

A Weaved Place in L'Hospitalet (Barcelona)

A study of the fragmented city of L'Hospitalet

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An initiative of:

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Barcelona, Spain

November, 2020

The aim of this study of the city of L'Hospitalet is twofold:

1. To identify the strengths and weaknesses of the urban structure and
2. To detect the areas of the city with the greatest potential for strengthening the links between people and places.

ANALYSIS OF THE URBAN STRUCTURE

MAPPING

Transport

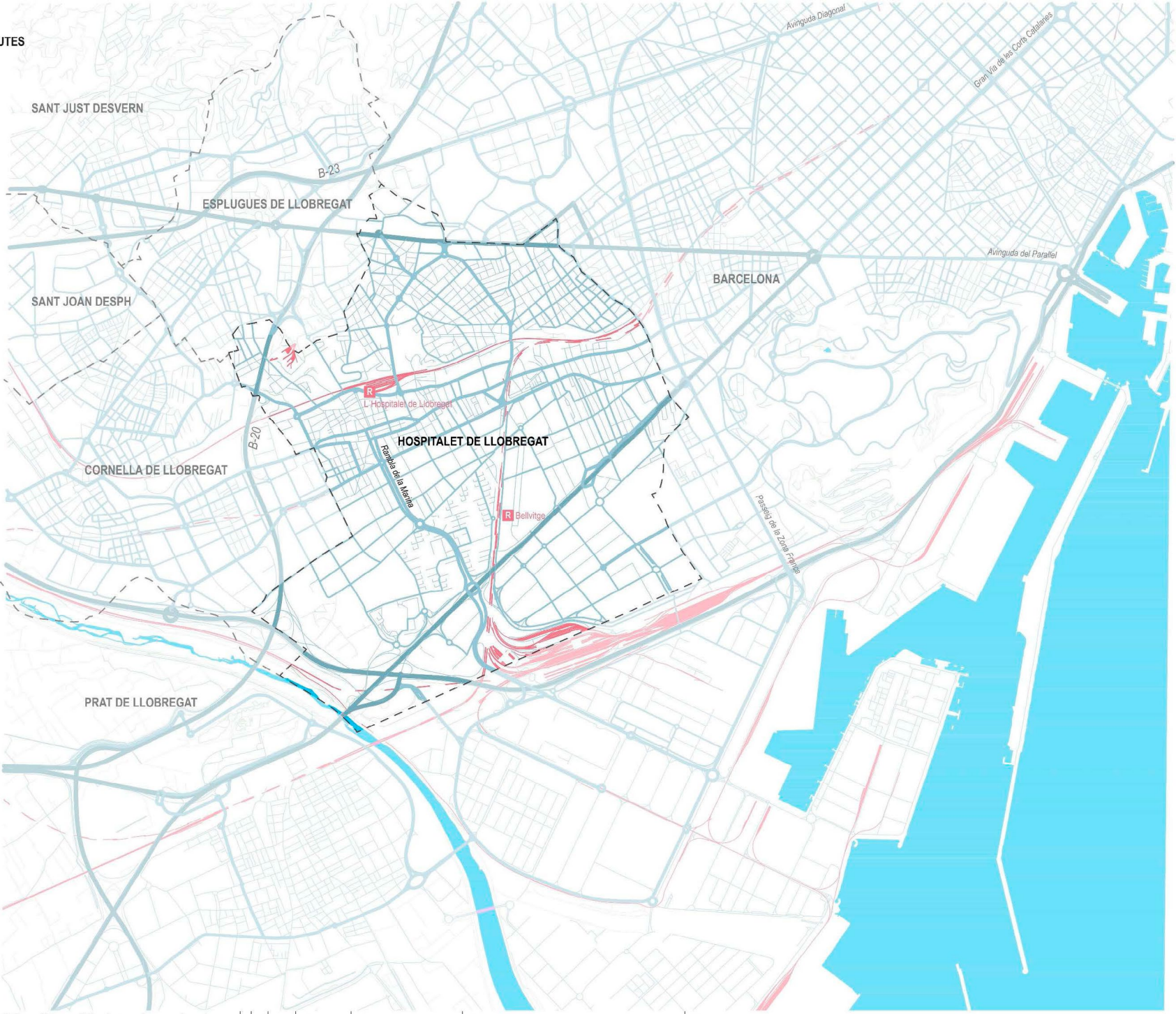
1.1 Mapping of "fragmented city"

URBAN STRUCTURE. ROAD SYSTEM. CIRCULATION. CAR ROUTES
AS A CENTRALITY AXIS

Transport as current and potential economic indicator.
 Transportation prices have an average price of the transportation services;
 Transport productivity of labor and total contribution to Economic Growth.

The fragmentation is visible in all the levels of circulation: the railway fragment in 3 parts; the highways in 3 more, and so on.

- municipal limits
- railway above the ground
- - - railway underground
- highway
- high capacity roads
- average capacity roads
- low capacity roads



Railway + Highway + High + Average + Low capacity roads | 0 | 100 | 250 | 500 | 1000 | 2000 | 4000 m

1.2 Mapping of "fragmented city"

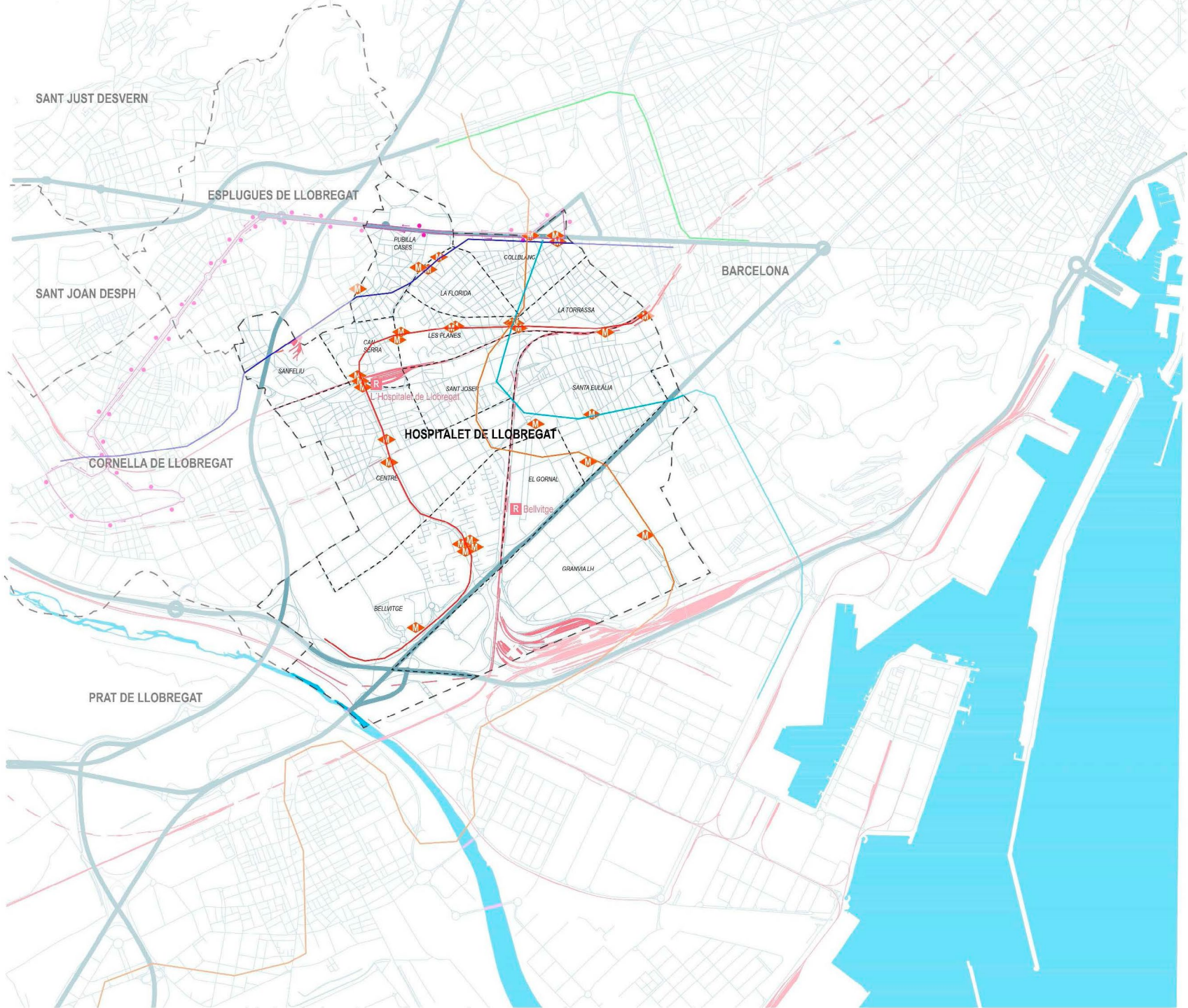
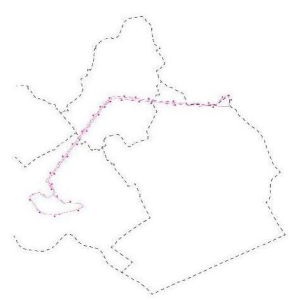
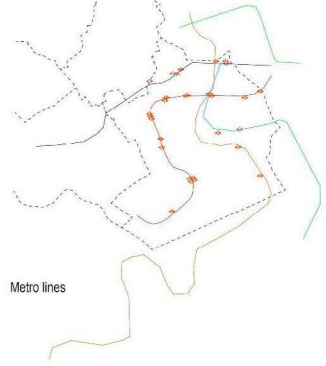
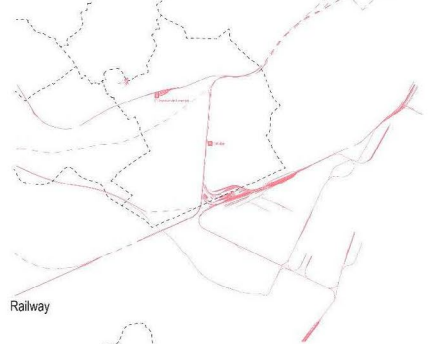
NODALITY. CIRCULATION. PUBLIC TRANSPORT AS A MOVEMENT AND ACCESSIBILITY CENTRALITY

Transport as current and potential economic indicator.
 Transportation prices have an average price of the transportation services;
 Transport productivity of labor and total contribution to Economic Growth.

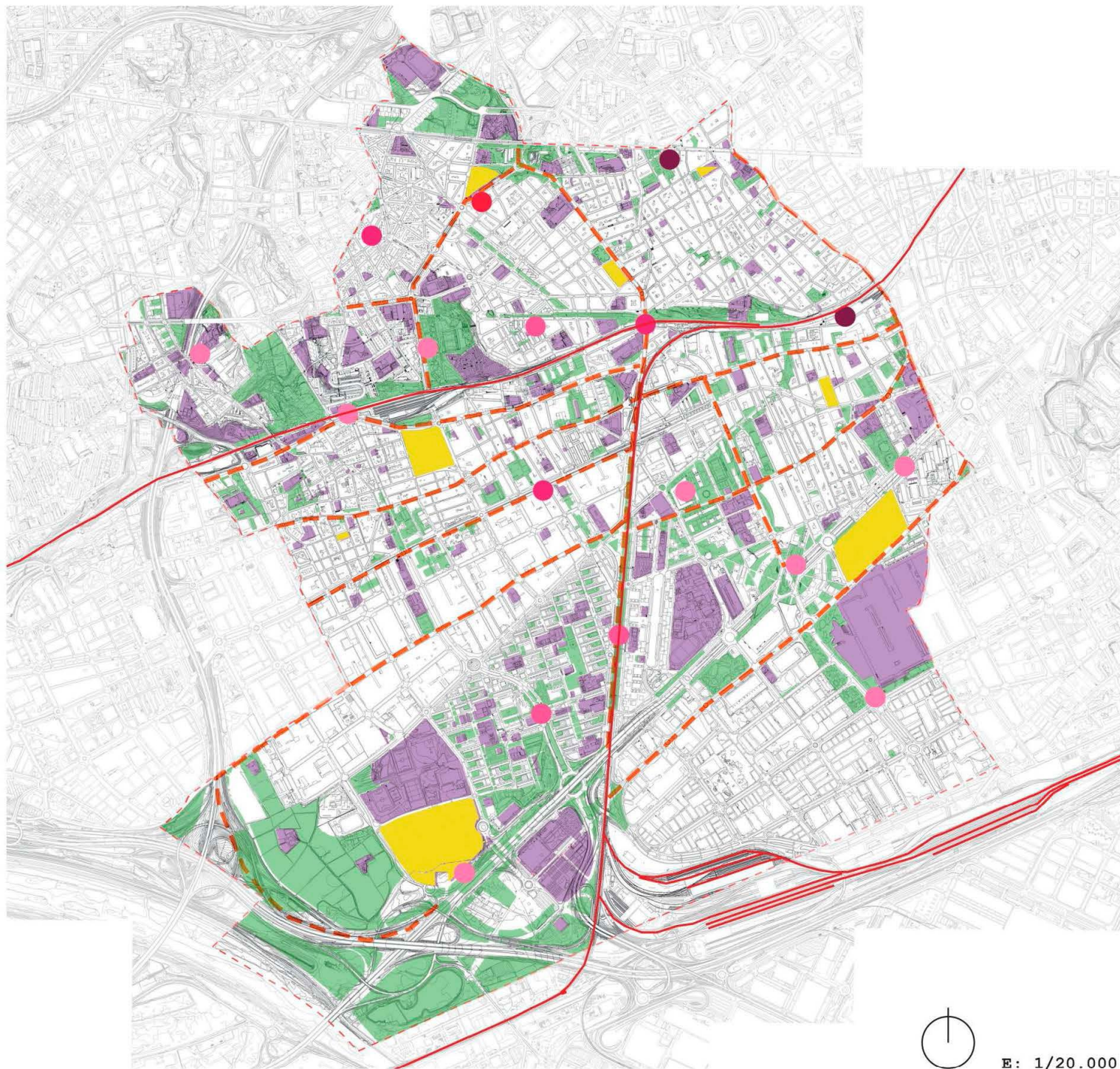
The fragmentation can be understood differently. For example, the bus line is saturated in just one 2 areas L'H, and the most of it is actually outside of the city.

