

# The traffic environment of Lilla Fiskaregatan

- a study of cyclist-pedestrian interactions



Roger Santmiquel  
2004



Examensarbete

CODEN:LUTVDG/(TVTT-5105)1-92/2004

Thesis / Lunds Tekniska Högskola,  
Institutionen för Teknik och samhälle,  
Trafik och väg, 138

ISSN 1651-1182

Roger Santmiquel

The traffic environment of Lilla Fiskaregatan

- a study of cyclist-pedestrian interactions

2004

Institutionen för Teknik och samhälle  
Lunds Tekniska Högskola  
Trafik och väg  
Box 118, 221 00 LUND, Sverige

Department of Technology and Society  
Lund Institute of Technology  
Traffic and Road  
Box 118, SE-221 00 Lund, Sweden

## Preface

First of all I want to show my satisfaction to have been able to realise the Master Thesis in LTH as a result of ERASMUS program. Then my first thank is for international affair departments of Lunds Tekniska Högskola and Universitat Politecnica de Catalunya for their help and support before and during my stay in Lund.

I have only words of gratitude for all people of the Department of Technology and Society of LTH. In my complex arrival in Lund, without tutor and Master Thesis, I got the attention of most part of the department in order to help me. I want to give a special thanks to Ebrahim Parhamifar for his help my first days giving me stillness.

Sincere thanks to Annika Nilsson and Andras Verhavy. Annika has been my supervisor during my work, her advices and commentaries were really useful. I want also to thank her support and patience. Thanks to Andras for his support during my stay in the department, helping to find a tutor and a topic for my work.

I want also to give my gratitude to David Edman from the Municipality of Lund for all the information and maps for my work, his help was really useful.

My stay in Lund has been really rewarding. LTH have a good reputation with a high quality education and many resources. But also I have met a lot of people in Lund with who I have felt really good. I want to thank all of them for they amity. Deep gratitude to Rosa and Christian for they support in my work with Swedish texts and their encourage.

Lund, 2004.

Roger Santmiquel.



## Summary

There is a tendency from local administrations to create a friendly, human traffic environment in downtowns of the cities. Lund has betted to this policy since 30 years ago; several measures have been executed along the last three decades with satisfactory results.

Two of these measures have been to promote alternative means of transport (public transport, cycle, etc) and to set up pedestrian zones in the downtown. As a result the use of bike in Lund has increased considerably and it has become necessary to improve the cohabitation between motorized vehicles, pedestrians and also cyclists.

This report studies the cohabitation of cyclists and pedestrians in Lilla Fiskaregatan, a pedestrian street in the downtown of Lund. It is a recovered street where motorized vehicles previously were allowed. The actual configuration is a pedestrian street with a cycle path in the central part. It has a high flow of users and a complex traffic environment in rush hours.

This work focus on understanding how this situation has come about and to valuate the safety and the comfort of the street. The priority is the well being of minority users and to find a way to guarantee a safe street without jeopardizing comfort. It is a commercial street and it is necessary with free movement of users, concretely of pedestrians.

The work includes mainly a conflict study, user behaviour analysis and user interviews. Conflict and behaviour studies have been realized through field observation and video recordings. Points of study and times for observation were decided in a previous evaluation of most conflictive points and of rush hours. The conflict study follows the Swedish Traffic Conflict Technique and the behaviour study has a qualitative and a quantitative part. User interviews aim at learning users' opinion of safety, comfort, desired layouts in the street as well as user behaviour.

Global valuation of results is quite positive. Studies show that Lilla Fiskaregatan is not a conflictive street. Conflict studies and accident reports offer a low register of dangerous situations. Anyway there is a complex traffic environment. The behaviour study shows a continuous disrespect of zones in Lilla Fiskaregatan by part of the pedestrians. About 20% of the pedestrians use to go on the cycle paths. Interview results show that people feel safe in the street but more than 40% think is not a safe street. Users think other users badly. More than 80% think that people don't respect the zones. Regarding desired layout users prefer the actual configuration to a common street and restricted cycling.

There is no discussion that the actual configuration of the street (pedestrian with cycle paths) is the right one. As it is mentioned before it is the chosen layout in interviews. Alternatives are not desired and anyway to forbid cyclists in Lilla Fiskaregatan would produce a problem to design a coherent cycle path. It is necessary to improve some aspects of the street to get more responsible users that go on the right zone and pay attention to other users.



## TABLE OF CONTENTS

1. Introduction.....	2
1.1. Background.....	2
1.2. Aim.....	3
1.3. Method of investigation.....	3
1.4. Structure of report.....	3
2. Bicycles in Lund.....	4
2.1. Bicycles in the city.....	4
2.2. Bicycles un pedestrian zones.....	5
3. Cycling in Lund.....	8
3.1. General information about Lund.....	8
3.2. Evolution of traffic policy in Lund.....	9
3.3. Downtown of Lund.....	10
3.4. Introduction of Lilla Fiskaregatan.....	11
4. Study.....	14
4.1. Police reports.....	14
4.2. Observations.....	14
4.2.1. Design.....	14
4.2.1.1. Conflict study.....	17
4.2.1.2. Behaviour study.....	18
4.3. Questionnaires.....	19
4.2.1. Design.....	20
4.4. Results.....	21
4.4.1. Police and hospital report results.....	21
4.4.2. Observation results.....	23
4.4.2.1. Conflict results.....	23
4.4.2.2. Behaviour results.....	24
4.4.3. Questionnaires results.....	29
5. Discussion.....	38
6. Conclusion.....	42
7. References.....	44





# 1. Introduction

## 1.1. Background

Cities are not only for motorized vehicles, nowadays they are more in service to the people. Particularly downtowns are being recovered in a way to achieve active cities with personality. Public administrations are more conscientious of this, and take decisions to prepare downtowns for pedestrians with more pedestrian zones and with restriction to car and motorbike users.

The cycle can take an important role in this new policy. It's a good alternative of transport mode instead of motorized vehicles, it is economic, healthy and ecologic and helps to lighten the traffic environment. Cities are increasing investments in infrastructures to the cycle, the bike is more accepted for the society than before and it is necessary to establish a cohabit plan between pedestrians and motor vehicles, but also between cycles and motor vehicles and between cycles and pedestrians to get a peaceful traffic environmental.

Since 1997 the Municipality of Lund has been developing a study on the possibilities of creating an environmentally friendly transportation system for the city (LundaMaTs system, 1997). The results indicate that Lund is a city with a lot of possibilities in this respect but that, if the goals that have been set are to be achieved, it is necessary with some actions at a regional and national level. The Municipality of Lund has applied for and received a special grant for environmental improvements from the Swedish Department of the Environment. The total costs of LundaMaTa are expected to be about of 1 billion Swedish crowns.

Lund is already one of the municipalities in Sweden with a very high number of cyclists. About half of all the journeys are made by cycle or on foot. The goal is to get as many people as possible to cycle rather than drive. To achieve this, extensive measures (more and better cycle-ways, bike 'n ride installations at train and bus stations to facilitate exchange of transport means, the establishment of cycle information and service organizations, etc) are being taken to improve the cycle network and raise the status of cycles.

This policy started in 1980 with the aim to recover downtown to pedestrians. First steps were to restrict motorized vehicles in many streets of the centre and to develop a plan to use cycles in urban trips (path nets, parks etc.). As a result there are several pedestrian zones where cyclists are allowed in downtown of Lund. One of these streets, Lilla Fiskaregatan, belongs to the cycle net and it is used by 7000 cyclists a day. This pedestrian street with a cycle path also has a high pedestrian flow which causes a complex cohabitation environment. There is a deep interest to solve it and it has long been a topic in the newspapers.

## **1.2. Aim**

This report analyses the impact of bikes in Lilla Fiskaregatan, a pedestrian commercial street in downtown of Lund with a high flow of pedestrian and cycle users during commercial hours.

It is a global study, about the interaction between pedestrian and bicycles in this street, but it also considers the relation with minority users (disabled people, stock vehicle, etc.), the influence of the urban furniture and the influence of the bike flow in the stores.

In this kind of street there is a complex environment which in some cases result in accidents. The report analyses which kind of conflicts and the cause of them. There is also an exposition about measures to take to solve or to reduce the problem.

The aim is not only to get a safe street but also a comfortable and quiet street, in order to keep the well being of pedestrians in this kind of street.

## **1.3. Method of investigation**

The method of investigation included:

1. Literature studies. Getting knowledge to approach the topic.
2. Previous analysis of the street. Observation of flows and users' behaviors, location of conflictive points and determination of rush hours in the street. Pictures of street furniture.
3. Traffic study. Observation on field supported by recordings about accidents, conflicts and user behavior in several points previously decided, to gather. All the information necessary for a posterior analysis. Study of police and hospital reports of accidents
4. Interviews of street users.
5. Analysis of the information obtained in the traffic study and from interviews.
6. Evaluation of the situation of the street and the need to take steps to improve the cohabitation between different users. Discussion of different proposals to improve the traffic and to value which one could be the most appropriate.

## **1.4. Structure of report**

The report is structured in the following way. The second chapter contains information about the bicycle in the city, the important role which it can take in urban environment, the relation to other transport modes and about cohabitation between cyclists and pedestrians in pedestrian zones. The next chapter is about general information of Lund, the evolution of traffic in this city and the importance of the bike in the administration policy. There is also a description of the street that is studied. The fourth chapter contains information about police and hospital reports of accidents, traffic studies (conflict and behaviour) and interviews to the users. First it contains a description of employed methods in each study and then results are presented. The fifth chapter is a discussion of results and analysis in order to value the need to take steps to improve the street. Next chapter contains the conclusions of the project. In the last chapter there are the references.

## 2. Bicycles in general

### 2.1. Bicycles in the city

A cycling city is an environment where there is an attitude throughout the city, and its population, which accepts cycling as part of the city, an element of the identity of the city. Bikes can not save cities, but a healthy city has healthy biking (Newman, 1998).

Cycling has several advantages compared to other means of transport. It is a clean transport mode because is totally free of emissions. Another aspect is noise; bikes are practically noiseless compared to motorized transport, in this way cities become more friendly and quiet. Cycling is recognized as being healthy for the user, keeping to cardiovascular and respiratory problems. Cycling is cost effective. The bicycle itself is cheap, the maintenance costs are reasonable and it is not necessary combustible. The bicycle has low space requirements during trips and also to park. It is a quick means of transport in urban areas, often the quickest mode possible. Cyclists often turn out to be winners in competitions (who will go from one place to another in the shortest time) between pedestrians, public transport users and cars in urban areas as it is showed in the Figure 1. (European Cyclists' Federation, 1998)

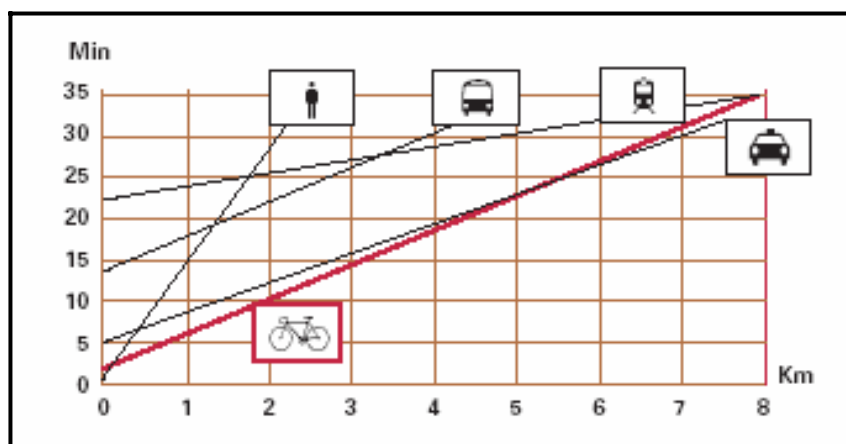


Figure 1: Comparative chart of journeys speed in the urban environment. (Basozabal, 2002)

Some cities have a significant proportion of cycle journeys while others have not. Most important reasons for a low number of cyclists are climate and topography. There are other important factors like the situation of cohabitation with cars (speed of passing cars and availability of road space for cars and cyclists at the same time), land use patterns, behavior of other road users, cycle traditions and attitudes to cycling, theft security and bicycle parking facilities. (European Cyclists' Federation, 1998)

Important arguments to be in favor to the bike in the urban context have been mentioned before, cities have important problems regarding environment and traffic and the cycle has the chance to be in new transport policies in order to solve those problems. These new policies must bear in mind the dangerous conditions which cyclists have to go, statistical figures on uneven cyclists reveal a significant proportion of cyclists among the road victims in the countries where cycling is most abundant. It is necessary with good infrastructures to support cycle users in urban environments, a wide network of cycle paths which must be comfortable, attractive and coherent (routes must be continuous and easy to recognize). In addition an increase of cyclists means a decrease of motorized vehicles and consequently a rise of the safety. (European Cyclists' Federation, 1998)

It is also necessary to get positive attitudes to cyclists from society, pedestrians and other road users. In order to get a bicycle climate it is necessary to include in this policy campaigns towards the road users with three aims: making the road users aware of the cyclists, their needs and their behavior; making the public aware of the benefits of cycling; and converting the potential cyclists to active cyclists. These campaigns must be continuous and during in a large period of time because society attitudes need time to change. (European Cyclists' Federation, 1998)

## **2.2. Bicycles in pedestrian zones**

Pedestrians don't like to walk in motorized streets, with noise and smoke. They prefer to walk in pedestrian zones, without cars, noise or smoke. In pedestrian streets people can take a relaxing walk, these roads used to be commercial streets and pedestrians can walk from one side to the other side quietly. But this inattention from pedestrians produces conflicts with cycle users, human movements are fast and unpredictable, in pedestrian streets with stores people go from one side of the street to the other one without attention and several times cyclist users do not have time to react and to avoid a collision with pedestrians. (HMSO Local transport, 1986)

The right policy about cohabitation of pedestrians and cyclists in pedestrian zones is not clear. There is a considerable debate about safety to mix both kind of users (Sustrans, 2000). Actually in several cases this question is solved in different ways: share street for both users, time restricted access for cyclists, combined use with selected motor vehicles, with cyclist paths or restricted street for bikes. (Trevelyan, 1995)

There are some factors to consider before take a policy about it (C.R.O.W., 1993):

- Bicycle and pedestrian volumes are the most important factor, with high volumes it is necessary with a strict policy.
- Function of the area for cyclists. Presence of a cycle path in the pedestrian zone.
- Function of the area for pedestrians. If there is a need for freedom of movement of pedestrians in commercial streets.

It is not correct to carry out a general valuation to solve this problem, every case of street needs his own study. There are studies (HMSO, 1986) which, at first, suggest a general restriction of bikes in pedestrian zones, finally it is necessary with a local judgment in concrete cases. The main priority is to guarantee the free and safe movement of pedestrians,

specially disabled people, but it is also necessary to consider cyclists and their safety. In case of restricting bikes in a pedestrian zone, cyclists should have an accessible and safe way, and not be involved in unpleasant and dangerous routes with high motor vehicle flow (Sustrans, 2000).

In order to solve this problem it is necessary to make a deep study of each case: user flows, street dimensions, crossings, design, street furniture etc. but it is also necessary to study surroundings: the sense of traffic in other streets, flows, the bike net, etc. (HMSO, 1986).

In case it is necessary with cycles in pedestrian zones, some studies affirm there is not reason to forbid bikes (Sustrans, 2000). The cyclist behavior is not dangerous for pedestrians, they use to adapt the speed to the density of traffic. Although in low flows cyclists and pedestrian use to be mixed, when the flow is higher, pedestrians use to be in the sides and bikes in the centre of the street. In this case, a good design of the street, with right signs and a good identification of each section helps to situate each user in the right place (Trevelyan, 1995).



## 3. Cycling in Lund

### 3.1. General information about Lund

Lund is a 100.000 habitant city in the south of Sweden; it is a 20 kilometers away from Malmö, capital of Skåne, one of the most economic important zones of the country. Lund has a long university tradition; there are technical and humanistic schools with a high reputation. It has a strong influence on the city and together with other scientific institutions, the regional hospital and high tech private companies it makes the city an important scientific centre. In Lund there are above 40.000 students and 7.000 people with jobs related to the University. The city is situated in an area with no topographical barriers, consequently the city has a concentric development (Institute für Landes, 2000; Lund, 2004).

Lund is with Uppsala the city of Sweden where the bike has the most important role in urban trips. The good topography conditions, the good weather compared to other parts of the country, the young population and the concentration of the services and university buildings help people choose bike as a transport mean. Although car is the main transport mode in Lund public transport and bike has a high ratio in comparison to other Swedish cities as it is showed in Table 1:

	Lund (2000)	Sweden (1995)
Bicycle:	19%	13%
Walking:	9%	16%
Car:	56%	60%
Public Transport	16%	11%

Table 1: Share of trips in Lund and Sweden (Institute für Landes, 2000; WALCYING, 1995)

Cyclists cycle 160.000 kilometers a day in Lund (Edman, 2004). 24% of these are realized downtown and over 18% of kilometers of all trips in Lund have been made by bike. Last five years there have been an increase about 30% in cycle trips and it has been foreseen that there are high possibilities to increase the cycle use further on the expense of the car use. Figure 2 shows shorts trips between 2-3 kilometers has a great ratio, and in Lund the average is higher (45%) than rest of Sweden (Brandt, 1997).



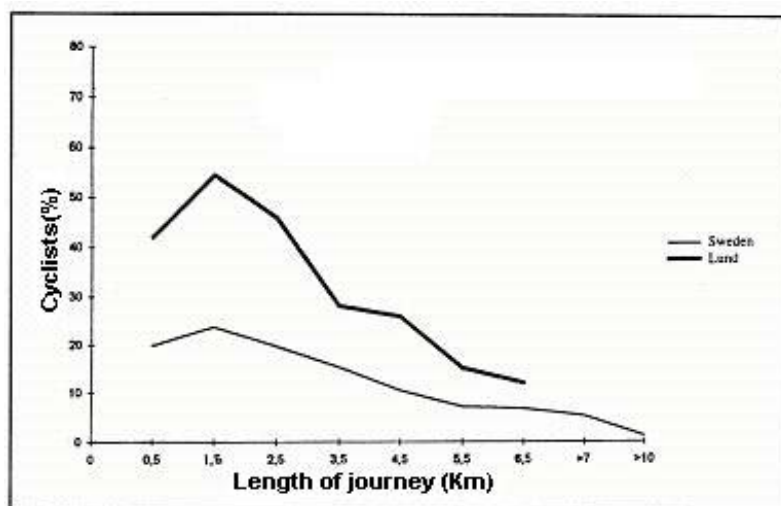


Figure 2: Share of cyclist in relation to the journey length (Brandt, 1997).

Actually there are 230 km cycle paths in Lund (Edman, 2004). The network links the downtown, where the train station, the bus station, stores, university buildings and services are located, with residential zones in the surroundings (Linerö, Östra Torn, Gunnesbo, Värpinge, etc.).

### 3.2. Evolution of traffic policy in Lund

Since 1970 the Municipality of Lund has carried out a transport policy with the aim to reduce motorized traffic in the city. Several measures have been executed along the last three decades with satisfactory results. Measures in chronological order were:

- Traffic cells in the city centre (1971).
- Establishing cycle path routes (in the seventies).
- Pedestrian precincts, street for bikes and a bus street in the city centre (1986).
- Establishing 3 ring roads around the city.
- Active parking policy in the city centre.
- Improvements of public transport terminals (1994 -1996).

As a result of this policy there was a car traffic intensity decrease of about 40% to and from the city centre between 1970 and 1997, and consequently the traffic environment and safety has improved (Leda Institute für Landes, 2000). This decrease can be appreciated in Table 2, which reflects the motorized traffic reduction passing the border of the city centre:

Year	Motor vehicle per day	Reduction from 1970
1970	77700	0 %
1971	62300	20 %
1980	41700	46 %
1990	40800	47 %
1995	37500	52 %
1997	38000	51 %
1998	38500	50 %

Table 2: Evolution of ratio of motorized cars in Lund (Institute für Landes, 2000)

In 1998 the Municipality started a new program called Lunda MaTs (environmental adapted transport policy for Lund). It consists of 33 measures in order to reduce CO<sub>2</sub> emission. The Bicycle City project is part of Lunda MaTs. This project focus on hard measures in order to improve bicycle infrastructures and soft measures in campaigns to change people's attitude and transport behavior in favor of cycling (SMILE, 2003). The Bicycle City consists of five main projects:

- High priority to bicycle traffic
- Improving infrastructure by creating an extensive network of bicycle paths
- Organizational improvements through the creation of a bicycle group and centre
- Maintaining bicycle safety through preventing an increase in bicycle accidents as bicycle traffic increases,
- Scientific evaluation of projects

It is expected that this strategy will lead to an increase by about 40% of cycle traffic by 2005 and by about 70% by the year 2020. About car traffic there would be a reduction by about 3% by year 2005 and 5% by year 2020 (SMILE, 2003).

### **3.3. Downtown of Lund**

Lund city has had a concentric development, so social, commercial and administrative centers have been kept in the centre of the city.

Downtown of Lund has the most important commercial zone of the city: Stora Södergatan, Lilla Fiskaregatan, Kungsgatan, Bankgatan etc. are basically commercial streets. There is also the ludic environment in the city, cinemas, pubs, discos and restaurants are concentrated in the downtown. So there is a presence of people after commercial hours. In addition most important points of transport public are situated downtown, the train station and the central bus station.

Part of main university buildings are in the centre of the city. Although actually most buildings are in the surroundings, central buildings and some faculties are still downtown (Lunds Kommun, 2004).

All these services in downtown produce an important concentration of pedestrians and cyclists in the centre. Several streets belong to the cycle network of Lund so there is a high density of them. In 2003 there were around 43.000 bike's users a day in the downtown (Edman, 2004). Although it is a high ratio there is a decreasing tendency last years as it is showed in the Figure 3:

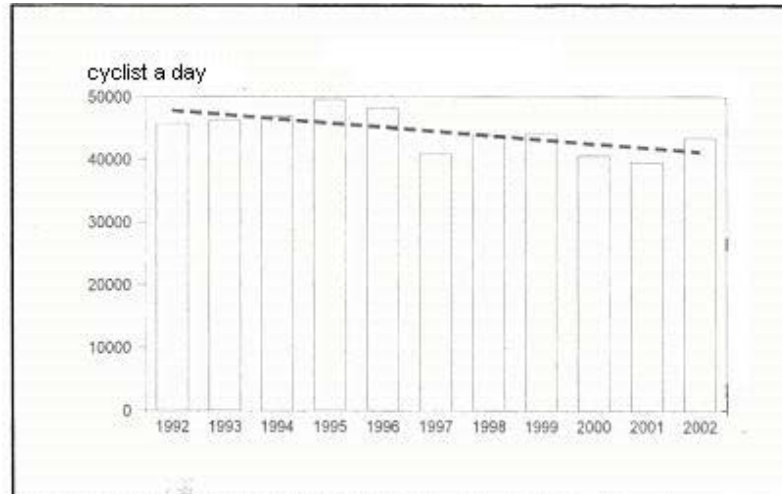


Figure 3: Number of cyclists in downtown last ten years. (Lunds Kommun, 2002).

