

## 「Vertical Grove & Cultura Highway Plaza」

ラクルチーラ駅周辺における

新しい公共空間の提案

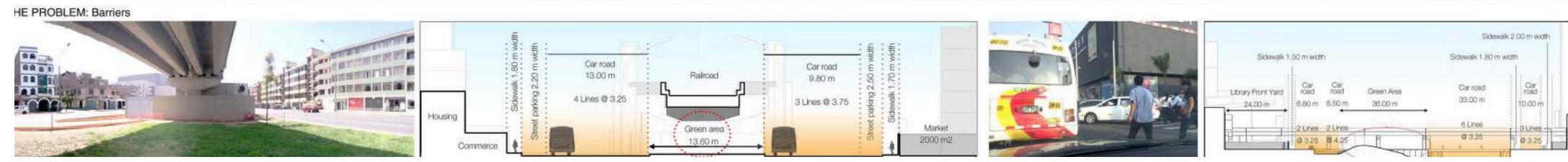
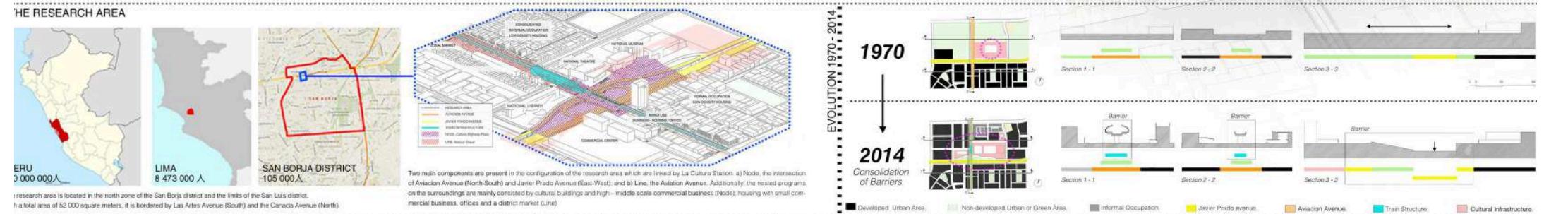
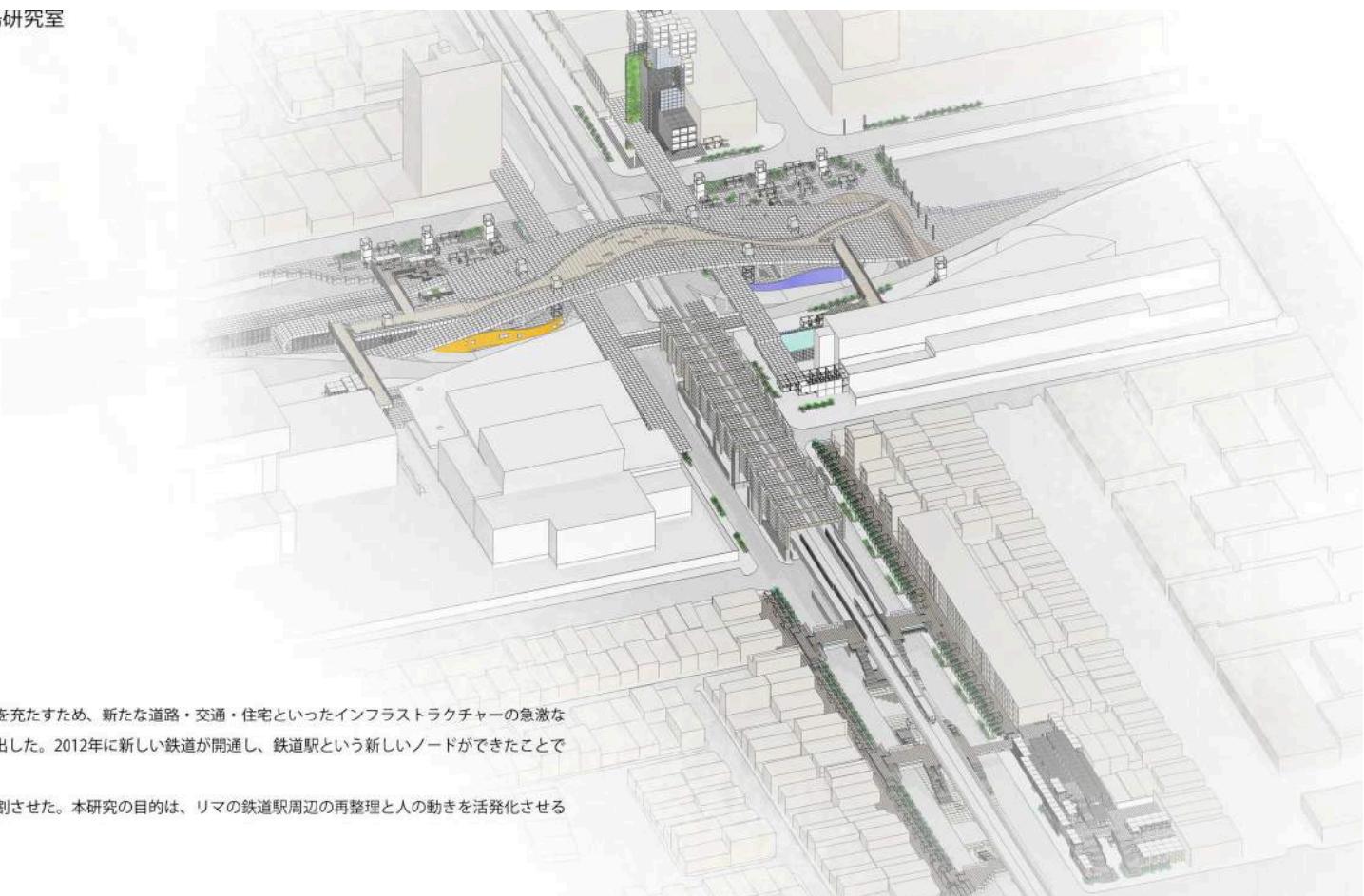
Design Proposal for the Connection Re-Arrangement

