

## **JESUS MARIA VOCATIONAL BUSINESS SCHOOL**

### **INTRO:**

In the previous year I've studied, researched and designed a proposal for a specific location in the heart of Cuba's capital, Havana. The graduation studio Complex Projects I participated in focuses on dissecting specific topics within a complex environment. Hence, Havana was the perfect playground in which political, economic and social turbulences have coloured its famous history. So first our studio analysed basic topics such as its history and contextual characteristics and after 6 weeks researching, we went on a field trip to check the current conditions. The goal of this graduation is to figure out what Cuba actually is and how we deal with its current and future situations.

### **CUBA BRIEF**

At first glance Havana appeared to be a poor and under developed country emitting a sense of the faded prosperous colonial times. The city itself became a prominent figure in European merchants' trading activities mostly benefitted by its favourable position in the Caribbean. Also in the 1800 the city and country flourished due to the large sugar cane production that covert at its peak 75% of global trading. However, after upraise from dissatisfaction between Cuban people and rich American enterprises, the island revolved into a socialistic driven regime led by the well-known Fidel Castro and Che Guevara. The 1959 revolution reformed the nation into a strongly state controlled economy and society. But after the fall of the Soviet Union, Cuba lost its only trading partner and declined into recession. Amplified by the US embargoes, scarcities and poverty forced the Communist Party of Cuba to change policies. Recently in 2010 Raul Castro allowed self-employment for small scale business. This enabled people to ensure their necessities on the local scale. It also triggered influences of new markets such as tourism, global trading and online activities. The problem however lays in the lack any business related culture they have for over 60 years. In order to thrive, an innovative notion needs to be empowered by the governing authorities. The gap created between governmental ideologies and future demands has left an outdated system which forces young generations to seek opportunities elsewhere.

### **EDUCATION**

What the fieldtrip also showed were the possibilities and opportunities that are present to counter this negative effect. Cuba's education system is widely known for its quality and effective educational methods. By investing over 13% of the national GDP (twice as much as other countries), introduce compulsory attendance, free study costs and equalize chances the government tries to stimulate an educated society. Within this socialist approach national values and anchor points are mainly translated through teachers who play an important role in connecting communities and state institutes. The program similar to other systems is organized form a central point which in practice appears to be a quick and effective method. Hence since the revolution teachers have been ten folded and illiteracy dropped to 0.2%. Looking closer however shows the political agenda behind this system. As Fidel said "quote" explains how education is used as a mean to strive certain - often economic - goals. Furthermore, relating Cuba's economic trends to political events depicts a strong relationship. Therefore, it is not surprising that there is a large emphasise on vocational studies.

## **RESEARCH QUESTION**

Conversely, the new generation's demands are changing. Due to accessibility to internet and other media they become exposed to new career possibilities and start to focus on other more profitable occupations like cab drivers. Their future perspective drifts away from what the government anticipates.

### Conclusion:

In the current model, government envisions a strategy through society to achieve economic goals. In the future initiatives will be pushed from businesses whilst the government only oversees its control.

### Research question:

'How could the Cuban education system anticipate future tendencies while supporting social-economic changes?'

### Answer:

These future tendencies are locally established businesses which support small scale communities. Hence I designed a vocational business school which introduces students to business while connecting with the surrounding. Combining students, their practices and community in one building improves and supports social economic chances of local communities.

## **MASTER PLAN / URBAN STRATEGY**

Our group was assigned to Havana's historical city centre Vieja. What's special about this area is the large variety of different neighbourhoods; historical centre, colonial strip, industrial harbour and post-industrial city expansion. From analysing all the districts we came to the strategy to divide Vieja in social and economic potential areas linked together by a newly developed waterfront. Because Cuba is investing in a new harbour outside Havana current port spaces will be vacant in the future. This is set to become the Central Business District with a new Bacardi headquarters, stock exchange, offices and residencies. Employment potentials will increase economic chances while the school, new cultural centre, collective housing and media centre develop on the social scale.

During the trip one area appeared to be isolated from other locations. The municipality of Jesus Maria is tucked between two old trading routes physically separating its inhabitants from the touristic centre and industrial activities. Jesus Maria is a densely populated residential district with low incomes of which many of its buildings suffer severe deterioration. Choosing a location for the school, I picked a building block in the centre to connect the two trading roads which had the most porosity. In this way it would affect Jesus Maria directly and acts as example to influence other districts. The few people leaving are collected in the Casa collective.

