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## Rethinking slums: Sion station neighbourhood in Dharavi, Mumbai Slums neu denken: Die Sion Station-Nachbarschaft in Dharavi, Mumbai

### Abstract

Dharavi, formerly a fishermen's village on one of the islands today forming Greater Mumbai, India, is currently Asia's biggest slum. Approximately 1 mio people live here without proper sanitation, drainage systems, paved roads and in an environment where every inch is occupied with small houses, many covered with plastic tarps or corrugated iron roofs. Particularly the rising middle and lower upper class of Mumbai sees the area as filthy, backwardly and dangerous and thus this slum should be removed to make way for new homes for themselves.

However, it is a vibrant place of people with various ethnic backgrounds and ways of living. Besides, the inhabitants of Dharavi fulfil plentiful tasks for and in the legal part of the city, such as garbage collecting, cleaning streets, serving in household of upper and middle class people and the like. Furthermore, there are many small scaled industries based in Dharavi, producing a large variety of products consumed not only in Mumbai, but also abroad.

In this article it is aimed to identify Dharavi as a sustainable environment, where people created their spaces according to their needs. Basing on this arguments, some gentle urban regeneration proposals will be presented to enhance the situation in a small neighbourhood close to Sion Station, where the study was accomplished. Although the disadvantages of this informal settlement should not be marginalised, it is aimed to show that the neighbourhood is a vibrant place of people with workshops, schools, mosques, temples, churches, community facilities and water tanks, following indigenous settlement structures of India. Although all is very basic and might appear shabby, it can be concluded that Dharavi is a grass root settlement with its unique indigenous qualities – done by its people for its people with their limited capability. With the findings in mind, some upgrading proposals were designed in respect of the way of life of people in Dharavi. The contribution ends with a discussion about the limits and benefits of these design proposals for Dharavi but also elsewhere.

**Keywords:** Dharavi, Sion Station neighbourhood, slum upgrading, design following traditional patterns

### Inhalt:

Das einstmalige Fisherndorf Dharavi lag früher auf einer der vorgelagerten Inseln, die heute zu Greater Mumbai, Indien, zusammengeschlossen wurden. Heute ist Dharavi Asiens größter Slum, mit geschätzten 1 Million Einwohnern, die ohne ausreichende Wasserversorgung, Kanalisation, Elektrizität oder befestigten Straßen auskommen müssen. Durch den enormen Bevölkerungsdruk ist jeder Quadratmeter mit kleinsten Gebäuden verbaut, die oft mit Plastikfolien und Wellblechdächern bedeckt sind. Vor allem die neu aufsteigende Mittelklasse Mumbais sieht die Slumbewohner Dharavis gerne als schmutzig, rückwärtsgewandt und gefährlich, weshalb es die gängige Meinung ist, dass der Slum abgerissen werden sollte, um Raum für dringend benötigte Wohnungen der Mittelklasse zu schaffen. Bei genauerer Betrachtung ist Dharavi jedoch ein lebhafter Wohnort von Bewohnern mit verschiedensten ethnischen Hintergründen und unterschiedlichsten Lebensweisen. Daneben sind die Bewohner Dharavis auch wichtige Arbeitskräfte in Mumbai, denn viele sind mit Müllsammlung, Straßenreinigung beschäftigt, andere sind in den Haushalten der Mittelklasse tätig, und es gibt viele kleinste Handwerksbetriebe, in denen eine Vielzahl an Waren produziert wird, die nicht nur in Mumbai sondern überall auf der Welt verkauft werden.