of the Physical Borders Surrounding

La Cultura Station in Lima City

ペルーのリマは、ここ50年の人口の急速な増加によって変わってきた都市圏のダイナミクスを充たすため、新たな道路・交通・住宅といったインフラストラクチャーの急激な建設や拡張がみられる。その影響により、都市の発展はスケールに秩序がない公共空間を生み出した。2012年に新しい鉄道が開通し、鉄道という新しいノードができたことで、その周辺に人や車などの活発な動きが増えた。

しかし、周辺の高速道路や公共建築の拡張は、歩行者の活発な動きの障害になり公共空間を分割させた。本研究の目的は、リマの鉄道駅周辺の再整理と人の動きを活発化させる公共空間を作るための新しい政策を提示した設計提案である。





### Immigrating Context

Cultura station is one of the 16 stations of the first service, along a twenty-two-kilometer route on north - south direction in Lima city. Although it finally opened in April 5th of 2012, its construction was started and expected to be finished 20 ts back. As a result of political issues, only the structure was complete, remaining as an unfinished vision of city progress for many years.



### Traffic and Pedestrian Flow

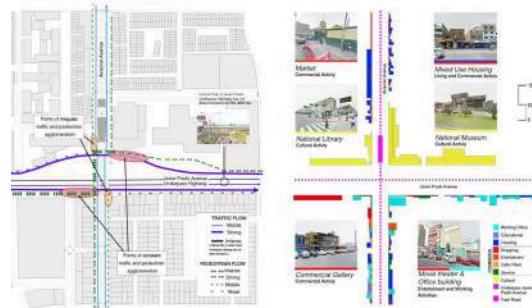


Figure Ground Analysis

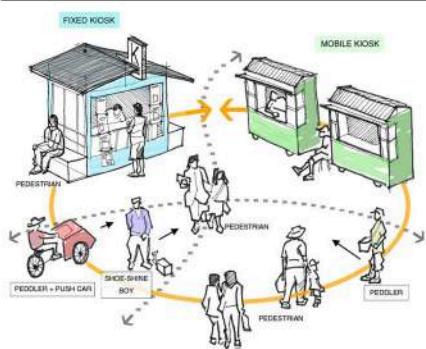
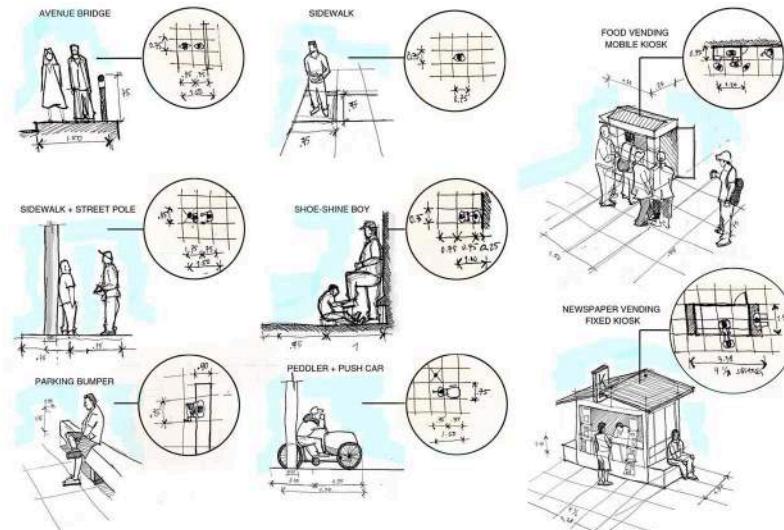


As part of the qualitative study three spatial aspects were analyzed based on a figure-ground approximation to clarify the relationship of built mass and space into three categories: accessible open air and visible areas. The accessible areas analysis identified interiors with reasonable semi-public areas with restricted connections to the public space. Finally, the analysis of the visible areas revealed a narrowed vision of interiors due to removable objects on the building entrances. Despite the potential of integration to the public space, the interior spaces seem to be affected by physical restrictions as result of a threatening environment.



### Activities on the Street Gap

A noteworthy finding of the street gap is the capacity to support complementary activities to the pedestrian flows. Most of them are intended for small-scale commercial and service uses. A second finding on the street gap was the instinctive behavior of the users who arranged the space of their activities according to the lines of the sidewalk slab. The particular finding recognizes the possibilities to manipulate the re-arrangement of the space through a more controlled system on a further design stage.

