

Repair not redevelop

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TO practice conservation in Mumbai, one must be lucky to have the right client who understands and sympathizes with the word 'conservation'. I was fortunate to have one such client, the Garib Zarthostiona Rehethan Fund, a benevolent trust looking after the low/middle income group, residential housing needs of the Parsi community.

Unusually, this trust believed in repairing and maintaining a heritage property rather than in demolition and redevelopment, and in doing so, bearing the entire cost of the repair and not burdening the tenants with the costs, this being the ideal professional as well as legal position. The trust owns about 50 such unloved, under-appreciated but definitely 'heritage' buildings in Mumbai city, scattered around Central and South Mumbai, as part of various community housing schemes which were prevalent in the 19th century. Working with this trust for the past five years, I have been responsible for the conservation of at least a dozen build-

ings, which has given me deeper insights as to how easy and cost effective it is to repair as against the rampant unquestioned redevelopment *mantra* being currently practised in Mumbai.

Working on this project has reinforced for me the age-old conviction that it is usually more economical and wiser to repair rather than reconstruct or redevelop. It helps in reviving the lost skills and craftsmanship of various artisans; retains the socio-cultural relationship and harmony between people and place, and does not burden the fragile century-old urban infrastructure. Such a resource saving approach is the need of the hour for Mumbai, which in the absence of good planning and development guidelines, is on a rampant path of insensitive redevelopment.

A High Court ruling of February 2014 has removed Grade III and other buildings in the precincts from seeking redevelopment approval from the

MHCC (Mumbai Heritage Conservation Committee). As a result, we will see a lot more redevelopment rather than repair of old buildings in the heritage precincts. The Lal Chimney Compound conservation is thus an important case study to demonstrate to the government and citizens of Mumbai what effective repairs can do, and hope this leads to a policy that incentivizes repair of heritage structures over their demolition, followed by insensitive redevelopment.

Mumbai faces an acute shortage of affordable housing. As an island city, land is limited and the monetary value of available land is amongst the highest in the world. Rental housing that was prevalent till the 1960s and '70s was able to fulfil the demand. However, when the rental system was stopped and ownership of flats started, the affordable housing stock was badly hit, changing the dynamics of the city from community to class dominated housing. Comparatively speaking, no other city in the country has such an acute shortage of affordable housing, which is a matter of grave concern for Mumbai's future.

Historically, in the late 19th century, affordable housing was provided for cotton mill workers by the mill owners. Later, the City Improvement Trust provided similar single room tenements with common service facilities (e.g., the BDD chawls) in areas around the mills, in what is now considered central Mumbai. This trend continued till the mid-20th century into the suburbs where land was relatively cheaper. With the advent of the cooperative housing society model in the late 1960s, the availability of rental accommodation declined.

One of Mumbai's major drawbacks is its frozen rents since 1944 (after World War II) due to the Rent Control Act. As a result, about 19000

tenanted buildings, now nearly a century old, are completely neglected and ill-maintained. This constitutes the bulk of the inner city's building stock. Many of these buildings are in extremely poor condition with some even having collapsed, resulting in loss of lives, while others are in various stages of dilapidation. Not surprisingly, people do not want to stay in such buildings. But as the rents are very low (due to the Rent Control Act), the tenants prefer to lock their premises, anticipating redevelopment at some later stage. In the process they block access to these affordable houses for others. The government has refrained from altering or abolishing the Rent Control Act, as it fears losing out on popular vote banks. Consequently, these buildings have deteriorated with every passing decade.

What has worsened the already existing dismal situation is the recent change of rules that now give unjustifiable incentives for demolition and redevelopment over repairs. With a higher FSI (Floor Space Index) available for redevelopment schemes, an

external private developer is now involved in redevelopment. The redeveloped buildings are cooperative societies, charging market based maintenance rates and taxes after redevelopment, which the original tenants often cannot afford. Hence, they are pushed to areas that are at the periphery of the city. In the process, they lose their moorings and base, which is undesirable, as eventually 'people make places'. The new flats in the redeveloped buildings are sold to the more affluent, resulting in an increase of unaffordable housing stock. The builders reap super-profits while urban density increases significantly, leading to a poorer quality of life and infrastructure that just cannot cope with an increase in loads.