Last 10 years there has been a decrease of cyclists of about 15 % downtown. In general the number of bike users in Lund is higher so a part of the cyclists don't go through the downtown in their trips (Lunds Kommun, 2002).

### 3.4. Introduction of Lilla Fiskaregatan

Lilla Fiskaregatan is a commercial street in downtown of Lund with a high flow of users. It links two important squares of Lund, Bantorget and Stortorget; and two main streets of the city, S. Södergatan and Bangatan. It is a pedestrian street where cyclists are allowed during all the day and there is a high flow of users during commercial hours. Since it is a non motorized street and the only way between two main streets Lilla Fiskaregatan has one of the most important ratio of cycle users in Lund as is shown in table 3:

	Cyclists a day	
	Average 1992-2002	Year 2002
Valvet	6800	9400
Lilla Fiskaregatan	6500	5100
Kyrkogatan	6400	5000
Stora Södergatan	5400	4300
Framför	6500	3400

Table 3 : Flow of cyclist in some streets of Lund. (Lunds Kommun, 2002)

Lilla Fiskaregatan has a population of about 138 people. There are banks and several kinds of stores which are open from 10.00 to 18.00. Goods vehicles can park in the street serve to stores every working day before 11.00 (Edman, 2004).

This street is designed with a pedestrian zone in both sides of the street and a cycle path in the central part. Before 1980 Lilla Fiskaregatan was a motorized street but, with the policy to recover downtown to pedestrians, motor vehicles were restricted there and the configuration of today was realized. There has been an intensive debate about the design of this street, on one hand architects defense the actual configuration with paving stones in the cycle path, in order to get a friendly environment and to recover medieval spirit. On the other

hand engineers consider it is not the best pavement for a cycle path. The design can be appreciated in the next Picture 1:



Picture 1: Lilla Fiskaregatan

In Lilla Fiskaregatan there are several kinds of elements of street furniture: benches, waste papers and bicycle stands. All of them are installed on the pedestrian zones.

The problem of this street is known by the municipality. Studies of Lilla Fiskaregatan have been made in order to know how to create a friendly environment and the well-being of users. In 1996 a study by Department of Traffic Planning and Engineering of University of Lund (Almquist & Nilsson, 1996) revealed that although there is an important problem in that street and an interest by users to solve it, there is not a clear way to perform.



## **4. Study**

Actual situation of Lilla Fiskaregatan needs a deep study in order to give rise to a discussion about the need to take steps. This study is divided in four parts: accidents reports, conflict studies, behaviour studies and questionnaires.

### **4.1. Police reports**

The first step to analyze the actual situation of this street is through police and hospital reports of accidents. There are not too many reports so the information will only be complementary to the other parts. All reports in Lilla Fiskaregatan and the crossing with Kyrkogatan since year 2000 have been collected from the municipality. Report information is really poor; there are data about time, localization, involved elements in the accident and a short abstract about what happened. Only with reports is not possible to understand user behaviour or environmental situation.

### **4.2. Observations**

Observation studies were basically a conflict study and a user behavior study. The conflict study follows the The Swedish Traffic Conflict Technique, it is from the observation on field and supported with video recordings. The behaviour study is performed through the recordings, it is a qualitative and quantitative study. Same recordings are used for both studies.

#### **4.2.1. Design**

Localization of the correct points to record and for observations on field for both studies has been decided in a previous valuation about where in the street conflictive situations could appear. This evaluation has been made through personal observation along the street in different moments of the day and through information from police and hospital reports. See chosen points to fix the camera in the Figure 4:



Figure 4: Points of recordings in Lilla Fiskaregatan

Extremes of Lilla Fiskaregatan were chosen as points to analyze. One of them goes to Kyrkogatan, a main street of the downtown with high flow of vehicles and pedestrians and with a complex design of zebra crossings (Points 6, 7 and 8). The other extreme of the street goes to Bantorget, a park where several footpaths and cycle ways converge to Lilla Fiskaregatan (Point 1 and 3). In the two extremes of the street there is a high concentration of users, where cyclists are going to and coming from faster streets.

Other points to consider were crossings of the street with Stora Gråbrödersgatan and Grönegatan. In the actual design, bikes go by the central side of the Lilla Fiskergatan while pedestrians go by laterals. Cyclists need to turn to other streets or to get in the commercial street and, in this situation, dangerous interactions could appear between bikes or with pedestrians flows (Points 4 and 5).

The third aspect to consider is about urban furniture and several elements along the street. There are five bike parks in the street, which reduce the section considerably. There are also big flowerpots and elements of the stores in the pedestrian zones, which force pedestrians to occupy the bike zone. All these elements along Lilla Fiskergatan not only reduce the section of the street, but several times produce unexpected changes of the user's route and complex situations appear (Points 2, 3, 5 and 8).

In this way there are eight zones to record in the street. One of them, the crossing between Lilla Fiskaregatan and Kyrkogatan has been recorded from two points (Points 6 and 7), it is considered a priori the most conflictive point with a high flow of users and therefore there is a need to record during more time and in different shots.

Once sites were chosen, to fix the camera has been problematic, since the street hasn't got too many places to fix the camera to. Therefore some shots aren't so clear one could desire. The camera has been fixed in pipes when it has been possible. There is also the possibility to use a tripod, but in that way it takes some space of the street and the behavior of traffic changes. Only to record the intern crossings of Lilla Fiskergatan tripod has been used.

These points were recorded during following times. See the Table 4:

Recording point	Day	Start time	Finish time	Total hours each point
1	20-jan Tuesday	16:00	17:00	2
	21-jan Wednesday	12:15	13:15	
2	21-jan Wednesday	15:45	16:45	2
	22-jan Thursday	12:00	13:00	
3	26-jan Monday	12:00	13:00	2
	26-jan Monday	16:00	17:00	
4	04-feb Wednesday	16:00	17:00	2
	07-feb Saturday	12:00	13:00	
5	06-feb Friday	16:00	17:00	1
6	23-jan Friday	16:00	17:00	1
7	22-jan Thursday	15:45	16:45	2
	23-jan Friday	12:00	13:00	
8	24-jan Saturday	12:00	13:00	1

Table 4: Days, times and points of recordings

In order to determine times to record/make observations during the day several aspects have been considered. The main one has been after the previous observation of the behavior of users, hours with high flow are logically in business hours, since this street is a commercial street, and users use to take the way when stores are open, from 10 to 18. See chosen times in the Table 4.

Other aspect is the Swedish habit, the work hours use to have a break around lunch, so some people can go shopping or go to eat. School hours finish around 4 o'clock, so student population must be considered, they use to take the bike and in that street several stores are focused to the young population.

These recordings/observations have been done in January and February, when the sunset is around 4, so people use to go out during daylight.

Last aspect has been the opinion of the owners and workers of the stores. Before recordings some of them were consulted about their opinion about rush hours in Lilla Fiskergatan.

Finally it is decided to perform recordings/observations two times per day. First one at midday, from around 12 to 13, when people take break to have lunch. The second one in the afternoon from around 15:30 to 16:30, when some people have finished to work and there is yet time to go shopping or just walking.

Saturday is a special day, with special business hours compared to the rest of the week, and stores close earlier. It is a festive day, so the street has the highest flow of people of the week. After considering the mentioned aspects the recordings/observations on Saturday have been at midday during an hour.



#### 4.2.1.1. Conflict study

##### Introduction of conflict concept

One of the aims of the field observation and recordings is to study user interactions and their severity grade. A detailed description of critic situations (user speeds, user distances, flows, etc.) can help to understand user behavior and later to evaluate means to take.

The first step can be to take accident data information from police reports and from registered accidents of traffic recordings. But this is really poor, first of all because number of accidents is not high, and it is lower in this kind of street. The speed of users (pedestrian and cycles) is low, so in case of accidents, the health injuries are not serious and economic injuries are practically zero. That is the reason why most of accidents in Lilla Fiskaregatan are not registered to the police neither to hospitals. In addition the information in police report is not enough; it does not cover behavioral and situational aspects (Svensson, 1998).

A traffic safety work needs to widen the scope. So in the recordings and in the field observation accidents are considered, but also conflicts, what are known as almost accidents. In the first International Traffic Conflicts Workshop (Oslo, 1977) conflict was defined as an observational situation in which two or more road users approach each other in space and time to such an extent that a collision is imminent if their movements remain unchanged.

The main reason to also consider conflicts is that the number of conflicts is higher than the number of accidents. There are between 3000 and 40000 conflicts for each injured accident reported to the police, in recordings it is easy to find situations of conflicts whereas accidents are rare. In case of low number of accidents, they can have a random cause and it is necessary with few years study, whereas in case of a high number of conflicts it can be more for casual motive and in some days it is enough (Hyden, 1987).

The method employed is the Swedish Traffic Conflict Techniques. The different levels of conflicts are classified in a severity scale by TA value, from undisturbed conflicts to serious conflicts (See Figure 5). Some studies have been realized about the validity to use conflicts instead of accidents, they showed a similarity between accidents and conflicts when the comparison was based on TA values and conflicting speed. The information obtained from conflicts is useful, they have a correlation to accidents, and there is a causal relationship (Hyden, 1987).



Figure 5: Interaction pyramid as a continuum of events (Hyden, 1987).

TA (Time to accident) is the time remaining from when the evasive action is taken until the collision would have occurred if the road users had continued with unchanged speeds and directions. TA is calculated with estimates of distance  $d$  and speed  $v$  where:

- d: Distance to the potential collision point.
- v: Speed when evasive action is taken.

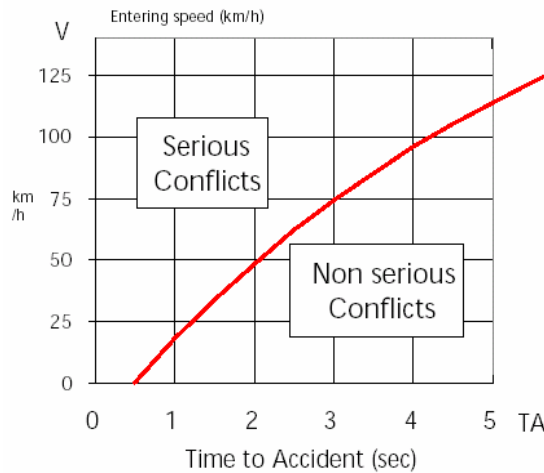


Figure 6: Border between serious and non serious conflict (Hyden, 1987).

During recordings conflicts have been registered by observations on field. Conflicts have been registered in recording sheet collecting specific information for evaluation about the severity grade of conflicts (Time, location, weather conditions, etc.). There is also a simplistic sketch to describe the situation, users positions and other causation elements to study the conflict. Recordings sheet in Appendix I.

#### 4.2.1.2. Behaviour study

In order to valuate the user behavior it has been considered to realize it directly by recordings. In this way there is the possibility to appreciate the behavior of higher number of users. By recordings it was not able to follow concrete user behavior along Lilla Fiskaregatan; the wide of the shoot was not enough, so the study is focused to know the user behavior in concrete points in the street.

The aim is to understand the behavior of each kind of user groups (pedestrians and cyclists) in order to improve the traffic environment. In a previous observation in Lilla Fiskaregatan it can be appreciated there is not a respect for user zones, both users use to be mixed in the central zone in most part of the street, in the cycle path. Behaviour study registers several aspects of user conducts to understand why it has been arrived at this situation and also the user actions in problematic contexts.

It is a qualitative and quantitative study. On one side there is a valuation of users conducts about use of sidewalks and cycle paths, attention, etc. On the other side there is a registration of pedestrian and cyclists flows, how many users are going on the wrong zones etc. User flow have been taken counting in two periods of five minutes in each recording of one hour. See the registration sheet in Appendix II.

There is not the same behavior valuation for cyclists and pedestrians. Conditions of each kind of user are not equal so there have been considered different parameters for cyclists and pedestrian. It has borne in mind age and sex of users, the behavior of disable people and their interaction with other users.

The pedestrian behavioral study included following aspects:

First of all there is attention about a *general behavior of pedestrians*. If they seem to have the presence of cyclists in mind or if there is an inattention.

It is also considered *which zones pedestrians use for their trips*. During periods of high flows and also of low flows, how does their behavior change depending on flow level. Comparison of pedestrian groups with single persons. The willingness to give way on the sidewalks between pedestrians.

*Pedestrian behavior when crossing streets*. How much attention pedestrians take care of cyclists when they are crossing the street and occupy the cycle path. If pedestrians wait and give way to cyclists before crossing and the speed which they go to the other side.

*Pedestrian actions in front of urban furniture*. Part of the urban furniture is situated on the sidewalks, so the space for pedestrians is reduced and pedestrians have to change their trajectory to avoid them.

Following aspects of cyclists' behaviour were studied.

There is an attention about *zones occupied by cyclists*. The respect of sidewalks and study of direction of flows in the cycle path.

*Influence of traffic environment in the cyclist conduct*. Attention about speed and actions of bike users in moments of high and low flows. Influence of pedestrians and disable people going on cycle paths.

*Cyclist actions to turn to get in or get out of the street*. Study of signing by bikers when they are turning and about giving way other cyclists and pedestrians.

*Study of cyclist actions in critical situations*. Actions taken in order to avoid accidents, moving and breaks.

### **4.3. Questionnaires**

Valuation of Lilla Fiskaregatan can not be based only on registers of accidents and conflicts and observation of user behaviors. Recordings help to get an idea of the safety situation in the street but it is necessary with other resources for a deeper evaluation.

Safety is not the only important aspect to consider, pedestrian and commercial streets must be safe, but also comfortable and attractive and the configuration of Lilla Fiskaregatan must respond to these aspects.

The aim of the interviews was to know the opinion of users about all these aspects and to get information about their experience of Lilla Fiskaregatan. It is not enough with a street with low accident data, it is also necessary that users feel safe and comfortable and the best way to know it is through interviews.

There are also interviews to owners and workers of stores and businesses of Lilla Fiskaregatan. A part of the questions are the same questions as to users, and there are other ones focused on the point of views of the store owners. It is necessary to know their opinion like users but also with the point of view of their commercial perspective.

#### **4.3.1. Design**

The idea was to perform the same interview for both kind of users, pedestrians and cyclists. One of the reason was to simplify the posterior work to manage data. In addition the same user can choose the two modes of transports, so the best way is to include a question about the main transport mode of users for the posterior analysis.

Questions are divided in three main blocks. The first block of questions is to find out the feelings of users, about safety and comfort. The next block is experience of users, conflictive situations which they have been involved and their behavior in the street. Finally there are some questions for background information, like sex, age, aim of the trip, main transport mode, etc.

There is also a map of the street in the questionnaire sheet to ask user opinion about most conflictive points of the street in order to check the correct choice of points of recordings and conflict studies. In case some localizations are not considered in the observational study it would be realized. (See Appendices III and IV).

Interviews were carried out last two weeks of February, along all the day in the way to know the opinion of pedestrians and cyclists in different environments in the street. Most interviews were obtained during rush hours. It is because the high density of users make it easier to find people who want to spend few minutes to answer the questions. Most parts of interviews were carried out from 12 to 14 and from 16 to 18.

Enquiries were realized to both kind of users, pedestrians and cyclists. First ones was easier to ask to stop and to explain the aim of the study. In case of cyclists it was not as easy, as it was necessary to approach them when they stopped in crossings or when they were parking the bike in the bike parks on the street. Only few cyclists stopped in their trip to answer the interview.

There is also an extra interview to owners and workers of shops of Lilla Fiskaregatan in order to get their opinion like street user, but also from the point if view of business of a commercial street. (See Appendix V)

Questionnaire data have been processed by Excel and the statistical analyses has been realized by SPSS 10.1 for Window. Chi-square test was used in order to check the relation between several categories of the questionnaires.

## 4.4. Results

In this chapter the results from the studies and collected data are presented: accidents reports, conflict studies, behaviour studies and the questionnaire study.

### 4.4.1. Police and hospital report results

There are five police reports, one with hospital report attached, and two hospital reports. They are in the Appendices VI and VII. In the following there is a summary of them:

#### Police reports

Location of accidents registered in police reports can be observed in Figure 7:



Figure 7: Location of accidents in police reports in Lilla Fiskaregatan since year 2000.

#### Pedestrian–cyclist accidents.

##### **Accident 1**

Date: 07-09-2000

Hour: 12:10

Profile of involved users: Cyclist 1 (17 years old).  
Pedestrian 1 (38 years old).  
Pedestrian 2 (67 years old).

Localization of the accident: In Lilla Fiskaregatan, on the sidewalk.

Description of the accident: The cyclist going on the cycle path turned to the left to avoid a collision and invaded the sidewalk, then he crashed with the pedestrian who was getting out of a coffee shop and both users fell on the third pedestrian who was in a table in front of the coffee shop. Both pedestrians were injured slightly.

##### **Accident 2**

Date: 27-02-2001

Hour: 10:30

Profile of involved users: Cyclist 1 (35 years old).  
Pedestrian 1 (46 years old).

Localization of the accident: In Lilla Fiskaregatan, on the cycle path.

Description of the accident: Cyclist going on the cycle path crash with a pedestrian walking on the cycle path, both users were going with the same direction. Pedestrian was seriously injured and it was necessary with an ambulance.

### **Accident 3**

Date: 12-10-2001

Hour: 10:40

Profile of involved users: Cyclist 1 (65 years old).

Pedestrian 1 (22 years old).

Localization of the accident: In Lilla Fiskaregatan, on the cycle path.

Description of the accident: Cyclist going on the cycle path was going to pass the pedestrian walking on the cycle path, in that moment the pedestrian turned to watch a shop window and both users crashed. Cyclist was injured with lightness.

### **Pedestrian-motorized vehicle accidents.**

### **Accident 4**

Date: 19-03-2003

Hour: 11:55

Profile of involved users: Pedestrian 1 (18 years old).

Motorized vehicle 1 (Bus).

Localization of the accident: Zebra crossing between Lilla Fiskaregatan and Kyrkogatan.

Description of the accident: A pedestrian crossing by the zebra crossing stopped in the middle of the street because of there was in Kyrkogatan a bus going to the south, in the same moment a bus going to the north passed really close to the pedestrian beat him in the shoulder with the rear-view mirror. The pedestrian was lightly injured.

### **Accident 5**

Date: 20-09-2003

Hour: 11:55

Profile of involved users: Pedestrian 1 (13 years old).

Motorized vehicle 1 (Car).

Localization of the accident: Crossing Lilla Fiskaregatan and Stora Gråbrödersgatan.

Description of the accident: A motorized car turning to the right from Stora Gråbrödersgatan to Lilla Fiskaregatan ran over the foot of the pedestrian and went away without stopping. The pedestrian was slightly injured.

### **Hospital reports**

### **Accident 6**

Date: 07-08-2008

Hour: 13:00

Profile of involved users: Cyclist 1 (21 years old).

Description of the accident: The cyclist crashed with street furniture and fell. The cyclist was slightly injured but it was not necessary with an ambulance.

### **Accident 7**

Date: 18-10-2003

Hour: 12:30

Profile of involved users: Cyclist 1 (56 years old).

Pedestrian.

Description of the accident: A pedestrian going by the sidewalk invaded the bike zone and a cyclist in the cycle path failed trying to avoid to crash with him, and fell.

#### 4.4.2. Observation results

##### 4.4.2.1. Conflict results

During thirteen hours of recordings/observations eleven cases of conflicts have been registered. One of them can be considered a serious conflict, three are just in the border and rest of them are non serious conflicts.

The most important has been in the cross of Lilla Fiskaregatan with Kyrkogatan; a car had to break hardly in front of a pedestrian on the zebra crossing. Most conflicts have been between cyclists and pedestrians on the bike path, where cyclists have to swerve to avoid a collision due to low attention of pedestrian in the street. Only in two cases it was between cyclists and in one case it was with a motorized vehicle.

See conflict list and their location in Table 5 and Figure 8:

	Road user I	Road user II	Location	Description	Conflict level
1	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Non serious
2	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Border
3	Bicycle	Pedestrian	Cycle path	Breaking of cyclist to avoid pedestrian	Border
4	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and pedestrian to avoid a collision	Non serious
5	Bicycle	Pedestrian	Cycle path	Breaking and swerving of cyclist to avoid pedestrian	Non serious
6	Car	Pedestrian	Zebra cross	Breaking of car to avoid pedestrian	Serious
7	Bicycle	Bicycle	Zebra cross	Swerving of cyclist to avoid anterior cyclist braking	Border
8	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and pedestrian to avoid a collision	Non serious
9	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Non serious
10	Bicycle	Bicycle	Cross	Breaking of cyclist to avoid other cyclist	Non serious
11	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and breaking of pedestrian	Non serious

Table 5: Conflict list registered by recordings and field observation



Figure 8: Location of registered conflicts in Lilla Fiskaregatan

All complementary information about conflict study in Appendix VIII.

#### 4.4.2.2. Behaviour results

Behaviour results have a qualitative data with a subjective component, an interpretation of the situations according to the experience and ideas. All quantitative results can be appreciated in Appendix IX.

Although as has been mentioned before recordings show a complex environment, the global impression is there is a completely calmness from users. The non-motorized environment produces a inattention and relaxation from pedestrians and cyclists. Pedestrians act unpredictably walking, crossing or turning to other street.

Consequently there are too many situations where pedestrians invade cyclist zones. In moments of high density of users, sidewalks are not enough for pedestrians; they are not able for both sense of people and in case there are prams or disables it is yet more exaggerated. When Lilla Fiskaregatan is crowded (i.e. Saturday noon) pedestrians use all street section, it obstructs bike flows and some cyclists decide to get out of the bike and go walking.



Picture 2: Sidewalks are not able for all pedestrians in rush hours



Anyway in case of a not crowded street, pedestrians use to go in bike zone without taking care of cyclists. There is a total inattention to bikes, mainly people going in groups occupy the cycle path just walking, talking or watching store windows. In one hour recording it can appear over three hundred cases of pedestrians walking on the bike paths, when they could use their own zone.

