

A Methodological Assessment Of Stadia's Urban Performance: The Case Of The Stade de France

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INTRODUCTION

In 1992 France was awarded the right to host the 1998 World Cup. Paris was then defined as a central host city where the opening and closing games should be placed. One of the first actions taken by federal government was the definition was the construction of a new stadium that should be built in the northern suburbs of the city, more specifically in the abandoned industrial sites of Saint Denis, a region well known for its intense social problems. On previous occasions, the intention of building a stadium in Saint Denis had already been studied by federal authorities when Paris was considered as a possible host of the Summer Olympics in 1992.

The intention of federal authorities to build a stadium in the area can't be taken as a mere coincidence or as an initiative that had as its main objective to deploy a process of transformation on the physical urban landscape of the area. Historically, Saint Denis was part of the Parisian "red" suburbs that were characterized by its relation with the socialist party and by volatile activities in defense of the worker's class. In the late 1980's changes in the industrial activity in the suburbs left behind high unemployment rates and other negative social indicators that were a consequence of the diminishing industrial activity. Also, immigration became an intense social flashpoint at the time. The high costs of living in the traditional neighborhoods of Paris pushed a growing immigrant population to the suburbs looking for affordable housing. Additionally, the high number of immigrants in the area elevated the tension between native Parisians and foreign families. It is clear then that the regeneration of brownfield lands of northern Paris were not the only reason that drove the federal authorities to choose Saint Denis as the place for the new National Stadium, one that was going to be the center of a global mega event such as the World Cup. Much more than that, it was an urban intervention that not only transformed of the physical context of Saint Denis. Instead, it could be interpreted as a response to the social claims of unemployed workers and immigration conflicts. A strategy to build a positive momentum around the construction of a new architectural emblem, designed with a new urban landscape, synonymous of the a national pride ironically delivered by the hands of Zinedine Zidane, an Algerian player, leader of a multinational French team.

In less than four decades two significant stadiums were built in the metropolitan area of Paris, the first was the Parc des Prince, built in

the 1960's in a site which was first designated as sportive in 1897, and since then is the home of the city's traditional football club, Paris Saint German. The second was the Stade de France, a stadium built in 1997 as the central host of the 1998 FIFA World Cup. While Paris Saint German carries the city's name and was built in a wealthy neighborhood evoking a sense of tradition and identity, Stade de France was built as an urban intervention, the stadium was a central catalyst of transformation in a neglected first ring suburb of Paris.

In an attempt to understand the level of influence that these buildings perform in their urban context this research will focus on the types of commercial activity attracted by these large scale structures. It is well known that thriving urban environments are characterized by various models of mobility systems and accessibility as well as for being very diverse in terms land uses which encourages the presence of people for extended periods of time. Therefore, the urban analysis of the two stadium will map the occurrence of public transportation infrastructure around the stadium as well as the presence of certain economic activities in an attempt to understand if the presence of this building typology has resulted in any alteration of the pattern of occurrence of this types of uses on the surrounding urban tissue. Especially in the case of Stade de France, since it was built in a site that remained vacant until the construction of the new stadium broke ground. The construction was completed in 1997 as the development on the surroundings continued during the following years. It is then possible to affirm that the urban blocks that today occupy the site of the former gas plant are at the maximum seventeen years old confirming a very different urban situation from the traditional urban context of the Parc des Princes.

THE URBAN CONTEXT OF PARISIAN STADIA

In 1992, France was chosen as the host of the final World Cup of the 20th century, Paris became the central venue where the opening and closing games should be placed. New agencies were created to carry the development required for the organization of the World Cup. One of the first actions taken by this new agencies in conjunction with federal government was the definition that the city needed a new stadium and that it should be built in the northern suburbs of the city, more specifically in the abandoned industrial sites of Saint Denis. The city of Saint Denis is part of the Plaine Saint Denis, a district formed by 5 different cities located immediately north of Paris. The city was an important

industrial suburb of Paris during the 20th century. Although, with the economic changes late in the century, large empty industrial land served by extensive rail networks that were once used industrial activities were underutilized.

