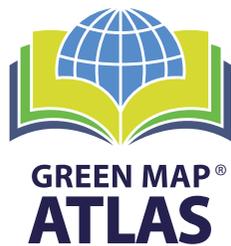


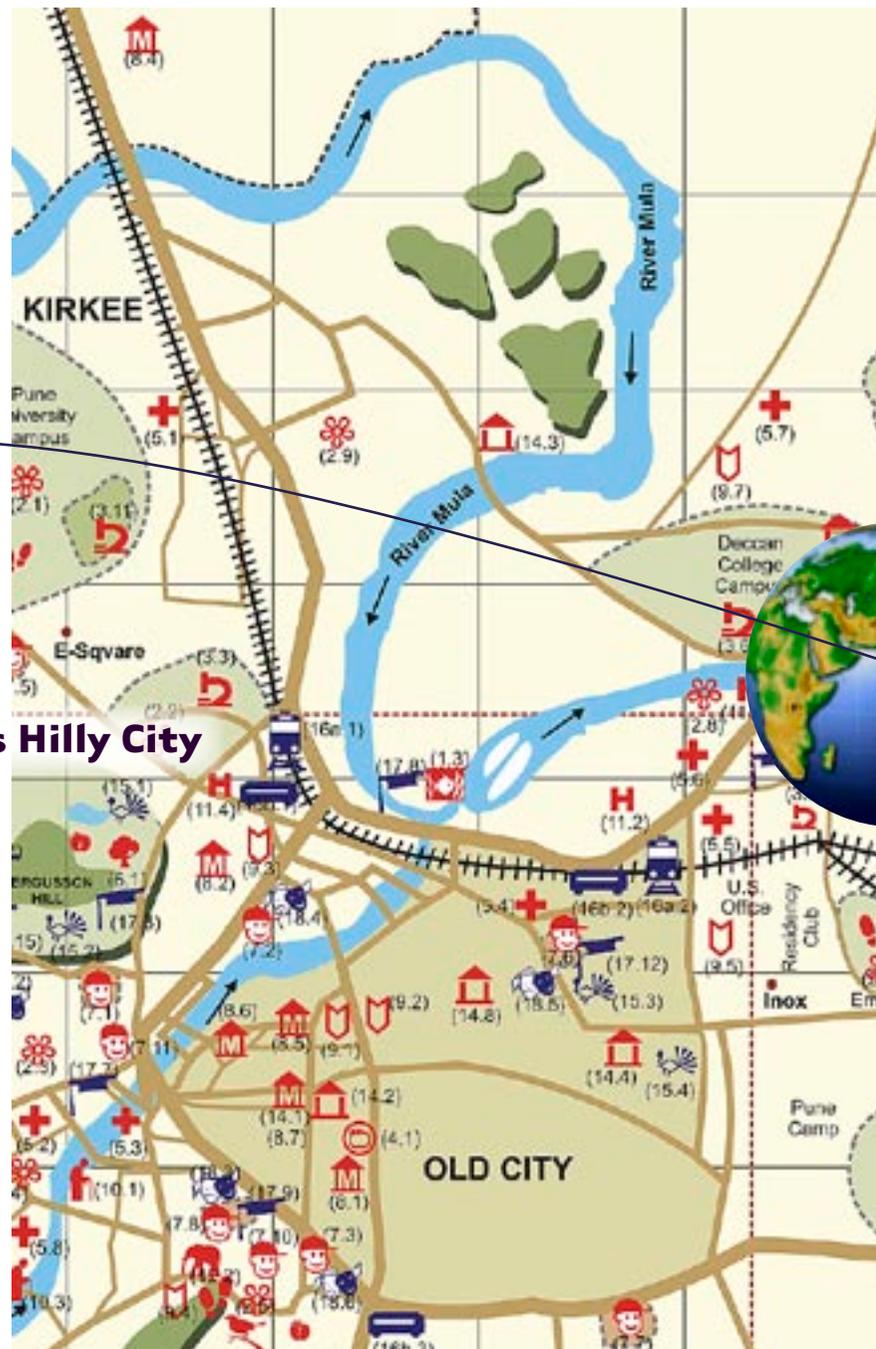


PUNE

Green Mapmaking in India's Hilly City

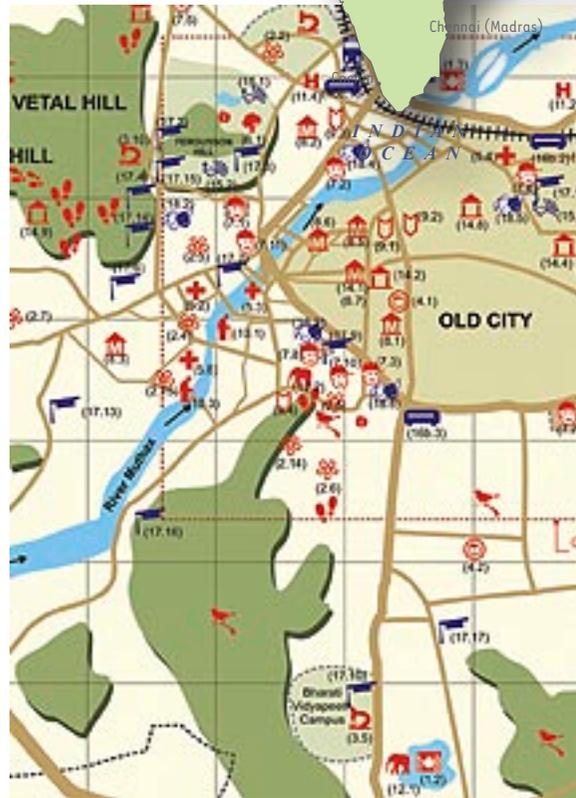
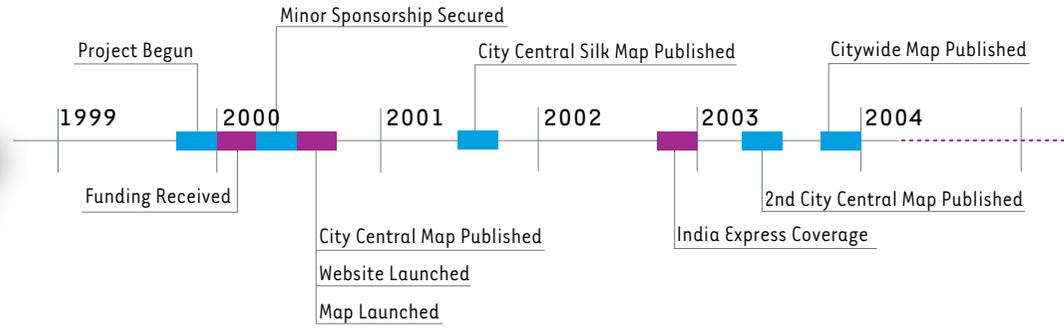


A project of the **Green Map System**: promoting sustainability and citizen action in communities around the world through locally created maps of the natural and cultural environment



Introduction

Pune · Maharashtra · India
 Green Map of Pune
 www.anandupalekar.com



Detail of the Green Map of Pune (2003)

“In the beginning there was only darkness, and suddenly there was the light of a thousand suns” - *Bhagwat Geeta*. And that was really so – at least when it came to documenting the assets of Pune City!

A city enveloped by the lush green hills of the Deccan Plateau in western India, 160 km east of Mumbai (Bombay), Pune is a certified Metropolis of over 3 million inhabitants. Formerly the summer capital of British rulers, Pune is the second largest city in Maharashtra State, currently boasting more than 50% of state offices. It is best known as the education capital of India, thanks to various high quality institutions hosted here. The International Marathon and National Ganesh Festival held in Pune are now world famous.

I am an architect, diversified into Geographical Information Systems. While surfing the high tides of the Net for map data downloads in 1999, I bumped into the friendly site of the Green Map System.

There was an invitation to make your own Green Map, with no age bar or educational prerequisite! GMS even offered to supply their legendary icons. I admired the concept of creating a simple document to record all the assets that made a city unique, steering future development policy towards greater sustainability.

