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Livable Streets:

Establishing Social Place Through a Walkable Intervention

by

Jeffrey T. Flositz

A thesis submitted in partial fulfillment the requirements for the degree of Master of Architecture School of Architecture and Community Design College of The Arts University of South Florida

Major Professor: Theodore Trent Green, M.Arch. Shannon Bassett, MAUD Sean Williams, M.Arch.

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Keywords: Tampa, Kennedy Boulevard, transit, placemaking, mixed-use

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## Dedication

This thesis is dedicated to my parents, Tom and Nina Flositz, for pushing me to be successful. To Sarah Fagan, my love, for her understanding and support through this process.

# Acknowledgements

I Would like to thank my friends and family. My Chair Trent Green for his inspiration and criticism. My committee members Shannon Bassett, and Sean Williams for their help and support through this thesis project.

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#### Livable Streets: Establishing Social Place Through a Walkable Intervention

#### Jeffrey T. Flositz

#### ABSTRACT

Some streets tend to lack a social sense of place. Since the invention of the automotive assembly line and post World War II development, street designs have shifted from centering around people and social situations to vehicular traffic solutions. Streets are typically not thought of as social places, but rather as a means to efficiently move automotive traffic. The environment of these unlivable streets discourages social interaction. The majority of buildings are disconnected from the street with often nothing more than a parking lot.

A new model of streets is necessary, one that transforms streets into places that encourages social liveliness. Establishing the street as a social place through walkable conditions will regain lively interaction that is currently absent. This thesis will begin to explore the conditions of the unlivable street and establish theories to transform them into socially interactive public places. The goal is to hierarchically re-orient the street in order create a sense of place that fosters social interaction.

Research by means of case studies and observation will examine the ways in which people interact within their built environment. Ideas will be derived from research and incorporated into the scheme in a way that is unique to Tampa. Ultimately, this thesis will conclude in a project that illustrates the potential of a street as a lively public place that is centered toward pedestrians rather than automobiles.



Streets are the primary public spaces in a city. Streets are what organizes a city's structure, and are essentially a city's identity. There are a number of different types of streets. The type of street that will be the focus of this thesis is that of a commercial main street. In order to be a great, livable city, streets need to be utilized as lively public places. They should be places where people choose to walk as opposed to drive to meet their social, career, and personal needs and generally enjoy their community life. However, streets tend to not be thought of as places, but rather as a means to get from one point to another. Most streets are designed around the automobile and the pedestrian is generally an afterthought. As a result, street conditions are generally unfavorable for social life which has consequently created unlivable streets.

Livable streets depend on people and social interaction to be successful. People need a sense of place which is created from the surrounding context of the street. Looking at different types of architectural models for living, elements that would improve the way that we live will be extracted, analyzed, and reinvented to change

the way we design as architects. This will be done by exploring the way cities are designed down to the level of the individual and evaluating what does or does not make for a good street design. On an architectural level, many streets today are not designed for social interaction in the way they should be, if at all. For example, a coffee shop with a seating area outside facing the parking lot that sits alongside a busy highway is not a good design. There is no consideration to the street edge and no pedestrian interaction that would strengthen the livelihood of the area. Instead, we are drawn to this coffee shop from passing by at high speeds in an automobile only to catch a glimpse of the ever so unsightly sign on the side of the road advertising its icon to us. Lennard and Crowhurt further describe this:

The street level is the most critical element of the façade, and deserves special handling, since it is here that the greatest degree of interaction between inside and outside should be possible. The street level must be designed to engage our attention. There should not be blank walls to the streets, as

William H. Whyte explains, but rather windows, window displays, doorways, alcoves, and outdoor cafés. (Lennard, Suzanne H. Crowhurst 1995, 35)

The street must become a truly public space. In order to do this, diversity of people is needed to make streets truly great. The realm between public and private must be blurred from the street to the inside of the building.