The suburbs of northern Paris were a reflection of the economic changes of the last decades of the 20th century, and the social problems faced by its population contrasted with the wealthy reality of the city of Paris. Historically, Saint Denis was part of the Parisian red suburbs that were characterized by their relation with the socialist party and by volatile manifestations in defense of the worker's class. The area of Saint Denis became a stigmatized territory marked by poverty, unemployment and segregation of its immigrant population.

It is clear then that the regeneration of brownfield lands of northern Paris were not the only reason that drove the federal authorities to choose Saint Denis as the place for the new National Stadium that was going to be the center of a global mega event such as the World Cup. Much more than that, it was an urban intervention that went further than the transformation of the physical context of Saint Denis. Instead, it could be interpreted as a response to the social claims of unemployed workers and immigrants, or in another words a strategy to build a positive momentum around the construction of a country's new emblem, synonymous of national pride.

Besides the urban renewal of the Plaine Saint Denis, the Stade de France assumed a symbolic role representing a new approach to the decision making process involving large urban regeneration areas in France. The centralism that marked the urban interventions on the Ile de France since the 19th century started to change with the 1980 reforms. In the specific case of Stade de France, while the decisions about the location, design and management of the stadium were all taken by the higher central governmental spheres many aspects of the stadium development and the paths that should be addressed by subsequent development not just around the stadium but in other areas of the suburbs were taken by complex and overlapping institutional arrangements between state, regional and local planning agencies.

The decision to build a stadium in the Saint Denis area was followed by many arrangements that made possible to consolidate the stadium as a new centrality avoiding it to fall on the same mistake of many other mega event cities that have to deal with empty buildings in increasingly blight areas as the years pass after the event. As it is observed by many authors in different analysis, prior to the stadium construction, the sports and entertainment industry of the city needed to be evaluated in order to clarify the feasibility of the investment or even to validate the building's program. After its opening the building must remain active attracting events and spectators to the area. In the case of Stade de France, the authorities tried to make arrangements prior to the construction of the new stadium with Paris most traditional team the Paris Saint German in order for them to become Stade de France's new tenants. Although this option didn't succeed and the Stade de France was constructed without having its image connected to a "home team" or any sportive institution representing a local community.

Paris Saint German is a centennial club, located in a historically affluent neighborhood of Paris. The team plays in the Parc des Princes, in the southwest of Paris. The area is well consolidated with the presence of public transportation infrastructure and a diversified urban tissue with small blocks and surrounded by active thoroughfares, well known by its upscale population. So, it's notorious that the relation of the two stadiums with its urban context differs completely. The Parc de Prince is connected to the idea of a traditional club, representative of its rich community. It was expected that the synergy between this building and its urban context to be evident and one of the aspects to be pursued by the much newer Stade de France. However, if stadia depends on becoming an icon representative of its community in order to succeed, the construction of a National Stadium without a home team in a socially deprived suburb seemed to be a problematic situation.

The two stadiums present in the metropolitan region of Paris are composed by a different urban context, an opposite social environment and different historical relations with the city. This antagonism between the two buildings can be understood as an opportunity to verify the influences and effects that those large scale structures have caused in their urban context. Most of the times, the justification for the investment in new stadia relies on the economic potential of this building and the revenue generated by fans and the sports events. However, other perspectives of analysis are crucial in order to understand the real urban value generated by this building typology.

PARISIAN STADIA AND URBAN REALITIES

Authorities in charge of the organization of the 1998 World Cup created two consortiums that were responsible for the developments of the new national stadium. The first one, formed by the developers Bouygues-Dumes-SGE, were responsible for the construction and management of the stadium and the other named as SANEM was responsible for the developments of the remainder of the gas plant area. From 1998 to 2002 SANEM consortium developed mixed-used blocks along in the areas in between the stadium and the canal, the highways and the rail line that were the physical boundaries of the former gas plant. The new blocks that compose the surroundings of the stadium have small dimensions forming a walkable urban network, occupied by a diverse combination of building uses and activities. This diversity is notable especially in the accesses from one of the nearby transit stations to the stadium. The area is served by three transit stations that are located in less than 500 meters radius from Stade de France.

