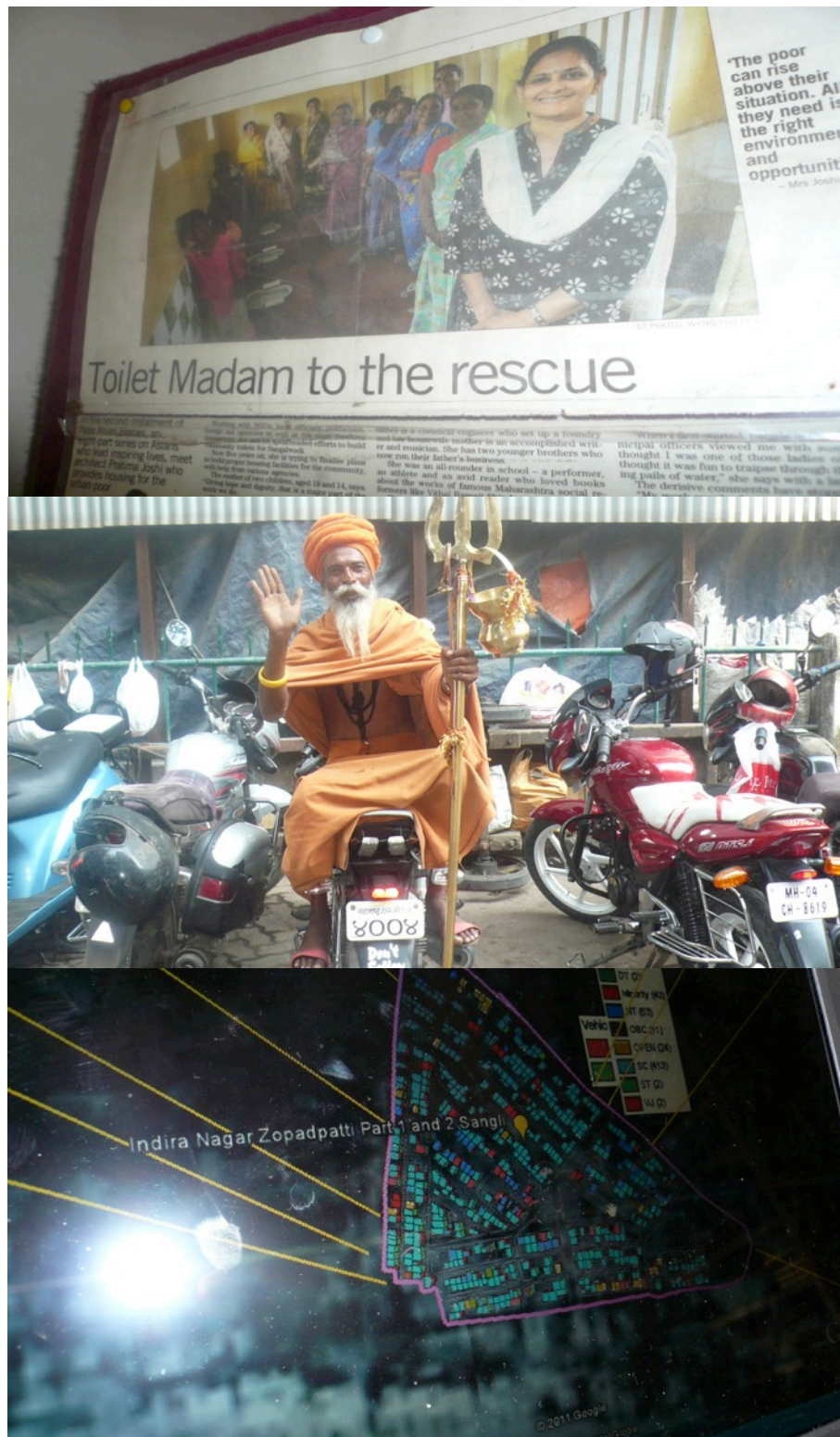


TOILET MADAM TO THE RESCUE

THE ROLE OF WOMEN ARCHITECTS IN DRIVING SLUM RENEWAL IN INDIA



A report for the 2011 Byera Hadley Traveling Scholarship awarded to
Chris Johnson November 2012

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INTRODUCTION

This report records the work undertaken as part of the Byera Hadley Traveling Scholarship I received in late 2011. My topic as submitted was "The role of women architects in driving slum renewal in India." The report records my travels and the many interviews undertaken as well as research into the topic. It concludes with some suggestions of ways forward in India as well as implications for the role of architects in Australia.

Essentially the thesis I developed was that an important role for architects was to help improve the slum settlements of the world with particular reference to the United Nations Millennium Development Goals to eradicate extreme poverty. The Indian Government has established aims to dramatically reduce the number of urban slums through programs like the Rajiv Awas Yojana (RAY). India has between 15 and 30% of its urban population of 400 million people living in slums. That is between 60 million and 120 million people living in slums. The real number is likely to be significantly higher. Many of these people are driven by the hope of more work opportunities in Indian cities as the country moves from a rural population to a more urban population.

Currently only 28% of Indians live in cities but this is expected to reach 50% by 2039. Clearly the number of slum dwellers could increase at the same rate as India's rising population unless something is done now to redress the problem. India's urban poor problem is becoming one of the world's most pressing issues. My earlier research into Indian urbanism had found an emerging role undertaken by women architects in driving slum renewal.

My interest in India goes back to 1970 when I spent 3 months exploring the country and through the 13 trips since then. In undertaking a Masters of Cultural Heritage degree from Deakin University I wrote a thesis titled "Geometries of Power - Imperial Cities of Delhi". This became a small book published by the University of Sydney as the Wilkinson Lecture of 2002. In 2007 I was appointed the Director of the Metropolis Congress to be held in Sydney in 2008, an event involving the world's major cities. We were keen to involve Indian cities in the congress and I toured India meeting mayors and officials. We produced a book titled "Connecting Cities - India" with a series of essays on Indian urbanism.

After the congress I edited and substantially wrote another book for Metropolis titled "Indian Cities - Managing Urban Growth" which was published in 2011. It was this book and the research related to it that unearthed the emerging role of women architects in influencing Indian urbanism. But I had only scratched the surface of the issue and was keen to travel to a number of slum settlements and to meet the architects and related professionals who were operating in this field.

My earlier contacts through the Metropolis Congress were able to lead to a network of amazing people. One of these was Chetan Vaidya, the Director of the National Institute of Urban Affairs (NIUA) who was a speaker at the Sydney congress. In his national role, Chetan had an excellent overview of urban issues in India and was most helpful in making contacts. Vandana Chavan, a former Mayor of Pune city gave me many contacts

including that of Pratima Joshi the director of Shelter Associates operating out of Pune. On Pratima's notice board is a newspaper article with the headline "TOILET MADAM TO THE RESCUE" and I have used this as a sub title for my report.

Sunil Dubey, an architect working in Sydney and someone born in India, was my mentor for this project and someone with excellent contacts in India. Coincidentally I discovered that Associate Professor Anna Rubbo of the University of Sydney was organising a conference in Bhopal in India during the time I intended to travel. The conference was titled "Re-imagining Inclusive Urbanization - People Building Better cities" and it brought to Bhopal some of the people I had hoped to meet and others who turned out to be important.

So through a network of contacts and discussions I became connected to more women architects and facilitators of slum renewal across India. I have used the term architect loosely as some of the people I met were not formally trained as architects but were operating GIS systems and drawing up house plans and helping slum dwellers achieve better built environments. A discussion developed with these people about the difference between the "Starchitects" building dramatic high rise towers and the architects modestly working to insert new toilets into shanty towns and so improve the health of the inhabitants.

A number of themes emerged during the journey across India through discussions with the many people I met and at the two conferences I attended. These themes included the following.

GENDER AND THE ROLE OF WOMEN particularly in relation to the built environment.

TRADITIONAL CRAFT AND SKILLS and the use of natural materials and their decoration.

ORGANIC, FREE FORM LAYOUTS which many slums had but was missing from new housing projects.

URBAN HERITAGE as urban growth threatens the past.

BOTTOM UP GOVERNANCE as opposed to top down with all its red tape in India.

CITY WIDE PLANNING to incorporate slum renewal as a critical component.

INSITU RENEWAL or rebuilding on new sites each have a place.

TRAINING OF ARCHITECTS to encourage more graduates into slum renewal roles.

BALANCING THE PAST AND THE FUTURE an endless topic as demonstrated by the saffron robed holy man sitting on a gleaming modern motorbike.

To record my travels I took a sketchbook with me and drew the many places I visited. These drawings were more about the bustle of India and the incredible wealth of ancient tombs, temples and mosques than about the slums. I have included a number of these drawings as they record the process of travel and they give the flavour of India.

As always India is chaotic and bustling. Even when I was out in what appeared on the map to be remote areas there seemed to be an endless stream of villagers, camels, goats, cows and the occasional holy man dressed in orange. I have written this report as a collage of images and events in the spirit of India's chaotic but enjoyable flow of ideas and people. Indians are good talkers and they enjoy a good discussion.

TRAVELS, DISCUSSIONS, SLUM VISITS, MONUMENTS

This section of the report is a chronological record of my travels through India, the people I met, the slums I visited and the monuments I inspected. Woven through this are two conferences I attended and endless trips across India through landscapes dotted with camels, peacocks, the odd vulture and always people and villages. In the cities travel was generally by auto rickshaw weaving through traffic of trucks, bicycles, sacred cows and Indians oblivious to the vehicles.

3 JANUARY 2012 DISCUSSION WITH CHETAN VAIDYA



Chetan Vaidya

I arrived in Delhi and moved into the Lutyens Bungalow one of the many white painted suburban bungalows designed by Edwin Lutyens when the capital of India was moved from Calcutta to New Delhi and a new government precinct was built. I met Chetan Vaidya, Director of the National Institute of Urban Affairs (NIUA) in his office at the Habitat Centre in New Delhi. NIUA is the key national organisation related to the development and management of India's cities. This puts Chetan in an important role advising government on urban renewal programs and on slum redevelopment. Through his role Chetan knows most of the key people involved in slum renewal and he profiles best practice examples of this in various publications issued by NIUA. These include Urban Finance magazine and the Peer Exchange and Reflective Learning (PEARL) program (www.indiaurbanportal.in). Chetan works closely with the Ministry of Urban Development (MOUD) of the Government of India (GOI) and with the Jawaharlal Nehru Urban Renewal Mission (JNNURM) and the Rajiv Awas Yojana (RAY) program towards a vision of slum-free cities.

I quickly learnt that acronyms were standard references in India rather than the full names of organisations. Some people, like the head of the School of Architecture and Planning (SPA) were simply referred to by his initials of KT. The Indian bureaucracy is very complex with the GOI and the states relating also to Local Urban Bodies (LUBs) with all involved at various levels in urban development. The Indian Public Service enjoys the use of acronyms so it was useful having Chetan to help me through the endless letters.

I had worked with Chetan on the Metropolis Congress where he wrote a chapter in both the books we produced on India. I have also attended a number of conferences and workshops in India that Chetan has organised. He was also one of my referees for my Byera Hadley submission. Chetan also works closely with my mentor for the scholarship Sunil Dubey..

Chetan outlined a project that NIUA was involved in that was measuring the potential improvements from slum renewal in the areas of income, jobs and health. This study is still underway but early results seem positive. He outlined the role of the Ministry of Housing and Urban Poverty Alleviation (HUPA) and how projects are generally outsourced to ULBs.

Chetan described a project to involve women councilors from JNNURM cities to visit the cities of Pune and Pimpri Chinchwad in November 2011. Both of these cities have strong pro women policies and the delegation visited a number of housing renewal projects. Many of the NIUA projects are about capacity building. The PEARL website contains lots of interesting information related to the urban poor including a paper about the Ahmedabad Riverfront Project and how slums in the flood plain were resettled in various ways.

I had a discussion with Chetan on the role of women in Indian urbanism. He recalled that Renu Koshla, who I had met on previous trips and would again shortly, had headed up the Urban Poverty Unit in NIUA before setting up the Centre for Urban and Regional Excellence (CURE). Chetan had also previously given me the contact details of Manvita Baradi who had undertaken some interesting heritage work in Surat and was involved in slum renewal from her office in Ahmedabad.