> The terms public domain, public realm, public life are here meant to refer to the social processes among city inhabitants that occur in public places. It is in public places of cities, its squares and streets that are accessible to all of the city's inhabitants, where all can see and hear each other; where persons different from one another, and present in the public places for diverse purposes, can come together... (Lennard & Crowhurst 1995, 83)

The potential of livable streets may be seemingly endless. Streets can be much more than a vehicle for movement. They can be places for interaction with people, places for sitting, resting, people watching, shopping, and meeting. These activities of streets have shifted to privatized commercial spaces such as shopping malls.

In The Death and Life of Great American Cities Jane Jacobs discusses the various ways in which to make public streets and spaces secure. She states that streets that are regularly used are not only safe, they are also livable. There are several characteristics of streets that may make them appear unlivable. First and foremost, buildings should be facing the street. Buildings that have their back toward the street create a feeling of emptiness. Second, the street's sidewalks should be frequently used. Not only does this foster a sense of community, it also encourages people to always be watching the street. According to Jane Jacobs, "Nobody enjoys sitting on a stoop or looking out a window on an empty street. Almost nobody does such a thing." (Jacobs 1961, 35) A third quality of livable streets is that they should be as narrow as possible to accommodate for the least amount of traffic. This makes streets a lot easier for pedestrians to cross and makes them enjoyable for a wide variety of activities such as strolling along the sidewalk or sitting at a nearby outdoor café. The majority of streets today, however, have wide lanes with vast amounts of traffic moving at fast speeds. It is this mass amount of automobiles that have come to make streets unlivable. In addition, streets should have many shops and other public places such as restaurants and cafes. This is what gives someone a reason to actually use sidewalks and helps to increase street activity by attracting more people. One final noteworthy quality of a livable street is lighting. Good lighting is essential in encouraging people to use sidewalks at night as it can help to create a larger field of view. (Jacobs 1961)

There are examples of ways to design buildings that respond to the street without signage and speak to the pedestrian and even a motorist passing by. One example of commercial streets that have some of these successful conditions is the streets of Toronto. These streets have shops that use the sidewalks as a market

street. Another example is the street cafés that occupy many of the main streets of South Beach in Miami such as Ocean Drive. These cafes and shops allow for the interaction of people. People walking by begin to create a visual and verbal dialogue with the people in these sidewalk cafés. Streets that are more pedestrian friendly and allow automobiles as well as bicyclists to coexist make for better cities. They allow for vibrancy and nightlife to occur, bringing the city to life. Jane Jacobs states, "On successful city streets, people must appear at different times. This is time considered on a small scale, hour by hour through the day." (Jacobs 1961, 198)

To find new ways of designing the way we live, we must explore what is currently being built and why it is either successful or unsuccessful. The success of a street design is not only about how it looks, functions, or performs over time, it is also about the interaction that it creates with its users as well as how buildings define its edges. Designing for social interaction should be a factor for every street. Every part of architecture should be well on a daily basis, thus contributing to the liveliness of the thought out from the macro scale of an entire city to the

micro scale of a door handle. Each architectural element must play a role in determining the successfulness of a city. In Tampa, many of the streets and buildings are not well designed. A majority of the streets are major commercial corridors with the primary objective of moving traffic through as quickly as possible. These streets are not designed to be pedestrian friendly. For example, almost all of the streets are too wide and have too many lanes of fast moving traffic with not respect to others traveling by bike or on foot. This has resulted in unsafe streets where people try to cross busy streets with fast moving vehicles. As a result, fewer people are walking and more are driving which adds to the traffic on the these streets.

Researching the way in which different cities function and why they are successful or unsuccessful is a key element in understanding streets. Mixed-use typologies tend to be a generator in the success of a city or neighborhood. By researching mixed-use buildings more in depth, hopefully some of the advantages and disadvantages will help to determine new and better ways Toronto that are somewhat successful and evaluating the methods that they have incorporated will help form a better understanding of the direction that Tampa and many other cities should be moving towards.

The intent is to design streets with mixed-use buildings that illustrate a new and improved method of living that encourages social interaction among the community. This design problem will be located in Tampa on one of the major commercial streets and will be used as an example of the type of designing on the level of architecture, which will include a macro to micro scale, that should be taking place in Tampa and perhaps many other cities throughout the world. This design will not only be a place for social engagement but also a place that shows that the world can be sustainable and that we can live our lives in a new way; as times have changed so must we. Since Tampa is not oriented around the public realm, the need to bring the private back to the public is a desperate necessity. The design of buildings needs to respond to the street level and should define public of designing for living. Learning from other cities such as 5 space accordingly. The design should be a model and

example that reinvents the way we live, bringing social interaction to city streets, thus making unlivable streets become livable.

