Analysis
This analysis is divided into three parts, first a general analysis of residential areas in India, then an analysis of the principals of the India’s and Rajarhat’s planning and finally an analysis and conclusion of the inventories done on the project area in Rajarhat.

RESIDENTIAL AREAS ANALYSIS

I have chosen to analyse existing residential areas in India. My aim has been to look for similarities, differences, street patterns, street activities, weaknesses and strengths in the areas, to get at better knowledge of the type of town planning applied in India and also to understand the different needs here compared to Sweden. This has helped me to understand the structure of the Indian spatial planning.

After analysing residential areas on site I have divided my thoughts into six different headlines which I think are the most useful for this work. The headlines are: Clear patterns between different income groups, Gated communities, The urban planning/design, Building for the climate, New development with high rise buildings, and Space for social meetings and traditions.

CLEAR PATTERNS BETWEEN DIFFERENT INCOME GROUPS

As mentioned in the background the inhabitants are sorted into groups after income, this fact is very obvious when visiting a residential area. Total mixtures of income groups rarely exist in one area and when a new residential area is planned it is clear from the beginning if it will for the HIG, MIG or LIG. The design makes it also clear to which income group the residential area belongs. The HIG areas often have high rise structure while the MIG and LIG housing have around four floors.

Some areas are also homes for families, where all the men have the same employer; one area only has men working in the traffic police department or only men working for the government. The government area I visited is also organised after income. The apartment buildings have it clearly written; Type I, Type II, Type III or Type IIII on the facades.

For example a Type II apartment has two rooms, is 32 sq.m. and the father have an income between 5000 to 12 000 rupees / month (informal interview with an inhabitant in the government housing, IC-block, Salt Lake).
LITERATURE STUDY

According to the report Cities on globalization published by the United Nations centre for human settlements, one of the major aspects of globalization is the widening inequality or polarization of the inhabitants in new developed areas or whole cities. This is one factor which shapes the city and the activities it harbours.

“An especially striking urban concomitant of the globalization is the expression of inequality in patterns of segregation of people and land use.”

Thornley, A, 2001

Inequality in the cities has been broadly documented as a worldwide phenomenon known as polarization. According to report Cities on globalization it has four distinct aspects; an increase in the relative numbers of those who are rich and those who are poor; an increase in the financial distance between them; a greater differentiation among the groups between the richest and the poorest. One can speak of a four or five part division rather than a simple division in two, and sharper differentiation among the groups from each other. The four aspects of this process of polarization are reflected in the physical space of the cities, particularly in the separation of the residential areas of cities, in a pattern we may call quartering. The enclave is the most typical form of quartering, it can be a citadel of power, gentrified neighbourhood, exclusive suburb or immigrant quarter. The enclaves represent the effort to wall some in and keep others out. The citadel is usually where those at the top of the economic hierarchy live, work, consume and recreate in protected spaces of their own.

“Urban patterns of residential differentiations are not simply a function of “lifestyle” preferences or “special needs”, but reflect positions in a hierarchy of power and wealth in which some decide and others are decided for.”

Thornley, A, 2001
GATED COMMUNITIES
Almost every residential area visited had some kind of fence or wall surrounding it. In the older areas the gate was always opened and not guarded. It was only in the new residential areas it took long time or was impossible to enter the estate. At first I thought that the areas only looked at from the outside was not analysed, but the fact that I could not enter is also a part of analysis.

The older residential areas that at present were not gated communities were the areas full of life. People talking, selling and buying things, kids running from one area to the other just to play with their friends, people having a cup of chai at the pavement restaurant, all done spontaneously without making an appointment first and being controlled by the guard at the gate.

LITERATURE STUDY
This kind of development is also seen across the world, the separation when the rich wall themselves in and forming gated communities. For the poor the wall is marked as a street, slopes of hills, freeways or open spaces. The purpose of the walls of both the wealthy and the poor is recognised by all sides. The middle class is also seeking to separate themselves from
the “others”, the ones below, all from the very poor and excluded. In USA gated communities now constitute the fastest growing segment of the housing market. These gated communities today house more than 32 million people in more than 150,000 such projects across the country. A newly made study of these types of privatised quarters warns of the residents’ diminished sense of civil responsibility to the larger community. In general these kinds of developments only create enclosed enclaves in a city, and will not become a functioning part of the entire city. These developments only further draw out existing patterns of segregation. (Thornley, A, 2001).