Let us now look at the conservation of the Lal Chimney Compound. The goal of this project was to make the government consider offering incentives equivalent to the cost of comprehensive repairs as additional FSI or TDR (Transfer of Development Rights) to landlord and tenants. This would significantly prolong the life of



Lal Chimney ariel view post restoration.

the existing building stock in the city until the next development plan of Mumbai is prepared, within two decades. At the insistence of tenants, the repairs and restoration undertaken in the Lal Chimney Compound case were of a high standard and quality. The vacant flats of these repaired buildings were rented out again, thus creating affordable housing stock (which is the need of the hour) for the city from amongst existing resources.

The Parsi's are one of the more affluent communities in the country that has shown concern about the housing needs of its. It has constructed *baugs* (gated colonies with garden) for the more affluent members of the community as seen in South Mumbai. Among other examples are Cusrow Baug and Rustom Baug. It has also built entire colonies like the Dadar Parsi Colony which was part of the Town Planning Scheme for middle income members of the community. This colony is designed with adequate open spaces, i.e., five gardens. Lastly, several compounds or cluster of buildings (like a complex) were built for the less fortunate members. The former two types of community housing are looked after by the Bombay Parsi Punchayat Trust (BPPT), the second largest individual private landowner of properties in Mumbai after the Mumbai Port Trust (MPT).

This compound is looked after by the Garib Zoroastrian Rehethan Fund (GZRF), which was also responsible for building the Lal Chimney Housing Complex. The Lal Chimney complex was the second such colony to be restored in Mumbai, the first being the Sethna, Gamadiya, Patel and Dadyseth buildings off Wadia Street, demonstrating the commitment of the trust towards the well-being of its tenants and colonies.

In Marzban Colony, the Lal

Chimney building complex is a modest example of good community housing of the late 19th and early 20th century in Mumbai. The complex takes one back to an era when a simple life took precedence over pretence, and where beauty was evident in the tiny details as seen in the excellent craftsmanship that was then the established standard of work. These buildings were not listed as heritage buildings or precincts when their repair work commenced in 2009.

The complex is located in front of Nair Hospital in Bombay Central (East) and is set within a cluster of five buildings which are similar in scale, mass and volume. This entire stretch on Dr Nair Road had a similar building stock, all for housing, and broadly for three communities – the Bohris (Muslim), the Parsis and the Christians. The compound has a rear secondary street which serves as a service alley. This area was well laid out, with gardens and open grounds, and remains one of the better planned areas on the outskirts of the inner city.

The ground plus two storey structures are bilaterally symmetrical in planning. The neighbourhood still affords a picturesque view in spite of the new residential towers that have sprung up, thereby completely eroding the urban design characteristics of this road. A vibrant mix of generations live here: old couples, families, young kids and middle aged adults form a thriving and lively community. A sense of community, which is rarely seen in today's high rise buildings, is still prevalent here owing to its architecture and urban design.

The buildings are plain functional residential buildings with vernacular, teak perforated parapets and the finer façade details like a cornice running around decorative mouldings on windows, flower motifs, etc. which ornament the old buildings. The roof is tiled

and a string course runs at some floor levels, and the common passages have decorative wooden railings and louvered ventilators, adding to the architectural character of the buildings. Though the buildings are not particularly significant for their architectural style, they remain good examples of architecture, urban design, town planning and a precinct that has an overall character with mass and scale and an interactive community system.

All five buildings follow the same construction methodology. The main structure consists of brick load bearing external walls that have a thickness of 16 to 20 inches and the construction of slab is a jack arch with steel joist supports. In the kitchen area and some rooms, the slabs have been strengthened by the addition of steel support perpendicular to the direction of hidden I-sections. However, no reconstruction of slab was ever carried out. The balcony or verandah or passage has teak posts and beams. The plinth is made up of basalt stone and the staircase is wooden. The top floor has teak trusses below the rafters/purlins and on them are the teak boarding, with a tiled roof above.

