

BURGLARY IN CONNECTION WITH BUILDING DESIGN

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ABSTRACT

Target dari suatu kejahatan tidak hanya ditujukan terhadap manusia saja, tetapi juga terhadap suatu bangunan.

Di Belanda beberapa tahun terakhir telah dikembangkan suatu pemikiran tentang keamanan suatu bangunan sebagai upaya pencegahan terhadap perampokan yang disebut 'Politiekeurmerk Veilig Wonen'. Konsep ini digunakan sebagai dasar untuk mengobservasi apakah terdapat hubungan antara perampokan dengan desain suatu bangunan dalam penelitian ini.

'If the owner the house had known at what hour the thief was coming, he would not have let his house be broken into'.

Luke 12 : 39

1. Introduction

Buildings have been part of the needs of human beings' live. Humans have always lived in some type of housing since the world existed although these were, at first, very simple, such as cave dwellings. Housing forms developed since humans possessed the idea to make a building more aesthetically pleasing, more comfortable and more spaces for a personal life.

In the 1920s International Style architects became more involved with machines as symbols. They produced a Machine Age architecture only in the sense that its monuments were built in a Machine Age, and expressed a favourable attitude towards

machinery.¹ As an individual, nevertheless, one lived in a social group while they built the house, and this group in concert formed a group of housing which is called cluster housing. This form became a fundamental and eternal form of housing.² This form even became the beginning of a city housing model.

This model of housing is adjusted to the environment whether in the urban area, suburban area, or rural area. It is differently designed in terms of landscape in those areas. For their home, people usually single out a place with a good landscape, and it will be related to scenery of mountain, hill, valley, or sea. They definitely want to stay in a gorgeous building with a beautiful view and safe environment. Safe environment includes security. Both a beautiful view and safe environment are reflections of the principle of architecture.

An architect as a designer is demanded to have an ability to make a building which has a causal link between beauty and function. Beauty and function, in this context, means aesthetic. To clarify the meaning of 'a causal link between beauty and function', Bruno Taut, German architect, stated:

If everything is founded on sound efficiency, this efficiency itself, or rather its utility, will form its own aesthetic law. A building must be beautiful when seen from outside if it reflects all these qualities ...³

If we look at people's live in the past, in the Middle Ages, castles were designed with security as the first priority.⁴ But nowadays, security has less influence, but it still is important as well if crimes like vandalism, burglary, robbery etc. are going up. That is the

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1. P. Greenhalgh (ed.), *Modernism In Design*, Reaktion Books, London, at 102 (1990).
 2. A.K. Onggodiputro (ed.), *Perencanaan Tapak Untuk Perumahan Bagian I : Tapak Berukuran Kecil*, translated from 'Site Planning For Cluster Housing' By R. Untermann & R. Small, Intermatra, Bandung-Indonesia, at (1993).
 3. P. Greenhalgh, op.cit., at 48.
 4. See Intermatra (ed.), *Prinsip-prinsip Rancangan Dalam Arsitektur*, translated from 'Principles of Design In Architecture' by K.W. Smitthies, Bandung-Indonesia, at 38 (1992).

reason why designs of buildings become a form of crime prevention now and some countries pay attention to this. Crime ensues if there is lack of security devices,⁵ and because a burglar, for example, knows vulnerable parts of a building such as doors, windows. The Politie monitor Bevolking (Population Police Monitor) provides data from 50,000 respondents about the security devices which were used when they were out, whether were used extra locks for the doors and windows, installed outdoor lighting, had a burglar alarm, or had a dog. If no measures were taken at all, the chance to become a victim of burglary is one in twelve. If one or more measures are taken, the chance of being a burgled victim drops significantly. But if the respondents had taken all the measures, the chance of burglary was one in two hundred.⁶ According to the statistical data from The International Crime-Victim Survey 1996, the rate of burglary in the Netherlands is 15.5 %. Compared with other countries in Europe, burglary in the Netherlands is lower. However, the government still wants to lessen crimes in this country, and one of the efforts to prevent crime is a building design measure which is taken from the UK's concept of 'secured by design'.

