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The city of Hyderabad, located on the Deccan plateau region along river Musi, has a rich cultural history, shaped in the last six centuries. Founded by Muhammad-Quli Qutb Shah of the Golconda kingdom in 1591, it was subsequently taken over by Mughals and Nizams till independence. Thereafter, it became the capital city for the State of Andhra Pradesh. Traditional systems of nature conservation have played a great role in defining the character of the region. The city has a history of investing in creating ecological assets, large artificial lake (Hussain Sagar), grand reservoir (Mir Alam) and Kasu Brahmananda Reddy Park KBR Natural Park to quote few examples. The iconic rock formations, hills, water reservoirs, and forests represent the dominant physical features of the historic city. The city underwent drastic changes in the character and form of nature features and open spaces in the last three decades, especially after the economic boom of 90s in the country.

The special section on Hyderabad in the issue features few of the landscape related aspects of the city and the region. Dr Sridevi Rao, Guest Editor of the special section, notes that the culture is central to ‘successful’ design in the city. She further observes that it is crucial to micro-manage natural assets of the city through design, since they define the image of Hyderabad. The point is again emphasized in her book, A Measure of Community, based on the public spaces of the city which is reviewed in the issue. The Master Plan for the sub-city of Cyberabad, the Information Technology IT hub, formulated in early nineties was an attempt to integrate the ecological systems of the region with the proposed manmade infrastructure. A feature on the sub-city shares its main features. The character of the landscape practice in the region is defined by many landscape design works being designed and executed by landscape professionals, few of which are presented in this issue.

Natural resource conservation, its ways and means and its integration with the development, as adopted by rulers is the subject of research of an article on Sheikhpet Serai while the story of Three Trees add a sense of time and history to the region. Qutb Shahi Heritage Park is an ambitious, decade long multidisciplinary project where the present need of a vibrant public space is addressed without compromising with heritage character of the site, a unique composition of monuments belonging to the founder dynasty - Qutb Shahi.

We are thankful to Syed Zahid Ali Akhter and Aparna Rao for their help and suggestions in compiling this special feature.

Along with features based on the city, the issue brings on board two inspiring works, a book and a travelling exhibition. Indica, an exceptionally researched book, opens doors to the breath-taking history of Earth, with Nature as its central character. Author of the book, Pranay Lal, an erudite bio-chemist unravels the mysteries in a most fascinating manner. Tracing Narratives, an exhibition on the history and evolution of gardens in the country presents interesting ideas and ways of looking at the typology through the lens of philosophy, art, design and popular culture. Works of AP Kanvinde (spanning more than five decades), a modernist architect with traditional value systems are ever inspiring for the present generation of spatial design professionals, especially students. His creative endeavours are now presented in an exhaustive volume Achyut Kanvinde: Akar. The issue reviews the publication.
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RAIN DIGS UP
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It’s well-known that Professional Landscape Dripline, like other driplines, works well at grade. However, when irrigating subsurface, higher distribution uniformity through fleece-wrapping is a better solution to help the soil to move water to the root one where it is needed.

Designed to suit a variety of hard-to-irrigate areas, the Eco-Wrap from Hunter Industries uses specially engineered fleece-wrapped inline emitter tubing to evenly disperse water from under the surface. The Eco-Wrap uses the capillary action of the fleece wrap to spread water quickly and more efficiently throughout the soil, keeping turf, gardens, and shrubs, healthy and flourishing. If the goal is to maximise water conservation and save money while growing flourishing plants, consider Eco-Wrap for subsurface applications.

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For more information on the Eco-Wrap™, visit [www.hunterindustries.com](http://www.hunterindustries.com)
**LED ARCHITECTURAL LIGHTING**

**ALL NEW PRODUCT PORTFOLIO THROUGH AN INNOVATIVE OUTLOOK**

K-Lite Industries, an ISO company, manufacturing indoor and outdoor luminaires has launched a new series of LED Architectural Lighting. Being the trend setters in outdoor lighting and inspired by the “Make in India” vision, K-Lite, through its innovative outlook, has showcased an all new product portfolio under architectural lighting. The application includes facade lighting, pathway lighting, in-ground luminaire, uplighter, up-down lighting, billboard lighting, vertical light bars, wall washers, area lighting poles and above all, popular sleek polar lighting solutions.

The solutions offered are backed by extensive understanding of illumination in urban spaces and the expertise gained over a period of three decades. The fixtures are designed to provide value technology, ideally suited to Indian Conditions. The LEDs used comply to LM 80 testing requirements and from internationally reputed makes such as Nichia / CREE. The luminaires are RoHS, LM 79 and CE certification compliant. The luminaire efficacy (lumens/ per watt) is much above 100 for all luminaires. Varied optical options for lighting distribution and correlated colour temperature (CCT) for cool white, neutral white or warm white are available to suit specific requirements.

The outstanding item of the series viz., the sleek polar lighting solutions is a contemporary design that is both timeless and unique in its impression. Compact without visible mounting equipment and optimised integration, polar lighting is in perfect continuity with the geometric lines of the square column. These assemblies are ideal for surroundings of contemporary architectural constructions.

For more details, visit [www.klite.in](http://www.klite.in)
The inaugural session of the day-long symposium commenced with an introductory talk by Prof AG Krishna Menon, outlining the significance of the post-Independence architecture of India and why its iconic examples must be valued and conserved as society’s heritage. He explained the role of INTACH Delhi Chapter in promoting this imperative and the status of the legal and administrative steps it had taken to conserve the post-Independence buildings of Delhi. He outlined the objectives of the symposium, which was to put in place a credible and acceptable framework of protection mechanisms all over the country.

This was followed by talks by the keynote speakers. Joshua David, President & Chief Executive Officer, World Monuments Fund, New York described the initiatives of the World Monuments Fund to create awareness in all parts of the world about the vulnerability of the heritage of this period. Meenakshi Srinivasan, Chair, New York City Landmarks Preservation Commission talked about the designation process in New York in which consultation with the owners/stakeholders has a large role to play. Mahendra Raj, the eminent structural engineer of some of the pioneering buildings of the Post Independence era spoke passionately about his contribution to the narrative of India’s architectural evolution. KT Ravindran, former chairperson of DUAC, touched on the role of the DUAC and HCC.
In a bid to make this initiative of notifying and protecting icons of the post-Independence era, a pan-India exercise, there were presentations from across the country — *Modernity Heritage and Critique: A Perspective from Bangalore* by Prem Chandavarkar, CnT Architects; *Iconic Building of the Post-Independence Era in Mumbai* by Kaiwan Mehta, Architect, Academia & Researcher; *Iconic Building of the Post-Independence Era in Delhi* by Anupam Bansal, ABRD Architects; *The Way Back to Timelessness: Harnessing creativity, Empowering Culture, Re-Defining a Nation* by Karan Grover; *Modernities and the Architecture of Chennai* by KR Sitalakshmi, School of Architecture and Planning and *Post-Independence Architecture: An Alchemy of Time, Place and People*, by Yatin Pandya, Footprints E.A.R.T.H.

This was followed by three panel discussions in which various professionals, architects, conservationists, planners, advocates, and historians, expressed their views on the architecture of the post-Independence era and why it should be recognised as heritage. Annabel Lopez, INTACH, Delhi Chapter, presented the criteria that were used to identify buildings in Delhi, methodology for grading that had been adopted, and recommendations for the kind of protection, once these were notified as heritage buildings.

Why Conserve Post-Independence Architecture of India? was chaired by AG Krishna Menon, and it included Arun Rewal, Ashish Ganju, Ashok B. Lall, Sanjay Kanvinde, Vibhuti Sachdev and Nalini Thakur. Way Forward: The role of Civil Society and Non-Government Institutions, was chaired by Divay Gupta, and it began with a presentation, ‘Aligning with International Initiatives to protect 20th Century Architecture in India’, by Kiran Joshi. The panelists were Navin Pipani, Nupur P Khanna, Tapan Chakravarty and Giles Tillotson. Way Forward: The Role of the Government was chaired by Gourab Banerji, senior advocate, and panelists were advocates Anish Dayal, Roma Bhagat and Jayant Tripathi. The other panelists included Janhwij Sharma, Joint Director General (Conservation), Archaeological Survey of India and Shikha Jain, former Member Secretary of the Advisory Committee on World Heritage Matters, Ministry of Culture, Government of India.

Key subjects raised and deliberated upon were the lack of awareness and outreach, role of the architect in society today and the need to have a robust system for identification of iconic buildings of this period. The failure of the organisations mandated to protect heritage was also discussed. Legislation is vital to ensure protection. The participants unanimously expressed their dismay at the events leading to the demolition of one of the iconic buildings of the post-Independence period, the Hall of Nations, and strongly endorsed the need to identify and protect the significant buildings of this period all over the country to prevent such situations in future. It was also agreed that the heritage value of contemporary buildings was not on account of their age but their significance in understanding the narrative of the evolution of Indian Architecture.

The symposium concluded with a presentation by MN Ashish Ganju on the need for a museum on Modern Indian Architecture to celebrate and spread awareness of its significance, amongst not just professionals but the wider public.

Based on the recommendations received from the participants, INTACH aims to prepare an Action Plan document for a way forward.
After 1956, Hyderabad State and a part of Madras State were merged to form the southern state of Andhra Pradesh. In 2014, the newly formed state of Telangana was carved out of Andhra Pradesh and Hyderabad became the joint capital of the two states, a transitional arrangement scheduled to end by 2025. The city is spread over 650 square kilometres (250 sq.m.) along the banks of the Musi river. It has a population of about 6.7 million and a metropolitan population of about 7.75 million, making it the fourth most populous city and sixth most populous urban agglomeration in India.

To introduce a contemporary metropolis with a historical background, like is Hyderabad, while referring to the practice of landscape architecture is enthusing to say the least. Hyderabad was described by the British as being as important as New Delhi. Its historical background is well documented. The context for the present landscape is largely a result of the transport system which was implemented in the 1870s by Mir Mahbub Ali Khan Asaf Jah VI, the Nizam of Hyderabad. The Railways (Nizam’s Guaranteed State Railway) was brought to Hyderabad after the Bombay Presidency (extended from Wadi). One could travel by train or bus with a common ticket. The City Improvement Board (CIB) cut through swathes of the city to build a riverfront along river Musi. People were shifted to labour colonies two kilometres away. In the 1930’s Hyderabad was referred to as the ‘Paris of the East’.
The Master Plan

The Hyderabad Metropolitan Development Authority (HMDA) has been authorized by the State Government to implement the notified Master Plan. Its jurisdiction extends to fifty-five mandals (revenue divisions are the administrative divisions in districts, these divisions are further sub-divided into mandals) located in five districts — Hyderabad: sixteen; Medak: ten; Rangareddy: twenty-two; Mahbubnagar: two; and Nalgonda: five. The total area of HMDA is around 7,228 sq.km and includes the areas covered by Greater Hyderabad Municipal Corporation, Sangareddy and Bhongiri municipalities and 849 villages. The Metropolitan Development Plan 2031 for the Hyderabad Metropolitan Region (HMDA Master Plan 2031) came into effect from the date of publication of the notification in the Andhra Pradesh Gazette i.e. on 30 January 2013.

HMDA was set up for the purpose of planning, co-ordination, supervising, promoting and securing the planned development of the Hyderabad Metropolitan Region. It coordinates the development activities of the municipal corporations, municipalities and other local authorities, the Hyderabad Metropolitan Water Supply & Sewerage Board, the Telangana Transmission Corporation, the Telangana Industrial Infrastructure Corporation, the Telangana State Road Transport Corporation, and other such bodies.
HYDERABAD CITY, 1914
The maps have been developed from the originals published by Verlag von Karl Baedeker in Leipzig, 1914.
Source: commons.wikipedia.org

HYDERABAD ELEVATION MAP
Source: Harsha Devulapalli

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<tr>
<th>Elevation (m)</th>
<th>460</th>
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1. Osman Sagar
2. Himayat Sagar
3. Hussain Sagar
4. Mir Alam Tank
5. Durgam Cheruvu (Tank)
6. Nehru Zoological Park
7. KBR Park
8. Baghe Aam (Public Gardens)
9. Qutb Shahi Tombs
10. Golkonda Fort

The Map has been developed on the basis of proposed Landuse Zoning of Metropolitan Development Plan – 2031 for Hyderabad Metropolitan Region
Man-Environment Interaction

When compared to allied professions and subjects, a distinguishing feature of landscape architecture is the centrality of people or users of the designed space. This is a reason why culture is central to ‘successful’ design, especially so in Hyderabad. The sheer numbers using public spaces or government owned facilities—which usually swell during festivals or related processions—denies ‘control’ through design. As opposed to this, private commissions by local professionals emphasize conventional design as promoted in the studio.

The man–environment interaction in the periphery of this metropolis, where the natural landscape has been compromised, is evident in the quality of water bodies, be it the Musi river or the lakes. As part of the Deccan Plateau, rocky hillocks characterize Hyderabad. It is common to see these hillocks destroyed for infrastructure as well. The hillocks often act as catchment areas for storm water runoff which collects in the low points of the landscape. Historically, weirs or ‘bunds’ were built to contain this water and thus formed artificial lakes, the earth not being so conducive to percolation. Hussain Sagar is a well-known example.

The challenge in implementing the Master Plan would be to micro-manage natural assets through design, since they define the image of Hyderabad. Lack of recognition and employability of landscape architects as opposed to architects, shifts the emphasis to the building and infrastructure rather than the landscape and ecosystem’s flora and fauna. The arrogance of technology in replacing uprooted trees and destroying ecosystems nurtured over time.

Source: LIFE Magazine

The basaltic hillocks of Hyderabad and new construction

Bund at Mir Alam Tank in 1930’s Hyderabad
fails to acknowledge that the Deccan Plateau is not humid or fertile as like the Western and Eastern Ghats. Therefore, it is a bonus that greenery and abundant biodiversity is nurtured by the hillocks and lakes.

Hyderabad is the only metropolis in the world to have the Kasu Brahmananda Reddy National Park (KBR Park, area 1.6 sq.km.) within the urban area not unlike the function of Central Park (3.4 sq.km.) in New York City but better, because it is a repository of native flora and fauna. It is an image of Hyderabad that if lost will add to adverse impact on its temperature and pollution levels. The use of technology to replace vegetation with exotics would be an enormous and expensive blunder.

It is in this context that wherever landscape architects are employed as extensively as in private development, care is taken to sustain these defining elements of Hyderabad’s landscape. No doubt that our profession in Hyderabad is trudging along and could do with some trotting, but we trudge since we are soldiers for nature and do not intend to exploit and destroy with speed.
Cyberabad, an area in the southwest and west of the city of Hyderabad, was developed in the 1990s to address the country's Information and Technology boom in which the city played a prime role. Spread over an area of 52 sq km comprising the suburbs of Madhapur, Gachibowli, Kondapur, Manikonda and Nanakramguda, the technology township is within 2 km of the residential and commercial suburb of Jubilee Hills. It is developed as a Special Development Zone, with a mixed-use development that has institutional, residential and commercial landuse. A technology centre with IT parks, office complexes of world renowned IT companies and bio-pharmaceutical companies, Cyberabad, also known as HITEC City (Hyderabad Information Technology Engineering Consultancy City), has emerged as the symbolic heart of cosmopolitan Hyderabad.

