

## SECTION FOUR ANALYSIS

### KEY CONTENT:

#### 1. ANALYSIS OF ENVIRONMENTAL SURVEY

- 1.1 Analysis of raw data
- 1.2 Analysis of contrast
- 1.3 Analysis of Impact

#### 2. ANALYSIS OF RESIDENTIAL DECAY

- 2.1 Analysis of raw data
- 2.2 Analysis of contrast
- 2.3 Analysis of Impact

#### 3. ANALYSIS OF PERCEPTION SURVEY

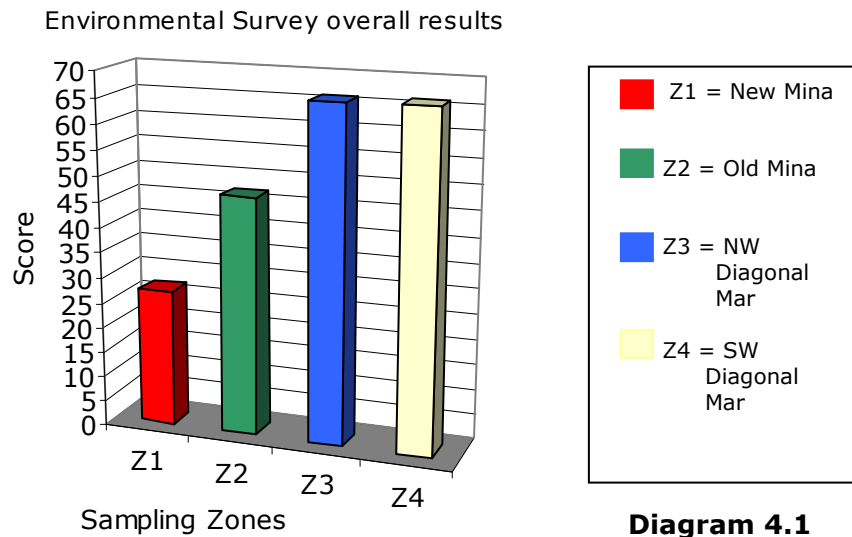
- 1.1 Analysis or raw data
- 1.2 Analysis of contrast
- 1.3 Analysis of Impact

#### 4. ANALYSIS OF THE INDEX OF SERVICES AND AMENITIES

- 4.1 Analysis of raw data
- 4.2 Analysis of contrast
- 4.3 Analysis of Impact

*Diagrams in **Data Presentation** reveal obvious differences between the two zones. From Mann-Whitney U tests, I know that this difference did not occur by chance. In this section, I will describe and explore these differences.*

# 1. ANALYSIS OF ENVIRONMENTAL SURVEY



## 1.1 Analysis of raw data

**Diagram 4.1** presents a rather drastic contrast between the four sampling sites. Both sites in Diagonal Mar received full score. While New Mina received as much as 34 points less than that of Diagonal Mar. There are several reasons for this, as summarised in the box below.

- ❑ there were numerous Brownfield sites in New Mina, such as that in **Photo 4.1**
- ❑ 1.8% of the none-residential buildings in New Mina were workshops. This is not surprising, since data ([www.geographyfieldwork.com](http://www.geographyfieldwork.com)) show that only 4% of local population have university degrees. The rest are most likely employed in light manufacturing
- ❑ street seating in New Mina were out of repair
- ❑ animal excreta on the streets of New Mina left very offensive smell
- ❑ lack of street cleaning in the New Mina as in **photo 4.2**

**Photo 4.1 – a Brownfield site in New Mina**



**Photo 4.2 – a burnt rubbish bin in New Mina**



The Old Mina exceeds the New Mina by 20 points, but was still significantly lower than Diagonal Mar (by 14 points). This is because:

- The Old Mina does not lack in amenities but they are old and run down
- The Old Mina is heavily vandalized, some vandalism containing racist contents, as shown in **Photo 4.3**



**Photo 4.3 – vandalism in the Old Mina**

**Translation:**

*Gypsies ... (unrecognizable) ...  
thieves ...*

The two sampling zones in Diagonal Mar both received full points because:

- the district is very recent, everything is new and clean
- potential buyers are arriving at the park each they, hence the presentation of the area is for now kept as impressive as possible
- the area employs private cleaners (**Photo 4.4**)
- being a gated community means that amenities and public properties are taken better care of, since they are exclusive to the inhabitants
- gates prevent entrance of outsiders who are a source of vandalism