As it can be appreciated in the Table 6, in moments of high flow of users there are more pedestrians on the cycle path, but the percentage over total pedestrians is similar than in periods of lower pedestrian flow.

	Mornings	Afternoons	Saturday mornings
Pedestrian flow (pedestrian/hour)	1048	1218	3036
Pedestrians on the cycle path (Pedestrians/hour)	201	292	692
Pedestrians on the cycle path (%)	20%	25%	23%

Table 6: Pedestrian flow and share of pedestrians on the cycle path

In situations of high flow of users it is mainly from pedestrians. A crowded Lilla Fiskaregatan complicates the circulation of bikes so in moments with high density of users the number of cyclists doesn't increase proportionately and in moments of highest flow the number of bikers decreases. Saturdays morning there is a highest pedestrian flow, it is more complicated to ride a bike and consequently the cyclist flow decreases. As it can see in the Table 7:

	Mornings	Afternoons	Saturday mornings
User flow (users/hour)	1312	1662	3507
Cyclist flow (cyclist/hour)	264 (20%)	444 (26%)	471 (13%)
Pedestrian flow (pedestrian/hour)	1048 (80%)	1218 ( 73%)	3036 (87%)

Table 7: User, pedestrian and cyclist flows in Lilla Fiskaregatan

Pedestrians walking with their bike present a complex situation, they use to go walking instead to go by bike because are going with pedestrians. These groups have to choose to go on the cycle path or on the sidewalk, both options present problems. Sidewalks are not enough wide and the cycle path with cyclists have a complex environment. Fortunately these situations are not too common as Table 8 shows:

	Mornings	Afternoons	Saturday mornings
Pedestrian flow (pedestrian/hour)	1048	1218	3036
Persons walking with bike on the cycle path (peers/hour)	5	11	11
Persons walking with bike on sidewalk (peers/hour)	7	13	21

Table 8: Flow of pedestrians walking with bike on both zones of the street

Cyclists bear this complex environment in mind, varying the speed in function of user density. In many cases they have to avoid pedestrians and to take risky swerving between pedestrians really close to them. It happens especially in extremes of Lilla Fiskaregatan and in interior crosses, there are convergent pedestrian flows and several times pedestrians cross the street with inattention.

Cyclist speed is low in general, about 8-10 kilometers per hour. In moments of low flow of users cyclists increase their speed slightly. Bike users always use to go on the cycle path, only occupying sidewalks in case their zone is occupied by pedestrians and there is not danger to collision on the sidewalk. In the recordings it has been registered few cases of cyclists occupying the sidewalk, about 1% of cyclist use the sidewalk in concretes moments along their trip. Most of them were to avoid pedestrians on the cycle path. See it in Table 9:

	Mornings	Afternoons	Saturday morning
Cyclists flow (Cyclist/hour)	264	444	471
Cyclists on the sidewalk (Cyclist/hour)	3 (1%)	4 (1%)	5 (1%)

Table 9: Cyclist flow in this street and on the sidewalk.

In recordings it has been observed several concrete aspects which must be discussed:

#### Bantorget:

One extreme of the street, the crossing between Lilla Fiskaregatan and Bantorget, is the most conflictive location along the street. In Bantorget there is a link of several paths without indications, cyclists and pedestrians have to cross the street to take their own way and most part of times they do this with inattention. Presence of motorized vehicles in Bantorget complicates the situation. In this point there are more cases of conflicts registered, and in all of them cyclists had to swerve for pedestrians.



Picture 3: Lilla Fiskaregatan with Bantorget

#### Kyrkogatan:

In the other extreme, the crossing between Lilla Fiskaregatan and Kyrkogatan has a high traffic flow where there is a crowded zebra crossing with cyclists, pedestrians and motorized vehicles. Although at first it means a complex traffic situations, in recordings there are not registered too many critic situations. Only on the zebra crossing two conflicts have been registered. In the entrance of Lilla Fiskaregatan user flows convergent from several directions but there are not conflict cases. Attention of users in the crossing is high, because

they have in mind it is complex. Once pedestrians are in Lilla Fiskaregatan inattention increase due to the fact that motorized vehicles are not present and the lower density of people.

On the zebra crossing cyclists have problems to turn to the left to take Kyrkogatan, since there is a flow in the other direction and they have to stop just in the middle of the zebra to wait for their chance to turn. In this way there is a high concentration of users and it could appear a complex situation.

Cyclists going by Kyrkogatan and try to get in Lilla Fiskaregatan find a high user density waiting to cross the street. They are going fast in the main road and have to reduce speed hard to avoid collisions; in that street there are also motorized vehicles and sudden movements of cyclists can be dangerous for themselves.



Picture 4: Zebra crossing between Lilla Fiskaregatan and Kyrkogatan.

#### Bike parks:

Presence of bike parks leads to uncomfortable situations. Parks reduce pavement sections and pedestrians use to surround them by the bike zone. They do these actions in fast movements. In case of a crowded situation all the street section is reduced and a bottle neck appears.

In addition when cyclists decide to park the bike in these points, they reduce the speed quickly in front of bike parks and other cyclists on the path must avoid them.

Although there are several bike parks in Lilla Fiskaregatan their capacity is not enough, there are five bike parks with a capacity of eight cycles each one. So as a result there are many cycles parked next to the bike parks because they are full, so part of the sidewalk is occupied and the pedestrian zone is reduced. In recordings it has been registered an average of two cases of users parking the bike in wrong zones an hour.



Picture 5: Bike parks reduce capacity of sidewalks

#### Interior crossings:

Recordings show two conflict cases in interior crossings. User behavior is not correct here and only low speeds avoid more critical situations. Pedestrians crossing the street don't take notice of cyclists coming from other streets, there is not too much visibility on the corners and cyclists have to go slowly to avoid pedestrians appearing behind the corner.

Bike users take part of sidewalks in their trajectory when they are getting in or getting out of Lilla Fiskaregatan. In order to follow the cycle path they should reduce their speed considerably and after the crossing recover it and it is uncomfortable. In addition, in the action to turn cyclists don't use to signalize to turn nor give way to cyclists coming from the other sense.



Picture 6: Interior crossing of Lilla Fiskaregatan with Gråbödersgatan

Disabled people:

Disabled people (mainly in wheelchair) have to go on the cycle path in Lilla Fiskaregatan. Most of them use to go with companion and pavements are thin, sometimes there are parked bikes or pedestrian watching windows stores so sidewalks are not enough for wheelchairs. Disables have to occupy part of cycle paths being involved in a complex traffic environment with cyclists trying to pass them and pedestrians on the cycle path.

Urban furniture:

In Lilla Fiskaregatan there is the usual kind of street furniture for a pedestrian zone. There are litter bins, benches and big flowerpots. Like with bike parks, they are situated in middle of sidewalks, they obligate pedestrians to surround them going really close to the wall or taking part of cyclist's way. During recordings no people have been observed sitting on the benches although it is necessary to fix the study was performed in winter.

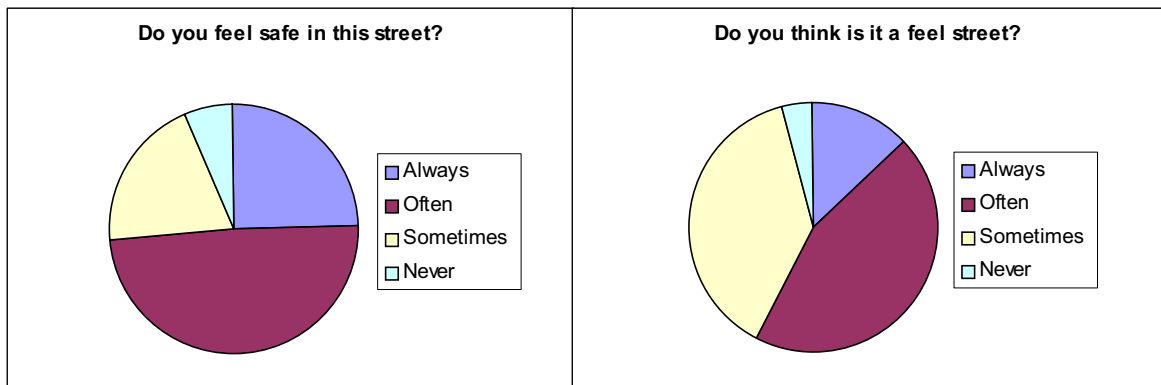


Picture 7:Urban furniture obstruct pedestrian circulation

#### 4.4.3. Questionnaires results

The results presented are a part of a large amount of interview data obtained in Lilla Fiskaregatan. In the following the most interesting results are presented. Other results can be seen in Appendix X.

First questions are focused on user opinions about safety and comfort in the street. Valuation of safe feelings is positive enough. The opinion about personal safety differs from the opinion regarding general safety in the street. Although users feel safe going by Lilla Fiskaregatan there is a general opinion that in this street there is a complex environment and there is not completely a safety feeling as it can be appreciated in Graphic 1:



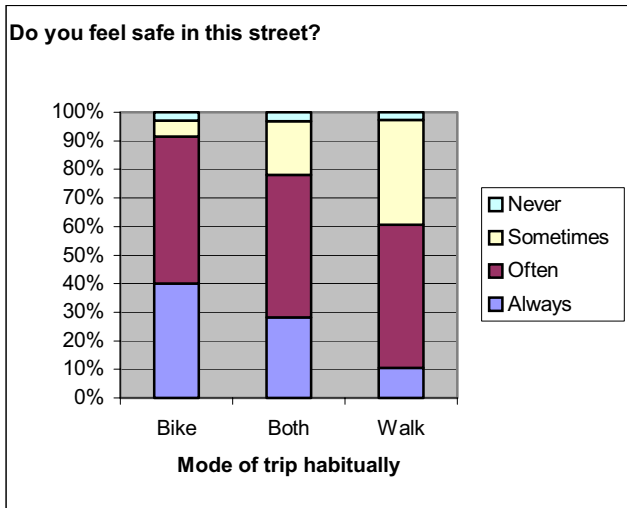
Graphic 1: Opinion of personal safety and global safety in Lilla Fiskaregatan.

Age is an important parameter to consider in the user opinion about safety. Although there are not too many interviews with elderly people, there is a clear influence of age in safety feelings. Young people feel safe in that environment. This feeling is decreasing when users are older, from 45 years old the opinion about safe environment is clearly negative. See Graphic 2:

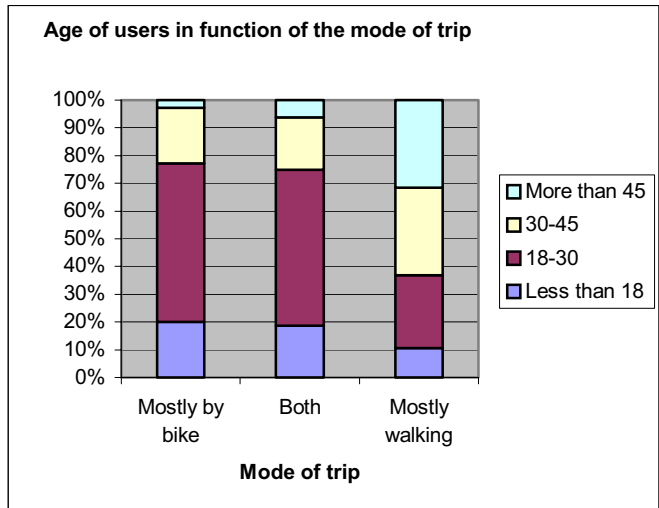


Graphic 2: Age influence in the opinion of personal safety in Lilla Fiskaregatan

Other interesting parameter a priori of interviews was the opinion of different kind of users in order to compare the two group's points of view. Cyclist have a positive opinion about safety in Lilla Fiskaregatan, whereas pedestrians have a lower safety feeling. As it is appreciated in Graphics 3 and 4, the opinion of safety of each kind of user is also related with the age. Bikers have better opinion of safety but most part of them are young people so their feeling can be due to the age. People walking in Lilla Fiskaregatan are older and have a lower opinion about safety, their opinion is more related with the age than the mode of trip.



Graphic 3: Opinion of personal safety in Lilla Fiskaregatan for each kind of user

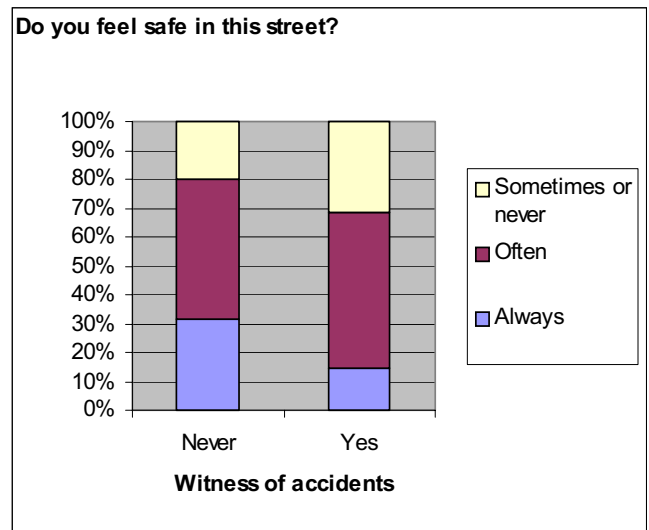


Graphic 4: Age of users in function of mode of trip

Another interesting aspect of user conscience about safe environment can be appreciated in Graphic 5 and 6. A priori users with previous experience involving in accidents or being witness should have a lower opinion about safety in Lilla Fiskaregatan. Interview studies show that this relation can not be confirmed. Although there is a variation in the answers between people involved and not involved in accidents, it is small and it is not possible to draw any conclusions about it.



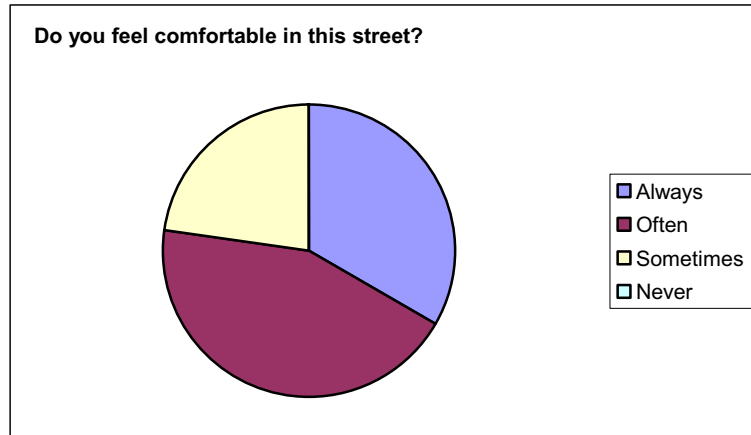
Graphic 5: Relation between safe feeling and accidents experience



Graphic 6: Relation accident witness and safety opinion.

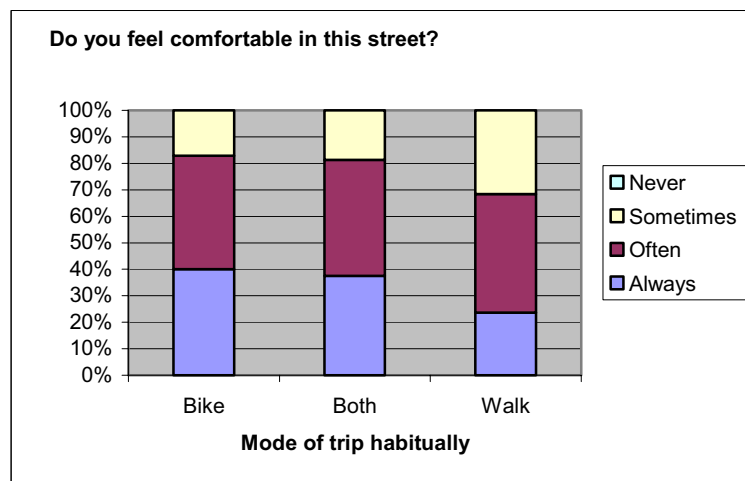
Other user profiles have no relation with safety. User opinion is really close between males and females. Times to go in this street and the kind of trip don't influence the opinion of users.

Opinion about comfort in Lilla Fiskaregatan is positive, more of 75% of users feel always or often comfortable in this street. Actual configuration of Lilla Fiskaregatan is accepted for users regarding comfort as it can be appreciated in Graphic 7:



Graphic 7: Opinion of comfort from users of Lilla Fiskaregatan

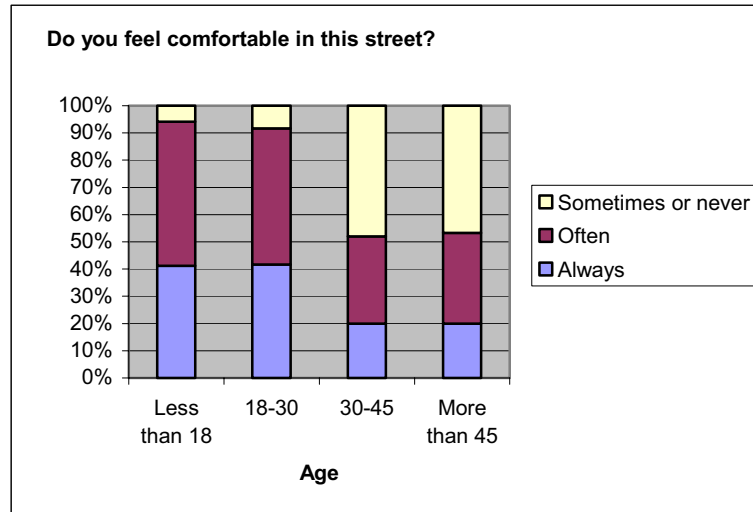
This feeling does not differ between both kind of users, cyclists and pedestrians share the positive opinion about comfort in the actual configuration of the street. More than 80 % of cyclist have always or often a comfortable feeling in Lilla Fiskaregatan. Pedestrians have a lower ratio, anyway it is a positive result.



Graphic 8: Opinion of comfort from different kind of users of Lilla Fiskaregatan

Age is an important factor in user opinion, elder people have worse opinion about comfort. See Graphic 9. This goes in relation with safety, low safety feeling leads to low comfort feeling. For young users, less than 30 years old, there is a high comfortable feeling. It changes considerably in older people with only the well-being of 50% of users.





Graphic 9: Opinion of comfort in function of user age in Lilla Fiskaregatan

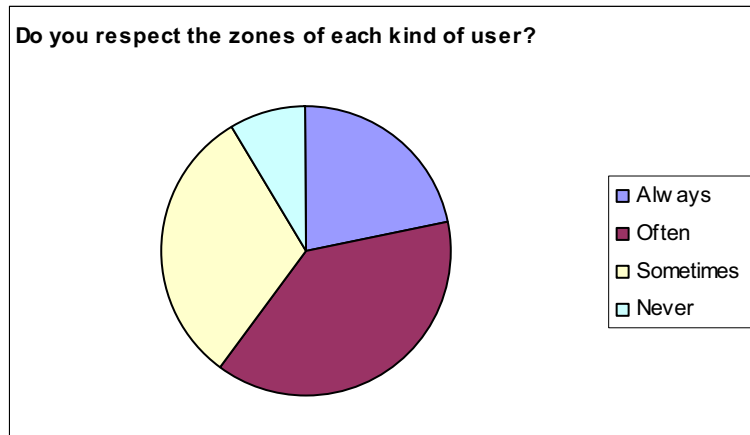
Kind of trip is another factor to consider. As it can see in Graphic 10 answers about comfort are more positive in case of people going for pleasure. Users that are in hurry to go to work, to study or go shopping don't perceive the street so comfortable.



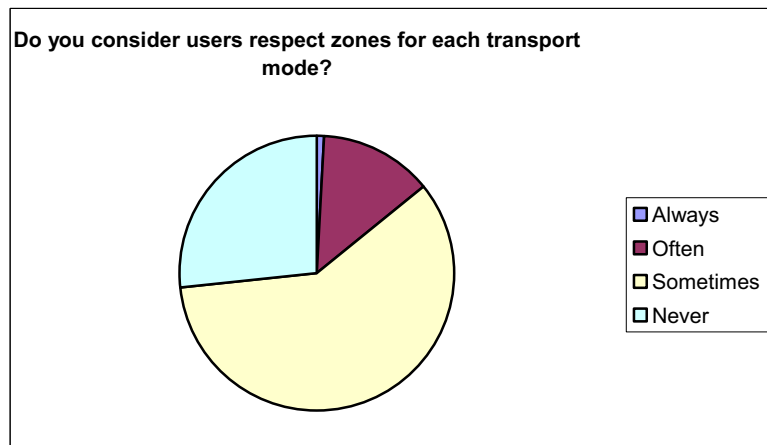
Graphic 10: Opinion of comfort in function of kind of trip in Lilla Fiskaregatan

Interviews are focused not only on user opinions. There is an interest in user behaviors, specifically about the respect of each zone for the users.