Chetan believes that the role of women generally in urban renewal is increasing and that many of the NGOs involved in slum renewal were run by women. Chetan suggested I come to a conference in Ahmedabad in a few weeks time titled City Form that explored the renewal of Fairadabad, an area outside Delhi that I had previously visited.

MONUMENTS



Lodi Tombs

The Lutyens Bungalow, where I was staying, is very close to the beautiful Lodi Gardens with the ruins of the Lodi tombs and some ancient Mosques. I went for an evening walk (along with half of Delhi) and did some drawings of Muhomad Shah's tomb of 1440 and the Bada Gumbad Mosque of 1494. Both buildings are in crumbling stone and brick with inlays of coloured tiles.

4 JANUARY 2012 VISIT TO THE SAVDA GHEVRA SLUM RENEWAL, OUTSIDE NEW DELHI



Signage at Savada Ghevra

I had arranged with Renu Koshla to visit her on the afternoon of the 4th to discuss the work she is doing with CURE and to visit one of her projects at Savda Ghevra in the morning. I organised a car and driver and headed out from the centre of Delhi along a road dominated by a new metro railway. Somehow we managed to meet up with one of Renu's staff (mobile phones help) and we headed out to Savda. The settlement contains 10,000 families that have been relocated from central parts of New Delhi by the city

authority. Ultimately there will be 20,000 families here. CURE were brought in because the city authority had not thought through the needs of the people. The city had simply laid out a rectangular street pattern with housing lots of 12.5 square meters or 18 square meters if the relocated family had been in a slum before a certain date.



Homes in Savada Ghevra

On these tiny sites the resettled families built their house in woven matting or in brick generally rendered and painted in blues and greens. The buildings varied in height from one storey up to three depending on the money available. None of the houses have running water or inside toilets. The only toilets were group toilet blocks but it seemed that most people defecated in the open. Water arrived in a water truck once a day and a hectic process of filling up individual water containers followed.



Water delivery truck

The task of the CURE team was to improve conditions by getting residents involved in work activities (there were no local work opportunities in this remote location) or improving conditions. Here is a list of the activities:

1. Candle making
2. Recycled paper
3. Envelopes
4. Vermi composting

5. Door to door waste collection
6. Spice processing and packaging
7. Bag making
8. Paper plates
9. Screen printing
10. Water kiosks
11. Common septic tanks
12. Green walls
13. Water bulbs
14. Youth comics
15. Street designs - snakes and ladders
16. Special design of houses
17. Distribution of clean water



Women making bags



Tiny houses

The water bulb is a classic. It is a plastic drink bottle filled with fluoride water and then projected slightly through the roof. The result is an amazing amount of natural light in the dark houses during the day without the need for electricity.



Water bulb

I was shown a group of a dozen or so small houses that had been specially designed with architecture students with an efficient use of space. Outdoor terraces were designed to be filled in over time.



Houses with outdoor terraces

Savda is a struggling environment despite the incredible efforts of the CURE staff. Many of the men are still back in the centre of Delhi where work is available. CURE are continually exploring work opportunities in the area around Savda.



This green building is an entire house

4 JANUARY 2012 DISCUSSION WITH RENU KOSHLA



Renu Koshla

After visiting Savda I was dropped off at Renu Koshla's office for a discussion about the role of women in helping improve slums. Renu runs the Centre for Urban and Regional Excellence (CURE) and she believes that architects are generally trained to design big projects and not small scale micro projects. Renu herself is not an architect but she works closely with architects and planners on all her projects. She believes that good projects come from "iterative" processes. There is a mindset from government to develop formal plans for new settlements like Savda. She finds the attitudes of government officials to be patronizing to the slum dwellers. Any approach that is different is generally not supported by the officials as it might take longer.

Renu explained the design process for the new housing units at Savda where the Aga Kahn Foundation contributed funds and this led to some innovation. We discussed how

many people in India live in slums and Renu googled various sites to come up with a figure of 18-19% of India's population. This is around 250 million people. She believes that 40% of Delhi's population live in slums.

Renu's preference is to improve slums insitu rather than relocate them. She explained the inset project they are undertaking at Kachhpura village in Agra. She made some phone calls and lined up for me to visit the slum village the next afternoon in Agra.

Renu's perception was that few architects get involved in slum renewal and that schools of architecture did run some programs in this area but it was mainly the women students who got involved, In Agra CURE are looking at more slum renewal based on the network of water bodies established by the Mughals with their canals and wells. We agreed to meet at the Bhopal conference where Renu was also speaking.

5 JANUARY 2012 VISIT TO KACHHPURA VILLAGE SLUM IN AGRA

I left the Lutyens Bungalow early for the drive to Agra which takes about 4 hours. The CURE team have an office in the Municipal Corporation building which is a decaying structure with no signage. Eventually I found the CURE team in their office with maps all over the walls.



Map on the wall at CURE office

We headed off to the Kachhpura village where we were met by two young guys from the village. For the next couple of hours they showed me old wells, a mosque and gardens as well as the life of the village. Kids were everywhere along with donkeys, cows and a theatrical performance by women from the village.



Children of Kachhpura village slum

I was shown where the new toilets had been incorporated. So far 145 new toilets have been installed and the waste flows into a Decentralised Water Treatment System (DWTS) which is a series of natural filters in ponds.



Newly installed toilet

CURE has been working with students of Architecture from the London Polytechnic who come and work in the village each year. The project is a good example of Renu Koshla's incremental approach where over time even more toilets are added. It is however the connection with tourists that is most impressive. The village is directly across the river from the Taj Mahal and the aim of CURE's renewal process is to get paying tourists to see the village, watch a play, purchase some handicrafts while feeling part of the village. The funds raised are put back into repairing the paved laneways, providing more toilets and the water treatment plant.



Women relaxing in the street

CURE have grand plans to develop a citywide approach to improving Agra's slums by linking into tourists for visits and exploring the network of wells and tanks installed by the Moghuls.

The heritage walks are becoming popular with tourists and are building up from 160 visits last year into greater numbers. The traditional paintings are becoming popular tourist purchases and the street theatre carries on traditions.

6 JANUARY 2012 GWALIOR FORT



Gwalior Fort

From Agra my driver headed into the countryside where camels and peacocks would appear amongst the scrawny trees and the occasional vulture would look down on us from a branch. I arrived at a beautiful 1920's palace in Gwalior now converted into a heritage hotel with magnificent regal bedrooms and beautiful gardens. Next morning I explored the incredible Gwalior fort which dates from 1486. Apparently it dominates the town from a nearby hilltop but when I was there it was lost in thick fog. I followed local Indians to find the main palace and a beautiful mosque with many thick stone columns.

7 JANUARY 2012 BUDDHIST STUPAS AT SANCHI



Buddhist stupa at Sanchi



Buddhist stupa at Sanchi

After a long 500 kilometer car trip across central India I arrived late at night at the town of Sanchi. Sanchi is a mystical place that is one of the most sacred sites in Buddhism. It is a 2,200 year old Buddhist site with a series of stone stupas sitting on top of a hill. I was up there at dawn and the only person wandering through the grounds for a few hours. The national symbol of India comes from here, the back to back lions carved into the gateways (called Ashoka's column) to the stupas are now on the India flag. The Sanchi stupas are a very special place.



Detailed carvings

7 - 10 JANUARY 2012 BHOPAL GLOBAL STUDIO CONFERENCE



Anna Rubbo, Associate Professor of Architecture at the University of Sydney, has run Global Studios over many years involving students and academics from around the world. The Global Studio focuses on a particular city and generally looks at how to help the under privileged. The 2012 Global Studio was located in Bhopal in the middle of India with the title - "Re-Imagining Inclusive Urbanisation _ People Building Better Cities". The organisers were the University of Sydney along within the local architecture school - MANIT. Sixteen keynote lectures were scheduled by local and international architects including myself. My mentor for my research, Sunil Dubey, was one of the facilitators for the conference and he made sure I met the key people. Accommodation was in a converted palace with beautiful courtyards. Details of the conference are at www.theglobalstudio.com.

The topic on inclusive urbanization was a good fit with my research topic so I became actively engaged in discussion with a number of speakers. My presentation on "The Role of Women Architects in Driving Slum Renewal in India" was picked up by the Times of India with a page 2 article titled "Women Play Key Role in Slum Renewal". During the conference I had in depth discussions with a number of key Indian women involved in architecture and slum renewal.

8 JANUARY 2012 SHEELA PATEL, BHOPAL



Sheela Patal

One of the key speakers at the Global Studio conference was Sheela Patel the head of an NGO called SPARC - the Society for the Promotion of Area Resource Centre's - which was launched in 1984. The organisation focuses on the urban poor and has a partnership with the National Slum Dwellers Federation and with Mahila Milan - a network of poor women collectives. It has developed its own non-profit construction company and now operates in 70 Indian cities.

Sheela finds that most official solutions to slum renewal are top down approaches that ignore informality in their planning. The official, government planning system excludes 25 to 60% of the population. The slums of India need to be accepted and recognised as being part of the urban condition. Her way of operating is to set up networks with various organisations. She is suspicious of architects as she sees them wanting to design solutions rather than letting them evolve. In developing solutions SPARC get community women to develop maps of existing housing and then build life sized models of new versions of houses.

SPARC has developed new housing for slum dwellers in Yerwada in Pune. Sheela says she "loves to hate planners and architects". She can't get an engineer or an architect or a planner to design a meandering laneway, they always revert to straight lines. She finds the government systems for the poor, including RAY to be patronising. Sheela herself is not an architect yet she is designing and building thousands of houses. She referred me to Madhavi Desai, an architect in Ahmedabad who has done a study on the role of women architects in India.



Anupama Kundoo

Anupama Kundoo is an Indian architect who has worked in the UK and the USA. She has designed a number of buildings in India and is taking up an academic position at the University of Queensland in Australia. She began her presentation with a rebuttal of Sheela Patel's comments about architects and design saying there is hope in design. She went on to her talk titled "Affordable Green Building Alternatives - Solutions that don't address the bulk of India are hardly solutions." She talked about the urbanisation of India but believes that the core value of India is in the rural areas. Mahatma Gandhi she says said "India lives in her villages."

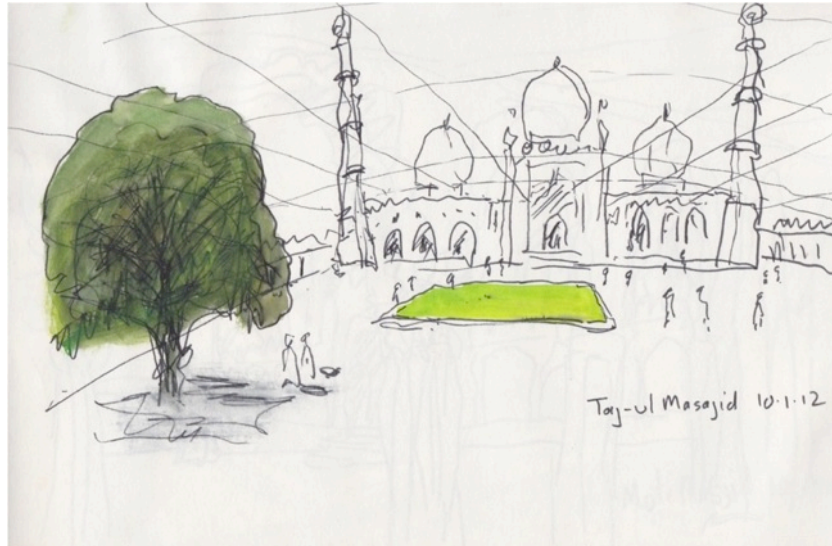
India had 20% of its population in urban areas in 1971, this grew to 28% in 2001 and is expected to reach 50% by 2025. Kundoo sees the crafts and traditions from rural Indian villages as the key to the rebuilding of poor quality slums across India. This is particularly related to the tug of war between development and the environment. She sees the future of building in India being related to new green building strategies that focus on using old materials in new ways. In this she refers to the impact of the work of Ray and Charles Eames. They said "Innovation is a last resort, why change things, when you can put energy into things that really need solving." They saw design was often treated as a style but that style and design were not the same.