Vastu Shilpa Consultants, Ahmedabad, have conceptualized the Master Plan of the township in 90s and the work started in 2000. Presented here is the vision and the concept.
Vision 2020 for Cyberabad

Cyberabad has been proposed as a new city that is being planned with the goal of attracting the Information Technology (IT) firms to locate their business in Andhra Pradesh. The Hyderabad Urban Development Authority (HUDA) proposes to develop an area measuring about 5,229 ha, which is part of an expanding western periphery of the Hyderabad/Secunderabad agglomeration.

The Vision 2020 for the state of Andhra Pradesh ([McKinsey & Company, 1999](#)) states that by 2020 Andhra Pradesh will have achieved one of the highest levels of IT literacy in the world.

*Long before 2020, Andhra Pradesh will be a premier centre for IT and will be recognized globally as a key location for IT companies. It will be the destination of choice for IT professionals and IT companies, both domestic and foreign.*

Hyderabad is a city with the legacy of being a global city in earlier times. One of its more memorable epithets is the 'City of Gardens'. It was also a city of exemplary town planning and design. Muhammad Quli Qutb Shah, the founder of Bhagyanagar (or Hyderabad as it is known today) realized that besides the issues of location, form, structure and the urban character, no beautiful city can become a growing, thriving city unless economic opportunities are created along with the governance to sustain them is shirked from.

The Township

In keeping with Hyderabad’s heritage as a global city next door, Cyberabad has been visualized as a city of the future and an icon to demonstrate Andhra Pradesh’s commitment to the sunrise IT-related industry, of global investment and the promise of hope, change and empowerment for the impoverished.

Perhaps nothing has changed our contemporary world so dramatically as the ubiquitous silicon chip. It has ushered in a revolution of connectivity transcending time and space. The internet has the power to unify the entire world population in a single space at any given moment of time.

With increased teleconnectivity, all of us working at our individual acts will be influenced by the rising consciousness of mega-trends whose pattern may be more clearly visible at the global level. However, this very facet will also enable us to take decisions appropriate to our local social and cultural milieu.
Cyberabad landscape is generously interspersed with water bodies and micro-ecosystems to be harnessed and networked, creating a synergy between nature and the man-made.

Legend:
- 630 M Contour
- 620 M
- 610 M
- 600 M
- 590 M
- 580 M
- 570 M
- 560 M
- 550 M
- 540 M

Cyberabad Urban Development Region: Envisaged Spatial Growth by 2021

LEGEND
- Development Area
- Roads Proposed in 1980 Master Plan
- National Highways
- Board Gauge Railway Line
- Meter Gauge Railway Line
- Water Bodies
- Water Tank
- Railway Stations
- Airport
- Growth By 2001
- Growth By 2011
- Growth By 2021

Growth 
- Upto 75 Lac
- Upto 25 Lac
- Upto 10 Lac
- Upto 5 Lac
In a similar manner within a single urban region, a variety of experiences undreamt of in the past can emerge, as the urban experience in its daily and weekly routine need no longer be limited to one district similar to many other, but can open itself to the diversity of places and opportunities. From this emerges the new urban environment of multiple nuclei, with an increased ability to travel easily from one centre to another, this reduces current need to duplicate services, institutions, and businesses across the land.

Unlike landmark city planning examples of Hyderabad (1595) and Jaipur (1725) in medieval times or more recently Chandigarh in 1951 which were all conceived on clear land with only geographical constraints, Cyberabad is to be assembled from fragments of yet to be developed privately owned lands. It has to run the course of a democratic process where the interests of the present and future stakeholders will need to be negotiated, where various claimants for equity will contest their claims.

The confluence of the site’s valleys along the watersheds and lakes becomes the focus of the future vision of the city. It integrates the ecological systems along with the man-made infrastructure, where each adds strength to the other. As a result, an orthogonal grid plan is created with a central cross of plazas and gardens. Parallel to the central cross, the residential sectors appear to be the most appropriate solution. Besides, such a plan cannot ignore the historic perspective of positioning the landmarks be they natural or man made. Cyberabad’s hilly terrain and water-bodies help in achieving this goal and its approach along the major transport connection from the city, airport and the hinterland further enhances this aspect.

Cost-effective, energy-efficient and non-polluting public transport, bus, electric bus, tramway or a LRT, will be the mode of such a transport system. The future skyline of Cyberabad will comprise roofs that harvest the rainwater and trap the solar energy for heating or electric generation. The city fabric will be dense, land uses mixed just as it was in the vernacular practice, but will now have transport based on electric or solar powered buses, encourage bicycling and pedestrians. The paint on the building will be of heat reflecting material and silicon wafers of photovoltaic cells will be on the roof.

In the new city, communities of about 8,000 persons will live together with potential for creative development. Choices of location, activities and their constant proximity to socio-economic institutions within the existing chaotic development provide access even to the have-nots, the same opportunities which in a normal planning framework would not be possible.
Role of Private Sector

As the existing land ownership in Cyberabad is almost entirely private, a key to its successful development is the balance between land acquisition by the development authority and the involvement of the private sector. As the cost of land and infrastructure is expected to be substantial, it makes sense to consider options for mobilizing financial resources from the private sector for the development of Cyberabad. Obviously that a public agency should be responsible for providing the main infrastructure including major roads. Suitable financing mechanisms must be used to recover the costs from the beneficiaries.

We are convinced that an environmentally sustainable city can be achieved despite the existing constraints. A solution which might herald a new approach to planning, i.e. a linear and orthogonal city plan with control and flexibility to accommodate the existing constraints, and yet creating a new vision of a rapidly traversable garden city offering choice to grow within the available resources. Its flexibility gives opportunities to eventually upgrade the services like transport networks, infrastructure and even the communication system.

| Maps and images courtesy Vastu Shilpa Consultants |
QUTB SHAHI HERITAGE PARK
CONSERVATION & LANDSCAPE RESTORATION
The Qutb Shahi group of monuments, called Qutb Shahi Heritage Park, spread over 106 acres, is located on the western side of the city. It is one of the most significant historic compositions in the world, comprising of over seventy structures of mausoleums, mosques, step-wells / water structures, a hamaam, pavilions, garden structures - all built during the reign of the Qutb Shahi dynasty which ruled the Hyderabad region for 169 years in the 16th - 17th centuries. It is the only surviving complex of this nature where architectural styles of an imperial dynasty are found in one ensemble.

Keeping in view its historical significance, in January 2013, the MoU between the Department of Archaeology and Museum (DAM), Quli Qutb Shah Urban Development Authority (QQSUDA) and the Aga Khan Trust for Culture (AKTC) was signed to commence the conservation and landscape restoration work for the whole site, listed on the tentative World Heritage List. It is the second public-private partnership in the conservation field in India, with the Aga Khan Trust for Culture and the Government of Telangana working in tandem. This is the second public-private conservation-related MoU signed in India, the first partnership being the restoration of Humayun’s Tomb in New Delhi.
Landscape Master Plan

An integral part of the conservation program is the restoration of the natural context of the monuments. The main objective of the landscape development is to give the complex a distinct and unified character that carries the historic spirit as well as address contemporary needs.

Qutb Shahi Heritage Park will be developed into three zones: the core heritage zone, which includes all the monuments; the ecological buffer zone on the north and south of the archaeological zone; and the entrance on the eastern edge, which comprises of visitor amenities such as an amphitheatre and public toilets.

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**PROPOSED LANDSCAPE MASTER PLAN**

Landscape Architects: Shaheer Associates, New Delhi

**LANDSCAPE IN CLOSE VICINITY OF TOMBS**

1. Proposed garden around tombs
2. Garden space enclosed by heritage buildings to be improved through restoration of steps and appropriate adjustment of levels
3. Proposed orchard groves of small fruit trees

**GENERAL LANDSCAPE**

A  Entrance square
B  Major new path as the main entry to the complex
C  Proposed location of Interpretation Centre and Visitor amenities
C1  Proposed Open Air Theatre and space for functions with Tomb of Begum Hayat Baksh
D  Existing water body to be modified with a float garden proposed as an interlude on the main path
E  Proposed landscape link across site
E1  Existing earth from re-graded to allow direct connection and access to the earliest group of Tombs in the southwest part of the complex
E2  Proposed garden to negotiate the change in alignment of major path
P  Parking for buses and cars

**SECTION A**

Existing: Section from South showing profile of land

Proposed: Section showing grading and land profile to expose 1 meter (approximately) of historical plinth wall
The proposed landscape master plan creates a composition of interlinked formal gardens around monuments integrating existing pavilions and other garden structures. The northern and southern sides, nearly 15 hectares, towards settlement comprises of informal zones of densely planted native vegetation enhancing bird habitat unique to the region. The existing trees of more than 70 species that were surveyed and documented have been integrated in this zone. Since the conservation and landscape works are being undertaken simultaneously, many new discoveries of landscape related elements are being made. For example, remnants of enclosure walls have now established that both the tombs of Sultan Quli Qutb Shah and Ibrahim Quli Qutb Shah stood within enclosed garden. Newly excavated water features like hammam, baoli and aqueducts have come to light which are informing the landscape restoration. These elements are now being revived and integrated in the landscape plan. One of the objectives of the overall development is to revive the linkage of the Heritage Park with Golconda Fort, allowing the site to serve as a starting point for the Qutb Shahi trail of Hyderabad leading to a significant interest in its heritage both locally and internationally.

Qutb Shahi Heritage Park is a decade long project. One of the principal objectives of the project is to ensure long term preservation of the monuments which is to be achieved by a sensitive conservation approach based on scientific research and use of traditional materials in the architecture conservation. Of critical importance is to setup local sources for traditional building materials – lime, granite, sand of superior quality and the infrastructure required to implement the decade long conservation project.

Simultaneously, the Aga Khan Foundation (AKF) also intends to commence an education program that will eventually improve the socio-economic quality of life of the neighborhoods.

Images and drawings from Aga Khan Development Network, Qutb Shahi Heritage Park, Annual Report, 2015
A READING FROM SHAIKPET SARAI
QUTB SHAHI, HYDERABAD

Serai: The usual meaning in India is that of a building for the accommodation of travellers with their pack-animals; consisting of an enclosed yard with chambers around it. (Hobson-Jobson, 1903)

A large building for the accommodation of travellers, common in Eastern countries. The word is Persian and means in that language, 'a place, the king’s court, a large edifice'; hence karavan-serai, by corruption caravanserie, i.e. place of rest of caravans. The erection of these buildings is considered highly meritorious by Hindus as well as Mohammedans, who frequently endow them with rents for their support. (The Penny Cyclopedia of The Society for the Diffusion of Useful Knowledge. Vol XXI. London, 1829)
The historic reign of the Qutb Shahi dynasty/Golconda Sultanate (1512-1687) inherited a complex terrain of hillocks and fractures as the settings for their architecture. Judicious interpretation of the natural landscape led to the siting of trade routes, fortifications, tomb complexes, water reservoirs, percolation ponds, stepped wells, aqueducts and subterranean conveyance systems, pleasure gardens, orchards and water distribution mechanisms. Some of these systems lie in close proximity to erstwhile settlements or remnant historic building complexes, while others are found today in the midst of dense modern-day settlements. Many are already lost in the wake of modern developments. Collectively, these man-made systems and their landscape settings - past and present - form a tangible layer of the larger cultural landscape of Hyderabad. One such setting is that of the Shaikpet Mosque and Sarai, enroute to the Golconda Fort.

The Precinct: Shaikpet Mosque & Sarai

The Shaikpet Sarai was built by Ibrahim Qutb Shah (1550–80) in the early Qutb Shahi style of architecture as a night-halt for traders awaiting permission for entry into Golconda Fort. The adjoining mosque, a later addition, is similar to other Qutb Shahi era mosques like the Mecca Masjid, (c. 1614 onwards). The terrain around Golconda and its traverse formed the basis of an important trade route from Ahmednagar. It passed Bidar, Patancheru, Golconda and onwards to Machilipattanam on the east coast. By its side lay the dargah of Hazrat Syed Hussain Shah Wali - a revered Sufi saint during the reign of the Qutb Shahi dynasty and descendant of Khwaja Banda Nawaz (Gesu Daraz) - the most influential Sufi saint of the Chisti order in South India. Hazrat Syed Hussain Shah Wali is credited with building the Hussain Sagar Tank at Hyderabad (1562), which served as a water reservoir for the city till the 1920s.
Terrain & Cheruvu

A series of water-bearing fractures criss-cross the granitic gneiss underlying the city-region of Hyderabad. Where the topography exhibits drainage patterns with parallel and perpendicular junctions implying the presence of compact fractured substrata we see a large incidence of percolation ponds and detention ponds with overflow mechanisms. While many ponds pre-date the Qutb Shahi rule, most of them were subsequently repaired and enlarged. Seen from the vantage of the Golconda Fort, the surrounding terrain was an undulating pediplain with scattered low hillocks. The region to the north of Golconda comprised a prominent spur whose main valley forms the Durgam Cheruvu. An underlying fracture connected this broad shallow valley to the Musi river. A series of reservoirs last datable to the Qutb Shahi era are found along this line.

Trade Route, Dargah & Water Footprints

The main trade route along Golconda lies on a relatively flat pediplain enabling easy traverse whilst conserving the shallowest of valleys to collect and channel runoff into percolation ponds. To the north-west of Shaikpet Sarai lies the Dargah of Hazrat Hussain Shah Wali. A canal (Nehr Hussain Shah Wali) purportedly built to channelize overland flow into the far away Hussain Sagar flanks the dargah. Minor tanks such as the Shaikpet Cheruvu empty their overflow into this canal, ensuring hydrological continuity.

The Golconda-Qutb Shahi tombs - Shaikpet precinct lay outside the limits of the detailed survey maps prepared by Leonard Munn (1915), after the Musi floods of 1908. Hence a vital piece of information regarding the landscape quality of this area at the beginning of the 20th century is missing. However, nearby areas such as Toli Chowki and Karvan areas depict many small orchards, fields, small mosques, lakes, ponds and Bavadis (stepped wells) scattered in the larger landscape. This may have well been the landscape character around Shaikpet at the start of 20th century.

