

A METROPOLIS PUBLICATION
IN ASSOCIATION WITH INDIA'S
NATIONAL INSTITUTE OF
URBAN AFFAIRS

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INDIA

A Metropolis Research Publication

CITIES AND TOWNS
OF INDIA ARE
GROWING AT AN
UNPRECEDENTED
PACE—AT OVER
3 MILLION A YEAR.

THIS BOOK OUTLINES
PEOPLE, PROJECTS
AND IDEAS THAT
ARE CHANGING THE
SUBCONTINENT
THROUGH:
—MILLENNIUM GOALS
—SLUM RENEWAL
—NEW CITIES
—RIVERFRONTS
—TRAFFIC SYSTEMS
—WATERWAYS

managing
urban
growth

Edited by Chris Johnson

INDIAN CITIES: Managing Urban Growth

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**AGRA
AHMEDABAD
BANGALORE
KOLKATA
LAVASA
MAGARPATTA
NEW DELHI
PUNE
SURAT**

METROPOLIS INDIAN CITIES: Managing Urban Growth



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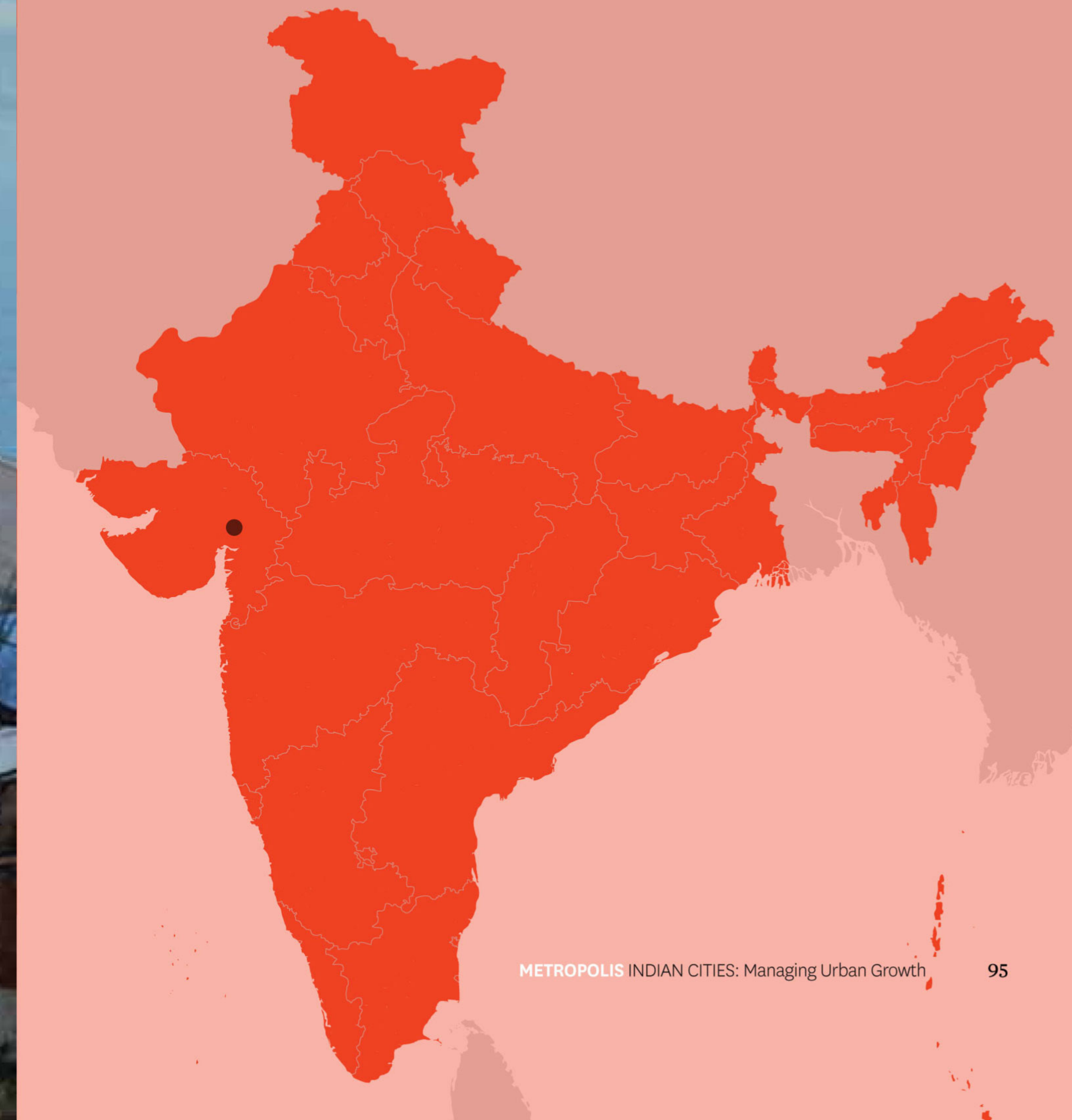


