



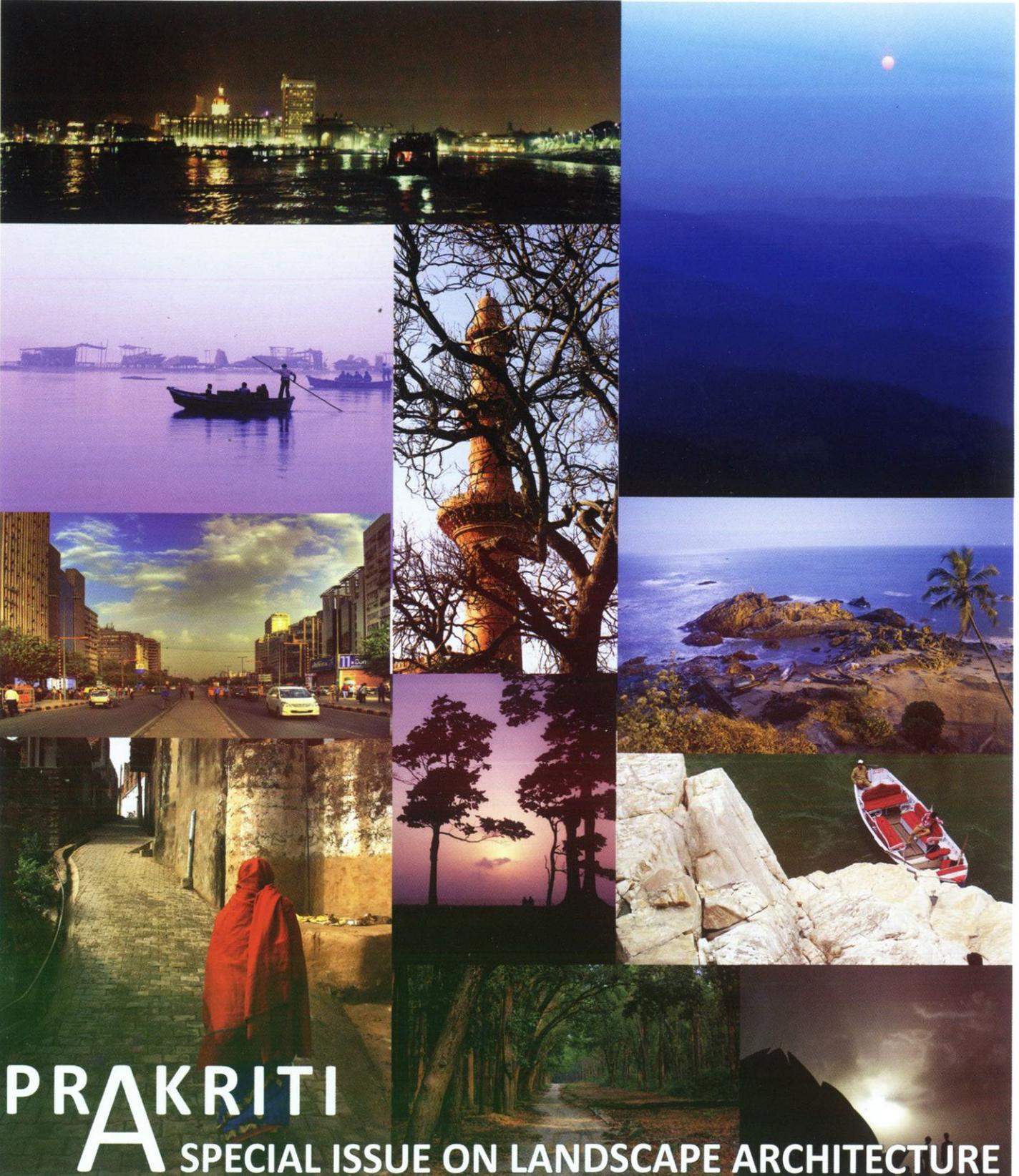
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UTTORAYAN

A PRAGMATIC EXPRESSION OF SUSTAINABILITY IN LANDSCAPE PLANNING AND DESIGN



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“Landscape architecture helps people to connect, removes barriers, and makes the meeting places useful and attractive” – Denise Scott Brown