In the 1970s when most of the tenatable building stock in Mumbai was approximately 70 years old, and the occupants started to demand repairs, the government started a housing repair board, Mumbai Housing Area Development Authority, and introduced a cess or repair fund to counter the problems associated with the Rent Act. This fund was to be used to repair these residential tenanted buildings by replacing the decayed or damaged area and materials; for example, wood which was expensive, was to be replaced with steel. The objective of setting up of this fund was good, but unfortunately the government did not insist on adherence to principles of con-

servation while undertaking repair, principles such as minimum intervention, using materials that were similar to the original, etc., as conservation as a discipline and practice had not yet emerged in India.

As a result it was seen that maximum intervention was done, and even good condition building-fabric was shown as waste and removed, starting a parallel business of selling good timber material salvaged from old buildings. The steel used did not last long, and it was seen that the building deteriorated faster with such repairs. However, the only good point of such in-situ repairs was that density remained constant, building scale and mass was maintained and there was no additional load on the fragile infrastructure.

After a decade or two it became the trend to reconstruct the entire building on the same footprint, and this resulted in formalizing the salvage racket where good wood was sold and replaced with steel that required frequent repairs. The buildings were completely deprived of their architectural character. However, the positive was that the tenants remained and building mass and scale was retained.

After another decade, i.e. 1990-2000, the trend shifted and the MHADA started reconstructing the buildings themselves by following the accepted by-laws of the city. They got a marginally higher FSI to recover the cost of construction. However, with the involvement of government agencies, expectedly, the construction quality deteriorated and many of these buildings are once again in a somewhat poor condition within a couple of decades itself, and are awaiting reconstruction again with higher FSI. It is a pity that the government did not increase the cess fund (presently Rs 2000/sq mt approx) and never insisted

on retaining as much of its original fabric as possible by using similar materials.

By the turn of the last century, private players were roped in for redevelopment and the tenants were provided larger areas as per minimum standards (350 sq ft), and as a result, the FSI was increased to meet construction costs. An additional area was given as sale component and present by-laws were followed that provided for setbacks, basement and podium parking free of FSI. This development has resulted in eroding the gently woven cultural fabric and street life, which was the strength of the inner city. The podium-height kept increasing as individual towers capitalized on selling flats offering the best views of the city, while sadly forgetting that the next old cessed building to be redevelop would also go up to the same height. Soon, all we will have are dark alleys and left over spaces in between towers instead of streets.

Out of approximately 19000 cessed properties in Mumbai, a large

number are owned by trusts who provide community housing. Hence, this small step taken by the Garib Zarthostiona Rehethan Fund Trust can be a giant one in retaining Mumbai's unloved, under-appreciated buildings, thereby saving the city from the infrastructure pressures and in enhancing the quality of life.

The methodology followed by the Lal Chimney Compound conservation was as follows. For a few buildings which underwent extensive structural repairs, the tenants were shifted into other community housing colonies for a brief period (3-4 months) unlike the redevelopment module where people are shifted for a few years. This is often inconvenient to the elders of the community who have an emotional bonding and need to be in the place where they have lived long years.

Change is inevitable, but the present redevelopment trend only benefits the developer and does no good for the city. Hence, the approach of repair followed in the Lal Chimney Compound can be used until a new



Lal Chimney prior to restoration.

redevelopment scheme with proper planning and infrastructure, that will benefit the city first, is initiated. The repair philosophy adopted was to retain as much of the original fabric as possible, thereby saving on resources as well as making it economical.

The amazing advantage of restoring wooden buildings is that they can be strengthened in-situ by replacing the decayed area or by flitching it. In the end it was heartening to see that even the few tenants who were disgruntled at the prospect of repairs, were satisfied and happy when the entire restoration was over, as they got an upgraded colony. Most importantly, they did not have to contribute even marginally as the trust bore all the expenses of repairs.

Such an approach, if used for all cessed properties in Mumbai, can actually transform the city heritage or inner city, and add to vibrant economical areas while offering affordable housing to the needy. The work started with comprehensive structural repairs to one such building, i.e. Wadia building in the year 2009. After its successful completion, four other buildings in the same colony, which had earlier undergone internal repairs, were also restored externally as the tenants/residents demanded it; thereby one entire complex got restored, leading to its rejuvenation as well as that of its surroundings. For the residents, their existing lifestyle and social interaction continued uninterrupted. No additional pressure was created on the fragile infrastructure of the city (water supply, sanitation, drainage, electrical load and cars) due to the repairs and restoration.

