CREATING CENTRALITY FOR ALAMAR
BY PROMOTING SELF-EMPLOYMENT

INTRODUCTION & STUDY
THE CITY
THE FORUM
THE EXPERIENCE
THE TECHNOLOGY
Introduction & Study

1.1 Cuba Economy
1.2 Self-Employment in Cuba
1.3 Thesis & Research Questions
1.4 Methodology & Conclusion
1.1 Cuba Economy
Cuba Economy

**TIMELINE**
Economy: From Sugar to ?

- **1492**: Explorer Christopher Columbus lands in Cuba

**Economy - From Sugar to ?**

- **New dominator** | sugarcane plantations
- **Native crops** | cassava, corn, tobacco, cotton

**1894**: Eager to gain independence from Spain

- **1898**: Independent from Spain

- **1902**: The U.S. occupied period ends.
- **1909**: Sugar prices crashes and did not recover for 30 years.
- **1943**: Green Revolution from Norman Borlaug
- **1950s**: Castro overthrows Patrisca and takes power
- **1959**: Castro overthrows Patrisca and takes power

**Exports to the U.S.**
90% of the Sugar

**Sugar prices crashes and did not recover for 30 years.**

**Agrarian Reformation Laws** | limited techniques from Soviet Union

**Agricultural Reforms**

- **1986**: Sugar-for-oil agreement with Soviet Union
- **1999**: GDP goes up again | recovery starts

**High prices for sugar export** | opening other channels

**1999**: Organoponico Vivero Alamar is founded

**2009**: New programme on suburban agriculture

**2015**: No more embargo

**2020**: Internet market | global market

**2030**: 14% of the energy in 2030 by sugarcane biomass

**Build Social Housing Alamar**

- **95%** of the facilities, such as railways, serve for the sugar industry.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.

**Mining**

- **1986**: Sugar-for-oil agreement with Soviet Union
- **1999**: GDP goes up again | recovery starts

**Cattle Ranches**

- **1925**: Gerardo Machado launched the Atlantic City Project.

**Cuban Economy under control of the U.S.**

- **1901**: Banks controlled or owned by the U.S.
- **1920**: Mines controlled by the U.S.

**Sugarcane farmland owned**

- **480,000 acres of Cuban**
- **1900**: 1910: 1920: 1930

- **312**

**Chemicaly-based fertilizers**

- **1943**: Green Revolution from Norman Borlaug

**Dependence on fossil fuels**

- **1950s**: Castro overthrows Patrisca and takes power
- **1959**: Castro overthrows Patrisca and takes power

**Agrarian Reformation Laws** | limited techniques from Soviet Union

**Building Social Housing Alamar**

- **95%** of the facilities, such as railways, serve for the sugar industry.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.
- **Sugar, million** | exports to the U.S.
Central Planning Model

Central Planning Model & Dependence on USSR

Cuba economy started its central-planning model and dependence on USSR from 1960s. The government controlled everything of the domestic economy like USSR. This kind of economic model limited the expansion of Cuban Economy.

Importing 63% of food and 90% of oil from USSR

95% of the citrus crop went to COMECON countries

Largest exporter of raw sugar

TRIUMPH OF THE REVOLUTION | SUGAR FOR OIL

EMBARGO BY THE U.S.

BUILDING SOCIAL HOUSING ALAMAR
U.S. Embargo against Cuba
USSR & COMECON Collapse 1991

Cuba lost its partner

in 1991, the USSR collapsed. The sudden end of Cuba's biggest partner was a devastating blow to Cuban Economy.

Nowadays, the traditional sugar industry, upon which the island’s economy has been based for three centuries, is centered somewhere on the island and controls some three-fourths of the export economy. But light manufacturing facilities, meat-packing plants, and chemical and...
Economy Reform
1993

**Self-Employment Legalized**

Reduce state sector & increase non-state sector

2011.4— The VI Congress of the Communist Party of Cuba (CPC)

Approval of the “Economy and Social Policy Guidelines of the Economic and Social Policy of the Party and the Revolution."
1.2

Self-Employment in Cuba
The Development of Self-Employment

In the beginning, the SE has caused considerable controversy because it is new to the society. This can explains the fluctuations in the numbers. But generally speaking, SE in Cuba is growing, especially after 2010.
Cuba plans massive shift to "non-state" sector

HAVANA (Reuters) - Cuba will move nearly 50 percent of the state’s economic activity to the “non-state” sector, a senior Communist party official said at the weekend, the latest signal the island is headed toward a mixed economy.