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Riverfront Renewal

AHMEDABAD

Bimal Patel



Riverfront Renewal.

- The Sabarmati Riverfront Project by the Ahmedabad Municipal Corporation is a good example of changing the character of a city from the centre outwards in a way that is environmentally and socially responsible.

In August 1997, the Environmental Planning Collaborative, headed by Bimal Patel, was appointed to prepare a master plan for the river. The aim was to transform the river from being an environmental and social problem into a city asset.
- The project has five stages of evolution.

 - 1.Understanding the issues and preparing the feasibility study.
 - 2.Laying sewage infrastructure, building flood protection walls, creating a public realm.
 - 3.Improving access to the river, strengthening the city’s transport network.
 - 4.Building public promenades, gardens and play fields.
 - 5.Building public facilities and financing the project.

The historic layer is the first to understand. Ahmedabad was founded as a walled city on the eastern banks of the Sabarmati River in 1411. The city has always had a strong relationship to the river. Even today the structure of the old city can be seen and there are a number of tours that explain its heritage (see box).

AHMEDABAD	
City Population	5,670,000
Metropolitan Region Population	6,580,000
Urban Density	22,473/km²
River frontage	23 km

Ahmedabad is the largest city in Gujarat, India. It is the seventh largest city and eighth largest metropolitan area of India, with a city population of approximately 5.67 million and metropolitan population of 6.58 million. Ahmedabad is the fastest growing city of India, and ranked third as the fastest growing city worldwide. It is located on the banks of the River Sabarmati, 32km from the state capital Gandhinagar.

In the second half of the nineteenth century about a dozen textile mills were established in Ahmedabad and the first span across the Sabarmati River, Ellis Bridge, was constructed. By the end of the first half of the twentieth century two more bridges were constructed across the river. Following partition of the sub-continent in 1947 a large influx of population from the Sindh region led to urban growth on both sides of the river.

The river banks became sites for squatter settlements and slums and the city’s sewage often overflowed into the river. But the major problem was the seasonal flooding that created chaos for the city and particularly for the slums.

In May 1997 the Ahmedabad Municipal Corporation established the Sabarmati Riverfront Development Corporation Ltd with the objective of ‘reviving the city by reconnecting it to the river.’

In August 1997 Bimal Patel’s organisation, the Environmental Planning Collaborative, was appointed to prepare a feasibility study for the river. After many options were debated a 11.5 km stretch was chosen for the project. Studies showed that the width of the river varied from 675 metres to 325 metres. Water flow studies showed that if the water channel was contained at a consistent height with solid concrete edges then a uniform width of 275 metres was adequate to maintain the current flood carrying capacity of the river. This structure returned 202.79 hectares of land back to the city with the potential for a variety of land uses.

Water is channeled into the river from the Narmada canal, which intersects the river upstream from Ahmedabad and is retained in the river using the Vasna Barrage which is located downstream. To prevent untreated sewage from flowing into the river, two sewage interceptor lines with new pumping stations have been constructed along both the reclaimed banks.

The new reinforced concrete diaphragm walls built from 10 metres below the river bed and retaining walls built up to the high flood level of 4.75 lakh cusec flood, protect the river banks from flooding and erosion. The project provides Ahmedabad with 11.5 kilometres long pedestrian promenade with trees and seating at the water’s edge.