Map Data

- Language: English
- Number of Map Editions: 3
- Published Map Formats: Artpaper, Handmade paper, Silk
- Number of Sites Charted: 130
- Number of Global Icons Used: 18



Four of Pune's five local icons

Mapmaking

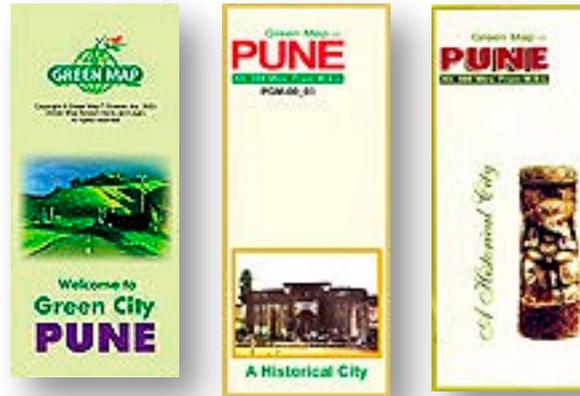
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1,000 maps printed on paper
(200 on handmade paper, 100 on silk)

With mapmaking, the real fun began. The Survey of India had a 1962 map, which several individuals had updated. The base map we selected was kindly made available by the late Mr. S P Barve, creator of the map "Pune A to Z" (Parshuram Press). We verified our version against the Municipal Map and made sure that truth prevailed.

It occurred then that city assets were of many types: important personalities, roads, the hills and twin river system, colonial and pre-colonial structures, cave temples. Architectural hallmarks alone represented a spectrum of 1200 years. We decided to list everything that had been there since my childhood – the 1940s. We picked around 25 Green Map Icons and classified assets in that order.

Since Pune in the year 2000 held over two million souls spread over 150 sq.km, I had to carefully select a window to narrow our frame of reference. The ideal window was the central downtown, which is over 700 years old and a very intimate and dense



sector. The city center map shows the Old City as it existed until the 19th century. The spillover started after the British took the city in 1863, establishing military cantonments in outer areas and bridging rivers that had once limited the city.

As the project started progressing we bumped into a variety of printing sizes and technologies. Green Map System had shipped some existing maps and we could decide the document size, colour scheme and paper quality. Gradually a new world was opening up!



(left to right)
Green Map of Pune (2003-04)
Green Map of Central Pune (2003)
Green Map of Central Pune (2000)
Students review the map-in-progress before contributing site suggestions and other comments

Technical Data

Software:

CADIAN Arch
Graphic SW

Hardware:

Celeron and Pentium
Canon SLR camera
Bicycle
Motorcycle

Paper:

Handmade Paper, Maplitho 100gsm,
Artpaper 130gsm with vegetable ink

Map Structure:

Folding

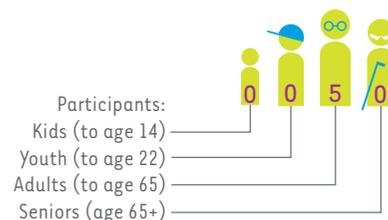
- Central & Silk maps: 54.6 X 41.9 cm / 21.5 X 16.5 in
- Citywide map: 55.9 X 43.2 cm / 22 X 17 in

Teamwork

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Partners, Advisors and Board members: 5



Mapping my city was an interesting challenge, though at first I could not think of sharing this idea with anyone except my own office team, which was used to Computer Aided Drafting, graphic design and such skills. But as the project progressed we began to get invited to lecture and attend forums dealing with environmental issues. The map had begun taking shape in a true sense.

Soon I knew that it was beyond our single-handed capacity and had to involve more key people. Besides, everything is in abundance in India—especially people, talent and ideas. All who liked the idea and wanted to get involved were welcome. Suddenly there was action on all fronts. Building up the base map, layout and design, collecting location data, interacting with NGOs — it was quite a list. Since I had taken it upon my heart to create the Green Map, I went about meeting people and NGOs working on city issues such as heritage preservation, eco-sensitivity, hillsides

and ornithology. I also visited local handicrafts sites and included several renowned playhouses, as Pune is the cultural capital of Marathi theatre. It was eye-opening to discover these treasures by dabbling in the Green Map!