Non-state Economy Booming

Employment in Cuba 2009–2012

<table>
<thead>
<tr>
<th>TYPE</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>5,072,400</td>
<td>4,984,500</td>
<td>5,010,200</td>
<td>4,902,200</td>
</tr>
<tr>
<td>State Sector</td>
<td>4,249,500</td>
<td>4,178,100</td>
<td>3,873,000</td>
<td>3,684,300</td>
</tr>
<tr>
<td>Non-State Sector</td>
<td>822,900</td>
<td>806,400</td>
<td>1,137,200</td>
<td>1,217,900</td>
</tr>
</tbody>
</table>

Employment by Sector 2009–2012

<table>
<thead>
<tr>
<th>Year</th>
<th>State Sector %</th>
<th>Non-State Sector %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>2010</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>2011</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>2012</td>
<td>75%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Self-Employment Booming

Self-Employed Businesses Expand in Cuba

Private business in Cuba have hired a total of 100 thousand 448 employees up to last September, which is in tune with the promotion of the new non-state employment modality.

Homero Acosta, secretary of the Council of State told reporters in Havana that the Cuban Council of Ministers approved 486 new cooperatives, 283 of them have been already set up particularly in the

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Non-State Sector By Category

<table>
<thead>
<tr>
<th>TYPE</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Self-Employed Workers</td>
<td>143,800</td>
<td>147,400</td>
<td>391,500</td>
<td>391,500</td>
</tr>
<tr>
<td>Private Sector</td>
<td>591,300</td>
<td>589,400</td>
<td>928,500</td>
<td>1,005,300</td>
</tr>
<tr>
<td>Cooperatives</td>
<td>231,600</td>
<td>231,600</td>
<td>231,600</td>
<td>231,600</td>
</tr>
</tbody>
</table>

Source: Statistics from CubaDebate, 2014

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Employment in Cuba 2009-2012

<table>
<thead>
<tr>
<th>TYPE</th>
<th>2009</th>
<th>2010</th>
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<td>1,137,200</td>
<td>1,217,900</td>
</tr>
</tbody>
</table>

Source: Statistics from CubaDebate, 2014

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Self-Employment

- 2009: Cooperatives: 24%
  - Private Sector: 61%
  - Self-Employed Workers: 15%

- 2010: Cooperatives: 24%
  - Private Sector: 60%
  - Self-Employed Workers: 15%

- 2011: Cooperatives: 15%
  - Private Sector: 80%
  - Self-Employed Workers: 15%

- 2012: Cooperatives: 14%
  - Private Sector: 80%
  - Self-Employed Workers: 16%
Unstoppable Trend

CUBA: Self-Employment Expanding, But Not Enough

By Patricia Grogg

HAVANA, Sep 26 2011 (IPS) - This month, the Cuban government eased up on taxes and other legal aspects involved in self-employment. But experts warn that there are serious limitations standing in the way of growth of private enterprises, which is supposed to absorb hundreds of thousands of employees dismissed from the public workforce.

"There has been resistance to the changes that (President) Raúl (Castro) wants to carry out, and what is happening with self-employment is one example," an expert who preferred to remain anonymous told IPS.

Nevertheless, the number of officially registered self-employed people – known in Cuba as "cuentapropistas" – climbed from 157,000 in September 2010 to just over 335,000 in August 2011.

Deputy minister of finance Meisi Bolaños, quoted by the Cuban press, said the growth in one year was higher than projected.

But according to specialized sources, around 25 percent of self-employment permits had actually been returned as of July.

"At least in housing and room rentals, people I know have quit this business because they were losing money," a woman in the quiet residential Havana neighbourhood of El Vedado who rents a room in her house to foreign tourists told IPS.

"My mother and I decided to wait and see if things get better, although if it wasn’t for my son, who once in a while sends us some money (from abroad), we would be in trouble," she said.

Cuba Has Over 400,000 Self-employed

By Café Fuerte

HAVANA TIMES – A total of 429,458 Cubans are registered as self-employed in the 181 activities authorized by the government of Raúl Castro since late 2010, according to official statistics.

According to data released by the Ministry of Labor and Social Security, the figure of persons working in the private sector in Cuba was issued at the end of May, which marks an increase of more than 30,000 over last year.

The report notes that self-employment has increased most in the provinces of Havana, Matanzas, Sagamientos, Holguin and Santiago de Cuba, which together account for 64 percent of the registered business and new land owners and their laborers.

The largest single group falls in the category of workers hired as labor by private business owners, accounting for 18 percent of all private employment. A total of 63 of the permitted work activities permit the hiring of waged labor.
Benefits

Cuba Score Over Time

Cuban Index of Economy Freedom

Viable alternative for people who are wishing to improve their incomes.

Important source of tax.

Increase the flexibility of Cuban economy.

$135.80/month
Salary of Self-employers

$10.04/month
Salary of State job

1999
Problems

Lack of knowledge, skills, in specific fields.