2. Police Label Safe Housing

To cope with crimes, some theories like Defensible Space, Crime Prevention Through Environmental Design (CPTED), Situational Crime Prevention, and Opportunity Reduction become the new issue as an effort to reduce crime in which emphasis is given to less formal social control within the community i.e. neighbourhood watch, caretakers in building estates, and surveillance by security firms.⁷ There is not much that can be done through the social policies of government to eliminate the crimes, because such factors might be the root causes of crime. In the United Kingdom, the South East Region Senior Crime Prevention Officers Conference (SERSCPOC) has

5. K.S. Williams, *Textbook On Criminology*, Blackstone Press Limited, London, at 86 (1994).

6. Jaap de Waard, *Experiments With Justice In The Neighbourhood*, Noordwijk-Netherlands, at 8 (1997).

7. H.M. Willemse, *Crime Prevention Studies Vol.2*, R.V. Clarke (ed.), Criminal Justice Press, Monsey-New York, at 35 (1994).

developed a new crime prevention system called *Secured By Design since 1989*.⁸ This concept tries to prevent crimes by design measures. A similar idea has been used in the Netherlands since 1984 when the Dutch Department of Housing, Urban Planning And The Environment, and Justice And Internal Affairs joined in a number of studies and publications on crime and building environments. This resulted in a clear statement for the governmental policy plan 'society and crime' that better designs have great preventive potential.⁹ To encourage the implementation of its recommendation on the municipal level, the government set up a Steering Committee for the Administrative Prevention of Crime in 1986.¹⁰ At the end of 1992, The Steering Committee Public Housing Experiments and the Police District 'Hollands Midden' enacted a new regulation for building security measures. This regulation is an experiment and is legalized. It is called *Politiekeurmerk Veilig Wonen (Police Label Safe Housing)* is translated from 'secured by design'.¹¹

The concept of 'secured by design' is one of the ideas to reduce crimes, especially burglary. To prevent a crime, according to this concept, there must be an *extra lock for doors and windows, lighting in the neighbourhood, and back passage* as security measures. A house which has all of these criteria¹² will be given the label 'safe housing'. This label is not a guarantee to stop crime at all, but the chances for the burglar to enter the building can be reduced. It seems this concept is only for the police task because without good quality measures, crime still tends to increase. But actually, such security measures are not only in the best interests of the police or city, but also in the best interests of the architects. The architects have to design a building freed from

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8. P.V. Soomeren et.al., *Secured By Design In Netherlands Security Journal* No.3, October (1996).
 9. *Ibid.*, at 187.
 10. T.J.M. Van Der Voordt, *Environmental Design And Crime Prevention In The Netherlands The Delft Checklist*, at 2 (1997).
 11. Van Dijk et.al., *Naar een Politiekeurmerk Veilig Wonen-Voorstudie 'Secured By Design' In Netherlands*, Amsterdam, at 3 (1993).
 12. These criteria will be found in *The Handbook of Police Label Safe Housing*, as a police's checklist when they observe the building based on request of people.

crimes to fulfill 'safe housing' criteria. At this moment, the label 'safe housing, also has become a standard for selling and buying a building in UK. Without this label, people will not buy a house. This market incentive also becomes a starting point to practice the concept of Police Label Safe Housing in the Netherlands.¹³ As of 1994 the Police Region in Utrecht has adopted this concept as an experiment with the result that burglary decreased 26 % from 14.172 cases to 10.500 cases in 1996.¹⁴ Because of this success, in early 1997 the Police Label Safe Housing project was implemented in the whole of the Netherlands for social well-being and security for housing with the aim of reducing burglary.

3. Problems In The Field

Based on the Police Label Safe Housing concept in the Netherlands, it is interesting to observe in the society whether or not there is a correlation between burglary and building design, especially security measures, space and model of building. To test this hypothesis, the cities chosen for this research are the Leiden-Voorschoten district, the Woerden-Linschoten-Montfoort-Harmelen-Kamerik district, Maartensdijk district.

Only 20 victims of burglaries as respondents of 15 houses and 5 flats could be interviewed and their buildings observed. Twenty non-victims as a control group were also interviewed. None of them have applied Police Label Safe Housing yet, except one non-victim in Linschoten, because this concept is relatively new. Though they have not had a certificate of Police Label Safe Housing yet, it is interesting to observe their house or flat, especially security measure which is found in a handbook/checklist of Police Label Safe Housing. I realize that the number of respondents is not representative to be analysed by quantitative methods. However, in this paper I only describe the results of my observation.

Some problems which ensued in this field research are the following :

- a. Some respondents refused to be interviewed for emotional reason caused by the

13. *Experimenteren Met Het Politiekeurmerk Veilig Wonen, Handboek Voor Experimentpartners*, Firma Van Zijp, Zoetermeer (1997).

14. *Experimenteren Met Het Politiekeurmerk Veilig Wonen - Bestaande Bouw*, Firma Van Zijp, Zoetermeer (1997).

crime.