In Singapore the state’s control of allocation has been used to create an ethnic and social mix in each housing area. To avoid polarisation and gentrification, but also to slow down the formation of shared interest groups, with the potential of mobilising dissent people with different backgrounds and income (Thornley, A, 2001). This is one example were the mixture of people has been successful, the trend worldwide is despite the fact of wider segregation and large social problems the opposite when planning offices is creating many enclaves instead of one liveable city.

The American architect Jane Jacobs first took notice of this type of development in the 1960’s in her book The Death and Life of Great American Cities.

It is important according to Jacobs that each residential area is not working against the fact that it is a part of a city, and it shall let the movement and flow of the city run through it and that way be a functioning part instead of an enclosed island in the city. She talks about three types of neighbourhood or communities: 1) the whole city; 2) the street or block and 3) larger city districts consisting of 100,000 inhabitants or more. All these three communities have different functions, but complete each other. They are all needed to create a successful city which will last for a long time. The most obvious community of these three, which almost never is thought of as a neighbourhood is the whole city. We should never overlook the fact that all the streets or blocks are only parts of the overall community they belong to. At the other end we have the single street and the small neighbourhoods and Jacobs’s idea for a successful neighbourhood is if it overlaps and is joined together with other communities or not.

If all the residential areas in Rajarhat will become gated communities, I believe that the new town will become not one new town but an area with enclosed enclaves, each enclave with people living there, but not meeting new people, not spontaneously talking with people from a other income groups and backgrounds and Rajarhat would not become a liveable city, this way the community number 1) the whole city or 3) larger city district consisting of 100,000 people Jacobs is mentioning will not be able to exist.

“First of all we have to let go of the idea that a residential area is self efficient and introverted units”  
Jacobs, J, 1961
THE URBAN PLANNING/DESIGN

MONOTONY

When I asked one woman in one residential area to point out on the map which house she lived in, a house she had lived in for four years, she could not. All the houses looked the same and in total there were more than ten houses like hers. (MIG housing in Udayan, the Condoville, Kolkata, developed 1997)

This was an extreme example on the monotone design in one area, but the structure and house design tend to sometimes become monotone. As a single house the design is really interesting, but when multiplied, it becomes boring and makes it difficult to orientate in the area.

LITERATURE STUDY

According to Jacob’s we identify ourselves with a part of the city because we use it and get to know it pretty well. We move around it because we find it interesting or because we need to for practical reasons. If all areas look the same - why go somewhere else? Uniquely designed streets or blocks make a more interesting city and creates a feeling of home for the residents in the specific area. As all the uniquely designed parts of the city are joined together in a grid, the whole city will become more interesting with more people wanting to use and explore it.
BUILDING FOR THE CLIMATE

As mentioned in the background there are three factors shaping the town planning in India, building for the climate is one of them. The two major reasons for the importance of this fact is heat and monsoon.

HEAT
To cope with the warm climate it is important that the apartments have windows in many different directions, this makes it possible to create a fresh air flow through the rooms when necessary. In general it is better with windows in four directions to get the maximum effect, three directions is acceptable, but when an apartment only has windows in two directions it can become difficult to create a pleasant climate and temperature in the home without air-condition. Apartment buildings tend therefore not to only be rectangular building blocks. The buildings are more like several small blocks joined together, where every little volume is one apartment. Or they have a major building block, with smaller parts attached to the main building.

The fact that air-condition is developed is not making it less important to plan for the climate. It is better to have a natural pleasant climate without the help of electricity run equipment.

MONSOON
Drainage canals and proper sewages systems is also a part of the planning in India. The heavy rainfalls during the monsoon can create major problems if not well planned. These systems consist of from narrow canals beside the streets up to 20 meter canals, like the one east of Salt Lake. The 20 metres wide canal planned to both provide drainage systems to the existing and the new residential area in the project area, will help during the monsoon. But this kind of development will create a major barrier between the inhabitants, a barrier I dislike.
NEW DEVELOPMENT WITH HIGH RISE BUILDINGS

All the newly developed apartment buildings I have visited consist of high rise buildings. From 11 up to 27 floor buildings often five buildings or more stand closely together. As many building companies are developing new areas at present, you can see big posters of high rise apartment buildings all over India, all with the same scale. The areas are usually in an interesting design, but then multiplied creating five or more buildings with the same design. These kinds of development are not in a human scale, and in my belief not creating a good relationship with the surrounding areas.
SPACE FOR SOCIAL MEETINGS AND TRADITIONS

Traditions and religion is a big factor here in India, and West Bengal is famous for all the festivals held in every building block. For example a temporary temple built by the inhabitants in every block several times during a year. These temples and all the people visiting it need space. The spaces where these temples are put up are sometimes small but in general large green areas are found inside every residential block.