<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menor de 6th/ Less than 6th grade</td>
<td>1</td>
</tr>
<tr>
<td>6th grade</td>
<td>5</td>
</tr>
<tr>
<td>9th grade</td>
<td>33</td>
</tr>
<tr>
<td>12th grade</td>
<td>44</td>
</tr>
<tr>
<td>Tecno Medio/ Vocational/ Technical school</td>
<td>10</td>
</tr>
<tr>
<td>Universitario/ University</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: Statistics from the Provincial Department of Labor and Social Security, Havana.
Licenses Granted By Educational Level (May 2011, Havana Province)

<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menor de 6th/ Less than 6th grade</td>
<td>1%</td>
</tr>
<tr>
<td>6th grade</td>
<td>5%</td>
</tr>
<tr>
<td>9th grade</td>
<td>33%</td>
</tr>
<tr>
<td>12th grade</td>
<td>44%</td>
</tr>
<tr>
<td>Tecnico Medio/ Vocational/ Technical school</td>
<td>10%</td>
</tr>
<tr>
<td>Universitario/ University</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Statistics from the Provincial Department of Labor and Social Security, Havana.

The Most Common Occupations For Self-Employment

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Preparation &amp; Sale</td>
<td>57,776</td>
</tr>
<tr>
<td>Passenger transportation</td>
<td>47,733</td>
</tr>
<tr>
<td>Residential renting &amp; leasing service</td>
<td>29,952</td>
</tr>
<tr>
<td>Contracted workers</td>
<td>91,978</td>
</tr>
</tbody>
</table>

Source: Statistics from CubaDebate, 2014

Small scale of micro-entrepreneurs

Source: Statistics from CubaDebate, 2014
Lack of working and employment experience.
Self-employment Increases in Sancti Spiritus, Cuba

By: CARMEN RODRIGUEZ. Friday, 4 April, 2014
Over 9,000 new jobs have been created in Sancti Spiritus since 2010.

Bank Loans Facilitated to Self-employed Workers in Cuba

By: MARY LUZ BORREGO. Tuesday, 4 February, 2014
Since December 2011 banks in Cuba offer the option of loans to self-employed persons to invest in working capital (payment of raw materials, supplies, salaries) and business-related funds (construction of places, and buying means for work).

Lack of financing and policy support

Cuban Bank to Offer Loans to Self-employed Without Collateral

ESCAMBRAY.
Wednesday, 2 September, 2015.

The emerging Cuban self-employed sector will have access to loans up to 10 thousand Cuban pesos to be granted by the Banco Popular de Ahorro (BPA).

Greicher La Nuez, business manager of the BPA, said this measure will get in force in the next future and aims at getting a closer working relation with the self-employed sector.
Lack of public infrastructure and public space

The youth of self-employed Cubans is probably a function of the physically demanding nature of the typical self-employed occupation. While not every occupation is as grueling as that of the bicycle-taxi

The Self-Employed in Cuba: A Street Level View

however. A group of economists, acting under the auspices of the Catholic Church, had organized regular meetings of the local self-employed. According to one of the founding economists, the meetings were designed to “offer the self-employed the space to reflect upon their situation. We discuss new regulations, the tax system, and answer any questions they have.” She told me that the state prohibits such meetings, but that the Church offers protection from the authorities. In the Cuban Catholic Church-sponsored magazine, Visual, the group publishes occasional articles directed to the self-employed to explain regulations and the tax code.

Political and Macroeconomic Effects

Self-employment has clearly contributed to the recovery of the Cuban economy, but whether or not it is indispensable is not so clear. The government, in an unprecedented admission that the state could not provide work for all its citizens, has announced that
Conclusion

Self-employment has the great potential to be the important force of Cuban economy.

—To be improved and developed further.

How does Alamar realize the centrality (functionally and socially) today in Cuban context?

What does the centrality of Alamar mean for the city of Havana?
A new better-off Cuban has arisen. The self-employed people will be an important minority who have enterprise experience, such as risk taking, investment, profits, taxes, and regulation. They will be the first group of people who have the ability to update the life of Cuban people, to start gentrification in Cuban society. This also applies to Alamar. The self-employers in Alamar will be the first group of people who can bring the better goods, finance, and service to the community, to inspire other people to be involved in the evolution. In this way, the social relation would develop and change, physically speaking, the urban space and public infrastructure would be updated. Therefore, the centrality could be realized in Alamar.
1.3 Thesis & Research Question
“FORUM”

Creating Centrality for Alamar Community
By Promoting Self-Employment in Alamar

- How does Alamar community realize its unexplored centrality with self-employment, as a response to its homogeneity and fragmentation, in order to provide itself the strong basis for future development?

- How does Alamar position itself and define its future in today’s Cuban context? (Urban)

- By what means can the Alamar community obtain a strong and well-functioned community public realm, as a starting point of the further development of the whole Area? (Architecture)

- How does the project react to the Cuban context, such as local material, construction method, and social involvement, etc? and create public space of high-quality for Alamar people? (Technology and Atmosphere)
1.4 Methodology & Conclusion
Methodology

With the group manifesto, we can see that it asked the design to have a future scope, to design building not only for now, but also for the future.