All team members had to be aware that their contributions would not be weighed on any commercial scale. They would be volunteering for a much larger cause. Most volunteers were my students, who loved being members of the team. Professionals such as Ninad Mate handled the printing. Graphic designers Anoop Chaphekar and Smita Patil were employed on a cost to cost basis.

Members of local NGOs >> contributed ideas for the map, including these staff members from the Mashal organization



<< Graphic designer Smita Patil perfects details on the 2003 edition of the Green Map of Pune



Famous physicist, feminist, writer and science policy advocate Dr. Vandana Shiva is presented with 2003 Pune Green Map by mapmaker Anand Upalekar



On the left, Dr. Robert Zuber, then GMS's outreach specialist, sharing some ideas with the committee during the July 2000 launch of the first Green Map of Pune

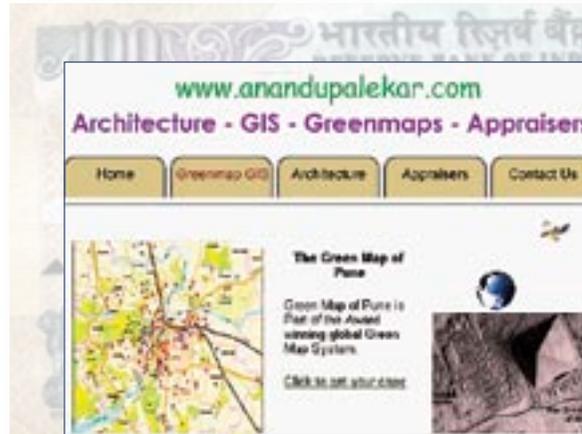


Economics

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As an architect, working out project cost was a routine exercise, but fundraising was not! For this project, I worked from my own savings rather than depend on any sponsors; they come with strings as a rule. Funding and also ease of handling fixed the map size. The total project cost for the 2000 edition was Rupees 35,000 (around US\$700) for 1000 paper copies, 200 on handmade paper and 100 on Indian silk fabric. The handmade paper uses rice husks and recycled paper pulp, and is produced in a facility about 50 km outside the city.

The idea to print on silk sprouted when I saw Mr. Barve printing digital pictures on cloth and silk. The silk Green Map would be used by ladies as a headscarf. It was an instant success and became very popular. Paper maps were kept in bookshops at a price of Rupees 15/copy (US\$0.30), although later we decided to distribute the maps free to those who wanted them.



Green Map Icons, as shown on Pune's first and second editions

These icons are the common currency of all Green Maps



Economic Data

Type of Organization:
 Architecture design group

Support:
 Private funding

Major Project Supporters:
 Self, Hotel Blue Diamond

Number of Paid or Volunteer Jobs Created: 5

Cost of Map: Rupees 15/copy, but many were distributed free



(upper) The website www.anandupalekar.com includes the Green Map of Pune, along with other projects
 (lower) Green Map of Pune silk headscarf
 (background) The Green Map of Pune was printed on handmade paper made from recycled paper and rice husks

Assessment

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(left to right) *Times of India* (13 Nov 02)
Daily Sakal (31 July 00) in the Marathi language

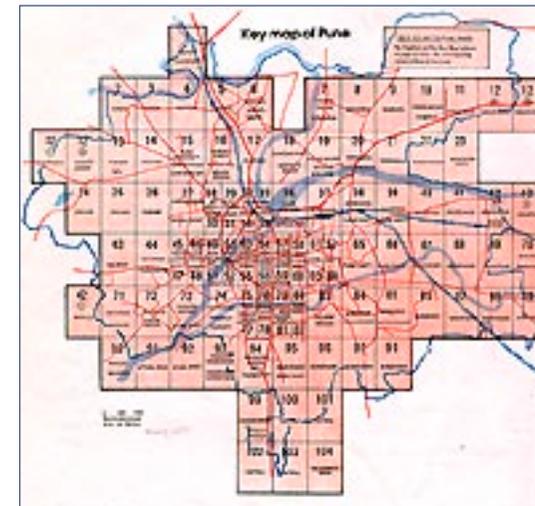
Dr. Robert Zuber of GMS was coming to town for a conference and offered to attend our map launch, so his arrival gave us an automatic deadline. A five-month timetable was set; then it was easy, cutting the operations into smaller bits of tasks. Our team was abuzz with energy and action. Ideas that had been pooling in since September 1999 were becoming reality.