**Photo 4.4 – a cleaning truck patrolling the Diagonal Mar Park**



**1.2 Analysis of contrast**

To show how the two areas contrast in environmental quality, I compared two local parks in **Table 4.1**, the location shown in **Map 4.1** below:

**Map 4.1 – location of Diagonal Mar and Besos Park (Source: Google Earth)**



**Table 4.1 – Comparison for Diagonal Mar Park and La Mina’s Park (Source: Project for Public Spaces 2005)**

	<b>Diagonal Mar Park</b>	<b>Besos Park (La Mina)</b>
<b>Photo</b>		
<b>Area</b>	90000m <sup>2</sup>	40000m <sup>2</sup>
<b>% Green</b>	50%	90%
<b>Features</b>	<p>Unique designs; integrated into residential zone, designed to be eco-friendly, with imported wildlife such as turtles, swans</p> <p>Has been voted the “worst park in the world” by the Project for Public Spaces community</p> <p>“look, but don’t touch”: the park is too formidably beautiful that it may actually repels people</p>	<p>not so artistically designed as Diagonal Mar, more traditional, with 90% green coverage</p> <p>too many trees may give a claustrophobic feeling</p> <p>Stigma: believed to be filled with drug dealers; I found, however, no evidence of this (e.g. syringes) during my visit</p>



The contrast, then, is clear: with 34 points lower than Diagonal Mar, La Mina does not have a relatively good environmental quality. Meanwhile, not only does Diagonal Mar offer a better quality of life in terms of the environment, the parks also offer unique sights like **photo 4.5**.

**Photo 4.5** – flowerpot decoration in Diagonal Mar (Source: [www.BarcelonaExperience.com](http://www.BarcelonaExperience.com))

### 1.3 Analyses of environmental impacts

Diagonal Mar and La Mina influences the environment in different ways. This is described in **Table 4.2**:

**Table 4.2 – impacts of Diagonal Mar and La Mina**

<b>Semi-Gated Community (Diagonal Mar)</b>	<b>Gypsy community (La Mina)</b>
locals have exclusive access to the site, they take better care of it (evidence presented in <b>Table 4.3</b> )	the stigma associated to Gypsies of not being responsible for property: e.g. they'd burn stairs for firewood
no through traffic: less air/noise pollution – as suggested by the criteria score shown in <b>Table 3.2</b> in <b>Section Three</b>	industrial pollution as a result of urban redevelopment (suggested in <b>Table 3.2</b> , with a score of 0 in "pollution", while Diagonal Mar received 10)
isolated from surrounding area, guards prevent outsiders from vandalizing the area, as revealed in <b>Table 4.3</b>	heavily vandalized, mostly as protests against local government policies

Although each zone has specific environmental impacts upon adjacent areas, however, they have very little apparent impact on each other. Diagonal Mar, as a gated community, is cut off from La Mina. A people count, for example, (**Table 4.3**) suggests that La Mina residents have very limited access to the DM Park:

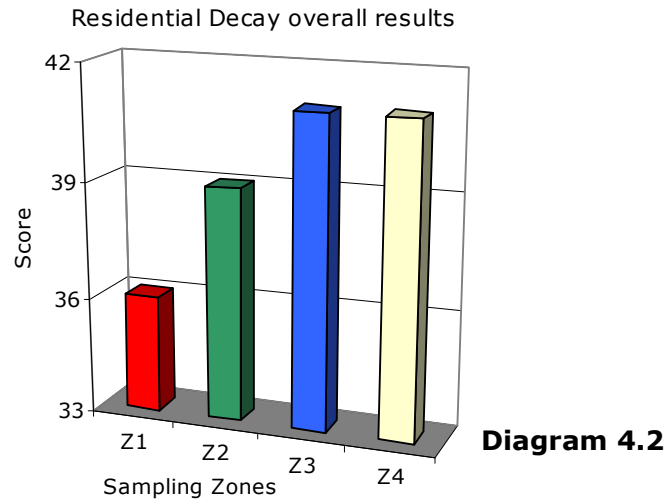
**Table 4.3: People count in Diagonal Mar Park**

<b>Type of people</b>	<b>Percentage</b>
Spanish couples with babies	63%
Asian	1%
Roma people	1%
Spanish Elderly	35%

**Note:** in order to show how many La Mina dwellers visit Diagonal Mar, the people count is conducted apart from my Data Collection on a Sunday, when people do not need to go to work. Although "Spanish couples with babies" and "Spanish Elderly" are not ethnic groups, they represent the local population – Diagonal Mar is sold to young professional class, hence the young couples, while the elderly people are unlikely to have travelled so far for a park, therefore must be local residents too.