Mumbai was the first city in India to enact heritage legislation in 1995 and has listed about 624 properties and 14 precincts. The Lal Chimney Compound property was not listed individually or under a precinct. However, in

2012 a draft list, initially of additional structures, was published, and the compound has now been listed as Grade III. In the recent revisions made by the government, cessed properties in Grade III and in precincts are now exempted from the purview of the heritage legislation. Thus we see the mushrooming of high rise in heritage precincts, despite so-called heritage protection under the law. The proposed draft list of 2012 is yet to be finalized and its fate will be decided depending on the public hearings. However, in a recent interim judgment, the Bombay High Court has opened the floodgates for redevelopment as Grade III buildings have been removed from purview of the heritage committee, leaving it to monitor only grade I and II buildings.

Time has taken its toll in some areas of the Lal Chimney Compound buildings that underwent piecemeal and ill-informed repairs in the past. It was also noticed that many tenants had themselves carried out repairs, additions and alterations, thereby changing the uniformity and the look of the building. Additions like box grills and projection of areas in the front open space were seen in some buildings, such as the Dadachandji building.

The lack of regular maintenance, ageing of buildings, insensitive extensions and alterations have resulted in the rapid deterioration of buildings in the complex. The corrosion in the jack arches has resulted in hogging of the floor tiles and cracks appearing in the flooring. New interventions in the buildings to suit modern lifestyles and hasty replacement of the old features to suit the purpose at the time, have also deteriorated the fabric of the built form. The common passages which define the character of the buildings abutting the street have been modified over the ages and have now become a chaotic mix, suited to individual

needs. The symmetry maintained in the built form is lost when the railing becomes a brick parapet on the ground floor, wooden railing on the first and MS grill on the second floor. Vegetation growth was noted on the exterior sides of all five buildings. Termite infestation was seen at some places in the building and was not attended to holistically. The roof had not been attended to comprehensively in the recent past and required complete redoing as there was considerable leakage from the gutter areas. The Mangalore tiles were similarly broken or even completely missing at many places.

The repairs were carried out following accepted conservation philosophy and methodology, such as preparing of fabric status reports, use of like-to-like materials, which are compatible and traditional to the historic fabric of the building, undertaking minimum intervention only where desirable and essential, removing all insensitive accretions that had altered the cultural significance of the fabric, reviving the lost art of decorated ornamentation work, incorporating modern day needs and functions without compromising on the heritage character of the structure. The emphasis was on educating ordinary civil contractors to respect heritage properties and introduce the concept of skilled repairs.

The actual work done encompassed a complete replastering of loose plaster area externally, stitching of the cracks, recasting worn out slabs in RCC by retaining good steel joist. The rotted wooden posts and beams were repaired and re-strengthened and the worn out members replaced. Ornamental works like cornices, string courses, quoins, archivolt, decorative floral panels below the window sills were added back by reviving the traditional skills of the master mason. The openings were made by glazing, grill

design and *chajjas* (weather shades). The sealed parapets of the verandahs were replaced with perforated teak balustrades. The teak louvres were re-introduced to allow breeze to enter the rooms. Internal replastering was done where essential, with a groove above the skirting to arrest rising damp.

Replacing the poor portions of floor slab with new time tested durable material, i.e., RCC slab; removing the floor tiles of common areas, where the slab was being recast and re-fixing new tiles that were uniform in pattern and complemented the building; providing completely new plumbing and drainage with new toilets for all tenants in Wadia building whereas for others only damaged pipes were replaced and redundant pipes removed, were among the measures carried out. So also complete roof repairs. Right from removal of tar felt, putting new wooden planks in gutter and applying lead flashing and new tar felt with double batten and relaying the tiles, complete external and internal painting was undertaken, including complete rewiring of the common electricals.