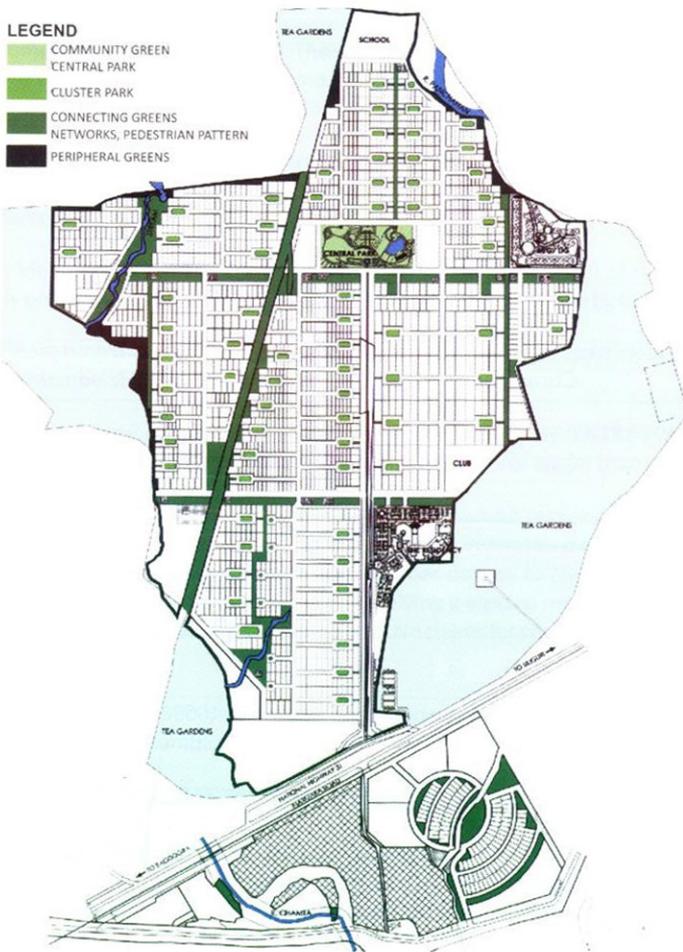


Fig 1: The design of the Township attempts to include landscape open spaces as an ordering element

India has a tradition of urbanism since the early Indus Valley Civilization as recorded in history. The essence of traditional treaties of architecture and building in India has always emphasised on the importance of building with nature. The building materials were sourced from the local biome and the architectural styles evolved vernacularly based on the geo-climatic demands of the location.

The balance between the ecological footprint and the bio-geo regenerative capacity was maintained till the advent of modern materials with high embodied energy and the wide spread acceptance of a globalised design language in the last century.

THE CONTEXT

Siliguri is a location that demonstrates strong economic growth. Trade links are flourishing and the city is benefiting significantly from its strategic location as the gateway to the northeast. New jobs are being created to replace those lost in older traditional industries such as tea planting.

Accompanying these changes is a desire for improvements in the built environment and in the general quality of houses, schools, hospitals and other socio-cultural facilities. The Uttorayan Township project strives to address these very issues and generate a development that may serve as a model for future developments.

SITE INFORMATION

Uttorayan is located on the fringe of Siliguri along National Highway 31 with a total projected development area of 394 acres and proposed population of 50,000. The larger part of the proposed development lies to the north of the highway, and gently slopes up to the north with panoramic views of the Kanchenjunga, River Chamta, and the Siliguri town.

Roads leading to Darjeeling, Assam, Kolkata, Katihar pass through the Matigara Road, which is the main arterial road of Uttorayon.

VISION

The aim was to achieve a sustainable development which would give back to the community and would have minimal impact on its environs. The approximately 394 acres site is an abandoned tea garden affected by landslides and degradation due to the topographical characters of the land. The project was developed in collaboration with the land owner, a real estate developer and the state government.