Intervention & Ambition

The ambition is to make a the complex building in the center of Alamar, to realize the integration of social functions, to increase the density, in order to update the public space and improve the economy in Alamar, in the end, to achieve the goal of centrality.

Conversely, the realization of centrality will also help to provide better public space and infrastructure for the self-employers and Alamar people. Eventually, to provide the starting point for future development.
2.1 Problem Statement
The Bedroom City
Mono-functional Approach

Top down planning

Public utilities, administration and culture are in general sparse thereby enhancing the picture of the monofunctional town, not to forget the nickname of district x, siberia, which associate your mind to the Russian isolated and distant region, deriving from lack of utilities and vegetation.

Mono-functional approach

Another essential misstep is the mono-functional approach. Strong communities and public life is deeply embedded in the Cuban culture. In practical terms, this always goes along with some level of trading and entrepreneurship. The housing blocks should reserve space and offer a certain level of flexibility to adapt spaces for their changing needs.
Lack of Hierarchy

Monotony leads to dull public spaces.

- Monofunctional segregation typical of soviet style ‘rationalist’ planning
- Lack of connections to potential public spaces (farms as obstruction, desolate beachfronts) cannot be seen
- Unexplored centralities which are a result of the manipulations to the original plan.

Plan El Olympo under construction

Although the plan will never be finished, the construction workers started very ambitious. All the roads around Alamar were constructed before The Triumph of the Revolution. Unfortunately only a couple of the original villas were constructed since the plan started in 1958.
Lack of Public Space and Infrastructure

Mal-function of public buildings

Mal-function of public space
Employment
Small Scale Economy

The employment rate is low in Alamar, many people live on this kind of small scale economy.
2.2 The Site
Site Defining

Crossing Area of Two Axis

Site Area & Intervention Area
Bonding Point

Urban Position
The project is expected to become a bonding point of the two urban axes, because it will serve as an important transfer point to the other projects if you come from the entrance of Alamar.
2.4 The Masterplan
Urban Strategy
Masterplan

[Diagram of a master plan showing various areas such as residential areas, green belts, parks, and industrial zones.]

1. Urban Farming Area
2. Central Park
3. Green Belt
4. Jogging Route
5. Bicycle Route
6. Outdoor Sports Field
7. Urban Farming Land
8. Central Boulevard
9. Residential Area
10. Baseball Field
11. Residential Area Villa
12. Central Park Community Center
13. Forum
14. Industrial Area
15. Park Honoi
16. Education Area
17. Cultural Plaza
The axis will be transformed into an infrastructure belt with public buildings and a pedestrian boulevard which connected to my building.
The FORUM

3.1 The Concept
3.2 The Plan
3.3 The Organization
3.1 The Concept
Mixed-Use Development

LIVING + LEARNING + SELF-EMPLOYING

Housing + Library + Commerce

Pilot Building

Blending of Function

Density

Centrality & Hybrid Self-Employment Complex

Ambition

The ambition is to have a pilot building in the very center of Alamar, to start the urban update; to blend the social functions together, and to increase the density of this area.
Building Scheme

Lv.0 Retails
Lv.1 Self-employment & Library
Lv.2 Duplex Housing & Tower
Public Space

Housing Tower with roof Garden
Duplex Housing with roof Garden
Community Library
Self-employment Learning Centre
Retails & Commerce