In addition, the area bounded by the Golconda fort, Qutb Shahi tombs, Shaikpet Sarai and the Dargah of Hazrat Syed Hussain Shah Wali represents a socio-political and socio-economic configuration linking hydrology, trade, religion and civic spaces (Simpkins (2008), James (2015)). It can be postulated that the erstwhile landscape between these larger markers would have a fair share of open grounds, agricultural fields, orchards and gardens.
watered by *bavadis* (wells), traces of which no longer exist. The photograph of the area (c. 1902, anon.) seemingly corroborates this further. However, it is to be noted that the thorny scrub-like landscape quality on relatively flat hydrologically active terrain is also the result of a series of plagues, draughts and famine that swept across the region between 1806-1899 CE.

In this regard, 19th & 20th century photographs need careful consideration on the issue of whether the visual links they capture between Golconda, Qutb Shahi tombs and other historic structures, really did exist.

**Re-stating Conservation**

In a regional context, a history of drought and famine in the medieval Deccan constantly pushed kingdoms towards the quest for water-wise settlement patterns and strategies. Golconda’s geo-political location in the Deccan peninsula, further demanded strategic vision behind creating a network of water systems during the Qutb Shahi rule. It could be said that the broad ‘zoning’ of Qutb Shahi Hyderabad is then reflective of its underlying water footprint. Presently, the ground surface around Shaikpet Sarai is broadly readable as dense urban village whose historic layers lie fragmented due to a largely ad-hoc development over the years. (e.g. Shaikpet Sarai, Shaikpet Cheruvu, erstwhile routes etc.). Its erstwhile neighbours - Qutb Shahi tombs and Golconda fort enjoy a higher degree of protection and regulation.

The historic links between water, civic and public spaces and community face threat of erasure from present day change in watershed characteristics due to human activity and land development. Deep readings of such fabric can therefore offer informative constructs regarding their immediate and long term future. Such readings and constructs can bridge monument-centric conservation and community-centric revitalization of precinct, while protecting historic vestiges. Imaginative, systemic and cross-disciplinary approaches could prove beneficial in illustrating the enduring role of heritage sites in meeting their own needs and extending their capabilities to play new roles. It is here that, examples like Shaikpet Sarai stand out as a potential case, illustrative of similar sites elsewhere in Hyderabad and India.

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**References**


Upalghosh Associates & Shaheer Associates

GOLKONDA RESORTS AND SPA
HYDERABAD
This site is located just outside the city near the famous Osman Sagar lake, popularly known as Gandipet Lake. There is a building, constructed in the colonial architectural style by the British in 1924, which was used as a Circuit House. Later, it became a state Government Guest House, and then in around 2002 it was leased out to the present owner for the development of a hospitality facility. The site is undulating and rugged in some portions, with the old colonial structure sitting on a higher ground in the middle of it and the lake on its south western side. One of the main design objectives was to retain the visual connection of the site with the lake and also to negotiate the natural levels and drainage in the best possible way.

The original building at the centre is the pivotal node that guides the overall architectural layout. It has been restored and reused as the reception area. Its central location defines the areas before it as public and the areas beyond for private and semiprivate uses like cottages, pools and dining. The reception block leads to the conference facility via a series of inviting broad steps, arranged along an axis designed with grass treads and stone risers. The public areas like banquet hall, party ground, tower restaurant, convention centre and parking are all located in the front zone. Vehicular access is only limited to this zone only. The rest of the area is only for pedestrians and serviced by golf carts.

The spatial organization of the rear zone comprises a series of cottages laid out in a semicircular form, interspersed with active open spaces. Creative site planning and space articulation offer flexibility to achieve desired activity distribution. This area also has two large swimming pools. The entrance to the rooms is through a pathway positioned along the semi-circular form. On the way, it offers a variety of spatial experiences - a sense of arrival to the rooms; intimate areas revealing the surrounding views; screening the private open areas and distant views of the reception block. The natural levels of the site allow an upper level path, behind the first row of cottages, giving direct access to cottages on the first floor. Few duplex cottages have entries from both levels. The amphitheatre negotiates the natural level difference between the reception block and the cottage area and acts as a buffer zone between the public area of the reception and the private zone of cottages and pools.
Extensive grading with earth forms and vegetation hides functions that were introduced in Phase II - conference centre and spa in the front area. Care has been taken not to disturb the existing mature trees and disrupt the views of and from the reception area. The restaurant tower, located at a strategic location, offers views of the surrounding landscape and the Gandipet Lake.

Use of local granite stone and pavers in combination with other locally available building materials creates a composition that is regionally and climatically contextual. Planting of trees, shrubs, ground cover, grasses and pruned hedges also perform various design functions - creating a sense of arrival near the reception, defining the area near pools, negotiating levels of the amphitheatre, transition from built-up space to open areas, defining circulation zones, a foreground and background to various scenic composition of buildings and nature.

Golkonda Resorts and Spa is an example of a holistic development of a place, where the boundaries between architecture and landscape design have been blurred. The final composition, deeply rooted in the environmental and cultural context, comes across as a creative endeavour of spatial design that has a strong sense of place and identity.
LEGEND

1. Entry
2. Arrival Court
3. Reception Block (Existing Building)
4. Banquet Hall
5. Main Block Entrance Court
6. Utility Yard
7. Gymnasium Court
8. Spa Court
9. Pool Court
10. Swimming Pool
| Images and drawings courtesy Upalghosh Associates & Shaheer Associates |

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The natural levels of the site allow an upper level path, behind the first row of cottages, giving direct access to cottages on the first floor. Few duplex cottages have entries from both levels.

Use of local granite stone and pavers in combination with other locally available building materials creates a composition that is regionally and climatically contextual.

Extensive grading with earth forms and vegetation hides functions like conference centre and spa in the front area.

Swimming pool with the series of cottage in the background.
Naandi aims to become a prototype for a shift in urban and regional planning, and has been proposed as an alternative to urban dwellers who are keenly aware of the requirements of a healthy sustainable living that respects nature and its resources – a lifestyle that is self-sustaining, independent of conventional supply grids and inherently holistic in its way of life. The development will offer the very best of both – an urban lifestyle along with finer nuances of rural life.”
The Naandi Master Plan Vision

The 45 acre site, which falls within the Hyderabad city limits and in a bio-conservation zone, has been adopted to create a farming community which uses 90 percent of the land for agriculture with only 10 percent built footprint. Every individual owns 0.5 acres of land out of which 75 percent is shared as a community farm. The masterplan places the continuous farm at the heart of the dwellings, allowing residents to directly benefit from the visual and physical interaction with the process of food production. The peripheral road ensures a vehicle-free farm edge backing on to each unit, creating a pedestrianized social threshold looping the entire farmland. This threshold promotes mutually beneficial interactions between residents and farmers, enabling cross pollination of thinking. Every conventional activity is reconfigured to heighten the experience of living in harmony with nature - like walking among medicinal plants and pebbles, swimming in a bio-pool, using the outdoor nature gym, cycling on a mud track and walkways shaded by solar trees. This deep integration creates a strong experiential link with the residents and farmers.

The Dwellings

The farmhouses are designed to leave minimum impact on the site, with highly compact footprints and several passive and active sustainable features. All units are shaded by a solar roof, with the customized upcycled crate-wood shaded facades dramatically reducing cooling demands. Strategies like buried earth pipes, solar heaters, high insulation glazing, prefabricated materials and constructions are implemented to create a sustainable built environment. Naandi is designed as a holistic farm, where farming is practiced at various levels. The space has been utilized to grow vegetables, fruits, herbs and other plants. Farming is based on the idea that one can know and learn about every stage of food production. This establishes the standards of the unadulterated process of food production by the members themselves, thus engaging them to witness the process of growing ‘safe food’. Community farming, personal farming, nurseries, forest plantations, medicinal plantations, animal husbandry, aqua-farming, apiculture are practiced here.

The Sustainability Framework

At Naandi, sustainable design is integrated into every aspect of building and living using the Sapta patha (seven strands) strategy which includes:

FOOD: 100 percent organic plant & animal products for consumption and sale

ENERGY: 100 percent off the grid self-reliant power

WATER: 100 percent on-site with water shed management and reservoirs

EARTH: Vedic farming and permaculture with zero toxins and segregated waste management

SHELTER: Optimized pre-engineered dwelling spaces with low carbon footprint

AIR: Fresh outdoor air naturally cooled with earth as the heat sinks

PEOPLE: Fully connected community with a strong social bond
Fully bloomed herbal garden after a year and a half of setting up
Sustainable Practices

Water, being the scarcest element in the site and the soil strata being sandy loam, water conservation for agriculture and other activities is very crucial. The design enables the development of several rainwater harvesting techniques such as contour trenches, swales and artificial ponds. The swales trenches all along the contours and along the peripheral boundaries were dug and connected to several water-holding ponds at the lowest point of our farm. While, swales and trenches allow for water to seep through the ground thereby raising the groundwater table, ponds hold excess run-off rainwater in a catchment area which can then be used for agriculture. This contributes to bio-diversity by becoming a natural habitat for several species of birds and wild life to flourish that are not found in other residential communities. Similarly, the artificial ponds also have fish that control weeds, mosquito larvae become their food and their excreta in turn is rich in nutrients when used for plants.

Community Farming

An area comprising nearly 15 acres is dedicated to fruits and vegetables with diverse cropping patterns designed to benefit the plants’ nutrient supply. Some of these patterns include the companion-cropping model where one plant helps the other in growth and pest control. Another technique adopted is of inter-cropping.

Each resident has a 600 square yard plot of which about 450 square yard is allocated for individual farmyards where the outdoor space has been designed using edible plantations. The garden areas are designed to encourage the residents to spend more time outdoors by experiencing nature and growing their own vegetables and fruits for consumption.

Forest Plantations

The entire community is lined with forest trees on the boundary that have secondary revenue generating opportunities. Tree include Delonix regia (gulmohar), Casurina equistifolia, Phyllanthus emblica (amla) Azadirachta indica (neem), Pterocarpus santalinus (red sandalwood), Millingtonia hortensis (Indian cork tree), Tectona grandis (teak), Sapindus species, Maduca longifolia (mahua), Prunus dulcis (badam), Artocarpus heterophyllus (kathal), Areca catechu (betel nut palm) and Phoenix dactylifera (date palm). This diversity of tree species further enables equally diverse animals and birds to co-exist. The front of the site and the south-east parcel of land are developed as a forest with a small garden of traditional Indian medicinal plants. The forest shacks, bonfire space and outdoor barbecue provide a natural avenue with a wilderness experience.
Bamboo pavilions and tunnel paths covered with plants, ponds and water bodies and many forest stretches—all these make Naandi commune “an urban lifestyle with finer nuances of rural life”.
Project | Naandi Commune
Location | Hyderabad
Total Area | 45.0 Acres
Client | Navira
Architecture & Landscape Consultant | FHD Group, Hyderabad
Duration | 3 Years
Kishore D Pradhan: Architecture + Landscape

KBR PARK
HYDERABAD
Kasu Brahmananda Reddy (KBR) Park is probably the only example of a reserved forest located in the midst of a city in the country. This ecologically-sensitive place used to be daily invaded by a large number of enthusiastic joggers and walkers everyday, thus disturbing its sensitive ecological character. Hyderabad Urban Development Authority (formerly HUDA, now HMDA) decided to carve out a peripheral 25 meter wide belt all round the park for the public, while selectively restricting the entry to the main National Park to those people doing study and research.

The resulting outcome was the creation of a walkway garden. The curvilinear path and the undulating terrain create a sense of mystery. The path never seems to end, making the park seem much longer than it actually is. The walkway follows the natural gradient of the land and is steep at times. Every bend springs a new surprise - clusters of cacti, lotus ponds with overflowing edges, stairways, peaceful groves of bamboo and waterfalls, all making the morning and evening walk a ritual of different experiences each day. The park is predominantly planted with local flora with a sprinkling of a few alien as well as decorative species to heighten its colourful character during all seasons. It is heartening to see people engrossed in various activities to keep themselves healthy, or to simply be with nature and forget the daily grind. While carving the peripheral walkway every attempt was made to retain the existing trees and the walking path was either diverted or made to go around them.

Satellite parking lots dot the periphery of the park, where direct access to the cars is ensured from the city road without disturbing the inside serenity of the park. This also means that although there is a formal entry point, the multiple smaller entries enable the users to take advantage of various access points and convenient parking lots.

KBR Park is an important landmark of public green spaces for Hyderabad city. In spite of being located in the elite Jubilee Hills and Banjara Hills residential areas, it is used by all sections of society with the same sense of belonging and pride.

Welcoming approximately one thousand visitors daily, the park retains its inviting feel even after fifteen years due to efficient maintenance by the authorities.

(UDA - Department of Urban Forestry provided the additional support while designing the park)
The park provides an excellent lung space and environment from the busy city life and rising pollution levels. According to Wikipedia, the reserve forest and park has over 600 species of plant life, 140 species of birds and 30 different varieties of butterflies and reptiles. Its sporadic waterbodies, ponds of water lilies, planting in decorative shrubbery, winding paths, usage as an early morning health exercises space and flourishing fauna—all add to make KBR Park ‘a jungle amidst the concrete jungle’.

Images courtesy Kishore D Pradhan: Architecture + Landscape
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Amongst Hyderabad’s oldest residents are three trees which are highly regarded by its former and present citizens. The species are a 300-year old tamarind tree near Osmania hospital (Tamarindus indica; colloq. mesha, i.e. saviour), a 500-year old Baobab (Adansonia digitata; colloq. Hathian-ka-jhaad i.e. Elephants’ tree, at Naya Qila, Golconda) and a 800-year old Banyan (Ficus benghalensis; colloq. Pillalamarri, i.e. children’s banyan tree at Mahbubnagar). These trees lie on an imaginary transect traversing 100 km over a two billion-year old terrain and represent fragments of the city’s natural history over the last 800 years. They also form a repository of facts and stories. Three of such are narrated along with their placement within a brief timeline related to the natural environs around Hyderabad.
The little girl now climbed over the outstretched branch, held aloft on by her father as the mother, and grandmother watched.

Musi was special. Everybody wanted to be alongside her. The Qutb Shahi sultans had lined her edges with gardens on her southern bank. Musi reflected their respect for water. After them, the Mughals under Aurangzeb and the Asaf Jahi dynasty looked at Musi with lesser degrees of interest. In between these dynastic shifts, a plague had ravaged the land, Musi had flooded twice in 200 years and the gardens had become farms if not crumbling wastelands. I recall that we tamarind trees were planted along with mangoes in an attempt to balance agro-economics and riverbank erosion, well before the start of the Asaf Jahi rule (1724 CE). This foresight would fortify people in another famine in 1751.