Anupama went on to demonstrate her approach through a number of buildings she has designed in India using traditional materials. These included low cost housing in Auroville in 2003 made of local rammed earth walls and terracotta. Another Auroville project used a terracotta roofing system with gently curved shapes. This was also developed into a system of interlocking terracotta pots that formed centenary vaults in Pondicherry.

Ferro cement was also used along with the use of recycled materials like glass bottles. Yet another project for an orphanage was made with kiln like brick shapes with raw bricks that were then fired to make the whole structure sound. Anupama's impassioned

plea for design based on traditional materials has strong connections to the work of the Eanes and of other India women architects I was to meet later on my trip. www.anupamakundoo.com

10 JANUARY 2012 MOSQUES AND TEMPLES BHOPAL



Bhopal Mosque

I spent some time exploring Bhopal's old quarter which had a very pleasant character overlooking one of the two lakes in the city. With Sunil Dubey as my guide we explored the city in an auto rickshaw and sampled some of the local food. The most impressive building is the Taj-ul-Masjid, built by a female ruler from 1868, that turns out to be the biggest mosque in India exceeding even the Jama Masjid in Delhi. It has a massive courtyard with a fine mosque at one end and a beautiful old mango tree at the other and a washing pool in the middle. I drew a number of sketches of the mosque to capture some of its character.

In walking distance from this large mosque is another beautiful but much smaller mosque called the Moti Masjid with a pleasant courtyard and minarets built in 1860.



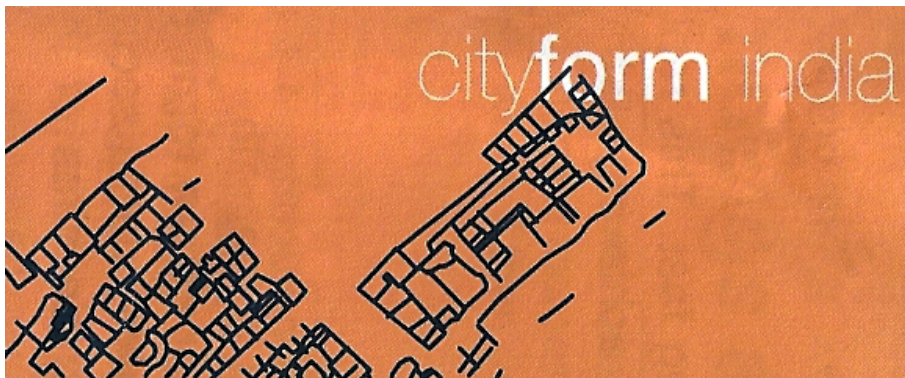
Moti Masjid

18 kilometers outside Bhopal I found a fine Shiva Temple dated from 1010 with a 2.5 meter high lingham stone as its centre piece. Hindu pilgrims were visiting the temple and priests burnt incense as visitors made offerings.



Shiva Temple

11 JANUARY 2012 AHMEDABAD CITY FORM CONFERENCE



City Form conference booklet cover

Chetan Vaidya had told me when I first arrived in Delhi about a conference organised by NIUA with the Delhi School of Architecture and Planning (SPA) and the Centre for Environment, Planning and Technology (CEPT) in Ahmedabad titled City Form - Sustainable Urban Form for Indian Cities. The conference was held in the beautiful brick and concrete buildings designed by Doshi. The audience included a number of the key people I wanted to meet in Ahmedabad.

City Form was a project that looked in detail at two Indian cities that were around 1 million people - Rajkot and Fairadabad. India has 35 cities with populations over 1 million people and this is expected to grow to 61 cities by 2026.

Rajkot is a city in Gujurat with 1.4 million people in an area of 100 square kilometres.

The city had grown by 33% over a ten year period mainly through the manufacturing sector. It was seen as an interesting city to study as it has a progressive Municipal corporation and an innovative town planning scheme. The study explored various precincts in the city and looked at street layouts and housing form. Land use and built form surveys were undertaken to gather data. From this base possible interventions were proposed to improve the character and operation of the city into a number of precincts. The studies included rainwater harvesting proposals.

A similar study was undertaken for the city of Faridabad, a city of 2 million people, located 25 kilometres south of Delhi. The city has grown through its location on the trunk road and through its industrial development. More recently it has become a real estate hot spot. Detailed studies were presented of a number of precincts ranging from the old heritage centre, to newer industrial lands to middle class precincts. The studies presented solutions at various densities and ways to improve conditions.

The conference included much discussion about the role of planning and architecture and about how slum dwellings could be improved over time. It was good to see that the students involved in the projects were exploring these issues.

12 JANUARY 2012 MANVITA BARADI AHMEDABAD



Manvita Baradi

Manvita Baradi is the Director of the Urban Management Centre (UMC) and an architect. She has produced a magnificent book on the heritage of Surat based on a project UMC undertook there. She describes how she organised local people to undertake surveys of the old buildings of Surat and the city across the River Tapi called Rander.

Interestingly it was a woman Commissioner for Surat who saw the need to record and protect the cities heritage. Manvita and her Associate Director, Meghna Malhotra, have become very interested in mapping and the use of GIS to record information on cities. From this background the City of Surat now has a very comprehensive record of its heritage buildings.

I discussed with Manvita the role of women in city planning and architecture. She believes that the area is very male dominated in India and that if there had been more

women planners in government then the development of India's cities would have been very different. She also believes that women are not consulted on behalf of communities as much as men, women often do not go to public meetings. The UMC has been commissioned to prepare a slum policy for the State of Gujarat. This is looking at the issue of :

TENURE for slum dwellers,

HEALTH particularly related to water and sanitation.

SOCIAL SECURITY by providing a safety net and looking at cross subsidy programs.

There are two distinct approaches to slum renewal, insitu upgrades and redevelopment on new land. The Bill Gates grant has helped a number of projects with sanitation.

The UMC is involved in the training of city managers on ways to help the urban poor. Her team is also looking at 7 small towns in Madhya Pradesh ranging in population from 7,000 people to 25,000 people and preparing City Development Plans (CDP) for these towns. One has a strong heritage layer and UMC are using their expertise to plan for the future. Manvita is also the conveyor for the State of Gujarat of the Indian National Trust for Art and Cultural Heritage (INTACH) so she is networking across the heritage community. She is finding a major lack of current maps of urban areas. One of the 7 towns she is studying could only produce a battered 1835 map of the town.

Another project the UMC is involved in is a village outside Mumbai with 11 temples all in the main street. Her plan is to carefully protect the temples in the face of growing tourism.

12 JANUARY 2012 NATIONAL INSTITUTE OF DESIGN, AHMEDABAD and the work of CHARLES and RAY EAMES



National Institute of Design exhibition from 1958

A very strong focus to Indian design was given by the work of Charles and Ray Eames in nurturing the traditional crafts and textiles of the country. In 1957 Jawaharlal Nehru expressed concern about the impact of western design and technology on Indian culture.

Charles and Ray Eames were invited to India to evaluate the problem. They journeyed throughout the country taking hundreds of photographs of the craft and the local textiles. In April 1958 they produced "The India Report" which recommended setting up a special National Institute of Design. I visited the NID and found an exhibition of modern furniture that the Eames' had brought to India in the late 1950's was still on display. In the library I tracked down the original Eames report which is quite short (15 pages) but very carefully worded in its praise of the traditions of India and the way design had evolved through centuries of practice.

The report described the simple bronze water jug, the lota, as a perfect example of a beautiful design that had evolved through centuries of use.



Bronze water jug

The India Report recommended the establishment of a National Institute of Design to range across many disciplines. The Eames however saw that architects were best placed to lead in the use of traditional design skills but they needed to discard much of their training.

It is clear that the Eames have had a lasting impact on Indian design. Architects like Anupama Kundoo refer to the work of the Eames and many Ahmedabad architects are committed to traditional crafts including Parul Zaverhi and Nimish Patel.

13 JANUARY 2012 OLD AHMEDABAD

A lot of old Ahmedabad still exists with a number of the ancient gateways from the old wall still existing. The old city had a structure of laneways called pols that originally housed people with similar trades and crafts. Travelling through to old city is by foot or in one of the multitude of auto rickshaws.



Auto rickshaws



Auto rickshaws

There are a number of impressive old mosques including the Jumma Masjid of 1453 with its 260 pillar hall and the Sidi Saligad Mosque from the same period with its carved stone windows in the form of a tree of life.



Jumma Masjid

The city of Ahmedabad has a rich design history coming from its days as the centre of

the textile and fabric trade. Wealthy families like the Sarabhai's brought Le Corbusier to design the Mill Owners building and the cities museum. The Calico Museum now has the Sarabhai collection of fabrics which are well worth seeing.

13 JANUARY 2012 MEGHAL ARYA AHMEDABAD

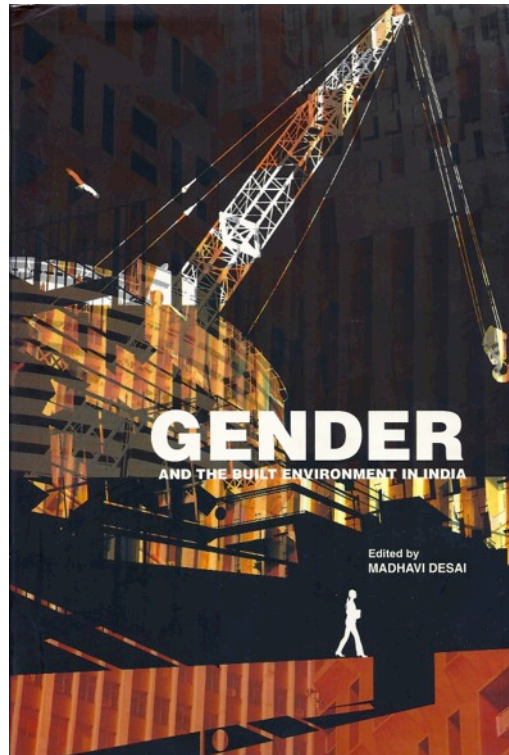


Meghal Arya

Meghal Arya is an architect working in a practice in Ahmedabad with her husband. She also teaches at CEPT. Meghal was a speaker at the Bhopal conference and we sat next to each other on the flight from Bhopal to Ahmedabad and discussed the role of women architects in India. She thought women had a more difficult career path than men in architecture. Her mother is also an architect and she has specialised in heritage research. I was shown some beautiful studies that Meghal and her mother had prepared on heritage precincts. Her own projects are very sensitively designed buildings with a strong relationship with landscape. We also discussed the design approach of students and what appears to be a move away from organic layouts to more geometric layouts.

Arya Architects (www.aryaarchitects.com) talk about the importance of the public realm being inclusive and for their architecture to be inclusive and to give dignity to common people. They see architecture not as formal construction but as the creation of places.

13 JANUARY 2012 MADHAVI DESAI AHMEDABAD



Madhavi Desai's book cover

A number of people in India had stressed the importance of meeting Madhavi Desai particularly as she has written a book on the role of women architects in India titled "Gender and the Built Environment in India".



Madhavi Desai

Madhavi with like minded women architects in India formed an informal network called the Women Architects Forum in 1991. A national symposium was held in Ahmedabad in

2002 and many of the essays in the book come from that symposium. I met Madhavi at her office in Ahmedabad which she shares with her architect husband Miki. They have jointly written many books on architecture. Madhavi is currently working on another book on women architects in India. This is about women producing mainstream architecture and our discussions raised the issues of the role of women architects in the informal sector. I explained the work of Pratima Joshi and some months later I received an email from Madhavi saying she had been to Pune and met up with Pratima.

Madhavi teaches architecture and is concerned that while at least 50% of students are women very few end up in senior roles in practice. She sees that parents are encouraging their children, particularly women, to get involved in the professions. India is a very male dominated society so women need support to succeed in architecture and to have a strong commitment. She spoke about the strong role of Gita Sarabhai in Ahmedabad as an example of a woman driving issues.