In diesem Artikel wird versucht, Dharavi als Lebensraum zu begreifen, in dem die Bewohner ihre öffentlichen Räume nach ihren eigenen Bedürfnissen kreieren. Auf dieser Grundlage sind Entwürfe zur Verbesserung der Situation entstanden, die hier vorzustellen werden. Die kleinen Maßnahmen wurden für das Projektgebiet in der Nachbarschaft der Sion Station vorgeschlagen, wobei es um den Erhalt und die Stärkung der kulturellen Vielfalt und der Gemeinschaft ging. Auch wenn die Nachteile einer informellen Siedlung nicht marginalisiert werden sollten, ist es wichtig zu verstehen, dass die Nachbarschaft ein lebhafter Ort von Menschen ist, in die Bewohner selbst Werkstätten, Schulen, Moscheen, Tempel, Kirchen, Wassertanks und Gemeinschaftseinrichtungen errichtet haben. Auch wenn alles sehr einfach ist und von außen betrachtet heruntergekommen wirkt, kann man zusammenfassen, dass Dharavi ein grass root Gebiet ist – errichtet von und für seine Bewohner mit ihren beschränkten Möglichkeiten. Mit diesen Ergebnissen als Hintergrund wurden kleine Eingriffe entworfen, die das Leben der Menschen in Dharavi respektieren und unterstützen. Der Beitrag endet mit einer Diskussion über die Limits und Chancen des Entwurfsansatzes für Dharavi und wie dieses Vorgehen sich auf andere informelle Siedlungen anwenden lässt.

**Schlafworte:** Dharavi, Sion Station Nachbarschaft, Slum upgrading, Gestaltung aufbauend auf traditionellen Mustern.

## Introduction

Dharavi, formerly a fishermen's village on one of the former marsh-ground islands today forming Greater Mumbai, India, is currently Asia's biggest slum. Approximately 1 mio people live here without proper sanitation, drainage systems, paved roads, electricity and other amenities of legal areas in Mumbai.

What today appears as one of the mega cities of the world was once an archipelago of 7 bigger and 16 smaller islands, that were inhabited since prehistoric times. Due to the many different authorities (Portuguese and British colonial rulers, Muslim governors, Hindu kings) (Dossal: 2010), the islands of the fishermen were over the time transformed into a multi-cultural and multi-ethnic city. Today Mumbai is the commercial and financial centre of India, home of the film industry and due to the immense population pressure one of the most expensive places not only in India, but also compared to other mega cities around the world. Currently, property prices are higher than in New York. Because of its open mindedness and job opportunities and despite riots and violent acts, many migrants from all over India swamp into the city (Mehta: 2004), the poorer head directly into Dharavi. This development has provided Mumbai its own growth but also its own misfortune; about 60 percent of the city's population lives in slums, occupying only a surface of 8 percent, where hardly any sanitation, infrastructure is provided and land ownership is insecure (Parasuraman: 2007).

Dharavi is one of these informal areas, although until recently, it was a small village of fishermen, the Koli, who settled here at the periphery of Mahim Creek since prehistoric times. With the rise of Mumbai being one of the most important financial and production centres in the world (Sudjic: 2007), the population rose dramatically in Dharavi. Within a few decades, Dharavi's original population was outnumbered by new settlers, mainly from poor adjacent rural areas, who came to the big city in search of job opportunities. Covering a surface of some 250 hectares, the estimated population was 500 0000 people in 1986 and is believed to be close to 1 mio people today (Desai: 1988, Census of India: 2000). Besides, the growth of Mumbai towards the northern fringes had an immense effect on Dharavi, since the informal settlement lies today in the very heart of Mumbai. Thus, the pressure to evict the informal dwellers by authorities and public opinion to make way for "legal citizens" paying regularly their taxes is very high.

The main reason why Dharavi dwellers can still resist these evictions is the fact that legal Mumbai needs their labour force. Independent enterprises started to emerge one after another, producing a wide range of goods from food to leather products and clothes. Since the late 1980ies new settlers arrived in Dharavi, such as potters from Gujarat, tanners from Tamil Nadu or embroidery workers from Uttar Pradesh ([http:// wiki1](http://wiki1)). Recycling and collecting garbage is also one of the main activities. Women and girls are engaged in maid services, but also help as head carriers in construction

sites. Women are working for less money at the same occupations as men and they are refrained from job related training. (Shah-Vinita: 1996). A survey by MMRDA (MMRDA: 2002) executed in 16.000 households revealed the fact that 33% of Dharavi's population is working, constitution a setting of 1,46 workers per household. Domestic economic activities are also common as supporting income source. 9 % of the buildings contain commercial entrepreneurs, 20% of the labour force is self employed, 44% of the workers is employed by private establishments, 9% by government and 17% casual. The average monthly income is 61 \$ and 40% of the household fall under the category very poor. The integration of the "grey" economy with the partially informal means of residents makes Dharavi attractive for even world-wide famous design companies because of the cheap and high quality labour force (Shah-Vinita: 1996).