- b. To enter the building for research matters violates privacy, especially for the neighbours as a controlling group.
- c. To get respondents from the police region takes a long time,¹⁵ meanwhile the time to process the result of observation is limited.

In Maartensdijk, research is analyzed only from a police report without interview and observation. From this report, 28 burglary cases happened in 1997. However, in this city burglary went down sharply after 1500 people have had a certificate since 1995.

4. Victims Of Burglary

No specific design of building suggests that one form of building is less at risk from burglary than any other. Burglary is caused by many factors. One of the factors is city planning in urban areas. Distribution of burglary is associated with the urban area, especially in an urban core area with large urban concentrations, and this area has a high rate of burglary.¹⁶ In the urban area, burglary is connected to circumstances which allow the offender to select a target by observing the area. Hence some criminologists try to reduce these criminal events by applying crime prevention theories. In terms of burglary Separovic revealed defensible space from Oscar Newman's concept which strives directly to prevent the criminal event in the first place and does not rely on the efficacy of criminal justice. The idea is to prevent crime by means of the secured by design concept, or another concept in relation to security for building.

I found from the interviews and observation of the buildings, in comparison with the control group, that most of the victims are married homeowners with, on average, three people staying at home. But for the flats, mostly they rent, except for the respondents who live in a condominium, and on the average two people stay at home

15. However, I would like to thank you for cooperation to Mr. A. Kuijt from police district Leiden-Voorschoten, Mr. V. Collemburg and Mr. Doornebal from Woerden, also to Mr. Versteeg from Maartensdijk.

16 See B. Poyner, *Design Against Crime-Beyond Defensible Space*, Butterworth-London, at 31 (1983), and also ZP. Separovic, *Victimology-Studies Of Victims*, Zagreb, at 58 (1985).

during the day. This condition will become an important thing for a burglar to know whether the potential victim lives alone or not and when the house or flat is empty, because obviously, burglars will avoid contact with the occupants of a dwelling.¹⁷ If there were unoccupied dwellings, it presents an opportunity for them to enter. In England, according to Bennet & Wright,¹⁸ a burglar will choose an object based on three points of view:

a. What kind of thing can be taken inside

By observing from outside, the offender selects the best house or flat.

b. How to enter the building

c. Chance and risk will be found

One of the theories as previously mentioned is the Opportunity Theory. Principally, the Opportunity Theory elucidates that the chance will exist if it is sustained by the condition. Burglars will try to find information about the situation and condition of the building and circumstances, and will try to know who the owner is. This knowledge is basic for making a plan. They usually know about that. For example from the survey in Germany, Jurgen Rhein and Wolfgang Servay pointed out that 45 % of offenders from 114 respondents had knowledge about the people who will become their victims.¹⁹

Besides, the burglar has to pay attention as mentioned above, to achieve the purpose and he will look at :

1. circumstances of the building
2. model of the building
3. security system

5. Circumstances Of The Building

A burglar will do everything to learn about the residential area, the neighbourhood, the circumstances of the house/flat, like the street, garden, canal/river,

17 B. Poyner, *ibid*, at 34.

18 KW. Krainz, *Wohnhauseinbrüche-Erscheinungsformen Und Pravention, Zusammengefabte Ergebnisse Aus Zwei Taterbefragungen*, Bundeskriminalamt Wiesbaden, at 12 (1990).

19 *Ibid*, at 13.

parking area and so on. It could be learned from the city map or the city planning (site plan), or he knows the area precisely as well. All important decisions should be based on good information. Other things also influence his choice to make a decision such as :

- a. benefit
- b. motivation and methods to enter the building
- c. situation and conditions of building

Therefore, before he decides he learns how to acquire the easy way to enter the area and to escape.

6. Model Of Building As A Burglar's Target

To build a house or flat, design often uses the principles below²⁰ :

- a. territoriality, as a borderline between one building and others;
- b. orientation, related to environmental requirement, e.g. sunshine, air circulation;
- c. privacy, create shared-barriers in order to make it difficult to see the inside of the building;
- d. identity, in connection with mass culture;
- e. convenience, related to space making easy for activity in the building;
- f. accessibility, that is facility to enter all parts of the house;
- g. safety, feeling secure inside of building as a protection for life and property.

These principles are a reflection of beauty and function, and will often be used by architects in designing a building. However, sometimes they forget such safety principles which imply security meaning. One of the many critics and theorists who enters the lists of architectural thought today, Gregotti, investigates eight issues that influence the activities of architects such as precision, technique, monumentality, modification, atopia, simplicity, procedure, image, without putting forward safety/security as an issue.²¹ Most architects only think of safety in terms of environmental events such as earthquakes, storms, floods. He does not think of safety in terms of crimes, whereas safety implies security and it is considered to be a function of architectural design.