Building Program

<table>
<thead>
<tr>
<th>LIBRARY</th>
<th>AREA</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Collection</td>
<td>1,200m²</td>
<td>21%</td>
</tr>
<tr>
<td>Reading Unit</td>
<td>1,200m²</td>
<td>21%</td>
</tr>
<tr>
<td>E-Reading Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing</td>
<td>100m²</td>
<td>3%</td>
</tr>
<tr>
<td>Computer Resources</td>
<td>700m²</td>
<td>14%</td>
</tr>
<tr>
<td>Administration &amp; Logistics</td>
<td>200m²</td>
<td>3%</td>
</tr>
<tr>
<td>Multi-Function</td>
<td>500m²</td>
<td>9%</td>
</tr>
<tr>
<td>Service Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan &amp; Return</td>
<td>100m²</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>100m²</td>
<td>2%</td>
</tr>
<tr>
<td>Exhibition-Gallery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media Centre</td>
<td>350m²</td>
<td>5%</td>
</tr>
<tr>
<td>Auditorium</td>
<td>500m²</td>
<td>15%</td>
</tr>
<tr>
<td>Program Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>5,800m²</td>
<td>96.15%</td>
</tr>
<tr>
<td>Archive</td>
<td>300m²</td>
<td>5%</td>
</tr>
<tr>
<td>Children's Area</td>
<td>150m²</td>
<td>3%</td>
</tr>
<tr>
<td>Teen's Area</td>
<td>300m²</td>
<td>5%</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>CONCERNECE</th>
<th>AREA</th>
<th>PERCENTAGE</th>
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</thead>
<tbody>
<tr>
<td>Indoor Retail</td>
<td>5,000m²</td>
<td>96.15%</td>
</tr>
<tr>
<td>Restaurant &amp; Bar</td>
<td>200m²</td>
<td>4%</td>
</tr>
<tr>
<td>Commerce</td>
<td>5,200m²</td>
<td>96.15%</td>
</tr>
<tr>
<td>Storage</td>
<td>3,500m²</td>
<td>60%</td>
</tr>
<tr>
<td>Parking</td>
<td>1,600m²</td>
<td>28%</td>
</tr>
<tr>
<td>Service</td>
<td>700m²</td>
<td>12%</td>
</tr>
<tr>
<td>Basement</td>
<td>5,800m²</td>
<td>96.15%</td>
</tr>
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<table>
<thead>
<tr>
<th>DWELLING</th>
<th>AREA</th>
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</tr>
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<tbody>
<tr>
<td>Duplex-Living &amp; Working Units</td>
<td>1,700m²</td>
<td>17%</td>
</tr>
<tr>
<td>Tower-Living &amp; Working Units</td>
<td>6,000m²</td>
<td>56%</td>
</tr>
<tr>
<td>Roof Terrace &amp; Garden</td>
<td>2,500m²</td>
<td>21%</td>
</tr>
<tr>
<td>Daycare</td>
<td>900m²</td>
<td>8%</td>
</tr>
<tr>
<td>Dwelling</td>
<td>11,700m²</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SELF-EMPLOYMENT LEARNING CENTRE</th>
<th>AREA</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Consultant</td>
<td>150m²</td>
<td>17%</td>
</tr>
<tr>
<td>Tech. Support</td>
<td>200m²</td>
<td>23%</td>
</tr>
<tr>
<td>Organization Office</td>
<td>150m²</td>
<td>17%</td>
</tr>
<tr>
<td>Financial &amp; Policy Support</td>
<td>150m²</td>
<td>17%</td>
</tr>
<tr>
<td>Self-Employment Lecture Room</td>
<td>150m²</td>
<td>17%</td>
</tr>
<tr>
<td>Self-Employment Learning Room</td>
<td>400m²</td>
<td>33%</td>
</tr>
<tr>
<td>Collective Space</td>
<td>300m²</td>
<td>33%</td>
</tr>
<tr>
<td>Studio &amp; Office</td>
<td>500m²</td>
<td>56%</td>
</tr>
<tr>
<td>Self-Employment Learning Centre</td>
<td>2,000m²</td>
<td>100%</td>
</tr>
</tbody>
</table>
Library & Self-Employment Learning Centre
Information & Learning space
Place for working/renting
Place for Career Consultant & Support

Employment/ Commerce-Retails
Provide place for self-employment in Alamar Entrepreneurship

Housing—Living-Working Units
Ensure 24/7 Density
Introduce new types of Housing & Living condition

Public Space—Urban Quality
“+” as Public Spine

Diagram showing the layout of a building complex with different sections labeled as "Tower Entrance," "Commerce Library," and "Green Passage."
“I” as Culture Passage

Canopy—Protected from sunshine and rainwater

Exterior & Interior Space

Bridging—Connecting & Communicating Space
“-” as Green Passage
The user of the project will be the first generation of self-employers and other Alamar people. The self-employers can have their space for business, collective space for learning and their own housing on top of it. The library and learning center are also for the other Alamar people who don’t live here.
accordingly, I would like to address it both on urban level and building level.
3.2 The Plan
Urban Implementation

Urban Implementation Plan
Building Plan

Ground Floor Plan

First Floor Plan
The Organization

3.3
Considering the 1st floor, the library and the Learning center is most important public domain of my project, I would say this axis has higher hierarchy than the other one. It also influence how it is constructed.

the axis of higher hierarchy
Building Accessibility

Library Entrance 1
Cultural Plaza side

Library Entrance 2
Amusement Park side

Housing Tower Entrance 1

Housing Tower Entrance 2

Private

Public
The library and Learning center has their inner circulation with the bridges. And the public space in the library also serve as one part of the urban space sequence.

As for escape, 9 concrete cores are placed to meet the requirement.
So the library could be regarded as the extension of urban public space, which connects the culture plaza and the amusement park.
Buidling| Logistic

And the basement used for logistic and parking, can be reached by the ramp from north side.
The Experience

4.1 The Urban Incubator
4.2 Space Under Canopy
4.3 Library & Learning Centre
4.4 Living In The City
4.1 The Urban Incubator
The Central Building
Commerce makes the city

Scene 1

Ground Floor Retails provide space for enterprise of the self-employers
4.2

Space Under Canopy
Defining Public

Canopy defines the public and private in the complex.

