

Bike security and theft prevention

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Introduction

Bicycle theft in France is an area where there has been very little work done. Having been identified as one of the principal obstacles preventing urban bicycle development, the phenomenon remains nevertheless unexplored. With IFRESI we have conducted a vast survey over 1000 examples – within the context of various urban travel plans options – allowing us to explore these potentially rewarding lines of work:

1. One bike theft out of two takes place on private property and not public. The absence of purpose built, quality facilities where one can park one's bike – notably on university campuses and apartment blocks – is a major handicap.
2. Even when town development plans provide for bike-parks, a major stumbling block is the complete unfamiliarity, on the part of the developers, with the necessary systems for suitable parking facilities. Thus apartment blocks are for the most part completely unsuitable, driving cyclists to take the bike up to their apartment...
3. Insufficient attention is given to the type of parking (short, long, seasonal or not, for shopping, for work) and corresponding risks. Bikes security needs vary and security options must adapt to these needs.
4. Absence of means of securing the bike frame, unsuitable securing systems; the user's behaviour is directly to blame for the theft.
5. Minimal familiarity with bicycle theft – Little existing or analysed data on bike theft (location, bicycle make, time, theft techniques...) and no co-ordinated prevention program.

Security is a chain of elements of which we must master all the links. Even if all the other links are correctly attended to, if one link is missing, bike theft remains a significant hindrance to bicycle use. We have therefore investigated the following areas:

1. Becoming more familiar with the phenomenon, defining it, describing it, and insuring the distribution of this information.
2. Study of options for integrating bicycles into town development plans (POS, construction codes) and employment laws.
3. Promotion of suitable locks and the standardisation of their quality.
4. Conception and distribution with developers of the methodology for plans, and assembling plans, for suitable bike parks.
5. Improve the process by which stolen bicycles are found, identified, and returned to their owners.
6. Development of guarded bike-parks
7. Establish techniques in following with the politics of prevention of bicycle theft.

1. Becoming more familiar with the phenomenon, defining it, describing it, and insuring the distribution of this information.

Several methods of approach were carried out.

A survey of 750 urban cyclists

A comprehensive survey was distributed amongst cyclists who had or had not experienced a theft and 750 **questionnaires** were returned. These initial results, from Grenoble, are in fact particularly interesting.

- Cyclists' behaviour is often at fault since 90% do not use quality bike locks. Amongst those bikes secured with a lock at the time of theft, only 2% had been secured with a U-lock whilst in Grenoble this lock is used by 7% of cyclists.
- One cyclist in two has had their bike stolen in the past 10 years.
- All types of bikes are stolen, however more city bikes are stolen than racing and cross-country bikes, city bikes being the more popular in the second-hand market.
- One theft in two takes place away from the public domain. The majority of interior bike storage facilities blocks are ineffectual and frequently record a false rate of theft. Theft is also very high in housing estates, courtyard blocks, and stairwells.
- Bike theft affects for the most part the student population, who rarely have the opportunity to use secure parking conditions.
- 90% of security facilities are inadequate, using the standard "tweezer" bike rack to secure the bike.

Quantitative analysis from information supplied by the police

In the majority of urban travel plans on which we work we have been able – with some small difficulties convincing the police – to make the most of police files. No distinction is made between bike theft and general theft. In order to be able to use the data we had to do a manual computer search, looking under "other offences" for the word "bicycle". A revision of this file is in order for those who wish to access this information more easily. The recent response to a question posed by a Deputy of the lower Rhine region to the National Assembly on the possibility of isolating bike theft from other thefts having been negative, we shall thus study, with the help of the police, computer filing and identification methods and the steps necessary to use this knowledge on a national scale.

Qualitative analysis

A more qualitative analysis was also conducted with the police and the manufacturers in order to better understand the thieves' theft techniques, the means by which he removes the bike locks, and the means by which he manages to resell the bike. We have observed two types of bike theft:

- Opportune bike theft – for those who wish to get from A to B quickly and then abandon the bike in a public place
- Pre-meditated theft of valuable bikes with intent to sell.

Distribution of information

The survey shows that bike theft is both paradoxical and minimally investigated. For the future, it will be necessary to find relevant means of making the customers aware of this information. The French “Club des Villes Cyclables” have worked to make this information more available and accessible to the public.

2. Study of options for integrating bicycles into town development plans (POS, construction codes) and employment laws.

Car parking facilities have often been the priority of town planners. However, bike-parking facilities should also be considered during new developments or renovations of town centres, schools, universities, office blocks, or housing estates. Article No 12 of the Town Planning Charter affords the community the freedom to integrate bike parking facilities within new town develops and the possibilities are flexible with regards to number of spaces, access to facilities and parking conditions.

The following towns: Dijon, Bordeaux, St Martin-d’Hères in the Grenoble suburbs and Chambéry have successfully integrated these facilities into their town development plans. There are limitations however:

- Article 12 is not obligatory and therefore very few towns include bike security as a priority during town development
- Those towns which have tackled the issue of bike safety suffer from lack of precision in the execution of their plans: failure to consider parking techniques means ineffectual bike security and thus a high theft rate. In these situations the bike facilities are rarely used. Also an attempt to economise on facilities, for example the “tweezer” bike rack and incompetence on behalf of the developers, means that the bike facilities are rarely a complete success.
- There is no follow up to this

Three methods of research should be employed at present:

a) Understanding the problem more thoroughly

- We must acknowledge the extent of options available to the town planners
- We must assimilate French and foreign experiences of bike security plans and their execution and success
- We must seek to familiarise ourselves with the Dutch’s bike integration programmes, their problems and their objectives, for they are without a doubt the most advanced country in this area.
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b) Definition of the development criteria

Potential locations for development being: Schools, Universities, offices, housing estates, or town centres.