The answer about users's respect for the zones is not positive, about only 50% of users use to go by their own zone always or often. The opinion about users respect in general for each zone is really negative. In this point it must be a consideration about the attention of pedestrian and cyclist to respect each other's zones. On one hand more of half of users respect zones and on the other hand their opinion about others' behaviour about this aspect is really negative. See Graphic 11 and 12:

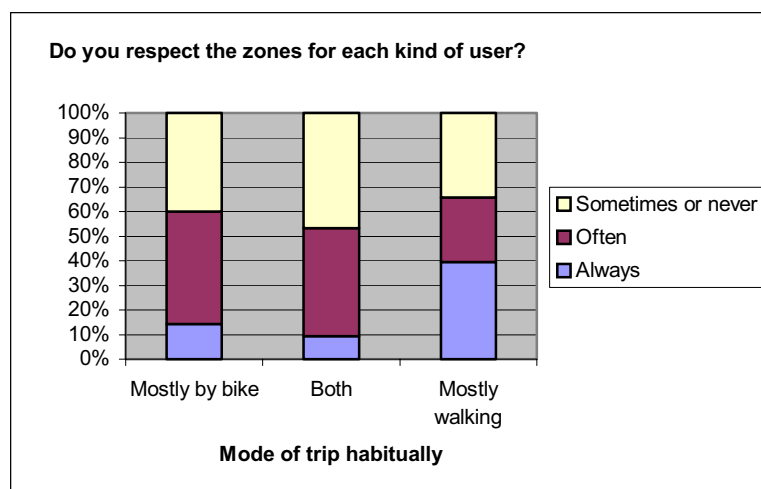


Graphic 11: Behavior of users in Lilla Fiskaregatan



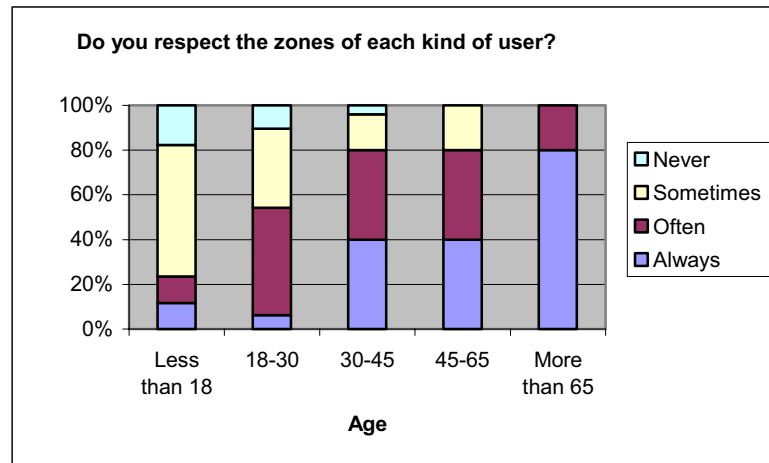
Graphic 12: User opinion about user behavior in Lilla Fiskaregatan

Pedestrians and cyclists have similar behavior about respecting both zones as it can be appreciated in Graphic 13:



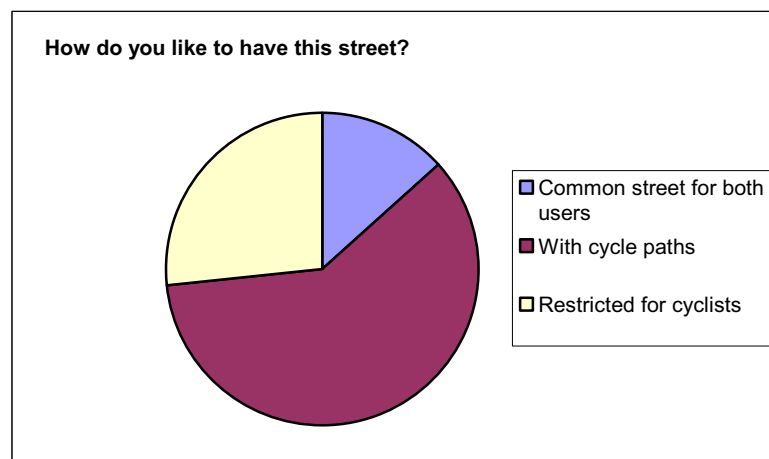
Graphic 13: User behavior in function the kind of mode in Lilla Fiskaregatan

Behaviour changes with the age. Elder people, with a low feeling of safety, use to be more respectful with zones of the street to avoid to be involved in complex situations. On the other hand young people don't take any attention to respect zones due to their high safety feeling. See Graphic 14:



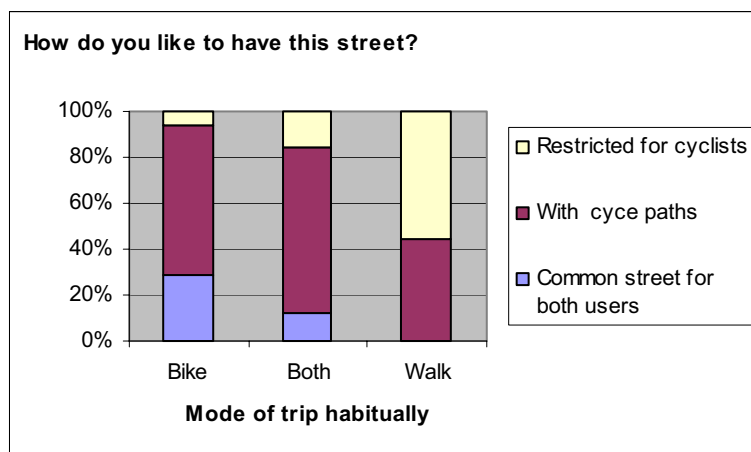
Graphic 14: User behavior in function of the age in Lilla Fiskaregatan

On the question about the actual configuration of the street results show that it is the most desired by users in general. Almost the 75% prefer a street with cycle paths rather than a restricted or a common street. Although the global opinion about safety is not positive there is not interest of alternatives configurations. See Graphic 15:



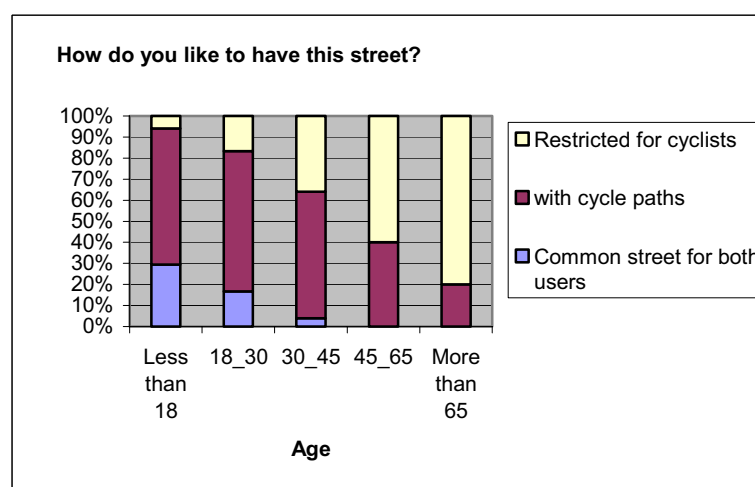
Graphic 15: User opinion about desired configuration of Lilla Fiskaregatan

Desired configuration for cyclists is clearly the actual one as it can be appreciated in Graphic 16. Alternatives are logically negative. A common street would be a complex environment to go by bike and restricted area for cyclists has not sense for them. In case of users of both kind of modes the choice is the same like cyclists, more of 60% of them support the actual design of the street. Pedestrians have a different opinion, half of this kind of users support the actual design while the rest want a restricted street for cyclists.



Graphic 16: User opinion about desired configuration in function of kind of users.

Opinion of users differs between different age groups. Young people agree with the actual design of Lilla Fiskaregatan even though a part of young ones, almost 30%, want a common street. Older people, with a bad safety opinion prefer not to mix cyclists and pedestrians until most older who want a restricted area for cyclist. This kind of street has a high flow of young users, elder people is not often in this street. So although opinion from elder people is more or less homogeny, it has not press in global results because of the low number interviews to elder people. See Graphic 17:



Graphic 17: User opinion about desired configuration in function of age of users.

Opinion from workers and owners of stores follows the opinion of users of the street. They are more or less agree in the common questions, about the unsafe feeling and the behavior of users about respecting the zones.

Regarding concrete questions to the stores, workers an downers have a good opinion about the environment of this street like a commercial street. More of 50% of the opinions agree with this environment of the Lilla Fiskaregatan. Their opinion of the environment for a commercial street is positive, only 25% think is not right.

About the actual design, there is a major opinion agree with the configuration (pedestrian zone with cycle paths) of the street but it is necessary with some modifications.

## 5. Discussion

Study results give rise to a discussion of several aspects regarding the situation of Lilla Fiskaregatan. First point is the verification of the right choice of locations of study along the street. Then there is a comparison between accidents and conflicts to check their patterns. Main point is the valuation of safety from behaviour and conflict studies, questionnaires and reports. Next points is the comfort valuation to finish with a discussion of possible layouts in Lilla Fiskaregatan.

### Verification of location of the study.

First consideration to valuate is to verify the election of observed and recorded locations. In the previous valuation extremes of Lilla Fiskaregatan were chosen as the most conflictive points of the street (specially the crossing with Kyrkogatan), then the interior crossings and finally locations with urban furniture.

Results of accident reports and conflict studies showed there is a relation between the number of reported accidents and the conflicts. Most of the reported accidents in Lilla Fiskaregatan happened in the crossings. In addition two of the accidents were related with street furniture. In the conflict study practically all conflicts were registered in the crossings of the commercial street, six in the extremes and four in the interior crossings.

In the questionnaire study users were asked about the most conflictive locations in the street. This question was asked in order to be able to realize more observations in case user opinions differed from the previous elected locations. Results show that user opinions coincide with the previous evaluation and therefore it was not necessary to study new points in the street (See Appendix IV).

### Comparison between accidents and conflicts

Next aspect to valuate is the relation between registered conflicts and reported accidents in order to find a pattern of critical situations. First comment must be about location of them along the street. There is a coincidence of position of most of conflicts and accidents as it has been mentioned before, but paradoxically the point of the street where it has registered more conflicts (Lilla Fiskaregatan with Bantorget) there are not reported accidents during the last four years.

Most conflicts have as characters a pedestrian and a cyclist involved. In most conflicts cyclists take actions (breaking or swerving) to avoid collision with a pedestrian on the cycle path. There are not too many conflicts with cyclist-cyclist, pedestrian-motorized vehicle or cyclist-motorized vehicle.

Regarding reported accidents there is less information due to the lower number of reports. Accidents with cyclist-pedestrian involved still predominate but the proportion of other types is smaller than for conflicts, basically because not all accidents of type pedestrian-cyclist are reported, whereas most pedestrian-motorized vehicle or cyclist-motorized vehicle accidents are. Injuries of cyclist-pedestrian accidents are less severe and it is not necessary to report them as it is in the other cases. Although accidents of type cyclist-pedestrian are located on the sidewalk and on the cycle path, the origin of all accidents is the cycle path.

The pattern followed in most accidents and conflicts is the same. Involved users are a pedestrian and a cyclist, with a move of the cyclist or both of them to avoid a collision. It usually happens on the cycle path.

### Valuation of safety

Results and posterior analysis of conflict studies, behavior studies, questionnaires and police reports give rise to the valuation of Lilla Fiskaregatan about safety. This street has to fulfill the requirements of a pedestrian zone, guarantying mainly the well-being of pedestrians. Although other users (cyclists, goods vehicles...) also must be considered it is necessary to take special interest of the most vulnerable street users (pedestrians), specially disabled and old people. This is the premise to start to discuss the need to take steps in order to improve the traffic environment and the safety in this street.

There is a positive valuation of safety in Lilla Fiskaregatan. Although there is a previous negative opinion regarding the complex environment of this street, specially from user opinions about safety, the global valuation of all studies doesn't give reasons to think in this way.

Regarding accident results, there are not many (7 in 3 years) and most of them without injuries, only two were reported in the hospital and one of them needed an ambulance. As it is mentioned before, the main kind of accident in this street is between cyclist and pedestrians, speeds are low so injuries are not severe. It is possible there are more accidents not reported since year 2000, but their low severity grade gives a good opinion about safety.

The conflict study also shows a positive valuation. There are not many conflicts registered in the 13 hour recordings. In addition the severity of most of them is not serious or in the border to be serious. Only one was serious and it happened in the crossing with Kyrkogatan.

Results from questionnaires give rise to paradoxical situations. At first there is a good opinion about personal safety in Lilla Fiskaregatan; more than 75% of inquired people feel always or often safe in the street. Opinion changes regarding about a global safety in the street, although people can feel safe in person in the street the complex traffic environment gives the feeling it is an unsafe street.

Logically young people, most of users of this street, don't feel unsafe and there could be a discussion about the need to take steps. But, first of all the priority are pedestrians and vulnerable people. As can be observed in test results, safety satisfaction of users decreases as users are older. In addition it could be interesting to know whether the reason elderly don't choose this street for their trips is because they don't feel safe in Lilla Fiskaregatan. This is an important aspect, the main aim is the well being of pedestrians and specially elderly and

disabled people. Although the global opinion is positive it is clear Lilla Fiskaregatan don't fulfill the requirements of older people.

Opinions about safety are different between users of both transport means (pedestrians and cyclists). Pedestrian valuation of safety is more negative than cyclists' valuation, which also is paradoxical; behaviour and conflict studies show the main guilty of the conflictive environment are pedestrians. Their behaviour of inattention contradict their higher preoccupation about safety, on the other hand although cyclists feel more safe than pedestrians they pay more attention to the rest of users. One of the reasons that can explain this paradoxical situation is that cyclist users basically are young people while pedestrian users include more older people. Anyway the proportion of elder in the enquired people is low, so although in the pedestrian category there are more elder their proportion is still low (under 40%), so the unsafe feeling and the posterior behaviour of pedestrians is incomprehensible.

As was mentioned before, although results show a positive valuation of safety, it is clear that there is a complex environment and it is basically due to the disrespect of user zones. Recordings and field observation show that pedestrians don't respect cycles paths and go by the wrong zone along the street in most of the cases. Although in questionnaire results there is no a big difference between cyclist and pedestrian regarding respecting zones, records show pedestrians are cause of conflicts because of their inattention in many cases. It is because pedestrians are not in continuous attention to traffic environment walking in their own thoughts, this is more often in a commercial street where people are watching shop windows from one side of the street to other side or just talking. Most of registered conflicts and reported accidents have the same origin, the wrong behaviour of pedestrians on the cycle path.

It also can be appreciated in the questionnaire results that young people, who feel safer than elderly, affirm they don't respect each zone in the street while older people respect mainly them. The signing of Lilla Fiskaregatan doesn't help users to remember in that street there is a cohabitation of cyclists and pedestrian: There are few signs on the pavement about the presence of a cycle path and the design is really esthetical but confusing and pedestrians several times have not noticed the existence of this.

#### Valuation of comfort.

In relation to comfort the valuation is positive. It is necessary with a balance between safety and comfort. A street with a lot of means to get a safe road can mean an uncomfortable street especially for pedestrians. Kerbs, edges and other urban elements help respect zones or each kind of user but for pedestrians in many cases they are elements who can decrease comfort. In a commercial and pedestrian street it is necessary to take care about it, so the good configuration of the street has to answer this request.

Actual layout with the sidewalk and the cycle path in the same level is comfortable for pedestrians and also for cyclists, both zones are differenced by pavements. This design is in order so that users can distinguish sidewalks and the cycle path and respect them. But as it is observed in conflict and behaviour studies it is not successful. In the questionnaires on one hand more of 50% of enquired people affirm they respect both zones in Lilla Fiskaregatan but on the other hand their opinion about user respect of the zones is really negative. So, it can be



that is an unconscious behaviour of pedestrians regarding respect both zones and it is necessary to take means to solve it.

#### Valuation of the layout in Lilla Fiskaregatan

Actual configuration is supported by high proportion of enquired people, questionnaire results show about 60% of the people want a pedestrian street with cycle path. Older people (more than 45 years old) prefer a street restricted for cyclists but they only represent 15% of enquired people. It arrives at the same point as before, in recordings the presence of older people is low, without knowing whether the reason of this situation is just their uncomfortably and unsafe feeling in Lilla Fiskaregatan or not. Therefore there is no clear necessity to change the configuration.

Alternative to restrict bikes in the street depends to a great extent in surrounding conditions. Lilla Fiskaregatan links two main streets, in case of restricting cycles it is necessary to find a safe alternative route for them. Parallell streets have a complex traffic, Klostergatan has one directed motorized street and is not wide in order to install a cycle path in both directions. Anyway this configuration is rejected from most of enquired people and store owners.

## 6. Conclusion

The conclusion of the results is that show Lilla Fiskaregatan is not a problematic street regarding safety. Accident and conflict studies give rise to a positive valuation of the street. There is a low number of critical situations and accidents and they are not serious either. User opinions from questionnaires about safety are also positive although the valuation of elderly people is not so positive.

In spite of this results, it is undeniable that there is a complex traffic environment in Lilla Fiskaregatan - not the right one for a commercial and pedestrian street. The behaviour study shows that the main guilt of this situation is the disrespect of users' zones and it provokes a complex environment. Pedestrians are main responsible of this, in the behaviour study it is registered that about 20% of pedestrians occupy the cycle path, in rush hours as well as in moments of low flow of users. By the questionnaires it is also shown that, enquired user opinion regarding respecting zones is negative.

Although the actual configuration of Lilla Fiskaregatan is the desired from most of enquired users it is necessary to take steps to improve the cohabitation between cyclist and pedestrians. On one hand there is a dissatisfaction with bikes from elderly people and their unsafe feeling give rise to ask if Lilla Fiskaregatan should not be allowed for cyclists, but on the other hand cyclists have a low responsibility of the actual situation, they use to respect both zones of the street.

The layout for Lilla Fiskaregatan must be the actual one, that is cohabitation of cyclists and pedestrians in separating zones. It is the design desired for users although there could be some measures to improve this situation of not respecting zones from part of pedestrians. These measures must be efficient and furthermore they must not compromise the comfort of the street.

Some measures that can be taken are the following ones:

- To widen sidewalks, especially the sidewalk of the south side. In order to do that it would be necessary to move the cycle path to the other side and also to reduce its section (til 1.8 meters). In this way zones for pedestrians are increased and with a more narrow cycle path bike users are likely to decrease their speed.
- To modify and to lower the cycle path pavement. These measures are tricky because it decrease the comfort of pedestrians and cyclists to lower the pavement respect the sidewalks, and a colored pavement it is not esthetic in this street. If one chosse to lower the border must be soft and the union with sidewalks not abrusque. Regarding the pavement, it is with paving stones today, which is not the best kind of pavement for a cycle path. Anyway it is not

necessary to change it but it is to find a good combination of both pavements (cycle path and sidewalks) in a way users can appreciate the different zones easily.

- It is also necessary to improve the signing of the street. Actual signs on the pavements are confusing, they must be clear and also vertical signs must be installed.

## 7. References

### Printed references

Almquist & Nilsson; Fotgängare och cyklister på Gågatan i Lund. Department of traffic planning and engineering, Lund University, Lund, Sweden. 1996.

Brandt M; Priority for the bike: Investigation how to improve the bicycle infrastructure in Östra Torn, Mårtens Falad and Linero. 1997.

C.R.O.W.; Sign up for the bike: Design manual for a cycle-friendly infrastructure. C.R.O.W. 1993.

Hydén C; The development of a method for traffic safety evaluation: The Swedish Traffic Conflict Technique. Department of traffic planning and engineering, Lund University, Lund, Sweden. 1987.

Lunds Kommun; Cykeltrafikmängder Lund 2002. Lunds Kommun. 2002.

Svensson Å; A method for analyzing the traffic process in a safety perspective. Department of traffic planning and engineering, Lund university, Lund, Sweden. 1998.

WALCYNG; Short trips in European countries. Institute of Transport Economics, Oslo. 1996.

### Electronic references

Basozabal

[http://web.bizkaia.net/herri\\_lanak/Bizikletak/pdf/BICIS\\_CAS/BICIS\\_RUTAS\\_cast.pdf](http://web.bizkaia.net/herri_lanak/Bizikletak/pdf/BICIS_CAS/BICIS_RUTAS_cast.pdf)

European Cyclists' Federation (ECF)

<http://www.ecf.com/publications/Download/urbangb.doc>

Hyden

<http://www.tft.lth.se/rappporter/Conflict1.pdf>

IBF

<http://www.ibike.org/statistics.htm>

Institute für Landes. Leda

<http://www.ils.nrw.de/netz/leda/database/measures/meas0406.htm>

<http://www.ils.nrw.de/netz/leda/database/cities/city0083.htm>

Lunds Kommun  
<http://www.Lund.se>

LundaMaTs system  
<http://media.lund.se/lkom/LKOM-7B0A58B4-450E-11D5-95EA-0000F806B177/LuMatseng.pdf>

Sustrans  
[http://www.sustrans.org.uk/downloads/989A79\\_ff04.pdf](http://www.sustrans.org.uk/downloads/989A79_ff04.pdf)

**Oral references**

Edman, David; Traffic engineer. Road department. Municipality of Lund.

## **Appendices**

<b>Appendix I</b>	Conflict recording sheet.
<b>Appendix II</b>	Registration sheet of behaviour study.
<b>Appendix III</b>	User questionnaire form.
<b>Appendix IV</b>	Opinion of users about conflictive points in Lilla Fiskaregatan.
<b>Appendix V</b>	Questionnaire form for owner and worker stores.
<b>Appendix VI</b>	Police reports.
<b>Appendix VII</b>	Hospital reports.
<b>Appendix VIII</b>	Conflict study information.
<b>Appendix IX</b>	Results of behaviour observations.
<b>Appendix X</b>	Questionnaire results.

# Appendix I Conflict recording sheet.



DEPARTMENT OF TRAFFIC PLANNING AND ENGINEERING  
LUND INSTITUTE OF TECHNOLOGY  
LUND UNIVERSITY

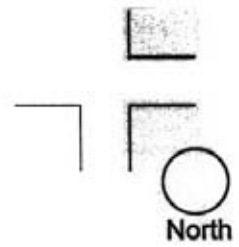
## Conflict recording sheet

Observer: \_\_\_\_\_ Date \_\_\_\_\_ Time: \_\_\_\_\_ Number: \_\_\_\_\_

City: \_\_\_\_\_



Intersection: \_\_\_\_\_

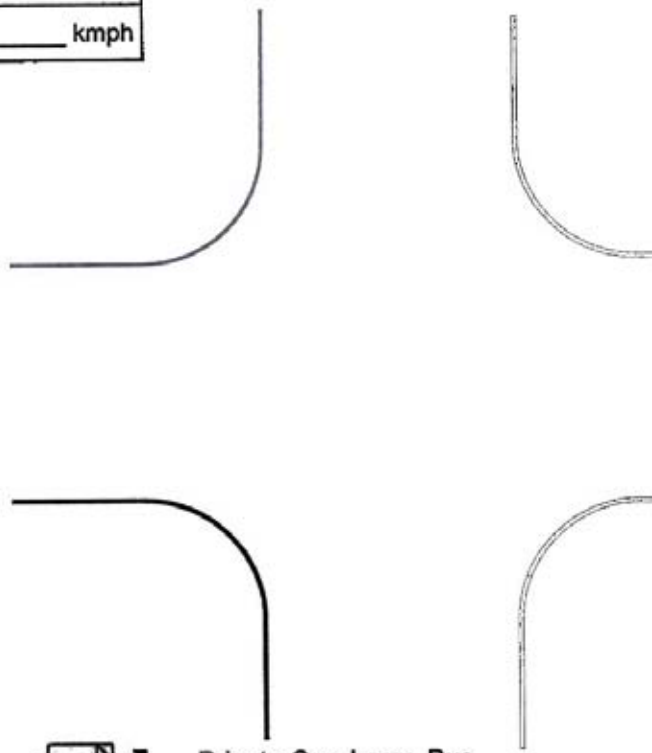
Weather: Sunny  Cloudy  Rain   
 Surface: Dry  Wet   
 Time interval



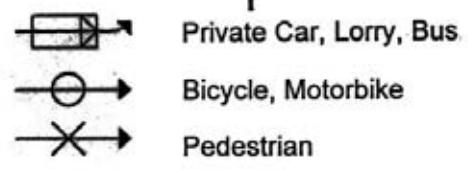
	Road-user I	Road-user II	Secondary involved III
Private car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	_____	_____	_____
Sex (ped.)	M <input type="checkbox"/> F <input type="checkbox"/>	M <input type="checkbox"/> F <input type="checkbox"/>	M <input type="checkbox"/> F <input type="checkbox"/>
Age (ped.)	_____	_____	_____
Speed	_____ kmph	_____ kmph	_____ kmph
Distance to coll. point	_____ mtrs	_____ mtrs	
TA value	_____ sec	_____ sec	
<b>Avoiding action</b>			
Braking	<input type="checkbox"/>	<input type="checkbox"/>	
Swerving	<input type="checkbox"/>	<input type="checkbox"/>	
Acceleration	<input type="checkbox"/>	<input type="checkbox"/>	
Possibility to swerve	yes <input type="checkbox"/> no <input type="checkbox"/>	yes <input type="checkbox"/> no <input type="checkbox"/>	
		yes <input type="checkbox"/> no <input type="checkbox"/>	

Sketch including the positions of the road-users involved.