Canopy promote the quality of being outside in Cuban climate and culture.
The public domain is protected with canopy in my project. It is Cuban people’s preference to be outside because the temperature is pleasant in Cuba.
Greenery Under Canopy

Greenery under Canopy

Greenery – Human Scale
4.3 Library & Learning Centre
Stair As Tribune-- Event Space

Atrium of Library
Place for self-improvement

Scene 2
First Floor, Self-employment Learning Center provide space for communicating and learning.

Studio of Learning Centre
The private studio space can be used as private learning area or space for office or renting.
Collective Learning Space

The collective space can be used as space of co-learning and co-working.
Hybrid way of Living

Scene 3

Duplex Housing

-Provided for the self-employers and technicians who have knowledge and skills, and who can serve as consultants in the Learning Center
Roof-top Garden

Roof-top Garden
Scene 4

Housing Tower
Provided for the self-employers who has their own business on the ground floor retail
The Extension of Green Belt

Scene 5

With roof garden and the extension of green belt, the project creates public space with greenery on different levels.
The Technology

5.1 Materialization & Structure
5.2 Climate
5.3 Sustainability
5.1 Materialization & Structure
Building Material

Concrete

Concrete is the most traditional and common building material in Alamar. Due to the history of Microbrigades, concrete can be applied in prefabrication and cast-in situ.
Red Brick

Red Brick is a common building material in Cuba.
Wood

Wood will help to create warm and cozy atmosphere, and blend the interior and exterior space.
Building Facade
Colonnade

The facade creates a space on the ground floor for the public to get in and walk along the building.
West Facade
Building Structure

Wood Frame

Pre-fabricated Waffle Slab

Concrete Frame Structure

Wood Frame

Level 2-3 -- Library

Level 0 -- Retail

Concrete cores

9 Concrete cores are placed to serve as stiff elements.
Waffle Slab System

- High Load-Bearing
- Better Sound insulation
- Long Span & Flexibility
- Lighter Construction
Waffle Slab Installation

Installation

In order to have a clean interior ceiling, and to show the grid of the waffle slab, the facility are installed all around the fringe with the rooms.
5.2 Climate
Ventilation

Ventilation Concept

Ventilation above ground

Ventilation basement

Ventilation concept as part of “+” spatial concept
Sunlight & Solar Radiation

Cuba is in tropical area which has very enough sunlight in most time of the year.
canopy + plan layer to prevent the building from being overheated
Drainage

Precipitation

![Precipitation Graph]

- **mm/month**

![Dry Days Graph]

- **Dry days**
- **< 2mm**
- **2-5mm**
- **5-10mm**
- **10-20mm**
- **20-50mm**
most of the drainage problem will be solved by the canopy.

The water could be collected and for plant irrigating.

For the green passage without canopy, made it with permeable pavement and slight slope so that the water can be going to the middle for drainage.
5.3 Sustainability
Sustainability

The idea of having more natural ventilation and more natural light to reduce the energy consumption. The rainwater can be collected in the tank for reuse.

Photovoltaics

Translucent Solar Panels
Solar Power Station

The total area of the project is around 6000 m² which can cover the public use of the project and also can provide energy to surrounding public buildings that would be built later. So actually it is running as a solar power station. I think it is also part of the pilot building idea.
Urban Plan

Site Plan
Urban Implementation Plan
Skylight:
- 2 x 8mm laminated safety glass
- shaded with ceramic printing, white, striped, 35% shading
- 60/60/16/8mm steel profile beam
- 16mm twin-wall polycarbonate sheet
- 22mm oak parquet
- 3mm levelling coat
- 65mm cement screed
- polythene separating layer
- precast lightweight concrete planter
- 250mm layer of black earth
- geotextile felt
- 50mm gravel cover
- 30mm smoothed cement
- suspended concrete subfloor with slope 2%
- double hydrophilic asphalt membrane insulation with geotextile core and sandy asphalt coating to improve adhesion

Detail 1
- 24mm dark stained oak lining for sitting
- 100mm prec. concrete element
- 5mm bed of mortar
- 10mm bed of mortar
- reinforced concrete support

Detail 2
- roof construction
- 100mm planted layer
- screed with 2% falls
- sealing layers
- 60mm thermal insulation
- vapour barrier
- 100mm waffle concrete floor

Detail 3
- 100mm planted layer
- screed with 2% falls
- sealing layers
- 60mm thermal insulation
- vapour barrier
- 100mm waffle concrete floor
Skylight:
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Reflection

“Forum”—Creating Centrality for Alamar by Promoting Self-Employment

Content

01 As Complex Projects

02 Methodology

03 Centrality—Research & Design Concern

04 Reflect on Self-Employment—Cuban Context & Social Value
01 As Complex Projects—From Complexity to Simplicity

As we all know, the Complex Projects studio has a specific methodology as a research-based studio. The studio encourages students to explore the complex factors that might affect the decisions made by architects. By collecting and analyzing data, the complexity of social and spatial character has been discovered, as a strong preparation for generating the following intention. In this process, architecture is considered to be not only an entity, but also an outcome of diverse tangible and intangible factors. Thus, students in Complex Projects studio are required to play not only the role of architect, but also the role of data analyst as well as organizer. In this stage, the complexity is increased.