There are several reasons to explain the low percentage of La Mina visitors (as represented by the 1% Roma people) in the area: intimidation; feeling out of place in a new environment; or they may have no reason to come at all, since they have a park of their own. In any case, this people count shows that there are very little outside visitors, hence little chance of outside vandalism. In La Mina, this social segregation is supported by its education levels – 10% to 15% of local population never received primary education, while 40% missed secondary education. Only 29.1% of La Mina population have long term employment. The data suggest that LA Mina residents do not leave the area for school, nor to find work.

## 2. ANALYSIS OF RESIDENTIAL DECAY



### 2.1 Analysis of raw data

While the difference in residential quality between the zones appears large in the Bar Chart, the maximum range of score is only 5 points.

The reasons New Mina (Z1) received lower score (36) are summarised in the box below:

- there were slight amounts of deterioration of walls, mainly because of the pressure from a high population density
- there were slight amounts of part peeling, this can be linked with deterioration of walls, as both are results of structural weaknesses: the New Mina was constructed using containers, the evidence of this still visible today (see **Photo 4.6**)
- New Mina has occasional anomalies of extremely severe residential decay, as in Photo 4.7
- Roma people of La Mina are rumoured chop down stairs and doorframes for firewood



**Photo 4.6** – New Mina's container blocks (**Source: Nelson Souto**)

**Note:** These vertical markings were once container walls.



**Photo 4.7** – field photo of a case of severe residential decay; this, however, is not representative of the whole area

Justification for the score of Old Mina, Z2 (score: 39)

- slight amounts of part peeling as a result of natural residential decay with time
- construction of exterior lifts tears down walls, however, it is also a sign that local government is attempting to improve the residential quality

Diagonal Mar (Z3 and Z4) received full score because:

- the area is too recent for any residential decay to occur
- parts of the area is still under construction, therefore any damage can be immediately repaired
- low population density (five 14-floored blocks in 150000 m<sup>2</sup> area), therefore low population pressure

## 2.2 Analysis of contrast?

Since the score range is only 5 points, the contrast in Residential quality is therefore not found in the survey, but in design, as described in **Table 4.4** below:

**Table 4.4: Contrast in housing design between La Mina and Diagonal Mar**

Diagonal Mar	Old Mina	New Mina
high-rise apartments designed to attract Barcelona’s young, rich professionals	designed for Shanty Town dwellers	these flats were quickly built up with container and cement
includes 100,500 m2 of constructed space and 87,000 m2 of rentable area	there are approximately 500 standard apartment blocks in the area	12 floors high apartments
includes: Hypermarket Alcampo; an 18 screen AMC cinema; 240 shops; a 5,000 m2 terrace with restaurants and leisure activities and a 5000-space underground car park	buildings are all 5 floors high	lack the basic amenities such as lifts
	complete range of local services: local drug store; convenience store; small supermarket, etc	

As revealed in **Table 4.4**, Diagonal Mar has seen heavy investment to ensure its residential quality. Being the first of its kind (A Gated Residential Community) in Barcelona, the area has to attract people by the high quality of life it offers. La Mina, on the other hand, was quickly built up to solve Barcelona’s shantytown problem. Not much care had been put into construction. Naturally, Diagonal Mar’s residential condition is better than that of La Mina.

## 2.3 Analysis of Impacts

Diagonal Mar has direct as well as indirect impacts upon the residential quality of La Mina.

Direct impact means:

- by the bid-rent theory, Diagonal Mar is a high-valued peak; it should eventually bring about an increase in land price within surrounding areas including La Mina

Diagonal Mar is a part of the La Mina Regeneration Plan, which includes:

- creation of a new “rambla”, a pedestrian street aimed at opening up the area
- installation of lifts in La Mina Vieja (the Old Mina)
- Demolition of rundown buildings
- Refurbishment of existing residences (such as in **Photo 4.8**)



**Photo 4.8 – sign on a construction site in the New Mina**  
 The yellow sign reads:  
 “La Mina Transformation Plan 2000-2010”

The schemes listed above, including Diagonal Mar, are only parts of a greater picture, all of which are aimed at improving the residential quality in La Mina.

