

# Lab Report Analysis

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# Railway Station Buildings: An Architect Engineer Experience

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**Bold= Main Ideas**

Times new Roman = Comments

Intro of topic to explain the main goals of completing the stations.

Historical perspective

Innovative aspects in design practice of railway stations buildings requires to overcome difficulties related, among others, permanent circulation of trains, maintenance of accessibilities, urban contextualization, performance, economy and sustainability of solutions. For this reason, from the early stage of architectural genesis of a railway station building design it is necessary an understanding of the essential problems such as functional requirements, tectonic elegance and feasibility of structures. It is essential a broad understanding of structural engineering and capacity to appropriate explanation of the idealized solutions to the structural partners.

Early stages of architecture railway station design requires consideration of various challenges such as train circulation, accessibility, urban integration, performance, economy, and sustainability, and a understanding of structural engineering to communicate solutions effectively.

Experiences and how results varied.

There are five projects that I have been involved and in which I think is provided an interesting contrast [1], yet each has responded in a different way to the material used, to the means of construction, and programmatic contingencies. They serve as a good illustration of design that responds to circumstances, where architectural design innovation stems from the designer know how of the structural systems. To prove this statement an overview of my design experience, I will provide information about constructive solutions, regarding the development of architectural designs leading to the construction optimization of metallic structures.

Construction and programmatic contingencies were the main material that caused various results?

Main ideas essay

From the experience in the design of the cantilever open air roofs on the platform of Rio de Mouro, it was possible to move to a next stage adaptation of the essential aspects, there developed, the coverage of type T. Belong to this stage the designs of Barcarena and Pinhal Novo stations, which strictly respect the economic and functional requirements, have versatile solutions, adapting easily to platforms with variable width.

The new cantilever designs met the requirements to adapt to the measurements of the platform.

In summary, this example of project activity allows demonstrate the capital importance for future designers that their training guarantees them skills in the scope of the tectonics of structural forms.

**Measurements and aspects that play a critical role towards the velocity of trains.**

The useful height of the roofing is 3.5 m, in most platform, and 3.9 m in vertical lines of the platform edge. This useful height of the roofs took into account the circulation of high-speed trains. For the installation of technical networks are arranged along the columns and along purlins level one set of service ducts that ensure great flexibility of use. Access to these networks is ensured through removable panels on the columns and by folding lids in hedge-suspended ceilings.

The roofing has a useful height of 3.5m (3.9m at platform edge) with service ducts for technical networks along columns and purlins, accessible through removable panels and folding lids.

**Considerations**

There are relevant common denominators, they are of railway installations, they have metallic structures and, with the exception of Rio de Mouro, they demanded a rapid design response, given the urgency with which the interventions were required. The respective programs and conditions are differentiating factors, resulting in distinct iterative design processes. However, it is considered that there is a determining factor in the tectonics of the respective solutions, the harmonization with structural options.

The common denominators of railway installations with metallic structures required rapid design responses except for Rio de Mouro, and different programs and conditions resulted in distinct iterative design processes, but all solutions were determined by harmonizing with structural options.

**Interpretation based on experience**

From the experience in the design of the cantilever open air roofs on the platform of Rio de Mouro, it was possible to move to a next stage adaptation of the essential aspects, there developed, the coverage of type T. Belong to this stage the designs of Barcarena and Pinhal Novo stations, which strictly respect the economic and functional requirements, have versatile solutions, adapting easily to platforms with variable width.

**IMPORTANCE**

It is the realization that we are living a period that culminates two centuries of unique development, in the scope of science and technology, consuming and repetitive tasks to which our ancestors were subjected.

# Composition of the City Block and the Cognitive Region of the Resident in the Historical City of Tokyo

By Shichun Zong, and Hiroto Ohuchi

**BOLD= Main Ideas**

**Times New Roman = comments**

## Tsukishima, Tsukuda, Higashiueno, and Tsukiji areas in the historical city of

Intro of topic along with background/context

Due to the development of communication information networks in contemporary cities, and without the interconnection of space units, the quality of the overall urban environment is declining. Simultaneously, the awareness of people sharing such an environment is being lost. In this paper, we address Edo-Tokyo. investigate the district blocks and the environmental recognition of the residents to clarify how cognitive region coalesces as space. The results of our analysis show that the cognitive region will shift from the area where residents live due to the passage of time. From the analysis of the resident's environmental perception to evaluate the change process over time, and it was possible to clarify the spread and change of the composition of environmental recognition of residents in historical urban areas.

Examines how the communication networks is impacting urban environments, specifically the Tsukishima, Tsukuda, Higashiueno, and Tsukiji areas in Edo-Tokyo, and analyzes the cognitive region shifts over time and affects residents' environmental perception.