Based on the diverse information found in first stage, setting out the strategy of urban development and architecture design is a very important step in Complex Projects studio. By formulating the strategy as urban planner and strategist, the data collected needs to be filtered and concluded to form the starting point of design, which also gives the principles in the entire design process. With the development of design, the simplicity is achieved in place of complexity.

To conclude, in my personal opinion, the objective of Complex Projects is to achieve the final result of Simplicity with the method of Complexity.

In the thesis, I focused on the research area Alamar, Havana in Cuba, and investigated it in social, economic and social scopes, as well as spatial character. Based on the group manifesto of urban development, the second stage is to concentrate on specific research topic of creating the Centrality with Self-employment for Alamar as a real city in the future. The third stage is to solve the investigated spatial and social problems with architecture to answer the research questions, from urban scale 1:1000 into building scale 1:200 and then the human scale. Last but not the least, the analysis of social value and future development is a essential step to review the rationality of the project. The methodology of Complex Projects studio and principle of achieving simplicity with complexity were carried out throughout the whole process.

02 Methodology

02.01 Diachronic & Synchronous Principle

Architects should observe the world in both diachronic and synchronic perspectives, especially in this case, Cuba, a changing context. On one hand, the economy, culture, politics, as well as urban space in Cuba are of great importance to comprehend what the situation is. On the other hand, it is also necessary to be acquainted with the past, present and the development of Cuba, in order to ensure the project will be in accordance with Alamar and Cuba’s future.

For instance, self-employment in Cuba was legalized in 1993 as a part of a series of liberation to reduce state sector and increase non-state sector economy in response to the USSR collapse. In the beginning, the self-employment has
caused considerable controversy, which can explains the fluctuations in the numbers. However, generally speaking, the self-employment is becoming increasingly popular in Cuban society. In 2010, the end of central planning and paternalism was officially announced in Cuba. It can be seen that the growth of self-employment is an unstoppable trend now, and even in future.

Additionally, the design itself should also be considered in an approach of development. What is the best urban strategy in next 10 years, 20 years, or even 50 year? What should be the best way to react not only to today’s Alamar but also to Alamar in the future? What is the best approach to design the hardware but leave the flexibility to people in Alamar to alter the software, in order to meet their developing needs? What is the sustainable way to construct the building in terms of structure and energy? All these concerns should be taken into account when we want to build the project to provide strong starting point for people in Alamar.

02.02 Vernacular and Global Evaluation

After Revolution, the Cuban economy in central planning model relied on USSR from 1960s. Meanwhile, the US started the embargo againsts Cuba. As a result, the Cuban economy has suffered billions of damage, which created a great difficulty for its development in infrastructure and public facility. Public space and projects are in shortage and decay.

On one hand, it is important to know the situation and development of Cuban architecture and urban space. On the other hand, many excellent projects in Latin-American and Caribbean countries, such as Mexico, Brazil, Costa Rica, who share the similar geography and climate, can provide useful experience of updating urban space and infrastructure.

Besides, because the similar experience on social and economic development, Cuba share construction technology and materials with other developing countries in this area. They have the similar way of dealing Caribbean sunlight and rainstorm, as well as ventilation and drainage.
03 Centrality—Research & Design Concern

03.01 Project Thesis
The thesis is “FORUM” Creating Centrality for Alamar Community By Promoting Self-Employment in Alamar. Specifically speaking, the main research question is:

- How does Alamar community realize its unexplored centrality with self-employment, as a response to its homogeneity and fragmentation, in order to provide itself the strong basis for future development?

- How does Alamar position itself and define its future in today’s Cuban context?
  (Urban)

- By what means can the Alamar community obtain a strong and well-functioned community public realm, as a starting point of the further development of the whole Area?
  (Architecture)

- How does the project react to the Cuban context, such as local material, construction method, and social involvement, etc? and create public space of high-quality for Alamar people?
  (Technology and Atmosphere)

Thus, I propose a large-scale interventions—“FORUM”, operating at the scale of community infrastructure, providing a pilot building and a new spatial order for urban center where learning and self-employing as the central organizer of community life. The “FORUM” contains spaces for living, learning and working appropriate to the lives of self-employers in Alamar. More than a means for gentrification, my proposal is to expand the model of self-employment as social and economic propulsion to Alamar people who are often excluded from the contemporary labor market in Cuba.

03.02 Between Centrality & Self-employment
The ambition of the project is to build the link between Alamar and Cuba as well as the link between present and future. Centrality is the goal to be achieved in Alamar with the content of self-employment.