#### What is a Livable Street?

Almost everyone in the world lives on a street. Streets have always been the central focus of cities and towns. However, streets have also been places of revolt and repression. "The street has always been the scene of this conflict, between living and access, between resident and traveler, between street life and the threat of death." (Appleyard 1981, 1)

A livable street is a roadway that is designed to accommodate the needs of each individual user. This includes drivers, transit vehicles, bicyclists, and pedestrians of every kind such as the disabled, elderly, children, and lingerers. The number of travel lanes are typically kept to a minimum in order to safely cross the street.

A livable street should be one that has an equal balance between the vehicles that depend on them and the community that surrounds them. They should be places where people can live, eat, shop, relax, and interact to meet each one another's daily needs. In addition, they are places where products and services can easily be received. A livable street has open, public spaces for the community. Where other streets are designed to meet transportation's needs, livable streets, however, are designed to meet the needs of each person who will use them. A vital component of livable streets is that they are safe. Streets that are well-used discourage criminal activity while fostering both social activity and a sense of community. Rather than incorporating cameras for security people tend to feel safe around more people.

Streets provide a variety of different functions in one's daily routine. Although the nature and composition of each street may be varied, each street can act as a means for various transportation modes, or as a location for a community assembly. The ways in which streets are utilized and what is made of that chosen space is determined by the street's design and function, as well as how people choose to interact within the urban spaces that define them. It is a place where the car is no longer the dominating element. Not that the car is eliminated completely, but rather the pedestrian is the dominating factor.

Case Studies	
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#### Case study | Toronto



Toronto was chosen as a case study since it is a good example of successful public transit. Toronto has numerous bus and streetcar lines on a majority of its streets. For example, on Queen Street, the streetcar resides in the same lane as automotive traffic; eliminating the need for a separate streetcar lane and reducing the distance for pedestrians crossing the street.

Buildings are engaging the street edge creating a street wall condition that encloses the public space. This defined street edge that is formed from the building frontages influences the lively conditions that take place on the street. These lively conditions include people socializing and interacting with one another through the built form. The mixture of building uses fulfills the needs of all users of the street.

The two lanes for automotive travel is enough to allow users to get from point A to point B while experiencing the surrounding context. The on street parking lane acts as a buffer between travel lanes and pedestrians using

Figure 1. A Toronto Street (Flickr)

the sidewalks. It also aid in controlling the speed of traffic. Automotive traffic speeds tend to be slowed in places with reduced lanes and on street parking. Because of this buffer pedestrians may feel safe from oncoming traffic.

#### Case study | San Francisco



Figure 2. San Jose and Guerrero (Google)

San Jose Avenue in San Francisco, is a heavily traveled automotive thoroughfare. Pedestrian safety improvements, which were established in 2004, include reducing the number of traffic lanes from six to four, increasing bike lanes, and implementing a 12-foot wide center median for pedestrian refuge. This was achieved by re-striping the road and calmed the traffic.

A proposal had been made to enhance the pedestrian environment and public spaces by creating very small-scale, neighborhood public spaces such as pocket parks and mini-plazas. Wider sidewalks were proposed in areas with higher pedestrian activity such as transit stops, near retail and commercial services, public institutions, and schools. In the northern more residential area modestly widened sidewalks are paired-up with wider, richly planted medians that contribute to the overall pedestrian character of the street.



Figure 3. San Jose Ave. Proposed Plan

San Jose Avenue and Guerrero Street (at 28th Street) Proposal:

• Limit through traffic onto San Jose Avenue and create a new plaza.

• San Jose Avenue: San Jose south of the 28th Street intersection would have a narrow (6') median, wide (14') sidewalks, 10' traffic lanes, 8' parking lanes and 5' bike lanes. San Jose Avenue north of the intersection would be closed to through traffic.