All the metro lines are located strategically, but only the T1 line is really connecting the north and south parts of L'H, the rest of the lines fragment (not physically, since the metro is underground), but socially the city.

- municipal limits
- railway above the ground
- railway underground
- highway
- metro line L3
- metro line L5
- metro line L1
- metro line T1
- bus line
- R rodalies stop
- M metro stop
- bus stop+direction



Combined Map | 0 | 100 | 250 | 500 | 1000 | 2000 | 4000 m

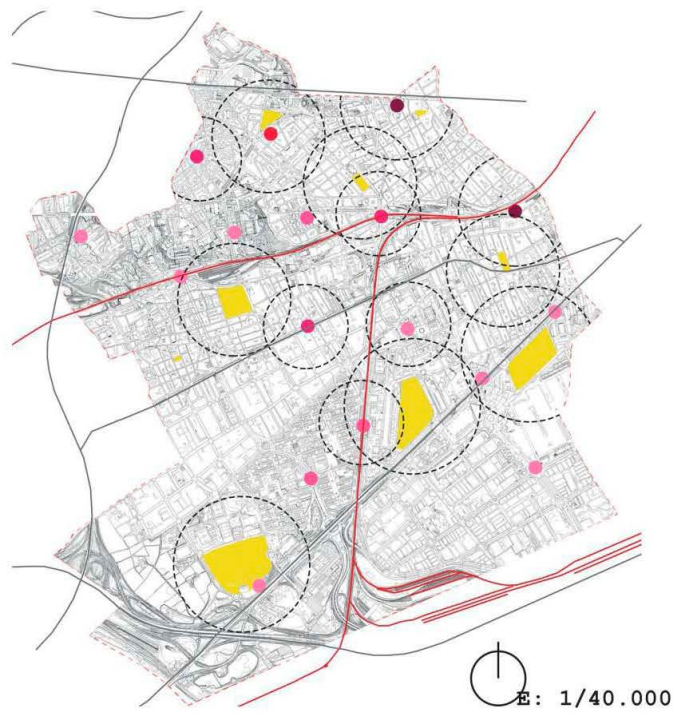









- - - Limit hospitalet
- - - Metropolitan streets
- Train railway
- Equipments
- Green areas
- Centralities
- ● ● ● ● Metro stations and use
- <900.000 us/year
- <1.500.000 us/year
- <3.800.000 us/year
- >3.800.000 us/year




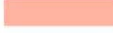



RELATION BETWEEN GREEN AREAS,
EQUIPMENTS AND CENTRALITIES









E: 1/20.000



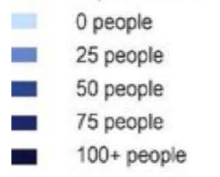
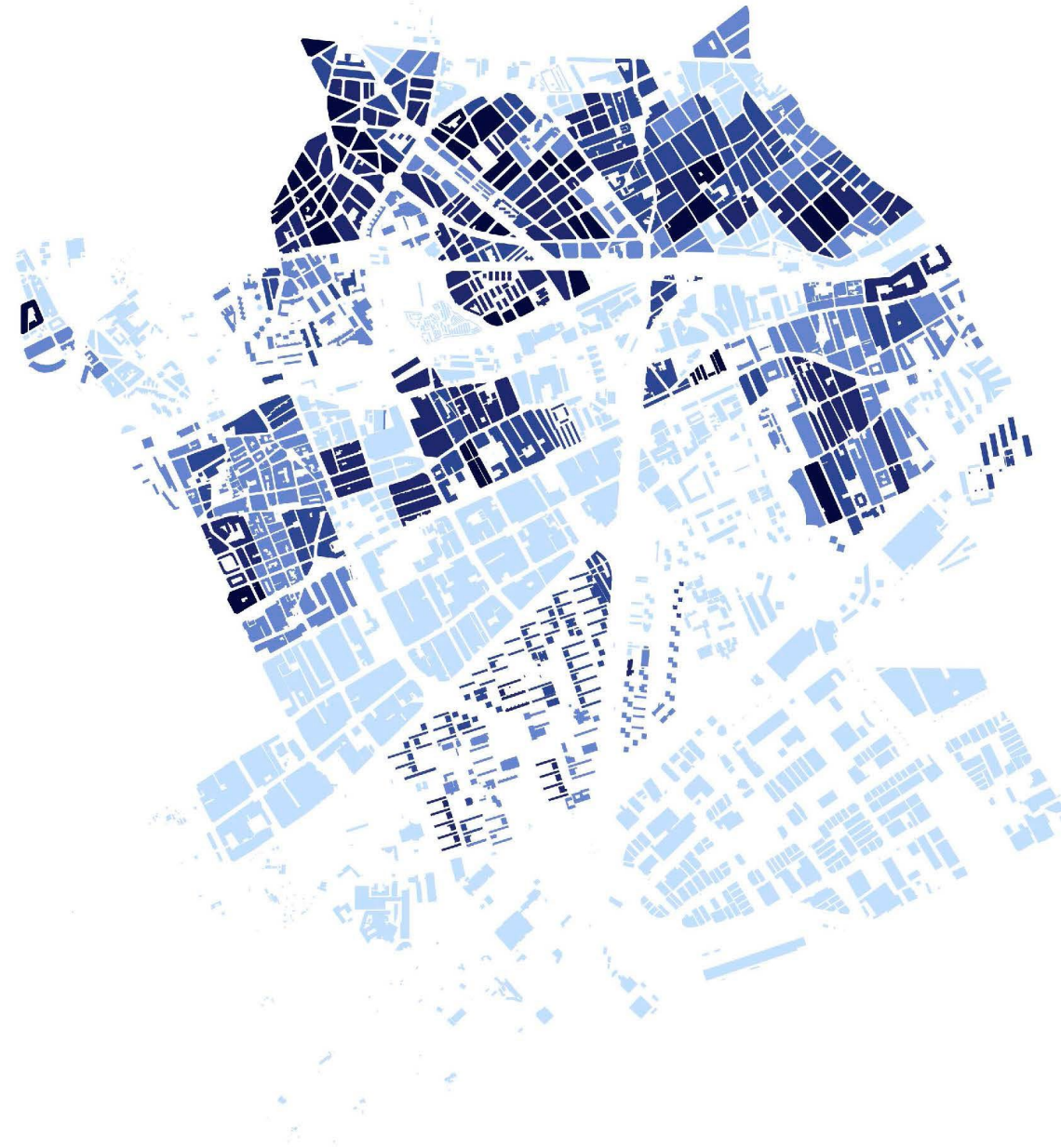
-  Limit hospitalet
-  Main road
-  Train railway
-  Train stations
-  Industrial area
-  Centralities
-  Radio of interest
r=300/400/500m

-  Limit hospitalet
-  Train railway
-  Train stations
-  Industrial area
-  Centralities
-  Potential areas
-  Radio of interest
r=300/400/500m

-  Limit hospitalet
-  Train railway
-  Centralities
-  Potential areas
-  Equipments
-  Green areas

MAPPING

Density



1.6 Mapping of "fragmented city"







POPULATION DENSITY, MARKETS








AS A CENTRALITY OF HUMAN DENSITY

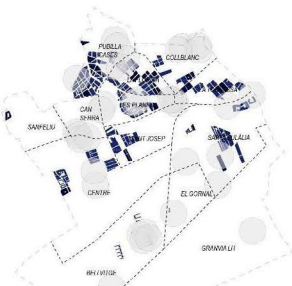
The 400m diameter circle of the points of access to the public transport in order to see the relation between the human density and those few access points in use.

The every day retail activities places of markets as reference points to see what amount of people those can serve for.

In the following maps the population density fragmentations are seen:

-  municipal limits
-  railway above the ground
-  railway underground
-  highway
-  road nodes
-  bus/rodalies/metro stop of 400m diameter from the center

-  markets
-  supermarkets
-  0 people
-  25 people
-  50 people
-  75 people
-  100+ people



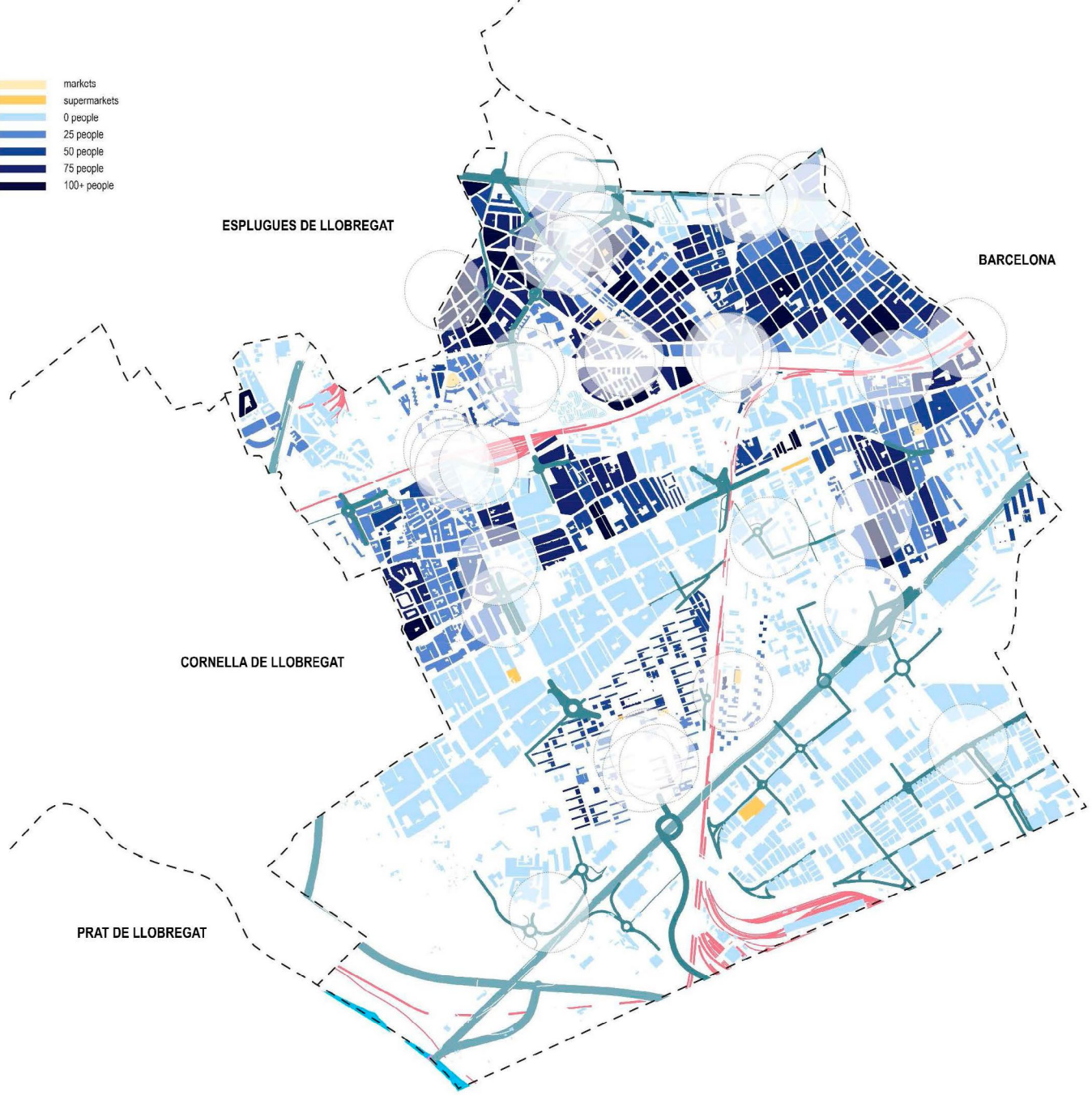
75 - 100+ people



25 - 50 people



0 people



Fragmentation Map between the Access points-Population Density-Cultural Trade areas - Markets



MAPPING

Open / Public Space

OPEN & PUBLIC SPACES SYSTEM

Open green area
Park
Public square
Sport Facilities



Open green areas are mostly concentrated in South-Western zone
Formes a gap between Av. del Carrilet and Travessia Industrial



Public squares are mainly prolonged in North-South direction
Forme a gap in centre of the city



Sport facilities are mostly balanced out in their location

OPEN & PUBLIC SPACES SYSTEM+ MAIN ROADS

Open green area
Park
Public square
Sport Facilities



Looking at the scheme can be seen that open public and green areas are better developed in some areas and prolog through some axes such as Avinguda de la Granvia de L'Hospitalet and Avinguda de Josep Tarradellas i Joan.

