hazards in the Coastal Areas of India

Dr. Gokhale Vasudha and Prof. Joshi Shruti

Abstract

On 26th December 2004, the thousands of poor invisible people in India's coastal villages unexpectedly thrown into the glare of publicity by the "harbor wave" disaster. Death and destruction came riding on the waves in the form of massive tsunamis that obliterated cities, seaside communities and holiday resorts, killing more than 156,000 people in a dozen countries.

India has 7,516 km long coast and its 4,198 islands are spread across the Andaman and Nicobar and Lakshadweep archipelagos. More than 590 villages, which were located very close to the coast, violating the Coastal Regulation Zone -CRZ rules, were affected badly when giant tsunami waves arrived at sapped of about 160 km per hour. Considering the large-scale destruction and the damages to life and property in 26th December 2004 Sumatra tsunami the architectural development in the coastal areas is to be regulated. Various planning and policies should be revised has. Considering the need to relearn how to build our societies to live more respectfully of nature and the limitations of our natural resources, appropriate solution are to be found out at topmost priority for the creation of a safer built environment in the coastal areas of India is concerned.

Interpreting a Syllabus For a Regional Agenda: case study: University of Pune

Prof. Sharvey Dhongde, and Prof. Sujata Karve

Abstract

Ar. Balkrishna Doshi writes “[Traditionally], the role of the architect, as of everybody else, was that of a shareholder in an enterprise. While roles of each discipline were demarcated, the final outcome expressed the multiple considerations that went into it. That is how different forms of art in India have, over the centuries, given birth to a vernacular idiom, sustained the culture, and in the process, sustained itself. The models of postindustrial development were neither conceived on the basis of climate, nor social needs, nor lifestyle, nor did they incorporate attributes of the process mentioned earlier. The consequence was increased use of resources, of energy, and subsequent degradation of the environment.”

Traditional systems of imparting architectural education have completely changed and that change has been responsible to a large extent to the breach in continuity of local architecture. The bifurcation of architecture into theory and practice or studio rather than an integrated evolutionary process might have taken its toll. Also the separation of the site and the school and the loss of a hand's –on process on a real site has had a definite effect on this applied art. There are some general problems with the syllabus as well. The available time and the ideal detail of content intended are disproportionate. This is fraught with the risk of superficial understanding of the subject and that can be very detrimental. Lots of information but very little knowledge are not a very happy situation to end into.

Rain Water Harvesting in Urban Areas

Prof. Uday Chipalkatti

Abstract

Water plays an important role in our life, whether positive or negative. On one hand it is necessary for the survival of human being; on the other hand it often acts as a destroyer in the form of flood. Tsunami, and also drought caused by its scarcity. It has been observed that mostly rural or backward areas are affected by these problems particularly in developing countries like India. The urban people, who are more organized and privileged due to their economic power, have easy access to most of the comforts including drinking water. This situation may aggravate after few years and there are likely to be fights and even wars for water. In India such problems are already in existence, a number of states are facing dispute on the issue of sharing of water of rivers for a long time. Last year, Andhra and Karnataka farmers attacked many dam sites and damaged them in Maharashtra for water. Karnataka and Tamilnadu are fighting for years for Cauvery water. Andhra and Tamilnadu have feud over Almatti Dam.