• Guerrero Street: Guerrero north of the intersection would have an 8' median and 12' sidewalks.

• Plaza: The new plaza would replace what is now a free right turn. The plaza would be primarily open and flexible to allow for a variety of events and community gatherings. It would be paved with a textured paving that would distinguish it from the surrounding streets. A shady seating area with trees and shrubs in planters, and a small fountain (or sculptural focal point), would provide an informal gathering place and comfortable sitting area.

#### Case study | Miami



The streets in South Beach, Miami are lined with numerous sidewalk cafes. These cafes and restaurants are able to share the sidewalk space with the pedestrian, as seen in Figure 4 and Figure 5. Because the seating is outside there is a direct connection between traveling on looker and the cafe patron. By allowing this type of activity to occur, there becomes an interaction between movement and static situations. These situations encourage a people to interact with one another. This interaction that is lost in the automobile is regained and contributes to the social liveliness of the area.

The outdoor seating from the cafes are typically shaded from the sun, due to Florida's harsh sun, inviting people to enjoy the time that may be spent socializing.

Most of the streets have on street parking to allow for easy access to the cafes and other commercial establishments while also acting as a buffer between the sidewalk and the street.

Figure 4. Sidewalk Cafes

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Figure 5. Miami Street Diagrams

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The need for social interaction on the street requires a program that encourages people to linger. Public spaces are needed that will allow for the pedestrian to rest, interact, and must give the user a sense of place and security that would allow for use of the space day or night. These public spaces should vary in size from large gathering spaces able to hold large numbers of people to smaller intimate spaces. All public spaces need to include public seating, lighting, and shaded protection from the sun. The location of these spaces should allow people to walk from one end of the site to the other with a number of these spaces to encounter along the way. Public spaces should be shared and accompanied by commercial establishments such as a coffee shops, bars, or cafes in order to be successful.

Street enhancements are needed that allow for pedestrians to safely walk the site and cross streets. Space will need to be allocated for public transit elements such as a streetcar, lightrail, and bus (including stations and stops). These elements should also be treated as public spaces and will need to encourage people occupy 18

these spaces. Transit stops must be more than a sign and bench but rather a place to gather and feel comfortable while waiting.

Mixed-use infill building types will be needed to enforce the surrounding edge conditions of the street and public spaces. These buildings should also encourage social interaction through the type of building (the use of) and have a direct connection with the public space. There will be a diverse and flexible use of building types along the edge of the street. Private entities will be able to use and share public spaces but will not have control of the spaces or sidewalks.

# PROGRAM (LIST OF POTENTIAL VALUE STREETS

•Buildings | infill, varying uses (shops, cafes, restaurants, bars, residential, hotels, galleries, offices, etc.), Sizes, types-shape (corner, courtyard) Street profiles/sectional properties | height to width ratios, street wall definition(facade/frontage) •Sidewalks | crosswalks Social meeting/gathering spaces Plazas Parks Landscape •Transit | transit stations, streetcar/lightrail, bus •Traffic Calming | raised crosswalks/intersections, traffic circles/ roundabouts, Bollards, Curb extensions, narrow travel lanes, Pavement treatments, Pedestrian Elements | public spaces- restrooms Signage Lighting Sun Shading Public Art Water Features Street Furnishings | seating Parking | on-street, surface lots, garages/structures Bike Lanes

Figure 6. Program List



## Site 1



Site 1 Bruce B. Downs Boulevard is a suburban street condition with a small number of commercial entities placed along this major thoroughfare. This street has very few cross streets which results in major traffic congestion at multiple times of the day. This site has the potential to become a livable street but does not offer enough existing context.

Figure 7. Site 1 Aerial



Site 2 Fowler Avenue is a street condition with a good number of commercial entities as well as some residential ones. This street has some cross streets some which are major intersections. This site has the potential to become a livable street but the existing context consists of the University of South Florida, The Museum of Science and Industry, and some big box retail.

Figure 8. Site 2 Aerial



Figure 9. Site 3 Aerial

Site 3 Kennedy Boulevard is a street that connects Tampa International Airport and the Westshore district with Downtown Tampa. The site consists of small commercial businesses along the street, the University of Tampa and some residential neighborhoods to the north and south. This was the chosen site since it has potential to become a livable street. It engages with Westshore and Downtown to become a valuable asset to Tampa.