### 3. ANALYSIS OF PERCEPTION SURVEY

#### 1.1 Analysis of raw data

**Table 4.5 – summary table for perception survey**

<b>Positive Features</b>	<b>La Mina</b>		<b>Diagonal Mar</b>	
Rich	0	0	3	3
Safe	0	0	3	3
Friendly/Relaxed	0	0	3	3
Improving	1	3	3	3
Community Atmosphere	3	2	2	1
Attractive	0	0	3	3
<b>Total</b>	<b>4</b>	<b>5</b>	<b>17</b>	<b>16</b>
<b>Negative Features</b>	<b>Z1</b>	<b>Z2</b>	<b>Z3</b>	<b>Z4</b>
Poor	3	2	0	0
Dangerous	3	1	0	0
Declining	0	0	0	0
Risk of crime	3	1	0	0
Unattractive area	3	1	0	0
Vandalised	2	1	0	0
<b>Total (negative)</b>	<b>-14</b>	<b>-6</b>	<b>0</b>	<b>0</b>

Perception Survey shows the opinion of a visitor in the zones. In ways, it is a summary of Environmental Survey and Residential Decay Survey, as both affects the perception.



**Diagonal Mar** received positive scores only, the reasons are summarised in the box below:

- Diagonal Mar Shopping Centre is one of the major shopping centre in Barcelona
- security guards and gates promote a sense of safety
- the area is new, therefore appearing lively and fresh
- unique park design has made Diagonal Mar well known – it has won the Urban Land Institute Award for Excellence
- the area received full score for both survey of Residential decay and Environmental survey
- the area is not without negative: the PPS community has commented of "*a rigid, overbearing design,*" resulting "*in an uncomfortable and frustrating user experience*"
- the areas presents a "look, but don't touch" image: unique design may actually blur the true purpose of the park, which is for people to relax in

**La Mina** received predominantly negative points because:

- the area is heavily stigmatized, and stigma affect perception; e.g. La Mina is know as "the district without law"; Roma people, who make up 35% of the local position, are also subject to stigma
- low environmental quality score in both sampling sites (27 and 47) points to a bleak environment
- because of the strong unity among the Roma people, outsiders feel intimidated and excluded
- urban layout creates enclosed streets within a fortress like setting; tunnels present great strategic positions for robber (e.g. **Photo 2.4, page 11**)
- the area is heavily vandalized; vandalism often carry, ironically, racist contents such as "no to Muslims"

### 3.2 Analysis of contrast

Perception Survey can be summarised by asking "how attractive are the zones?" Diagonal Mar is very attractive, La Mina not so much.

However, Perception Survey is very subjective. To make a fairer judgement, I included some different views on the two areas, as listed in **Table 4.6**:

**Table 4.6 – Views on Diagonal Mar and La Mina (source: various articles from PPS, ULI and newspapers)**

<b>Views on Diagonal Mar</b>	<b>View on La Mina</b>
some people see Diagonal Mar as " <i>a district without life</i> " – the park is more of a habitat for migratory birds than a residential community	La Mina is known in Barcelona as the " <i>district without law</i> "
" <i>look, but don't touch</i> " attitude presented by artistic design	" <i>Some people [from La Mina] only come to steal,</i> " a shop keeper in Diagonal Mar Shopping centre commented
Diagonal Mar is known as the worst park of the world, called " <i>the hall of Shame</i> "	" <i>the area is not bad if you live in it,</i> " on young local resident said
" <i>Diagonal Mar isn't bad when it's filled with people,</i> " a photographer commented	" <i>I have lived here for 30 years and things are worse now than in the shanty town I used to live in</i> "

Interestingly, public views on both areas are predominantly demeaning, while my Radar Charts (Diagram 3.3 – 3.10) of Section Three demonstrate Diagonal Mar to be positive in terms of overall scores and La Mina negative. I know my results did not occur by chance as supported by Mann-Whitney U test, as such, one can say that Diagonal Mar offers a rather secluded lifestyle which some find pleasant, others not, while La Mina provides a great community atmosphere (with a score of +3 in the radar chart), but has a lower overall quality of life.