20 AK. Onggodiputro, op.cit., at 35.

21 V. Gregotti, *Inside Architecture*, The MIT Press (1996).

Cornish and Clarke²² consider that a burglar will single out a particular house in the selected area for the target if it is able to be reached, if there is insecure building. Access to the building is based on type/model of building thus this type catches the attention of a burglar. In this research, the types of houses that were observed are :

- a. House : detached house, row house, two houses covered by one roof.
 - 1. detached house
This house possesses the characteristic, e.g. there is distance to another house, usually a garden.
 - 2. row or terraced house
This house has a storied building on narrow land.
Rooms for daily activity are located in the ground floor that is : livingroom, diningroom, kitchen, bathroom. Upstairs is used for bedroom, and bathroom. No distance between one house and another house.
- b. Flat
A set of rooms on one floor of a building. Model of building consists of some stories.

Construction of these types of buildings must follow a standard of rules in the Netherlands, which means that all buildings are organized by the town hall. From the observation, most of the victims did not live downtown (in the center) and 93.33% of victims stay in row houses, 33.33% on the corner, 40% between houses, 20% in two houses-one roof, and 6.67% in three houses-one roof. Meanwhile all the people of the controlling group live in row houses, 13.33% on the corner, 60 % between houses, 20 % in two houses-one roof, and 6.67% in three houses-one roof. In Maartensdijk, police data showed that 35.71 % of victims live in detached houses, 46.43 % in row houses and 17.86 % in two houses-one roof. From these data, burglars seem to like to select more row houses than detached houses as their targets.²³ It would be wrong to say that any row houses would be safer than detached houses, though the principle of security

22 DB.Cornish - RV.Clarke, *The Reasoning Criminal -Rational Choice Perspectives On Offending*, Springer-Verlag, New York, at 1 (1986).

23 See also *Politie Monitor Bevolking 1993 analysis in 'Criminaliteitspreventie Door Burgers'*, Directie Criminaliteitspreventie Ministerie Van Justitie, at 17 (1995).

would be best represented by row housing where there is no access to the back gardens or yards. For flats, only one respondent lives in a building that has eight floors. Other respondents stay in flats having three or four stories.

The model of a building has influenced a burglar to make a plan. A burglar will not choose a building with a lot of security measures. But a house, perhaps, will become the target of a burglar, although it is installed with security devices. Some burglars have attempted to know how to break that house. Criminal Code uses the meaning of burglary in terms of 'breaking and entering' as a legal term. It normally means breaking in by tampering with a lock, forcing open a door or window or even breaking the glass of a window or door to gain entry, but may involve also entry where there was no force necessary such as when the window was left open or a door left unlocked.²⁴ Essentially, burglary is taken to mean breaking into the house or building without permission or knowledge of the residents as a trespasser with the intention to steal something or commit a similar action inside. Also the intruder, perhaps, is a resident in that area or neighbourhood, who knows the region better.

Wikstrom postulates two main effects²⁵ :

1. Housing and criminality are related because social groups with a greater propensity to crime are concentrated in certain types of housing
2. Housing can itself affect the resident's propensity to crime ...

Structure type in social group may be related to crime through other social factors which are known to relate to crime occurring in association with building type.²⁶

6.1. House

The model of house has bedroom, bathroom, kitchen, livingroom, and also the corridor to enter the house. It seems that this model is standard in the Netherlands. From my observation, part of the space which is parallel to the entrance door is mostly livingroom, and then kitchen, or bedroom. From this room the owner can look at the

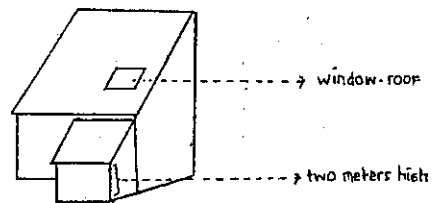
24 B. Poyner, op.cit., at 28.

25 Taken from Anthony E. Bottoms & Paul Wiles, *Explanations of Crime and Place*, in '*Criminological Perspectives-A Reader*' book edited by John Muncie et.al., Sage, at 104 (1996).

26 B.Poyner, op.cit., at 32.

kind of activity outside, and from outside people also can look at the activity inside due to the building interior being open to the public through the window without curtain. Only 20 % of respondents use lamella/jalousie and 6.67 % uses lace curtain. This makes it easy for the intruder to observe the house, and to know when there will be no one at home.