#### **Site Analysis**



Figure 10. Site Aerial Macro

The chosen site is a section of Kennedy Boulevard approximately half a mile long. The location is situated across the Hillsborough River directly west of Downtown Tampa, next to the University of Tampa campus. With the Westshore business district approximately four miles to the west and Tampa International Airport six miles, Kennedy Boulevard is a highly traveled thoroughfare to and from the downtown area. The close proximity to downtown's major features include the central business district and the channel district. The business district features numerous corporations and financial institutions. The channel district is home to The Tampa Convention Center, The St. Pete Times Forum, and the Florida Aquarium. In addition, the channel district is also well known for its nightlife. This site was chosen because it is close to downtown, has a fairly good base for redevelopment, and has high potential of becoming a livable commercial main street.



Figure 11. Site Aerial Micro

The micro level of the site possesses context that allows for opportunities that may aid in the potential of Kennedy Boulevard becoming a livable street. The close relationship with the University of Tampa will play a key role in the success of the site. The University of Tampa is a medium-sized private university, with approximately 6,200 students. 70 percent of the full-time students live on campus. The campus contains about ten resident halls, most of which are within the 1/4 mile walking distance of the site.

The university is constantly expanding with plans to encompass parts of Kennedy Boulevard. As the campus grows, the needs of the site will change and require walkable conditions. Young college students will become the primary users of the site. The current campus map shown in Figure 11 displays the building types and their relationship to Kennedy Boulevard.



Figure 12. Figure Ground Study



Figure 13. Pedestrian Path



Figure 14. Vehicular Traffic Pattern



Figure 15. Surface Parking Lots







KENNEDY BLUD, WITHIN 1/2 MILE

Figure 17. Distance Between Crossings

The site is organized with block sizes 250' by 350', 310' by 485', and 290' by 560' as well as some irregular sized blocks illustrated in Figure 17. Within the 1/2 mile stretch of the site there contains only four places to cross Kennedy Boulevard. These crossings are located at the intersections of Willow, Boulevard, Brevard, and one in front of the University of Tampa's main entrance. The distance between the crossing at Willow and the crossing at Boulevard is approximately 1280' which is just under a 1/4 mile. This distance is much too great not to have any pedestrian crossings. Pedestrians are more likely to attempt crossing Kennedy with fast oncoming vehicles than to walk the extra 1/4 mile distance to a safe crosswalk. These crossable places also contain traffic lights and are the only way to currently slow fast moving traffic. The current situation allows for traffic to move at high speeds in between the traffic lights.







Figure 19. Existing Land Use





Figure 20. Section Cuts

The sectional qualities of Kennedy Boulevard shown in Figure 20 confirm the need for improvements to the pedestrian environment. The crossing distance from curb to curb is approximately 55 feet. The greater the distance one has to cross the street the more dangerous the risk for pedestrians. A few of the buildings face the street and are set directly up to the sidewalk right of way. There are also many vacant blocks and spaces in between buildings without a clearly defined street wall. The height of a majority of the buildings is one or two levels, with an exception being that some of the university buildings tend to be eight to ten levels.





Figure 22. Existing Building Types



Figure 23. Site Assets



The site also includes an existing CSX rail line that passes through the intersection of Kennedy and Willow, as shown in Figure 24. The rail line is rarely, if ever, in use. Hillsborough County Metropolitan Planning Organization has proposed future use of this rail corridor for a light rail. The study focuses on the connection needed in the Tampa Bay Area through transit, as displayed in Figure 14. The connection to the site may become a valuable asset and influence the design concept.

Figure 24. Existing CSX Rail Line



Figure 25. Transit Study (MPO)





Figure 27. Snow Park

Another asset that can be found on the site is Snow Park. The park is located on the east of the site, adjacent to the University of Tampa. It is a triangular shape at the point where Kennedy Boulevard deviates from its linear path and shifts toward downtown, as seen in Figure 27. Snow Park is currently the smallest park in the City of Tampa. Despite its closeness to the university, the park is rarely used, except by the occasional homeless person. The park is not safe as traffic approaches at 40-50 mph. Although the trees do provide shade, no seating is provided to enjoy the park.