The construction of the Stade de France has changed the image of Saint Denis, especially in its immediate surroundings. If the site of the stadium was an industrial brownfield until the mid-nineties nowadays the area receives up to 2.000 visitors per day and many private business seek to develop activities and conventions in spaces nearby the stadium, or even in the stadium, trying to align their brand with the image of the building. The 77 blocks that occupy the area of the former gas plant are now occupied by 3 to 5 story mixed used buildings with office and residential spaces on the upper levels and retail and services on the ground connected to the street and contributing to an active and pedestrian friendly environment.

Besides the mixed used developments in the area, the network of streets and sidewalks form a pedestrian oriented urban tissue that proved to be another important infrastructure improvements that was carried on in the area after the construction of the stadium. Also, new parks and green areas were created and two new RER (train stations) were developed reutilizing the industrial rail lines and the existing transit infrastructure was renovated with improvements on the existing metro and train stations.

The developments triggered by the construction of the Stade de France in Saint Denis have improved the physical environment of urban space surrounding the stadium, approximating it to the urban qualities that are found in the public spaces of a traditional European city such as Paris. These qualities, which are the presence of mobility systems, walkable urban tissue, diversified land use, and pedestrian oriented public areas are spatial properties that are verified in the traditional neighborhoods, as an example, the one where the Parc the Prince stadium is built. In order to understand the effects of the Stade de France on the urban space of its surroundings, this research elected food service establishments and hotels as building uses that function as indicators of a populated and active streets not just during office hours. In this sense, the presence of hotels as well as restaurants, bars, pubs, cafes, bakeries and other places that served food and beverages were mapped observing a 500 meters walkable radius around the stadium.

It was observed that inside the 500m circle around Stade de France can be found 42 food establishments, where 50% of these are in an immediate 250m radius around the stadium. Also, regarding the presence of hotels, 4 of them were developed inside the catchment area defined by this research. Similarly to the restaurants 50% of the hotels in the area were inside a 250m radius from the stadium. Syntactically, the area around the Stade the France was formed by seventy seven blocks that were in average 120x120m resulting in a walkable urban grid with similar streets in terms of length and connectivity and a few major thoroughfares that cross the area and connected the blocks developed around the stadium to the nearby neighborhoods.

The same mode of investigation was applied in the urban tissue around the Parc des Princes stadium respecting the 500m radius, similarly to the analysis previously done on the Stade de France. Inside the 500m radius the Parc des Princes is surrounded by 122 blocks with the presence of 72 food serving establishments, out of which 15 are in the immediate surroundings of the stadium inside a radius of 250m. Therefore, in the case of the Parc des Princes, the number of food serving places that navigate towards the building, or in another words that attempt to benefit from the image of the stadium, is smaller than the case of the findings around Stade de France. It must be noted that the Parc des Princes is a traditional stadium with a home team (Paris Saint German) that has an appealing identity emphasizing its connection not only with the local community but also with the city's history. There are currently 14 hotels present in the area of analysis surrounding the stadium, out of these only one is located inside the 250m radius, all of the other ones are adjacent to the main roads that give access to the Parc des Princes neighborhood.

The commercial activity in the urban realm is commonly associated with human flow. In that sense, the most active roads are the ones that receive the majority and the most diversified commercial activity. Services and retailers tend to seek for the most integrated and accessible spaces in the city. Also, visibility is an important aspect in this dynamics and for these reasons the longest and wider avenues tend to register a bigger concentration of commercial activity and people. This very generic assumptions are the definitions made by space syntax theory and can be verified by analysis such as visibility graph, segment and axial.



Figure 1- In yellow the development that has occurred after the Stade de France's construction.