For building materials, most people live in exterior design with roof-tile (93.33%), and wall without stucco outside (100%). The form of this wall facilitates the burglar to climb if its surface is not smooth. It can be seen in figure 1 that two of the burglars entered the house through the wall. Poyner concluded that the general form of the building does not influence burglary rate.²⁷ But from my observation, houses in Zwaluwweg-Voorschoten have influenced the burglary rate because of the general form of the building. It can be depicted thus :



This design feature seems to be partly responsible for the relatively high number of burglaries in the estate. The offender can easily climb the roof from the back side because it is only two meters high, and the model of the window-roof has no lock. People said that most of the houses in that area had been burglarized.

There are two models in front of their houses where all of the victims and the controlling groups live :

1. House : street - house

26.67% of victims and the controlling group live in this area, with a street width more than 5 meters.

2. House : street - none

53.33% of victims and the controlling group live in a sort of street less than 5 meters wide, and 'none' means that after the street there is a canal (37,5%), parking area (37.5%), garden (12.5%), and big trees (12.5%) as a borderline

27 Ibid., at 33.

between two big streets.

Figure 1 :

Enter :

- door	: 53.33
- window	: 53.33
- wall	: 13.33
- roof	: 6.67
- in front of the house	: 26.67
- back yard	: 73.33

Entered first :

- bedroom	: 6.67
- kitchen	: 33.33
- livingroom	: 60

Escape :

- door	: 73.33
- window	: 26.67
- balcony	: 6.67
- in front of the house	: 20
- back yard	: 86.67

Behind all of the houses there are different types of back passages. These will influence the burglar's plan. 73.33% of burglars entered the house from the back yard, that is 53.33% through the door and 53.33% through the window. Some cases involved more than one offender. They entered the house from different entrances, one from the door and another from the window. The recent work by Newman and Franck shows that accessibility correlates with burglary (0.43).²⁸ They entered the livingroom first, and some of them escaped through the same way, through the back yard. This access has to be noticed because 86.67% of burglars escape in this way.

28 Ibid.

Figure 2 :

	Back passages				
	Street <1.5m	Street >1.5m	Field/ turf	Canal	Garden
Victims	33.33	26.67	26.67	13.33	6.67
Neighbours	46.67	26.67	20	13.33	-

The percentage based on total number of respondents

Thus it was found that houses with rear access i.e alleyway, garden, canal, field/turf, were more likely to be victimised. According to the handbook/checklist of Police Label Safe Housing, minimum guidelines should be followed by the people,²⁹ the houses should form a block, or their back gardens must be located at the waterside. If there is a path there should be a possibility of closing off the path. In my observation, back gardens which are located at the waterside became means of access for the burglar when the water froze over in winter. There are two victims, in Leiden and Kamerik, who were victimized in that way. The back side of a house which is adjacent to open land such as farmland, or canal is more open to risks of burglary. Its accessibility influences the burglary rate. Besides, it is used for entering the house, the burglar also uses an alleyway or garden at the back side of the house to cover for his vehicle.³⁰ I think the problem is that some of the respondents in Leiden, Linschoten and Kamerik have no fences in their backyards. This model has made accessibility for the burglar easier, although fences can not solve the problem anymore without support from other security measures.

Figure 3 shows that the objects of burglary are 40% electronic and 73.33% non-electronical things.

29 See *Experimenting with the 'Police Label Safe Housing', Police District 'Hollands Midden'*, Ministry of Justice, Steering Committee Public Housing Experiments, 12 May 1994, 1994-95 Manual For Partners In The Experiments, at 21.

30 TD. Crowe, *Crime Prevention Through Environmental Design-Applications of Architectural Design And Space Management Concepts*, Butterworth-Heinemann USA, at 35 (1991).

Figure 3 :

Object of burglary in houses :

- electronic (40%) :

CD	: 20
Video	: 20
stereo	: 20
Computer/lap top	: 13.33
CD player	: 13.33
TV	: 13.33
fax	: 6.67
radio	: 6.67

-non-electronic (73.33%) :

Money	: 60
Credit Card,Pin Code	: 33.33
camera	: 26.67
clothes	: 26.67
jewelry	: 20
driving license	: 20
watch	: 13.33
passport	: 13.33
shoes	: 13.33
bike	: 6.67
handy-cam	: 6.67
hand phone	: 6.67
drill machine	: 6.67
gold	: 6.67
glasses	: 6.67
agenda	: 6.67