One area visited has a small chai house near to the playground. This is a popular meeting place for the inhabitants and all the times I have been there many people have come, bought a cup of chai and talked to others. This cafe and a small home for the family running the cafe is illegal and will be taken down by the government one day, but as the cafe is important to the area it will be recreated immediately by the inhabitants (informal interview with a man living in the area).

Outside one newly developed shopping centre in Salt Lake there is a public open square. As the square is full of seating possibilities this public space is often full of people hanging out. This is one of few well designed squares I have seen in India. I think it is important to create “meeting points” and to design the residential area so spontaneously meetings are a part of the everyday life. The kind social life in the residential area I believe is important.

When looking at the existing settlements that is surrounding the project area and also other small housing areas where people from the EWS lives one thing is striking - neighbours. You live close together with other families forming a kind of small community. To form the same kind of small communities all apartment buildings can have external galleries. This way every floor can become a semi private area where the people living on the same floor can hang out. It is also important to design the area nearest to the entrance with care to create a nice area for the neighbours can meet.
ANALYSIS OF THE PRINCIPALS OF INDIA´S AND RAJARHAT´S PLANNING

PRINCIPALS OF INDIA´S PLANNING SYSTEM

The system of planning in India is very different from the planning system in Sweden. Little care is laid on the project area itself with its unique landscape and surroundings, instead the centre of attention is the “Building by law” document and the contemplate made specifically for a project.

LITERATURE STUDY

This way of planning is more technical compared to the Swedish town planning and I believe this kind of planning is what Jane Jacobs in the book The Death and Life of Great American cities calls orthodox urban planning.

This urban planning was first worked out by Ebenezer Howard in England in the end of 19th century. 1898 he published a program for how London´s growth could be stopped and in the same time re-establish people in the countryside, where the villages was shrinking.

The solution was to build garden cities, with a maximum population of 30 000, where the cities´ poor could live close to nature. To make the garden cities self efficient it should contain industries and other places for work. A well worked out plan was drawn showing sites for schools, housing, greenery, culture and places for commercial. Only two complete cities where built but the idea of creating a city through just adding the basic functions which he had found, got a lot of publicity and is still taught at architect schools.

In Rajarhat as well as Howards garden cities the basic functions are given but these cannot alone make a pleasant and liveable city. Ebenezer Howard thought of good urban planning as a series of statistic actions and every single case the plan must contain everything and when fully developed the city must be protected so no changes can be done. His admiration for the country side and hate against the big cities is obvious, and he found no interest in discovering the complicated features of culture life, the way people live their lives in a city or functions as political play grounds.

As Jane Jacobs see the street as a potential meeting point, social area and important part of the city, Ebenezer Howard disliked it and turned the housing areas away from the streets and against protected greenery areas.

The fact that all people are divided into different groups after income and only can purchase a plot or apartment in their own income group is not creating a mixture of people. The whole system feels rigid and is not making room for changes in family incomes.

RAJARHAT´S PLANNING

In general the layout plan over Rajarhat is good with plans for good public transport, areas pointed out for cultural activities as well as potential working areas for the inhabitants exist. Many basic functions are identified and exist in the new town or on the documents for Rajarhat anyway. The feeling of Ebenezer Howard ideas are although very present. A business district as well as an area for industry will hopefully provide jobs for the inhabitants.

The road system is divided into different categories with a width between 12 to 59 metres width, as mentioned in the background. I have not received any detailed design plan for these roads. One important road type which is not specified is the walking and bicycle paths. A special lane for bicycle rickshaws and bicycles is an idea I have had and will apply in my proposal.

LITERATURE STUDY

This kind of new town development is what United Nations centre for human settlements document Cities in a globalizing world calls a global city. The global city´s specific factors are its focus on attracting investment from leading sectors of the new globalized economy. This has changed the focus from seeing the city as a unique place to a product which needed to be sold.
These interests are forming a new kind of elite dominating the agenda of city governance.