After mapping the presence of food serving establishments and hotels inside the 500m and the 250m radius around both stadiums, a space syntax analysis was performed in order to verify the most visually integrated spaces as well the most integrated and connected ones in terms of movement. In the case of the visibility graph analysis of the Stade de France's area the open spaces around the stadium are the most visually connected and coincide with areas that are only accessible to pedestrians. The blocks that immediately adjacent to the open pedestrian spaces on the east side of the stadium are the ones that hold all the food serving places (12), but those that are located inside of the Stade de France itself (3) and also one hotel. Out of all the restaurants located in the blocks adjacent to the stadium 5 of them are located in the block sides that are directly facing the stadium, giving the idea that these establishments are trying to benefit from the most visually integrated spaces that surround the Stade de France. The other establishments, even though are inside the 250m radius from Stade de France, are located in areas that don't present a high level of visibility or have any visual contact with the



Figure 2-Diagram of uses – Stade de France

stadium itself. When a diagram with the location of food serving places is superimposed on the visibility graph analysis of the area, the resulting diagram suggests that the commercial activity related to food serving and tourism have a tendency to be developed as closest to stadium as possible, even if that means that the location isn't served by a major thoroughfare. In the case of the 500m radius around Stade the France, there are two important roads that cross the area connecting it to the surrounding neighborhoods on the other side of the canal and the rail

lines. One of them is even as visually integrated as the pedestrian spaces around the stadium, although it doesn't attract any restaurants or hotels.

The Axial map generated on the urban spaces surrounding the Stade de France reveals, as it was expected, that the longest roads are the most connected ones. Although these roads are not the ones that form the adjacent blocks on the east side of the stadium. The same pattern is observed on the integration analysis, confirming that the blocks that are adjacent to the stadium on its east side don't have higher levels of

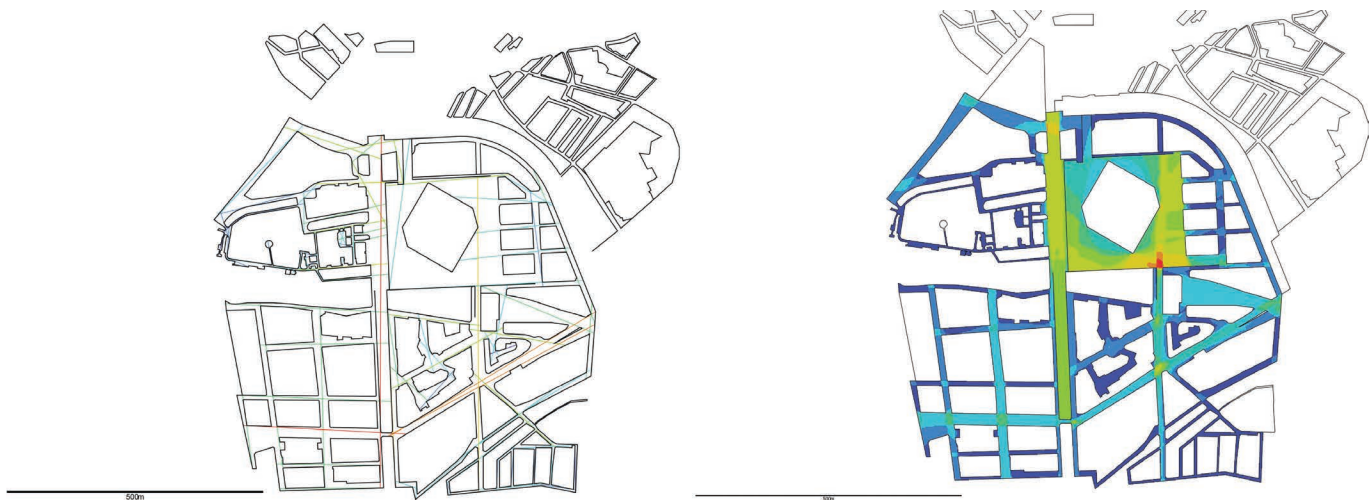


Figure 3-Right VGA- connectivity/ Left: AXIAL - integration – Stade de France



Figure 4-Diagramme of uses – Parc des Princes

visibility, connectivity or integration with the surrounding urban grid, although these blocks are the ones that concentrate the highest number of food serving establishments. The segment analysis reveals that the average segment length is slightly below 30m denoting a very walkable urban grid. Also the longest segments coincide with the major thoroughfares that connect the stadium area with the surrounding neighborhoods on the other side of the rail tracks and the canal. Although these major roads don't establish a direct connection with the blocks adjacent to the stadium.