## CONCEPT

The concept of the school is to merge students and practice through the community. Giving local people an active role within the educative process increases social coherency. From analysing several schools a program consisting 45% for students, 35% for communal usage and 20% practice needs to be implemented. With these ratios the building keeps flexible enough for multiple usages during different time periods over the day. The general layout has the assembly hall in the centre alongside the communal function such as the auditorium, café, bookshop and library. The second, more private layer consists of the study spaces and lecture rooms for the students and offices for early practices. From here the design developed according to urban and programmatic restrictions. Studies showed that the school should respect its cultural surrounding by creating an offset to enhance public space, not exceeding 24 meters height and use courtyards for cultural association. Furthermore, the school will be approachable from all directions to create easy accessibility. The school projects a formal expression from the outside but has a soft/informal architecture from within. This contrast mimics existing buildings which have a closed off exterior but open up inside. Using the courtyards as connecting element between spaces will create horizontal as vertical interferences.

## USERS

### STUDENT:

Students from around whole Havana will mainly arrive in the newly build Station Central or one of the bus terminals near the Capitol. From here they take a shuttle or walk to the school. Depending on their occupation they will firstly meet other students at the city square in front of the main entrance or take one of the secondary entrances. Passed through one of the entrances they arrive in the courtyard covered by circulating pathways. In the middle of this, a large assembly hall marks the centre of the building with in front the central plaza. In the morning most students will use the elevators and adjacent staircases to go to the lecture halls. As the day goes on they will work in the communal study spaces or use a more private studio space along the courtyard decks. The study areas are positioned on the second levels, facing quiet streets for more privacy and are designed to allow a flexible layout giving students the option to actively address their needs. For group sessions they can go to the upper two levels of the assembly hall having enough privacy but still overlooking other users of the school creating an indirect relationship. Because of Cuba's sub-tropical climate all study spaces and lecture halls are climatized using mechanical cooling. The narrow louvers prevent direct sun radiation reducing energy costs.

During lunch they can go to the cafeteria on the first level in the assembly hall or go to the roof garden or other terraces to eat and relax. During the day they will wander around to visit the library, bookshop, display their work in exposition space or follow public lectures in the auditorium. All these ground floor functions are connected with the courtyard that passively ventilates all spaces. The courtyard also ensures enough shading when the sun reaches its strongest intensity. Since water became a scarcity, rainwater will be collected here and stored in concrete undergrounds tanks similar to the traditional courtyards.

After study ours the bar café opens situated next to the city square. Here, students can gather to eat and drink together with visitors and workers. In the evening the auditorium is used for plays, movie nights and other program for local inhabitants.

## WORKERS

Worker starting their own company or faculty staff mainly arrive from the Capitilio bus terminal. Like the students they can enter the school through the main -or the north entrance to their offices. These are placed on the north and east side facing the old trading route and the city square on the second level. Its layout is more formal compared with the study spaces. There is a clear separation between the office blocks but small conference rooms are shared on each level. During small breaks workers can use kitchens and lounge areas on the crosscut sides. From here they can reach the roof terraces and courtyard decks.

In the lunch break most workers will eat in the café on the first level. Before entering the café, they can walk along the upper path through the exposition room to see what is displayed that day. The setback in the façade creating this extra pathway is made possible by a basic system of concrete columns and beams spread over a square grid of 5.4 meter by 5.4 meter. It also allows large voids for better air circulation. The inner loadbearing walls are made from red brick covered with concrete cast in place floors. Program like the library, auditorium and conference hall have a costume solution. Due to weight load of the roof garden a reinforced waffle floor is used with an additional roof light in the middle. A span of 21 meter in the auditorium and conference hall introduced 1.5 meter high steel trusses supported by the brick walls and columns along the façade. Additionally, the two central transportation cores ensure extra stability.

Finished with their start-ups, the workers go to the bar to drink with their colleagues, visitors and students.

## VISITORS

People close and far from the school are either interested in renting books from the library, market, exposition, attending a business meeting or just curious. At first glance the building states itself as a monolithic concrete structure within a large varying context of colours and textures. Although it respects the surrounding tectonics in height and urban implementation (footprint), in materiality and form the school is expressed as a new statement in the city fabric. Cuts revealing the loadbearing brick walls indicate an entrance. People visiting for the first time might get lost due to the five possible entries which have the same dimension as the surrounding streets. This minor dissolution amplifies the contrast between the schools exterior and interior. The courtyard and central assembly hall are made from brick supported arches. Using brick arches will relate to a more traditional architecture which is also a product of the most efficient structural placement. With the courtyard, the assembly hall takes a prominent role and acts reference point. On the ground level it opens up, enabling markets, stands and other events to take place and densifies while moving up. This attractive notion helps for a clear flow of people. ??

## Materials:

We have to remember that Cuba is located in a sub-tropical climate. It is often forgotten that materials here deteriorate much faster due to the strong sea wind, strong sun radiation, fluctuating temperatures and humidity. Materials are already scarce and valuable so therefore in order to minimize costs, I chose concrete for the outer shell and red brick for the loadbearing walls and interior spaces. Windows on the outer facades refer to the traditional loofers often seen in the city

Business man for conference,

Bookshop