DESIGN CONCEPT

Uttorayon is planned as a new urban neighbourhood that addresses settlement identity, dynamic and flexible infrastructure, landscape and open space distribution through innovative approaches in planning, design and infrastructure provision. It is an ideal environment conserving all natural resources as well as ensuring a high quality life.

The core site planning strategy aimed at placing the buildings and other usable areas on high ground while conserving the natural system of swales. The site has been divided into 7 zones and is designed as a grid with a main central axis and different social and commercial infrastructure facilities spread across the site as icons instead of isolated locations to give parity to the entire site.

SITE ECOLOGY

Seasonal water courses run through the length of the site, some carrying water from the adjacent fields at slightly higher elevations. These are heavily eroded and through extensive grading these miniature valleys have become the landscape features of the township and have been planted with native trees.

Check dams have been proposed at regular intervals on the length of the stream to ensure that the water gets absorbed into the ground. The watercourse forms a linear landscape of wilderness with opportunities of recreation, bird watching and ecological learning.

It is a natural setting enhanced so as to encourage a greater awareness of ecology as part of a holistic education.

GREEN NETWORKS AT MULTIPLE LEVELS

- Focal cluster greens
- Central green 6.5 acres
- Connecting green networks with Pedestrian paths
- Peripheral greens
- Stream Edge Park

There has been a conscious attempt to include landscape as an ordering element. So while there is a central green, it is supplemented by peripheral green belts, green networks long the pedestrian spines and local greens at the cluster level.

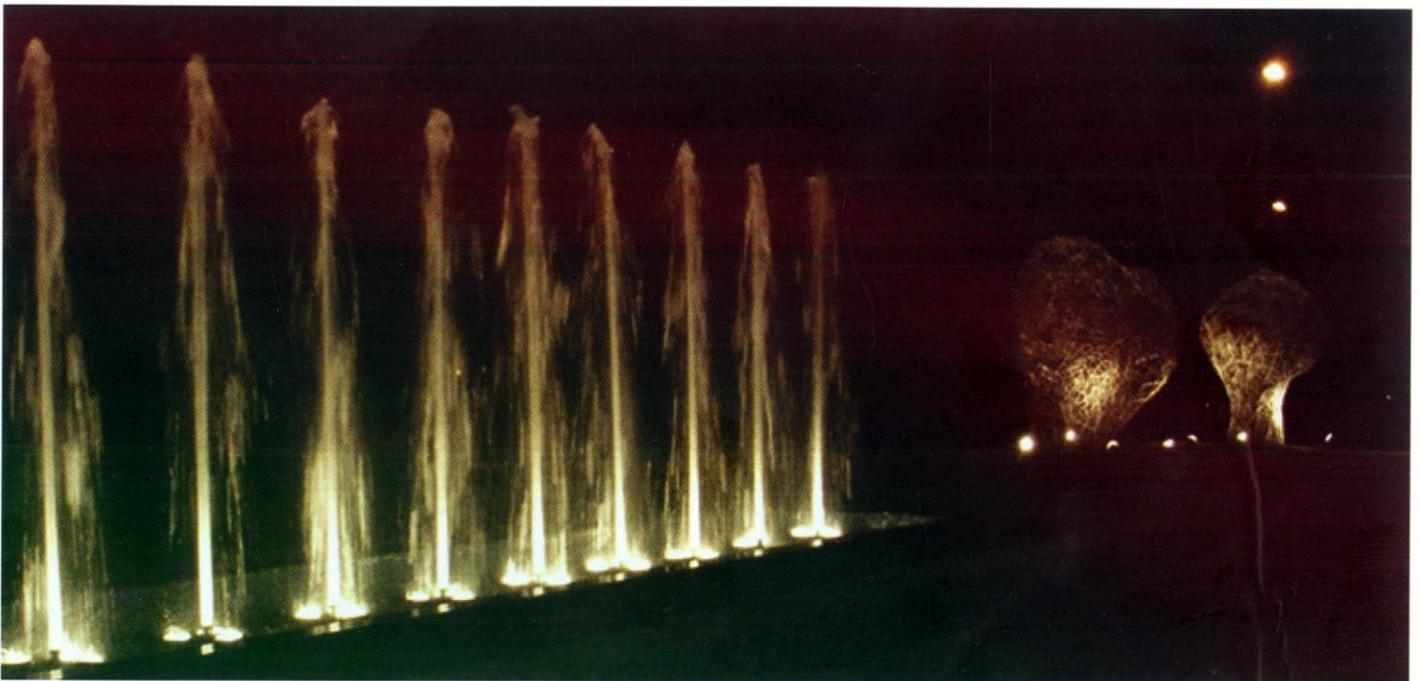


Fig 2: The Sculpture court in Uttorayon's public areas are supplemented with fountains and aesthetic lighting.