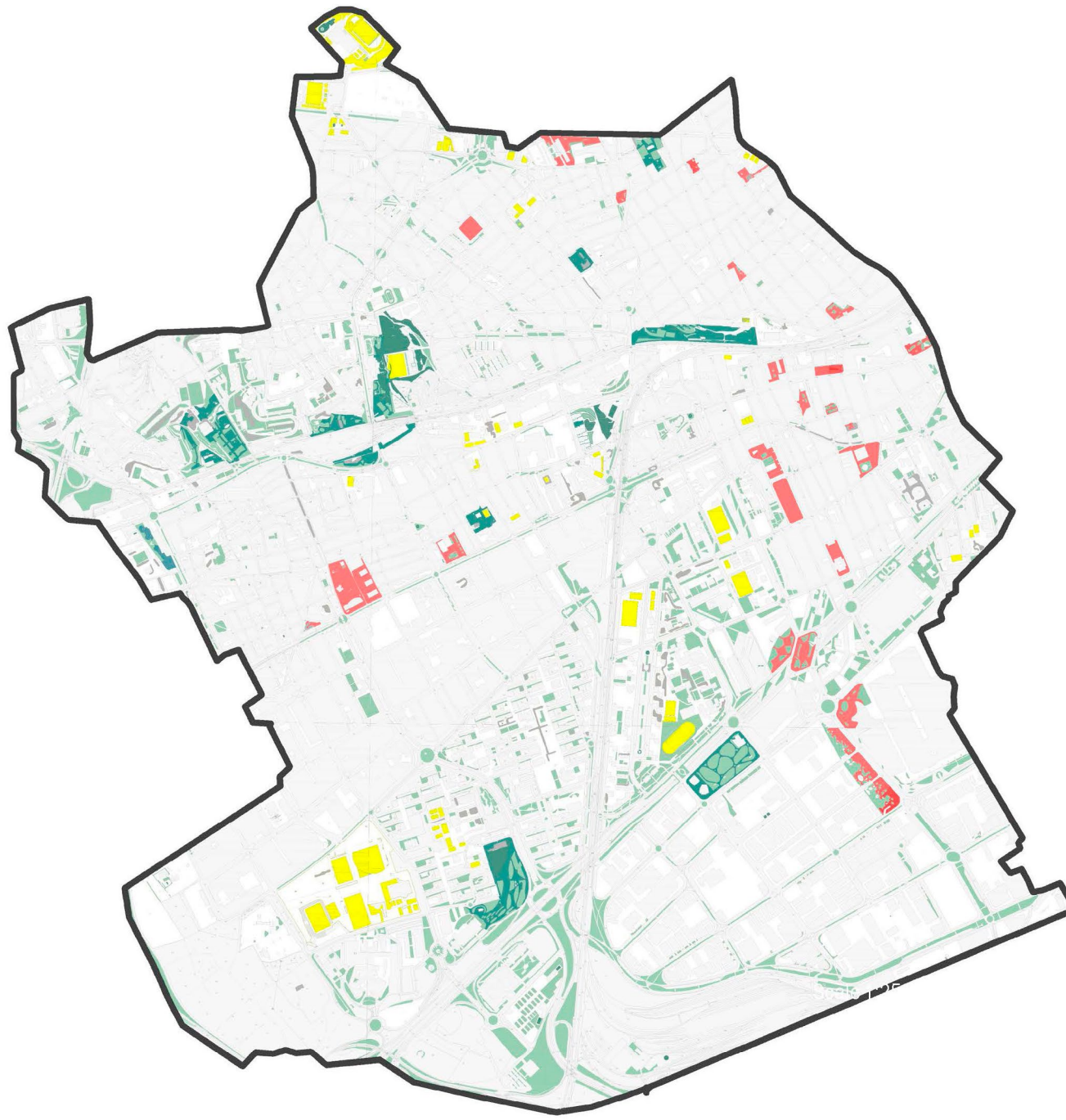
However there are clear gaps of lack in green open areas in Western part of the city. The roads Av. del Carrilet, Travessia Industrial and Carrer d'Enric Prat de la Riba can be considered as axis for open public and green space integration.



Open public and green areas
Roads
Roads as axis for potential improvement



- Green Areas
- Public Squares
- Sports Facilities
- Public Parks



1.3 Mapping of "fragmented city"

NODALITY. CROSSROADS. ACCESSIBILITY

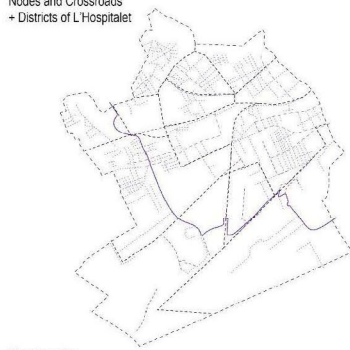
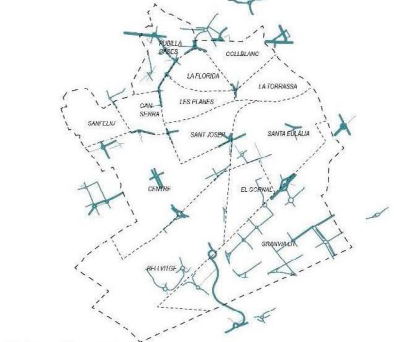
AS A CENTRALITY WITH ABILITY TO CONNECT

The public transport networks, as well as light transport means, such as bicycle, scooters, and others, is associating with the centralities of connection, both, physical and social.

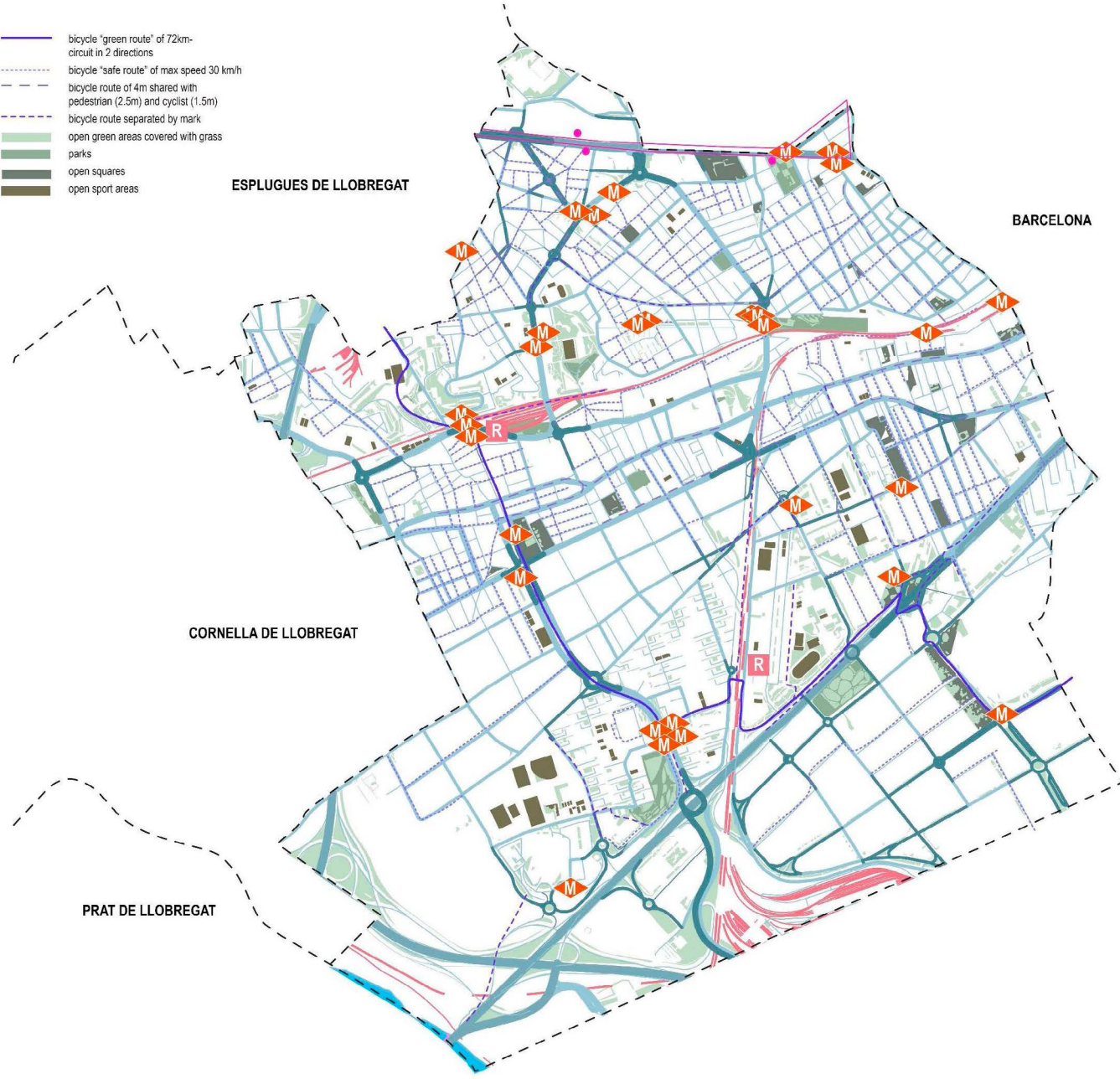
Those centralities (if working properly) are characterized by good accessibility, and easy exchange between the models or types of transport.

In the current map, there is some connectivity between the nodes-bicycle routes, bicycle routes-public transport stops, however, it is not fully achieved, and in quite many places creates fragmented spaces.

- - - municipal limits
- - - railway above the ground
- - - railway underground
- == highway
- == high capacity roads
- == average capacity roads
- == low capacity roads
- road nodes
- bus line
- rodalies stop
- metro stop
- bus stop
- bicycle "green route" of 72km-circuit in 2 directions
- bicycle "safe route" of max speed 30 km/h
- bicycle route of 4m shared with pedestrian (2.5m) and cyclist (1.5m)
- bicycle route separated by mark
- open green areas covered with grass
- parks
- open squares
- open sport areas



Nodes and Crossroads+ Open and Public spaces system



Fragmentation Map between the Nodes-Bicycle routes, Bicycle routes-Public transport stops and Open Spaces | 0 | 100 | 250 | 500 | 1000 | 2000 | 4000 m

MAPPING

Cultural activities

1.4 Mapping of "fragmented city"

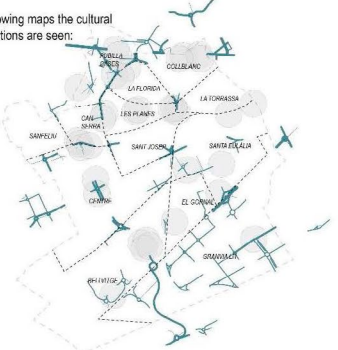
THE HERITAGE, CROSSROADS, CULTURE AS A CENTRALITY OF URBAN AND CULTURAL SIGNIFICANCE

The 400m diameter circle of the points of access to the public transport in order to connect from and to such points as:

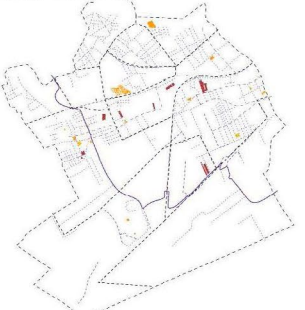
The heritage, the old churches, cemetery, heritage buildings, and industrial buildings of 1960s play a big role of centralities for the citizens, those serve as a reference points in environment. Heritage is a material asset linked to our collective memory.