Sixty of the victims lost a certain amount of money, and some burglars also took credit cards, and bank passes. Perhaps they hope to be able to withdraw the money from the Automatic Teller Machine (ATM) if they break the code successfully. Ninety-four burglars in Germany and 80% in Austria said that they wished to find money in the victim's house. They had planned this before they burglarized the houses.³¹

6.2. Flat

31 KW.Krainz, op.cit., at 15.

Five flat buildings observed have corridors inside, breezeway, and single-loaded model except in Vijf Meilaan Leiden having double loaded models. Those flats are located on streets which have more than 5 meters width on the average. In front of the flats, there is a big garden, or parking area. At the back side, there is a garden, street, or housing. To enter the flat one uses the audio interviewer intercom system, then one must go up using stairs. Only 40% of buildings have an elevator and 60% of the flats have the double door system in the main entrance door downstairs. The model of flats inside which is parallel to the entrance door one finds mostly the kitchen, and then livingroom or bedroom. In front of the entrance door, 60% of the respondents have no neighbour. Building materials use 80% concrete for the roof and only 20% with stucco outside for the wall. In the same way as for the house, this kind of wall would become an apparatus in connection with other tools like ladder, pipe, rope and so on, because its surface is not smooth at all. One respondent in Woerden has model of flat (condominium) with three balconies and has complete security devices such as TV scanner, alarm system, two dogs, good locks for the doors and the windows, except the window in which the burglar came. She said that the burglar entered her flat at noon when she left for vacation, and unfortunately she forgot to install the alarm. The burglar entered through the balcony, which means that the burglar climbed the wall into the balcony. The wall is high enough to prevent access by climbing but the model of flat with three balconies and without stucco outside make access for the offender by making climbing easier. When the burglar escaped, he ran out through another balcony, facing the garden. The dogs, in this case, had no function, because this lady lives in a big flat in which every resident has one floor for themselves. Thus, perhaps, when the dogs were barking, nobody heard.

Figure 4 :

Enter :

- door : 80
 - window : 20
 - wall : 20

Entered first :

- bedroom : 20
 - kitchen : 20
 - livingroom : 60
 - balcony : 20

Escape :

- door	: 80
- wall	: 20
- balcony	: 20

The majority of the burglars entered through the door and entered the livingroom first. They escaped in the same way, except in Woerden as mention above.

In 60 % of the cases examined, the offender took valuable property, such as jewelry or money, from the victimized house-holds. It involved the taking of cash and electronic equipment.

Figure 5 :

Object of burglary in flats :

- electronic (40%) :

Video	: 40
CD	: 20
TV	: 20
walkman	: 20

- non-electronic (80%) :

Money	: 60
jewelery	: 60
camera	: 40
game watch	: 20
video-cam	: 20
clothes	: 20
sandals	: 20
hand-bag	: 20
glasses	: 20
parfume	: 20
stamps	: 20

The burglar came inside the flat in the morning and in the afternoon, during the official days. The matter of whether the flat is occupied or not is an important point. But according to Waller and Okihiro occupancy rates for flats were less influential on burglary rates than for houses. This may be because it is more difficult for the potential

burglars to tell at a distance whether a flat is unoccupied.³² I found from the observation that all of the victims' flats were empty when the burglars came, although the situation at home is that it is always occupied. Thus, I think it is not coincidence but it is part of a burglar's plan to enter an empty flat. And the problem of how to enter the building, leads to the question of whether flats have better security measures than houses.

7. Security System

Buildings in the Netherlands are made strong with a standard of housing imposed by the government in view of the environment, that is, buildings must be able to stand up against wind, storm, and snow. Without that the buildings would collapse. Recently, not only for the natural environment but also for crimes, the Dutch Government makes a rule through Police Label Safe Housing. This rule is necessary because crimes, especially burglary, also relate to physical control. It means that the building has to possess security devices for the doors and windows. The offender could see more easily to enter the building if the resident left for several hours. Condition empty for several hours a day were more at risk than the flat or house constantly occupied.³³ The intruder then selects which one of the houses seems likely to be unoccupied, and which provides easy access to potential entry points without much risk. Also to select a house, the burglar tries to check for occupancy by visual evidence, by calling at the house to see if anyone answers the door or the telephone. If the house was found to be empty, the next stage of breaking security devices begins. Locks and other measures used on windows and doors can only be discovered by the intending burglar at this point. If doors and windows have not been left unsecured, they can usually be forced open or a window broken by some sort of tools or by kicking.³⁴ In 20% of flats and 25% of houses in Maartensdijk, the burglars seemed to have used little force to open the door with broken locks. The sort of tools used by the burglar to break in closed and bolted building components are by means of ³⁵:

32 B.Poyner, *op.cit.*, at 35.

33 KS. Williams, *loc.cit.*

34 Taken from KW. Krainz, *op.cit.*, at 13, and also from B. Poyner, *op.cit.*, at 35.

35 See Annex-A from paper : Naar een Politiekeurmerk Veilig Wonen, Voor Studie 'Secured By Design' in Nederlads.

1. physical force : kicking, jumping, shoulder charging, lifting, tearing out, or the like
2. simple tools : screwdriver, pliers and wedges
3. crowbar
4. metal saws and striking tools : crowbar, hammer and chisel, accumulator drilling machine
5. electric tools with max.500 W power input : drill, jig saw or reciprocating saw or angle grinder
6. electric tools with max.2000 W power input : drill, jig saw or reciprocating saw or angle grinder

Nos. 4-6 are for the experienced burglar. Figure 6 depicts the sort of tools used by a burglar. I found that some burglars used a crowbar and screw-driver to open the door. For houses in Linschoten, burglars drilled the frame of the window to open the catch.

Figure 6 :

Kind of tools used by burglar

	house	flat
crowbar	: 26.67	20
drill	: 20	-
card	: 13.33	-
screw-driver	: 20	60
hook	: 6.67	-
pliers/ tweezers	: 6.67	20
cylinder	: 6.67	-
brick/stone	: 13.33	-
none	: -	20

The percentage based on total number of respondents

From the observation, it appears that the everyday situation in the victim's house is, on the average, three people staying at home. For the flat, on the average two people staying at home during the day. However, burglars came to the house or flat with 53.33 % empty houses and 100 % empty flats. It showed that empty buildings were more

likely to be targets. The factor of occupancy is the important thing for the burglar, and there were marked differences in the time of day that burglary happened in a house or flat. The burglars entered the house at night, and 60 % of respondents said that it occurred during holidays. For the flat, burglars broke the vulnerable entrance mostly in the morning and in the afternoon and happened to 80 % of respondents during official days.

Figure 7 :

Preventive measures before burglary

	house		flat	
	victim	non-victim	victim	non-victim
Window :				
-locks	: 53.33	20	60	80
-double locks	: 33.33	66.67	40	20
-alarm	: 6.67	-	20	20
-lighting	: 6.67	20	40	20
-rolling door	: -	6.67	-	-
-double glass	: 6.67	-	-	-
Door :				
-locks	: 60	20	60	60
-double locks	: 53.33	66.67	20	40
-grilles	: 6.67	6.67	20	-
-lighting	: 66.67	73.33	100	80
-peep-hole	: -	-	40	20
others :				
-fences :				
in front of	: 6.67	-	-	-
back yard	: 40	33.33	-	-
-TV scanner				
/camera	: -	-	40	40
-caretaker	: -	-	20	20
-dog	: -	13.33	-	20

The percentage based on total number of respondents

The use of double locks and lighting is found more in non-victims' houses than in

victims' house. The percentage of respondents, victim and non-victim, who use lighting in front of the door outside are many, that is more than 50% of the respondents. But they install a kind of lamp which switches on if someone moves in its vicinity. Thus, if nobody is there, the house will be dark outside.

To compare with the control group, the victimised houses had more security devices than general households as a controlling group, because they had been burglarized and feel better if they pay extra to install security devices instead of being burglarized for a second time. To improve locks on doors and windows is worthwhile as a preventive measure. I found that the victims, especially the tenants, who were burglarized two times did not care to provide these security devices after the first crime.

Figure 8 :

Preventive measures after burglary
(only victim)

	house	flat
Window :		
-double locks	: 40	20
-lighting	: - inside : 6.67	-
	- outside: 6.67	-
-grilles/metal bar	: 20	20
-alarm	: -	20
Door :		
-double locks	: 53.33	80
-lighting : - outside	: 20	-
-trim metal	: 13.33	-
Dog		
	: 6.67	-

The percentage based on total number of respondents

Forty non-victims who heard that their neighbour were burglarized then installed double locks. Since the accessibility to flat doors cannot so easily be supervised, it would be easier for intending burglars to try many doors on a more speculative basis. As will be seen, the best line of defence for flats is to keep potential burglars completely out of the building.