Previously ignored by authorities, Dharavi was officially recognized as a slum in 1976, when state slum policy shifted from demolition to slum upgrading (Government of Maharashtra: 1995). At that time, Dharavi's settlers officially got property rights – uniquely in India (Ahuja, Brosius: 2006). During the next decade, the government took measures against crime and brought in basic facilities to Dharavi, such as water taps, toilets, drainage and electricity – although to a very little amount. In some parts dwelling were replaced by new multi-storey buildings – hardly enhancing previous living conditions. The slum upgrading policies never took care of the local people with their ethnic and social backgrounds. Furthermore, the small scaled industries, placed in smallest workshops in almost every house, were not any more included. By the slum upgrading projects, people were shifted around, ripping them out of their social networks and leaving them without their workshops and thus without the chance to earn their living (Davis: 2007).



Fig. 1



Abb. 2

**Fig. 1:** A view into Dharavi. In the background the multi-storey buildings of the legal city (photo: Renate Bornberg)

**Fig. 2:** Mumbai legal city (photo: Renate Bornberg)

It is the grass root Dharavi with its very efficient mixed urban fabric, which is perfectly capable of merging people from contradictory backgrounds into one community, with its economic system that led to the fact that nearly everyone has a job and income and is not dependent on begging. It is also important to understand that much work is found in legal Mumbai, where all sorts of services are made for upper and middle class people. The latter also provides a network between the legal city and the informal settlement of Dharavi (<http://wiki1>)

### A Slum?

According to the UN Habitat, nearly 23 per cent of the urban population worldwide lives today in slums and 58 per cent of the urban population in South-central Asia (UN Habitat: 2003). Since the 1990s the slum population increases and it is estimated that in 2030 the population in slums will increase to 2 billion people world-wide (UN Habitat: 2007). Thus, as Mike Davis pointed out:

"...the cities of the future, rather than being made out of glass and steel as envisioned by earlier generations of urbanists, are instead largely constructed out of crude brick, straw, recycled plastic, cement blocks and scrap wood. Instead of cities of light soaring toward heaven, much of the twenty-first-century urban world squats in squalor, surrounded by pollution, excrement, and decay." (Davis: 2007, p. 19)

But what is a slum? Following the arguments of the UN-Habitat, a slum is a run-down area characterised by bad quality of housing and the environment coupled with a lack of security for inhabitants (United Nations: 2007). In previous decades, slum was the term for housing areas having once been prosperous, but as original inhabitants left the area to better neighbourhoods and thus such an area became impoverished. Nowadays, the term also includes all informal settlements (UN Habitat: 2003). A main characteristic is, that slum dwellers are very poor or socially excluded in one way or another. The environment of informal settlements normally lacks of electricity, drainage or even sufficient access to drinking water. Houses are made of recycled materials, are often run down and unstable.

Today it is widely recognised that slums and informal settlements are not singular features emerging only in the big cities of developing countries, but is much more a global phenomenon, as stated above. Many initiatives and actions have been launched in previous years, the most prominent one being the "Cities Without Slums" Initiative by the World Bank and the Cities Alliance in 1999 (Cities Alliance: 2012). However, not too much has been achieved in enhancing the situation for slum dwellers, partly due to the top down process that is often implemented, that does not include local people in the process. Other slum upgrading programmes fail because nobody looked carefully at the needs of slum dwellers, their struggles in earning a living and their organisation of the very limited open

space in a neighbourhood. Often quite the contrary has been achieved, namely an even more aggressive eviction of slum dwellers by police often in cloak-and-dagger operations. The latter has often accomplished in India - and in Dharavi, Mumbai in particular.

"While the official mind still frames them as slums, in reality most of these neighbourhoods aren't slummy at all and none is "informal" in any sense of the term. Many of them have historically developed from villages, nearly 200 of which are officially recognised by the city today. These villages belong to an earlier moment, when fishing and paddy cultivation were part of the landscape of Mumbai's northern regions. Since they predated colonial notions of urban planning and functional zoning, these habitats easily absorbed newcomers and activities." (URBZ: 2012, p. III)

### Indian slums and the Cast system:

Although the cast system no longer officially exists, it still moulds Indian society and cities. Traditional Hindu cities were created according to Mandalas, representing cosmic order. The city's heart was the temple district and a water tank, surrounded by residential quarters of the Brahmins, the priest cast. The next quarter was inhabited by the kshatriya, the warriors, secular rulers and land owners, followed by the Vaishya, merchants, land owners and moneylenders; adjacent to the city walls lived the Shudra, workers, farmers, potters, weavers and tailors, had their assigned residential quarters.