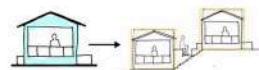


### Pedestrians and Street Vendors

Fixed and Mobile Kiosks multiply the pedestrian flow due to their location on main pedestrian roads. It is noteworthy they define concentration of activities by attracting other street vendors to the nearby. Noticing this fact and the way how the space is adapted will be essential to propose the design strategy.

### Program Strategy

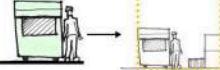
#### Fixed Kiosk



##### Anchor

The condition to be attached to a specific location can be utilized for level changes and adjusting gap spaces for complementary use. A module of 3.0 x 3.0 m will be assigned. Furthermore, these anchors may hold different activities due to the module size and the gap adaptability.

#### Mobile Kiosk



##### Nomad

The mobile character makes it adaptable to the surrounding space through different position layouts. It is because of this random character and the reduced interior space that a physical support or station is provided. The station is a module of 3.0 x 3.0 m including bench and shelf modules with the aim of enhancing its performance on the ground level of the proposed design.



**Shoe-Shine Boy**  
Located on Avenue crossing, close to traffic lines and corners.

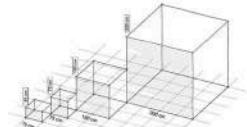


**Peddler + Push Car**  
Non fixed location. Candy / soda vending.

### Construction System Strategy

The structural system and the design composition are derived from a grid of 75 x 75 centimeters. It assures the organization of the solution methods on Line and Node.

On the grid, it is possible to set a Cube on different sizes and variations as physical supports for the pedestrian activities. The Cubes are aimed not only to fulfill a utilitarian and a structural but also to achieve the identity of the physical environment where pedestrian is able to adapt it for its needs.