The land use strategy is to sell 14.5% of the land for residential and commercial purposes to finance the project. The rest will be used to set up promenades, informal markets, gardens, an extended road network and many new public facilities. Around 14,555 slum dwellers living on the riverbed are affected by the project. They will be relocated and provided with ‘pucca’ housing with secure tenure, access to roads, infrastructure and services.

The riverfront will be developed as a



SABARMATI RIVERFRONT MASTERPLAN

The Sabarmati Riverfront project transforms the private river edge into a public asset, redefining the city's relationship with its river. Various developments are planned along the reclaimed land ranging from parklands to commercial development.



RIVERFRONT BEFORE



Clothes washing areas on the riverbank before commencement of the project. The project resettles squatter areas in new housing on sites nearby.



Previously the banks of the river often flooded squatter settlements and left muddy flat edges of the river in an unhealthy state.

DURING CONSTRUCTION



The restructuring of the riverbank has been a major engineering feat.

**COMPLETED LOWER PROMENADE
ALONG THE RIVER FRONT**

The sample stretch of the riverside promenade awaiting the planting of trees.



mosaic of unique precinct plans. One will be a large heritage park located near Lal Darwaza, the historic centre of the city, while another is the *Cultural Mile* incorporating the National Institute of Design, which will provide the city with an array of contemporary cultural institutions and museums. The most dramatic will be the Ashram Road precinct where there is potential for commercial buildings of up to 40 floors to help pay for the improvements. The Ahmedabad Municipal Corporation opened an information centre on the Sabarmati redevelopment project in early 2009 during the *Vibrant Gujarat Global Investors Summit* to create public awareness of the project and test interest in the commercial development of some of the sites.

Bimal Patel is driven by the goal to ‘make city planning work’ for improving the quality of urban environment in Indian Cities. He is a Director in HCP Design and Project Management Pvt. Ltd., a 50 year old firm which has fully fledged divisions for planning, archi-

tecture, interior design, furniture design and project management. He has developed a number of other firms including the *Environmental Planning Collaborative*, a not-for-profit company pioneering research and policy development in urban planning. *Geographis* was established in 2000 to undertake work in surveying and mapping, a furniture company and an Interior Architecture company also drive specialist work.

This multi disciplinary thinking is apparent in the Sabarmati Riverfront project, which is a multidimensional, environmental improvement, social uplifting and urban rejuvenation project. Many cities in India have a major river at their heart and have seen its deterioration with untreated sewage flowing into it, development of slums along the banks, and monsoonal floods causing major chaos. The Sabarmati Riverfront project is a good example of changing the character of a city from the centre outwards in a way that is environmentally and socially responsible.



The new riverside promenades will be places for celebration and entertainment.