In a similar way, such cultural places as, parks, art centers, education facilities, and libraries, provide further social and physical connectivity (in theory), hence, being centralities.

In the following maps the cultural fragmentations are seen:



Nodes and Crossroads + 400m circle on access points

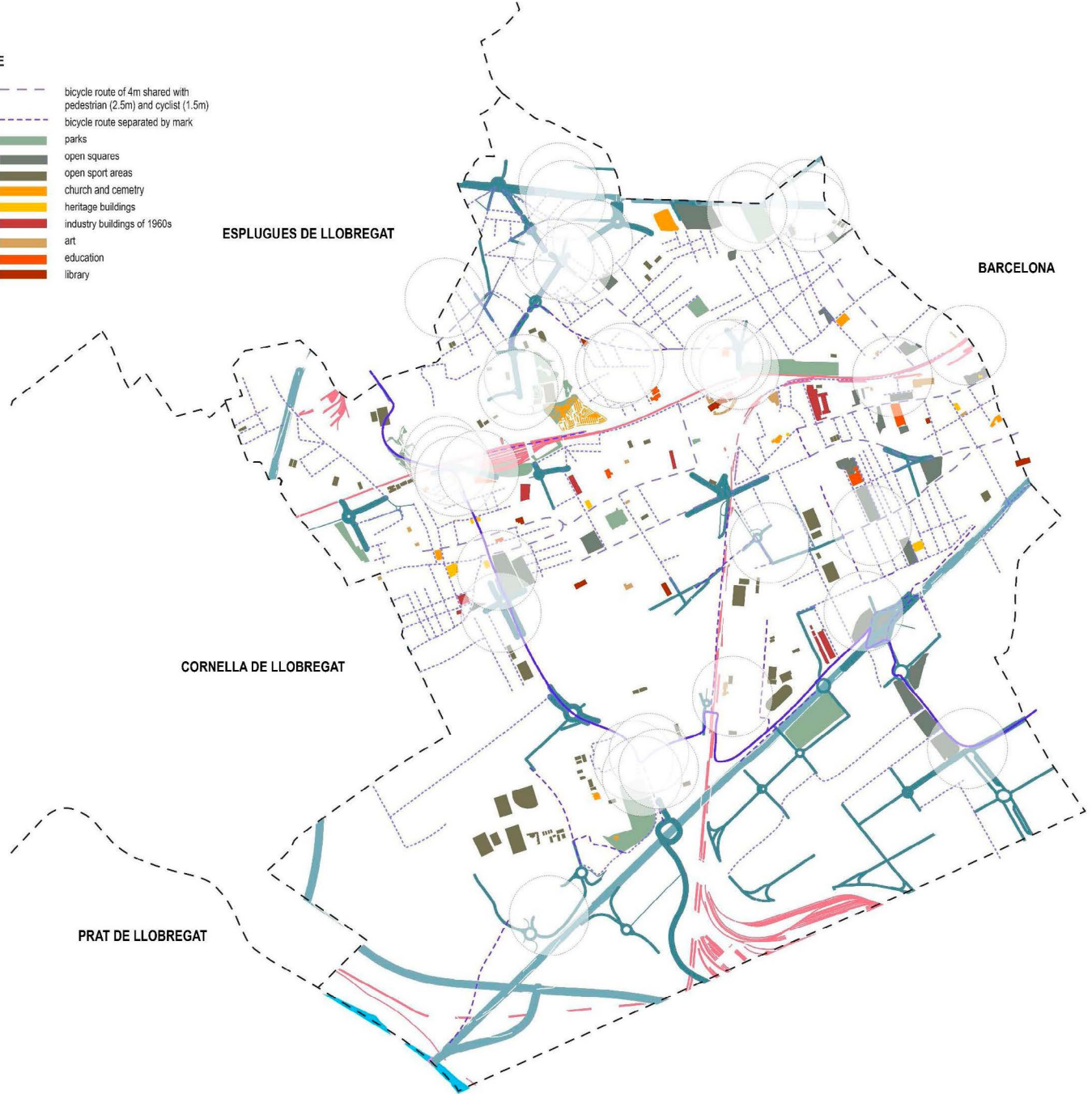


Bicycle routes + Church and Cemetery+ Heritage + Industrial buildings of 1960s



Bicycle routes + Art + Education + Library cultural facilities

- municipal limits
- railway above the ground
- railway underground
- highway
- road nodes
- bus/rodalies/metro stop of 400m diameter from the center
- bicycle "green route" of 72km- circuit in 2 directions
- bicycle "safe route" of max speed 30 km/h
- bicycle route of 4m shared with pedestrian (2.5m) and cyclist (1.5m)
- bicycle route separated by mark
- parks
- open squares
- open sport areas
- church and cemetery
- heritage buildings
- industry buildings of 1960s
- art
- education
- library

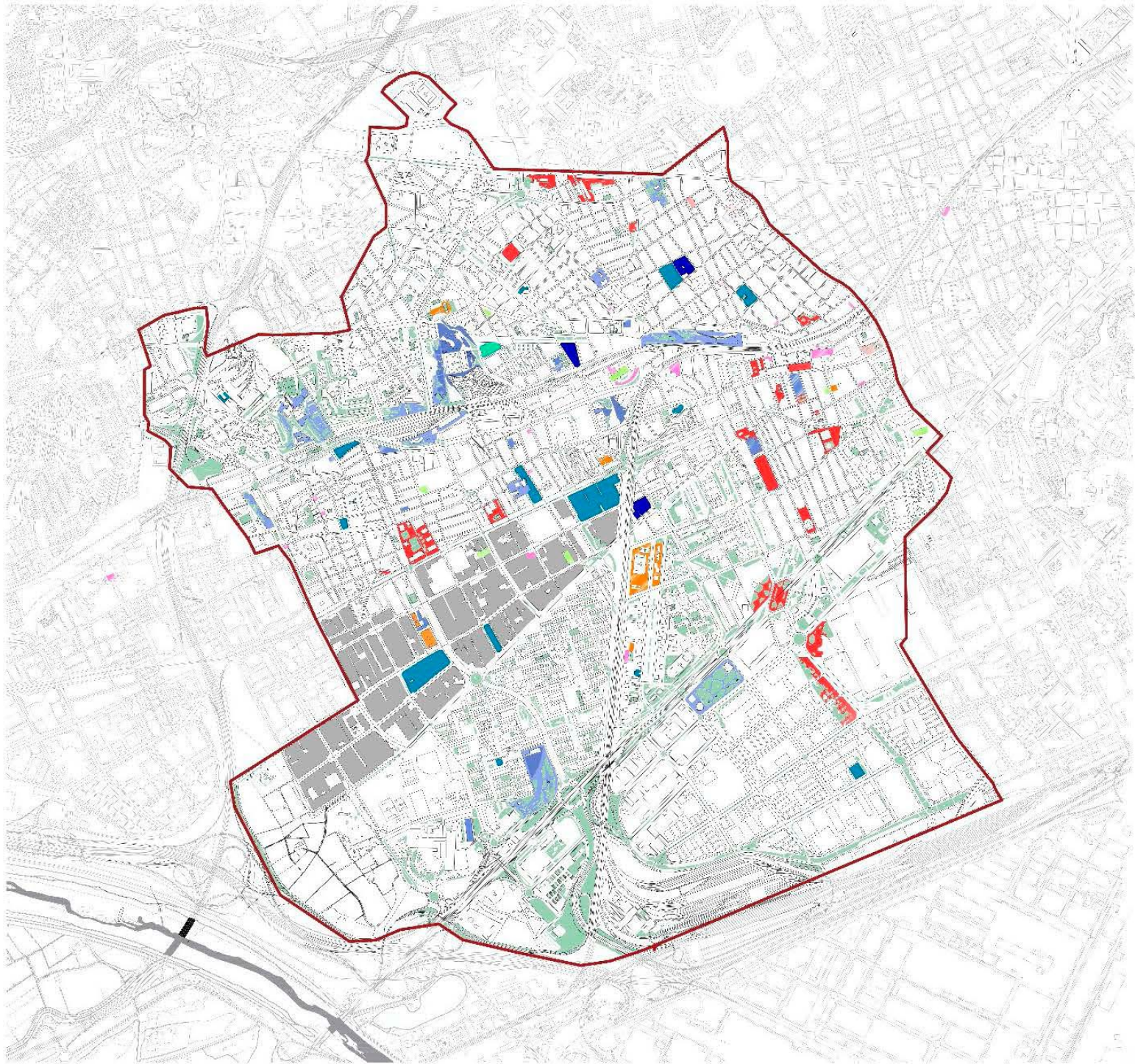


Fragmentation Map between the Bicycle routes-Access points, Bicycle routes-Cultural and Heritage areas



- Culture:
- Education
 - Library
 - Arts (fine art, music, theatre)
 - Sports facilities

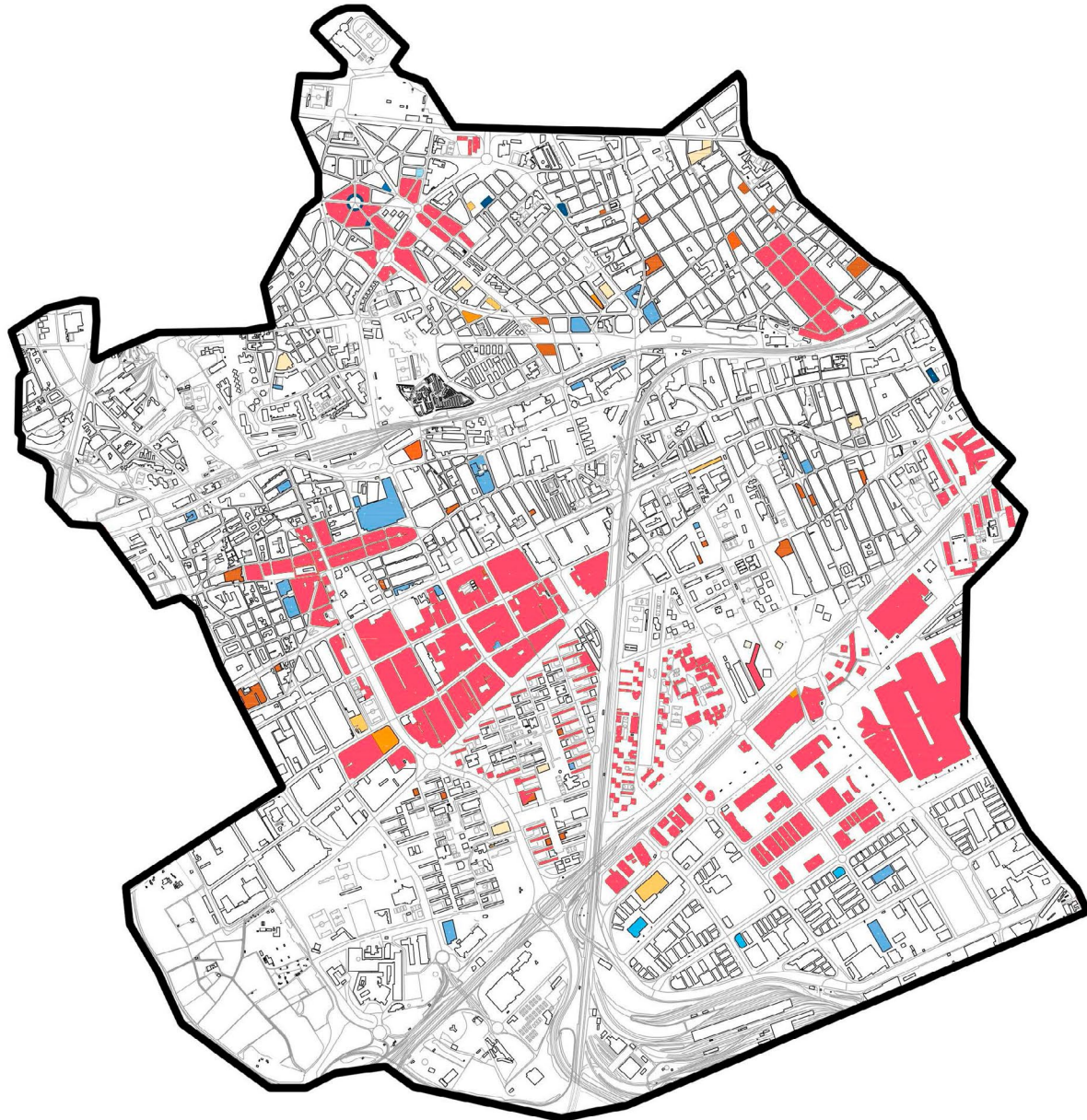
- Openspaces:
- Greenspaces
 - Squares
 - Parks