It is reasonable to affirm that the blocks on the east side of Stade de France are in some level isolated from the rest of the city of Saint Denis. These blocks, its streets and sidewalks were built in an elevated platform that covers the stadium parking below it. Besides, the place is surrounded on the east and north sides by a water canal, and on the west side by the stadium itself and a busy highway. The scenario of possible urban isolation could be compensated by the presence of a large scale and strong image building such as a World Cup stadium. Although, to a certain extent, without a home team is possible that the Stade de France

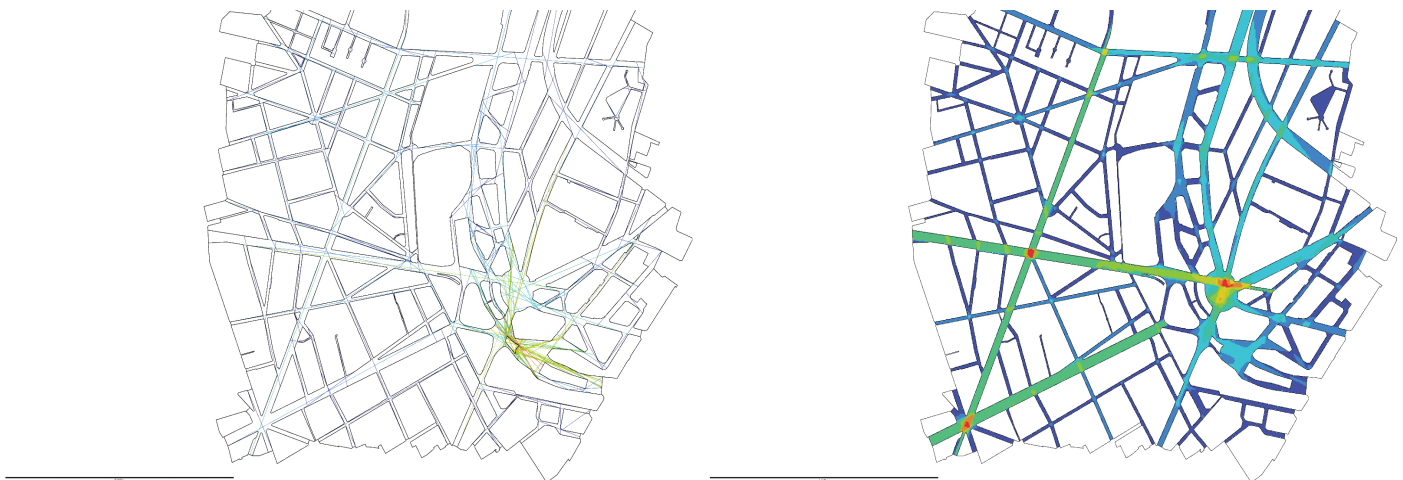


Figure 5-Right VGA- connectivity/ Left: AXIAL - integration – Parc des Prince

has much less events and consequently attracts not as much people as a stadium with a local team such as the case of Parc des Princes.

When analyzing the syntactical properties of the urban context of the Parc des Princes stadium, it is observed that the major roads, that are present on the 500m radius around the stadium, concentrate the highest levels of visibility, connectivity and integration. Also, the four transit stations that serve the stadium are located on these major roads. In the same way, the food serving establishments and the hotels that are present in the analyzed area demonstrate a tendency to be located in proximity with the major roads. In this traditional urban context, the stadium doesn't seem to affect the economic activities mapped by this research, in the case food serving business and tourism, which certainly could benefit from the building's sports events. The majority of the restaurants, cafes and bakeries, hotels and transit stations are located around the major roads and especially at important intersections present in the 500m radius analyzed. As it was stated before, the Parc des Princes is a traditional stadium, home of an important team that is considered a symbol of the city. The stadium is located in a highly accessible neighborhood with the presence of transit infrastructure also in less than 500m from it. The presence of a home team suggests that the stadium is highly active especially in the case of Paris Saint German that is present in the most important French and European leagues, hosting games that attract the attention of spectators and sports media globally.