Timelines

1163 CE: Kakatiya rule begins under Prataparudra I

c. 1217 CE: Pillalamarri emerges at present day Mahbub Nagar. Eventual size c. 2001 (21st century) = 3 acres

1396-1407 CE: Durga Devi famine ravages central India

1430 CE: Bahmani Sultanate established at Bidar, 150km northwest of Hyderabad

1460 CE: Damaji Pant famine

1492 CE: Bahmani kingdom starts to disintegrate

c. 1510 CE: Hathiyana ka jhaad (baobab tree) grows on the outskirts of the fort

1512 CE: Qutb Shahi dynasty begins. Golconda mud fort becomes seat of empire

1591 CE: Hyderabad established along the banks of the Musi by Muhammad Quli

1631 CE: First record of Great Musi Flood

1655 CE: Forest cover estimated at 30-33% across India

1658 CE: Naya Qila built at base of Golconda; Bagh-i-Qutb constructed

1687-89 CE: Mughal rule under Aurangzeb. Qutb Shahi dynasty ends.

1682-93 CE: Plague and famines in peninsular India

c. 1717: Tamarind trees planted along the Musi

1831 CE: Musi floods. Chaderghat bridge under construction

1880 CE: Famine Codes established,

1901 CE: Famine Commission established

1903 CE: Musi floods; moderate intensity

1908 CE: Musi floods ‘parson ki tughyani’. Hyderabad Residency flooded. Osmania Hospital under construction
At the turn of the twentieth century our beloved Nizam Osman Ali Khan was negotiating with the British Residents about the development of civic infrastructure. A people-centric ruler, he would finance ventures such as the Osmania General Hospital...my neighbour. On that fateful day, 28 September 1908, Musi breached her banks creating panic amongst those gathered here at the Osmania Hospital construction site.

She had the right to give it back to those who had defiled and ravaged her. But that little girl struggling to climb on me, had nothing to do with any of this. Unlike rivers, we trees are duty bound to nurture and protect. As the water swelled, the number of climbers rose. 5, 10, 50...150. Now Musi started attacking my roots saturating the soil around me, knowing well that I will choke in excess water. Purana Pul was the only link that eventually survived the Musi, all other bridges were washed away.

For the next few days, as Musi ebbed and life returned to some semblance of order, people held on to me, unwilling to let go. Musi and I parted ways afterward never to meet again as she was partially contained by the design of a highly regarded engineer - M. Visveswaraya.

For a few years thereafter, the girl came regularly to see me. Her parting wish was that the man she was betrothed to, would match me in heart and spirit. As for Musi's rage... the flood soon became 'parson-ki-tughiyani' (the deluge of day-before-yesterday).
II

The little girl now climbed over the outstretched branch, held aloft on by her father as the mother, and grandmother watched.

Andar jaane ke waaste hallu se utro (descend slowly to get inside). These words have been uttered over a few centuries as people have tried to access the large cavity in my trunk. Once inside their sense of wonder is nearly complete. The cavity is a room large enough to hold ten to fifteen people. The opening, being from the top gives complete camouflage. Some called me Kharasani imli, others baobab, but hathiyen-ka-jhaad seems to be the favourite these days. My trunk has flared at places over the centuries and now resembles a cluster of elephants with their snouts up in the air. The site caretaker feeds visitors’ imagination by asking them to observe through one’s eyes rather than see through cameras.

Some people suggest that I share my birth with that of the Qutb Shahi dynasty in 1512 CE. But I do recall existing in wilderness for some time until Ibrahim Qutb Shah completed the Naya Qila around me in 1565 CE. The noted poet and calligrapher Mulla Khayali dedicated a small mosque next to me. Soldiers from the adjoining fortification and gardeners of the Bagh-i-Naya Qila would come visiting in the time thereafter. Another small garden that once existed nearby stands erased from the ground and from my memory. Its nocturnal fragrance is an enduring memory.

I often overhear talks of how the city has changed. It is no longer called Bagh-Nagar apparently, so I surmise that green the cover has shrunk over the centuries. Yet I see gardens as being the prerogative of the elite. The grounds where a golf course now sits, used to be wilderness and a zone for shikaar and a camping ground for hunt parties. Even now commoners are not allowed to enter this place. The more the times change, the more they remain the same.

Both the Bagh-i-Naya Qila and I have survived erasure, her struggles being more difficult than mine. We have more stories to tell, but where are the listeners?
The little girl now climbed over the outstretched branch, held aloft by her father as the mother, and grandmother watched.

My branches have been the playground for many a child for the last 800 years. Time has christened me ‘pillalamarri’ – children’s banyan tree. It is a name that only humans could have given me. The birds, ants, the occasional snake and many other insects that made me their home, did they have a name for me as well?

The peon from the archaeological museum across the road, comes here everyday to enjoy his afternoon meals. A history buff, his banter refreshes my memory and 800 years is a long time. A few decades earlier, this area was Rukmammapeta. Strangely, I do not recall that name but certainly remember an earlier one - Cholawadi - land belonging to the Cholas. This middle-of-nowhere place was once at the core of the Satavahana empire and later became a part of the Chalukyan empire. According to my friend, my origins likely date to the reign of Gana-pathi Deva – the successor to the great Kakatiya king, Prataparudra I.

The two sarcophagi near the large cavity in my once-dense canopy belong to two Sufis- Hazrat Syed Shah Jamaal Hussain Chishti (RA) and Hazrat Syed Shah Kamaal Hussain Chishti (RA). People still come to pay respects to them. Till a few years ago, women from the nearby village used to come and pray to me for an offspring. I have seen people come here with a great sense of faith even during the many famines that gripped the region in the last 800 years.

Man has a strange urge to fix things which are not broken and ignore things which need attention. An attempt to make my location a tourist destination has seen the land around me being backfilled, paved and planted with a golden green-looking shrub which does not seem to be from these parts. I heard a couple of botany students pointing out that neem and eucalyptus trees were taking up the void left in my canopy. People also speculate that I was the centre of a great forest now gone. Till about fifteen years ago, my lush canopy fooled travellers into believing there was a great emerald oasis in this dry scrub land.

Today, I am called an icon of Mahbubnagar, named after Nizam Mah-bub Ali Khan. People still look at me and say, ‘Nothing grows below a banyan tree’. I wonder about this because I have heard of a prince who became a monk and changed the world. He apparently gave his first sermon under a marri chettu like me. Kings and sultans have come and gone, but that monk’s teachings grew beyond his lifetime.
References


Images courtesy the Author
“Zahid Architects’ principle motive is to create a sustainable environment. We are guided by respecting nature, taking inspiration from it; Understanding client’s requirements, as well as to the needs of the project, to produce a project specific statement; Recognizing and integrating site’s natural attributes and features, as well as the acceptance and mitigation of its existing constraints; Understanding of how people use spaces and creating usable spaces; Blending architecture and landscape; Use of innovative design solutions with local and exotic materials and technologies that caters to functional and aesthetic requirement of clients; Detailing with forms and use of natural materials in composite forms and providing design solution that needs low maintenance.”

zahidarchitects.com

Villa Scapes, situated in the lower stream area of Osman Sagar Lake has an undulating topography with massive rocky outcrops. Site challenged the architects for a commercially-viable layout with maximum number of plots that are Vaastu-compliant while retaining unique rocky outcrops. The final layout has a central green space from the entrance, located to the west end of the plot, retaining the main rocky outcrops. With this setting as the background, the landscape has been conceptualized to have a subtle expression and enhance the rocky outcrops. The main elements and activities are arranged in such a way that the visual connections are maintained—gentle lawns guide the vision towards rocky outcrops while open air theatre is sited in such a way that it is not visible until one comes near it. A pavilion is sited on an elevated landform.
The user group of the housing is Ismaili-Khoja community of Hyderabad. It is a mixed social and income group. The site has an internal peripheral road that leads to parking area which has boundary plantation comprising of trees, bamboos and shrubs. Raised planters near to the building blocks provide privacy. The main podium is divided in two zones - east and west, while a seven meter wide carriage way has been designed for the fire tender movement by creating large central courts each on either podiums. Scale of carriage way is reduced by taking central jogging track demarcated by different paving materials. Two staircase rooms on each podium guide the movement lines. Active and passive play areas are spread across the podium. A stage area is used as skating rink on the northern next to entrance and near a proposed jamaatkhana.
Gopal Vilas Bajaj
ARCHISCAPA
LANDSCAPE DESIGN | MASTER PLANNING
SINCE 2009

TWILIGHT HOUSE | JUBILEE HILLS, HYDERABAD
AREA: 1505 SQ MT

“In this small intimate landscape, there are three distinct layers of character of open spaces - Public, Public-Private and Private.

Public | Spatial organization in the form of rectangles in series lead one through an experiential walk, acting as a buffer to the surrounding noises. With the treatment of the paving in shades of greys and browns, the narrow path doesn’t seem so narrow with the building on one side and the site wall on the other. With selected plantation which alights the path in the evenings, due to the hidden and customized lighting, the public space is not so public.

Public-Private | The layer is of gardens and cascades which offer view of the setting sun in the evenings. Customized lanterns light up the space making the public space more private.

Private | At the top most level, a hidden garden offers a completely private space. The sloping roof with converging ridge makes the space dramatic as one realizes that the roof is the floor here; and as the sun-sets between these ridges it adds a a strong experiential layer.”

archiscape.india@gmail.com
The design has been conceptualized around three distinct layers - colour, matter, and emotions. The three colours are green, brown and blue, each depicting an exclusive feel associated with it. The matter layer formulates a complete experience using landscape elements of trees, land, and water thereby these layers add the empirical layer of emotions in the form of abundance, energy and agility. Spaces have been divided as public and private areas, depending on the need. The private spaces are well formulated in the greener patches with exclusive plantations and opening views for contemplation. These are located on the rear side of the building. Several formal areas have been derived from the requirements around the building to give one a chance to mull and walk amongst several tactile spaces which quicken ones pace as well slow it down depending on the area in which the person is. Mostly the public spaces are in front of the administration building with a formal yet serene character with blue and green tones. The space accommodates and adapts to the user, not dictating, but welcoming. These unique characters try to add meanings to a plant, a tree and a rock.
“A specialized landscape architecture firm with a holistic approach towards creating aesthetically balanced and sustainable landscape environment, it is engaged in creating works of global quality that is being sculpted and engineered to express the client’s vision. The designs have a strong minimalistic approach with contemporary outlook, which are evolved from the nature and typology of the concerned project. The design principle focuses on international styles while adapting to the locally available resources and techniques. Maintaining the unique essence of each project’s site opportunities and constraints with appropriate patterns and clearly defined edges are the dominating elements for majority of the projects. Project-specific details, materials and planting palettes are designed to create the best outdoor environment.”

naveenassociates.com

“Get away from the city, within the city”. The site being in the centre of the city, landscape design was envisaged based on the client’s vision of creating a micro-climate and screening the neighbouring buildings. The project propagates a unique approach of a lush tropical landscape design which fulfils the client’s imagination of a breather from monopolistic city life to rejuvenate in nature’s paradigm. The minimalistic design has a combination of straight and curved lines. The material palette consists of locally available rich granite stones and wooden decks. The entrance gate
leads to the parking lot which is planted with Kentia palms, bamboo species that screen the servant quarter's view while the walkway from entrance gate opens up into a huge tennis lawn. It is screened from the building side leaving a sense of curiosity with the visitor. The shaded tree walkway from the tennis lawn passes through a dense tropical garden, changing its straight line character into a curvy pathway of fragmented natural stones. A diverging pathway leads toward the pool deck and unveiling the guest house. The other pathway with stepping stones leads to the lawn area in front of swimming pool bringing out a sense of openness.

The mist pipes in the tree grove enhances the tropical garden feel, creating favourable conditions for broad leaf shrubs like Alocasia, Heliconias, Alpinias, Philodendron xanadu, Raphis palms, ferns and tropical trees like Brassia actinophylla, Millingtonia hortensis, Conocorpus family to thrive beautifully in the hot arid climate of Hyderabad. Apart from the tropical planting palette of the project, it is designed to conserve and integrate the existing flora on the site, which has species like Delonix regia and Epipremnum aureum. The amalgamation of existing vegetation and tropical plant species is quite evident in the planting design. The complementing sloped roofs, the wide glass facades provides a picturesque view of the landscape from both inside and outside.
The landscape attempts at addressing site-specific issues, meeting client’s special requirements and creating an international image. The building was about 3 meters lower than the entry level and storm water management was a crucial issue. As a short-term measure, storm water is routed and collected at lowest point in a sump through filters, from which it overflows into a rainwater harvesting pit.

Roads were designed to take a longer curvilinear form following the contours to reach the building, forming a pattern and also controlling the speed of vehicles. Roadside open spaces are designed to gain required slopes to reduce the erosion and to improve the visual quality. Existing trees were recorded and integrated with the proposed landscape. New vegetation is planned as per the identified setting in tune with the environmental and visual requirements. A strong screen of plant material in the boundaries creates a buffer while keeping the campus visually porous. Outdoor smoking areas, interaction plazas, hidden parking areas for visitors and ambulance parking areas have been designed to suit the needs of the complex.

Images and text for this feature courtesy respective offices / studios
Having worked with professionals like Romi Khosla, Narendra Dengle and Mohammad Shaheer, Narasimham Vadlamani VL established his landscape consultancy Narasimham Associates in Hyderabad in 1992—one of the earliest in the region. His office has been involved in conceptualizing and designing many landscape works of diverse types. For the last two decades, he has also been associated with numerous architecture and landscape programs in Telangana and Andhra Pradesh as visiting faculty. He speaks to Dr Sridevi Rao about landscape education, city, profession and his practice.

Landscape Education

In India, landscape is taught as an elective subject in some of the architecture programs, but not in all. A student who has completed an undergraduate program in architecture should have a comprehensive knowledge of building construction, interior architecture and landscape architecture, as without a proper understanding of any of these three subjects, a newly graduated architect will be incapable of designing any project in a comprehensive manner. There are more than ten institutions offering five-year undergraduate courses in Hyderabad. The study of the subject covers natural features of the city, with its own unique flora and fauna, and designing with dry deciduous, semi-arid, tropical ecosystems. The issues of desertification, heat island formations due to cities, scanty rainfall, severe draught and finally global warming are also taught to understand the value of the subject. So, the subject of landscape architecture as an elective in the third year is very important and should be taught in all colleges.

In many developed countries, the landscape architecture education starts at the undergraduate level as a five-year course. In India, we only have a postgraduate course in landscape architecture, and that too in very few institutions. So there is a great potential for starting a new five-year B.L. Arch (Bachelor of Landscape Architecture) course as the field has grown and evolved in India. It has great employment potential both in government and private fields.
City of Hyderabad

The city of Hyderabad has an intrinsic relationship with landscape. If you take historical examples, there is the Central Vista, from the Library Building to the Tagore Auditorium in the Osmania University campus, which is a large open landmark and a positive space in itself. In old city also, one can find a beautiful relationship existing in the larger landscape of the Charminar, river Musi, Osmania Hospital, State Library, High Court and Salarjung Museum where an attempt was made to integrate the buildings and roads with the landscape in a certain axis, discipline, style and character. Then we have Hussain Sagar lake and those iconic rock landscapes.