Historical perspective

With the development of communication information networks in modern cities, the range of action of the space surrounding the individual is widening. In contrast, there is a trend toward the fragmentation of the environment. The modernization efforts of the 1860s, the Kanto Daishinsai, World War II, and the postwar economic growth in the 1960s helped to change the city's urban structure, but some parts of the old Edo structure remain. These historical areas, however, are now changing as a result of redevelopment, changes in lifestyles, aging of the inhabitants, and generational changes

The expansion of networks in modern cities is widening the range of individual space, but also causing fragmentation of the environment.

What parts from old Edo remain?

The effect time had on these areas.

The cognitive region is change with time and are seen apart from the areas inhabited by residents. There is concern that shared consciousness historically inherent in an area is decreasing. Based on Tsukuda, Higashiueno area from the analysis of the resident's environmental perception to evaluate the change process over time, and it was possible to clarify the spread and change of the composition of environmental recognition of residents in historical urban areas.

Examines how the region changes over time and affects residents' environmental perception and highlights a decrease in shared consciousness in the area.

A questionnaire survey was conducted to investigate the region among residents in local communities, with survey targets selected based on areas without history of disasters.

To investigate the cognitive region, we conducted a questionnaire survey among residents living in local communities. Before identifying the survey target area in the block, we checked for the history of disasters such as fire and earthquake. Areas that had not suffered damage to houses and the like were selected as survey targets.

**Survey Conduction**

In the area to be surveyed, we chose 59 districts in 4 areas, Higashiueno spaces, Tsukiji, and Tsukishima, based on mixed occupied areas including alleys.

**Method of Analysis**

The following analysis were conducted on the residents satisfying the above criteria. We calculate the average area of "daily life" and "neighboring relationship" cognitive area between 1996 and 2011, 2012 in 4 areas. Based on the above, we investigate the change in residents' cognitive region and its formative factors in the process of transforming the historic urban area. We consider the transformation processes in the historical urban area over the time series and consider the composition of the block districts and the composition of environmental perception.

This study analyzed the cognitive region of residents based on the average area of daily life and neighboring relationships in four areas between 1996 and 2012, investigating the factors contributing to the change in cognitive region during the transformation of the historic urban area.

**Historical context**

Cognitive region is change with time and are seen apart from the areas inhabited by residents. There is concern that shared consciousness historically inherent in an area is decreasing. Based on survey data conducted in 1996 and 2011· 2012, Tsukishima, Tsukiji, Tsukuda, Higashiueno area from the analysis of the resident's environmental perception to evaluate the change process over time, and it was possible to clarify the spread and change of the composition of environmental recognition of residents in historical urban areas.

Analyzed the change in cognitive region over time in the Tsukishima, Tsukiji, Tsukuda, and Higashiueno area through resident surveys conducted in 1996 and 2011-2012 and proposed further analysis of factors influencing cognitive region to clarify the formation process of living and neighboring spaces in historic urban areas.

**Importance/future propositions**

In the future, we propose to analyze factors influencing residents' cognitive region in more detail with respect to alterations of alleys and geographies, thereby clarifying the process by which living and neighboring spaces are formed in historic urban areas.

Alterations to alleys and geographies influence residents' region and the formation of living and neighboring spaces in historic urban areas.

## Works Cited Page

Liu, N. (2020). Engineering: Technological Advances and Research Results. Trans Tech Publications Ltd. Station Buildings: An Architect Engineer Experience By J.P.d.C. Fialho,

Liu, N. (2020). Engineering: Technological Advances and Research Results. Composition of the City Block and the Cognitive Region of the Resident in the Historical City of Tokyo by Shichun Zong, and Hirotomo Ohuchi,

Commented [GU1]: Put this in apa format by putting the name of the authors first then the year and then add the rest

## Self-Reflection

I enjoyed and thought I did pretty well with this assignment because I thought this analysis was an excellent way for me to carefully evaluate the 2 lab reports I chose to analyze and be able to pick up certain pieces of information that were crucial to each category in terms of the abstract, introduction, etc. Reflecting on your performance and engagement with an assignment is a valuable process that can enhance your learning experience. In this case, it seems that you found the assignment to be helpful in developing your skills in analyzing scientific writing. Specifically, I was able to carefully evaluate both lab reports, and identify crucial pieces of information that were important for each category, such as the abstract and introduction. This suggests that I was able to use critical thinking skills to deconstruct complex information and synthesize it in a meaningful way. For example, I got good feedback from my classmate when he reviewed my paper. My classmate mentioned how it was helpful for him how I broke down certain sentences in the paper I did so that he can get a much better understanding of what I am writing about. The analysis of the lab reports allowed for a critical evaluation of each component, which led to a comprehensive understanding of their contents. Breaking down the complex sentences for my classmate demonstrated a strong ability to communicate ideas effectively and in a way that can be easily understood by others. I also realized I needed a cover page for my analysis, so I managed to take the time to be able to make one which helped me make sure I fulfilled what need to be done for the final draft. Overall, this assignment taught me a lot about how to break down lab reports in general because the book also gave me examples of how the analysis should have been done which definitely helped me out a lot for this assignment.