Many women end up working in particular areas related to architecture including heritage and conservation. Indian graduate architects she believes are still very driven by the image of the star architect rather than the that of the community worker. In her book Madhavi explains the traditions of religion that separate men and women in mosques and temples. Even in dress there are different approaches including the wearing of the 'purdah' by Muslim women. These cultural backgrounds have an important impact on the role of women architects in India.

The role of women in India is changing and the professions of medicine, nursing and teaching have become much more available to women. Madhavi traces the traditional role of women in Indian society as being placed firmly in the house - a girl belongs to the father until she is married and then to the husband. In India property and inheritance laws are male oriented.

At the scale of the city Madhavi sees the traditional inner cities as being based on the social divisions of well defined communities and casts which make women feel more comfortable due to a more human scale and familiarity with the surroundings. It is the collective living that provides a social support network. She sees modern architects and planners as not responding to the more organic urban structures that women feel comfortable with:

"It is my hypothesis that the overwhelming domination of modernist principles (that are being followed by many architects and planners even today) with their emphasis on universality and geometry and their negation of the role of culture, may in fact, have had the opposite impact."

A further issue is the "near total absence of public toilets for women in all Indian cities." Men can urinate anywhere but there is nowhere that is psychologically comfortable for women. Madhavi sees that in India planning is in the hands of government bureaucracies dominated by men. Women are generally employed as clerks only.



Parul Zaverhi

I was staying at the home of architects Parul Zaverhi and Nimish Patel. I have known them for many years since Nimish was a presenter at a masters course I undertook at the University of Technology Sydney. They designed their own home with natural ventilation chimneys and filled with Indian craft including beautiful bronze lotus or water carriers that Ray and Charles Eames were so taken by. Their practice, Abhikram, has designed many buildings with a special focus on the use of traditional crafts.

Parul has a Diploma of Architecture from CEPT in 1978 and was a student at MIT during this course. She is currently enrolled in a Doctoral program studying "The role and potential of heritage as one of the tools for economic development of rural areas of Gujarat." With her interest in heritage Parul has undertaken research in Jaipur and Amber on heritage sensitive development and from this work the famous writers festival of Jaipur has evolved.

Parul's most ambitious project is the Oberoi Udaivitas Hotel in Udaipur, Here she and Nimish set out to bridge the gap between traditions and modernity, architecture and craft, traditional and contemporary technologies, collective aspirations and the final creation. The head of Oberoi, Mr PRS Oberoi gave them the brief..."Two years after the resort opens, the guests should ask which century was the palace built in." The construction of the hotel employed 300 crafts people for 3 years and has received rave reviews from travel writers.

The Oberoi clearly demonstrates Parul's approach to architecture. She describes it as "It is the anonymous architects that are the strength of India." Parul uses the term 'genetically inherited skills' to refer to the traditional craftspeople who have learnt their skills from their forebears. She sees it as essential to continue this tradition by using these skills in current buildings.

Parul is concerned that there is a lack of interest by modern architects in the use of traditional materials and technologies and that that this is impacting on the family based skill development. She also sees current architects as being more interested projecting their own personality rather than the purpose of the building. They are often only interested in larger projects and can develop a self-righteous attitude.

Parul calls for the use of stone, mud brick and the use of lime based technologies rather than cement. Parul has been invited to Women in Architecture events in Australia and America. She believes more needs to be done to get more women into architecture in India. In Ahmedabad Parul developed a friendship with Malika Sarabai who championed the use of local materials. Parul sees that buildings and architecture cannot ever be the vision of a single role player and that the architect's principle role is that of a problem solver.

16 JANUARY 2012 PRATIMA JOSHI PUNE AND SANGLI

The key architect I was interested in for my research was Pratima Joshi who I had briefly visited before. She had been recommended to me by Vandana Chavan, a former Mayor of Pune who had come to the Metropolis Congress in Sydney in 2008. Pratima has been working on slum renewal projects in Pune and had developed a city wide approach for slum renewal in the city of Sangli to the south of Pune. Every Monday evening she has a meeting with the commissioner of the Sangli Municipal Corporation to help sort out problems within her project. So Pratima took me with her on her Monday trip to Sangli.

She collected me from my Pune hotel early in the morning with her driver and a young English staff member for the 5 hour drive south. This gave me lots of time to talk to Pratima about her work. It seems that the Sangli project has had a difficult history with support coming and going over time. It was only when the Chief Commissioner of the State of Maharashtra intervened that the project became real. One of the conditions was that a meeting be held every Monday evening where Pratima could bring up any issues related to the slum renewal projects.

It is clear that the Indian bureaucracy is a complex and slow organisation in relation to developing new practices. Pratima has developed her role as an architect to be an advocate, a champion, an activist and whatever it takes to make projects happen. She established SHELTER ASSOCIATES (www.shelter-associates.org) in 1993 after completing a masters degree in the United Kingdom that inspired her to work with communities. She now has an office of a dozen or so people in Pune and 6 or so in Sangli. The staff are architects, students, social workers and some women making fabric bags for sale.

I spent 4 days with Pratima and she is a real role model for someone driving change for the urban poor in India. Some of her staff are international students gaining work experience. An English architect, Ross Plaster, was working in the office when I visited and he played a key role.



Pratima Joshi (centre) and slum residence

As our vehicle approached the outskirts of Sangli we stopped at an existing slum where Shelter Associates had added a toilet block some years ago. The separate male and female toilets were connected to a bio fuel system that converted the waste into fuel for cooking by the woman who maintains the toilets.

I walked through the slum and look inside the tiny, but very clean, houses. Animals are everywhere, buffalo, goats and chickens. One of the slum dwellers, Sangeta Chougule, showed me through her house with a rose bush growing next to the front door.



Sangeta Chougule and her rose bush



Sangeta Chougule in her kitchen

Sangeta it turns out now works for Shelter and when we arrived at the Sangli office Sangeta got underway on her computer to show me the GIS maps of the city with the existing slum layouts overlaid.



Sangeta Chougale shows GIS maps of the slums



Sangeta Chougale's computer screen

She shows me how we can click onto her slum area and then onto her home and then get data on who lives there, their skills and where they work if anywhere.

We can zoom into any slum in the city see who lives in each shack. We can then see what is proposed either for renewal insitu or on a relocation site nearby. Pratima takes us to a construction site where new homes are being built in clusters of 8 around a common courtyard. Each house is 25 square meters with a small kitchen, toilet and wash area. The units are carefully designed to encourage a balance between privacy and communal living. In India living is very communal and people seem to happily wander into anyone's house.

The site we visited was being constructed of 4 storey buildings around the courtyards. Pratima was the centre of attention on the site as foremen and labourers were keen to get her comments on their workmanship. The site had originally been covered in slum dwelling which had been temporarily relocated to a transit camp a few kilometres away. When the construction is finished they will return to the site but with new homes with toilets and kitchens as well as water, sewerage and electricity.



Pratima Joshi on the construction site

We visited the transit camp where many people were keen to talk to Pratima. They recalled training sessions she and her staff had given before the relocation. The residents certainly seemed happy in their temporary shelters which were made of the materials from the original site. A block of temporary toilets was also provided at the transit camp.



Residence of transit camp talking to Pratima Joshi

In the evening I attended the meeting with the Sangli Municipal Corporation where Pratima and some of the slum dwellers were demanding action on the resolution of a disputed dimension for a slum renewal project. It seems the original surveyors were chased away by the slum dwellers and the corporation does not want to pay again to get new surveyors in so the project has stopped. It is resolving issues like this that an architect driving slum renewal needs to be good at. In these disputes Pratima becomes "Madam" and takes a very strong position on behalf of the slum dwellers.



Meeting at Sangli Municipal Corporation

Back at the Sangli office of Shelter Associates I met the staff, mainly women, including a woman architecture student from Spain, and they explain how the office works. They show me on a terrace the layout of a typical house and where the various rooms are. They also show me how local women make money by sari cloth into bags for sale.



Women standing on a typical house layout

17 JANUARY 2012 GANESHA TEMPLE SANGLI



Ganesha Temple, Sangli

In the early morning mist I visit the old Ganesha Temple in Sangli. There are 5 different temples in the complex with dozens of devotees moving from one to the other where priests would ring bells and the crowd would chant and turn around in circles. After doing this in one temple the crowd would walk through the palm trees to the next temple and repeat the performance. I drew the scene in my sketch book.

17 JANUARY 2012 PRATIMA JOSHI KOLHAPUR

Shelter associates had been invited to present to the city officials in the nearby city of Kolhapur their approach to city wide slum management. The Commissioner in this city is a woman and she had previously expressed interest in Pratima's approach. The presentation was mainly given by two women from the Sangli slums - Sangeta Chougule and Noorjehan Kaladgi. Noorjehan is a Muslim woman who had a very sheltered life but was now becoming a great advocate for change. The Kolhapur officials were shown the layers of data and the city wide program of renewal being used in Sangli and seemed to be impressed.

18 JANUARY 2012 PRATIMA JOSHI PUNE PROJECTS



Newspaper article about the Shelter Associates

Back in the Shelter Associates offices in Pune I met with the team working on their projects. This enabled me to understand how the projects are managed. In one room a number of women were working away producing bags from traditional Indian material for sale.

I was taken to a renewal project at Bibewadi where Shelter have been installing toilets and connecting these to the sewer in an existing slum area. This process began by making a very narrow laneway only one meter wide at the back of housing lots and then running the sewer lines along this gap. New toilets were then inserted into the houses after each household contributed 2,500 Rs (Aus\$50). The remaining costs have been contributed by Shelter Associates from various funding sources including international sponsorship. The program also led to better ways to manage garbage and waste and to the upgrading of the paving in the pedestrian streets.



Toilet installed by Shelter

It is bottom up projects like the Bibewadi toilets that have led to articles in the Indian press about the good work Pratima is doing. On her notice board are many media clippings including one titled "Toilet Madam to the Rescue".



Newspaper article about Pratima Joshi and her work

Pratima has also been acknowledged through a number of awards including being an Ashoka Innovator and a Google Earth Hero for her work using technology to improve the conditions in Indian slums. She has also established an organisation called Baandhani - a self-help network of slum dwellers, mainly women, which helps realise new developments.



Bibewadi slum

In the afternoon I visited another resettlement at Hadapsar where families have been relocated from a slum in the flood zone on the banks of Pune's Masin river.



Courtyard at Hadapsar resettlement

The new houses are in rendered and painted 4 storey buildings with individual homes planned around a common courtyard. A clever use of the section led to some higher ceilings with mezzanines for sleeping. Even on the third floor I found a goat munching away outside someone's front door.



Goat on third floor

Each house owner took great pride in showing me inside their tiny unit. There was a strong sense of community at this development with children playing in the common spaces.



Children playing at Hadapsar

18 JANUARY 2012 VANDANAH CHAVAN PUNE

The previous mayor of Pune, Vandana Chavan, who I had met on earlier visits to Pune, invited me to a special lunch at a Sikh friends house.



Mayor of Pune with Chris Johnson

Vandana is now the President of the Pune Nationalistic Congress Party which is in power in Pune. Over lunch with only 4 people including the current Mayor of Pune we

discussed the role of women in politics in India.



Chris Johnson with Vandana Chavan

The city of Pune requires 50% of selected members to be women and a gender report is produced annually. Vandana is a strong champion of the role of women and a supporter of people like Pratima Joshi and the work she is doing to improve the conditions of the cities slums.

The 74th amendment to the Indian Constitution requires 33% of elected representatives to be women but Pune has moved to 50%. In corporations Vandana believes that only 10% of executives are women but in schools this is up to 80%. In Pune the City Commissioner is a woman.

19 JANUARY 2012 SHOBHA BHOPATKAR PUNE



Shobha Bhopatkar

Vandana Chavan had recommended I speak to Shobha who is a landscape architect working on projects throughout India. Her office was close to my hotel. She has worked on some large projects including Charles Correa's TATA technology project and a red stone building by Mario Botta in Hyderabad. Shobha's landscape designs are very beautiful and offset the strength of the architectural projects. She believes that many Indian girls do not want to go on site if they become an architect and that this is limiting the number of women architects.