Conservation is a less travelled road in the city of Mumbai where redevelopment has become a craze. The project offers a simple and effective example of adhering to basic principles of conservation, i.e., minimum intervention, as a result of which precious resources are conserved, thereby giving a new lease of life to the fabric. Through refurbishment, the fragile century-old infrastructure is not burdened and the housing colony retains its social character – children play in the compound, the elders hang out in balconies and open spaces interacting with neighbours. In all ongoing redevelopment proposals there is no open space on the ground floor as this area is used only for parking cars. This project highlights Ruskin's theory that,

'We are just custodians of the heritage and our task is to pass this on to next generation.'

The project demonstrated to the government and policy makers that it only requires Rs 775/sq ft to conserve a relatively distressed building structurally and architecturally, whereas it would cost half that amount for buildings structurally not so distressed. In contrast, it would cost Rs 4500/sq ft for redevelopment; the present cess repairs that MHADA carries out amount to Rs 200/sq ft.

The way forward is to plan and integrate culture as a tool for urban development. This is possible if conservation of buildings, with incentives, is integrated into the development plan (DP) that is currently being prepared (2014-34). The JNNURM also address some of the issues like rent control reform, property taxes, among others, which are the key issues along with proper enforcement and implementation of the law. Some of these are highlighted below.

The development plan must acknowledge and integrate cultural resources, which has never happened. This is an ideal opportunity as the development plan is under preparation. Once conservation is integrated in the DP, heritage becomes an asset. For example, monuments, Grade I buildings with necessary protection to their setting, and so on, will help revive tourism and improve the image of the city. The existing and proposed heritage listing needs to be carefully reviewed, along with the need for balanced growth and conservation. The heritage properties and precincts should be mapped in the development plan with special by-laws that will help in preserving the cultural significance for which they are listed. Any large-scale development or redevelopment should follow good urban design guidelines that will also benefit

the city. All reconstruction proposals should be discussed by placing the new development or building within a city model or by 3-D software as a part of the submission to the corporation. This will ensure that redevelopment is viewed comprehensively rather than as piecemeal, which is the current practice.

The original lease deeds are a useful tool; the inbuilt covenants of the deed will help in maintaining the properties. These should be checked and adhered to before granting permission for redevelopment. All free sops, like extra area for a minimum flat of 350 sq ft should be discouraged in case of development routed through developers since, in order to recover that additional cost, the saleable component increases and use of common amenities decreases, thereby affecting the quality of life. The government should modify the rules and not grant additional higher FSI for schools, hospital, and religious buildings that are heritage properties as it only hastens their demolition for redevelopment. No form of transferable development rights (TDR) can be loaded in heritage sites, precincts or in the buffer area so as to retain its ambience.

A wide range of incentives can be considered to encourage conservation and repairs:

* Encourage repairs and restoration of good building stock, i.e. modify rent control in heritage sites to start with, and commercial and residential properties subsequently.

* State governments should implement the model rent control act for residential premises (2010) enacted by the Union Ministry of Housing.

* The government should grant Repair TDR to all cessed and heritage properties as a major incentive, pending modification to the Rent Control Act.

* All tenants and landlords must give

an undertaking that in lieu of such incentives, their buildings would be maintained for a minimum of 20 years.

* This TDR (less than 0.20) is marginal as compared to the TDR (of 4 or 5) given for reconstruction and can be used in situ as well. This will also ensure no increase in density nor will it overload the fragile infrastructure.

* Rebates or relaxed property taxes and discounted lease rents to be given to encourage conservation and increase such initiatives over redevelopment.

* Adaptive reuse, conversion, mixed use etc., should be encouraged in principle as it normally does not increase the density, nor does it load the fragile infrastructure.

* Quick permission should be given for repairs, reuse or refurbishment, and maintenance.

* Introduce a comparatively higher redevelopment cess for the redevelopment of all heritage sites where the funds would be used for conserving the neighbourhood and its infrastructure.

* Acknowledge and support the efforts of the owners who want to conserve. A sense of pride should be created for those who choose to conserve and repair their buildings as compared to those who prefer to demolish.

Some other steps that may be contemplated are the commissioning of studies to determine the impact of the prevailing by-laws on density, load on amenities or infrastructure and quality of life. Also, the incorporation of disaster management plans for all new development as well as for conservation of cultural sites.

Hopefully, this project, which was given the Unesco Asia Pacific Award of Distinction 2013, will help initiate other such restoration projects as also help modify the state government repair policy.