In the historic context, earlier development was restricted to the elite, a very small section of society known as the aristocracy, and the gardens associated with their forts and palaces. Later in the Colonial period, gardens were associated with very important public works or very rich people. There was no pressure on development as there was no scarcity of land.

The IT boom in Hyderabad in the 90s changed the character of the city drastically. The pressure of having to use land efficiently has increased, and mitigating the adverse consequences of environmentally de-grading factors has become important. Today’s question is: how do we regain the direct relationship with nature that we once had? In the earlier centuries, nature was something to be exploited. Now the attitude is: how can we bring nature back into our lives? At a micro level, one thinks about how to landscape one’s own balcony, and at a macro level one wonders how to design an entire township without damaging the environment around it. That is the philosophical basis of landscape design today and any person dealing with landscape or open space has to keep that at the back of his mind.

Yes, the IT boom had a positive impact on the profession. When we were designing and building the low-cost Shilpaaramam Crafts Village project in the 1990s on the outskirts of Hyderabad city, simultaneously many software companies from abroad had started constructing high-cost, air-conditioned glass boxes in campuses around our project. A new city Cyberabad has grown along with the twin cities of Hyderabad and Secunderabad. I was involved in designing the landscape for several large software IT projects, including Satyam, CMC and many more. These sites are well-designed with winding avenue roads, serpentine pedestrian trails, rolling lawn mounds, sprawling green turf lawns, meandering lake bodies. At the same time, preserving huge rock outcrops, cacti, and using a plethora of flowering trees, shrubs, ground cover, vines to fill the vast open landscape around air-conditioned glass-box buildings became some of the design ideas.
Today, there are many gated developments, mainly institutions and housings. Efforts are also being made to create a public open space structure which would be accessible to everyone and which would function as a lung space for the area. These open spaces are designed with some style and character. As a result, the landscape architects now participate in many major projects. This is very important if the landscape has to have a vibrant identity in relationship to the building. It is a wider field of activity which starts with site planning, the actual disposition of buildings on a tract of land. If we are talking about a town then it’s all about creating an open space structure which will serve the needs of the people. If we are talking about a region then we are talking about the conservation of the larger landscape and its usage. On various scales, these are two important aspects that have to be focused upon. Another response has been to use landscape more creatively and economically. So, the function of landscape is more economic and ecological rather than aesthetic.

The quality of landscape design in various projects in India has begun to show maturity in emphasizing sustainability and biodiversity. In Hyderabad, over the last twenty-five years, one can find a lot of sustainable designs executed in a certain way in the landscape projects.

**Practices in the City**

My experience in mid-80s under Romi Khosla and Narendra Dengle had a great influence in evolving me design ideas. Later, after completing my post-graduation in landscape architecture in Delhi, I had an excellent opportunity to work with Professor Shaheer on various prestigious national and international assignments. I was inspired by his sense of design, hard work, diligence and discipline.

When I started my practice in 1992, I was asked from where the water would be available for the so-called ‘beautification’ of the city through greenery without understanding its ecological benefits. I used to explain that unless we invested in improving the dry landscape of Hyderabad and shared the available water, the city would never be a green and livable one. It was a battle that I always believed in, and I fought for the realization of Hyderabad as a clean, green and beautiful city. There have been many ups and downs in our practice, as even today, every client thinks of landscape as the last point in the priorities. When buying a villa or an apartment in group housings or any other property, many clients used to ask whether the executed landscape would remain in good condition or die down. It was a challenge to convince them to buy and at the same time assure them that the landscape would add value to their properties in terms of looks and money.
We have designed urban landscapes, theme parks, resorts, gated communities, urban infrastructure and parks. The landscape design vocabulary differs with different types of projects sited in different locations. My own approach is functional—to completely fulfil the requirements of the program. To do this one has to talk to the client at length to get an idea of what the person wants—one has to develop a self-disciplinary brief which will guide one through the design.

**Issues of Landscape**

Maintenance is a core issue. The usage of resources leaves a lot to be desired. If one considers the issue of maintenance, there are enough examples to show that it is definitely possible to maintain large areas. Look at Hyderabad’s historic public gardens and many city level municipal parks, they are very well maintained. There is actually someone who is monitoring, managing and taking care of these areas.

Landscape lies outdoors and is prone to negligence and abuse, thus its design should be such that it requires the least maintenance. In public landscape, we use the most resilient species of plants. Public authorities and many clients usually ask for a design which is maintenance free, but nowhere in the world is there anything which is maintenance free. However, a minimal maintenance is possible.
There are two parts of landscape execution work—landscape implementation and landscape maintenance. Clients need to appreciate that both fields are important and different and will incur separate reasonable expenditures, for realization and maintenance.

**Future of Landscape Practices**

Landscape architectural practices have evolved and are still evolving. Today, there are more corporate firms than in the past. Small boutique firms too are growing into larger entities. The end user is better travelled and more conscious and appreciative of the role of good landscape architecture. This awareness among the general public has given smaller firms the opportunity to grow. Digitalization and globalization have had their due impact as well. Technology has played a big role. More and more firms today are moving to Building Information Modeling (BIM) and parametric designing in landscape too. Mechanization of the whole industry has brought in greater efficiency. From the consultant's perspective, BIM is the way forward for better construction documentation and lesser errors/ complications on site. This has been slow on the uptake as all stakeholders, i.e. MEP (mechanical, electrical and plumbing) and structural consultants also need to adopt these technologies for them to be effective.

Green and sustainable buildings are becoming more and more cost effective day by day. The initial extra capital cost that took five-to-six years to recover is now down to a payback period of just two-to-three years. The government needs to subsidize the capital investment required for green buildings initiatives. Incentives like extra FAR (Floor Area Ratio) would help developers to adopt to green-friendly measures. More awareness among the end user of the advantages of green buildings also needs to be pushed.

Larger contracting firms are ready and are adopting new technologies, but then these are restricted to large projects only. Mid and small-size firms are more reluctant. This is primarily due to two reasons: one, lack of skilled manpower, and two, India is a very cost sensitive market where builders are averse to large initial capital investments.

The future is related to the extremely scarce land development or building activity on land. It is certainly linked to environmental values and the perceptions of how the environs can be conserved. Today, India is an expanding economy, so there will be more buildings with roof gardens and vertical gardens projects. The architecture of a country is a symbol of the public works, a mirror of what we think about the environment. Hence, landscape architects have a big role to play.

| Images and drawing courtesy Narasimham Associates |
The renowned author and educator Clare Cooper Marcus and Amita Sinha, her former student, met recently to talk about her most significant contributions to academic discourse and the landscape architecture profession. Professor Marcus’ research on people-friendly urban spaces and child-friendly cluster housing are very pertinent as Indian cities grow rapidly. High-rise housing, especially for low-income groups, has resulted in the loss of outdoor space that was such a tremendous resource in traditional neighbourhoods. New central business districts in expanding cities lack civic spaces that are women-friendly.
Professor Marcus’ advocacy of a salutogenic, or health promoting environment, has universal relevance, and especially so for the Indian urban situation groaning under increasing pollution. Her writings have brought the spiritual dimension within the mainstream of landscape studies. Her insights into the spirit of place and human receptivity to this remarkable source of energy and healing is profoundly relevant to the preservation of India’s sacred geography with its sites of encounter with numinous nature.

Your co-edited (with Carolyn Francis) book People Places: Design Guideline for Urban Open Spaces (Van Nostrand Reinhold 1990), has been very influential in understanding how civic spaces should be designed for people, not vehicles. Could your briefly describe the qualities that make urban spaces inviting to people?

Some of the qualities that make urban space inviting to people are pretty obvious but often overlooked—a comfortable place to sit that is accessible, a way to find a place in the sun and shade that means available and moveable seating, and access to food, found to be an attractor in public spaces, in a kiosk or from a vendor. Civic spaces in downtown tend to be used by office workers in their lunch hour, so depending upon the climate, one of the important aspects of design would be that they are comfortable in the climate of that city. They should be somewhat separated from traffic but easily accessible to people working in office buildings. There have been some successful spaces in San Francisco that are privately owned and publicly accessible, i.e. the developer of an office tower has been given permission to build taller than is normally allowed in return for a public space. Usually and preferably this is on the street level, but sometimes it is a few floors above or even at the rooftop. It has been found essential that there be clear signs that the public does have access to that space so that it does not become a totally private space for that just one building.

One of my students, Louise Muzingo, researched downtown spaces in San Francisco and noticed from observations that there was a difference between how men and women use them. Men tended to sit in upfront locations almost on the sidewalk where they could watch people going by and women tended to prefer backstage, a back of the plaza location or an urban park that felt like an oasis. There is clearly a difference between how men and women perceive such spaces.
The focus of your latest book (with Naomi Sachs) *Therapeutic Landscapes: An Evidence-Based Approach to Designing Healing Gardens and Restorative Outdoor Spaces* (John Wiley & Sons 2014) is ‘salutogenic’ spaces. Can you elaborate on this idea?

Salutogenic is a term meaning health giving or health promoting. It is increasingly used in the design of hospitals, cityscapes, and urban neighbourhoods. There is a lot of emphasis in research and policy implementation in the US on walkable neighborhoods so people have access from their homes by walking to public transportation, shops, school, and neighbourhood parks, instead of getting into their cars. This has a number of benefits, not only fewer car trips therefore less use of energy and less pollution, but also people exercising by walking. There is some suggestion that this also leads to safer neighbourhoods because there are more people on the streets, there is more face-to-face contact, and therefore more neighbourliness.

I live in a neighbourhood that is definitely walkable, one and a half blocks from two-block-stretch of shops, cafés, coffee shops, bank, library, post office etc., all within walking access from my home. Now that I am getting older I really appreciate living in such a space. So the point of thinking about cities from a salutogenic point of view is that the whole environment from a person’s house to the neighbourhood to the hospital one has to go to if one is sick should be health promoting in every aspect.

You have pioneered the concept of environmental autobiography as a tool to discover one’s childhood’s environmental values that have an enduring impact. Can you tell us why it is doubly important for landscape architects to do this exercise?

The environmental autobiography is a very important tool that I have used in my teaching career with both Architecture and Landscape Architecture students. I ask students to recall their favourite childhood place, and I use the word ‘place’ which is a fairly neutral term and does not indicate whether its indoors or outdoors. I ask them to think about it and then I ask them to draw it with crayolas. Their drawings and their thoughts about this place are a beginning. They are asked to remember every subsequent environment which still has a charge for them, meaning they remember it with feeling, which could be either positive or negative, and to do this right up to the present day. Then I ask them two analytic questions to write about looking back at these environments: Do they have any indication from them as to why they chose Architecture or Landscape Architecture, and secondly in looking back at these environments do they see any repetition from them in what they now design? My point in having them do this exercise is that it is very significant that they bring their past experiences into conscious awareness so that...
they understand their own biases, just as a psychotherapist must go through therapy to understand her own emotional biases so as to not dump them on her clients.

You have been a consistent advocate for children’s use of open spaces in urban neighbourhoods. What are some of ways in which outdoor spaces can be children-friendly?

We have quite a serious problem in the US that children have less and less access to wild or semi-wild nature and spend fewer and fewer hours outdoors as they become more addicted to video games and screens. Parents, whether rightly or wrongly, are fearful of letting their children far from the house, until they are quite a bit older. So how can we do something about it as designers? I think one way is to make sure that the parks are very attractive to children (and their parents since it is their parents who will bring them there), where they can play with sand, water, stone, and other natural materials that give them a sense of playing in wild places. I think it is most important that they find places that engage their creativity. A movement that is quite acceptable and well followed in Northern Europe, not so much in the US or elsewhere, is adventure playgrounds where children are encouraged to play in sites with loose materials and they have access to tools so that they can build simple shelters and unbuild them if they want to.

Your research on medium density cluster housing has had wide impact on North American Federal housing programs and guidelines. What advice do you have for rapidly urbanizing countries such as India and China for housing low-income families in fast growing cities?

When I visited China many years ago, it was quite distressing to see wonderful courtyard neighbourhoods that freely served everybody from the elderly to small children, being erased and replaced by high-rise housing surrounded by parking lots and very dull open spaces. In cluster housing, walk-up units are built in clusters around shared open spaces that are visible from every apartment so that parents feel quite comfortable having children playing outside, and children feel comfortable there. When I showed examples of such places I remember being approached a few times by young architects in China who said to me with some distress in their voices: ‘We think this would be really important here but we are being told that the policy is to build high-rise.’ I was sad to hear that because it sounded like China was repeating the same pattern that happened in North America and Europe and it had taken a long time to demolish those high-rise buildings and replace them with what we might call walk-up town houses. China and perhaps India are going through that whole cycle and maybe that is because of the high density of population. But in terms of family growth and ease of parenting children in the city, high-rise buildings are not the answer.
Your book *The House as a Mirror of Self* (Conari Press 1995) revealed the process of growth of self in selecting, designing, and decorating homes. Since a large part of architectural practice in India is designing houses and gardens, can you tell us about the gestalt role-playing technique that designers can use with their clients?

This method, as far as I understand, had never been used for research. It consists of my asking the subject to put down on paper their feelings about the house they lived in. They could do this as blobs of colour or words or anyway they wanted to do it. I would place that on one chair and have them sit on another chair a few feet away, and then say to them now this is your house, what do you have to say to it. People would then talk to the house about their feelings, maybe how much they loved the house, how much it was nurturing them, protecting them etc. And then at a certain point that I determined, I would ask them to switch seats. Sometimes what the house said back to the owner was quite baffling and startling as it said things that the person had not realized. This is not an easy technique to use and although it helped me learn a great deal about the feelings of many people whose stories I tell in the book, I trained with a gestalt therapist in Berkeley, California, before I used it as a research tool. Although I found it to be a very powerful tool, I would be a little hesitant to say that it is generally useable unless one was trained in the method. Otherwise I think it could be probing too deeply into people’s emotions without quite knowing how to cope with them. For me, it revealed aspects of what a house and a home meant far, far deeper than anything I had previously done in my door-to-door surveys.

You have been deeply influenced by the human potential movement as a graduate student and a young faculty member at the University of California, Berkeley. In your book *Iona Dreaming: The Healing Power of Place, A Memoir* (Nicholas-Hays 2010) you describe the ways in which a landscape can foster spiritual growth. Mainstream design practice has not addressed this topic, although empirical research on stress reduction is making an impact. How can landscape studies address spirituality?

Spirituality/spiritual growth does not necessarily mean religious. In fact, surveys show that when people in the US are asked about their religious affiliations, quite a large percentage say they do not follow a particular religion but are spiritual or looking for spiritual growth. This is rather difficult to define, but embracing the notion that there is something larger and deeper than our individual selves both in this life time or the life of this universe, which is not to say that an individual is not important but there is something transcendent. I have found a particular place, a small island called Iona off
the west coast of Scotland. It has enabled me through a seemingly magical landscape, to feel a sense of connection to place that I feel in few other places. It allows me a sense of expansion and contemplation, a sense of security, and a sense of oneness beyond myself that is very sustaining.