19 JANUARY 2012 SNEHA LOHOTEHAR PUNE



Sneha Lohotekar

Sneha is a recent graduate in architecture from Pune who is now working for Shelter Associates. I had a good talk to her about the role of women architects and particularly the aspirations of recent graduates. Sneha had met Pratima when Pratima was running a slum renewal project at university. She was the only graduate however to move into this field of work. Most graduates were looking for big project opportunities.

Sixty percent of graduates from her year got jobs from campus interviews where large architectural firms visit and interview students for jobs. Even the female graduates were looking for secure jobs related to star architecture. Sneha was one of the top graduates and sees the importance of the city as a structure rather than individual buildings. She spent some time at the Auroville Training Institute exploring the use of rammed earth blocks and the use of natural materials (Anupama Kundoo also spent some time here). Sneha is also undertaking a Master of Urban Design at CEPT in Ahmedabad.

I suspect that India needs far more graduate architects who can contribute to the vital task of slum renewal and city building. It seems that the training however tends to encourage graduates into quite different directions.

20 JANUARY 2012 MARTINA SPIES MUMBAI



Martina Spies

Madhavi Desai in Ahmedabad had suggested that I should meet with Martina Spies, an Austrian architect working on slum renewal in Mumbai. I met Martina in a Mumbai suburb not far from the Dharavi slum she is studying. She has spent significant time in India and studied with Laurie Baker in Kerala. She is now undertaking a PhD on the large Mumbai slum of Dhasravi by looking at four distinct communities to observe their conditions and then develop tools for improving their conditions. The groups are the washing families, recyclers, padad makers and the broom makers.

Martina is looking at the architectural, sociological and urban mythology behind these groups and then intends developing design tools to improve their conditions. She told me that there was a strong lobby to demolish the slums to allow a new high rise development that included the relocated slum dwellers and new housing for others. It seems that the Union of Slum Dwellers has stopped this along with the changed economic conditions following the Global Financial Crisis. Her approach is to work incrementally, bottom up, with communities to develop renewal. This can mean developing sheltered work spaces so that activities can continue in the wet monsoon season.

The current toilet ratio in Dharavi is 1 toilet for 200 people. Women prefer a toilet in the house but men are happy to go to a common toilet. We talked about the aspirations of architectural graduates in India and Martina believes that the many prefer to work in America or Europe on large projects. They represent the new India of global aspirations and slum renewal is not on their agenda.

21 JANUARY 2012 TEMPLES OF MUMBAI



Cave temple, Elephant Island

Mumbai has many temples including the cave temples of Elephant Island from 600 AD that have wonderful carvings within the mountain side. On the mainland the Babulnath Temple is approached along a winding path past small temples and then up steps to eventually arrive at the temple itself. It has an important Shiva lingham and a Ganesha statue. When I visited it was filled with devotees chanting with bells ringing.



Ganesha statue at Babulnath temple

Another very popular temple is the Mahalaxmi Temple dedicated to the god of wealth. Here I found amongst the massive crowds an example of India's tensions between traditions and modernity, between the past and the future. An orange clad holy man clad in flowing saffron robes was perched on the back of a modern motorcycle. Amongst the chaos of devotees lining up to visit the god of wealth this glimpse somehow represented India's contradictions.



Holy man on a motorcycle

22 JANUARY 2012 NEERA ADARKAR MUMBAI

Neera Adarkar has written a chapter in Madhavi desai's book on gender and Mahadavi suggested we should meet. We did this in the relaxed gardens of the Taj Mahal Hotel next to the Gateway of India in Mumbai.



Neera Adarkar

Neera is an architect who teaches at the Academy of Architecture and practices mainly in the area of conservation work. She explained how the first school of architecture started in Bombay in 1922 but this was to develop a drafting service for the colonial British architects. The focus was on technical skills and up to the 1970s the Architect's License was called the Surveyor's License. The main area of study was on the knowledge of building regulations set by the Municipal Authority.

It is through this background that that architects and engineers within government are still very rule driven and concerned with formal processes. The main jobs for these people was often the Public Works Department and this led to a bureaucracy controlled by rules that still exists to some extent today. Neera has written about feminism and she believes that most architectural courses in India produce graduates that are focused on commercial success rather than working with informal communities. Many Indians have an image of slums as dirty places and not somewhere to practice architecture. Neera believes that men tend to see the house as a tradeable commodity that can be cashed in one day to move to something better.

Women however see the house as a sub system related to cooking, sleeping and the patterns of life. Within the professions in India the lawyers were the first to become more feminist to help with dowry negotiations. This was followed by the health carers and it has taken some time for architects to take up feminist viewpoints. Neera believes this is the next challenge, to get more women involved in architecture and city planning so that the built environment becomes more human and comfortable for all.

THE THEMES

Through my travels across India and my many meetings with architects, feminists, social workers and others a number of themes developed relative to my research topic about the role of women architects driving slum renewal in India.

SLUM RENEWAL

Clearly the major theme of my research has been slum renewal and the role of architects and others in improving conditions. In India slums are an enormous urban problem with figures of up to 20% of the population living in slums. This means hundreds of millions of the 1.2 billion people in India are living in substandard accommodation. Even the average Gross Domestic Product of India is low at \$3,400 per person. The large cities of Mumbai, Delhi and Kolkata (all over 15 million people) have high rates of slum dwellers as there has been a general migration from rural areas to the cities.

Currently, however, only 28% of the Indian population live in cities but this is growing fast and is likely to exceed 50% within 20 years. To redress the issue of the growing number of slum dwellers in India must be one of the world's most pressing problems. If we can't improve the conditions of the current slum dwellers then this can only get worse in the years ahead.

While the topic I have studied is that of slum renewal in India clearly there are parallels across many countries in the world and even in Australia to some extent. India is aware of the need to improve conditions of its slum dwellers and has an objective to eradicate poverty in line with the Millennium Development Goals (MDG) . The United Nations MDG aims to halve the proportion of people living in extreme poverty by 2015. This seems impossible in the Indian context but I did find some positive actions from the top level of government down to NGOs.

The problem in India is that government, at all of its levels, is very rigid and slow to change. Despite special programs to lift the number of women elected to government, the national programs for urban renewal and for poverty alleviation progress is slow. There seems to be two approaches to slum renewal - one is a top down process to demolish slums and rebuild in high rise driven by Slum Renewal Authorities driven by an engineering approach. The other approach is a bottom up process where community workers and architects work with slum dwellers to lift their aspirations and physical conditions by renewing insitu or nearby in a much more inclusive manner. It was this second approach that my research explored and the approach that, in my opinion, is more likely to deliver positive results

GENDER

In a previous book on India titled "Managing Urban Growth" I had profiled a dozen or so champions of urbanism. There were individuals driving new approaches to city development from new satellite cities to new urban precincts to slum renewal. Three of

the champions were women focused on the urban poor and particularly slum renewal. These were Renu Koshla, Pratima Joshi and to a lesser extent Manvita Baradi and it seemed to me that these three women were taking a very different approach to design than the men I profiled. This led me to explore the issue of gender and the role of women in driving slum renewal. Most of the people I interviewed were women and I became involved in many discussions about the role of women in India. Madhavi Desai has written a book about this very topic "Gender and the Built Environment in India."

Religion is very strong in India where both Muslim and Hindu women are often treated differently to men particularly in worshipping. The civil service in India is very dominated by men particularly in more senior positions. But India has also had women reach the highest positions. Indira Gahandi was Prime Minister, a number of current political leaders are women, there are important women writers in India and even some notable women architects. It was the role of women architects, planners and organisers of slum renewal that I was interested in. The ones I met were strong committed women focused on incremental change rather than grand architectural statements. It seemed that this an ideal approach to renewing and improving the slum settlements.

It also became apparent that the women were the custodians of the physical environment in the slums as the men were often looking for work. This has led to groups of women becoming the builders of new housing and leading a renewal process. The difficulty occurs when women need to work with the Indian bureaucracy through the Municipal Corporations. The civil service in India is still very old school and likes authority so women architects have quite a battle getting things done.

CRAFT

A sub theme emerged during my travels and discussions about the traditional crafts and skills across India. The more inclusive approach to architecture supported the use of traditional materials and the skills built up over generations. Many of the traditional materials are more environmentally appropriate than newer materials. The use of mud, clay and lime have less impact on the environment than concrete and steel and they also blend more comfortably into the landscape.

Added to the use of traditional materials was the use of fabric, carving and traditional paintings on buildings. Architects like Parul Zaverhi has walls in her office with beautiful paintings by local artists continuing traditions. Even in the slums there were examples of traditional decorations and paintings on buildings. Charles and Ray Eames clearly championed this approach to design and the National Institute of Design continues this theme.

A number of people I spoke to were concerned that trends in Indian architecture towards a more international style with mirror glass and aluminum cladding while representing the future was not helping India's rich craft heritage.

ORGANIC vs FORMAL LAYOUTS

I found the slums despite all their poverty at least had an organic human feel to their layout. Much of this probably comes from the villages of India that evolved before the motor car and before the British engineers arrived. Unfortunately the civil service,

engineering approach to planning that comes from a government perspective is much more organised and formal. Most layouts for renewal projects are very rigid lines of buildings along straight roads. Even architects working within the slum dwellers have developed fairly formal layouts. This may be driven by the pragmatics of getting approvals from engineering departments or it may be to represent a bit more order over the chaos of the slums.

Most of the women architects I spoke to agreed in principle that a more organic layout was better even if they ended up producing more formal layouts. It would be good to see some more organic layouts evolving with traditional village squares even in a more urban context. Our current computer planning systems make it fairly easy to develop more organic layouts possibly with the input of the house owners.

HERITAGE

While heritage cannot be applied to the shacks and shanties of the slum settlements of India I did find that many women architects had become involved in heritage conservation. This may be a reaction against the modernism of current architecture and the interest in traditional crafts. Architects like Manvita Baradi have developed a sensitive approach to heritage management and assessment in Indian Cities. Heritage also reinforces a more anonymous and inclusive approach that relates to the skills of many slum renewal architects. There is also the heritage perspective of seeing the old as part of the social evolution of a town.

BOTTOM UP vs TOP DOWN

The approach of most of the architects I met was a bottom up, incremental, step by step process working with slum dwellers to improve their physical environment and their social circumstances. These roles are more those of a social worker than an architect in the traditional sense. This leads to continual battles with the establishment where a very formal civil service is less supportive of these more inclusive approaches.

The top down approach I had seen when I had interviewed a senior officer in the Maharashtra State Government who was driving renewal of the dharavi slum in Mumbai. His approach was to get large developers to buy up large areas of the slums and build new high-rise apartment buildings with some for the slum dwellers and some for sale to pay for the renewal. While the intent was to help the slum dwellers the approach would change completely the networks of social interaction and the access to work that has evolved in the informal slum developments.

Ultimately I believe the bottom up process is better but this needs the support of the system at the top. The layers of government need to support the renewal of India's slums even if it appears to be breaking some long held planning rules. Without this the urban poor's problems will get worse not better.

CITY PLANNING vs ARCHITECTURE

The slum problem is so big in India that it needs to be managed as part of the planning for the whole city. Pratima Joshi makes this point with her work at Sangli. Indian cities are required to produce plans that handle future growth but they must also handle the

improvement of the slums.

In New Delhi the authorities have moved over 10,000 slum dwellers from the centre to new sites way out on the outskirts of the city far from work opportunities. This is clearly not good city planning. The architects I met who were involved in slum renewal seemed to take a city wide, systems approach. Many architects, of course, design one off individual buildings which are useful as stand alone objects but do not solve the future form of the city.

INSITU vs NEW SITE

There seemed to be quite a debate about improving slums through insitu refinement or through relocation to a new site. The difficulty of insitu improvement is that the residents are still there and the materials and construction may be of a low quality. The Sangli example where a slum community was temporarily relocated to a transit camp and then returned to new buildings on their own site seems like a good compromise.

Insitu improvements like new toilets can certainly lift standards if the existing buildings are of sufficient construction quality. Ultimately both insitu and new site development will occur to suit the circumstances. Some existing slums are in flood zones or land with environmental problems in which case relocation to new sites is preferable.

