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# THE DEVELOPMENT OF THE CENTRAL BUSINESS AREA - GALATA-PERA DISTRICT AND THE ANALYSIS OF INTEGRATION WITH CENTRAL BUSINESS AREA

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## Abstract

The study aims to reveal the level of integration between the Galata-Pera district and the central business area. First, the development of the Central Business Area of Istanbul has been carefully studied and the Galata-Pera district has been considered within the context of the antique era, the conquest era and the republic era. Space Syntax analysis model has been utilized in understanding the space configuring structure of the study area. An axial map of the area encircling the Şişli-Mecidiyeköy-Maslak route, which is the contemporary business center of Istanbul, has been created. The Axman computer program has been utilized for the preparation of axial maps, the calculation of the integration values of configuring parameters. A comparison of the global integration (R-n) values of the Galata-Pera district and the global integration (R-n) values within the Şişli-Mecidiyeköy-Maslak central business area. As a conclusion, the hypothesis that the part- whole relation of the Galata-Pera district and Şişli-Mecidiyeköy-Maslak central business and trade areas is preserved and the level of integration is different in different uses of land such as housing- trade has been proven.

## Introduction

When cities are defined as a set of relations or relations mechanism, it is seen that some areas have more potential than others do. The conformation structure of the city network will differ according to the relational characteristics of the whole. Some locations will have the advantage of having a higher density (Hillier, 1996b). Movement economy constitutes the parts-whole structuring of the city. The movement in the city zone has different scales with respect to being local or global. Higher scale trips will naturally be directed to more integrated and global areas of higher priority, more local trips will be directed to locally integrated areas. Urban land composition can be read precisely. Comprehension of the relation between the integration values with respect to the reflection of the urban system in different scales is a key in understanding the relation between parts and the whole (Hillier, 1996a). The purpose of the study; is to prove the hypothesis that the level of integration will be different in zones that

show different utility characteristics, for different uses of land such as housing-trade by preserving the parts- whole relation of the Galata-Pera district with the Şişli-Mecidiyeköy-Maslak central business area and by analyzing the level of integration.

### **Method**

The definition of system parts starts at the centers. In the analysis of urban system parts, the investigation of land utilization and the continuity of spatial configuration are very important in understanding the imbalance of land usage at the city center and the spatial alternation of potential areas, related to the former. In this context, the city is such a macro system that it emerges as a complementary appearance of the individual location selection that can be directed by the interaction between socio economical relations and spatial configuration. The cooperation of activities that could compete with one another allows the same piece of urban land to be more profitable. On the other hand the cooperation of activities that could not compete with one another makes it necessary to implement new elements in these areas. The formation of sub centers in the global integrity of the city shows differentiations depending on the arrangement of socio economical relations. The variable arrangement decisions for these areas are made with respect to a series of economical factors, social spatial factors and the new factor overrides the previous one. This is one of the reasons for an axial map and differentiation of values of uniting (Palma and Krafta, 2001).

When historic cities are observed in the development process of cities, it is known that the old city center is now off center and the city center has changed its place. The understanding of the complex process of city development can be explained with the development of the sub centers simultaneous local development processes. The specialization process of sub centers in historic cities is very important in the definition of the transformation of the centers in the urban network development. (Palma and Krafta, 2001) the understanding of the relation between the reflection of urban systems of different scales and different integration values is a key in understanding the relation between parts and the whole. (Hillier, 1996a). Space syntax approach with its analytical structure is an important tool in understanding the parts-whole structure of urban areas, and the development of city centers in connection. This model supports decision for planning by understanding the central areas as part of the urban area and their relations with other parts of the city.

As cities grow with respect to their population and area, the centers with a high level of use also grow towards their surroundings. The integration of each piece with the whole area during this growth in the urban correlations in the center can be revealed with the comprehension of the relation of the center both with the whole city and with its own sub districts. The level and type of integration of the center with other parts of the urban area can be observed with a network formation of the space. The integration of the center that is in the process of urban growth, with other urban areas and the revelation of the correlation of metropolitan centers like Istanbul central business area, will help the right decisions for the future in these areas.

Space Syntax analysis model has been utilized for understanding the spatial configuration of the work area. Axial maps that are used for the calculation of Space Syntax analysis model configuration parameters and core maps related to (R-n) integration values of urban network configuration characteristics have been utilized for the analysis of morphological structuring. The Axman computer software that was developed on the Space Syntax analysis model has been

utilized for the constitution of the axial maps and integration core maps.