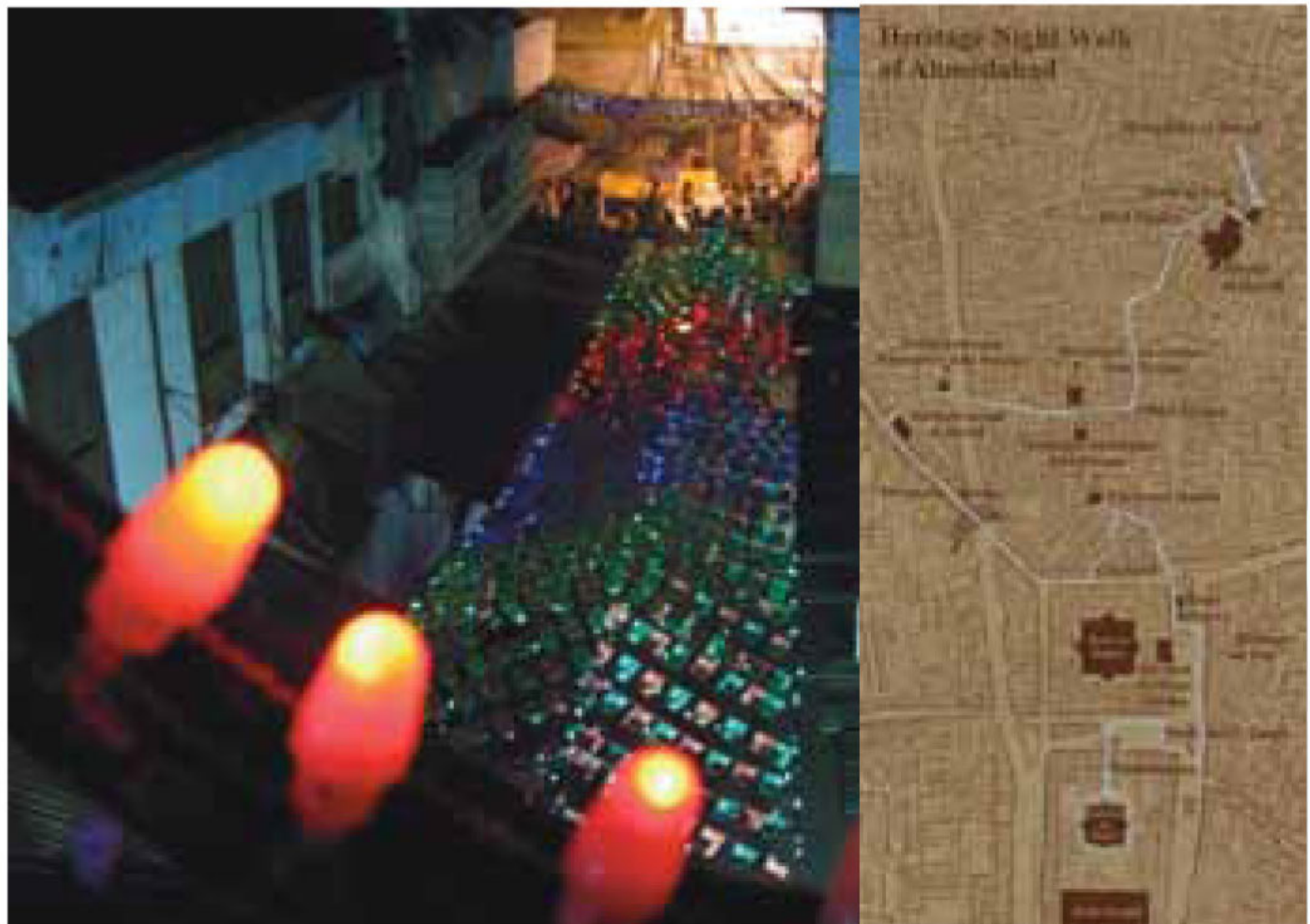


Ahmedabad's Heritage

One of the best ways to appreciate the structure of the old walled city of Ahmedabad is to take a guided heritage night-walk through the twisting alleyways. Here the visitor can appreciate the sub-structure of the city with its clusters of houses around an alleyway accessed by a single gate. These clusters are called *Pol*s and they originally housed people of the same community and caste or similar trades or professions.

The walk starts at 10pm because citizens were reminded to close their *Pol* gate by loud drumming that also signaled the closing of the city gates. Each night the drums beat out a rhythm from above the gateway to the Manek Chawk food court at 11pm. After exploring the twisting alleyways and the surrounding hovels and monuments the heritage nightwalk arrives at the entry to the food court with the drummer in full flight. A tradition dating back 600 years continues on.

www.houseofmg.com



BIMAL PATEL

Bimal Patel is actively engaged in transforming the quality of life in Indian cities through more effective urban design and urban planning practices.

He received the Prime Minister's (India) National Award for Excellence in Urban Planning and Design in 2003 and the Aga Khan Award for Architecture in 1992.

He is the Director of HCP Design and Project Management Pvt. Ltd., a 50 years old firm based in Ahmedabad, Gujarat.

Bimal Patel established the Environmental Planning Collaborative to look at better ways to plan and develop cities.

He is committed to making his studio building on the banks of the Sabarmati River, called Paritosh, an innovative laboratory of design, planning and development management ideas and practice.

He has completed his Doctorate (PhD) in City and Regional Planning from the University of California, Berkeley USA and has also gained dual Master's Degree in Architecture and City Planning from the same university.

He graduated with a Diploma in Architecture from the Centre for Environmental Planning and Technology, School of Architecture in Ahmedabad.

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