Captain Ashok Deshpande, Municipal Commissioner of Pune Municipal Corporation, kindly agreed to preside over the event, which was set for the auspicious date of 27 July 2000. Robert was a great help and inspiration, checking map proofs and contributing ideas, and finally we managed the event very satisfactorily. Vijay Paranjpe (environmentalist), Dr. Prakash Gole (ornithologist), Sharad Mahajan (NGO Mashal), Prashant Waghmare (City Engineer of Pune Municipal Corporation), Arvind Kolhatkar (Ex-Chief of Mumbai Stock Exchange) and reporters from

Sakal, *Indian Express*, *Times of India*, *Kesari* and a local TV channel all attended.

Our launch resulted in phone calls from Indian cities like Bangalore, Mumbai, Kolhapur, Trivandrum and Nasik, wanting to know if they could create maps. Some have now made progress toward getting started. Being part of the global GMS network, with access to universal icons, provided me with a greatly elevated platform and the much-needed awe element!

In late 2003, Dr. Vandana Shiva visited Pune to deliver a lecture, and afterward I presented her with our Green Map in both the latest and the Year 2000 edition. She was aware of GMS and said "If you want any creative action performed — Pune is one such city."



(upper, lower) *India Express* (14 Nov 02) showing Anand Upalekar and the first draft map. "Pune A to Z" by Mr. S P Barve is the base map used for the Green Map of Pune

Conclusion

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Like a horoscope—showing the planets' locations and their beneficial and malevolent aspects—the map showed Pune's true facets. The idea of recording the sustainable spirit of a city on a cartographic backdrop was new to everyone, but now there are several special purpose projects including a heritage map and a tree map.

Eventually, we decided to make a second Green Map in 2002–03 after the Municipal Corporation acquired 18 outlying villages, expanding Pune from 150 sq.km to 250 sq.km. All 423 schools in Pune will receive copies so that the young generation can know their real city, perhaps shaping their ideologies and futures.

My favourite gain has been discovering my own city's rich treasures of assets. I hope others who share this map and follow its trails will enjoy them equally deeply. Policymakers for one—if they keep their eyes and spirits open—will know how to respect our vast cultural wealth in making the future City Development Plan.

“It is the only map covering the city from the viewpoint of eco-tourism. Since it is made with the help of citizens it provides an insight into city life and culture.”

– Parth Lawate, Tekdi Group

“I am very pleased that you are making an effort to map gardens, objects and buildings of great importance. The map is the face of our city.”

– Mr. Prashant Waghmare, City Engineer, Pune Municipal Corporation

“Map-based Information Systems are a must for every city, particularly when urban centers are expanding and becoming complex. For environmental students and tourists, the Green Map is of great use.”

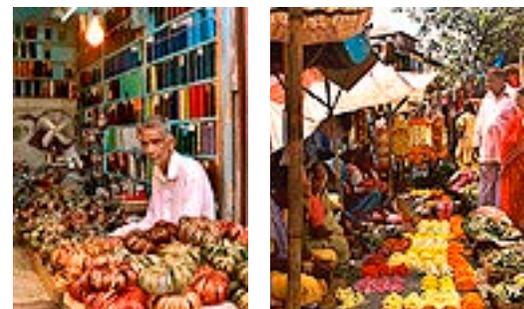
–Sharad Mahajan, planner and chief, NGO Mashal



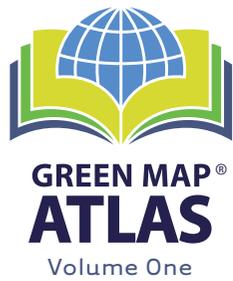
A Brass pots, common household vessels, are made and beautified by brass smiths



Prince Aga Khan donated this building as the Kasturba Gandhi Memorial. It marks the site where Gandhi was kept under house arrest and where his wife died