CONCLUSION

Further research is necessary to fully understand how other factors may have influenced the relation between two Parisian stadia analyzed and their urban realities. Other aspects such as the social context might be an explanation for the scenario of the Parc des Princes, where certain sectors of the economy don't seem to express a desire to relate their identity to the stadium. That is possibly a consequence of an upscale and traditional neighborhood that thrives independently of the stadium's presence. On the other side of the city though, it is important to understand to what extent the influence of sports events such as the World Cup have positively affected the relation between the stadium and its community. In 1998 the French National team was world champion and this accomplishment triggered an idea of national victory achieved by squad formed basically by players that were either immigrants themselves or sons of immigrant families. This combination of a national team, champion of the world and formed by immigrants might have an impact on the urban atmosphere of Stade France and its relation with the city of Saint Denis which demands deeper analysis.

However, it is plausible to assume that the urban designing of a neighborhood where a stadium is proposed as a major centrality will generate different urban outcomes from a situation where an already consolidated neighborhood receives the stadium even in cases where both urban contexts share similar urban space syntactical properties related to visibility, connectivity and integration. The urban outcomes verified when a stadium is built in a traditional urban tissue appear to

be different from a situation where the stadium was designed in conjunction with an adjacent new urban tissue producing a type of urban buffer, a transaction space that must be occupied by a diversity private and public uses and also capable of acting as a mediator in the dynamics between this large scale building typology and the existent city.

ENDNOTES

1. Ahfeldt, G., & Maenning, W. (2010). Development from the perspective of urban economics. *International Journal of Urban and Regional Research*, 34(3), 629-646.
2. Aureli, P. V. (2011). *The possibility of an absolute architecture*. Cambridge, MA: MIT Press.
3. Crompton, J. (1995). Economic impact analysis of sports facilities and events: Eleven sources of misapplication. *Journal of Sport Management*, 9, 14-35.
4. Cohen, J., & Henrard, R. (2006). *Above Paris: The aerial survey of Roger Henrard*. New York, N.Y.: Princeton Architectural Press.
5. Dubois, L. (2010). *Soccer empire: The World Cup and the future of France*. Berkeley: University of California Press.
6. Dubois, L. (2010, March 15). Soccer Politics / The Politics of Football. Retrieved May 29, 2016, from <https://sites.duke.edu/wcwp/>
7. Essex, S., & Chalkley, B. (2008). Olympic Games: Catalyst of urban change. *Leisure Studies*, 17(3), 187-206.
8. Finn, G. P., & Giulianotti, R. (2000). *Football culture: Local contests, global visions*. London: Frank Cass.
9. Goldblatt, D. (2008). *The ball is round: A global history of football*. New York: Riverhead Books.
10. Gratton, C. (2008). *Sports in the city: The role of sport on economic and social regeneration*. London: Routledge.
11. Lewis, R. W. (2012). From the "Phoenix of Legends" to the "Ultimate Monument" of the Times: Stadia, Spectators, and Urban Development in Postwar Paris. *Journal of Urban History*, 38(2), 319-335.
12. Mendez, S. (2010). *Mega events as vehicles for urban transformation*. (Master's thesis in city planning) — Massachusetts Institute of Technology.
13. Newman, P., & Tual, M. (2002). The Stade de France. The Last Expression of French Centralism? *European Planning Studies*, 10(7), 831-843.
14. Sheard, R., & Powell, R. (2005). *The stadium: Architecture for the new global culture*. Singapore: Periplus
15. Thornley, A. (2002). Urban Regeneration and Sports Stadia. *European Planning Studies*, 10(7), 813-818