### **The Boundaries of the Work Area**

Galata-Pera working district located at the lower part of Beyoğlu has been selected as the central business area of the European side of Istanbul, connecting the traditional business area (Eminönü-Beyazıt) and the contemporary business area (Mecidiyeköy-Maslak Axis). This district that constitutes the historical central core of Istanbul has now the properties of a specialized sub center although it has not lost its importance due to the linear development of the center towards the Mecidiyeköy-Maslak axis. The integration levels of Galata- Pera district as a whole and partially with the Şişli- Mecidiyeköy- Maslak business area is important for the planning for the future.

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### **Development of the Istanbul CBA**

The increase of population, growth in area of Istanbul that could not be followed by a sufficient transportation system due to the topography has made access to the city centers more difficult. The construction of the periphery roads has enabled the building of more modern offices and work places. The historical central business district (Eminönü, Galata-Beyoğlu) has lost its attraction due to its physical texture, the deficiency of public transportation, the difficulty of vehicle traffic because of narrow streets and a development towards the outside has become inevitable. (Dökmeci and Çıracı,1990). The central business area; has moved to the wider areas with the convenience for car parks, easy to access, where it possible to construct offices and workplaces with a contemporary appearance and technology. Thus, there has been a fast development in the Şişli-Mecidiyeköy-Maslak axis in the North. New contemporary business centers have been established in these areas. This is the most important indicator of urban transformation. (Tekeli, 1990). Beyoğlu district; has become a specialized district following the growth of the center towards the Şişli-Mecidiyeköy-Maslak route.

### **The Analysis of the Integration of Galata-Pera District and Its Sub Districts with CBA**

The integration of the center-sub center is very important for improving economical productivity in central areas within the parts-whole relations frame. For understanding the level of integration of the work area with the central business area axis and determination of the development directions, an axial map encircling the Şişli - Mecidiyeköy – Maslak route, which is the contemporary business center of Istanbul, and a core map that shows the integration values have been prepared. On Fig.1 the red and orange axis following the Şişli-Mecidiyeköy-Zincirlikuyu-Maslak direction and Beşiktaş-Zincirlikuyu-Maslak direction along the coast on the map that shows the integration values (R-n) of the district, resemble the lines where the integration values are the highest. It is observed that there are lines fully integrated with one another, around the Şişli-Mecidiyeköy axis. Areas and axis with high integration values overlap with the trade structuring and central business area development of today. It can be observed that the Galata-Pera district contributes the development on the north with Tarlabaşı street and the development on the coast with Meclis-i Mebusan street.

To find out how well the Galata-Pera district where all functional districts (trade-housing) coexist as a whole has integrated with the central business area the correlation between the global integration values (R-n) of Galata-Pera district and the global integration values (R-n) of the central business area has been calculated. It is not

expected for the whole district to be in full integrity with CBA with all of its sub districts within the scope of the functions distribution of Galata-Pera today. As a result, the correlation of the Galata – Pera district with the central business area has been calculated as 0.2805, and this shows that the level of integration is low. A high integration value of the sub districts of the central business area where there are the trade and office activities is necessary for the efficient operation of the central areas and high level of integration can be foreseen.