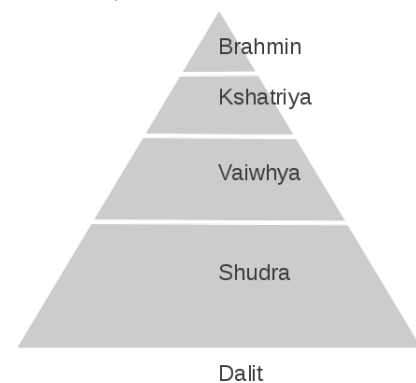


Fig. 3

This layout of the city had also to do with the work each cast was assigned to: being pure Brahmins were not allowed to do any manual work; as priests they were responsible to guarantee the continuance of Hinduism and social order. Shudra, on the other hand, were assigned to work for the other casts (Ahuja, Brosius: 2006).

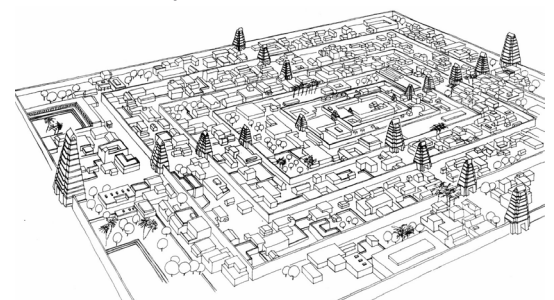


Fig. 4

Fig. 3: Cast system

Fig. 4: Srirangam Zeichnung (drawing: Renate Bornberg)

The Dalit, the untouchables, were outsiders and not included neither to Hindu society nor to the city. Although not belonging to the Hindu society, their tasks and duties were very important for all other casts, particularly for Brahmins; they were and are the only people working in and for impure work. In Hinduism only Dalit could do jobs such as cleaning, collecting garbage, working in tanneries, washing clothes. Consequently, their residential areas lay outside of the city walls. Until today Dalit do important tasks, without which even a modern city such as Mumbai would not work. Collecting garbage and recycling it, sweeping roads, working in laundries, tanneries, as cleaners and nannies in private households and the like, are still solely done by Dalit. The majority of slum dwellers work in the informal sector. Without their labour force hotels, shops, restaurants, offices and industry would not exist (Ahuja, Brosius: 2006).

Contradicting their importance for India's economy, officially slum dwellers are blamed to be newcomers from rural, peasant areas and trying to implement their backwardly habits in the cities. Since the 1960's particularly middle class people accuse slum dwellers for living in unhygienic quarters, living bad and thus unjustifiable lifestyles (Mann: 2006). From a traditional Hindu perspective, Dalit themselves are to be blamed for their faith and kind of life. Thus it is unacceptable to give them property rights, to legalise their quarters or to invest public money to enhance their environment. These argumentations are coupled with economic liberalism and privatisation. Increasing suits were filed, which required the evacuation of homeless settlements in the vicinity of middle class areas. Using arguments such as slum dwellers are dirty, polluting the environment and generally incapable to adopt civilised customs of the standards of global cities, made way to force slum dwelling out of the city and make way for residential quarters for middle class people (Davis: 2007).

Thus, slum clearances have been numerous in the last decades. Since independence of India, slum clearance was one of the major concerns of Indian governments. Slum dwellers and their habitats were seen as backwardly, filthy and not worth to be integrated into modern Indian cities, particularly when they were located in the cities' hearts. Thus bulldozers broke down large slum quarters in cloak-and-dagger operations, accompanied by police, who forced people to leave. The fact, that many lived in their areas for generations was neglected from official side. Keyword such as beautification were officially used for such activities, suggesting that slum dwellers will get new and better housing elsewhere. The improvement and clearance acts were proclaimed in 1956 and led to a series of removing slums in all India. In the 1970s in Delhi, for example, slum dwellers only could get new property when they agreed on sterilisation. Besides, new quarters were at the fringes of the cities, far away from their jobs in down town households. Public transport was not planned, and anyhow would have been too expensive of the poor. Thus many came back immediately after in order to live adjacent to their work placements. New shelters arose everywhere in the towns,

this time even shabbier and poorer than the slum quarters in the first place (Fuchs: 2006). However, politicians and planners forgot about the fact, that slum dwellers were important motors of economy.