(left to right) A traditional craft shop selling handmade multi colored glass bangle bracelets, which were originally imported from Rome in the 4th century AD. At the worship flower market, hundreds of flower sellers are arranged along the footpath



(left to right) Historic Pune University's main office is the former Viceroy's mansion
Breathe deep the mountain air along an exhilarating walk through Pune's green hills

Credits

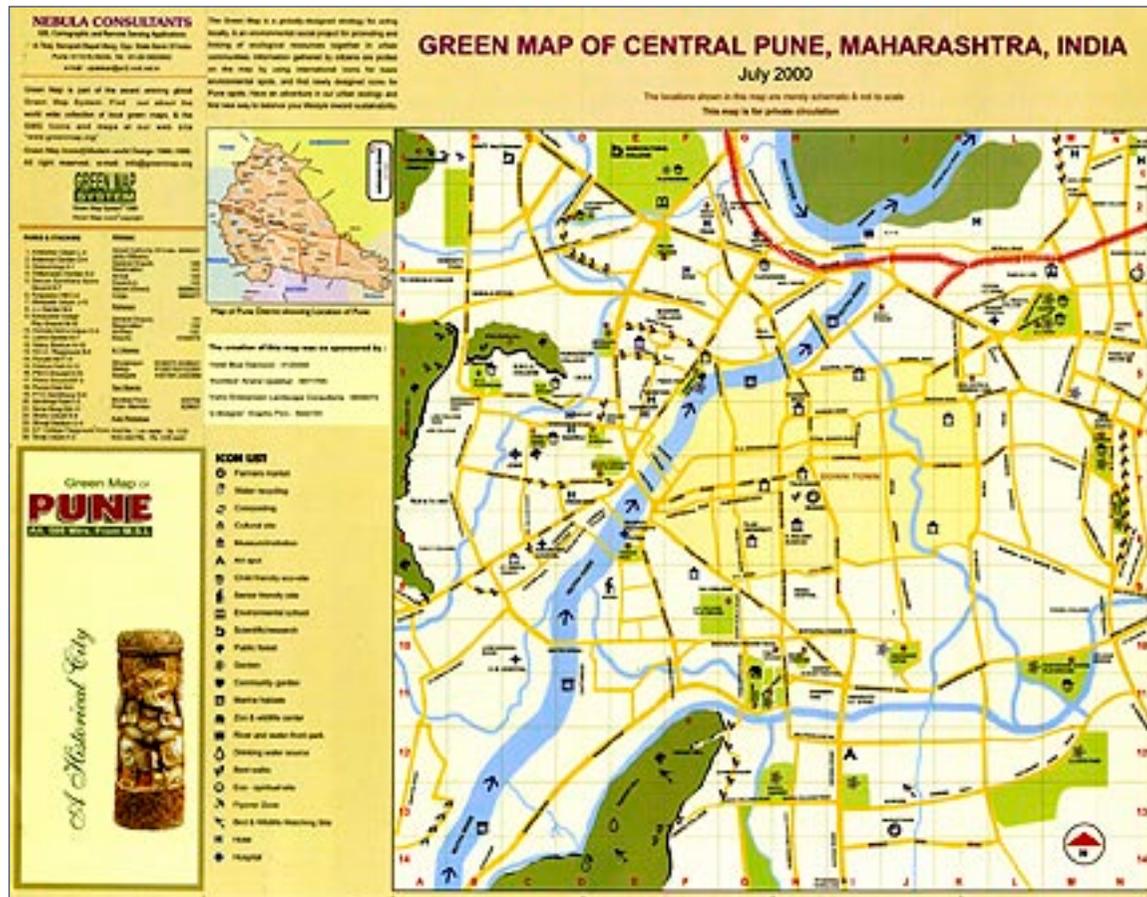
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<< Mr. Sudhakar Joshi, owner of Utkarsh Book Agency, holds one of the Green Maps for sale in his shop



Citywide view of the newly expanded city of Pune (2003)

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www.greenmap.org is your global link to every local Green Map project, multilingual Icon posters, an invitation to participate, and more.



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