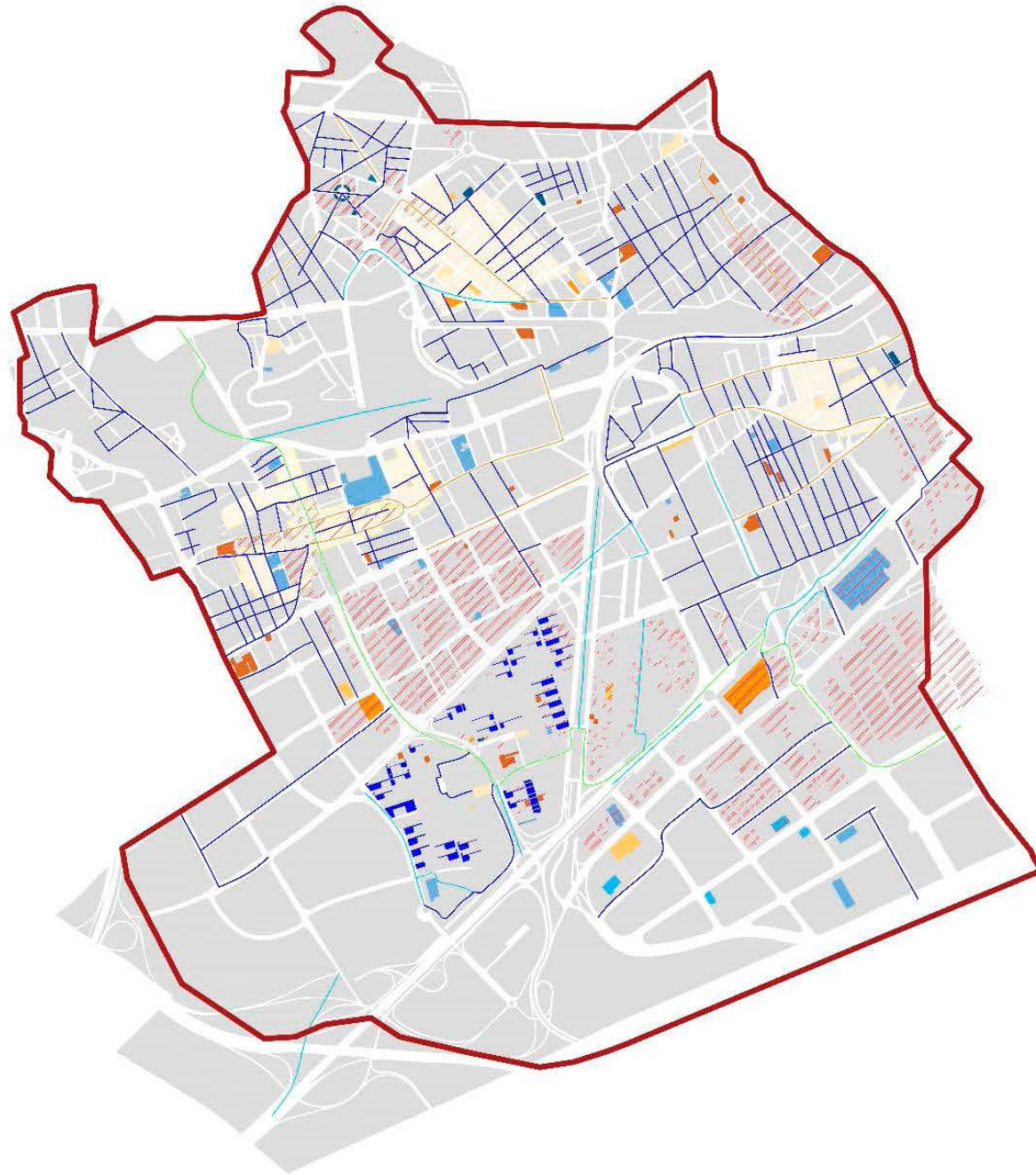
MAPPING

Commercial space

- Basars
- GF Commerce
- Supermarkets
- Furniture
- Gastronomy
- Retail/Electronic
- Mercat
- Automotive
- Offices



- Commercae:
- Supermarket
 - Ground floor commerce
 - Basar
 - Furniture
 - Food and drinks
 - Retail and electronics
 - Markets
 - Automotive
- Offices
- Peacefulway
 - Bicycle lane
 - Greenrod
 - Cycleable streets



MAPPING

Historical heritage

CHURCH

FACTORY (1960)

HERITAGE (XIX - 1923)



44. Casa Sabadell (1914-1923)



45. El Bosc (1914-1915)



46. El Bosc (1914-1915)



39. El Centre Catòlic



8. Casa d'Olis Rigós, 1911

45. Casa Isard (1914-1915)

Centre de Buenos Aires, 12

Santa Fe de la Vera Cruz, 12

Parc de la Font de la Plaça del Repartidor

Plaça del Repartidor



89. Casa Escarpó n. 300

76. Font de la Plaça del Repartidor







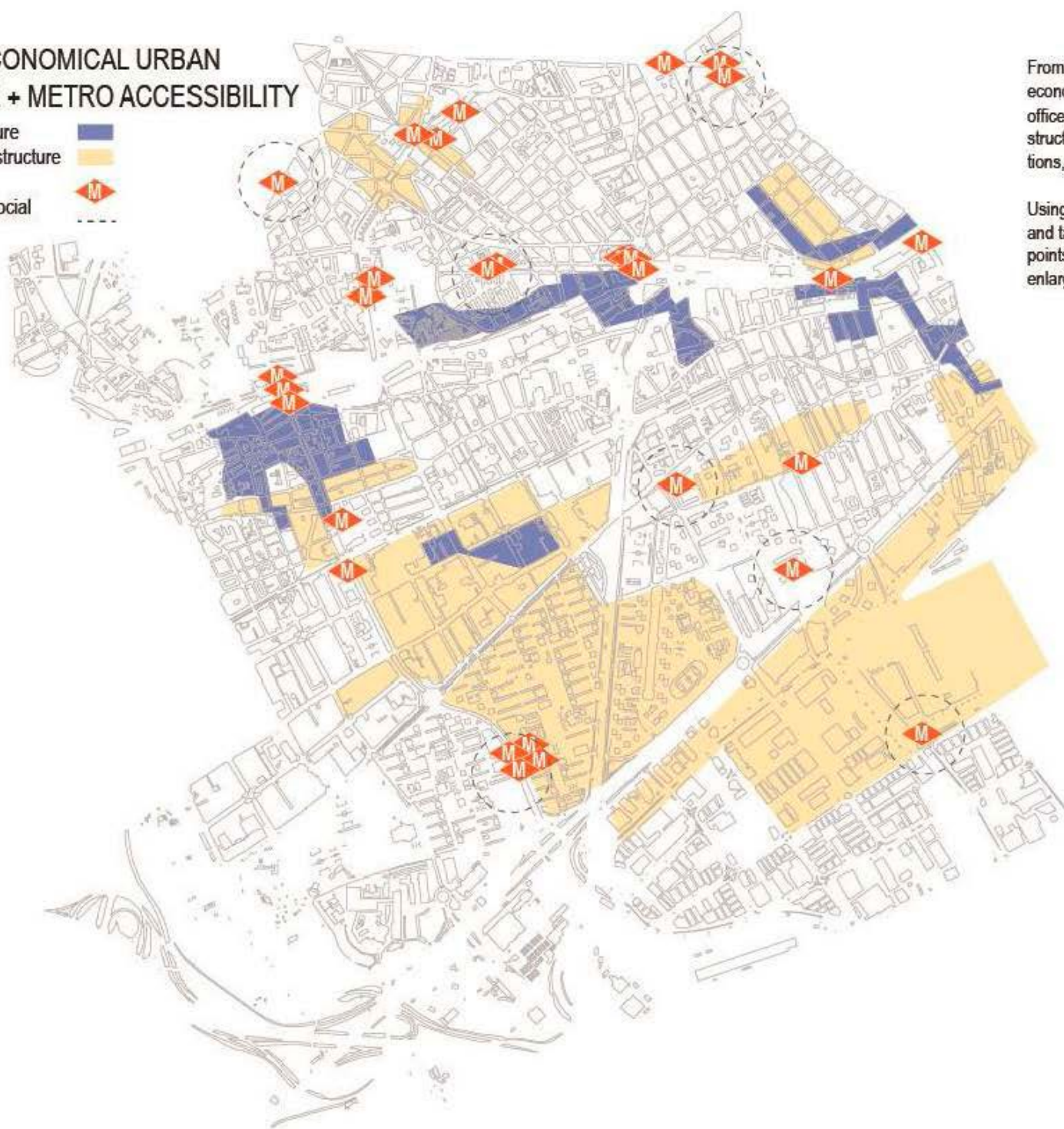
Font de la Plaça del Repartidor

MAPPING

Social / Economic areas

SOCIAL & ECONOMICAL URBAN STRUCTURE + METRO ACCESSIBILITY

- Social urban structure 
- Economical urban structure 
- Metro entrance 
- Potential area for social urban structure 



From this map we can see that in comparison the economical urban structure that includes commerce, offices, restaurants, etc. are dominant to the social structure of the city that includes educational institutions, heritage, churches, art centers etc.

Using metro as the main public transport in the city and taking into account the position of its access points, the strategic places can be identified for enlarging the social urban structure of the city.















1.5 Mapping of "fragmented city"

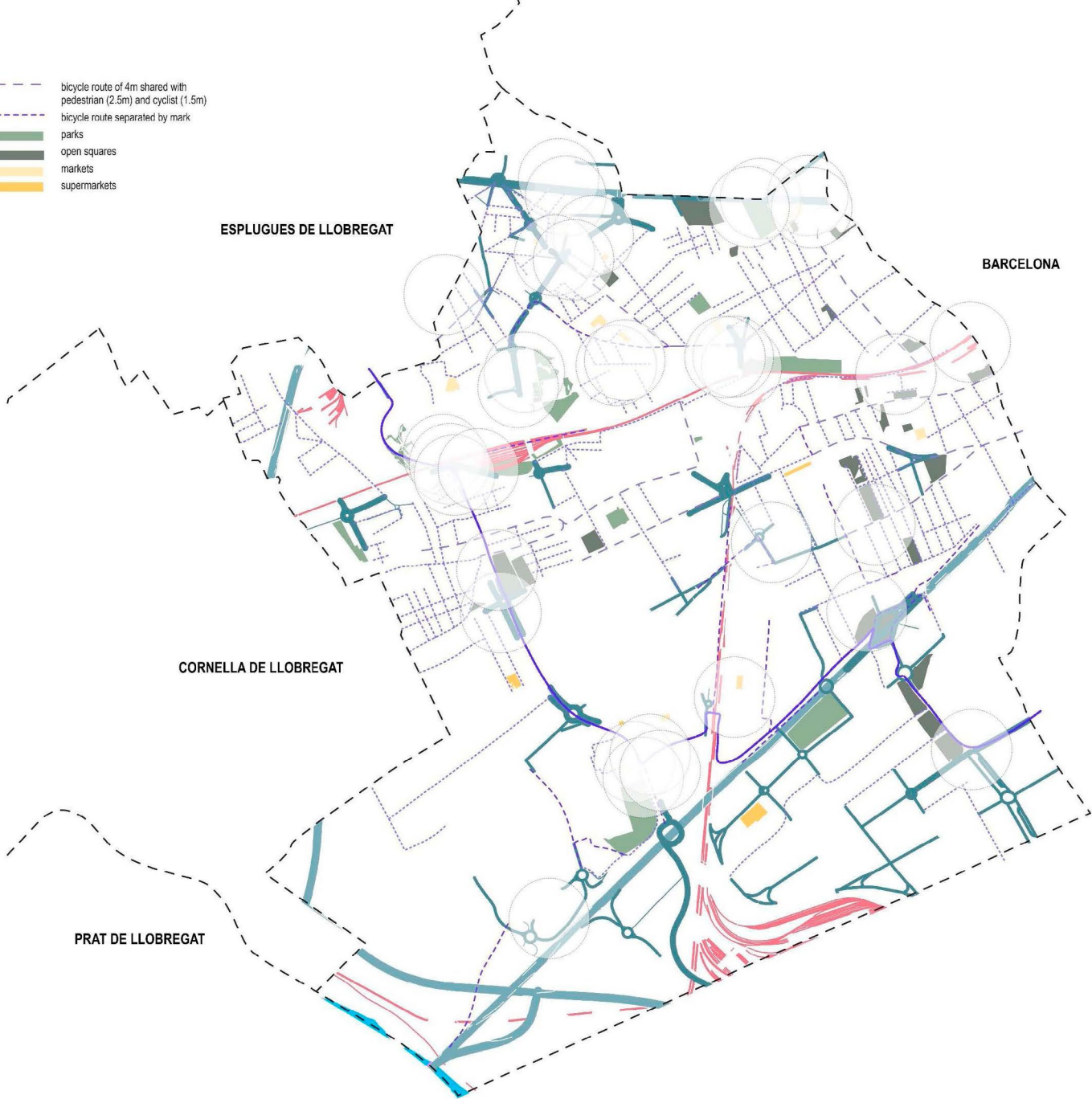
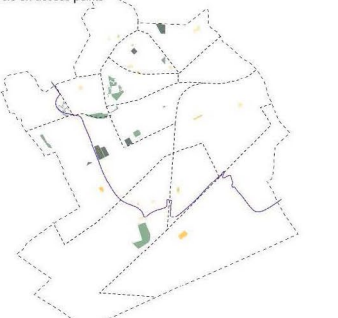
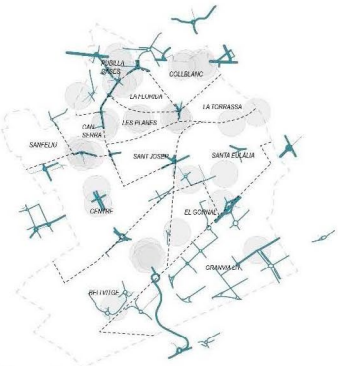
COMMERCIAL USES. MARKETS AS A CENTRALITY OF SOCIAL ECONOMIC ACTIVITY

