Järva Community Center
A social, cultural and religious hub for Järva

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Why this proposal makes sense...

The aim of this project is to research the relationship between a mosque and the functions of a community center. It is located between Tensta and Rinkeby, two suburbs in the north of Stockholm.

I believe that the two areas can gain a lot by a shared community center due to both positive and negative similarities. The proximity to Glorietta and Nocka is a great plus in the equation.

Kista is another suburb in the Järva area and it has been a huge success with regards to education, entrepreneurship and the IT industry that relocated there.

My goal was to create a contemporary mosque that stays true to Islamic architectural concepts while developing a new aesthetic language for the spaces that a mosque requires.

How can we use the mosque as an attracting catalyst in order to reach out to the inhabitants in these areas?

A lot of people in Järva have roots in other parts of the world. There are a lot of vibrant communities from all over the world in Tensta and Rinkeby. People have great respect for faith and religious matters and consider it to be a major part of their identity.

What spaces can a mosque share with the community center for optimal use and convenience?

My proposal takes into consideration that a mosque has a limited number of days during the year when the worshippers need all the space that they can get.

I have therefore proposed to put the mosque next to the sports hall so that the sports hall can be used by the prayer and spiritual activities during special events such as the month of Ramadan and Friday prayers.

When the sports hall is not used by the mosque it goes back to being just a regular sports hall with an eave roof.

What makes it a community center?

To make the project more compelling I have added other functions in order to address the needs and wishes of the inhabitants. There is also a library, a pool, a food court, lecture hall/conference rooms, seminar rooms and a class room.
The Site
Järvaområdet

People have lived on Järvaområdet for more than a thousand years and the Spånga church from the 12th century is older than Stockholm City. Current districts around Järvaområdet were built during the infamous initiative “Miljonprogrammet” between the years 1965-75 when the lack of housing in Sweden and Stockholm was to be solved by building one million apartments.

Approximately 25,000 houses was built in the areas near Järvaområdet. The land had been used as a military training field during the beginning of the 1900s and when the last shots were fired the government sold the land to Stockholm City in 1966 and building process could start.

Both the north and south of the field was built areas, with shops and services along a long route through the city. In the mid 1970s, the two blue metro lines to Järvaområdet and both E18 and E4 passes through and alongside the area. It takes only fifteen minutes to Stockholm City and not much further to the airport - and the rest of the world.

The housing units built in Kista, which eventually evolved into the Kista Science City, one of the world’s leading IT clusters. Among the offices and residences there is a mall - Kista Galleria, a commercial and cultural center for the 60,000+ residents that live in Järvaområdet. It is a widely successful investment, Kista is today the most vibrant suburb outside of Stockholm City.

The actual area is one part of Stockholm’s green wedges, Järvakilen, which extends through several municipalities. Since 2006, the Stockholm part is protected as a cultural reserve, a resource for both residents and visitors.
The research

The spatial sequence of a mosque

The sequence of a mosque is particularly designed for the prayer. The court works as a social space before and after prayer. The ablution fountain is there for the visitors that pray. There is always one central space and then smaller spaces that can be used by people who have finished their prayer and are leaving. These smaller spaces are placed so that people that are still in prayer can pray without disturbance.

In the adjacent spaces near the mosque we add the programs that are necessary for the mosque. By adding the lower floor footprint we get the relationship between the upper and the lower floors. We then add the ramp, elevators and stair for vertical communication between different levels. The space in front of the mosque is removed in order to reveal the direction of the mosque. The ramp and communication space cuts through the wall of the mosque. A locker room and seating area is added for the sports hall.

The orientation of a mosque

We can clearly see below that the main prayer hall in a mosque is always oriented towards Mecka. The other spaces are placed so that they align themselves properly with the existing urban fabric.

The orientation of a sports hall and a mosque

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Color and materiality - Cordoba Mosque, Spain

Accommodation of wedges

Ornamentation through redundancy of columns

Islamic architecture encompasses a wide range of both secular and religious styles from the foundation of Islam to the present day, influencing the design and construction of buildings and structures in Islamic culture. The principal Islamic architectural types are the Mosque, the Tomb, the Palace and the Fort. From these four types, the vocabulary of Islamic architecture is derived and used for buildings of lesser importance such as public baths, fountains and domestic architecture.

The branching of arches

The diagram above shows the result, differential thickness in the roof and the columns that come down to meet the ground to structurally carry the load of the roof. The shift in size and scale between each arch gives the spaces a unique dynamic appearance in relation to traditional grid structure mosques. The varying height of the roof can be used to guide the visitor to the central axis of the mosque and create a sense of space. The height of the roof can also be used to create a sense of light and a sense of place as light comes through the forest on a sunny day.
The thesis

After the Second World War Sweden suffered from a lack of workforce and manpower. We had to import labor power from foreign countries. The hospitality of the new labor policies paved new architectural and social challenges. This resulted in Swedish pragmatism.

Manoeuvre and efficiency were favored rather than a higher quality of being. Sweden needed lots of homes for the imported workforce and had to build quickly. During the 1960s and 1970s Sweden had a very liberal policy when it came to welcoming people from countries that have been struck by political unrest, war and other atrocities. The liberal refugee policy brought in huge numbers of people from all over the world to places like Tensta and Rinkeby.