Leaving arguments spread by officials and governments, it can be observed that slum dwellers do the best they can to improve their living conditions. Almost all try to enhance their environment and homes as much as they can afford. The urban poor have to deal with a large variety of tasks in order to establish a balance of optimising housing costs, tenure security, quality of shelter, distance to work and even safety (Davis). In the case of the investigated neighbourhood in Dharavi it can be stated, that there are certain qualities in the urban fabric that were shaped by the residents that makes the area unique. By studying these cultural cells and using them as nuclei for small scaled and affordable design interventions, it was aimed to bring another dimension into the discussion about slum upgrading. The method described in this contribution can also be used in other parts of the world where slum update are planned. The first step in this method is to understand the cultural strands, the social backgrounds of the people living in an area before starting with the design interventions.

### The spatial concept of the Sion neighbourhood

People living in these immensely dense zones are reflecting a dynamic, colourful canvas in terms of socio-economical and cultural patterns. Surviving adverse conditions, their adaptation abilities are represented in their dwellings. Such a complex structure must be observed with great care to extract spatial patterns that can be translated into new design for Dharavi.



Fig. 5



Fig. 6

**Fig. 5:** The laundry: Dharavi inhabitants do the washing for the upper and middle class people. The clothes are laid out for drying between the railway tracks. (photo: Renate Bornberg)

**Fig. 6:** garbage collection in Dharavi: even the slum garbage is scanned for recycling materials and goats find some scraps of food. (photo: Renate Bornberg)

The case study area lies close to the Sion railway station. The railway track borders the slum and the study area to the south east, a small graveyard and park, the Anjuman Tarwadi Qabrastān, lies to the south, a major highway, the 90 Feet Road, intersects Dharavi and acts as a border and barrier for the observed neighbourhood in the north west. As in other areas of Dharavi too, the urban pattern and the spatial organization of Sion neighbourhood has a tight relationship with the activities of its people. Considering the inhabitants being involved in day-long economic activities and the needs of storage of raw materials, distribution and organisation of the goods as well as the climate factors (monsoons, excess heat) are translated into the current architectural language of the buildings within area. How much they are run down: they respond perfectly to the needs of the people and therefore the structural patterns and spatial patterns should be integrated in any design made for slum improvements in Dharavi.

Houses with run-down, narrow façades serve partially as stores for raw materials too, as well as workshops for craftsmanship. Façades facing the streets have mostly a shop front. In addition to single-storeyed brick houses there are also double-storeyed steel framed buildings in the area. First and second floors are generally accessed by steep and narrow ladders from outside of the house. If the house has a toilet, then it is mostly on the ground floor. Houses without a toilet are supplying their water through mori's, water stores, where also clothes and vessels are washed (Gupte: 2010). House types can be classified in Chawls, Patra chawls (legal and illegal semi-permanent structures), Zopadpattis (squatter houses) and pavement dwellings. Chawls are rental units constructed by entrepreneurs such as factory- and landowners in order to provide shelter for low-income workers between 1920 and 1956. These settlements contain a single room and a cooking place as well as shared wet-cells. Main target was to provide affordable shelter for single men, constituting an important share of the labour force. However once the migrants were settled down in the city, their families followed. Swiftly, the increasing population pushed the urban fabric to its limits (Dua: 1990).



**Fig. 7:** A stepladder leads to the upper floors. (photo: Renate Bornberg)

**Fig. 8:** A carpenter's workshop in the Sion neighbourhood (photo: Renate Bornberg)

Zopadpattis are the most common in Dharavi, and as well in the Sion neighbourhood. Pavement inhabitants constitute the households with a predominating majority of male migrants occupying footpaths with hut-like shelters, which are located close to job activities. The majority of these inhabitants is originating from other parts of India and coming here to find some work.