Please mark your own position with.   
 If video is used mark the position of the camera with 



Description of the causes of event:



Continued on the other side:  =>

# Appendix II Registration sheet of behaviour study.

## Registration sheet of behaviour study

Recording	<input type="text"/>	Day	<input type="text"/>
Tape	<input type="text"/>	Hour	<input type="text"/>

	Period 1	Period 2
Pedestrian flow (ped/5min)	<input type="text"/>	<input type="text"/>
Cyclist flow (cycl/5min)	<input type="text"/>	<input type="text"/>

Single persons walking on the cycle path

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Total number:

Group of people walking on the cycle path

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Total number:

Persons walking with bike on the cycle path

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Persons walking with bike on sidewalk

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Case of people standing on the cycle path

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Cyclists on the sidewalk

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Cyclists occupying pedestrian zones in a turn

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Presence of motorised vehicles

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

Cycles parked in an incorrect place

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Total number:

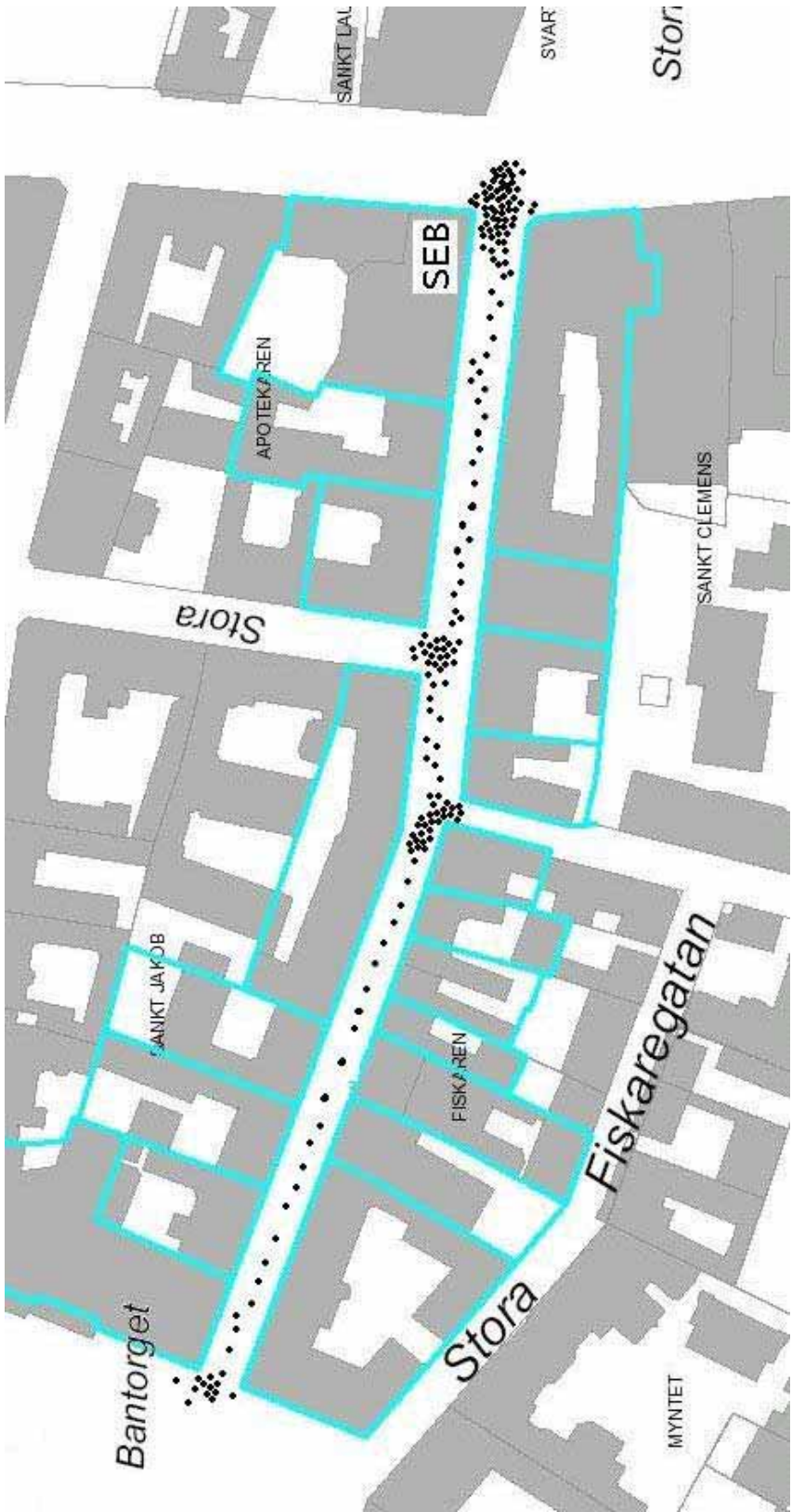


## Appendix III User questionnaire form.

### Valuation of pedestrian and cyclists about traffic in Lilla Fiskaregatan and its intersections with other streets.

<p>Do you feel safe in this street?</p> <p><input type="checkbox"/> Always                      <input type="checkbox"/> Often                      <input type="checkbox"/> Sometimes                      <input type="checkbox"/> Never</p> <p>Do you think it is a safe street?</p> <p><input type="checkbox"/> Always                      <input type="checkbox"/> Often                      <input type="checkbox"/> Sometimes                      <input type="checkbox"/> Never</p> <p>Do you feel comfortable in this street?</p> <p><input type="checkbox"/> Always                      <input type="checkbox"/> Often                      <input type="checkbox"/> Sometimes                      <input type="checkbox"/> Never</p>
<p>Have you been involved in any accident ( collision ) in this street ( Lilla Fiskaregatan )?</p> <p><input type="checkbox"/> Never                      <input type="checkbox"/> One                      <input type="checkbox"/> More than one ____</p> <p>Have you been witness of any accident ( collision ) in this street ( Lilla Fiskaregatan)?</p> <p><input type="checkbox"/> Never                      <input type="checkbox"/> One                      <input type="checkbox"/> More than one ____</p>
<p>Do you respect the zones of this street for each kind of user?</p> <p><input type="checkbox"/> Always                      <input type="checkbox"/> Often                      <input type="checkbox"/> Sometimes                      <input type="checkbox"/> Never</p> <p>Do you consider users respect zones for each transport mode?</p> <p><input type="checkbox"/> Always                      <input type="checkbox"/> Often                      <input type="checkbox"/> Sometimes                      <input type="checkbox"/> Never</p>
<p>How many times are you going by this street a week?</p> <p><input type="checkbox"/> less than 1                      <input type="checkbox"/> 1-2                      <input type="checkbox"/> 3-5                      <input type="checkbox"/> 5-7                      <input type="checkbox"/> + 7</p> <p>Which kind of mode do you use habitually in this street?</p> <p><input type="checkbox"/> Mostly by bike                      <input type="checkbox"/> Mostly walking                      <input type="checkbox"/> Both</p> <p>Which kind of trip are you doing at this moment?</p> <p><input type="checkbox"/> Work                      <input type="checkbox"/> Pleasure                      <input type="checkbox"/> Study                      <input type="checkbox"/> Shopping</p> <p>Which kind of trip do you use to do in this street habitually?</p> <p><input type="checkbox"/> Work                      <input type="checkbox"/> Pleasure                      <input type="checkbox"/> Study                      <input type="checkbox"/> Shopping</p> <p>Why you chose this street for this trip?</p> <p><input type="checkbox"/> It's the shortest one                      <input type="checkbox"/> It's the quietest one                      <input type="checkbox"/> It's the safest one                      <input type="checkbox"/> It's the fastest one</p> <p><input type="checkbox"/> I have errands here                      <input type="checkbox"/> I live here                      <input type="checkbox"/> It's part of my route</p>
<p>How do you like to have this street?</p> <p><input type="checkbox"/> Common street for pedestrians and cyclists</p> <p><input type="checkbox"/> With paths for each kind of user (actual design)</p> <p><input type="checkbox"/> Restricted cycling</p> <p>Other changes _____</p>
<p>Sex    <input type="checkbox"/> Male    <input type="checkbox"/> Female    Age    <input type="checkbox"/> &lt;18    <input type="checkbox"/> 18-30    <input type="checkbox"/> 30-45    <input type="checkbox"/> 45-65    <input type="checkbox"/> &gt;65</p>

**Appendix IV** Opinion of enquired users about conflictive points in Lilla Fiskaregatan.



## Appendix V Questionnaire form for owner and worker stores.

### Valuation of owner and worker stores about traffic in Lilla Fiskaregatan and its intersections with other streets.

Shop/Business:

Roll:

- Owner of the shop
- Employed
- Other



Do you think it is a safe street?

- Always
- Often
- Sometimes
- Never

Do you think users feel comfortable in this street?

- Always
- Often
- Sometimes
- Never

Do you consider users respect zones for each transport mode?

- Always
- Often
- Sometimes
- Never

Do you consider this street (pedestrian + cyclists) has a good environmental like a commercial street?

- Yes
- Neutral
- No

Do you consider the actual design (with cycle paths and pedestrian zones) helps people going shopping in Lilla Fiskaregatan?

- Yes, is the best one.
- Yes, but whit modifications
- No, bikes shouldn't be allowed

How do you like to have this street?

- Common street for pedestrians and cyclists
- With paths for each kind of user ( actual design )
- Restricted cycling

Other observations:

# Appendix VI Police reports. Report 1

51 Polismyndighet, arbetsenhet, telefon

## INFORMATIONSUUNDERLAG Vägfrikolycka

52 Polisens diarienummer  
TMS242700

A

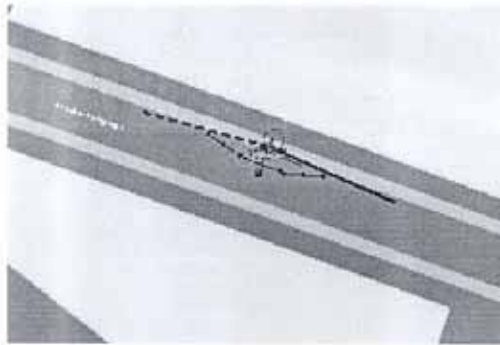
53 Polismynd.kod 12810004	54 Kommun 1281	55 Tidpunkt År Mån Dag Kl för olyckan 2000-09-07 12:10	Väghälsarkod
------------------------------	-------------------	---	--------------

56 Olycksplats (ange gatu-/vägnamn/vägnr, ev husnr samt avstånd till närmaste korsning mellan allmänna vägar)

Lilla Fiskaregatan -

Namn på stadsdel/kommundel/ort el dyl

57 Skiss, på vilken anges gatu- och vägnamn, vägbredd, åtföljd av bostav A resp B enl. avsnitt B nedan. Vid inritat fordon anges fordonstyp (pb, in, etc) registreringsnumret samt ett trafikelement - (vägfrikant-) nummer 1, 2, 3 osv, vilket nr skall vara identiskt med det nr vederbörande väg- trafikant åsatts i trafikmålsanteckningar (RPS 411.20)



58 Kortfattad beskrivning av händelseförloppet, siktförhållande m.m.

Cyklist på cykel/gångväg väjde höger in på uteservering och kolliderade med personal på väg från butiken till serveringen. Båda föll på sittande caféstol.

### B Väg- och trafik

### C Väderlek, väglag, belysning

59 Vägnummer	Väg A Väg B		Trafikanvisningar *)		Väg A Väg B		65 Väderleksförhållanden			67 Trafikmätje		
				Huvudled 1				Upphållsväder 1	X		Tättbebyggt område 1	
			Ej huvudled 2	X			Dis/dimma 2			Ej tätbebyggt område 2		
60 Högsta tillåtna hastighet	30		63 Trafikreglering *)				Regn 3			68 Ljustörhållande		
			Förb mot v-sväng 1				Snöblandat regn 4			Dagsljus 1		X
			Stopplik 2				Snöfall 5			Mörker 2		
61 Vägtyp			Väjningsplikt 3				66 Väglag			Gryning/skyning 3		
Motorväg 1							Vägbanan torr 1	X		Om 68:2 eller 3 förkryssats		
Motorvägfärd 2			64 Trafiksignal *)				Vägbanan våt/fuktig 2			69 Gatu-/vägbelysning		
Annan allm väg 3			I funktion 1				Tjock is/packad snö 3			Tänd 1		
Gata 4			Ur funktion 2				Tunn is (vägb synlig) 4			Släckt 2	X	
Enskild väg 5			Gult blinkande 3				Lös snö/snöomödd 5			Saknas 3		
Övr väg, torg etc 6	X		Saknas 4	X								

### D Trafikelement

### E Inblandade personer

70 Trafikelement					71 Personnummer			72 Trafikant			73 Personskada			
Nr	Trafikelement (i.ex. pb, lätt/tung lb, lätt/tung mc, cykel, glände enl 4 i VTK, vilt/djur)	Registreringsnr. (anges för motor- och släpfordon). För utländskt fordon, nationalitet	Totalt antal pers i fordonet	Övningskörning **)		Obligatoriskt för förare och instruktör samt dödade och skadade personer	Förars el. elev som kör Ange F/E	Passagerare/ instruktör Ange J/N			Död	Svårt skadad	Lindrigt skadad	74 Misstänkt påverkad av alkohol/annat ämne (förare) Ange J/N
				Trafikskola	Privat			Fram	Bak	Övrigt				
	Cykel (inkl. barncykel)		1			1	17-M	F						N
	Glände		1			2	38-K	F					X	
	Glände		1			3	67-K	F					X	

Fordon skyltat för transport av farligt gods inblandat. Ange elementnr:

Ort och datum	75 Undersökningsledarens beslut	Beslutsdatum
Uppgiftslämnare	<input type="checkbox"/> FU inledd ej <input type="checkbox"/> Ej spåringsresultat <input type="checkbox"/> Brott kan ej styrkas <input type="checkbox"/> Misstänkt oskyldig <input type="checkbox"/> Gärning ej brott	<input type="checkbox"/> FU neklagd <input type="checkbox"/> Misstänkt ej fyllt 15 år <input type="checkbox"/> Misstänkt avleden <input type="checkbox"/> Rapportefärdig
50 Statistiska uppgifter till SCB Lokalt vägmyndhet	Datum och sign	Undersökningsledarens

\*) Kontrollers

\*\*) Med övningskörning avses enbart de fall då eleven framfört fordonet, alltså ej instruktören kört.

# Report 2

51 Polismyndighet, arbetsenhet, telefon

## INFORMATIONSUUNDERLAG

52 Polisens diarienummer

A

### Vägtrafikolycka

TMS93001

53 Polismynd.kod 12810004	54 Kommun 1281	55 Tidpunkt År Mån Dag Kl för olyckan 2001-02-27 10:30	Väghållarkod
56 Olycksplats (ange gatu-/vägnamn/vägnr, ev husnr samt avstånd till närmaste korsning mellan allmänna vägar)			
Lilla Fiskaregatan -			
Namn på stadsdel/kommundel/ort el dyl			
57 Skiss, på vilken anges gatu- och vägnamn, vägbredd, åtföljd av bostav A resp B enl. avsnitt B nedan. Vid inritat fordon anges fordonslag (pb, lb, etc) registreringsnumret samt ett trafikelement - (vägtrafikant-) nummer 1, 2, 3 osv, vilket nr skall vara identiskt med det nr vederbörande väg- trafikant åsatts i trafikmålsanteckningar (RPS 411.20)			
58 Kortfattad beskrivning av händelseförloppet, siktförhållande m.m.			
Trel cyklade på trel 2 som föll.			

### B Väg- och trafik

### C Väderlek, väglag, belysning

59 Vägnummer	Väg A	Väg B	Trafikanvisningar *)	Väg A	Väg B	65 Väderteckningshållanden	67 Trafikmåtpå	
			Huvudled 1			Uppehållsväder 1 <input checked="" type="checkbox"/>	Tätbebyggt område 1 <input checked="" type="checkbox"/>	
			Ej huvudled 2 <input checked="" type="checkbox"/>			Dis/dimma 2	Ej tätbebyggt område 2	
60 Högsta tillåtna hastighet	50		65 Trafikreglering *)			Regn 3	68 Ljusförhållanden	
			Förb mot v-sväng 1			Snöblandat regn 4	Dagsljus 1 <input checked="" type="checkbox"/>	
61 Vägtyp			Stopplik 2			Snöfall 5	Mörker 2	
Motorväg			Väjningsplikt 3			66 Väglag	Gryning/skymning 3	
Motortrafikled			64 Trafiksignal *)			Vägbanan tor 1 <input checked="" type="checkbox"/>	Om 68:2 eller 3 förkrymsats	
Annan allm väg			I funktion 1			Vägbanan våt/fuktig 2	69 Gatu-/vägbelysning	
Gata		<input checked="" type="checkbox"/>	Ur funktion 2			Tjock is/packad snö 3	Tänd 1	
Enskild väg			Gult blinkande 3			Tunn is (vägb synlig) 4	Släckt 2 <input checked="" type="checkbox"/>	
Övr väg, torg etc			Saknas 4	<input checked="" type="checkbox"/>		Lös snö/snömodd 5	Saknas 3	
							Väg A	Väg B

### D Trafikelement

### E Inblandade personer

70 Trafikelement				71 Personnummer				72 TRAFIKANT				73 Personskada			
Nr	Trafikelement (L.es. pb, lätt/hung lb, lätt/hung mc, cykel, glände enl 4 § VTK, vilt/djur)	Registreringsnr. (anges för motor- och släpfordon). För utländskt fordon, nationalitet	Totalt antal pers i fordonet	Övningskörning **)		Obligatoriskt för förare och instruktör samt dödade och skadade personer		Förare el. elev som kör	Passagerare/ instruktör			Död	Svårt skadad	Lindrigt skadad	74 Misstänkt påverkad av alkohol/annat ämne (förare)
				TRAFIKSKOLA	PRIVAT	Ange I/N		Ange F/E	Fram	Bak	OKBilt eller övrigt				Ange I/N
1	Cykel (inkl. barncykel)		1					F							N
2	Glände		1					F					X		

Fordon skyltat för transport av farligt gods inblandat. Ange elementnr:

Ort och datum	75 Undersökningsledarens beslut	Beslutsdatum
	<input type="checkbox"/> FU inleds ej	<input type="checkbox"/> FU nedlagd
	<input type="checkbox"/> Ej spöningsresultat	<input type="checkbox"/> Misstänkt ej fyllt 15 år
	<input type="checkbox"/> Brot kan ej styrkas	<input type="checkbox"/> Misstänkt avliden
	<input type="checkbox"/> Misstänkt oskyldig	<input type="checkbox"/> Rapportertgift
	<input type="checkbox"/> Gärning ej brott	
50 Statistiska uppgifter till	Datum och sign	Undersökningsledarens namnteckning/sign
<input type="checkbox"/> SCB <input type="checkbox"/> Lokal väg-mynd.het		

\*) Kontrolleras

\*\*) Med övningskörning avses enbart de fall då eleven framfört fordonet, alltså ej instruktören kört.

# Report 3

51 Polismyndighet, arbetsenhet, telefon <b>A</b>		<b>INFORMATIONSUUNDERLAG</b>			52 Polisens diarienummer <b>TMS317001</b>	
<b>Vägtrafikolycka</b>						
53 Polismynd.kod 12810004	54 Kommun 1281	55 Tidpunkt År Mån Dag Kl för olyckan 2001-10-12 10:40	Väghållarkod			
56 Olycksplats (ange gatu-/vägnamn/vägar, ev busnr samt avstånd till närmaste korsning mellan allmänna vägar)						
Lilla Fiskaregatan - Namn på stadsdel/kommundel/ort el dyl						
57 Skiss, på vilken anges gatu- och vägnamn, vägbredd, åtföljd av bostav A resp B enl. avsnitt B nedan. Vid inritat fordon anges fordonslag (pb, lb, etc) registreringsnumret samt ett trafikelement - (vägtrafikant-) nummer 1, 2, 3 osv, vilket nr skall vara identiskt med det nr vederbörande väg- trafikant åsatts i trafikmålsanteckningar (RPS 411.20)						
58 Kortfattad beskrivning av händelseförloppet, siktförhållande m.m.						
Te 1 kom cyklande på Fiskaregatan i riktning mot centrum. Te 1 mötte där te 2 som kom glände och precis när te 1 skulle passera te 2 svängde de av mot ett skyltfönster och te 2 kolliderade med te 1.						