The 400m diameter circle of the points of access to the public transport in order to connect from and to such points as:

The every day retail activities places of markets that draw the shape of the city streets. Those elements make up the activity of daily trade.

In the following maps the cultural trade fragmentations are seen:

-  municipal limits
-  railway above the ground
-  railway underground
-  highway
-  road nodes
-  bus/rodalies/metro stop of 400m diameter from the center
-  bicycle "green route" of 72km-circuit in 2 directions
-  bicycle "safe route" of max speed 30 km/h
-  bicycle route of 4m shared with pedestrian (2.5m) and cyclist (1.5m)
-  bicycle route separated by mark
-  parks
-  open squares
-  markets
-  supermarkets



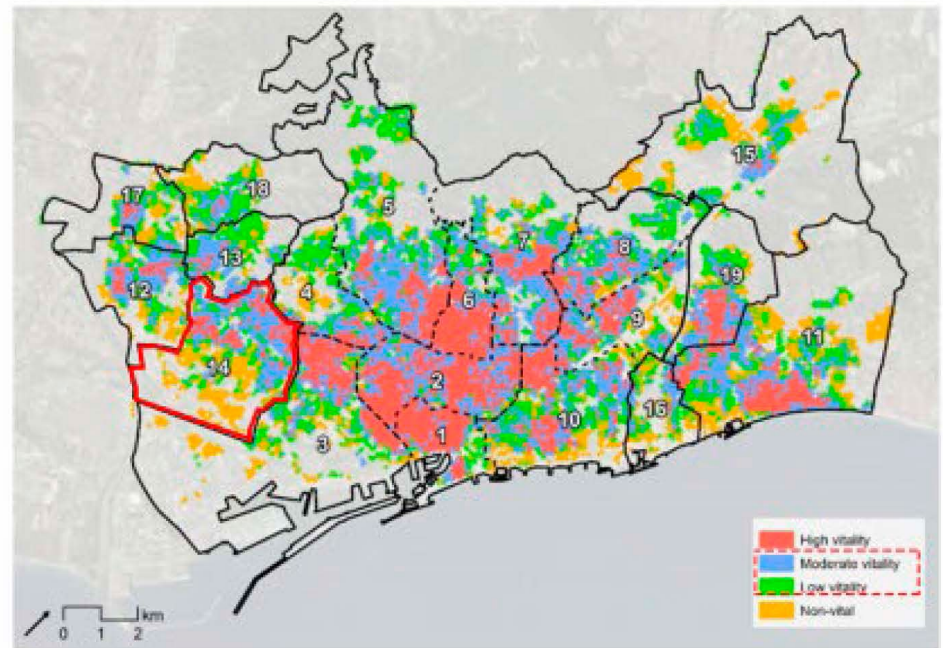
MAPPING

Other approaches (Jane Jacob's)

One of the most influential yet controversial figures in the history of urban planning is neither an architect nor an urbanist, but instead a magazine journalist who, in the 1960's, was able to grasp the true nature of what cities consisted of. This is no other than Jane Jacobs, whose quest for urban vitality has had an indisputable influence for urban researchers and planners all over the world. Based on her own experience, Jane Jacobs aimed at describing "how cities work in real life, because this is the only way to learn what principles of planning and what practices in rebuilding can promote social and economic vitality in cities, and what practices and principles will deaden these attributes" (Jacobs, 1961, p.4). She argued that round-the-clock life in its streets constituted the very core of what urbanity is about, and in order to ensure it, a certain set of requirements should be promoted. She proposed a set of four basic generators of diversity and two accessory conditions that would result in vibrant districts and neighborhoods.

A recent study conducted by Xavier Delclòs-Alió and Carme Miralles-Guascha in 2018 focused on questioning the nature of the new urban configurations by analyzing Barcelona through Jacobs's eyes. The study was developed in order to map and spatially analyze Jacobs' conditions for urban vitality in the specific case of the conurbation of Barcelona, and hence contributing to the growing interest aimed at studying her ideas from an applied perspective. This was conducted based on the systematization of Jacobs's separate conditions and also synthesized in a final indicator of urban vitality (fig. 7).

X. D., & C. M. (2018). Looking at Barcelona through Jane Jacobs's eyes: Mapping the basic conditions for urban vitality in a Mediterranean conurbation. *Land Use Policy*, 75, 1-13.



Group	n	Mean	Std. Dev.	Min	Max	Share
High vitality	2,384	0.622	0.171	0.408	1.496	23.3%
Moderate vitality	3,518	0.195	0.127	-0.040	0.408	34.3%
Low vitality	2,588	-0.276	0.146	-0.950	-0.041	25.2%
Non-vital	1,763	-0.825	0.211	-1.667	-0.350	17.2%
Total	10,253	0.000	0.514	-1.667	1.496	100.0%

Fig. 7. Four spatial urban vitality categories in the BMR resulting from JANE grouping analysis.

For the study of the fragmented city, all of six Jane Jacobs' conditions for urban vitality were analyzed in the area of Hospitalet following the data obtained in Xavier Delclòs-Alió and Carme Miralles-Guascha 2018 study. In this case however, only the intermediate values obtained in the study were analyzed for each of the six conditions as this would reveal the exact breaking-points (moderate / low vitality) between the city's vital and non-vital areas, or in other words, the ultimate fragmenting areas. These points take place when all of the intermediate values for the six analyzed conditions overlap in the same place; a condition that only occurs in 5 particular points of Hospitalet. These 5 points are believed to be the best positions for the A-Weaved place artefacts as these, being the ultimate fragmenting areas of Hospitalet, would have a greater impact on to strengthening the bonds between people and places.

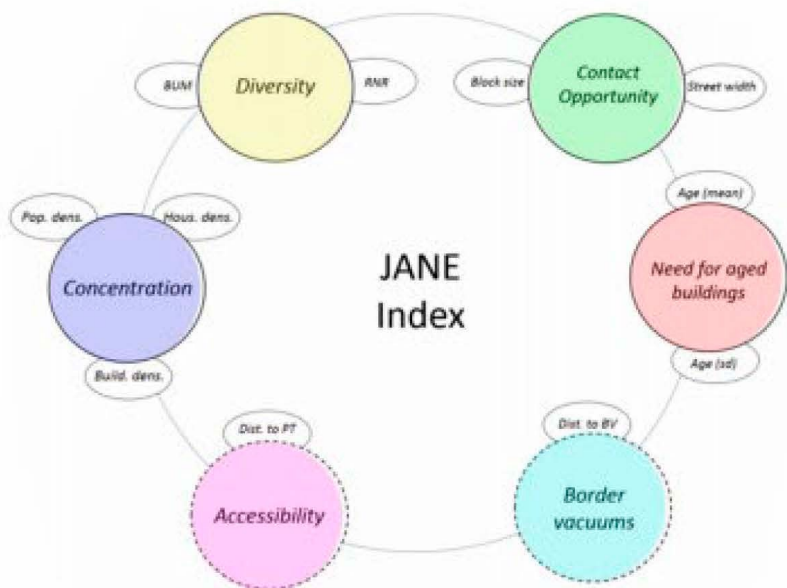


Fig. 2. Methodological schema in developing the JANE Index.

1. CONCENTRATION



3. CONTACT OPPORTUNITY



5. ACCESSIBILITY



ULTIMATE FRAGMENTING AREAS OF L'HP



2. DIVERSITY



4. NEED FOR AGED BUILDINGS



6. DISTANCE FROM BORDER VACCUMS



ULTIMATE FRAGMENTING AXIS OF L'HP



COGNITIVE MAPPING

A Cognitive Map is a representation which serves an individual to acquire, code, store, recall, and decode information about relative locations and attributes of a geography according to his/hers perception and knowledge of the place.

Comparing different cognitive maps of the same location helps to understand how the urban geography is perceived by citizens.

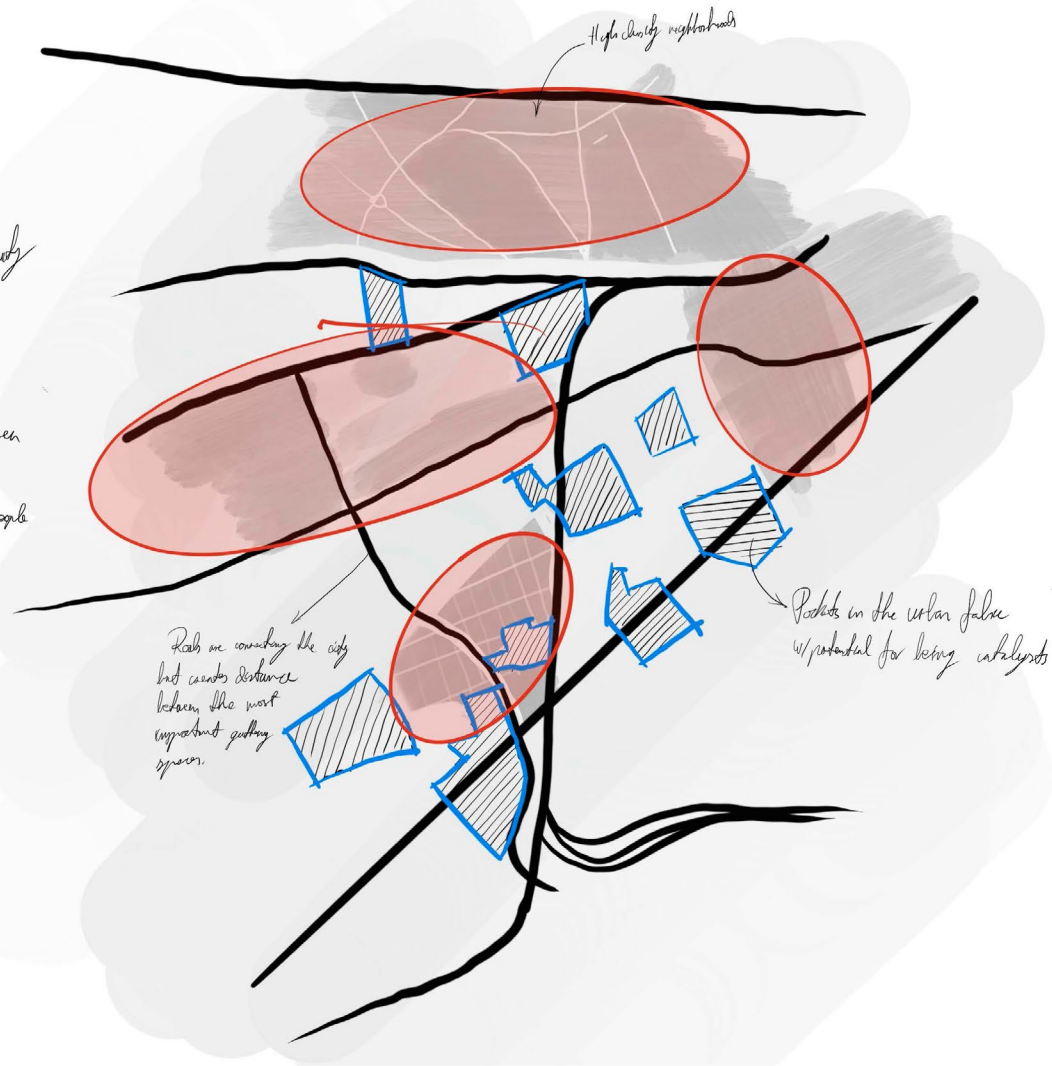
◦ Clear Disconnection
between the high-density
neighborhoods