Fig 3: Typical treatment of the firepath in High Rise Apartments

The Pedestrian spines in a typical cluster help form direct linkages to the peripheral greens, Thereby ensuring balanced use and access to the larger greens in the township.

CLUSTERED GREENS

Clustered development, a concept which has been intrinsic to the Indian context, has been re-interpreted and employed throughout the township to create a sense of settlement identity.

The clusters work on the basis of having a series of different house types arranged around a central focal green. Cluster greens become the centre of various community activities and act as truly democratic multi-functional spaces used as children's play grounds, event spaces, as a celebration square and neutral interaction areas.

Mixing of plot sizes around the greens ensures an equitable distribution of green throughout the site. The clusters are further linked to form a zone where vehicular and pedestrian movements have been segregated. This type of planning ensures each unit



Fig 4: Efficiently managed and executed landscape work



Fig 5: The Central Park Lake provides opportunities for the residents to indulge in activities like boating.

overlooks an open space for adequate light and ventilation.

CENTRAL PARK

The central park on the termination of the axis of 35 meter main road encompasses an area of 6.5 acres. The location of the park is strategic at the notional centre of the township. The surrounding residential land use makes it the hub of all activities.

The park has been divided into various areas dedicated to a variety of activities for different age groups and visual experiences. According to the functional

“The garden path here becomes the thread of the theme, connecting moments and incidents into a narrative embellished with diversions, digressions, and picaresque twists balancing utility, firmness and beauty.”