(A)



(B)

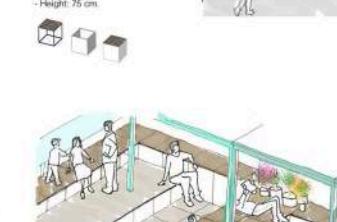
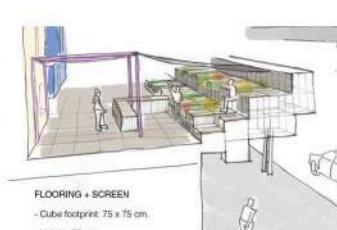
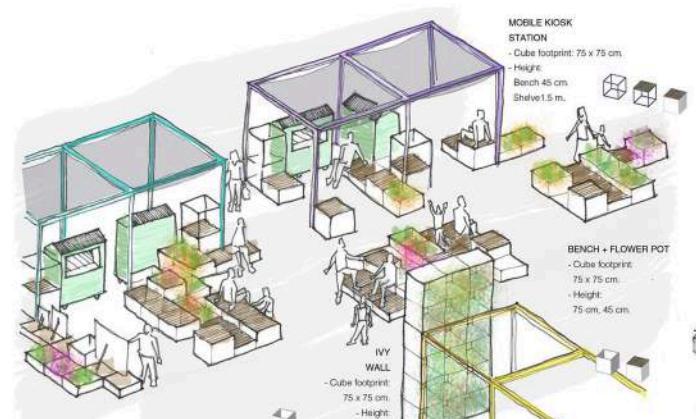
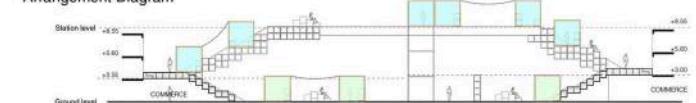


(C)



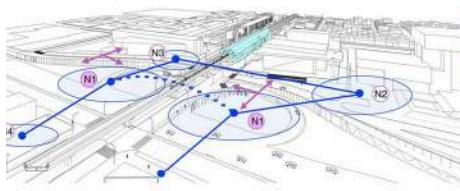
(D)

### Arrangement Diagram



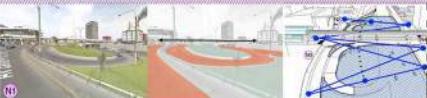
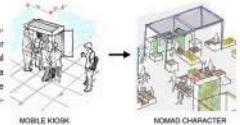


CULTURA HIGHWAY PLAZA



#### PROGRAM STRATEGY

The program strategy for the CULTURA HIGHWAY PLAZA considered the creation of plazas over the underpass highway of the Javier Prado Avenue for the horizontal connection of the cultural structure, the commerce and the office areas with La Caja station. The plazas emphasize the action of mobile life due to their nomadic character to maximize the pedestrian flow and establishing new staying places.



#### Avenues' Intersection:

**The Problem:** The horizontal extension of the Javier Prado Avenue narrows the walkable areas and limits the chance of their expansion due to the car roads and isolating empty areas. In addition, the railway and the Aviacion Avenue divides the space into

#### The Solution:

The solution consists of the underpass of the Javier Prado Avenue to expand the walkable area and accommodate new activities. Also, a slope-like bridge is aimed to connect the divided sides establishing a recognizable landmark for the Node area.



#### Museum's Frontal Court:

**The Problem:** The frontal court of the Museum presents reduced activity caused by the poor integration to the Javier Prado Avenue and the lack of connection to the area. The main obstruction is the "bottle neck" on the pedestrian connection from the frontal court to the other proposed areas.



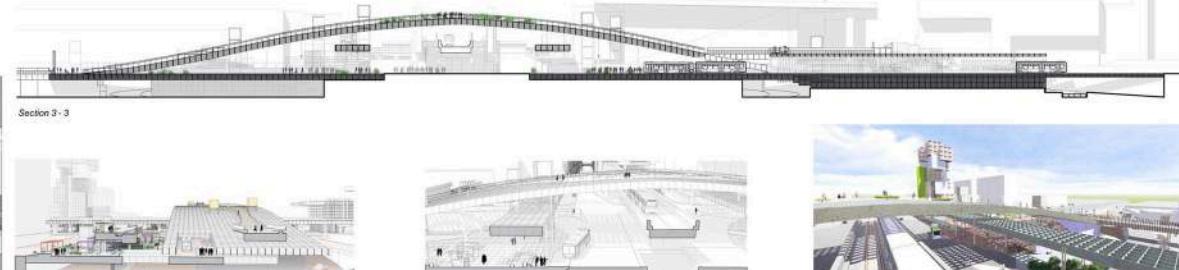
#### Library's Frontal Yard:

**The Problem:** The corner of the National Library is an uninteresting point of the pedestrian flow that connects the avenues Javier Prado and Aviacion, and La Caja station to other areas of the city. Despite the current presence of the area, it is isolated from the public space due to an external wall limiting the correct performance of the pedestrian activity.



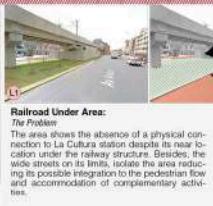
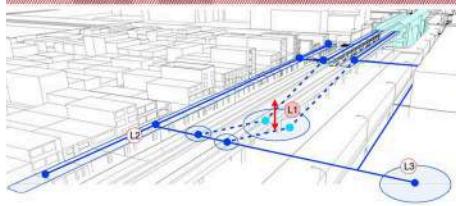
#### Volumetric Proportion of the Intersection:

**The Problem:** To compensate the unbalanced volumetric condition of the intersection, a fifty-meter tall building is located at the top of the corner located near the parking lot. The importance of the location is crucial due to its capacity as middle connection point for the future underground in-service.



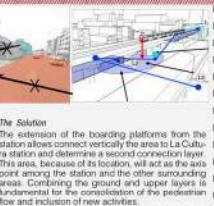


### VERTICAL GROVE



#### Railroad Under Area:

The diagram shows the absence of a physical connection to La Cultura station despite its near location to the railway structure. Besides, the wide streets on its limits, isolate the area reducing its possible integration to the pedestrian flow and accommodation of complementary activities.



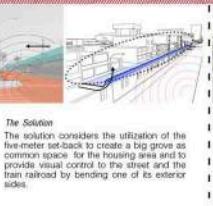
#### The Problem:

The extension of the boarding platforms from the station allows to connect vertically the area to La Cultura station and determine a second connection layer. This area, because of its location, will act as the axis for the connection between the different areas. Combining the ground and upper layers is fundamental for the consolidation of the pedestrian flow and inclusion of new activities.



#### Living Use of the Housing Area:

The Problem: The area along the Aviation Avenue above the Commercial Use of the Housing area. The vulnerability comes from the noise of the ground level and the non-controlled visual contact by the train railway. Additionally, it presents a lack of a common open space with neighboring buildings.



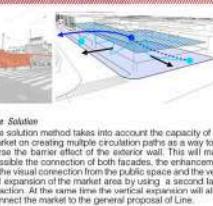
#### The Solution:

The solution considers the utilization of this free height back to create a big grove as common space for the housing area and to provide visual control to the street and the train railroad by bending one of its exterior sides.



#### Zonal Market:

The Zonal Market is located on the corner of the avenues Aviation and Canada. The location and the activity type embrace the opportunity to turn the market into an active location and to increase the pedestrian activity on the area. The problem is present on its boundaries where an external wall limits the physical integration with the surroundings.



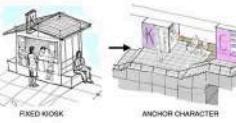
#### The Solution:

The solution method takes into account the capacity of the market on creating multiple circulation paths as a way to inverse the barrier effect of the exterior wall. This will make possible the connection between the facade and the movement of the circulation from the public space and the physical expansion of the market area by using a second layer of action. At the same time the vertical expansion will allow connect the market to the general proposal of Line.

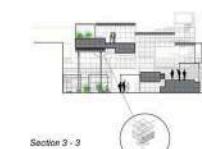


### PROGRAM STRATEGY

solution strategy on Vertical Grove aimed to reflect the zonal market, the housing, the commerce and the area under the railway structure with culture station. Here, the area under the railway is I as the transition point for the vertical connection g the anchor character of the fixed kiosks.



Section 2 - 2



Section 3 - 3