↳ Barriers or separating
urban open public areas

Infrastructure defines the area

↳ Good & bad

Physical barriers between the people
of different cities

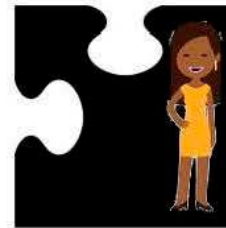
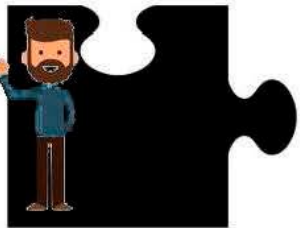
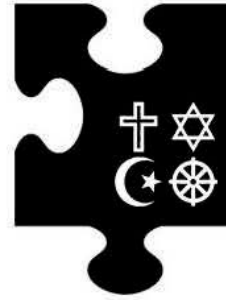
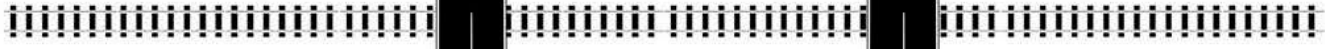
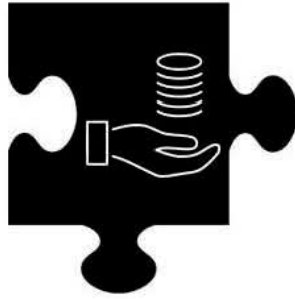
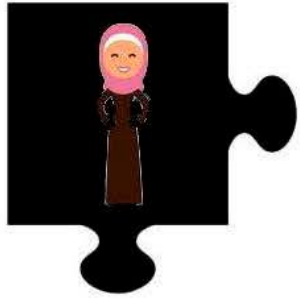




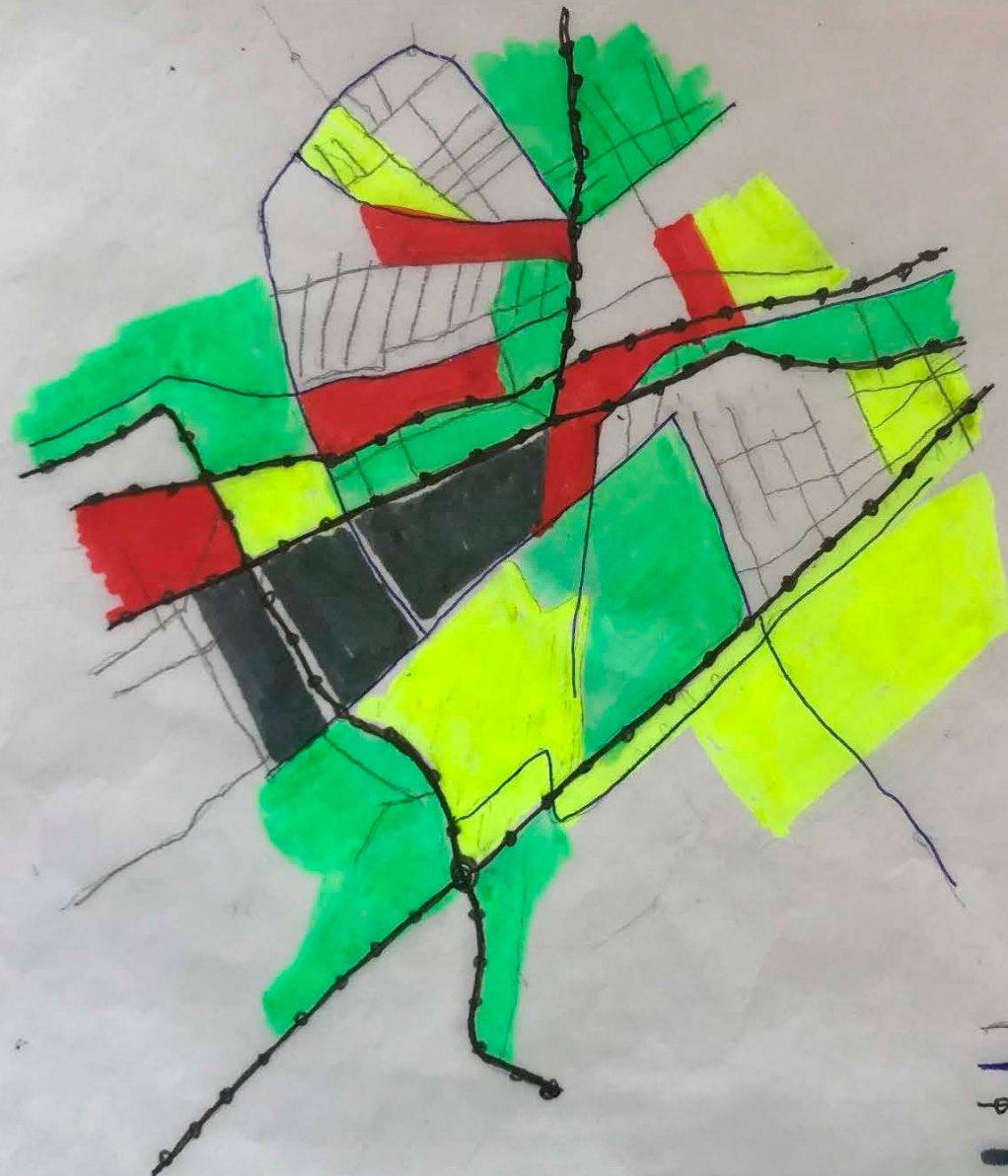
Infrastructure Edges

Districts

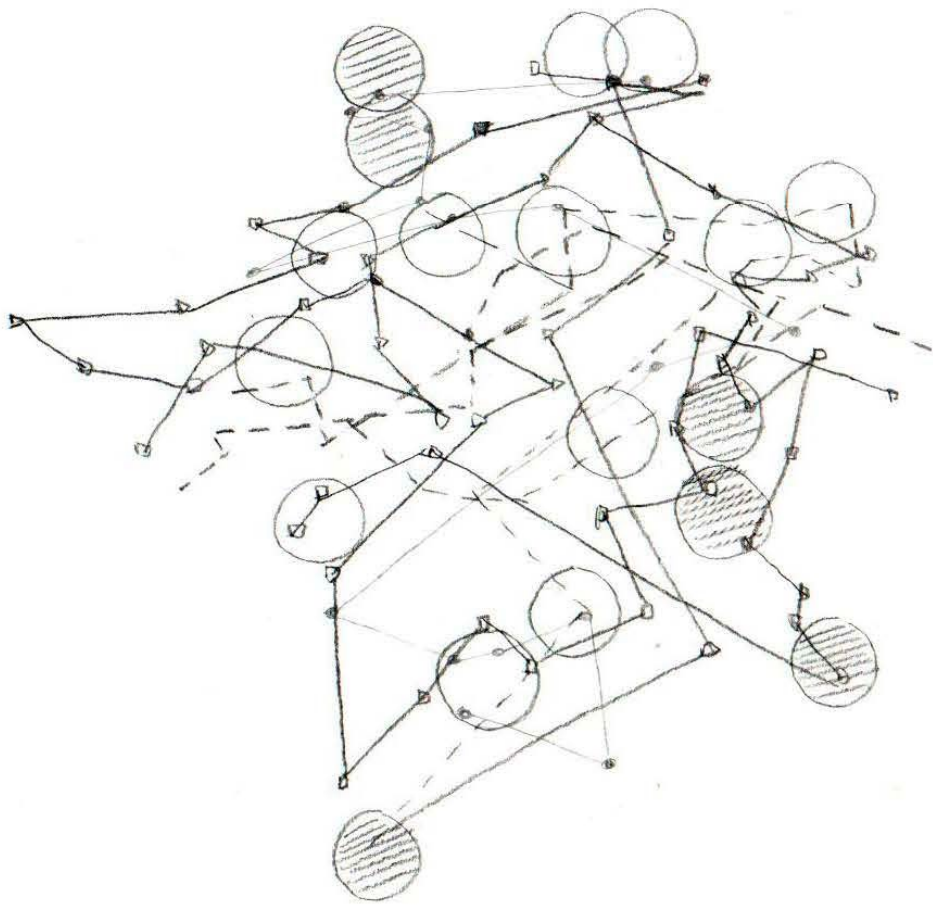
Religious Edges (Landmarks)



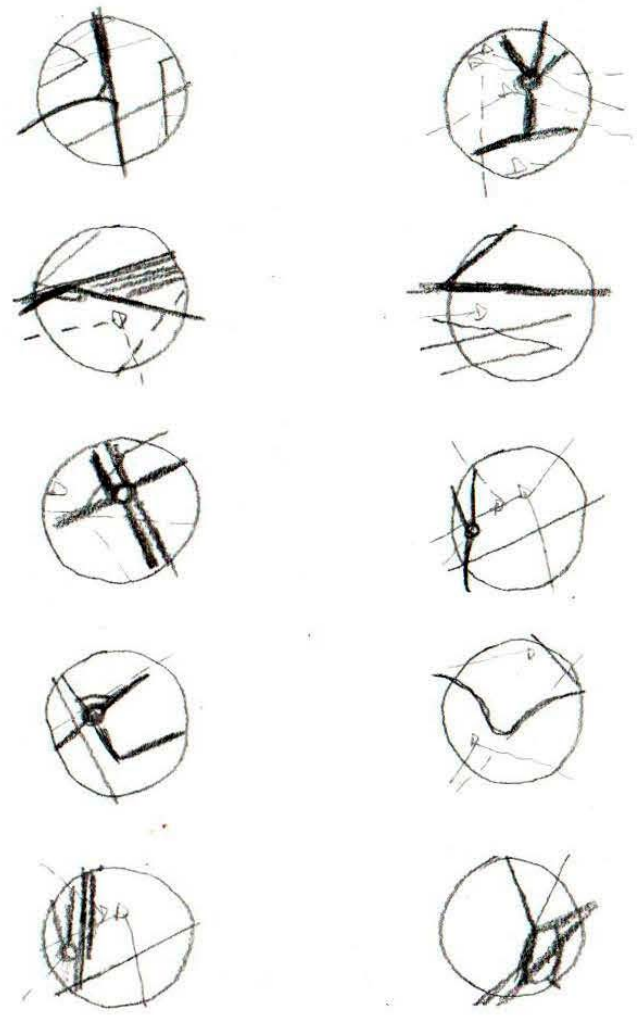




- UNCLEARLY DEFINED CONNECTIONS
- PATHS
- EDGES
- INDUSTRIAL AREA
- COMERTIAL AREA
- PUBLIC AREA
- EDUCATIONAL AREA



- social economic
- paths
- - - cultural
- = interesting steps
- - centrality working
- ◐ - centrality not working





AREAS FOR PLACEMAKING INTERVENTIONS

PROPOSED AREAS

Torrassa, Avingudadel Torrent Gornal, Hospitalet de Llobregat

SITE 01 Torrassa

[41.3642206/2.1119912]



Scale 1:1500



The site sits on the border between two opposing, densely populated neighbourhoods which have been separated by the physical barrier that is the railroad tracks.

It is an excellent place of intervention at the edge of the under-used Parc de la Torrassa where it meets an open plaza. Furthermore, it lies at the juncture of both railways and the significant Avinguda de Torrent Gornal where the metro-station Torrassa is also situated, making for a highly visible site to commuters.



Location 1

PROPOSED AREAS

Rambla Just Oliveras, Estación Renfe Hospitalet de Llobregat



L1 is located in the upper part of the city, it includes a roundabout, green areas, pedestrian and cycling streets. It also includes a railway and a pedestrian bridge on top that almost connects three residential neighborhoods together. So this area can improve the neighborhoods connection, add value to the space and most of all can improve the relations between neighbors, it's a space to connect.