## B Väg- och trafik

## C Väderlek, väglag, belysning

59 Vägnummer	Väg A Väg B		Trafikanvisningar *)		Väg A Väg B		65 Väderleksförhållanden		67 Trafikinlägg	
				Huvudled 1				Upphållsväder 1	X	Tättbebyggt område 1
			Ej huvudled 2	X			Dis/dimma 2		Ej tätbebyggt område 2	
60 Högst tillåtna hastighet	50		65 Trafikreglering *)				Regn 3	68 Ljusförhållanden		
			Förh mot v-sväng 1				Snöblandat regn 4		Dagsljus 1	X
61 Vägtyp			Stopplikt 2				Snöfall 5		Mörker 2	
Motorväg 1			Vägningsplikt 3				66 Väglag		Gryning/skymning 3	
Motorvägfärd 2			64 Trafiksignal *)				Väghanan torr 1	X	Om 68:2 eller 3 förkryssats	
Annan allm väg 3			I funktion 1				Väghanan våt/fluktig 2		69 Gatu-/vägbelysning	
Gata 4	X		U-funktion 2				Tjock is/packad snö 3		Tänd 1	Väg A Väg B
Enskild väg 5			Gult blinkande 3				Tunn is (vägb synlig) 4		Släckt 2	X
Övr väg, togt etc 6			Saknas 4				Lös snö/snömodd 5		Saknas 3	

## D Trafikelement

## E Inblandade personer

70 Trafikelement				71 Personnummer				72 Trafikant			73 Personkarta			
Nr	Trafikelement (t.ex. pb, lätt/hung lb, lätt/hung mc, cykel, glände enl 4 § VTK, vilt/djur)	Registreringsnr. (anges för motor- och släpfordon). För utländskt fordon, nationalitet	Totalt antal pers i fordonet	Övningskörning **)		Obligatoriskt för förare och instruktör samt dödade och skadade personer	Förare el. elev som kör Ange F/E	Passagerare/ instruktör Ange J/N			DSD	Svårt skadad	Lindrigt skadad	74 Misstänkt påverkad av alkohol/annat ämne (förare) Ange J/N
				Trafikskola	Privat			Platt	Bak	Ökamt eller övrigt				
1	Cykel (inkl. barncykel)		1			1	65-M	F					X	N
2	Glände		1			2	22-M	F						

Fordon skyltat för transport av farligt gods inblandat. Ange elementnr.

Ort och datum		75 Undersökningsledarens beslut				Beslutsdatum	
Uppgiftslämnare		<input type="checkbox"/> FU inleds ej	<input type="checkbox"/> FU nedlagd		Undersökningsledarens namnteckning/sign		
		<input type="checkbox"/> Ej spåringsresultat	<input type="checkbox"/> Misstänkt ej fyllt 15 år				
50 Statistiska uppgifter till		Datum och sign		<input type="checkbox"/> Misstänkt avliden			
		Lokal vägmynd.het		<input type="checkbox"/> Rapporteftergift			
<input type="checkbox"/> SCB	<input type="checkbox"/>	<input type="checkbox"/> Gärning ej brott		<input type="checkbox"/>			

\*) Kontrolleras

\*\*) Med övningskörning avses enbart de fall då eleven framfört fordonet, alltså ej instruktören kört.

# Report 4

51 Polismyndighet, arbetsenhet, telefon

## INFORMATIONSUUNDERLAG

52 Polisens diarienummer

A

### Vägrafikolycka

TMS-00791/03

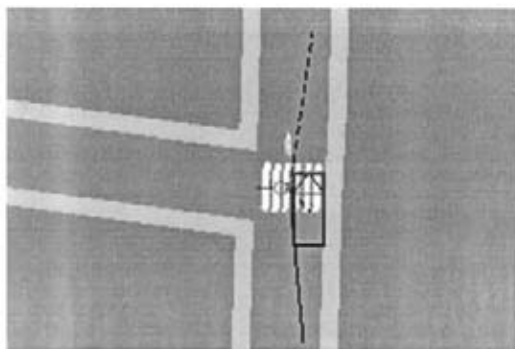
53 Polismynd.kod 12810004	54 Kommun 1281	55 Tidpunkt År Mån Dag Kl för olyckan 2003-03-19 11:55	Väghållarkod
------------------------------	-------------------	---	--------------

56 Olycksplats (ange gatu-/vägnamn/vägnr, ev husnr samt avstånd till närmaste korsning mellan allmänna vägar)

Kyrkogatan - Lilla Fiskaregatan

Namn på stadsdel/kommundel/ort el dyt

57 Skiss, på vilken anges gatu- och vägnamn, vägbredd, åtföljd av bostav A resp B enl. avsnitt B nedan. Vid inritat fordon anges fordonstyp (pb, lb, etc) registreringsnumret samt ett trafikelement - (vägrafikant-) nummer 1, 2, 3 osv, vilket nr skall vara identiskt med det nr vederbörande väg- trafikant åsatts i trafikmålsanteckningar (RPS 411.20)



58 Kortfattad beskrivning av händelseförloppet, siktförhållande m.m.

Lilla Fiskaregatan är en gågata. Trel 2 skulle korsa Kyrkogatan i västlig riktning på övergångsstället. När trel 2 kommit halvvägs ut på övergångsstället får han stanna pga av en buss som kommer norrifrån och som ej släpper över trel 2. När trel 2 då står stilla på övergångsstället kommer trel 1 söderifrån och kör förbi trel 2. När trel 1 passerar förbi trel 2 slår trel 1 backspegel emot trel 2 axel.

#### B Väg- och trafik

#### C Väderlek, väglag, belysning

59 Vägnummer	Väg A	Väg B	Trafikanvisningar *)		Väg A	Väg B	65 Väderlekatornattanden			67 Trafikmiljö		
			Huvudled	1			Upphållsväder	1	Tättbebyggt område	1	X	
			Ej huvudled	2			Dis/dimma	2		Ej tätbebyggt område	2	
60 Högsta tillåtna hastighet	30	9	65 Trafikreglering *)				Regn	3		68 Ljusförhållanden		
			Förb mot v-sväng	1			Snöblandat regn	4		Dagsljus	1	X
			Stopplikt	2			Snöfall	5		Mörker	2	
61 Vägtyp			64 Trafiksignal *)				66 Väglag			Gryning/skymning		
Motorväg	1		I funktion	1			Vägbanan torr	1		Om 68-2 eller 3 förkryssats		
Motorvägfärd	2		Ur funktion	2			Vägbanan våt/fuktig	2		69 Gatu-/vägbelysning		
Annan allm väg	3		Gult blinkande	3			Tjock is/packad snö	3		Tänd	1	
Gata	4	X	Saknas	4	X	X	Tunn is (vägb synlig)	4		Släckt	2	
Enskild väg	5						Lös snö/snöomdö	5		Saknas	3	X
Övr väg, torg etc	6	X										X

#### D Trafikelement

#### E Inblandade personer

70 Trafikelement				71 Personnummer		72 Trafikant				73 Personskada			
Nr	Trafikelement (t.ex. pb, lätt/tung lb, lätt/tung mc, cykel, gående enl 4 § VTK, vilt/djur)	Registreringsnr. (anges för motor- och släpfordon). För utländskt fordon, nationalitet	Totalt antal pers i fordonet	Övningskörning **)	Obligatoriskt för förare och instruktör samt dödade och skadade personer	Förare el. elev som kör Ange F/E	Passagerare/ instruktör Ange J/N	DM	SVR skadad	Lindrigt skadad	74 Misstänkt påverkad av alkohol/annat ämne (förare) Ange J/N		
1	Buss		1		1	999-O	F						
2	Gående		1		2	18-M	F			X			

Fordon skyltat för transport av farligt gods inblandat. Ange elementnr:

Ort och datum	75 Undersökningsledarens beslut	Beslutsdatum
Uppgiftalämnare	<input type="checkbox"/> FU inleds ej <input type="checkbox"/> FU nedlagd	
	<input type="checkbox"/> Ej spaningsresultat <input type="checkbox"/> Misstänkt ej fyllt 15 år	
	<input type="checkbox"/> Brott kan ej styrkas <input type="checkbox"/> Misstänkt avliden	Undersökningsledarens namnteckning/sign
50 Statistiska uppgifter till	<input type="checkbox"/> Misstänkt oskyldig <input type="checkbox"/> Rapporteftergift	
<input type="checkbox"/> SCB <input type="checkbox"/> Lokalt vägmynd./het	<input type="checkbox"/> Gärning ej brott	

\*) Kontrolleras

\*\*) Med övningskörning avses enbart de fall då eleven framfört fordonet, alltså ej instruktören kört.

# Report 5

51 Polismyndighet, arbetsenhet, telefon

## INFORMATIONSUUNDERLAG

52 Polisens diarienummer

A

### Vägtrafikolycka

TMS-02579/03

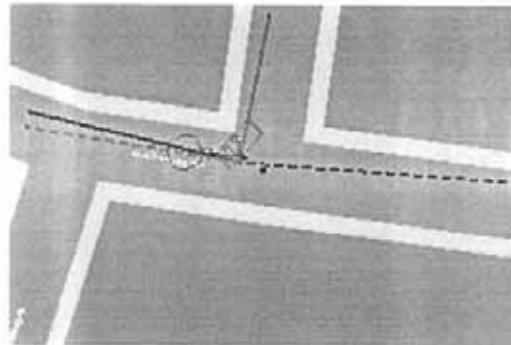
53 Polismynd.kod 12810004	54 Kommun 1281	55 Tidpunkt År Mån Dag Kl för olyckan 2003-09-20 23:30	Väghällarkod
------------------------------	-------------------	---	--------------

56 Olycksplats (ange gatu-/vägnamn/vägnr, ev husnr samt avstånd till närmaste korsning mellan allmänna vägar)

Lilla Fiskaregatan - Stora Gråbrödersgatan

Namn på stadsdel/kommundel/ort el dyl

57 Skiss, på vilken anges gatu- och vägnamn, vägbredd, åtföljd av bostav A resp B enl. avsnitt B nedan. Vid inritat fordon anges fordonsslag (pb, lb, etc) registreringsnumret samt ett trafikelement - (vägtrafikant-) nummer 1, 2, 3 osv, vilket nr skall vara identiskt med det nr vederbörande väg- trafikant åsatts i trafikmålsanteckningar (RPS 411.20)



58 Kortfattad beskrivning av händelseförloppet, siktförhållande m.m.

Korsningen Stora gråbrödersgatan - Lilla Fiskaregatan, Lund. Trel 2 kör av någon anledningen inne på gågatan Stora Fiskaregatan - Lilla Fiskaregatan. I samband med detta kör han över trel 1:s fot. Trel 2 avviker från platsen utan att identifiera sig.

### B Väg- och trafik

### C Väderlek, väglag, belysning

59 Vägnummer	Väg A	Väg B	Trafikanvisningar *)	Väg A	Väg B	65 Väderlekförhållanden	67 Trafikljus
			Huvudled 1			Uppehållsväder 1	Tättbebyggt område 1
			Ej huvudled 2	X	X	Dis/dimma 2	Ej tätbebyggt område 2
60 Högsta tillåtna hastighet	9	9	65 Trafikreglering *) Förb mot v-sväng 1			Regn 3	68 Ljusförhållanden Dagsljus 1
61 Väglag Motorväg 1			Stopplikt 2			Snöblandat regn 4	Mörker 2
Motortrafikled 2			Varningsplikt 3			Snöfall 5	Gryning/skyning 3
Annan allm väg 3			64 Trafiksignal *) I funktion 1			66 Väglag Vägbanan torr 1	Om 68:2 eller 3 förkryssats
Gata 4			Ur funktion 2			Vägbanan våt/fuktig 2	69 Gatu-/vägbelysning
Enskild väg 5			Gult blinkande 3			Tjock is/packad snö 3	Tänd 1
Övr väg, torg etc 6	X	X	Saknas 4	X	X	Tunn is (vägb synlig) 4	Släckt 2
						Lös snö/snömodd 5	Saknas 3

### D Trafikelement

### E Inblandade personer

70 Trafikelement				71 Personnummer			72 Trafikant			73 Personskada			
Nr	Trafikelement (t.ex. pb, lätt/tung lb, lätt/tung mc, cykel, gående enl 4 § VTK, vilt/djur)	Registreringar. (anges för motor- och släpfordon). För utländskt fordon, nationalitet	Totalt antal pers i fordonet	Ovningskörning **)	Utländskt	Skadade personer	Förare el. elev som kör	Passagerare/ instruktör	Ansvar	Ansvar	Ansvar	Ansvar	Ansvar
				Trafikskola	Privat		Anges I/N	Anges I/N	Ansvar	Ansvar	Ansvar	Ansvar	Ansvar
1	Gående		1			1	13-M	F					X
2	Personbil		1			2	999-O	F					N

Fordon skyltat för transport av farligt gods inblandat. Ange elementnr:

Ort och datum	75 Undersökningsledarens beslut	Beslutsdatum
Uppgiftslämnare	FU inledd ej	FU nedlagd
50 Statistiska uppgifter till SCB Lokalt vägmyndighet	Ej spaningsresultat	Misstänkt ej fyllt 15 år
Datum och sign	Brott kan ej styrkas	Misstänkt avliden
	Misstänkt oskyldig	Rapportförelägg
	Gärning ej brott	

\*) Kontrolleras

\*\*) Med övningskörning avses enbart de fall då eleven framfört fordonet, alltså ej instruktören kör.



# Appendix VII Hospital reports

## Report 6

### Trafikskadejournal



Personnummer <b>21-M</b> Namn Gatadress Postnummer Telefonnummer		Skador (markera i figuren med nedanstående förkortningar)			
Behandlad på <b>LUS</b> sjukhus/lasarett					
<input checked="" type="checkbox"/> Hem	<input type="checkbox"/> Obs avd			<input type="checkbox"/> DVA	<input type="checkbox"/> Avvek
<input type="checkbox"/> Inlagd på avdelning				Avd nr	
Olycksdatum <b>2000-08-07</b> Klockslag <b>13:00</b>	Ankomstdatum <b>2000-08-07</b> Klockslag <b>14:00</b>			Död p g a olyckan datum	
Inkom med ambulans <input type="checkbox"/> Ja <input checked="" type="checkbox"/> Nej	Polis på plats <input type="checkbox"/> Ja <input checked="" type="checkbox"/> Nej <input type="checkbox"/> Okänt				
Olyckan inträffade					
<input type="checkbox"/> i arbetet	<input type="checkbox"/> på väg till arbetet				
<input type="checkbox"/> i skolan	<input type="checkbox"/> på väg från arbetet				
<input type="checkbox"/> på fritiden	<input type="checkbox"/> på väg till skolan				
<input type="checkbox"/> på väg från skolan					
Olycksplats (anges noggrant, t ex med gatadress, korsande gator, närhet till känd plats, affär etc). <b>Lilla Fiskaregatan/ Södergatan i Lund.</b>					
Färdriktning <b>Ej angivet</b>		Plöverkan <input type="checkbox"/> Inget onormalt <input type="checkbox"/> Alkohol <input type="checkbox"/> Läkemedel <input type="checkbox"/> Narkotika			
Platstyp		Enskilt område			
<input type="checkbox"/> Korsning	<input type="checkbox"/> Park				
<input type="checkbox"/> Gatusträcka	<input type="checkbox"/> Gård				
<input type="checkbox"/> Cykelbana	<input type="checkbox"/> Lekplats				
<input type="checkbox"/> Gångbana	<input type="checkbox"/> Skolgård				
<input type="checkbox"/> Gång- o cykelbana					
<input checked="" type="checkbox"/> Annat					
Olycksorsak <b>Jag cyklade över ett farthindr, tappade balansen och föll.</b>		Patienten var själv			
		fotgängare <input checked="" type="checkbox"/> FÖRARE			
		cyklist			
		mopedist			
		på MC			
		i bil			
		i buss			
		i lastbil			
		i spårvagn			
		i van			
		i taxi			
		annat:			
		Placering <input checked="" type="checkbox"/> FÖRARE PASSAGERARE <input type="checkbox"/> Fram <input type="checkbox"/> Vä bak <input type="checkbox"/> Mitt bak <input type="checkbox"/> Hö bak <input type="checkbox"/> Bak UNS <input type="checkbox"/> Sitt <input type="checkbox"/> Stå <input type="checkbox"/> UNS			
		<input checked="" type="checkbox"/> Singelolycka Inblandad i kollision med (= motpart)			
		<input type="checkbox"/> fotgängare <input type="checkbox"/> cykel <input type="checkbox"/> moped <input type="checkbox"/> mc <input type="checkbox"/> personbil <input type="checkbox"/> buss <input type="checkbox"/> lastbil <input type="checkbox"/> spårvagn <input type="checkbox"/> van <input type="checkbox"/> taxi <input type="checkbox"/> tåg <input type="checkbox"/> vilt <input type="checkbox"/> annat			
Uppgifterna kommer att databearbetas och hanteras enligt sekretesslagen och Datainspektionens anvisningar		Skyddsutrustning <input type="checkbox"/> Ingen <input type="checkbox"/> Bilbälte <input type="checkbox"/> Airbag <input type="checkbox"/> Hjälme			
		<input type="checkbox"/> Mc-ställ <input type="checkbox"/> Barnstol/kudde <input type="checkbox"/> Bilbarnstol framåtvänd <input type="checkbox"/> Bilbarnstol bakåtvänd <input type="checkbox"/> annat:			
Ifyllt av					

# Report 7

## Trafikskadejournal



Personnummer <b>56-M</b> Namn Gatadress Postnummer Telefonnummer		Skador (markera i figuren med nedanstående förkortningar)	
Behandlad på <b>LUS</b> sjukhus/lasarett		<p>                     S = Sårskada                      K = Kontusion                      D = Sträckning                      D = Stukning                      F = Fraktur                      I = Inre organskada                      A = Annan skada                 </p>	
<input type="checkbox"/> Hem <input type="checkbox"/> Obs avd <input type="checkbox"/> DVA <input type="checkbox"/> Avvek <input checked="" type="checkbox"/> Inlagd på avdelning <b>Thorax I</b> Avd nr			
Olycksdatum <b>2003-10-18</b> Klockslag <b>12:30</b> Ankomstdatum <b>2003-10-19</b> Klockslag <b>11:00</b> Död p g a olyckan datum		* Fraktur 2-3 revben el mult på ett revben; u öppet sår i torax; m hämo-/pneumotorax * Sluten fraktur på nyckelbenet	
Inkom med ambulans <input type="checkbox"/> Ja <input checked="" type="checkbox"/> Nej Polis på plats <input type="checkbox"/> Ja <input checked="" type="checkbox"/> Nej <input type="checkbox"/> Okänt			
Olyckan inträffade <input type="checkbox"/> i arbetet <input type="checkbox"/> på väg till arbetet <input type="checkbox"/> i skolan <input type="checkbox"/> på väg från arbetet <input type="checkbox"/> på fritiden <input type="checkbox"/> på väg till skolan <input type="checkbox"/> på väg från skolan			
Olycksplats (anges noggrant, t ex med gatadress, korsande gator, närhet till känd plats, affär etc). <b>Lund, Stortorget.</b>			
Färdriktning <b>Ej angivet</b>		Påverkan <input type="checkbox"/> Inget onormalt <input type="checkbox"/> Alkohol <input type="checkbox"/> Läkemedel <input type="checkbox"/> Narkotika	
Platstyp <input type="checkbox"/> Korsning <input type="checkbox"/> Park <input type="checkbox"/> Gatustricka <input type="checkbox"/> Gård <input type="checkbox"/> Cykelbana <input type="checkbox"/> Lekplats <input type="checkbox"/> Gångbana <input type="checkbox"/> Skolgård <input checked="" type="checkbox"/> Annat		Singelolycka <input type="checkbox"/> Inblandad i kollision med (= motpart) <input checked="" type="checkbox"/> fotgängare <input type="checkbox"/> cykel <input type="checkbox"/> moped <input type="checkbox"/> mc <input type="checkbox"/> personbil <input type="checkbox"/> buss <input type="checkbox"/> lastbil <input type="checkbox"/> spårvagn <input type="checkbox"/> van <input type="checkbox"/> taxi <input type="checkbox"/> tåg <input type="checkbox"/> vilt <input type="checkbox"/> annat	
Olyckstyp <b>Fotgängare gick rakt ut i körbanan utan att se sig för. Jag hade ingen möjlighet att väja utan kollisionen var oundviklig och jag föll handlöst i vägbanan och skadade vänster sida.</b>		Patienten var själv <input type="checkbox"/> fotgängare <input checked="" type="checkbox"/> FÖRARE <input checked="" type="checkbox"/> cyklist <input type="checkbox"/> PASSAGERARE <input type="checkbox"/> mopedist <input type="checkbox"/> Fram <input type="checkbox"/> på MC <input type="checkbox"/> Vä bak <input type="checkbox"/> i bil <input type="checkbox"/> Mitt bak <input type="checkbox"/> i buss <input type="checkbox"/> Hö bak <input type="checkbox"/> i lastbil <input type="checkbox"/> Bak UNS <input type="checkbox"/> i spårvagn <input type="checkbox"/> Sitt <input type="checkbox"/> i van <input type="checkbox"/> Stå <input type="checkbox"/> i taxi <input type="checkbox"/> UNS <input type="checkbox"/> annat:	
Uppgifterna kommer att databearbetas och hanteras enligt sekretesslagen och Datainspektionens anvisningar		Skyddsutrustning <input type="checkbox"/> Ingen <input type="checkbox"/> Mc-ställ <input type="checkbox"/> Bilbälte <input type="checkbox"/> Barnstol/kudde <input type="checkbox"/> Airbag <input type="checkbox"/> Bilbarnstol framåtvänd <input type="checkbox"/> Hjälms <input type="checkbox"/> Bilbarnstol bakåtvänd <input type="checkbox"/> annat:	
		Ifyllt av	

## Appendix VIII Conflict study information.

Road user I	Road user II	Location	Description	Conflict level	Record point	Date	Time	Recording	
1	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Non serious	1	20-jan	16:01	1
2	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Border	1	20-jan	16:06	1
3	Bicycle	Pedestrian	Cycle path	Breaking of cyclist to avoid pedestrian	Border	1	20-jan	16:15	1
4	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and pedestrian to avoid a collision	Non serious	1	20-jan	16:30	1
5	Bicycle	Pedestrian	Cycle path	Breaking and swerving of cyclist to avoid pedestrian	Non serious	2	22-jan	12:14	4
6	Car	Pedestrian	Zebra cross	Breaking of car to avoid pedestrian	Serious	7	23-jan	12:40	6
7	Bicycle	Bicycle	Zebra cross	Swerving of cyclist to avoid anterior cyclist braking	Border	6	23-jan	16:11	7
8	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and pedestrian to avoid a collision	Non serious	4	04-feb	16:12	11
9	Bicycle	Pedestrian	Cycle path	Swerving of cyclist to avoid pedestrian	Non serious	4	04-feb	16:33	11
10	Bicycle	Bicycle	Cross	Breaking of cyclist to avoid other cyclist	Non serious	5	06-feb	16:23	12
11	Bicycle	Pedestrian	Cycle path	Swerving of cyclist and breaking of pedestrian	Non serious	4	07-feb	12:46	13

Table 1. Information about recorded conflicts

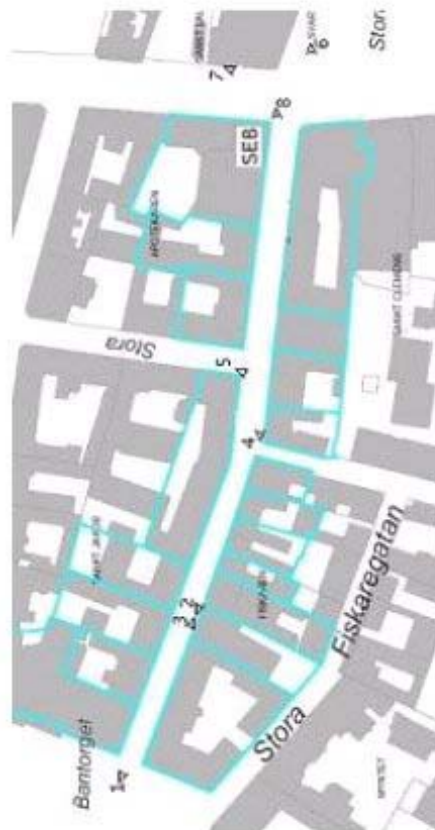


Figure 1. Location of shoots in studies.