I don’t know how landscape studies can address spirituality. I think that landscape architects conducting environmental autobiography might be a start. Very often people had this sense of oneness in childhood and they have forgotten it or once they started school it was suppressed. In childhood experiences for some people there would have been a sense of wonder, awe, of feeling amazed but not overwhelmed, the wonder of being alive that we tend to forget with education and development of intellect. So maybe the best place to start with is to think back to any landscapes in their lives that might have a connection for them from childhood.

You admire and practice Buddhist thought. What does this religion, and the land its birth, India, have to contribute to the contemporary world?

The contemporary world is in quite a desperate situation. The planet is under stress. The national policies about climate change, caring for the environment, sustainability are mixed. What appeals to me is very much from Buddhist thought, the notion that everything is connected, that the environment, creatures, weather, and we are one continuous thing. It is hard for us to quite comprehend it. It gives us both the feeling of being diminished and being part of whole, and not separate lonely individuals. I think this is an important sense to have in these troubling times, because if we truly embrace this way of looking at life and this world, there would be no question that we would care for the environment and for fellow creatures on this planet, and for the forests and the seas, because we are all part of one grand being, and if one part is hurt, it reverberates through the rest. This is something that deep ecologists and environmentalists understand but a lot of politicians don’t and do not want to.

I have only visited India once in a tour called *Spiritual Journey Through India*. We visited the birthplaces of Hinduism, Varanasi; Buddhism, Bodh Gaya; and Sikhism, Amritsar. For me the most moving place was Bodh Gaya. In the middle of Bodh Gaya Temple is the Bodhi Tree under which the Buddha received enlightenment, not exactly the same tree, but a great-great-grandchild of that tree. It spreads over a path where the others and I were doing a walking meditation. Every time a leaf fell off, which it did occasionally, a monk and I would both pick up leaves. I brought back some home and gave to friends who were Buddhist, as a little gift from India for them.
In the realm of dissemination of scientific knowledge, it is a rare instance that a research is able to catch the imagination of a large section of society outside the boundaries of scientific community in a big way. INDICA, A Deep Natural History of the Indian Subcontinent by Pranay Lal, a bioscientist is one such book. An exemplary, dense work presented in a very creative and engaging way, almost as a work of art, opens series of doors and windows of multiscalar, diverse and fascinating knowledge about the history of Earth. The research, spanning almost two decades, intrigues, inspires, enthuses and provokes to look out for those hidden stories and messages that lie around us in our natural world.

“What Lal has done is to take us on a journey of a lifetime and it is a journey few others have taken us on”.
—Valmik Thapar, The Hindu
What is the chronology of natural history in terms of the formation of India’s different regions? Since it was a process that happened millions of years ago, has the present natural character of these places remained same? Broadly, how are they related to the other natural components – soil, water, climate and vegetation?

It is difficult to summarize a 4.5 billion-year story of how landmasses and everything around us came to exist. But here is what I think must have happened - the oldest rocks that laid the foundation of peninsular India formed about 3.6 billion years or so ago. Gradually more large rocks grew around these, and over above these over millions of years several other layers of rocks got arranged. The early years when the Earth was still a molten metal ball, an assault of meteors and asteroids contributed to elements, and more importantly these meteors contained within them tiny crystals of ice. As they entered Earth’s atmosphere and hit the ground, the heat from the collision liberated this ice, converting it into water vapour. Often when meteorites penetrated the crust of the Earth, they released molten iron on to the surface, which catalyzed carbon monoxide to combine with hydrogen to create water vapour. A molten core of the Earth gave rise to tectonic forces, which caused the landmasses to move, creating bowl-shaped basins which were gradually filled with water. These formed the first oceans. The action of heat, water, and later rain broke down rocks to create the earliest soils. The earliest lifeforms were hardy single-celled organisms that emerged around 3.5 billion years or so. A series of fortuitous events led to the creation of new lifeforms that we see around us today. Lifeforms influence soils and climate, while climate and soils determine how many and which species would live off them. The whole drama of one having a subliminal effect on the other is fascinating!

The region roughly between Bangalore and Dharwar is the oldest, and is about 3.5 billion years old. New pieces were added around it, first the Singhbhum to the east, then the Bundelkhand craton by 2.5 million years ago. This was the time when the Aravallis began to rise - this makes them the world’s oldest fold mountains. East of the Aravallis the Vindhyas and Satpuras were forming. The Eastern Ghats were part of the contiguous spine of mountains which formed the margin with Antarctica and Australia. Between 170 and 167 million years ago, the supercontinent (Gondwana) broke up into two parts forming East Gondwana (made up of Antarctica, Australia, New Zealand, Madagascar, Seychelles, India and Sri Lanka) and West Gondwana (consisting of Africa, Arabia and South America). An ocean began to open up between these two landmasses, which later became the Indian Ocean. With each landmass now separated from one another, India along with Madagascar and Sri Lanka in tow began their journey northwards. Madagascar had torn away from Africa 128 million years ago, but remained attached to Greater India for another 40 million years. When Madagascar finally went its separate way, it travelled west and rested east of Mozambique, separated from East Africa by a narrow channel of water. It took Greater India 110 million years to traverse 9000 kilometres before it barged into the Eurasian Plate 50 million years ago, thus creating the Himalaya and Tibet, and the mighty rivers and the great plains.
When one realizes that the time scale for change in nature is in millions of years, then how does one adopt a tangible understanding of it while comprehending ecosystems and landscapes?

To answer this we need to keep in mind the fundamental reasons why life exists on Earth and perhaps nowhere else. First, Earth has a molten core which influences activity in the mantle and re-arranges the plates which are part of the crust. Second, Earth, though, is at the perfect distance from the Sun to avoid getting incinerated. Its gravity is just enough to keep its atmosphere from dissipating into outer space, and its favourable atmospheric pressure is just right to prevent life forms from being crushed. Third, a dynamic Earth led to the evolution of elements and compounds which influenced, and in turn also influenced the creation of new compounds. The Earth’s atmosphere was once full of poisonous gases or composed of elements that are incapable of supporting life, but several processes enabled conditions for the creation of sustainable life. All these needed to occur in the right order for life to become possible. Landscapes and ecosystems have evolved under complex relationships with rocks, soils, water and lifeforms. Each lifeform and landscape around us has taken millions of years and we have only just begun understanding a few of these processes. Let me cite an example: Until the mid-1990s, the world’s largest source of oxygen was thought to be trees, but the discovery of an ocean-dwelling phytoplankton (*Prochlorococcus* along with its cousin *Synechococcus*) in 1988 confirmed that these particular organisms were the most abundant photosynthetic cells on Earth and produce more oxygen than all forests combined. We have made strong assumptions upon which we have based our development models. Using bad science to inform policy is fraught with danger and taking the planet to the brink of calamity.

You have observed that geological distance (space) rather than time is more critical driving force for species to evolve. Can you please elaborate?

Most new species arise as a result of isolation. When two populations of a species become geographically separated they create opportunities for species to take separate paths to evolve according to their particular environment. An elegant speciation was described by Charles Darwin when he recorded the speciation of finches on the Galapagos Islands, off the west of Ecuador. Darwin noticed that the finches on the different islands of the Galapagos were similar to each other, however when he collected individual specimens from these island, he noticed that the finches showed wide variations in body size, beaks and claws. He found that the beaks of the finches differed because they had different diets. Darwin concluded that over a long period of time (perhaps over millions of years) each species of finch developed a unique beak to the kind of food it eats. Some finches have large, blunt beaks that can crack the hard shells of nuts and seeds, while other finches have long, thin beaks that can probe into cactus flowers, without being pricked by the spines.
of cactii. A few finches have medium-size beaks that prey on flying insects. Because these finches were isolated and are separated by a wide sea, the birds don’t breed with one another anymore, and thus they have developed into distinct species with unique lifestyles and characteristics.

Flora comes into the picture at a much later stage in the overall history narrative. At the same time you have observed that communities of animals remain stable until there is a drastic change in the composition of plant species, which is an important evolutionary force.

Plants have a profound impact on ecosystems. They hold on to the surface and are a major driver to the nature and speed with which soils get created and water is regulated in an ecosystem. Plants can therefore influence the environment in which they will live. Trees and herbaceous plants are collaborative and develop complex collaborations with other plants and also insects, birds, mammals, fungi and others. Thus entire ecosystems can exist with an ecosystem. Consider a fig tree. One can a study a fig tree for days - from the soil microbes that provide it special nutrition, to wasps that pollinate it, to hornbills and small mammals that disperse its seeds. Yet, there are so many mysteries about trees that we still don’t understand.
Do you think the timeline of geographical formation of regions, existence and evolution of flora and fauna follow parallel timelines and, at the same time, they are all related and connected?

Forests and ecosystems like ponds or sand dunes may appear to be stable and one may perceive that not much is taking place in terms of evolution. This is not correct. Ecosystems and lifeforms that live in them are in a constant state of flux. Populations of lifeforms can change with seasons and these influence other creatures which depend on them. In rock pools for example, the erratic fluctuations are caused by competitive interactions that cause chaotic dynamics of the forces of the sea and the ebb and flow of sea creatures that come with the tides. This is because each rock pool is an open system and is a living community of competitors. In forests for example, it is commonly thought among conservationists that herbivores negatively influence regeneration. However, trees and shrubs, and grasses and sedges have effective mechanisms to deter heavy predation. It is therefore difficult to state whether plants manipulate the environment or vice versa. We know that certain birds and mammals propagate seeds of favoured species of fruits. Rhinos in the terai region of Nepal and Assam are fond of the fruit of the Trewia tree, and preferably defecate along rivers banks so that the fruit is available in abundance. Yet there are checks and balances that prevent an explosion of just Trewia trees along the river banks. The evolution of an ecosystem is
not merely the relationship of dominant species but several—the interplay of seasons and interactions between lifeforms that influence their existence and abundance. Ecosystems are therefore a complex mosaic of creatures, some which evolved millions of years earlier, and others may be more recent.

The natural world is not linear and the algorithms are ever-changing. We need new ways of seeing to understand how forces of nature shape our immediate environment and how they will determine our future. More importantly, we need to teach our children to see things through the lens of ‘deep history’ to solve the complex problems that we will leave behind for them.

In the present professional discourse in landscape design, there is a lot of discussion about the word ‘native’. How does one define it?

‘Native’ is a complex term and needs to be understood from the perspective of the ecosystem. So, if a plant is transplanted outside of its natural realm and adapted to live as an individual, it serves little ecological function. Native species are those which are already adapted to the environment, and they don’t need any additional inputs like water for them to grow. Exotic species on the other hand would need a lot of investment for them to survive. This is sheer stupidity. Some exotics that grow in similar conditions in another continent may not need extra care, but can displace native species in a decade...
or so. We have seen this with Lantana which was introduced to protect bungalows of the British from elephants and other browsers. Similarly, *Prosopis juliflora* (called vilayati kikar in Hindi) was introduced by the British from Central America and has invaded dry deciduous forests of the subcontinent at alarming speed, decimating native flora. For over four decades forest departments have been planting exotic species because they need to show survival and quick results in the way of green cover. As a result, government nurseries have very few native trees, shrubs and plants. This is callous and is detrimental for the future of forests. I see very little utility in planting trees in degraded forests. A natural forest which is made of native trees contributes more than a stand of eucalyptus trees.

Since every landscape is always in a changing phase, how can one define its ecological integrity to come up with principles to follow while engaging with it? What lessons can be learnt from the story of evolution?

I am not an aesthete but I believe that just as we need to use native species for afforestation, it is best to use locally available resources - rocks, sand, soil, grasses and timber to make homes and other infrastructure. Most architects look down on using local resources, and I think this manifest from the education that is imparted on them. Even the term 'vernacular architecture' is derogatory. I am also averse to the idea of 'green buildings' because they become carbon neutral only when they begin functioning. But the environmental cost to make these shiny glass, cement and granite buildings is immense and seldom accounted for. Evolution tells us that there has to be a relation-

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ship and an understanding between living and non-living elements of nature. Any structure that does not conform with its surrounds stands out starkly. Landscape design and architecture have a huge role to play in sustainable development, yet the role of architects, town planners, engineers and landscape designers is miniscule in India.

During your exhaustive study, did you see any method in the madness of this highly sophisticated system of evolution?

Nature has no prescribed methods, just chaos and madness. Forests, ponds, rivers and seas may appear tranquil but there are a zillion things happening within them. There are upheavals which act and counteract against one another, and to witness this drama is what excites most conservation scientists.

Humans are but a miniscule component in the evolution theory that has just happened. Are humans and their actions, both positive and negative, extremely overrated in the present natural world? How do you see the role of humans in the phenomenon of Climate Change?

I disagree. I think the only creatures, other than the first aerobes that create oxygen, which are capable of a massive impact on the climate, water and land are humans. Corporates and governments may congratulate each other for their respective contribution in developing technology and rolling it out to avert crises in the past. But from the perspective of the natural world, this is not true. The spread of industrialization and intensive agriculture has changed the chemical composition of the air, acidified the oceans and the Earth is warming. The crises may have only have been delayed.

Kenneth Boulding, President Kennedy’s advisor on environment said something to this effect, ‘Anyone who believes exponential growth can go on forever in a physically finite world is either mad or an economist’. The threat of humans causing irreversible damage to our planet is real and palpable. How then must we change the paradigm to save our natural world? Missing in all this are scientists and a culture for fostering rigorous and accessible science. The past decades have seen that scientists and intellectuals are increasingly not being heard. Policy makers, like most people, have chosen to stay ignorant and make ill-informed policies that have little basis in science and proven scientific theories. Scientists will need to step up and reach out to people, and communicate more effectively to inform people, policies and programs. They need to do this not only for the sciences they serve, but also for the larger good of saving the natural world.
In the recent past, there have been many instances where the world leaders have pledged common action and endeavour across broad and universal policy agendas for the conservation of the environment and sustainable development on earth.

The Rio Declaration on Environment and Development, the World Summit on Sustainable Development, the World Summit for Social Development, and the Programme of Action of the International Conference on Population and Development, the Beijing Platform for Action and the United Nations Conference on Sustainable Development are conferences and summits held by the United Nations which have tried to lay a solid foundation for sustainable development, both in policy and practice. The Rio Declaration was a document produced at the 1992 United Nations’ ‘Conference on Environment and Development’ (UNCED), informally known as the Earth Summit. It consisted of 27 principles intended to guide countries in future sustainable development. The 17 Sustainable Development Goals and 169 Targets of The 2030 Agenda for Sustainable Development adopted by the United Nations in September 2015 is the latest in the row. Signed by over 170 countries, these targets are visualized as integrated and indivisble and balance the three dimensions of sustainable development: the economic, social and environmental. It is hoped that the goals and targets will stimulate action over the next 15 years in areas of critical importance for humanity and the planet.