**Fig. 8**

The Sion neighbourhood, as well as Dharavi generally, is a quarter where people like to live, as has been outlined above. Nevertheless, improvements of all kinds are necessary. The area lacks of almost everything, beginning with drainage systems, sufficient toilets, electricity, better roads, improvements of the building structures and so forth. As in all slums apartments are very small, often damp, without sufficient ventilation and many of them below street level. Façades are covered with plastic canvas, and have hardly any opening making ventilation difficult. Streets are narrow and cramped, public spaces are hardly available, not to speak about any green, which would enhance the micro climate.

### **Proud Dharavi – improvement by design interventions**

The upgrading proposals that were designed according to the findings in Sion Station neighbourhood had one major goal: to demonstrate that the area is not filthy with only criminals living here, but people who organise their lives, earn their livings, take care of their environment and help each other. The proposed designs aimed to show the outside world that the area is a much more vibrant place than many other parts of the legal city: it is a place of people who like to live here: it is proud Dharavi.

By building on the structures that are native to Dharavi, all proposals were designed to help enhance the situation in the neighbourhood. Firstly, in all designs available local and affordable materials were used, including recycled materials such as old tyres, glass and plastic bottles, sugar cane and bamboo as well as adobe. All proposals are small scaled interventions that can easily be integrated into the existing environment by the dwellers which construction methods fit for DIY. The proposed interventions are a modular system, where people can pick the ideas they like, combine them, use them in other ways and so on. However, the designs were built on the theoretical framework of Indian ways of life and the findings in Dharavi

**Fig. 7**

and cannot be incorporated into any arbitrary slum in the world. It was intended to enhance typical Dharavi life conditions, with peoples' colourful and rich past, including their habits, expectations what to do in public, and respecting their social relationships within the neighbourhood. Four of these design interventions are outlined below.



Fig. 9



Fig. 10



Fig. 11



Fig. 12

**Project 1: Backstreets**

Backstreets are very narrow, sometimes hardly more than 1 m in width and often overbuilt. Hardly any ventilation is possible

and light is sparse. However, these areas are used as extensions of the small homes.: laundry drying, plant pots are placed in front of entrances, boxes and water barrels are placed here, and at the door sill shoes are arranged. For this very precious space, where every inch has to be used with great care, interventions were proposed such that people can use the space better and the quality of sojourn is enhanced. Additional space for the activities in the street will be provided by using the rooftops of the houses for many purposes, from drying laundry to gardening in small flower pots.



Fig. 13

**Project 2: DIV toilets**

One of the most important improvements, however, would be a satisfactory distribution of toilets. To keep costs very low, a compost toilet made of a bucket, some timber and soil was proposed. The compost material can be used for plants. Although more time consuming because of the maintenance, these toilets fit in literally every home in Dharavi. However, some public toilets were included. Since it is cheap and easy to install these toilets, with this design the disastrous sanitation conditions should be improved.



Fig. 14

**Project 3:**

Many Dharavi dwellers are involved in garbage collection and recycling. Thus these available building materials played a major role in the designs. By using plastic bottles, bamboo, sugar cane, adobe, old tyres, glass bottles, tins

**Fig. 9:** Mahatma Gandhi Road in the Sion neighbourhood with its many shops and people. (photo: Renate Bornberg)

**Fig. 10:** The Jai Sai Nath Temple, a Hindu temple for the neighbourhood (photo: Renate Bornberg)

**Fig. 11:** The Usmaniya Masjid, a mosque in the neighbourhood (photo: Renate Bornberg)

**Fig. 12:** Typical shops in the streets of the neighbourhood.

**Fig. 13:** A design proposal for Dharavi: old tyres can be used as plant pots, but also as elevated steps when the monsoon floods the streets (project: Sonja Süttmann, Annika Ziemann, Discussed projects are the results of a Design stuio at the Leibniz Univesity of Hanover under the supervision of Renate Bornberg)

**Fig. 14:** Recycled materials as alternative building materials (project: Irina Kostka, Discussed projects are the results of a Design stuio at the Leibniz Univesity of Hanover under the supervision of Renate Bornberg)

and the like, a set of very low cost constructions were designed that should help people to do more or less everything by themselves. A community centre for children and elderly people of Dharavi which was required by the community, was built solely with such materials. However, the different construction propositions can also be used elsewhere in another context in the neighbourhood.