ARCHITECTURAL EDUCATION

A sub theme evolved of architectural education in India and the degree to which students were encouraged to help with slum renewal. Many people I spoke to seemed to think the architectural education system drives students towards an international style for mega buildings. Clearly different streams are required in universities so that architects and planners are produced for a variety of circumstances. With the enormous problems facing India with slum renewal it would seem important to encourage graduates into these areas. Chetan Vaidya has now left the National Institute of Urban Affairs to become the Head of the Delhi School of Planning and Architecture and he can take a lead role in training future professionals.

TECHNOLOGY - GIS MAPPING

A sub theme with many of the architects working in slum renewal was the use of GIS mapping and the development of data bases of information. Pratima Joshi explains that this is one way that a bottom up approach can have influence by then presenting this data to justify their plans. It was for using this approach that Pratima was made a Google Earth Hero. Manvita Baradi in a similar way has developed mapping techniques for heritage assessment and city planning.

WAYS FORWARD IN INDIA

1. DATA COLLECTION

The use of GIS and computer systems needs to be encouraged and promoted across India's urban areas.

2. TRAINING OF ARCHITECTS

University courses need to promote the more inclusive approach to the practice of architecture particularly in relation to slum renewal.

3. WOMEN ARCHITECTS

Greater promotion of the role of current women architect role models will help encourage more women to undertake these roles.

4. URBAN PLANNING

Slum renewal on a city wide basis needs to be part of development plans being prepared for the growth of cities.

5. TRADITIONAL CRAFTS

Traditional crafts need to be encouraged and used in many buildings across India so that these skills continue.

6. SLUM RENEWAL ARCHITECTS

The role of architects and others driving slum renewal needs to be promoted and supported by the Government of India.

7. MUNICIPAL CORPORATION STAFF

The senior staff including engineers and surveyors in Municipal Corporations need to be trained to be supportive of more alternative, inclusive approaches to slum renewal.

8. PROMOTION OF AN INCLUSIVE APPROACH

More publications and publicity is required to promote the excellent work being done in slum renewal in India. Aid programs need help multiply the few examples so they spread across urban areas.

9. HERITAGE

A special focus is needed on heritage architecture to fully record the next layer below the national monuments of heritage buildings and precincts in the old quarters of cities and the development of ways to retain and conserve them.

IMPLICATIONS FOR AUSTRALIA

1. ROLE OF ARCHITECTS

Australia like India still champions the star, award winning architect over the more socially conscious networking approach within the community. There are a number of Australian groups like Emergency Architects Australia and Architects Without Frontiers as well as groups like Global Studio and Health Habitat and these need to be supported. The registration of architects could give a positive weighting to graduates with this experience.

2. ROLE OF WOMEN ARCHITECTS

Just as in India women architects are less involved at the top level of practice in Australia although this is changing. A recent web site has been established in Australia to connect women architects. A number of women architects have become President of the Australian Institute of Architects (the current president is Shelly Penn) and Louise Cox became President of the International Union of Architects. There is however much more that can be done to get even more women architects driving change in Australia.

3. HOUSING FOR THE POOR

While Australia does not have the hundreds of millions of people living in poverty that India has there are however many people living in difficult circumstances. Architects can help through designs with the Departments of Housing for subsidised housing, helping design projects for the homeless and contributing to the affordability of housing generally. Paul Pholeros of Health Habitat is a good example of an Australian architect helping disadvantaged aboriginal communities. Hassell have designed the Common Ground project for the Homeless and Tone Wheeler has designed similar facilities.

4. CITY WIDE PLANNING

Architects and urban designers need to be more involved in city wide planning. They need to influence where new housing is built and how it relates to transport and work. The growing discipline of urban design needs to be recognised in the registration requirements for architects.

5. AUSTRALIAN PRACTICE IN INDIA

Australia is well located to provide architectural and planning services to India. With the growing number of people in urban India there is going to be a great need for planning, urban design and slum renewal skills. India will need far more professionals and Australians can work with local teams. Australian architectural firms need to develop strategies for the growing India market and to do this in a manner that helps with the renewal of slums as well as contributing to new buildings generally.

APPENDIX

1. MEDIA COVERAGE AND FURTHER PUBLICATIONS

- Times of India January 10, 2012 Page 2 "Women play key role in slum renewal"



- Letter to Editor, Sydney Morning Herald, October 30, 2012.

"The major focus of the Australia in the Asian Century report profiled in the Sydney Morning Herald (29 October) seems to be on the potential for Australia to gain from the rising middle class in the region. The other side of Asia's urban growth however is increasing poverty and slum settlements. I recently visited many slums in India through a scholarship from the Architects Registration Board and there is a great need for renewal programs to improve slum conditions. Hundreds of millions of Indians live in slums and this will increase dramatically over the next few decades unless there is a focus by all of us for change.

India has only 28% of its population living in cities and this is likely to grow to 50% over coming decades. Many of those migrating to the cities however are the poor who will end up in slums. There are many people, including architects, helping lift the quality of housing for the poor in India and doing this on a citywide basis. Australia needs to balance the upside of Asia's growing affluence and the potential to use this as a business opportunity with a responsibility to help improve the lot of the poor and particularly their living conditions. We need to give as well as take."

*Chris Johnson
Newtown*

- Radio National ABC February 29, 2012 Interview on Indian slum Renewal with

CJ and with Pratima Joshi 20 minutes.

- Chapter in book to be published on the Global Studio Conference in Bhopal.

2. BLOG OF THE INDIA TRIP (www.indianslumresearch.blogspot.com.au)

3. PAPER PRESENTED AT THE BHOPAL CONFERENCE TITLED “THE ROLE OF WOMEN ARCHITECTS IN INDIAN SLUM RENEWAL”.

PRESENTATION BY CHRIS JOHNSON, BHOPAL CONFERENCE, 2012.

Chris Johnson B.Arch (USyd), M.Built.Env (UTS), M.Arch (UNSW), M.Cult.Herit (Deakin),
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ABSTRACT

Indian Cities are expected to grow by over 10 million people a year over the next 20 years. Urban planning will need to provide for this growth but the Indian cities have another problem to also solve. This is the issue of urban slums with some cities having up to 40% of their population classified as urban poor. Without a well thought out strategy for the renewal of these slum areas the cities will not become sustainable with the new populations only compounding the existing problems. An interesting initiative towards slum renewal is emerging in a number of cities where women architects and planners are creatively working with the communities in slums to develop renewal projects.

This paper will look at a number of these inspirational women and develop their role as case studies that others could learn from. Importantly the architects see the need to integrate renewal strategies into city planning processes to ensure that there is a long term supply of suitable land for renewal and that job opportunities are nearby. As the men in slums are often out looking for work it is the women who become the caretakers of the physical form of dwellings. The women also often become involved in building new houses on renewal sites. This role of women in the slums has probably had an influence on the fact that it is women architects and planners who seem to be taking a lead role in Indian slum renewal.

The paper also explores the use of technology in the participatory design processes often using Google Earth to overlay maps that outline skills, job locations and other data. Technology is also used to create visualizations of new housing types so that communities can have an input into the design of their new homes. The case studies will lead to new methodologies and policies about how to ensure an inclusive urbanization process is used in renewal projects.

KEY WORDS

Slum Renewal, Women Architects, Spatial Information Technologies, Inclusive Urbanization.

1.00 INTRODUCTION

Many people in the world are less well off than others. India, in particular, has a significant gap between its urban poor and its growing middle class. To give some guidance to individual countries the United Nations has produced a set of Millennium Development Goals (MDG). The goals and related more specific targets emerged from the Millennium Declaration adopted by 189 countries during the United Nations Millennium Summit in September 2000. There are 8 specific goals as outlined below.

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/AIDS, malaria and other diseases.
7. Ensure environmental sustainability.
8. Create a Global partnership for development for aid, trade and debt relief.

A number of specific targets were also introduced including halving the proportion of people living in extreme poverty by 2015 and achieving a significant impact on the lives of at least 100 million slum dwellers. India has a significant role to play in the achievement of the Millennium development Goals and a number of national programs have been established to help with the problems of cities and urban areas.

India's urban population is steadily rising. In 2001 it was 1,028,000,000 by 2011 this rose to 1,192,000,000 and by 2026 the population is expected to reach 1,399,000,000. From 2001 to 2026 the urban population will have grown from 286,000,000 to 535,000,000 virtually doubling the number of people in urban centres. India has some very large urban centres with 11 cities expected to have populations over 4,000,000 by 2026. This includes the cities of Ahmedabad, Bangalore, Kolkata, Chennai, Hyderabad, Jaipur, Kanpur, Mumbai, New Delhi, Pune and Surat.

The governance of cities in India has been very influenced by the national government for a long time until the 74th Constitutional Amendment Act of 1992 instigated decentralization to Urban Land Bodies (ULB's). In 2001 there were about 3,700 ULB's but many states had not yet transferred responsibilities to the smaller bodies. Behind this delegation was the expectation that individual towns and cities would drive local reform and local sustainable growth. Most of the ULB's however do not have the skills or the capacity to plan and implement urban infrastructure projects.

The most important document to help manage a city's future is a quality long-term urban plan but it seems responsibilities for producing these is not clear. In this context the Government of India launched a number of national programs to focus on the development of cities. In 2005 the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched to develop cities as engines of economic growth and to help with much needed infrastructure. The equivalent of US\$22 billion was to be invested over a 7-year period to improve urban infrastructure and provide basic services for the urban poor. The funding however was linked to urban reforms including delegation to ULB's and improved city planning.

Parallel to the introduction of the JNNURM has been the establishment of the Rajiv Awas Yojana (RAY) program to help drive the government's vision of dramatically reducing the number of urban slums. Funds are available to ULB's and states that are willing to assign property rights to people living in slum areas. The funding was for the improvement of basic amenities like water supply, sewerage, drainage, roads, social infrastructure and subsidized credit. Importantly the funding required a whole of city approach integrated into long term city planning.

Currently the urban poor in India account for 15 to 30% of the total population of urban areas in and some cities have up to 40% living in slums. A long-term program to reduce these numbers will help India achieve the targets in the MDG's and align with the Government of India's objectives. Leadership is required to drive change within the acronyms of the Indian system to navigate through the JNNURM, RAY and the Basic Services for the Urban Poor (BSUP) programs so that the ULB's can contribute to the MDG targets. The highly structured civil service at state and local levels in India is not often the quickest or most effective way to implement change. Another group of people are emerging as the change agents that can work with the urban poor as advocates into the civil service.

These are a number of architects and planners who are using their skills to work with communities in slum settlements to generate renewal plans and then negotiate ways forward with the city authorities. Interestingly many of these champions of the urban renewal of slums seem to be women who are

able to relate more easily to the women in the settlements. It is the women in the slums who see it as their responsibility to look after the settlement as the men are often away finding work. These architects and planners are the essence of inclusive urbanization helping the residents live, work, learn and improve their lives as citizens. And many of them use their architectural and planning skills through the use of computers to collect data and to produce images of possible new housing formats. Three particular champions of inclusive urbanization are Pratima Joshi from Pune, Manvita Baradi from Ahmedabad and Renu Khosla from Delhi and their work needs to be understood in detail.

2.00 PRATIMA JOSHI SHELTER ASSOCIATES PUNE

Shelter is a NGO working in Pune comprising architects, social workers, GIS experts, and community workers. The team of around a dozen people works with the urban poor, particularly women, to create improved housing with a focus on slum rehabilitation. The organisation was launched in 1993 by Pratima Joshi with two architect friends to work with slum dwellers. Shelter is now working on a number of major slum renewal projects in India and Pratima Joshi has received much acclaim by receiving an Ashoka Fellowship in 2006 and becoming a Google Earth Hero in 2009. She is clearly someone leading in her field.

- Shelter's pioneering approach to social housing is people-centric - a holistic view of slum dwellers as equal stakeholders in any projects.
- Shelter creates a better standard of living for the urban poor resolving issues of health and clean sanitation.
- Slum surveys and GIS technology are used as tools for integrating low-income settlements into urban planning and development.
- Research documents are made available to involved stakeholders for the purpose of planning projects and impacting policy.

Shelter Associates are as much about people as they are about buildings. A fascinating story about Dattawadi emerges as we meet mainly women and hear their story.