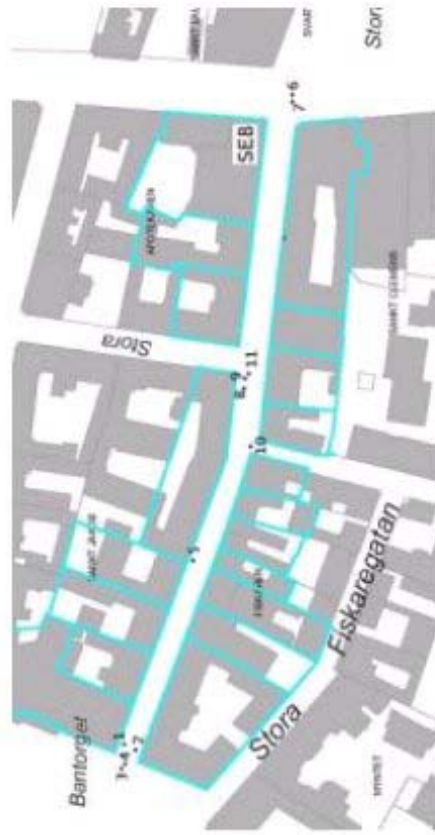


Figure 2. Location of conflicts.

## Appendix IX Results of behaviour observations.

	Tape 1			Tape 2
	Rec1	Rec2	Rec3	Rec4
	Point 1	Point 1	Point 2	Point 2
	Tue aft	Wed mor	Wed aft	Thur mor
Cyclists flow (cyclist/hour)	360	240	564	300
Pedestrian flow (pedestrian/hour)	960	720	900	1560
Single persons walking on the cycle path	50	24	65	66
Group of people walking on the cycle path	57	30	73	58
Equiv of group of people walking on the cycle path*	142,5	75	182,5	145
Persons walking with bike on the cycle path	2	5	8	8
Persons walking with bike on sidewalk	14	3	18	5
Case of people standing on the cycle path	11	4	2	2
Cyclists on the sidewalk	2	2	2	5
Cyclists occupying pedestrian zones in a turn	3	3		
Presence of motorised vehicles	1	5	1	2
Cycles parked in an incorrect place	1	1	1	2

	Tape 3				Tape 4		
	Rec7	Rec8	Rec9	Rec10	Rec11	Rec12	Rec13
	Point 6	Point 8	Point 3	Point 3	Point 4	Point 5	Point 4
	Frid aft	Sat mor	Mon mor	Mon aft	Wed aft	Fri aft	Sat mor
Cyclists flow (cyclist/hour)	684	462	252	312	372	372	480
Pedestrian flow (pedestrian/hour)	1956	3072	864	792	1068	1632	3000
Single persons walking on the cycle path	97	111	83	74	39	29	128
Group of people walking on the cycle path*	197	201	78	84	56	64	248
Equiv of group of people walking on the cycle path	492,5	502,5	195	210	140	160	620
Persons walking with bike on the cycle path	12	6	3	8	15	22	16
Persons walking with bike on sidewalk	21	28	13	8	8	11	13
Case of people standing on the cycle path	11	9	3	5	5	1	8
Cyclists on the sidewalk	4	3	1	2	5	11	6
Cyclists occupying pedestrian zones in a turn	18				12	5	13
Presence of motorised vehicles	3	2	2	1	2	2	1
Cycles parked in an incorrect place	2	1	4	3	1	4	2

\* Groups of people is equal to 2.5 persons.

## Appendix X Results of questionnaires.

### User questionnaire.

#### Dou you feel safe in this street?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	27	25,7	25,7	25,7
	Often	53	50,5	50,5	76,2
	Sometimes	22	21,0	21,0	97,1
	Never	3	2,9	2,9	100,0
	Total	105	100,0	100,0	

Table 1. Safe personal feeling in Lilla Fiskaregatan.

			AGE2			Total
			Less than 18	18-30	More than 30	
FSAFE2	Always	Count	8	16	3	27
		% within FSAFE2	29,6%	59,3%	11,1%	100,0%
		% within AGE2	47,1%	33,3%	7,5%	25,7%
	Often	Count	8	26	19	53
		% within FSAFE2	15,1%	49,1%	35,8%	100,0%
		% within AGE2	47,1%	54,2%	47,5%	50,5%
	Sometimes or never	Count	1	6	18	25
		% within FSAFE2	4,0%	24,0%	72,0%	100,0%
		% within AGE2	5,9%	12,5%	45,0%	23,8%
Total	Count	17	48	40	105	
	% within FSAFE2	16,2%	45,7%	38,1%	100,0%	
	% within AGE2	100,0%	100,0%	100,0%	100,0%	

Table 2. Safe personal feeling in Lilla Fiskaregatan in function of age.

			SEX		Total
			Male	Female	
FSAFE2	Always	Count	20	7	27
		% within FSAFE2	74,1%	25,9%	100,0%
		% within SEX	34,5%	14,9%	25,7%
	Often	Count	28	25	53
		% within FSAFE2	52,8%	47,2%	100,0%
		% within SEX	48,3%	53,2%	50,5%
	Sometimes or never	Count	10	15	25
		% within FSAFE2	40,0%	60,0%	100,0%
		% within SEX	17,2%	31,9%	23,8%
Total	Count	58	47	105	
	% within FSAFE2	55,2%	44,8%	100,0%	
	% within SEX	100,0%	100,0%	100,0%	

Table 3. Safe personal feeling in Lilla Fiskaregatan in function of sex.

			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
FSAFE2	Always	Count	14	4	9	27
		% within FSAFE2	51,9%	14,8%	33,3%	100,0%
		% within KIMODE	40,0%	10,5%	28,1%	25,7%
	Often	Count	18	19	16	53
		% within FSAFE2	34,0%	35,8%	30,2%	100,0%
		% within KIMODE	51,4%	50,0%	50,0%	50,5%
	Sometimes or never	Count	3	15	7	25
		% within FSAFE2	12,0%	60,0%	28,0%	100,0%
		% within KIMODE	8,6%	39,5%	21,9%	23,8%
Total	Count	35	38	32	105	
	% within FSAFE2	33,3%	36,2%	30,5%	100,0%	
	% within KIMODE	100,0%	100,0%	100,0%	100,0%	

Table 4. Safe personal feeling in Lilla Fiskaregatan in function of mode of trip.

			TIMGO3			Total
			Less than 3	3-5	+ 5	
FSAFE2	Always	Count	6	17	4	27
		% within FSAFE2	22,2%	63,0%	14,8%	100,0%
		% within TIMGO3	17,1%	47,2%	11,8%	25,7%
	Often	Count	20	14	19	53
		% within FSAFE2	37,7%	26,4%	35,8%	100,0%
		% within TIMGO3	57,1%	38,9%	55,9%	50,5%
	Sometimes or never	Count	9	5	11	25
		% within FSAFE2	36,0%	20,0%	44,0%	100,0%
		% within TIMGO3	25,7%	13,9%	32,4%	23,8%
Total	Count	35	36	34	105	
	% within FSAFE2	33,3%	34,3%	32,4%	100,0%	
	% within TIMGO3	100,0%	100,0%	100,0%	100,0%	

Table 5. Safe personal feeling in function of times going a week in Lilla Fiskaregatan.

			KITRIPH2			Total
			Work or study	Pleasure	Shopping	
FSAFE2	Always	Count	6	15	6	27
		% within FSAFE2	22,2%	55,6%	22,2%	100,0%
		% within KITRIPH2	18,8%	38,5%	17,6%	25,7%
	Often	Count	15	18	20	53
		% within FSAFE2	28,3%	34,0%	37,7%	100,0%
		% within KITRIPH2	46,9%	46,2%	58,8%	50,5%
	Sometimes or never	Count	11	6	8	25
		% within FSAFE2	44,0%	24,0%	32,0%	100,0%
		% within KITRIPH2	34,4%	15,4%	23,5%	23,8%
Total	Count	32	39	34	105	
	% within FSAFE2	30,5%	37,1%	32,4%	100,0%	
	% within KITRIPH2	100,0%	100,0%	100,0%	100,0%	

Table 6. Safe personal feeling in Lilla Fiskaregatan in function kind of trip.

			INVAC2		Total
			Never	Yes	
FSAFE2	Always	Count	25	2	27
		% within FSAFE2	92,6%	7,4%	100,0%
		% within INVAC2	29,4%	10,0%	25,7%
	Often	Count	42	11	53
		% within FSAFE2	79,2%	20,8%	100,0%
		% within INVAC2	49,4%	55,0%	50,5%
	Sometimes or never	Count	18	7	25
		% within FSAFE2	72,0%	28,0%	100,0%
		% within INVAC2	21,2%	35,0%	23,8%
Total	Count	85	20	105	
	% within FSAFE2	81,0%	19,0%	100,0%	
	% within INVAC2	100,0%	100,0%	100,0%	

Table 7. Safe personal feeling in function enquired user have been involved in accidents.

			WITAC2		Total
			Never	Yes	
FSAFE2	Always	Count	22	5	27
		% within FSAFE2	81,5%	18,5%	100,0%
		% within WITAC2	31,4%	14,3%	25,7%
	Often	Count	34	19	53
		% within FSAFE2	64,2%	35,8%	100,0%
		% within WITAC2	48,6%	54,3%	50,5%
	Sometimes or never	Count	14	11	25
		% within FSAFE2	56,0%	44,0%	100,0%
		% within WITAC2	20,0%	31,4%	23,8%
Total	Count	70	35	105	
	% within FSAFE2	66,7%	33,3%	100,0%	
	% within WITAC2	100,0%	100,0%	100,0%	

Table 8. Safe personal feeling in function enquired user have been witness of accidents.

## Dou you think it is a safe street?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Always	14	13,3	13,3	13,3
Often	46	43,8	43,8	57,1
Sometimes	41	39,0	39,0	96,2
Never	4	3,8	3,8	100,0
Total	105	100,0	100,0	

Table 9. User opinion about safety in Lilla Fiskaregatan

			AGE2			Total
			Less than 18	18-30	More than 30	
TSAFE2	Always	Count	4	8	2	14
		% within TSAFE2	28,6%	57,1%	14,3%	100,0%
		% within AGE2	23,5%	16,7%	5,0%	13,3%
	Often	Count	9	23	14	46
		% within TSAFE2	19,6%	50,0%	30,4%	100,0%
		% within AGE2	52,9%	47,9%	35,0%	43,8%
	Sometimes or never	Count	4	17	24	45
		% within TSAFE2	8,9%	37,8%	53,3%	100,0%
		% within AGE2	23,5%	35,4%	60,0%	42,9%
Total	Count	17	48	40	105	
	% within TSAFE2	16,2%	45,7%	38,1%	100,0%	
	% within AGE2	100,0%	100,0%	100,0%	100,0%	

Table 10. User opinion about safety in Lilla Fiskaregatan in function of the age.

			SEX		Total
			Male	Female	
TSAFE2	Always	Count	11	3	14
		% within TSAFE2	78,6%	21,4%	100,0%
		% within SEX	19,0%	6,4%	13,3%
	Often	Count	24	22	46
		% within TSAFE2	52,2%	47,8%	100,0%
		% within SEX	41,4%	46,8%	43,8%
	Sometimes or never	Count	23	22	45
		% within TSAFE2	51,1%	48,9%	100,0%
		% within SEX	39,7%	46,8%	42,9%
Total	Count	58	47	105	
	% within TSAFE2	55,2%	44,8%	100,0%	
	% within SEX	100,0%	100,0%	100,0%	

Table 11. User opinion about safety in Lilla Fiskaregatan in function of the sex.



			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
TSAFE2	Always	Count	10	1	3	14
		% within TSAFE2	71,4%	7,1%	21,4%	100,0%
		% within KIMODE	28,6%	2,6%	9,4%	13,3%
	Often	Count	14	17	15	46
		% within TSAFE2	30,4%	37,0%	32,6%	100,0%
		% within KIMODE	40,0%	44,7%	46,9%	43,8%
	Sometimes or never	Count	11	20	14	45
		% within TSAFE2	24,4%	44,4%	31,1%	100,0%
		% within KIMODE	31,4%	52,6%	43,8%	42,9%
Total	Count	35	38	32	105	
	% within TSAFE2	33,3%	36,2%	30,5%	100,0%	
	% within KIMODE	100,0%	100,0%	100,0%	100,0%	

Table 12. User opinion about safety in Lilla Fiskaregatan in function of mode of trip.

			TIMGO3			Total
			Less than 3	3-5	+ 5	
TSAFE2	Always	Count	4	9	1	14
		% within TSAFE2	28,6%	64,3%	7,1%	100,0%
		% within TIMGO3	11,4%	25,0%	2,9%	13,3%
	Often	Count	19	15	12	46
		% within TSAFE2	41,3%	32,6%	26,1%	100,0%
		% within TIMGO3	54,3%	41,7%	35,3%	43,8%
	Sometimes or never	Count	12	12	21	45
		% within TSAFE2	26,7%	26,7%	46,7%	100,0%
		% within TIMGO3	34,3%	33,3%	61,8%	42,9%
Total	Count	35	36	34	105	
	% within TSAFE2	33,3%	34,3%	32,4%	100,0%	
	% within TIMGO3	100,0%	100,0%	100,0%	100,0%	

Table 13. . User opinion about safety in function of times going a week in Lilla Fiskaregatan.

			KITRIPH2			Total
			Work or study	Pleasure	Shopping	
TSAFE2	Always	Count	3	10	1	14
		% within TSAFE2	21,4%	71,4%	7,1%	100,0%
		% within KITRIPH2	9,4%	25,6%	2,9%	13,3%
	Often	Count	9	19	18	46
		% within TSAFE2	19,6%	41,3%	39,1%	100,0%
		% within KITRIPH2	28,1%	48,7%	52,9%	43,8%
	Sometimes or never	Count	20	10	15	45
		% within TSAFE2	44,4%	22,2%	33,3%	100,0%
		% within KITRIPH2	62,5%	25,6%	44,1%	42,9%
Total	Count	32	39	34	105	
	% within TSAFE2	30,5%	37,1%	32,4%	100,0%	
	% within KITRIPH2	100,0%	100,0%	100,0%	100,0%	

Table 14. . User opinion about safety in function of kind of trip in Lilla Fiskaregatan.

			INVAC2		Total
			Never	Yes	
TSAFE2	Always	Count	14		14
		% within TSAFE2	100,0%		100,0%
		% within INVAC2	16,5%		13,3%
	Often	Count	35	11	46
		% within TSAFE2	76,1%	23,9%	100,0%
		% within INVAC2	41,2%	55,0%	43,8%
	Sometimes or never	Count	36	9	45
		% within TSAFE2	80,0%	20,0%	100,0%
		% within INVAC2	42,4%	45,0%	42,9%
Total	Count	85	20	105	
	% within TSAFE2	81,0%	19,0%	100,0%	
	% within INVAC2	100,0%	100,0%	100,0%	

Table 15. User opinion about safety in function enquired user have been involved in accidents.

			WITAC2		Total
			Never	Yes	
TSAFE2	Always	Count	10	4	14
		% within TSAFE2	71,4%	28,6%	100,0%
		% within WITAC2	14,3%	11,4%	13,3%
	Often	Count	33	13	46
		% within TSAFE2	71,7%	28,3%	100,0%
		% within WITAC2	47,1%	37,1%	43,8%
	Sometimes or never	Count	27	18	45
		% within TSAFE2	60,0%	40,0%	100,0%
		% within WITAC2	38,6%	51,4%	42,9%
Total	Count	70	35	105	
	% within TSAFE2	66,7%	33,3%	100,0%	
	% within WITAC2	100,0%	100,0%	100,0%	

Table 16. User opinion about safety in function enquired user have been involved witness accidents.

## Do you feel comfortable in this street?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	35	33,3	33,3	33,3
	Often	46	43,8	43,8	77,1
	Sometimes	24	22,9	22,9	100,0
	Total	105	100,0	100,0	

Table 17. User opinion about comfort in Lilla Fiskaregatan.

			AGE3				Total
			Less than 18	18-30	30-45	More than 45	
FCOMF	Always	Count	7	20	5	3	35
		% within FCOMF	20,0%	57,1%	14,3%	8,6%	100,0%
		% within AGE3	41,2%	41,7%	20,0%	20,0%	33,3%
	Often	Count	9	24	8	5	46
		% within FCOMF	19,6%	52,2%	17,4%	10,9%	100,0%
		% within AGE3	52,9%	50,0%	32,0%	33,3%	43,8%
	Sometimes	Count	1	4	12	7	24
		% within FCOMF	4,2%	16,7%	50,0%	29,2%	100,0%
		% within AGE3	5,9%	8,3%	48,0%	46,7%	22,9%
Total	Count	17	48	25	15	105	
	% within FCOMF	16,2%	45,7%	23,8%	14,3%	100,0%	
	% within AGE3	100,0%	100,0%	100,0%	100,0%	100,0%	

Table 18. User opinion about comfort in Lilla Fiskaregatan in function of the age.

			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
FCOMF	Always	Count	14	9	12	35
		% within FCOMF	40,0%	25,7%	34,3%	100,0%
		% within KIMODE	40,0%	23,7%	37,5%	33,3%
	Often	Count	15	17	14	46
		% within FCOMF	32,6%	37,0%	30,4%	100,0%
		% within KIMODE	42,9%	44,7%	43,8%	43,8%
	Sometimes	Count	6	12	6	24
		% within FCOMF	25,0%	50,0%	25,0%	100,0%
		% within KIMODE	17,1%	31,6%	18,8%	22,9%
Total	Count	35	38	32	105	
	% within FCOMF	33,3%	36,2%	30,5%	100,0%	
	% within KIMODE	100,0%	100,0%	100,0%	100,0%	

Table 19. User opinion about comfort in Lilla Fiskaregatan in function of mode of trip.

			TIMGO3			Total
			Less than 3	3-5	+ 5	
FCOMF	Always	Count	12	14	9	35
		% within FCOMF	34,3%	40,0%	25,7%	100,0%
		% within TIMGO3	34,3%	38,9%	26,5%	33,3%
	Often	Count	17	16	13	46
		% within FCOMF	37,0%	34,8%	28,3%	100,0%
		% within TIMGO3	48,6%	44,4%	38,2%	43,8%
	Sometimes	Count	6	6	12	24
		% within FCOMF	25,0%	25,0%	50,0%	100,0%
		% within TIMGO3	17,1%	16,7%	35,3%	22,9%
Total	Count	35	36	34	105	
	% within FCOMF	33,3%	34,3%	32,4%	100,0%	
	% within TIMGO3	100,0%	100,0%	100,0%	100,0%	

Table 20. User opinion about comfort in function of times going a week in Lilla Fiskaregatan.

			KITRIPH2			Total
			Work or study	Pleasure	Shopping	
FCOMF	Always	Count	6	18	11	35
		% within FCOMF	17,1%	51,4%	31,4%	100,0%
		% within KITRIPH2	18,8%	46,2%	32,4%	33,3%
	Often	Count	13	16	17	46
		% within FCOMF	28,3%	34,8%	37,0%	100,0%
		% within KITRIPH2	40,6%	41,0%	50,0%	43,8%
	Sometimes	Count	13	5	6	24
		% within FCOMF	54,2%	20,8%	25,0%	100,0%
		% within KITRIPH2	40,6%	12,8%	17,6%	22,9%
Total	Count	32	39	34	105	
	% within FCOMF	30,5%	37,1%	32,4%	100,0%	
	% within KITRIPH2	100,0%	100,0%	100,0%	100,0%	

Table 21. User opinion about comfort in Lilla Fiskaregatan in function of mode of trip.

**Have you been involved in any accident (collision) in this street (Lilla Fiskaregatan)?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	85	81,0	81,0	81,0
	One	19	18,1	18,1	99,0
	More than one	1	1,0	1,0	100,0
	Total	105	100,0	100,0	

Table 22. Involved users in accidents in Lilla Fiskaregatan.

			TIMGO3			Total
			Less than 3	3-5	+ 5	
INVAC2	Never	Count	33	28	24	85
		% within INVAC2	38,8%	32,9%	28,2%	100,0%
		% within TIMGO3	94,3%	77,8%	70,6%	81,0%
Yes	Count	Count	2	8	10	20
		% within INVAC2	10,0%	40,0%	50,0%	100,0%
		% within TIMGO3	5,7%	22,2%	29,4%	19,0%
Total	Count	Count	35	36	34	105
		% within INVAC2	33,3%	34,3%	32,4%	100,0%
		% within TIMGO3	100,0%	100,0%	100,0%	100,0%

Table 23. Involved users in accidents in function times going in Lilla Fiskaregatan.

			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
INVAC2	Never	Count	31	28	26	85
		% within INVAC2	36,5%	32,9%	30,6%	100,0%
		% within KIMODE	88,6%	73,7%	81,3%	81,0%
Yes	Count	Count	4	10	6	20
		% within INVAC2	20,0%	50,0%	30,0%	100,0%
		% within KIMODE	11,4%	26,3%	18,8%	19,0%
Total	Count	Count	35	38	32	105
		% within INVAC2	33,3%	36,2%	30,5%	100,0%
		% within KIMODE	100,0%	100,0%	100,0%	100,0%

Table 24. Involved users in accidents in function mode of trip in Lilla Fiskaregatan.