This diagram shows the relationship between Centrality and Self-employment in the thesis project. On one hand, by promoting self-employment in Alamar, social function will be integrated to create and update its public space and realm. Secondly, the economy and wealth will grow to improve their living standard. Last but not the least, the density can be increased in the central area to reduce its homogeneity. As a consequence, the centrality of Alamar will be realized by self-employment.

On the other hand, Realizing centrality in Alamar will help to improve the hardware—public space and infrastructure, as well as the software—knowledge, skills and experience of employment and enterprise.

03.03 Hybrid, Mixed-use Development—Realizing Centrality
‘The Unit Building, covering three blocks of ground space, will house a whole industry and its auxiliary businesses. Only elevator shafts and stairways reach the street level. The first ten floors house stores, theaters and clubs. Above them is the industry to which the Building is devoted. Workers live on the upper floors…’
Rem Koolhaas. Delirious New York. 1978

The research area, Alamar, a New Town to the east of Havana, originally destined to become a luxurious American-style suburb. Villas were built in 20s which is stopped by the revolution. Castro’s policy was to replace the projected
building of villa’s with that of prefab apartment blocks for the workers, built by microbrigades\(^1\). Today, wide-spread social housing is the main characteristic of Alamar. Due to the financial and economic shortage, the public function were not well-equipped. As a result, The failing to embrace multiple social functions results in the segregation and therefore the fragmentation of the city.

The mono-functional approach seems to be economical and problem-oriented, but the disability of social function costs much more once it is built. In response, the “FORUM” project plays a significant role spatially and socially terms of urban strategies. The hybrid project goes beyond the domain of architecture and enters the realm of urban planning. Socially speaking, the hybrid building looks for unpredictable, unexpected relationships, encourages coexistence of public and privacy. The sociability of public life and the intimacy of private life find anchors of development in the hybrid building. Hence, the social relationship and network is enriched by hybrid social life. The hybrid of uses is only a part of the whole urban hybridization. Within this process, the property and land development can be hybrid; the construction can be hybrid; the management can be hybrid as well.

\(^1\)The concept of the Microbrigades was first put forward in public by Fidel Castro in one of his speeches in 1970. The workers within an office, a factory or any other productive unit should be given the possibility to build houses for themselves and for their colleagues.

Besides, by creating a hybrid complex in the geographic centre, the permeability of the hybrid makes it accessible from the city and the private use of its services extends its vitality to 24 hours a day. Consequently, the activity is constant and not limited by private and public rhythms. A full-time building is crucial for creating urban centrality.

Additionally, viable communities are those which are constituted in balance—residential, commercial, institutional, and operative. The abundant illegal additional construction of residential buildings in Alamar is a evidence of imbalance. A new type of hybrid housing is needed.

‘Every Businessman in the city must have realized what an advantage it would be to live in the Building where his office is located. It is towards this ideal that real estate firms and architects should work.’


Density is another crucial factor of the centrality. The hybrid situation of land use is helpful to create dense urban environment. “The hybrid scheme proposes intense environments of cross fertilization, which mix known genotypes and create genetic allies to improve living conditions and revitalize their surrounding environment.”
04 Reflect on Self-Employment—Cuban Context & Social Value

Self-Employment in Cuba was legalized in September 1993 as a part of liberations that the Cuban government has adopted in response to the collapse of the Soviet Union. The reduction of state sector payrolls and the expansion of employment in the emerging non-state sector has been one of the principal policy measures implemented by the Cuban government to transform the country’s socialists economic model. The end of central planning and excessive paternalism in labor practices was officially announced in 2010, when Cuban authorities recognized the urgent necessity to transform the structure and composition of the country’s labor market.

What can be seen is that a new class of better-off Cubans has arisen as a result of the legalization of the dollar and the new opportunities for self-employment. They earn significantly greater incomes than state workers; they are generally well-educated; and they are important actors in Cuban’s economy. Their improved purchasing power has stimulated the Cuban economy. More importantly, they provide a first-hand glimpse of what average Cubans can achieve when granted the economic freedom.

When a transition towards a true free market economy occurs in Cuba, the self-employed will be an important minority of Cubans who have enterprise experience, who are familiar with risk taking, investment and regulation. They will be uniquely equipped to thrive in a capitalist setting. That is why I would like to take advantage of it to serve as the tool and content of the centrality in Alamar.

The projects provide an adaptable and hybrid form of self-employment education as essential for preparing new generations of self-employers for increasingly open economy in contemporary Cuba. A simple social contract is at the centre of my proposal: the first generation of self-employers, or people who are well-skilled to be potential self-employers, are provided better housing in the “FORUM”, as the fresh troops for realizing the centrality and gentrification in Alamar. Then, they could serve as the educator in Alamar community to provide and share their knowledge and experience in multiple models based on the community library and self-employment learning center. Consequently, people in Alamar will be able to expand their knowledge and businesses, hire other people, and generate real wealth. Alamar is expected to develop into a real city.