**Figure 1:**

*Şişli-Mecidiyeköy-Maslak axis Integration values (R-n)*

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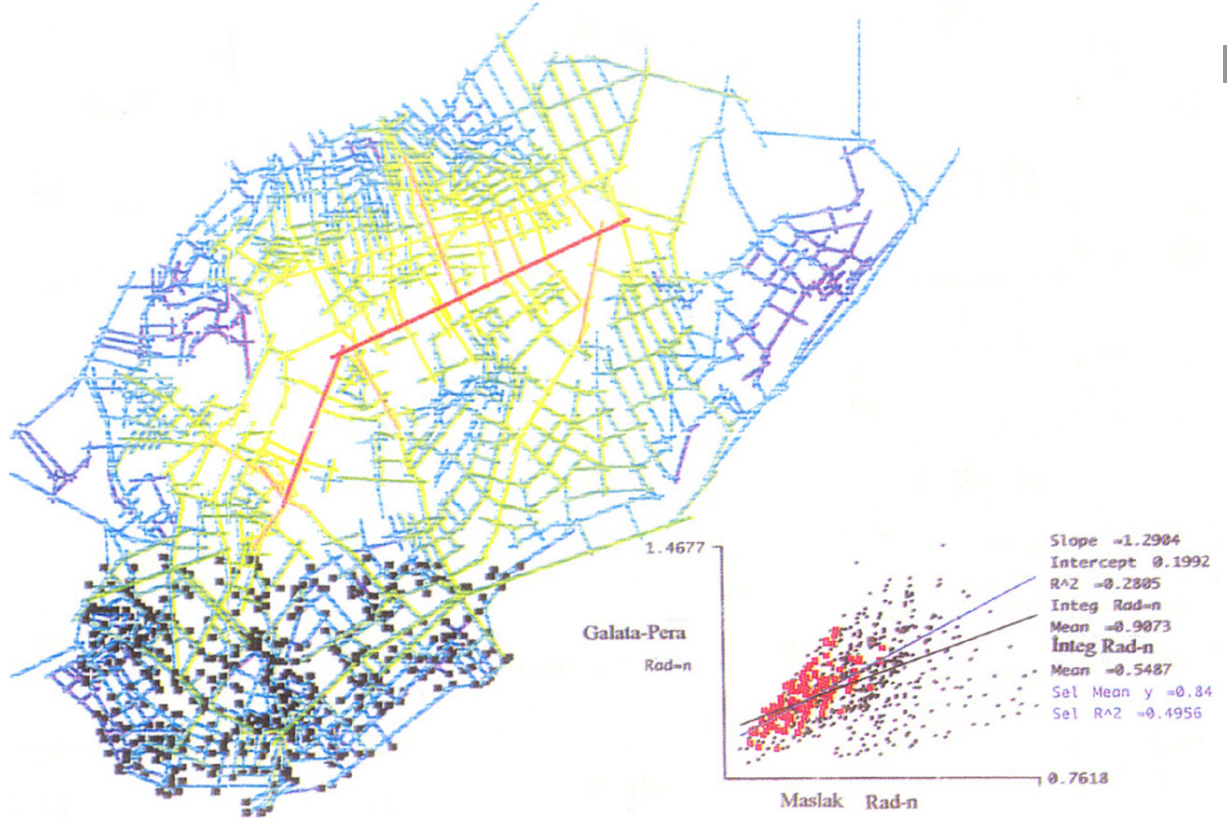
The functional sub districts of the Galata-Pera district have been determined in the next step, and the correlation between the global integration values of these areas and the global integration value of the central business area has been calculated to find out which sub districts are integrating with the Şişli-Mecidiyeköy-Maslak central

business area. Functional sub districts have been determined according to the trade and housing functional distinction.

- I. Trade district: The trade areas district including the Galata tower and its surroundings.
- II. Trade district: The trade areas between Tarlabası street and Istiklal street.
- III. Housing district: The housing areas between Sıraselviler street and Meclisi Mebusan street.

**Figure 2:**

*Correlation of the I. trade district (R-n) / central business area (R-n) values*