			AGE2			Total
			Less than 18	18-30	More than 30	
INVAC2	Never	Count	14	42	29	85
		% within INVAC2	16,5%	49,4%	34,1%	100,0%
		% within AGE2	82,4%	87,5%	72,5%	81,0%
	Yes	Count	3	6	11	20
		% within INVAC2	15,0%	30,0%	55,0%	100,0%
		% within AGE2	17,6%	12,5%	27,5%	19,0%
Total		Count	17	48	40	105
		% within INVAC2	16,2%	45,7%	38,1%	100,0%
		% within AGE2	100,0%	100,0%	100,0%	100,0%

Table 25. Involved users in accidents in function of age in Lilla Fiskaregatan.

**Have you been witness of any accident (collision) in this street (Lilla Fiskaregatan)?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	70	66,7	66,7	66,7
One	28	26,7	26,7	93,3
More than one	7	6,7	6,7	100,0
Total	105	100,0	100,0	

Table 26. Witness users of accidents in Lilla Fiskaregatan.

			TIMGO					Total
			Less than 1	1-2	3-5	5-7	+7	
WITAC2	Never	Count	8	19	25	9	9	70
		% within WITAC2	11,4%	27,1%	35,7%	12,9%	12,9%	100,0%
		% within TIMGO	100,0%	70,4%	69,4%	45,0%	64,3%	66,7%
	Yes	Count		8	11	11	5	35
		% within WITAC2		22,9%	31,4%	31,4%	14,3%	100,0%
		% within TIMGO		29,6%	30,6%	55,0%	35,7%	33,3%
Total		Count	8	27	36	20	14	105
		% within WITAC2	7,6%	25,7%	34,3%	19,0%	13,3%	100,0%
		% within TIMGO	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table 27. Witness users of accidents in function times going in Lilla Fiskaregatan.

## Do you respect the zones of this street for each kind of user?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	23	21,9	21,9	21,9
	Often	40	38,1	38,1	60,0
	Sometimes	33	31,4	31,4	91,4
	Never	9	8,6	8,6	100,0
	Total	105	100,0	100,0	

Table 28. Behaviour of users in Lilla Fiskaregatan.

			AGE4			Total
			Less than 30	30-45	More than 45	
RESZO2	Always	Count	5	10	8	23
		% within RESZO2	21,7%	43,5%	34,8%	100,0%
		% within AGE4	7,7%	40,0%	53,3%	21,9%
	Often	Count	25	10	5	40
		% within RESZO2	62,5%	25,0%	12,5%	100,0%
		% within AGE4	38,5%	40,0%	33,3%	38,1%
	Sometimes	Count	35	5	2	42
		% within RESZO2	83,3%	11,9%	4,8%	100,0%
		% within AGE4	53,8%	20,0%	13,3%	40,0%
Total	Count	65	25	15	105	
	% within RESZO2	61,9%	23,8%	14,3%	100,0%	
	% within AGE4	100,0%	100,0%	100,0%	100,0%	

Table 29 Behaviour of users in function of the age in Lilla Fiskaregatan.

			SEX		Total
			Male	Female	
RESZO2	Always	Count	8	15	23
		% within RESZO2	34,8%	65,2%	100,0%
		% within SEX	13,8%	31,9%	21,9%
	Often	Count	22	18	40
		% within RESZO2	55,0%	45,0%	100,0%
		% within SEX	37,9%	38,3%	38,1%
	Sometimes or never	Count	28	14	42
		% within RESZO2	66,7%	33,3%	100,0%
		% within SEX	48,3%	29,8%	40,0%
Total	Count	58	47	105	
	% within RESZO2	55,2%	44,8%	100,0%	
	% within SEX	100,0%	100,0%	100,0%	

Table 30 Behaviour of users in function of the sex in Lilla Fiskaregatan.



			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
RESZO2	Always	Count	5	15	3	23
		% within RESZO2	21,7%	65,2%	13,0%	100,0%
		% within KIMODE	14,3%	39,5%	9,4%	21,9%
	Often	Count	16	10	14	40
		% within RESZO2	40,0%	25,0%	35,0%	100,0%
		% within KIMODE	45,7%	26,3%	43,8%	38,1%
	Sometimes or never	Count	14	13	15	42
		% within RESZO2	33,3%	31,0%	35,7%	100,0%
		% within KIMODE	40,0%	34,2%	46,9%	40,0%
Total	Count	35	38	32	105	
	% within RESZO2	33,3%	36,2%	30,5%	100,0%	
	% within KIMODE	100,0%	100,0%	100,0%	100,0%	

Table 31. Behaviour of users in function of mode of trip in Lilla Fiskaregatan.

			TIMGO2				Total
			Less than 3	3-5	5-7	+7	
RESZO2	Always	Count	11	7	2	3	23
		% within RESZO2	47,8%	30,4%	8,7%	13,0%	100,0%
		% within TIMGO2	31,4%	19,4%	10,0%	21,4%	21,9%
	Often	Count	13	12	9	6	40
		% within RESZO2	32,5%	30,0%	22,5%	15,0%	100,0%
		% within TIMGO2	37,1%	33,3%	45,0%	42,9%	38,1%
	Sometimes or never	Count	11	17	9	5	42
		% within RESZO2	26,2%	40,5%	21,4%	11,9%	100,0%
		% within TIMGO2	31,4%	47,2%	45,0%	35,7%	40,0%
Total	Count	35	36	20	14	105	
	% within RESZO2	33,3%	34,3%	19,0%	13,3%	100,0%	
	% within TIMGO2	100,0%	100,0%	100,0%	100,0%	100,0%	

Table 32. Behaviour of users in function of times going in Lilla Fiskaregatan.

			KITRIPH2			Total
			Work or study	Pleasure	Shopping	
RESZO2	Always	Count	7	5	11	23
		% within RESZO2	30,4%	21,7%	47,8%	100,0%
		% within KITRIPH2	21,9%	12,8%	32,4%	21,9%
	Often	Count	11	18	11	40
		% within RESZO2	27,5%	45,0%	27,5%	100,0%
		% within KITRIPH2	34,4%	46,2%	32,4%	38,1%
	Sometimes or never	Count	14	16	12	42
		% within RESZO2	33,3%	38,1%	28,6%	100,0%
		% within KITRIPH2	43,8%	41,0%	35,3%	40,0%
Total	Count	32	39	34	105	
	% within RESZO2	30,5%	37,1%	32,4%	100,0%	
	% within KITRIPH2	100,0%	100,0%	100,0%	100,0%	

Table 33. Behaviour of users in function of kind of trip in Lilla Fiskaregatan.

## Do you consider users respect zones for each transport mode?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	1	1,0	1,0	1,0
	Often	14	13,3	13,3	14,3
	Sometimes	62	59,0	59,0	73,3
	Never	28	26,7	26,7	100,0
	Total	105	100,0	100,0	

Table 34. User opinion about user behaviour in Lilla Fiskaregatan.

			AGE4			Total
			Less than 30	30-45	More than 45	
USZO2	Always or often	Count	13	2		15
		% within USZO2	86,7%	13,3%		100,0%
		% within AGE4	20,0%	8,0%		14,3%
	Sometimes	Count	34	16	12	62
		% within USZO2	54,8%	25,8%	19,4%	100,0%
		% within AGE4	52,3%	64,0%	80,0%	59,0%
	Never	Count	18	7	3	28
		% within USZO2	64,3%	25,0%	10,7%	100,0%
		% within AGE4	27,7%	28,0%	20,0%	26,7%
Total	Count	65	25	15	105	
	% within USZO2	61,9%	23,8%	14,3%	100,0%	
	% within AGE4	100,0%	100,0%	100,0%	100,0%	

Table 35. User opinion about user behaviour in Lilla Fiskaregatan in function of the age.

			SEX		Total
			Male	Female	
USZO2	Always or often	Count	12	3	15
		% within USZO2	80,0%	20,0%	100,0%
		% within SEX	20,7%	6,4%	14,3%
	Sometimes	Count	29	33	62
		% within USZO2	46,8%	53,2%	100,0%
		% within SEX	50,0%	70,2%	59,0%
	Never	Count	17	11	28
		% within USZO2	60,7%	39,3%	100,0%
		% within SEX	29,3%	23,4%	26,7%
Total	Count	58	47	105	
	% within USZO2	55,2%	44,8%	100,0%	
	% within SEX	100,0%	100,0%	100,0%	

Table 36. User opinion about user behaviour in Lilla Fiskaregatan in function of the sex.

			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
USZO2	Always or often	Count	8	1	6	15
		% within USZO2	53,3%	6,7%	40,0%	100,0%
		% within KIMODE	22,9%	2,6%	18,8%	14,3%
	Sometimes	Count	15	28	19	62
		% within USZO2	24,2%	45,2%	30,6%	100,0%
		% within KIMODE	42,9%	73,7%	59,4%	59,0%
	Never	Count	12	9	7	28
		% within USZO2	42,9%	32,1%	25,0%	100,0%
		% within KIMODE	34,3%	23,7%	21,9%	26,7%
Total	Count	35	38	32	105	
	% within USZO2	33,3%	36,2%	30,5%	100,0%	
	% within KIMODE	100,0%	100,0%	100,0%	100,0%	

Table 37. User opinion about user behaviour in Lilla Fiskaregatan in function of mode of trip.

			TIMGO3			Total
			Less than 3	3-5	+ 5	
USZO2	Always or often	Count	7	5	3	15
		% within USZO2	46,7%	33,3%	20,0%	100,0%
		% within TIMGO3	20,0%	13,9%	8,8%	14,3%
	Sometimes	Count	19	22	21	62
		% within USZO2	30,6%	35,5%	33,9%	100,0%
		% within TIMGO3	54,3%	61,1%	61,8%	59,0%
	Never	Count	9	9	10	28
		% within USZO2	32,1%	32,1%	35,7%	100,0%
		% within TIMGO3	25,7%	25,0%	29,4%	26,7%
Total	Count	35	36	34	105	
	% within USZO2	33,3%	34,3%	32,4%	100,0%	
	% within TIMGO3	100,0%	100,0%	100,0%	100,0%	

Table 38. User opinion in function of times going in Lilla Fiskaregatan about user behaviour.

			KITRIPH2			Total
			Work or study	Pleasure	Shopping	
USZO2	Always or often	Count	4	6	5	15
		% within USZO2	26,7%	40,0%	33,3%	100,0%
		% within KITRIPH2	12,5%	15,4%	14,7%	14,3%
	Sometimes	Count	17	21	24	62
		% within USZO2	27,4%	33,9%	38,7%	100,0%
		% within KITRIPH2	53,1%	53,8%	70,6%	59,0%
	Never	Count	11	12	5	28
		% within USZO2	39,3%	42,9%	17,9%	100,0%
		% within KITRIPH2	34,4%	30,8%	14,7%	26,7%
Total	Count	32	39	34	105	
	% within USZO2	30,5%	37,1%	32,4%	100,0%	
	% within KITRIPH2	100,0%	100,0%	100,0%	100,0%	

Table 39. User opinion in function kind of trip in Lilla Fiskaregatan about user behaviour.

## Which kind of mode do you use habitually in this street?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Mostly by bike	35	33,3	33,3	33,3
Mostly walking	38	36,2	36,2	69,5
Both	32	30,5	30,5	100,0
Total	105	100,0	100,0	

Table 40. Kind of mode of users in Lilla Fiskaregatan.

			AGE3				Total
			Less than 18	18-30	30-45	More than 45	
KIMODE	Mostly by bike	Count	7	20	7	1	35
		% within KIMODE	20,0%	57,1%	20,0%	2,9%	100,0%
		% within AGE3	41,2%	41,7%	28,0%	6,7%	33,3%
		% of Total	6,7%	19,0%	6,7%	1,0%	33,3%
	Mostly walking	Count	4	10	12	12	38
		% within KIMODE	10,5%	26,3%	31,6%	31,6%	100,0%
		% within AGE3	23,5%	20,8%	48,0%	80,0%	36,2%
		% of Total	3,8%	9,5%	11,4%	11,4%	36,2%
	Both	Count	6	18	6	2	32
		% within KIMODE	18,8%	56,3%	18,8%	6,3%	100,0%
		% within AGE3	35,3%	37,5%	24,0%	13,3%	30,5%
		% of Total	5,7%	17,1%	5,7%	1,9%	30,5%
Total	Count	17	48	25	15	105	
	% within KIMODE	16,2%	45,7%	23,8%	14,3%	100,0%	
	% within AGE3	100,0%	100,0%	100,0%	100,0%	100,0%	
	% of Total	16,2%	45,7%	23,8%	14,3%	100,0%	

Table 41. Kind of mode of users in Lilla Fiskaregatan in function of age.

			KITRIPH				Total
			Work	Pleasure	Study	Shopping	
KIMODE	Mostly by bike	Count	6	13	4	12	35
		% within KIMODE	17,1%	37,1%	11,4%	34,3%	100,0%
		% within KITRIPH	31,6%	33,3%	30,8%	35,3%	33,3%
		% of Total	5,7%	12,4%	3,8%	11,4%	33,3%
	Mostly walking	Count	7	15	1	15	38
		% within KIMODE	18,4%	39,5%	2,6%	39,5%	100,0%
		% within KITRIPH	36,8%	38,5%	7,7%	44,1%	36,2%
		% of Total	6,7%	14,3%	1,0%	14,3%	36,2%
	Both	Count	6	11	8	7	32
		% within KIMODE	18,8%	34,4%	25,0%	21,9%	100,0%
		% within KITRIPH	31,6%	28,2%	61,5%	20,6%	30,5%
		% of Total	5,7%	10,5%	7,6%	6,7%	30,5%
Total	Count	19	39	13	34	105	
	% within KIMODE	18,1%	37,1%	12,4%	32,4%	100,0%	
	% within KITRIPH	100,0%	100,0%	100,0%	100,0%	100,0%	
	% of Total	18,1%	37,1%	12,4%	32,4%	100,0%	

Table 42. Kind of mode of users in function of kind of trip in Lilla Fiskaregatan.

### Which kind of trip are you doing at this moment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Work	20	19,0	19,0	19,0
	Pleasure	38	36,2	36,2	55,2
	Study	17	16,2	16,2	71,4
	Shopping	30	28,6	28,6	100,0
	Total	105	100,0	100,0	

Table 43. Kind of trip of users in Lilla Fiskaregatan in that moment.

### Which kind of trip do you use to do in this street habitually?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Work	19	18,1	18,1	18,1
	Pleasure	39	37,1	37,1	55,2
	Study	13	12,4	12,4	67,6
	Shopping	34	32,4	32,4	100,0
	Total	105	100,0	100,0	

Table 44. Kind of trip of users in Lilla Fiskaregatan habitually.

			KITRIPH				Total
			Work	Pleasure	Study	Shopping	
KITRIPM	Work	Count	19	1			20
		% within KITRIPM	95,0%	5,0%			100,0%
		% within KITRIPH	100,0%	2,6%			19,0%
		% of Total	18,1%	1,0%			19,0%
	Pleasure	Count		26	1	11	38
		% within KITRIPM		68,4%	2,6%	28,9%	100,0%
		% within KITRIPH		66,7%	7,7%	32,4%	36,2%
		% of Total		24,8%	1,0%	10,5%	36,2%
	Study	Count		3	12	2	17
		% within KITRIPM		17,6%	70,6%	11,8%	100,0%
		% within KITRIPH		7,7%	92,3%	5,9%	16,2%
		% of Total		2,9%	11,4%	1,9%	16,2%
Shopping	Count		9		21	30	
	% within KITRIPM		30,0%		70,0%	100,0%	
	% within KITRIPH		23,1%		61,8%	28,6%	
	% of Total		8,6%		20,0%	28,6%	
Total	Count		19	39	13	34	105
	% within KITRIPM		18,1%	37,1%	12,4%	32,4%	100,0%
	% within KITRIPH		100,0%	100,0%	100,0%	100,0%	100,0%
	% of Total		18,1%	37,1%	12,4%	32,4%	100,0%

Table 45. Comparison of user answers about questions of kind of trip at that moment and habitually.

### Why did you choose this street for this trip?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid It's the shortest one	26	24,8	24,8	24,8
It's the quietest one	11	10,5	10,5	35,2
It's the fastest one	6	5,7	5,7	41,0
I have errands here	27	25,7	25,7	66,7
I live here	5	4,8	4,8	71,4
It's part of my route	30	28,6	28,6	100,0
Total	105	100,0	100,0	

Table 46. Reason to use Lilla Fiskaregatan for enquired users.

## How do you like to have this street?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Common street for pedestrian and cyclists	14	13,3	13,3	13,3
With paths for each kind of mode	63	60,0	60,0	73,3
Restricted cycling	28	26,7	26,7	100,0
Total	105	100,0	100,0	

Table 47. User opinion about desired configuration of the street.

			AGE2			Total
			Less than 18	18-30	More than 30	
LIKST	Common street for pedestrian and cyclists	Count	5	8	1	14
		% within LIKST	35,7%	57,1%	7,1%	100,0%
		% within AGE2	29,4%	16,7%	2,5%	13,3%
	With paths for each kind of mode	Count	11	32	20	63
		% within LIKST	17,5%	50,8%	31,7%	100,0%
		% within AGE2	64,7%	66,7%	50,0%	60,0%
	Restricted cycling	Count	1	8	19	28
		% within LIKST	3,6%	28,6%	67,9%	100,0%
		% within AGE2	5,9%	16,7%	47,5%	26,7%
Total		Count	17	48	40	105
		% within LIKST	16,2%	45,7%	38,1%	100,0%
		% within AGE2	100,0%	100,0%	100,0%	100,0%

Table 48. User opinion about desired configuration of the street in function of the age.

			KIMODE			Total
			Mostly by bike	Mostly walking	Both	
LIKST	Common street for pedestrian and cyclists	Count	10		4	14
		% within LIKST	71,4%		28,6%	100,0%
		% within KIMODE	28,6%		12,5%	13,3%
	With paths for each kind of mode	Count	23	17	23	63
		% within LIKST	36,5%	27,0%	36,5%	100,0%
		% within KIMODE	65,7%	44,7%	71,9%	60,0%
	Restricted cycling	Count	2	21	5	28
		% within LIKST	7,1%	75,0%	17,9%	100,0%
		% within KIMODE	5,7%	55,3%	15,6%	26,7%
Total		Count	35	38	32	105
		% within LIKST	33,3%	36,2%	30,5%	100,0%
		% within KIMODE	100,0%	100,0%	100,0%	100,0%

Table 49. User opinion about desired configuration of the street in function of mode of trip.



			INVAC2		Total
			Never	Yes	
LIKST	Common street for pedestrian and cyclists	Count	14		14
		% within LIKST	100,0%		100,0%
		% within INVAC2	16,5%		13,3%
	With paths for each kind of mode	Count	49	14	63
		% within LIKST	77,8%	22,2%	100,0%
		% within INVAC2	57,6%	70,0%	60,0%
	Restricted cycling	Count	22	6	28
		% within LIKST	78,6%	21,4%	100,0%
		% within INVAC2	25,9%	30,0%	26,7%
Total	Count	85	20	105	
	% within LIKST	81,0%	19,0%	100,0%	
	% within INVAC2	100,0%	100,0%	100,0%	

Table 50. User opinion about desired configuration of the street in function have been involved in accidents.

			WITAC2		Total
			Never	Yes	
LIKST	Common street for pedestrian and cyclists	Count	9	5	14
		% within LIKST	64,3%	35,7%	100,0%
		% within WITAC2	12,9%	14,3%	13,3%
	With paths for each kind of mode	Count	45	18	63
		% within LIKST	71,4%	28,6%	100,0%
		% within WITAC2	64,3%	51,4%	60,0%
	Restricted cycling	Count	16	12	28
		% within LIKST	57,1%	42,9%	100,0%
		% within WITAC2	22,9%	34,3%	26,7%
Total	Count	70	35	105	
	% within LIKST	66,7%	33,3%	100,0%	
	% within WITAC2	100,0%	100,0%	100,0%	

Table 51. User opinion about desired configuration of the street in function have been witness of accidents.

## Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	58	55,2	55,2	55,2
	Female	47	44,8	44,8	100,0
	Total	105	100,0	100,0	

Table 52. Sex of enquired users.

## Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 18	17	16,2	16,2	16,2
	18-30	48	45,7	45,7	61,9
	30-45	25	23,8	23,8	85,7
	45-65	10	9,5	9,5	95,2
	More than 65	5	4,8	4,8	100,0
	Total	105	100,0	100,0	

Table 53. Age of enquired users.

**Owner and worker store questionnaire.**

**Do you think it is a safe street?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	2	10,5	10,5	10,5
	Often	10	52,6	52,6	63,2
	Sometimes	4	21,1	21,1	84,2
	Never	3	15,8	15,8	100,0
	Total	19	100,0	100,0	

Table 54. Opinion of workers and owners of stores of Lilla Fiskaregatan about safety.

**Do you think users feel comfortable in this street?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Often	11	57,9	57,9	57,9
	Sometimes	7	36,8	36,8	94,7
	Never	1	5,3	5,3	100,0
	Total	19	100,0	100,0	

Table 55. Opinion of workers and owners of stores of Lilla Fiskaregatan about comfort.

**Do you consider users respect zones for each transport mode?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Often	5	26,3	26,3	26,3
	Sometimes	9	47,4	47,4	73,7
	Never	5	26,3	26,3	100,0
	Total	19	100,0	100,0	

Table 56. Opinion of workers and owners of stores of Lilla Fiskaregatan about user behaviour.

**Do you consider this street (pedestrian + cyclists) has a good environmental like a commercial street?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	57,9	57,9	57,9
	Neutral	4	21,1	21,1	78,9
	No	4	21,1	21,1	100,0
	Total	19	100,0	100,0	

Table 57. Opinion of workers and owners of stores of Lilla Fiskaregatan about traffic environment.

**Do you consider the actual design (with cycle paths and pedestrian zones) helps people going shopping in Lilla Fiskaregatan?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes the best one	4	21,1	21,1	21,1
Yes, but whit modifications	11	57,9	57,9	78,9
No, bikes shouldn't be allowed	4	21,1	21,1	100,0
Total	19	100,0	100,0	

Table 58. Opinion of workers and owners of stores of Lilla Fiskaregatan about actual design of the street.

**How do you like to have this street?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid With paths for each kind of user	14	73,7	73,7	73,7
Restricted cycling	5	26,3	26,3	100,0
Total	19	100,0	100,0	

Table 59. Opinion of workers and owners of stores of Lilla Fiskaregatan about desired configuration.