What can we learn?

Nothing in this world is without politics. Keeping aside the camps of the countries which are siding with these ideas and others which are against them and the critical reviews that these events get, it is important to see the underlying wisdom behind the shows. There are many lessons to be learnt from them which recognize several environmental, social and economic issues and their inter-connectedness across the globe. Various charters of these conferences are framed keeping in mind the varied global population, living in different contexts, conditions and circumstances—environmentally challenging, human conflict prone, disaster prone, socially uneven, economically disparate and marginalized. Most of these categories find relevance in
developing countries like India which is so geographically diverse with extreme climates, disaster prone regions, facing internal and external conflicts, a complex social order of many religions, briefs, castes and economic levels, a substantial population including tribes which depend on forests, hills and rivers for their living in a very direct way. Above all, it is a civilization that is few millennia old and so possesses a level of evolution in terms of its relationship with nature.

Here are few of the aspects of such global events that may trigger some interesting thoughts and works for us professionals.

The Traditional Way

The Rio Conference held in 1992 strongly endorsed the concept of conservation of traditional practices and resources, vital role of indigenous people and their communities and other local groups in environmental management and development because of their knowledge and traditional practices. The Charter called upon the state to recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development. It called upon the protection of the environment and natural resources of people under oppression, domination and occupation.

The Indian subcontinent has special attributes in the realm of culture and nature: traditional knowledge systems and living practices including that of regional water harvesting systems, regional protection of forests, such as tribal practices, religious practices of revering nature (trees, hills, rivers, ponds and forests and sacred groves) among others. This region specific sensibility for nature creates a unique context which may not be there in other parts of the world which are relatively young. These cultural systems are evolved ways of living and developing with nature. They are many centuries old, but in the recent past are under the threat of deterioration and extinction due to many complex socio-economic and political factors. In view of the SDG, they gain a special significance, and hence needs special concern for their existence and management. The Rio Conference’s Agenda can be directly referred to the development and conservation policies that are adopted by authorities for the forests and hills, which are the abode for many tribal communities. In present times, they are under tremendous threat, especially in the states of Jharkhand, Chhattisgarh and Odisha, to give up their traditional practices and the forestland to mining companies and other industrial enterprises. The Agenda raises important concerns in this regard. Landscape professionals can play an important role here, since they recognize these environmentally and culturally fragile regions and can formulate nuanced policies balancing conservation with development.

People: To end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and in a healthy environment.

Planet: To protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.

Prosperity: To ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

Peace: To foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.

Partnership: To mobilize the means required to implement this agenda through a revitalized Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

The environment and natural resources of people under oppression, domination and occupation shall be protected. Peace, development and environmental protection are interdependent and indivisible.

The 2030 Agenda for Sustainable Development adopted by United Nations in September 2015
Degraded Systems

In the SDG there is a clear acknowledgement of the loss of sensitive ecosystems on a global scale due to the rapid and unregulated forces of scale and speed of development. There is a call to restore disturbed ecosystems, combat desertification, and halt and reverse land degradation and stop biodiversity loss (Goal 15). The mandate of the SDG calls for ensuring the availability and sustainable management of water and sanitation for all.

This has mostly remained within the purview of the scientific community—ecologists, botanists, soil scientists among others. Revitalizing the degraded areas in urban realms, like sanitary landfill sites, quarry sites, dumping grounds of industrial wastes, clogged drainage channels, waterlogged areas in low lying regions, calls for making them vibrant public spaces as well. This is a very new area of work for the spatial design professionals. With their knowledge of natural science and design, they can work with the scientific community to improve these environs. Moreover, on a regional scale, their expertise will be useful in preparing vision plans for existing towns and cities and landuse plans for new settlements.

Socialist Future

The Sustainable Development Goals and 169 Targets of the Agenda are based on a socialist framework where education, health, employment, economic growth, justice and equal rights for all are envisioned (Goals 3, 4, 6, 7, 8). It calls upon making cities and human settlements inclusive, safe, resilient and sustainable.

How can the expertise of a landscape professional contribute in a way to create a socialist future where the value of his knowledge is being used by all groups of society? A landscape professional deals with natural resources which exist in the public domain. There may be a piece of privately owned land, but the natural processes (soil profile, groundwater, climate, plants and biodiversity) that are responsible for making that land a livable entity belong to a larger region. So, in that sense, he is always linked with the common public domain.

In India, with crumbling cities and deteriorating civic infrastructures, his work hasn’t even started to the level upto which it is needed. The public domain for landscape professionals is like a large blank canvas which is waiting for a wide scale impetus, in every city and town. Slum development programs, sanitation and water supply issues in villages, neighbourhood and city level infrastructure of water supply and drainage in urban areas (do remember Mumbai, Delhi, Chennai and Bengaluru in each monsoon), pedestrian circulation networks, public parks and railway lands are few of the areas that need the immediate attention of the authorities and the professionals.
Respect Limits

There is a great emphasis in the SDG framework on the idea of ensuring sustainable consumption and production patterns (Goal 12), and to take urgent action to combat climate change and its impacts (Goal 13).

Every site due to its inherent natural character has a capacity, above which any development on it becomes environmentally unreasonable. It is important to recognize these limits and put a clear bar. We landscape professionals ensure that our designs are not maintenance intensive, and which need to depend upon more and more artificially created environments—conditioned by water and electricity. We generate a demand for local plants to source them from nearby areas so that they have a more sustainable growth and are cost effective.

In India, keeping in mind the scale of the origin and impact on environmental issues—air and water pollution—it is important that we promote alternative sources of fuel and sources for alternative energy; that we gradually switch over to alternative sources of energy and stop using fossil fuels like coal. The Indian peninsula with its long coastline is most vulnerable to climate change issues, especially those related to sea levels and temperature. Recent flash floods in the northern hill state of Uttrakhand are another sign of the effect of climate change. Landscape professionals, while working with the authorities, are in a position to frame mitigation policies for coastal and hill towns and cities.

Progressive Character

There is a mandate for conservation and protection of natural resources including terrestrial and marine ecosystems. At the same time, it has a pro-development stance. The goals also include managing natural resources with development like promoting sustainable use of terrestrial ecosystems, sustainably managing forests, sustainable use of oceans, seas and marine resources, sustainable consumption, sustainable management of water and sustainable industrialization and production (Goal 14). It calls upon promoting inclusive and sustainable industrialization and fostering innovation (Goal 9).

It is a midway path between environmental conservation and development. It may be difficult to achieve but we should definitely strive for the same.

While covering scales of new development with an unprecedented speed, we also introspect about the direction in which we are moving. Moreover, it is equally important to preserve, nurture and maintain what has already been created. We need to invest in our past with equal vigour as we are working for our future.

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Watercolours by M Rohit

ACROSS THE RIVER

Watercolours capture a century-old infrastructure heritage of the city of Hyderabad...
PURANA PUL
Built in the year 1578 CE as the first bridge in Hyderabad, this bridge has stood the test of time and of natural forces. It was built by Quli Qutb Shah for his son, to help him meet his beloved who resided on the opposite bank of the river Musi.

CHADERGHAT PUL
Built in 1839 CE under the issued orders of Nizam Nazir-ud-Dowla Bahadur and executed by Colonel Oliphant, it is also locally known as Oliphant Bridge.
The third bridge to be constructed in Hyderabad, this bridge was built in 1857 CE to the left of the Salar Jung Palace.

Built by the Late Nawab Tipu Khan Bahadur in 1909 CE, this is located close to Langar House.
Poems by Arun Vemuri
English Translation by Dr Sridevi Rao

THIS LAND...

In any direction that I see,
astounding precarious imbalance
Pressing the shoulders of midget stones,
a boulder is seen raising a proud head
As if a foundation of the Nation, not just in one place,
founding habitations, settlements galore
Only indicators remain what was broken by us,
to enable the urban episodes of the rich

Poems by Arun Vemuri
English Translation by Dr Sridevi Rao

On the rock formations, unique to Hyderabad, that were once present everywhere —
now reduced to a mere handful strewn across, due to the rapid urbanization...

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founding habitations, settlements galore
Only indicators remain what was broken by us,
to enable the urban episodes of the rich

Poems by Arun Vemuri
English Translation by Dr Sridevi Rao

On the rock formations, unique to Hyderabad, that were once present everywhere —
now reduced to a mere handful strewn across, due to the rapid urbanization...

In any direction that I see,
astounding precarious imbalance
Pressing the shoulders of midget stones,
a boulder is seen raising a proud head
As if a foundation of the Nation, not just in one place,
founding habitations, settlements galore
Only indicators remain what was broken by us,
to enable the urban episodes of the rich
On more than 15 lakes that abound the city...

In all four directions is visible thousands of sources audible with the breeze to those pairing and mingling
For this 400-year city, like shimmering jewels, are the ‘seas’
Born of this are the falls and ripples, quenching thirst, facilitating pleasure
Bhagyanagaram brimming with prosperity brought on by these treasures
The idea of a garden is as old as the civilization itself. It is quite dense. It can be regarded as one of the first man made physical constructs, along with a courtyard where he attempted to negotiate with nature in a tangible comprehensible scale of living unlike a forest. In various civilizations across the world, garden came across as distinct landscape feature, evolving with times and becoming a reflection of culture’s changing relationship with nature.

If looked at from the perspective of Indian subcontinent, a culturally diverse and geographically varied civilization that is few millennia old, the word garden acquires seminal proportions in terms of its meaning, value and reach. Various religions in Indian subcontinent have often perceived the space with a deeper meaning, as a microcosm of the cosmos. Indian literature across all the linguistic boundaries, have celebrated the idea of this refuge in every culture, taking the aesthetic dimensions of nature to higher levels. In the Indian cultural history, the garden tradition has found resonance under different rulers in various timelines. It has always been a defining factor in the character of the relationship between man and nature at a specific time and place. Reverence to nature in temple courtyard gardens and sacred groves; nature as a source of sustenance in orchards and forests; nature as a place of retreat and repose in imperial gardens under various dynasties and English garden concepts – present garden tradition in India is highly influenced by its diverse past. Various creative interpretations to the word have an extended range exploring a variety of sub themes and micro contexts which are highly nuanced.

The travelling exhibition, *Tracing Narratives* which explores the idea of garden, is conceptualized in this background. The exhibition marks the culmination of a three years long research titled *Million Gardens Across The Country*, conducted by the organizing design studio.
The exhibition is an attempt to look at the theme of garden in the Indian subcontinent through a multi-scalar lens. Structured in nine non-sequential sections, *Reading, Perceiving, Nurturing, Recording, Anchoring, Writing, Revisiting, Practicing* and *Expressing*, the exhibition covers a vast canvas of information and knowledge about the subject. It is imaginatively conceptualized in an unconventional manner with an abstract format, much against a structured process wise understanding of the subject. It presents multiple ways of understanding the meaning of the vocabulary in different scales and contexts - from the point of view of the creator, user and observer. Meaning of garden and its interpretation are looked at in various domains - structured spatial organizations; as a personal asset that defies all norms, styles and isms with the only aim of a personal delight in creating (home gardens); in popular culture of Hindi cinema; as a live character in modern English literature and as a main element in traditional art forms. While nuggets from a local scale try to capture distinct patterns, the regional scale gets represented by aspects like agricultural patterns, highways and invasive species. The exhibition also touches upon the role of few personalities and institutions from modern history and contemporary times that have contributed to a deeper understanding of the subject.

In the absence of any formal directional markers in the intellectual content, it enables the viewer a wider perspective leaving much to his perception, understanding and imagination. It keeps areas of engagement with the subject open ended by letting the viewer to add his own meaning to each aspect. The profiled content, conceptualized on an overwhelming scale, with a display length that runs in hundreds of feet, at times, seems to exist in an indistinct space, creating a tangled picture for a serious structured and sequential engagement with the theme.

The strength of the exhibition lies in the fact that it is able to establish a sharing relationship with the uninitiated viewer. It disseminates the idea of a garden using common culture language - of cinema, of art and of literature; using daily tools and devices of learning about nature - about plant nurseries, about home gardens, about nature in vernacular. On another level, it introduces the word ‘garden’ as a subject of intellectual discourse and familiarizes a viewer to the professional mannerisms and intricacies of creating them. The exhibition has its value in the present context of the profession of landscape architecture in the country in a broader sense. With a workforce of landscape professionals less than a thousand in numbers in the country, such kind of endeavours are very rare and so should be valued and cherished for what they are. They are inspirational to the interested minds. The exhibition is a curtain raiser, which can trigger thinkers in the profession to start a serious multidisciplinary discourse on the layered design typology. The knowledge will be of immense value in understanding its various interpretations and evolutionary processes.
Actors in Garden

Garden Through Paintings

The interpenetration of the inside with the outside and the dematerialization of the internal boundaries, allowed the enactment of life to flow like suffused spirits and waft through spaces undeeding of the opacity and density of the roof. That which was contained did not have to be the built; and that which was open and released did not have to be the garden.

Gardens Theatre of Life
Vernacular Residences

Palaces

Temple

Diversity
Vernacular homes, palace and temples across varying eco-regions demonstrate a response of specificity in the architecture and by extension in the shape, size, proportion and context of the garden. Increasing density reduced sizes are inevitable changes. The mind however is often fixated on the context of the past.
The Mughal Period

The Mughals were passionate nature lovers and patrons of art, literature and beauty in all forms and encouraged various sciences and art forms. They keenly recorded them through miniature paintings. The mapping of flora was no different.

Jahangir, the fourth Mughal emperor, (1569 - 1627 CE) having a special interest in fruits and flowers, extensively recorded nature in its various forms. He appointed Islam Mansur Nadiir (1590 - 1624 CE) a painter who accompanied him while travelling. He elegantly documented natural surroundings in his paintings by portraying them in the most natural setting and intimate associations with elements of nature. Paints find mention at the beginning of Jahangir's autobiography (Tuzuk-i-Jahangiri).

**List Of Aesthetic Flowers**

**List Of Fragrant Flowers**

Albān Fard (1551 - 1602 CE) also known as Shalāb, Abūl-Fadālī Mubārak, from Akbar’s court in A’in-i-Akbarī (the third volume of the Akbarnama), the official history of Akbar’s reign mentions a list of fragrant flowers and some aesthetically valued flowers.
Everyday Gardening In India

By E.W. Grindal, 1960


About the Author

Eric Bertram Wood Grindal born in London in 1885 was an officer of the Order of the British Empire civil division 1939, Exipure Indian audit and accounts service, comptroller, Sind. He was awarded the ‘King Birthday Honours’ in 1929 (as stated in the London Gazette, 8th June 1939), and retired on 6th October 1939 (as stated in the London Gazette, 25th April 1922).