Back in May 1996 the slum houses that the families now living in Dattawadi occupied were demolished by the city authorities. The communities were in total despair but a group of women formed a strong collective of about 50 families with the support of Shelter Associates. By January 1997 they had secured some land from the Pune Municipal Corporation 10 minutes from the old

slum. From here on the women led the way by making concrete slabs, beams and blocks all as prefabricated components. Working to Pratima Joshi's design drawings, columns were poured and a two-storey block of 56 flats was created that now houses 300 people.

The key design initiative was to make the ceiling heights around 4 meters so that a small mezzanine sleeping area with a ladder access could be built in. Each unit has a small kitchen and a wet area but toilets are provided centrally separated for men and women. On walking around the building it was amazing how happy everyone seemed and how proud each person was to show us into their home which would have been about 5 meters by 5 meters. A large courtyard is a central gathering place with the common water tanks below. Clearly there must be a communal approach to living in such tight conditions and the kids and the women seemed to enjoy their housing.

In Pune over 40% of the population live in slums. The plans for the future of Pune must therefore take into account how to renew the slum areas by allocating land for renewal now. This will require a 'whole of city' planning approach of national funding for cities. Cities would need to prepare City Development Plans (CPD) that map out the slum renewal process.

Pratima Joshi's next project was a much bigger one that followed the devastating floods of 1997, the worst since 1961. The Pune Municipal Corporation (PMC) asked Shelter Associates to carry out a detailed survey of 6 slum pockets along the river. Kamgar Putala, one of the oldest slums, was the worst hit with 379 houses submerged for over 15 days. 175 families banded together to look towards re-settlement on an alternative site and they became part of the 'Baandhani' federation, an activist group started by Shelter.

Baandhani is a collective of many poor individuals who band together so they can be in control of their own development. Baandhani works on three simple tenets:

- The Power of Numbers which leads to community management and community organisation.
- The Power of Having Money often through many small amounts of money from individuals building up as a crisis saving account.
- The Power of Information where people know their rights, collect data and use this for bargaining their position.

Baandhani are generally run by women who see it as their responsibility to look after the settlement.

The Kamgar Putala Baandhani looked at various sites suggested by the PMC based on their perception of where people worked. Shelter worked with the community to develop a sophisticated database of the settlement including the various skills people had. This gave the community much more leverage in relating to the authorities and Shelter began a process of using GIS data as the building block of the planning system. Different civic leaders came and went but the data assembled by Shelter proved persuasive and a new site was found for 176 tenements based on clusters of 8 units around small courtyards.

On April 28 2003 the community with Shelter's help hosted a model house exhibition at the new site of Hadipar. This was based on a design by Shelter Associates for a house of 20 square meters including a toilet. The ceiling of one of the two bays was 14 feet high to accommodate a mezzanine of 10 square meters. Although there were disputes over funding and what portion the authority would pay, most tenants were able to get small loans. Houses were allocated by drawing lots and all are now happily settled down in new accommodation.

Shelter Associates are now planning slum renewal for 29 settlements in Sangli also based on GIS data. In May 2010 a model house exhibition was held at the Indira Nagar slum. The exhibition included architectural drawings, illustrated plans and views of three storey buildings with eight housing units on each floor, planned around a common courtyard. Walls were marked out on the pavement so that people could grasp the scale of the home they would get.

The Sangli project is under the IHSDP of the JNNURM program covering 3800 families. 22 slums are being relocated and 7 are being rehabilitated in-situ. This project was lauded by the Government of India for its citywide approach to planning for the poor using GIS and remote sensing technology. This approach is what the Rajiv Awas Yojana (RAY) program requires as mandatory policy for cities by mapping the poor across the city and then developing city level strategies for rehabilitating the slums.

While Shelter Associates are often at the grass roots working with communities on getting better housing, they are also involved in research about the bigger picture policy issues of urban development and renewal in India. In November 2007 they produced a research publication titled *Study on Comprehensive Rehabilitation Strategies for the Urban Poor in Pune City*. The detailed report of 100 pages is on their website. The value of the document is in its ability to explain in simple language the complex layers of Indian Government support for slum renewal.

The research examines the different approaches of the Slum Rehabilitation Authority (SRA) and of the Jawaharlal Nehru National Urban Renewal Mission - Basic Services for the Urban Poor (JNNURM-BSUP).

The SRA are very focused on Transfer of Development Rights (TDRs) which often lead to high-rise buildings to replace slums. The approach is to lift the current Floor Space Index (FSI) from around 1:1 up to 2.5:1 and offer this new development potential to private developers provided they re-house the slum dwellers as part of the package. Shelter Associates are not great supporters of this approach and prefer a lower rise, but still dense, approach to slum renewal. This preference is based on their now very detailed knowledge of the 564 slum pockets in Pune and the numerous slums they are working with in other cities.

The JNNURM-BSUP is part of a massively funded national program of reforms focused on cities.

The BSUP has set out a series of objectives:

- The integration of basic services to the urban poor.
- Security of tenure at affordable prices.
- Housing for urban poor near their place of occupation.

Shelter Associates has focused on the following outcomes from the BSUP program:

- Integrated development of slums through projects for housing, basic services and other amenities.
- A citywide framework for planning and governance.
- Community participation, a people-driven approach.
- Transparency and accountability in the way local services are provided and governance is conducted.

Shelter Associates are particularly supportive of article 4.2 which stresses that housing should be near work. Too often slum dwellers have been relocated to the very edge of cities far from any work opportunities.

Beginning with one small development of 56 housing units Pratima Joshi has moved into overall policy issues involved with slum renewal. With up to 40 percent of people in major cities living in slums, planning of India's cities in the future must focus on systems that improve conditions in a sustainable way. Collecting data on slum dwellers and of potential sites for renewal is a necessary first step. But she has moved from data collection to new methods of presentation through GIS and

computer technology. As an architect she recognizes that lists of numbers in a database are not compelling. It is the visual representation of data as a spatially organised system that is critical to effective urban planning. And balanced alongside this use of technology is the very real human and social involvement with communities through the Baandhani.

Indian cities can learn a lot from Shelter Associates' use of data, of mapping and of the public involvement of communities in making cities work for all – particularly for the urban poor. The examples in Pune and Sangli could spread to many Indian cities and influence their City Development Plans.

3.00 MANVITA BARADI URBAN MANAGEMENT CENTRE AHMEDABAD

Manvita Baradi heads the Urban Management Centre (UMC) in India with her deputy Meghna Malhotra. They facilitate formation, conceptualization and establishment of local government associations across India, advocating on behalf of cities, driving improvements in the management of cities and setting up networks for information exchange and professional development.

And India is not alone on their map, they are undertaking projects in a number of Asian countries including Sri Lanka, Nepal, Indonesia and Afghanistan. The UMC's prime objective is to "work towards professionalizing urban management in India and South Asia". At the core of this objective is the need to assess the performance of cities and then assist to make improvements.

Within the UMC is the City Diagnostics Lab, which is responsible for the Urban Indicators and Performance Measurement Program (UIPM) across India. It is very important for cities to have adequate information so as to enable authorities to make informed decisions. UIPM was initiated for the purpose of putting together such data. UMC has also undertaken a similar project for the World Bank Institute across 30 Urban Local Bodies (ULBs) in India where they were given a tool for self-analysis and decision-making that made urban governance transparent and accountable.

Manvita spearheaded the formation and operationalization of City Managers' Association of Gujarat (CMAG)- a local government association modelled after the International City/County Management Association (ICMA). CMAG today has a membership base of 166 cities and towns in Gujarat to exchange information and best practice documentation. The network has spread to 13 states across India involving hundreds of Urban Local Bodies (ULBs). One of the projects undertaken by UMC was a mapping exercise of the heritage buildings in the city of Surat in Gujarat.

In Surat, UMC, at the request of the Surat Municipal Corporation (SMC), has surveyed over 3,000 heritage buildings in the Central zone and in Rander ward across the River Tapi. Surat is the ninth largest city in India and second largest in Gujarat state with a population of 2.5 million people.

The city has a proud history dating back to 300 BC. It grew from the old Hindu town of Suryapur between 1500 and 1520 AD. From 1573 to 1733, Surat was administered by officers appointed by the court of Delhi. Up to the end of the reign of Emperor Shah Jahan, the city enjoyed great prosperity. During the town's development, the chief buildings, including the castle (1546) and the Customs House, were built along the banks of the river. In 1644, a rest house for Muslim travellers was constructed. It now houses municipal offices.

With the castle at the centre, the city developed to form an arc of a circle adjacent to the river. In 1664, a mud wall was constructed to contain the city and an outer wall was added between 1717 and 1719. The entrance to the walled city was through twelve gates. While the original walls have now gone, the shape of the city they contained is still apparent. Surat was India's chief trading port until the East India Company moved to Bombay (Mumbai). The layers of this proud city can still be found today.

Across the River Tapi is Rander, which served as a port even before Surat. Arabs settled here around 1225 AD and became the town rulers. They traded with Malacca, Sumatra and China in spices, silk and musk. Today, Rander has a mix of Muslim and Hindu communities and has a relaxed lifestyle, as though it has been frozen in time. Rander has a population of 90,000 people and is spread over an area of 5.12 square kilometres. UMC established a systematic approach to recording

the heritage of Surat and Rander. The first step was to organize a workshop with stakeholders with background in history, culture and the heritage of Surat.

The next step was a visual survey that identified 4,450 potential heritage properties. Using photographs of each building, these were reduced to 2,417 properties in Surat and 574 in Rander. From the large number of buildings recorded, a typology study was conducted that identified typical building Forms. A series of survey forms revolving around typical building types was developed. The forms identified typology, building materials, age, ownership and the building's condition and structural stability. A series of consultative meetings at the ward level were organized to gain people's participation in the documentation process and to get local insights.

Survey teams took the templates with their typical elevations of vernacular, art deco or colonial types and typical plan forms. Each of the 3,000 buildings was then assessed as part of the city's organic heritage precinct. The data was recorded in an Excel format and then mapped using a GIS platform onto the city map. Where plans of individual buildings varied from the template, these would be recorded on the information sheets. The data also assess the significance of buildings under six criteria. These are architectural, scientific, social, environmental values and representativeness.

HERITAGE SIGNIFICANCE CRITERIA

Architectural Value

Significant in exhibiting particular aesthetic and architectural characteristics evolved in the city/region/state.

Historic Value

Significant in the evolution, pattern or an incident of the history of the city/region/state.

Scientific Value

Demonstrated potential to yield information that will contribute to an understanding of the natural or cultural history of the city/region/state.

Social Value

Significant association for a community/cultural/religious group for social, cultural,

educational or spiritual reasons.

Environmental Value

Significant as a natural environmental feature with which the city/region/state is associated.

Representativeness

Significant in demonstrating the characteristics of a class of cultural places or environments in the city/state/region.

UMC links its data collection to the significance criteria and also to Global Habitat Agenda for Conservation and Rehabilitation of Historic and Cultural Heritage. This agenda calls on governments to identify, promote, support and ultimately preserve historic and cultural heritage.

The key Global Habitat Agenda statement is to identify and document, wherever possible, the historic and cultural importance of areas, sites, landscapes, ecosystems, buildings, other objects and manifestations, and establish conservation goals relevant to the cultural and spiritual development of society.

Having amassed the data for 3,000 heritage buildings in Surat and Rander, UMC's

next task was to work with the SMC to implement heritage policies for the future. The most important issue is the integration of heritage into the city's overall planning process with specific conservation plans and land use controls. The concept of Transfer of Development Rights (TDRs) that is used for slum redevelopment could also be considered as a way to give financial incentives to retain heritage. The TDR system would facilitate the transfer of floor space development potential from a heritage site to another development site and the recipient would compensate the heritage site.

There is also great potential to celebrate a city's heritage through books, reports, guides, maps and audio-visual material. Many Indian cities now have guided walks through old quarters so visitors can understand the rich layers of history.

UMC with ICMA and USAID support has also helped form the Mega Cities Association (MCA) that includes India's 7 largest cities. The MCA has city managers as members and information is exchanged on governance tools, planning and economic development. The UMC was the knowledge manager for compiling a catalogue of leading practices for MCA. This voluminous publication, "Mega Cities...Poised for Change", was released at MCA's leading practice symposium held in Kolkata in October 2007.