The population in these areas are very diverse and they seem to suffer from the same spatial implication.

The unemployment rate is high, the crime rates are increasing especially among young people. People are having a hard time learning the Swedish language and getting a decent job. There have been lots of discussions about how to stop young people from being involved in violent actions and how to integrate people from foreign backgrounds into society but it's one thing to talk about it and yet another thing to make things happen. Some people have been here for twenty years barely know how to communicate in the Swedish language. Parents often claim that they lack the facilities to be able to take care of their children and give them the attention they need.

All this leads to frustration among parents and young people. No one has really tried to see the problems as a whole. Most parents and young people do not have a decent mosque. The basements and ground floors that have been put in use during a short period of time.

We need to educate ourselves about foreign languages, cultures and customs of individuals. Many of the inhabitants (approx. 90-90 percent) have come from countries where people have escaped from war and other brutalities. Both Tensta and Rinkeby accommodates approximately 30 000 inhabitants. A majority of the inhabitants (approx. 80-90 percent) comes from developing countries where people have escaped from war and other brutalities. Tensta and Rinkeby accommodates approximately 30 000 inhabitants.

Tensta and Rinkeby have been built between 1965-1975 after a resolution from the Riksdag year 1965. The aim was to increase the living standards and build new modern residences during a short period of time.

The purpose of my proposal is to present a new community center that is located between Tensta and Rinkeby near the E18. There are a lot of educated and talented people that are just eager to be part of and contribute to society.

Programme map

The site is a walking distance from the Kista, "The silicon valley of Scandinavia" is a highly successful area due to its great mixture of business, shopping, housing, technology and science.

It is therefore necessary for both Tensta and Rinkeby to be a part of this area of success. Many politicians have realized this and have now presented a plan for the continuous growth of the Kista area called "Vision Järva 2030".

My proposal is to create a community center with educational and commercial functions that will complement the mosque as an attraction. Sweden is a great opportunity for people who lack knowledge about modernity and life. Sweden is a great opportunity for people who lack knowledge about modernity.

Design agenda

Pros and cons in Tensta-Rinkeby

- Cultural diversity, immigrants from all over the world
- Most people speak at least two languages
- People are very entrepreneurial
- Neatness for Kista, Stockholm City (approx. 20 min by subway)
- High unemployment rate
- People with higher education not getting decent jobs
- High crime rate among young people
- The area has a large number of different places
- Big Muslim population but no decent mosque

Summary

The thesis

The purpose of my proposal is to present a new community center that is located between Tensta and Rinkeby.

Tensta and Rinkeby accommodates approximately 30 000 inhabitants. A majority of the inhabitants (approx. 80-90 percent) comes from developing countries where people have escaped from war and other brutalities.

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From 3D to reality

By extracting a smaller part from the lower roof plate of the mosque we can demonstrate how it would work if the building were to be built in real life.

Fabrication

Every arch segment can be subdivided into a flower-like structure. The digital flower-like structure can then be used to form a high precision mold. The molds would be prefabricated and shipped to the site in an ordered manner.

Branching columns

Every column is different at the top where it meets the plane to form the arch. Each column connects to at least three other arch segments.

Structure

1. The reinforcement rods will more or less have the same shape as the arch segments.
2. In order to adjust the reinforcement rods we need to be able to open the mold prior to pouring the concrete. The image below of the Saijo Crematorium by Toyo Ito shows how the roof was ventilated.
3. When the concrete has dried we will have a very smooth surface due to the high precision mold.
4. Add color to the columns that are closest to the central space of the mosque

Saijo Crematorium
Kakamigahara, Japan
Toyo Ito Architects

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The building on the site

The total programme area is 11053 square metres. In order to make the programme more flexible I have combined a lot of spaces in order to use the space more efficiently. A big part of the programme is placed in open spaces that can be arranged and rearranged for different purposes depending on the needs and wishes of the people who use the community center.

There is also a relationship between the indoor sports activities and the park. The visitors can for instance play football during the summer, barbeque with their families or just borrow a book and sit on the benches in the park while they enjoy their coffee.

I have placed the building in a place where the existing hill comes down to meet the entrance level of the mosque and the sports hall. You can use the ramp to come up to the same level if you enter from the park. This helps to increase the privacy of entrance into the mosque. The floor-to-roof height of the community center level is higher than the mosque in order to let in more sunlight into the building. The height is also dynamic in order to create spaces that are more private/public.

The cellular field from the interior building of the building is extended into the park to create the patches of grass and vegetation in the landscape. There are benches and smaller resting areas where pedestrians can sit down and recharge their batteries while they enjoy the landscape.

The community center basically helps to lift up the building so that it relates to the intense field of trees behind it, the bridge that connects E18 Highway between Tensta and Färnebo and the height of the existing urban fabric.

Facade

The idea is to wrap the building in semi-reflective glass so that during the night it reflects its surroundings in order to give the facade a more dynamic appearance. During the day the exterior will be projected and exposed onto the facade revealing the intricate details of the roof and the column forest.

Structural glass

The intention is to not have a glass facade that is cluttered by structural elements. I have therefore chosen to use the Pilkington Planar glass facade system that uses armored glass as the structure of the facade to give the illusion of a more transparent and coherent facade.