Introduction:

The subject of the title is one in which the householder of all Indian homes has a deep interest, as the cultivation of plants in the home is a great educator of the human mind. It is a means of relaxation and exercise in the busy life of the city, and it is a source of pleasure and comfort to all who have the opportunity of enjoying it. The subject of the title is one which has been the subject of much study in the past, and it is one which is likely to be of great interest to all who are interested in the subject of gardening in India.

The author of the title, E.W. Grindal, was an officer of the Order of the British Empire civil division 1939, Exipure Indian audit and accounts service, comptroller, Sind. He was awarded the ‘King Birthday Honours’ in 1929 (as stated in the London Gazette, 8th June 1939), and retired on 6th October 1939 (as stated in the London Gazette, 25th April 1922).

The author of the title has devoted much study to the subject of gardening in India, and he has written a number of books on the subject. He has also written a number of articles on the subject, and he has been a member of the Indian Institute of Gardening for many years.

The author of the title has written extensively on the subject of gardening in India, and he has written many articles on the subject. He has also written a number of books on the subject, and he has been a member of the Indian Institute of Gardening for many years.

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Gardens along river Yamuna, Agra

Context Plan

REVISITING
Tracing Narratives is a humongous effort by a design studio. The exhibition that began its journey in the beginning of the year, has now travelled through many cities. It is proposed to cover many more in the coming months. It has been enjoying patronage from the landscape industry and the local institutions of each city, largely publicized, both in print and social media. An e-book of the exhibition catalogue has also been released recently. It is hoped that the exhibition inspires all beings who love nature to think, imagine, create and cherish many such creations of refuge – for contemplation, peace and delight.

Images and panels courtesy LEAF

Tracing Narratives

Organized by LEAF, Landscape Environment Advancement Foundation based in Ahmedabad. It is engaged in the research and publication in the areas of landscape design and environmental planning. More information on: www.leaf-india.org

Garden of Dreams, Kathmandu

Once a much larger and private garden, Garden of Dreams, established by Field Marshall Kaiser Shumsher J.B. Rana from the 1930s onwards as his very personal oasis, fell into disrepair and decay for more than 30 years. After its rehabilitation, it is now a splendid and ingeniously designed garden of its era, and a cultural heritage landmark of Kathmandu.

The project was accomplished by the architect Otlz Hagmüller and the team of local craftsmen, gardeners and experts who also created the internationally acclaimed Patan Museum a decade earlier.

The garden lost half of its original size to the development of the nearby tourist area, Thamel. Even after the development most of the other architectural and landscape elements survived. Number of elements have been added, utilizing latent resources of its existing layout and fabric. An amphitheater was created for open-air cultural programmes, two of the historical pavilions were converted to serve as a garden cafe and a lounge bar. The ‘Robindra’, another pavilion from the garden’s last portion was reconstructed as a new focal point at one end of its dominant axis, and a range of new water bodies, fountains and pergolas now embellish and compliment the abundance of local and exotic flowers and shrubs. The complete restoration secured the legacy of Kaiser Shumsher’s creation for future generations.
MODERNITY WITH HUMAN VALUES
AN ARCHITECTURAL PRACTICE

This book has been very long in the making. The long wait increases the weight of expectancy, and the work does not disappoint.

The architectural career of AP Kanvinde, presented in the book mirrors the growth of modern architecture in India, reflecting the national government’s vision of a technologically developed country holding its own in the international marketplace. One of the preeminent exponents of this vision, Kanvinde had the privilege of being tutored in the tenets of the modern movement by none other than Walter Gropius, who founded the Bauhaus, the first school of modern architecture in the world.

The foreword of the book is by BV Doshi, tutored by Le Corbusier, who was the preeminent exponent of modern architecture in the world; and between these two giants from Europe the message of modernism has dominated the formal practice and teaching of architecture in our country.

It is interesting to note that although the tectonics of the modern movement were predominant in the work of Kanvinde, so comprehensively presented in this volume, the ethical substratum is somewhat different. Doshi writes in his foreword about conversations with Kanvinde: “In all these discussions, one constant theme he expressed was human values and the architect’s concern for activities and their human relationship. The undercurrent of this perhaps was the commonality of our upbringing and the grooming we both received. Traditional families in a small city, rituals, belief systems, and a lifestyle based on frugal but ethical behavior. We conversed in Marathi, our common mother tongue, and could feel the soil and the character of architecture that was born out of the place. Even though he studied at Harvard under Walter Gropius and I apprenticed under Le Corbusier, we inherently felt the need to discover ourselves as Indians.”
The architectural oeuvre of AP Kanvinde, spanning a period of over half a century, is painstakingly assembled and catalogued in the book. Illustrated profusely with photographs of the buildings interspersed with drawings, sketches, photographs of the people and events in his life, the book is full of biographical details, family portraits, and photographs of meetings with leaders of government and institutional heads, conveying a sense of history in the making. Essays by Ashok Lall, Miki Desai, and Narendra Dengle give the reader commentaries which situate Kanvinde’s work and ideas in the academic forefront, making us aware of the powerful influence exercised by him on the younger generation of practitioners and teachers. Kanvinde’s own writings have also been assembled, sensitively edited, and woven through the text to tie together the architectural narrative, making a rich tapestry of concepts and ideas in development. The human touch, so important to Kanvinde in his expression, is brought to the foreground at the close of the text through remembrances shared by his children, Sanjay, Tanuja and Sunita, significant architects and designers in their own right.

The architectural practice of Kanvinde and Rai, later to become Kanvinde, Rai and Chowdhury, produced a large member of institutional buildings which have defined the formal architectural idiom of post-independence
India upto the time of economic liberalisation in the nineteen nineties. The practice also established standards of professionalism, both in terms of good design and efficient delivery of built projects, which ensured a steady stream of commissions and the continued patronage of good clients. The combination of architect and engineer working in harmony, with understanding and mutual respect, became the foundation of the practice. This was the tradition which emerged in the twentieth century in India when the British started building the new institutional buildings for their prized colony that was India, the ‘jewel in the crown’. British engineers came to dominate the building trades and set out a new architectural ethos which was engineer driven.

This period in the first half of the twentieth century established a new architectural ethos with the Indo-Saracenic style incorporating features taken from the existing monumental architecture of the subcontinent. The high point and creative disruption of this style emerged in the architecture of Imperial Delhi by Sir Edwin Lutyens, who was an architect. Lutyens based his architectural language on the Beaux Arts tradition incorporating Indian features taken from Buddhist and Jain monuments into a European vocabulary of high-classicism. It is interesting to note that while Lutyens was working on the hybrid-inspired design of New Delhi, there was emerging in Europe a powerful set of ideas about a modern architecture which addressed issues of changing social patterns based on the new technologies of construction and transportation. The new architectural language of the ‘modern’ was brought to India by Le Corbusier, Maxwell Fry and Jane Drew in the design of the main public buildings and residential quarters of Chandigarh.
the new capital city of divided Punjab. This was the time that Kanvinde and Shaukat Rai, having returned to India from Harvard with the message of the Bauhaus, started their practice. So began a new era in Indian architecture.

Studying the development of Kanvinde’s architectural language, so comprehensively illustrated by the book being reviewed, we note that in the first decade of his practice the influence of Gropius is clear and undiluted. In the next decade, he goes deeper into the roots of the modern and his vocabulary draws more directly from Cubism, the art movement which was at the genesis of modern architecture emerging in Europe. It was the principles of Cubism and De Stijl which dominated his architectural expression. Yet his innate artistic ability and deeply felt indigenous values temper the expression. In his note on “Quest for Quality Architecture and Urbanisation”, he writes in the sub-section entitled Architecture and Democracy, “It should be noted that any work of art or architecture or urban design depends on recognising the underlying essence of values for its fulfilment”. The quest for incorporating human values in architecture was his lifelong concern.

This book is a valuable addition to any library, architectural or otherwise. The quality of its production sets a standard in architectural biographies which is unmatched in our country. The care and sensitivity invested in bringing out the work makes it a fitting tribute to the master by his devoted disciples and children, highlighting another important human value, that of the family. The legacy survives.
This book by Dr Sridevi Rao is based on her research done on public open spaces within a city by examining the case of Hyderabad, India. The research tries to show the imbalance in distribution of public open spaces and variations in their intended and actual use in urban areas, thus indicating anomalies between planning of open spaces and ground realities. It perceives public open space as different from delineation of space by architects, planners and designers and conceives it as a product of culture, nature, built component and politics. Here public open spaces are conceived almost as substance with material and cultural dimensions. Urban spaces change with time and the relationship is subject to evolutionary process.

Open space has a public purpose and its proper use will depend largely on social needs of time which may change from generation to generation. City development as influenced by the planner-administrator or industrial revolution impacts upon the community life style and gives rise to specific types and patterns in distribution and use of open spaces. This calls for the evaluation of the relationships of open space with the city and the community or of its cultural role.

As Mumford commented ‘denial of tradition’ might have led to the emphasis on the role of open spaces as physical or environmental entities where the assigned use of recreation was also manifested in uniformity in terms of standards, play equipment and open space types.

One viewpoint in the distribution of open spaces suggests that they should be concentrated and continuous. The other viewpoint suggests that open spaces should be small and widely spread. Contemporary planning experience explains that open space planning is based on numerical considerations alone. In spite of various ways of ensuring equitable distribution of open spaces, the result on the ground has not coincided with planning intention. Example: 70 percent of Delhi’s planned open spaces are located in south Delhi. Only
2 percent is located in east Delhi. It is evident that qualitative factors at the planning stage with planner-administrators can relate to ground realities. Security is an important concern in distribution of spaces and paramount in controlling activities within. Distribution is also more dependent on densities and land values than need.

In western literature the approach for distribution of spaces was based on figure-ground, linkage and place theory. Open space has to be constitutionally valid. Open space needs to be perceived as microcosms of cultural components. In this context, attitudes of the socio-economic segments of the community towards open space become valid. Culture includes the religious, economic and social attitudes of society. Recreation is evaluated as a response to the elements that define an open space. Thus open spaces are defined as recreational resources.

The evolution of medieval perception is based on sacred royal centres in Hindu and Muslim cities which served as the cultural basis for the distribution of public open spaces. The natural, cultural and built component of a city is associated and defined by the elements as a recreational resource and constitutes public open space. The colonial era brought the concept of the mall and the English public garden which were not related to religion. Thus, the relationship between the open space and the user, with inputs from the planner, has to be evaluated as an assessment of the user’s association with formative components of open space.

Case of Hyderabad: During Qutb Shahi rule (1591–1687) the ceremonial and civil spaces were restricted to the area between the Charminar, the Dilkhusa Maidan and the river in the northern half the city. Institutions defined the processional route and the location of maidans. The bazaars were located around the processional route. Public open spaces were intricately enmeshed with the lifestyle of the people. The distribution of open spaces not only catered to the lifestyle of the user but also incorporated the vision of the founder. The socio-economic status of the user did not determine the use of public open space. In 1687, Aurangzeb conquered Golconda and shifted the capital to Aurangabad.
In medieval Hyderabad (1725-1800) the primary function of public open space was cultural especially in the city centre. The role of the streets during early Asaf Jahi rule assumed greater significance due to the fortification of the city since because the Qutb Shahi Jilu Khana was built up, and also due to the translocation of the maidan to the suburb. The location of the maidan beyond the city wall signifies a space that is not defined by the built component, which was an institution. In medieval context, the use of open space was defined by religious and royal institutions that facilitated communication between the ruler or religious head and the community.

The colonial era establishment of the cantonment area increased the city extent till Secunderabad. Under British influence, lifestyles were mainly divided in to two segments namely urban elite and local community. This was reflected in urban open spaces as well. Colonial influence brought in a number of qualitative changes in public open space. Lakes accommodated sailing and rowing and gardens included pleasant promenades and drives. Most of the open spaces were privatized. The important function of open spaces was to develop good scenery.

In the late Asaf Jahi rule, no new royal gardens were built in Hyderabad as after the 1912 floods the Nawab and his ministers shifted to higher ground on the north bank of River Musi.

User perception in contemporary Hyderabad, based on a sample survey, has shown that change in the socio-economic status of the community determines use pattern and open space type at the level of locality, influencing the defining elements in open space. The study also reveals that perception is influenced by the cultural aids used, such as kinship, education and health. Open spaces which are defined by elements that accommodate diversity are sustainable.

Sustainable development is a prime concern in the current situation. The United Nations Environmental Programme (UNEP) also emphasizes that to achieve sustainable development public open spaces should link the built and society and not remain static.
LANDSCAPE DESIGN & PLANNING, BIODIVERSITY, ECOLOGY

Indira Gandhi: A Life in Nature
Jairam Ramesh
Simon & Schuster India, 2017

The Vanishing: India’s Wildlife Crisis
Prerna Singh Bindra
Penguin Random House India, 2017

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Dr Sridevi Rao
Notion Press, Inc, 2016

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Pranay Lal
Penguin Random House India, 2016

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Pradeep Sachdeva
John Beautoy Publishing Ltd., 2016

The Hidden Life of Trees: What They Feel, How They Communicate - Discoveries from a Secret World
Peter Wohlleben

Saving Wild India: A Blueprint for Change
Valmik Thapar
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Achyut Kanvinde, akar
Tanuja and Sanjay Kanvinde
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Kenneth Frampton and Robert Wilson
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Kaiwan Mehta

Late Temple Architecture of India, 15th to 19th Centuries: Continuities, Revivals, Appropriations, and Innovations
George Michell
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Monuments Matter: India’s Archaeological Heritage since Independence
Nayanjot Lahiri
The Marg Foundation, 2017

Changing Landscapes: The Cultural Ecology of India
Erach Bharucha
Harpar Collin, 2017

Cosmic Dance in Stone
Ramu Katakam
Niyogi Books, 2017
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LEGEND
ICONS: HYDERABAD-SECUNDERABAD
1. Buddha Statue in Hussain Sagar Lake
2. Charminar
3. Chowmahalla Palace of Nizams
4. Hitech City Cyber Towers
5. Falaknuma Palace
6. Golconda Fort
7. Hathityan-ka-Jhaad, Golconda
8. Makkah Masjid
9. NTR Gardens
10. Public Garden Entrance
11. Purana Pul
12. Qutb Shahi Tomb
13. Ramoji Film City
14. Raymond’s Tomb
15. Granite Rocks
16. Secunderabad Clock tower
17. Taramati Baradari
PAST CONTINUOUS IS FUTURE PERFECT

Theme

The competition theme—PAST CONTINUOUS IS FUTURE PERFECT—provokes students to visualize surroundings around monuments with fresh perspectives for them to be meaningful and relevant spaces with the historical spirit and become part of the daily life of the city or a town or a village.

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Jury

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Anjan Mitra
Urban Designer

Suneet Mohindru
Landscape Architect

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*Landscape architect Shriya Anand passed away in a tragic road accident on 30th December 2007. The award has been constituted in her memory by her family.
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