Fig. 15

**Project 4: environmentally soft tourism**

Today there are many guided tours through Dharavi, and also through our neighbourhood (Ma: 2010). Unfortunately, they are all provided by agencies located outside Dharavi, and in the end, Dharavi inhabitants have no benefit from these tourists, but feel exploited and gaped at. However, Dharavi tourism is booming and tourists could bring in lots of money – from guided tours to buying all sorts of souvenirs. Therefore a concept for environmentally soft tourism for the dwellers of the neighbourhood was provided, that aimed to include as many people in the area as possible: shop keepers, guides (many dwellers speak perfectly English), tea stands, grocery keepers and bakery keepers. A few routes were outlined that do not penetrate the very private backstreet areas, but give some insight into life in Dharavi. Alongside these paths small cubicles are placed with informations, a DIV toilet (see above). Bigger cubicles comprise of a small office in the ground floor area and a typical Dharavi apartment on top. These apartments can be rented by tourists to also stay overnight in the neighbourhood and get a better understanding what it is like to live under such conditions.



Fig. 16

**Conclusions**

The projects are designed according to the principles to facilitate social cohesion and create civic pride. This is important in the

process of slum clearance, which still is taking place. The projects were designed to foster the cultural strata of people living in Dharavi and to demonstrate this pride to the inside but also to the outside world. It is important that both, Mumbai and the global world, do understand that Dharavi is a place where people live and like to live. It was important to mind the anthropological and aesthetic qualities of Dharavi and the Sion neighbourhood in particular. The small interventions should help dwellers to have better homes and reduce some of the serious deficits of the area. But it is equally important to show such designs to the outer world of Dharavi and demonstrate the hidden qualities of the area.

The projects explained above are designed according to the principles of a more socio-cohesion and socio-cultural friendly planning strategy that minds the anthropological-communicative and the aesthetic qualities of Dharavi as well. Be it a slum area or not, it is certain that the district contains important amount of frantic commercial activities, social diversity and cultural accumulation hence an important body of knowledge, memory and history. Planning paradigms for such unique structures should adopt the attitude of “oozing” into the punctual gaps and transform the area by activating its own dynamic by making simple designs. It is vital that the dwellers participate in the process and adapt the designs to their own ideas. Thus, not only a bundle of design projects, such as romantic roads or fancy structures were aimed for, but small scaled design suggestions that leave enough space for adapting to the needs of the individual.

It is taken granted, that human beings form and shape their environment according to social, economic and environmental needs. Although labelled as a slum, Dharavi provides many foci of strong correlations between activities and living, actually representing one of the most desired qualities of design of residential areas. Dharavi as a powerful and attractive place invites the observing urban designer to rethink the notion of slums and accept that it is a place of indigenous architecture and more specifically as a point where urban growth collaborates with social cohesion. This cohesive union produces qualities in the urban fabric that cannot be found in top down planned developments. The projects outlined were attempted to implement present designs. Making use of the handcraft capacity of the dwellers, the immense flow of raw and recycled materials, and the experience accumulation, the projects stay in line with the capacity of Dharavi dwellers whilst being sustainable.

With Henry Lefebvre’s discussion on social space, production plays a major role in Hegelian conception. The idea produces the world, nature produces the human being and human being with all its struggles for earning one’s living produces consciousness, body of knowledge and memory (Le Febvre: 1974). Dharavi represents the cardinal of a social space, fulfils the demand of being a “place” in Mark Auge’s philosophy (Auge: 2002). The events that residents encounter with each other and the immense flow of activities shaping the commercial unity grants the district a

**Fig. 15:** Recycled materials for street furniture (project: Helia Vesal, Discussed projects are the results of a Design stuio at the Leibniz Univetsity of Hanover under the supervision of Renate Bornberg)

**Fig. 16:** A concept for green tourism, carried out solely by the residents of the neighbourhood (project: Claudia Neiden, Hulya Bilor, Discussed projects are the results of a Design stuio at the Leibniz Univetsity of Hanover under the supervision of Renate Bornberg)

distinct character. The case of Dharavi is an opportunity to re-evaluate the general idea about slums in the current discourse about slum upgrading and opens roads that can lead to future debates.

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