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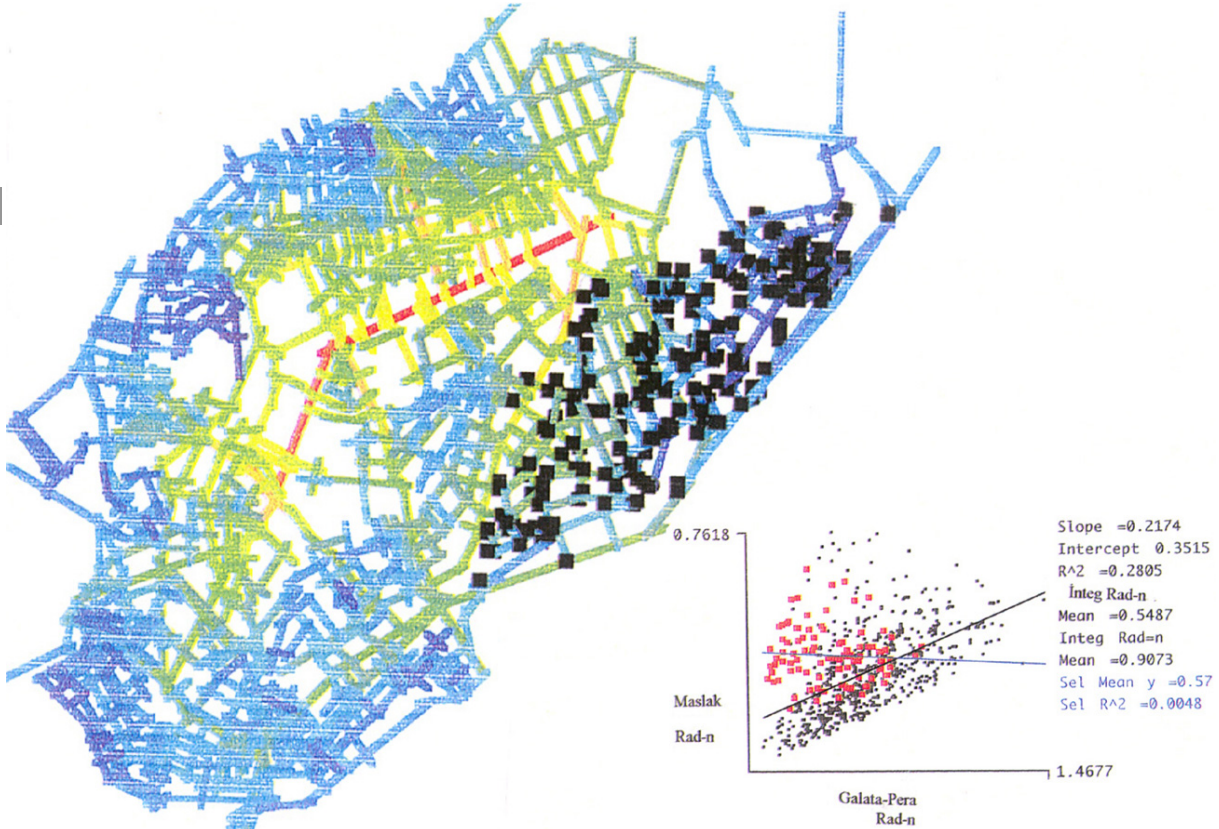
I. Trade district: The selected district is composed of axis with a high concentration of business activities such as banking, offices and trade areas with the Galata tower in the middle. The lines are selected individually on the axial map and the desired district is configured. The correlation between the integration values (R-n) for the defined area has been calculated. Fig.2 shows the correlation between the 1. trade district and the integration values of the area (R-n), with the contemporary trade area integration values (R-n). The black regression curve and the black dots in fig.2 shows the correlation with the whole of the Galata-Pera district ( $R^2=0.2805$ ), the blue regression curve and the red dots show the correlation with the selected first trade sub district and the  $R^2$  value is 0.4956. This value shows that there is integration between the I. sub trade district of the Galata-Pera district and the central business area and that the trade liveliness of the district is going on.

II. Trade District: This district embraces the Istiklal street with retail trade areas like stores, movies, theaters, restaurants and textile merchandise and axis concentrated with trade functions, connected to this main axis and Tarlabası street with big trade offices, hotels and banks and the axis connected to this axis. The correlation of the II. Sub trade district and the integration values of this district with the Mecidiyeköy-Maslak axis integration values. The black regression curve and the black dots shows the correlation with the whole of the

**Figure 3:**

Correlation of the III. Trade district (R-n)/ central business area (R-n) values

Galata-Pera district, the blue regression curve and the red dots show the correlation with the selected second sub trade district and the R2 value is 0.4928. This value shows that there is integration between the central business area and the II. Sub trade district of the Galata - Pera district.



III. Housing district: This district embraces axis with a high density of housing outside the trade axis. First, their lines have been selected one by one to configure the desired district on the axial map. The correlation between the integration values (R-n) for the defined district has been calculated. Figure 3 shows the correlation of the III. housing district and the integration values of this district with the integration values (R-n) of the contemporary central business area. The black regression curve and the black dots in fig.3 show the correlation with the whole of the Galata-Pera district which is (R2=0.2805), and the blue regression curve and the red dots show the correlation with the selected III. housing sub district and the R2 value is 0.0048. this value shows that there is no integration between the central business area and the housing sub district of the Galata-Pera district.

### Conclusion

It is known that in the historical course of development, the city has grown a lot in dimension, the population has increased a lot, and that the center has changed due to the political and strategic decision parallel to the above, and that the traditional center has moved north to more readily accessible areas. During the course of the formation of the contemporary central business area (Mecidiyeköy-Maslak axis), spaces with bodies of different socio-economical characteristics have been evolving. The possibility of these areas that cannot integrate, to provide functions in connection with CBA in the future will be low. The integration level will be important in the planning decisions for these areas and it will be important for the city planning process of the CBA as a whole. Starting at this point and studying the interaction between the urban network configuration characteristics and the functional

structuring, the special relations have been analyzed, the functional sub districts of the district that integrate with the contemporary business center have been evaluated with their degrees of integration. This work proves the hypothesis that the level of integration of the Galata-Pera district and ŐiŐli-Mecidiyeköy-Maslak central business area is different for different usage of land such as housing-trade. As a conclusion, it shows that trade development is in a parts-whole relation with CBA.

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