The criteria for development are as follows:

- Type of bike park: covered or not, collective or individual, with wire fencing...
- Security techniques: Is the bike secured by its handlebars or fastened to the wall or are there security hoops
- Situation: means of access – will the area be lit or not

c) **A guide** should be devised and provided for town developers local communities to further their understanding of the possibilities of bike integration in town planning;

Other texts allow for the integration of requirements or recommendations as regards bicycle parking. The subject involves, in conjunction with specialists in construction law, and specialists on employment laws, the evaluation of local groups' levers of jurisdiction, not only for new developments, and changes in purpose, but equally involving renovation programs. Equally, we will study the financing options from the angle of transport taxes. We wish equally to lean on international experiments on the subject in Switzerland, in Germany, in Denmark, and in the Netherlands.

3. Promotion of suitable locks and the standardisation of their quality

In the research conducted, 80% to 90% of bike locks used are totally useless, although working systems do exist, albeit more expensive. Two approaches merit attention:

- **Work with the French standardisation agency**, the manufacturers and the consumer associations towards a standardisation of bicycle locks, as has been done for motorcycle locks. Effectively, an AFNOR norm defining the quality of bike locks does not yet exist, however one does exist for locks used for motorised bikes. The market for security systems is quite diverse today (prices ranging from 10 to 500 FF) and the consumer, not understanding the quality of the product offered, could behave less than sensibly.
- **Acting on current behaviour** with awareness programs "courtesy tickets" (or gift certificates) communication campaigns. We have conducted this type of operation in the city of Chambéry, for which the municipal council and the Roue Libre association received the Velo d'Or this year. These types of results can be interesting since the campaigns provide for an increase in the awareness of and number of U-locks.
- **Propose a method of promotional campaigning** with manufacturers to distribute secure quality locks. Initial contacts established with the Décathlon stores and with German manufacturers are presently encouraging.

4. Conception and distribution with developers of the methodology for plans, and assembling plans, for suitable bike parks.

The better part of developers are completely unfamiliar with the problem of bicycle thefts and of the efficient techniques behind bicycle security. A method for the approach to plans for securing bicycles should be proposed to them:

- Identify the variables to take into account
- Time of bicycle parking
- Motivation for bicycle parking
- Level of risk
- If the parking is seasonal or not
- Define the needs for parking, in terms of space
- Where to implement bike-parks
- Familiarity with different products; systems, space, cost, listing of providers

- Adapt the parking to needs; specifically, to schools, universities, housing estates, large and small industrial estates, offices, train stations, public buildings, places of leisure...
- Predict trends of equipment management: maintenance, management of access.

5. Development of guarded bike-parks

Guarded bike-parks are widely used in numerous countries where the practice of biking is very developed: China, Japan, Burkina Faso. This system is inexpensive as soon as the number of bicycles provides profitable employment opportunities. In France, where the practice remains weak, we have developed different solutions to reduce the cost.

- Create guarded bike-parks **beginning with existing operations**: we have thus far put into effect guarded bike parks in underground car parks in Chambéry, across from the guards booth. The results are mediocre, however, due to the reluctance on the part of cyclists to enter underground car parks but also due to the management techniques, which may be unsuitable. Along the same vein, guarded bike-parks can also be installed close to ticket booths at chateaux.
- Refinement of complementary missions of services (maintenance, activity, rental) around bike-parks in train stations. The experiences in Grenoble and Strasbourg are acceptable in this regard.
- Development of systematic guarded bike-parks during large public events close to the crowds. During an aviators' meeting in Chambéry, a 3500 bicycle bike-park was thus completely filled in a few hours.

6. Improve the process by which stolen bicycles are found, identified and returned to their owners.

Out of all stolen bicycles found by the police, very few (around 2%) are returned to their owner, as the latter can not be identified or does not identify themselves. Marking the name and address of the owner, numbering the frame, bicycle tattooing; all of these are practically non-existent. Mechanical (engraving, chemical marking) or electronic marking of bicycles and the construction of a bicycle file warrant attention. Technical solutions are still experimental and file management techniques are still not stable. From our experience, two working directions should be given priority:

a) It is useless to put together a file of all bicycles:

- The technical and financial feasibility of such a file is practically out of range. With 24 million bicycles in France and a management cost estimated at about 20 F per record, the cost is infinite.
- It is much simpler not to create a file until the moment of the theft. The person who declares the theft provides the number which is compared with a national file set up by the police.

b) Priority must be given first to mechanical solutions done by manufacturers.

Marking solutions to be given priority, to our minds:

- More systematic and less expensive marking done by the manufacturer, during construction.

- A simple mechanical marking can be applied more quickly than an ineffectual chemical marking, or an electronic one requiring controlling devices even more expensive.

7. Establish techniques in following with the politics of prevention of bicycle theft.

It is imperative to measure and to follow the occurrence of theft in order to appreciate the effectiveness of different techniques and to correct them. In the same way that accident reports allow us to keep abreast of the effectiveness of developments in cyclable areas, the tools must be developed to be in keeping with the politics of the struggle against theft.

- Definition of a specific code of locating stolen bicycles: the police data is not very useful due to the difficulty of extracting the records from the files. The problem is simply to define a way of encoding bicycle thefts in order to be able to easily make the most of a certain amount of data and to establish a minimum of keeping with the politics of prevention.
- Collaboration with the police in the gathering of data, in the study of the type of place where the bicycle is parked.
- Qualitative surveys: Notably, declaration rate of thefts.
- On-site parking investigations; types of locks used, method of parking.

We have presented you with the actions that we propose in order that France might fight back against theft and we will be very happy to share our findings with the findings of other countries.