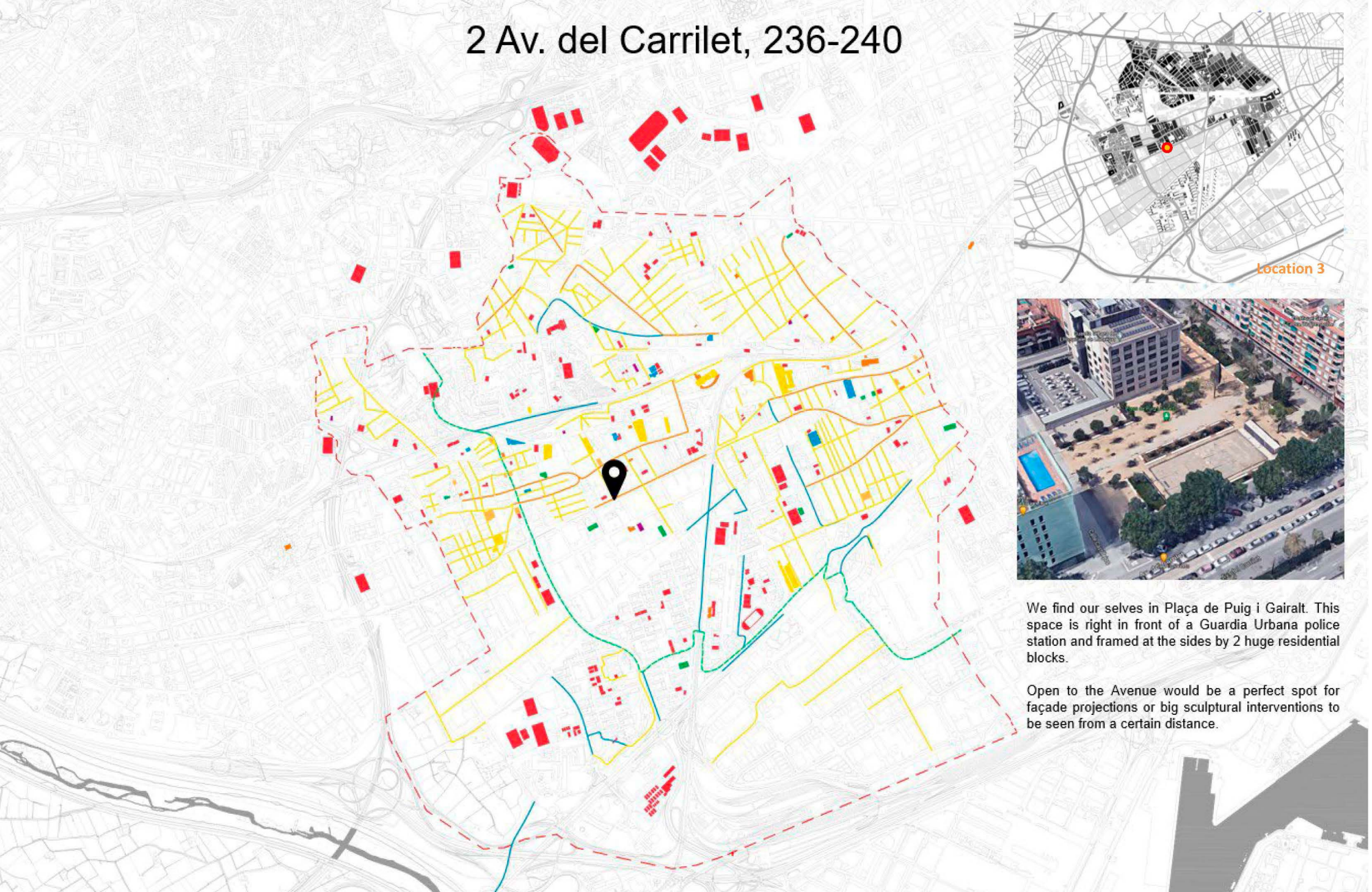


These photos are showing the location in plan view then in ground street showing the area before the bridge, the bridge and the area after crossing the bridge.

PROPOSED AREAS

Avingudadel Carrilet 236-240, Hospitalet de Llobregat

2 Av. del Carrilet, 236-240



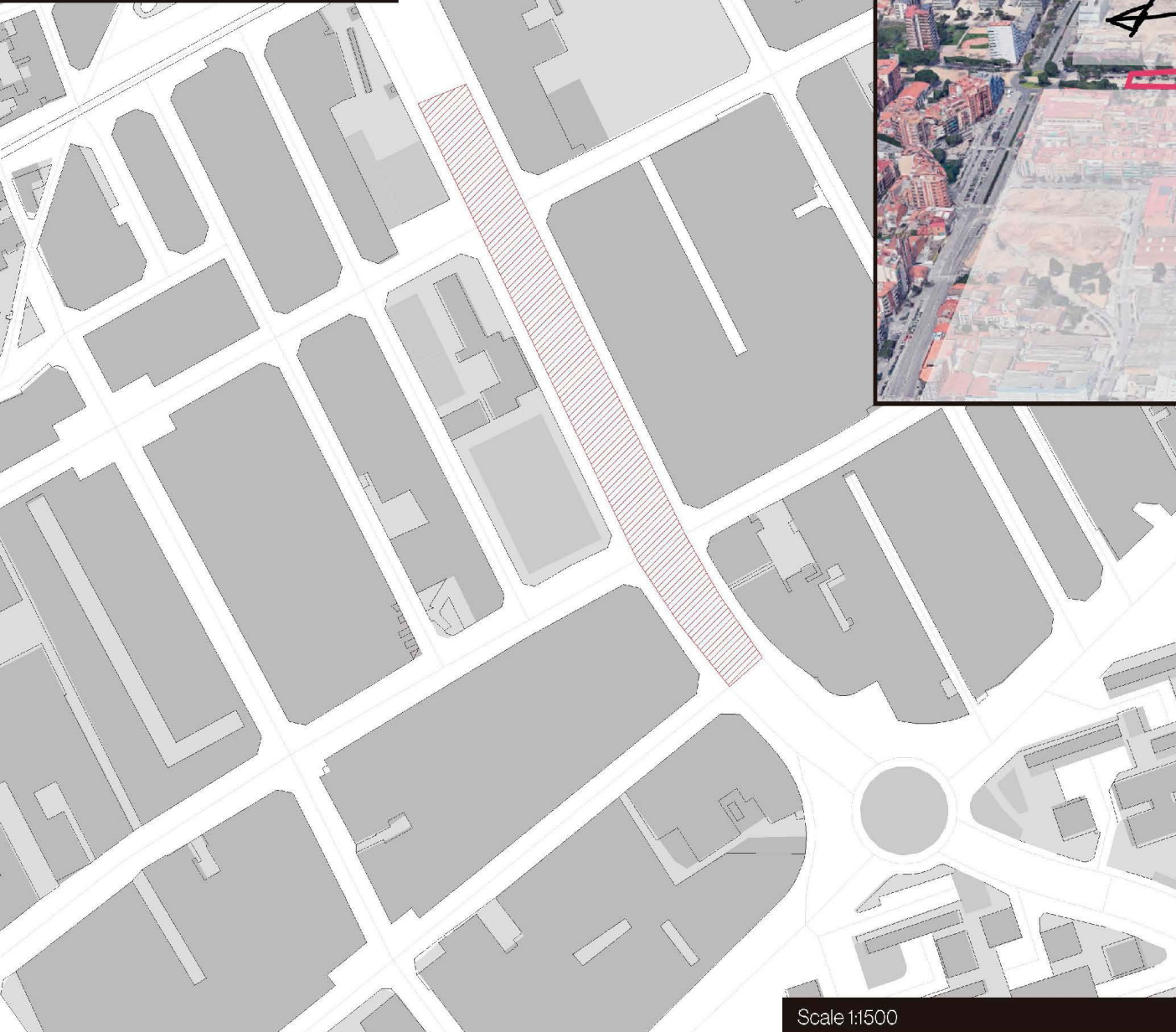
We find our selves in Plaça de Puig i Gairalt. This space is right in front of a Guardia Urbana police station and framed at the sides by 2 huge residential blocks.

Open to the Avenue would be a perfect spot for façade projections or big sculptural interventions to be seen from a certain distance.

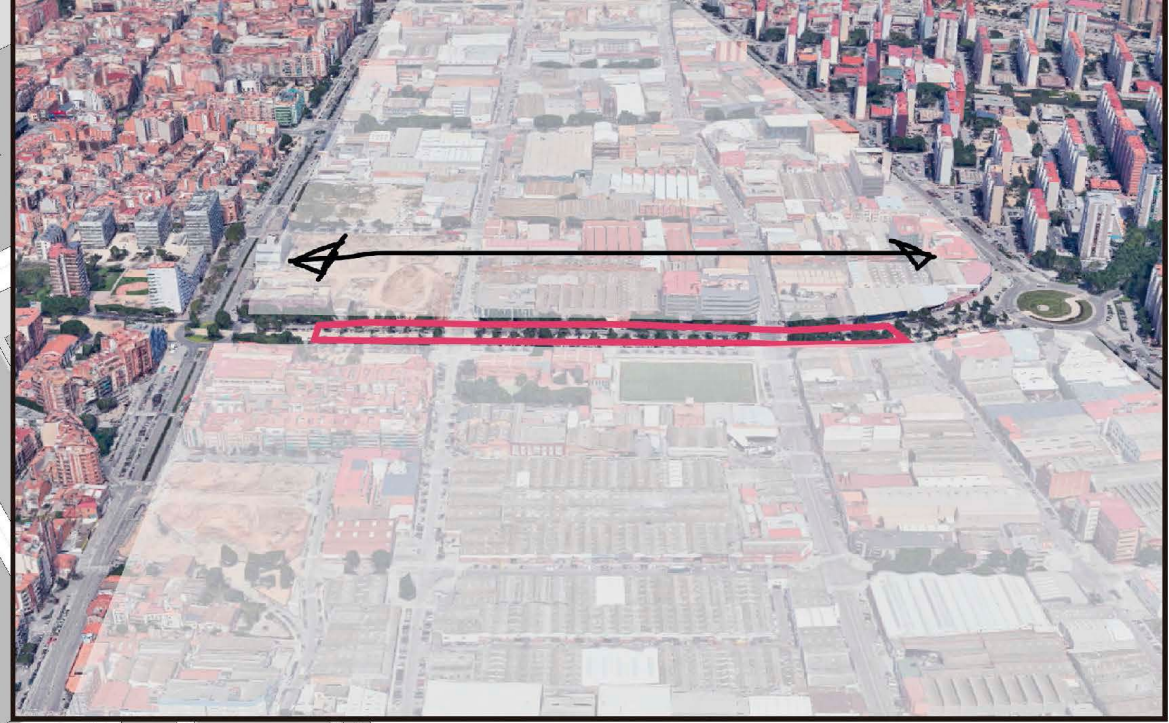
PROPOSED AREAS

Rambla Marina, Hospitalet de Llobregat

SITE 04
Rambla Marina
[41.3557690/2.1043371]



Scale 1:1500



Of all the sites that connect the inhabited zones of this city, Rambla de la Marina is a clear contender for the most potent. It connects Bellvitge with the entire Sant Josep area passing through several blocks of industrial estates and otherwise low-flux plots. To intervene in this Rambla would be to create interest in the movement between two of the most populated parts of L' Hospitalet.



PROPOSED AREAS

Camíde Pau Redó, Hospitalet de Llobregat

The objective behind this location is to connect the green structure by crossing the barrier that separates the main green areas. The plot is a park in the middle of the industrial area blocking the green continuity.



GREEN AREAS
— Green axis



PROPOSED AREAS

Hospital de Bellvitge, Hospitalet de Llobregat

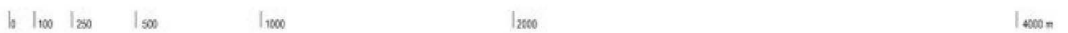
4.3 Data Sheet justifying the location of spaces (plan of values and potentials, photographs)

CURRENT NON-ACTIVATED CENTRALITIES
ACTIVATION WITH THE USE OF ARTIFACT
LOCATION 3

- _ NOT USED AREA
- _ HAS A POTENTIAL TO BECOME A CENTRALITY POINT
- _ THE WHOLE PLOT OF PASSAGE CAN BE RE-THOUGHT TO HAVE MORE WELCOMING APPEARANCE OF BELLVITGE
- _ THE LOCATION HAS A POTENTIAL TO BECOME AN ATTRACTION POINT BY BUILDING A CULTURAL AND SOCIAL COMPLEX, ADDING MORE ACTIVITIES RELATED TO THE SURROUNDING USES AND ACTIVITIES
- _ LOCATED CLOSE TO THE HIGHWAY C-31
- _ SURROUNDED BY HOSPITAL DE BELLVITGE, UNIVERSITAT DE BARCELONA, HOTEL, PARKING LOTS



3 - Hospital de Bellvitge .



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