### 3.3 Analysis of Impacts

The areas may affect the perception of each others directly as well as indirectly. For example, one view of Diagonal Mar, in comparison to La Mina, *"is civilization."* This also forms a major drawback for the survey – comparatively, La Mina may appear worse than it really is.

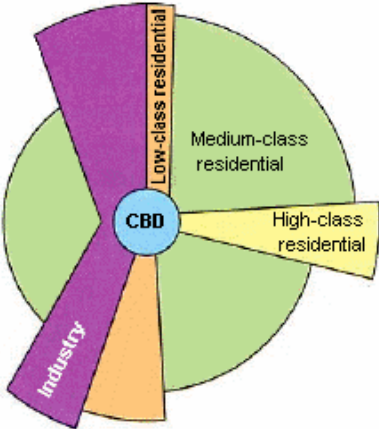
Indirect impacts are more deep rooted. According to Hoyt's Sector Model (**Box 4.3**), rich and poor do not mix. Conflicts ensue when they are forced together and this is what might have took place between La Mina and Diagonal Mar. People of the zones are wary of each other; this is shown in several aspects:

- Prejudice against Gitanos in the Diagonal Mar Shopping Centre. *"We are persecuted simply because of our Gypsy origin, they even accuse us of stealing,"* says Manuel Fernandez of the **La Mina Gypsy Culture Centre**.
- Graffiti with a bitter content, as shown in the photo below.



**Translation:**  
*"Future policies: Attack and Destroy."*

In ways, the conflict of rich and poor is worsened by the fact that both districts are characterized by a protectionist mentality. As stated in Box 4.1 and 4.2, in Diagonal Mar the protections are physical, in La Mina it's a mental fortification against outsiders. The over all result of this conflict is tension, which resulted in the features listed above.



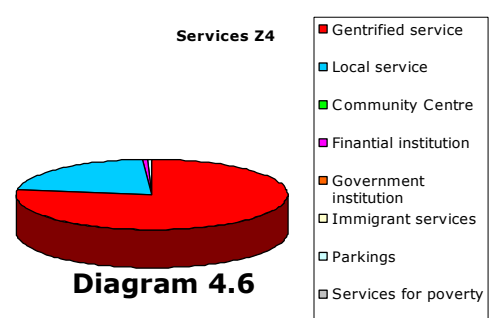
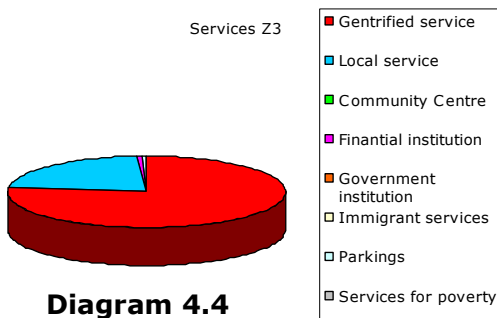
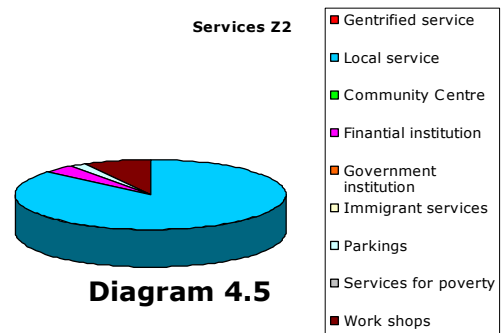
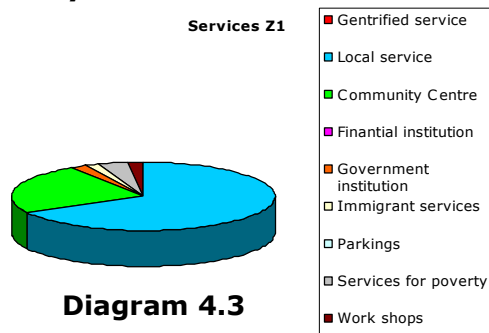
**Box 4.3 - Hoyt's Sector Model**

The basic assumption of Hoyt's model is that urban landuse is divided into sectors following the natural growth from the CBD. Sectors initially appeared because of difference in Land Value. Gradually, the Rich moves away from the Low Class Zone and Industry as a result of repulsion of competing land uses.