The Surat project is a good example of UMC's work. The heritage study involved enhancing skills of the people who collected data and encouraging municipal corporation staff to be part of this process. A clear message is the need for rigorous evidence-based decision-making approach with good data as the first step. At the centre of UMC's approach has been working "with" city governments to make change happen instead of a consultant's approach. The organization sees its role in strengthening skills and capacities of ULBs and in influencing the way a policy is developed. The UMC then exchanges ideas and processes from a project like the Surat Heritage Study to other cities with heritage precincts. Professional management skills and processes are improved as a result.

Manvita Baradi explains that some cities still use maps which are more than hundred years old. Such maps are of no use in the planning process. What is required is updated maps. "We must bring the planning systems into the twenty-first century," she says, adding, "Modern mapping with GIS will help this". In partnership with Meghna Malhotra, Manvita Baradi has developed a very focused and productive approach to bring change in Indian cities. They both strongly believe that heritage management is not for aesthetic sake alone, but is a dynamic process to improve the overall quality of life of citizens. Heritage management needs to be fully integrated in the development planning processes.

4.00 RENU KHOSLA CENTRE FOR URBAN AND REGIONAL EXCELLENCE

Renu Khosla is the Director of the Centre for Urban and Regional Excellence (CURE) which is

involved in urban community development in a number of Indian cities. CURE's philosophy is about 'inclusion' and 'empowerment', as it is the empowerment of the local community that leads to change.

The role of change agents like CURE is to be flexible and to have no preconceived solutions requiring many different approaches to improve conditions in slum areas.

There are four key activities that CURE is involved in that are all inter-related. The first is IMPLEMENTATION to undertake actual projects. The second is in the area of POLICY so that lessons learnt can improve the system. The third is RESEARCH so that issues are critically examined and the fourth is to develop DATA BASES so that information is collected to inform the projects. This has led to the development of Community Based Information Systems (CBIS) that save and display information collected from surveys on spatial platforms for planned intervention.

CURE lists a series of core competencies the team members have including CBIS. These include research, community mobilization, participatory planning assessment, slum upgrading and capacity building. These competencies are then focused on six key development themes of water supply, sanitation, sustainable urban livelihoods, housing, community based tourism, health nutrition and urban education.

Assisting Renu Khosla are a number of people, including Nandita Gupta, who has integrated the survey data into a spatial platform using the Geographical Information System (GIS) so that data can be easily viewed and understood.

Renu Khosla has written a paper on data collection called 'Leaves, Pebbles and Chalk'. The title refers to the on-the-ground methods used to collect data in slum settlements. At community meetings a rough plan of streets and houses is marked on the pavement in chalk. The community members, mainly women, then place a leaf on the location of their house for each woman in the house. In a similar manner a stick is placed for each man and pebbles to represent the number of children. The data is then recorded on paper maps and then digitized through AutoCAD and converted into spatial data layers on the computer.

One of the major projects CURE is involved in is at the Savda Ghevra resettlement colony located near the Delhi-Haryana border on the northwest outskirts of Delhi. Ultimately the colony is expected to house more than 20,000 families from various slum areas across Delhi. Already over 8,500 families have been relocated to Savda Ghevra.

CURE has been brought in by the Government of Delhi to help the people relocated to Savda Ghevra but is concerned about the resettlement being so far from the original slum locations as many of the men have to live closer to work opportunities and only return to their families on weekends.

Walking around Savda Ghevra was certainly an eye-opener. The houses are very small on lots of 12.5 square meters or 18 square meters with the opportunity for windows on one side only facing the laneway.

The houses often start as a single storey and then grow to two or even three storeys with very steep internal access as owners saved enough money to build. Water supply is delivered by trucks that fill up large containers sitting on the streets. The toilet facilities are located in a couple of community toilet blocks where

residents are expected to pay a small amount of money for their use. Most people seem to defecate in the open rather than use the community toilets which is a serious health hazard.

CURE has stepped into this difficult situation to develop programs to improve people's lives. Their first exercise was to prepare the *Socio-Economic Study Report of the Resettlement Colony*. This study presented some very useful data that came from community surveys. At the time of the survey there were 3,317 families at Savda Ghevra totalling 17,189 people. The population had a high illiteracy rate with 38 percent of men and 56 percent of women being illiterate.

Ninety five percent of the houses were single storey although many of these will gain extra storeys over time. Each household pays Rs 7,000 for their land and often have to pay more to speed up their

approvals. Toilet facilities are lacking with only 3.8 percent of families having a toilet facility in the house and half of these discharge directly into open drains exposing residents to health risks. Only 7.7 percent use the community toilets.

Ninety nine percent of households get their water from a water tanker. Only 55.7 percent of houses have electricity and only 18.6 percent have television. Of the people of working age in Savda Ghevra only 48 percent are employed and more than a third of these only get work on a daily basis. Most of those with work must commute back to jobs where their original slum dwellings were located. The types of jobs are of a lower order dominated by labourers, domestic help and vendors. Thirty nine percent of families have an income of less than Rs 2,000 per month.

All of this data was collected by 10 facilitators from SG who were trained to interview people. With this data CURE developed a number of programs at Savda Ghevra. One was a Livelihood Analysis that examined work opportunities for residents along National Highway 10 within 10 kilometres of where they lived.

This included detailed mapping and analysis of employment opportunities from hawkers and vendors to retail shops and wholesale traders. The data was broken down to garment, footwear, electrical or plastics shops to determine skill levels. Out of this study came a potential for home-based jobs to produce garments and jewellery.

CURE is concentrating on sustainable livelihood pathways for residents to generate employment opportunities. A training program has led to 112 people being certified by the Construction Industry Development Council as electricians (60), masons (35), welders (7), carpenters (6) and painters (2). Out of the 60 electricians, 45 are now employed with contractors and the rest have been able to find continuous freelance

work within SG. A local housing trust provided training for the masons, which included 15 women, 9 of whom are now earning more than double their previous wages.

Women in Savda Ghevra are producing brightly coloured carry bags. The recent banning of

polythene bags by the New Delhi government has created new opportunities for the women at Savda Ghevra. One of the skill assessment surveys had indicated that a large number of women knew how to sew and had a sewing machine. CURE engaged a trained designer to create some impressive colourful designs for bags made from environmentally friendly material.

From a small beginning with an initial order from a shop owner for 1,000 bags the business has grown to now employing 30 women. The group is doing its own marketing, production and accounting and the monthly income of the members has quadrupled. For printing shop names on the bags a screen printing unit was also initiated that provides income for an additional 5 people.

Another initiative by CURE was to set up a day care centre to look after children when both the mother and the father go out to work. The centre staff are specially trained local residents and even the building was partly built by the community. Parents pay Rs 50 a month for each child and numbers are growing.

Residents of one of the precincts wanted a better waste collection system and have now set up a combined collection system for 500 households. A waste collector comes each morning to collect waste and households contribute Rs10 a month. It is these small steps forward that are improving the lifestyles of the residents of Savda Ghevra.

Cure was contacted by the Aga Kahn Foundation to help resolve a problem at one of Delhi's protected national monuments: the saving of the monument by relocating a number of squatter houses that had been built too close to the wall of a stepped well.

This gave CURE the opportunity to work closely with the families to develop prototype houses to be built at Savda Ghevra. Students of architecture were involved in meeting the families and developing the designs for the new houses. In this way the process was more 'bottom up' than 'top down' and some useful research into family needs contributed to the end product.

CROSS-CUTTING AGRA PROGRAM

The philosophy of this innovative program is to link some of the special tourist features of Agra with an improvement program of slum areas located near the ancient monuments. Five low income settlements have been connected through a heritage trail that visits a number of heritage monuments. The one kilometre walk takes tourists on a journey through agricultural fields, along the riverbank and past a number of villages. A series of heritage sites are visited including the Moonlight Garden (Mehtah Bagh), the Mughal aquaduct system, the Humayun Mosque and the Gyara Sidi (Astronomical Observatory).

The Mughal Heritage Walk Enterprise involves a group of young boys trained to take tourists along the walk and to explain the heritage story. Local art souvenirs are made by the women in the community and even home stays can be arranged. Visitors on the walk can spend time in the villages seeing how local markets function and get a feel for village life. The brochure promoting the Mughal Heritage Walk begins: "There is more to Agra than the Taj".

The enterprise's profits go back into upgrading sanitation, water management and the provision of toilets. A special credit mechanism has been established to fund new home toilets and up to 70 have now been constructed. The enterprise is branching out to street theatre with youth groups performing for five or six minutes. Much has been achieved by the Agra program but there are still policy issues that need to be overcome. For example, the Archaeological Survey of India has very strict controls about settlement near national monuments which restricts the potential for slum areas to interact with tourists or upgrade their houses. This means new challenges for CURE, to work at national policy levels as well as at the local level.

Many of CURE's projects feed back into national activities through the JNNURM and through NIUA's knowledge sharing platform PEARL (Peer Exchange And Reflective Learning). Agra is now leading the heritage conservation area of PEARL and has showcased the Crosscutting Agra Program as part of this. The Community Based Information System (CBIS) developed for Agra is now becoming the basis for the mapping of all heritage monuments through a Heritage Cell established by the Agra

Nagar Nigam.

The steady build up of data from bottom up implementation is now being presented spatially and starting to influence policy. But ultimately it is networking with the local community and local government that leads to change. And it is the focus on inclusion, empowerment, pluralism, and incrementalism that makes the change happen.

5.00 CONCLUSION

Each of the women profiled have incredible energy and perseverance to be able to achieve their outcomes. Pratima and Manvita are trained as architects and Renu while not having formal qualifications in architecture or planning is certainly operating as a creative director of a suite of players involved in improving the built environment for slum dwellers and the urban poor. Interestingly each of the three is also involved in trying to improve governance systems through research and practice. Pratima has produced research papers and her work is clearly challenging the system of citywide planning. Manvita is the Director of the Centre for Urban Management which runs courses for staff in ULB's and raises the skill level in those organizations. Renu's Centre for Urban and Regional Excellence (CURE) also is involved in research and in partnerships with private sector and government agencies.

Each of the three people have developed a complex layering of skills to be able to achieve change. Each understands the importance of three dimensional planning they are certainly not focused on the look and appearance of the architecture. Each supports a self help approach where the urban poor themselves become the builders of new housing complexes or develop new industries making bags or entertaining tourists or getting volunteers to assess heritage buildings.

Woven through the roles of the three change agents is the use of technology to gather and to display data in a visual format. Mapping has been an important aspect of presenting data whether it is the information of skills of the urban poor or of heritage buildings or where work opportunities are found all this information can be recorded. This has been done bottom up by working with communities to give them power by having real information to present to authorities. Often a simple laptop can be used to convince city officials of the reality of a situation from assembled data or communities can be shown images of the potential houses they could move into or build for themselves.

While the three women are examples of change agents India clearly needs hundreds of similar people. Pratima, Manvita and Renu are examples of an army of new planners and architects who can help the urban poor improve their lifestyle and their housing. The role of women is critical to connecting to the networks of influence in slum communities. It is understandable, therefore, that women architects and planners can gain the respect of the networks in the urban poor communities and therefore change is more likely to happen.

The complex layers of local governance in India makes it difficult to get quick responses and it often takes one sympathetic official to support a project before it can be implemented. The 75th amendment to the Constitution helps decentralize decision making but it also included another advance for governance. It determined a quota for the number of women as mayors and senior city leaders. Many mayors of major cities are now women and of course even the top national position of Prime Minister has been held by a woman. All of this is supportive of Millenium Goal 3 to empower women.

The research into the people making change for the urban poor has also raised the issue of the role of professionals. Many architects and planners are consultants to the houses of finance and capital but a new emerging role is to work from the bottom up to help the disadvantaged, the urban poor, to improve their lot in society. It is important that this is not as a charity helping one off problems but as agents of change of the system itself. Our three champions are strongly networked into the urban planning process for cities and each individual project they are involved in is another cog in the wheel that improves city planning in India.

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