Areas with headquarters or regional branches of international companies, especially in the financial sector, are wanted, as well as good connections including airport links to strategic office locations. According to United Nations centre for human settlements these types of global cities around the world have become increasingly polarized, and the label “dual city” has been used to describe the division between rich and poor created. These global organizations also tend to create a highly paid workforce, with high living standards as their salary is determined by global companies. These well paid staffs have poorly paid workers helping them with activities as cleaning, providing food or routine office work. You may think that in the end the higher productivity and efficiency of foreign owned companies would “rub off” on the local workforce, but recent studies based on data from companies from the United Kingdom of the first half 1990s found that it was no changes seen on the local level (Thornley, A, 2001).

CITY TYPE

The residential areas developed in these so called global cities can be divided into five different residential cities; the luxury and the controlling city; the gentrified city and the city of advanced services; the suburban city and the city of production; the tenement city and the city of unskilled work; and finally the abandoned city and the residual city.

If the development continues the same way new residential areas are planned today I believe two cities will occur in Rajarhat.

The luxury city and controlling city, home for the wealthy with a clearly defined residential area, with inhabitants who have little interest in the city and more interest in the residential areas power and profit. This development has lead to an increased profitability of real estate. A city for big decisions, tend to be located in the high rise centres of advanced services.

These two city types together forms on clear pattern, and two phenomenon occurs: the citadel, where the two city types with the mobile luxury city and the controlling city of business come together in space and the walling (in and out) is most extreme.

The abandoned city and the residual city, home for the very poor, the excluded, never employed and the homeless. They often lack of proper sewerage, water supply or other basic infrastructure and are abandoned by formal structures of government and denied the public services considered normal in other parts of the city. The inhabitants get their income from marginal and illegal work.

As mentioned in the background some infrastructure development will provide the existing settlements with water supply as well as drainage, but in general the settlements will still fall under this city type.

“In many cases, the projects create islands of activity, oriented to those of means, surrounded by areas of poverty.”

Thornley, A, 2001
PATHS
My idea is to let the paths continue and become stronger in the project area and not to block any existing path. The walking paths shall then continue to the other newly developed areas in Rajarhat. The major road system is already developed and in general in is well planed, paths for walking needs to be shortcuts, otherwise the people will stay at home or use the motorcycle or car for transport in the city. To not create enclaves in the city needs to be joined together by these paths.

LANDSCAPE ROOMS
The three landscape rooms on the west side of the main road will become meeting points or crossings. The idea is to create unique rooms with different character creating a more interesting area as a whole.

SHADOWS
The best shadow is of course under the small forest, in this area I would like to create a natural meeting point with some kind of permanent outdoor furniture and a cafe. The large old three south of the forest also gives pleasant shadow.

WATER BODIES
The small lake north of the forest can become a nice focal point as well as a part of the drainage system in the area. In the north west the not so attractive water body can be dug out and become a more attractive area as well as a part of the drainage system. These two water bodies can accumulate water during the monsoon, and still be a beautiful gathering point for the people living in the area.

As my focus has moved from being on both the west as the east side of the main road to only the west side of the main road the water body east of it will be left out.

BARRIERS
To not create more barriers I will concentrate the residential area to the west side of the main road. A 59 metres wide road cannot easily become a pleasant detail in the middle of the area. Bridges for pedestrians, bicycle and rickshaws are needed. Tunnels are also a possibility, but during the monsoon they probably will become filled with rainwater instead of serving as crossing points.

LANDMARKS
As mentioned in the background the largest landmark is the forest in the centre of the project area. I believe that it is important to see this landmark from as many parts of the project area as possible as well as making easy access to it. By applying the concept “all the roads lead to the forest” and working against the idea that every part of the area shall have short walk to it, the forest can continue to true landmark in the area. It is also important that the forest is visual from the main road, so people travelling through the area knows that they are passing this unique residential area.

EXISTING SETTLEMENTS
The major task is in the end how to make the existing settlements a part of this new development, but still make the area attractive for new inhabitants. The idea with a canal which will divide the settlements is not appealing, as the aim is to create a functioning residential area with good connections to its surrounding. Somehow some kind of drainage system is necessary for the existing settlements during the monsoon. By using the existing water bodies as rain water containers the width of the canals can be reduced to narrow rain water canals in the streets.

In new residential areas in Sweden canals have been designed to create an interesting environment in the area. Here the climate is different, but still it is possible to make it a part of one area and not just dividing two. To better interplay with the scale in existing settlement and not shutting this area out a lower scale close to the existing settlements in the project area will be applied.