When applied to Diagonal Mar and La Mina, Diagonal Mar is the rich sector, however there is no room for this sector to shift into, and the result is therefore gates and social inclusion.

## 4. ANALYSIS OF THE INDEX OF SERVICES AND AMENITIES

### 4.1 Analysis of Raw Data



**Diagrams 4.3 to 4.6** show that Diagonal Mar and La Mina have different economic foci. La Mina is a self-contained neighbourhood with a low economic capacity (79.8), more importance is paid to local services (68% in New Mina, 87% in Old Mina), while Diagonal Mar Shopping Centre in itself is gentrified. A more detailed analysis is provided in **Table 4.7** below:

**Table 4.7 – Difference in services between La Mina and Diagonal Mar**

<b>Diagonal Mar (Z3, Z4)</b>	<b>New Mina (Z1)</b>	<b>Old Mina (Z2)</b>
Mainly gentrified services (77%) due to the presence of a shopping centre	67% of the services are for local use because New Mina is a residential zone	84% of the services are for local use, because Old Mina is a residential district
Gentrification can be equated with wealth		
Some Local services (22%) can be found in the shopping centre to serve the local population	There are no gentrified services, mostly because the areas are inaccessible to tourists	
no community centre	3.6% of the Services are for the poor, demonstrating that this is not a rich area	There are no services for poor or immigrant service as this zone is occupied by low-class Spanish people
no service for poor		
no immigrant services	immigrant services points to the 35% of La Mina's population which is non-Spanish	
The above are not found in Diagonal Mar because the zone is rich and any immigrants there probably have integrated into the Spanish society		

24% of the services are community centres, supporting the view that Gypsies have strong community spirit

8% of the services are light industry workshops, they are remains of La Mina's industrial past

#### 4.2 Analysis of contrast

Diagonal Mar and La Mina present two kinds of economic activity (see **Table 4.8**): DM Shopping Centre is a major shopping stores opened far away from the CBD of Barcelona, requiring an one hour trip from the city centre. The shopping centre has been so far unsuccessful city-wise because it is not big enough to attract people to travel, a recent report showing only 18% (source: [www.geographyfieldwork.com](http://www.geographyfieldwork.com)) of Barcelona residents prepared to go shopping by car. La Mina, on the other hand, is a subsistent residential community. While DM Shopping Centre offers a wide range of expensive goods for "car shoppers", La Mina offers conveniences to local people. It is difficult to judge whether one is better than the other as some people may prefer the safe, clean and rich environment offered by the shopping centre, others may enjoy the morning market style of La Mina.

**Table 4.8 – service style of La Mina and Diagonal Mar**

Diagonal Mar	La Mina
Most services are prepared for visitors to the shopping centre rather than local people	The services are completely for local use
Prices in a Shopping centre are often higher	The area has Low economic capacity, 79.8
A bottle of milk reaches the price of 1.21 Euros	the same bottle of milk I saw in Diagonal Mar costs only 70 cents in La Mina
the economic capacity of Diagonal Mar is high: 91.7	Shopping is very convenient in La Mina, often with small stores right beneath the flats
there are no shops in the park itself, therefore local residents must travel to the nearby shopping centre even for daily products	All services have been integrated into the local habitat

#### 4.3 Analysis of Impacts

Although both areas are subject to major development plans, their investors are unrelated and therefore have no direct economic links, nor in fact even trading relations – La Mina dwellers do not shop in Diagonal Mar Shopping Centre, nor do Diagonal Mar residents in La Mina. Although the areas do not influence each other directly, there will be, however, indirect impacts. As previously explained, Diagonal Mar is related to the La Mina Regeneration Plan. The plan means:

- The construction of a new pedestrianised "Rambla" through the heart of the district; Pedestrian Street brings gentrification
- Employment projects aimed particularly at the young long-term unemployed, to assist them back into the job market
- Reduce unemployment through promoting education (the area currently have an illiteracy rate of 25% ([www.barrimina.org](http://www.barrimina.org)))

All these plans are aimed at improving the economic quality within the La Mina, but are very recent; as such there has not been time for change to occur. It has taken 50 years for La Mina to become what it is, therefore it will take as long to change it.