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#### **Initial Concept**



The initial concept diagram illustrates the need to connect the two potential points of interest with walkable infill conditions. These points are defined as activity centers and will become slightly denser than the rest of Kennedy Boulevard. The activity center on the left will become a transit center and the activity center on the right will become a neighborhood center.

Figure 28. Concept Diagram

# Concepts





Figure 29. Organic Concept

Figure 30. Concept 1









Concept 2



The Proposed Building Types in Figure 33 are examples of the types of buildings incorporated in the design. The intent is to require these types of building in the project but not the actual design of the buildings themselves.

Figure 33. Proposed Building Types

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Figure 34. Master Plan

The overall master plan illustrates the amount of density that is needed to transform the site into a lively walkable area.





The elevations show the relationships between the different building heights and the activity centers. They also illustrate the building frontages.







Figure 37. Perspective: Looking Downtown



Figure 38. Neighborhood Perspective



Figure 39. Transit Center Perspective



Figure 40. Neighborhood Center Axo



Figure 41. Transit Center Axo

The design strategies illustrated in Figure 42 are ways to implement elements successfully throughout the project. These strategies aid in the livability of the street and the surrounding context.

Parking courts were used as a means to provide parking while not imposing on the street environment. These parking courts are centralized within the block and are only accessible from a side street or alley. Placing the surface parking lots in this manner eliminates the problem of parking lots adjacent to the street. This is important because the space of the parking lots are not desired spaces to be occupied by pedestrians and when placed adjacent to the street there was a disconnect between the street and the building. By concealing the parking in between buildings the relationship of building and street is regained.

Parking structures were also centralized within the block in the same manner as a parking court but was enclosed with retail. Parking structures can be centered in areas of higher density. Retail requires a high number of parking which is why it is a adequate element to enclose parking structures but residential would also be incorporated above the retail.

Wide sidewalks were implemented to provide space for sidewalk cafes while allowing pedestrian traffic to flow through the space.

A defined street wall encloses the space and the building frontages address the street. Building that address the street incorporate a number of elements such as storefronts, windows, doors, and overhead conditions that are all pleasant to the pedestrian user.

On-street parking provides needed parking to businesses while also acting as a buffer between the sidewalk and the street. Some businesses can not rely on pedestrian traffic alone but also require that they are able to be accessed by automotive traffic. Crossable intersections are very important to the walkable nature of the street. The crosswalks were designed with bricks that are visible as well as textured to warn and grab the attention of automotive traffic of pedestrians crossing the street. Crosswalks were implemented at all intersections not limited to major intersections.

All streets were lined with trees that provide a shade canopy from the sun for pedestrians. It is important to provide shade for people especially in places like Tampa where there is a great deal of harsh sunlight. Trees enhance the pedestrian realm creating conditions for people to occupy.



Figure 42. Design Strategies



## Figure 43. Aerial Perspective

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The purpose of this thesis is to create a walkable pedestrian environment from a heavily automotive commercial street. From research and exploring different design implementations, it has been discovered that numerous factors must be considered at multiple scales to generate the type of livable street environment that was desired through this project.

The surrounding context of the street also influences the activeness of the street. One would also have to consider the area around the site, the street terminuses, and the reason that would encourage people to populate the site.

The end points of the street are important elements that created a beginning and an end to the project. The ultimate goal would be to extend the project and apply many of the same design strategies along the rest of Kennedy Boulevard. The realization of this application to the rest of the street would cause the end points to no longer be considered terminuses but rather points of interest or activity centers along the street.

This thesis project was not only meant to be a catalyst for the design of Kennedy Boulevard but also as a model for the transformation of other automotive traffic oriented commercial streets into livable pedestrian friendly streets. While many of the design strategies used in this project may work on other streets, some may not be successful or may require other strategies that were not considered in this project.

As this thesis has come to a point of conclusion, the project can be adjusted and improved to better the supporting elements that make a street truly livable.

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