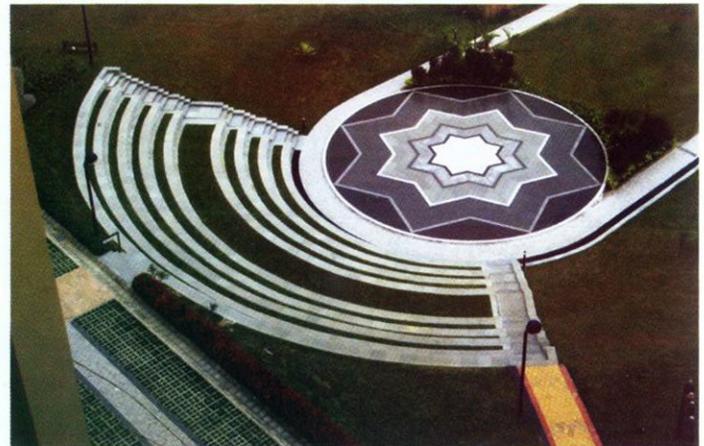


Fig 6: View of the Amphi-theater

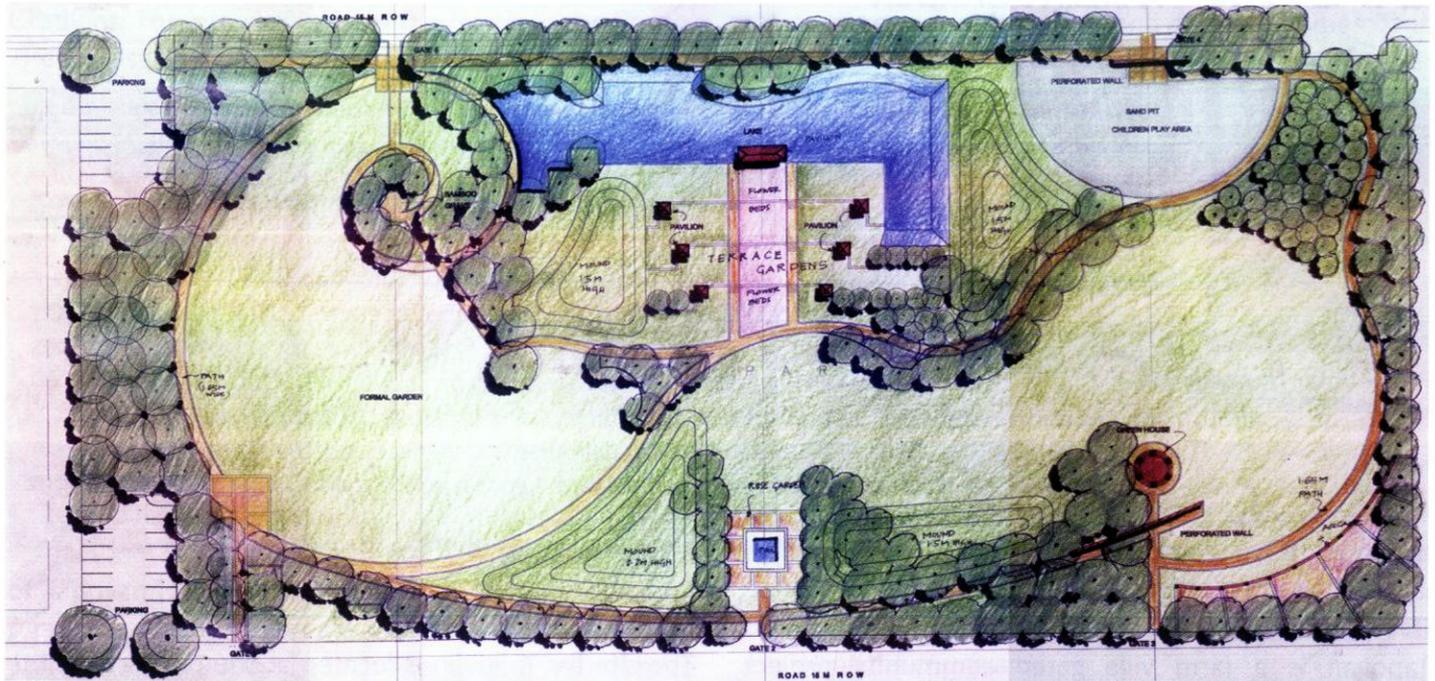


Fig 7: Central park landscape plan.

requirements the park has a specialized restaurant, children's play area, terrace garden, jogging tracks etc. The restaurant area serves as the main activity zone.

The park caters to the high number of residents using the park from the adjacent housing. Each of the 6 entries has been given a different landscape experience with mounds, pavilions, and water body and specialised gardens.

An amphi-theater with a floating stage over the lake has been created to add an element of activity to the complex. A series of fountains line the stage which have been aesthetically coordinated with the natural mountain range in the distance to provide an exquisite backdrop.

A large number of trees have been planted along the periphery of the park to visually contain it within boundaries and to act as a buffer against the traffic roads. The landscape work was very efficiently managed and executed so much so that the landscape work was completed much before the main structures were completed.

SUSTAINABLE INITIATIVES

The fact that the site was a former tea estate, made it imperative to address the concerns of the workers of the tea estate. To minimize displacement of these people, adequate accommodation was created for them within the township.

In addition to which, the creation of community level greens and spaces that encourage social interaction between residents was an attempt at ensuring sustainability on the social and cultural front.

There are numerous methods employed to help the development to be environmentally sustainable. The entire development is a largely low rise, low density township with minimum demands on its surroundings. Connected greens networks link up the green areas of the site to help create a congenial open space system.

Despite not being aligned to any particular Green Rating System, the project aims at being truly sustainable in terms of the sensitivity imparted towards its planning and design thus providing an example for formulating Master plans for the rapidly urbanizing cities and towns in India.

PROJECT FACT SHEET

Name of Project	: Uttorayan Township
Location	: Siliguri -National Highway 31
Client	: Bengal Ambuja
Architects	: Morphogenesis
Total Population	: 50,000
Areas	: 394 Acres
Duration	: 2004-2009