The access to buildings is difficult. Two building flats use a double door system.

as an entrance door downstairs, and also use audio surveillance by residents of their lobbies and adjacent entries on individually-owned television monitors. How then did the burglars enter? One of them climbed the wall and another did not have a problem because the door was open, unknown to the caretaker. In other flats, the victims had left the door downstairs unsecured. If we look at figure 7, the residents, both victims and the controlling group, use a lot of security devices. The observation showed that most of the victims were careless. They did not install locks or double locks in their homes for security. Thus, the intruder succeeded in entering the building from downstairs. It is difficult to guarantee security in the flat, because the residents enter the building from the same main entrance door. Those who stay in that building have different personalities. One takes care of the building, another resident does not, or perhaps, the offender can be one who lives inside the building.

Restrictive entry in flats is a particularly effective means of preventing burglary. Some flats have working intercom systems for entry to the flat. It has the function of screening visitors, but, according to Waller and Okihiro, it is not as efficient as a doorman.³⁶

I found that residents who have used this equipment did not ask who the visitor/guest is before they opened the door. It would be easy to go inside because of lack of screening.

The Boston and Toronto studies showed that the use of doorman or security guard was effective in preventing burglary,³⁷ because the burglar appears to avoid the risk of personal confrontation. Doorman/security guard and caretaker have different functions. Doorman/security guard is a security personnel who manned the common entrance to a flat. He serves to limit access to residents and their guests.³⁸ Meanwhile the caretaker is resident management who monitors the building through electronic means.

In the Netherlands, some flats do not have doorman/security guard, but they employ the caretaker. Only a few flats use television surveillance system. The TV camera can be monitored both in the lobby prior to the entrance door into elevator and by residents on the unused channels of their television sets. Television also has the capacity of being monitored by security guards/doormen and the management office

36 B. Poyner, *op.cit.*, at 37.

37 *Ibid.*

38 O. Newman, *Architectural Design For Crime Prevention*, US Department of Justice, at 94 (1971).

(caretaker). The picture transmitted by the cameras could be viewed by residents on their own TV screen or in the caretaker's flat by selecting the appropriate channel. This is known only by the residents. If burglary occurs, perhaps the offender is one of the residents.

7.1. Comparable Security Measures Between House and Flat

Better locks, doors, and fences are the strategies of crime prevention,³⁹ and these strategies entail three forms of prevention⁴⁰:

1. elimination of social condition closely related to crime;
2. improvement of the ability of the system of criminal justice to detect, arrest, convict and reintegrate into society the perpetrators of criminal offences;
3. reduction of situations with the greatest probability of commission of crimes.

As a primary prevention of crime, security measures attempt to make the lower rate of burglary before the crime occurs.⁴¹ Buildings are protected against crime through measures of accessibility, lighting, security devices (e.g. locks, fences, alarms, Television scanner). The result of my observation is that houses and flats have different security measures.

7.1.1. Accessibility

Part of a building will be selected by a burglar, that is, the door, window, wall, roof. These are the targets of burglars for entering the building. If the house is compared to the flat, it is more accessible, because to enter the house one can use the

39 Other strategies are :

- strategy of law and order
- strategy based on inadequacy of law and order strategy and considers the problem in a broader sociological context.

Taken from Z.P. Separovic, op.cit., at 58.

40 Ibid.

41 J.J.M. Van Dijk, *A Two-Dimensional Typology Of Crime Prevention Projects; With An Overview Of The Literature*, Criminology Leyden Law Course-Reader (1995/1996).

front door, or the rear entrance. Most houses in the Netherlands have a back passage, but the flats only have the main entrance door. However, for a burglar, a window or a balcony is also a vulnerable part to be entered. Accessibility is related to the security devices, thus a house needs more locks as a security measure. Another access point is the wall which is used to enter the building through the door or window. One case is in Voorschooten, Woerden, and Maartensdijk, whereby a burglar entered the house or flat by climbing the wall using a sort of tool e.g. pipe, rope. This can be done due to the fact that almost all of the houses and flats in the Netherlands are without stucco outside. Part of segments of the wall which is not smooth will be used to stand on in order to go up and down easily.

7.1.2. Lighting

Not all of the victims' houses have lighting installed outside. Most of them make use of the street-lights. If they have, they use the automatic lamp which will switch on if someone moves in the area. The house will be dark outside while the residents sleep. It is a chance for the burglar to commit his crime. In the same way as houses, flats also exploit street-light for lighting. But inside the flat, all the corridors have lights burning all night long. From the observation, the time for burglars to come into the flat is in the morning and the afternoon. They did not enter the flat at night. Thus for security, besides physical security devices such as locks, and lighting, it is also important to form the neighbourhood watch.

7.1.3. Security devices for the door and windows

Flats have a better security system hence the victim did not provide for this even after the crime occurred, especially for windows. But for the door, most of the victims (80%) installed double locks, because 80% of burglars entered the flat from the door. For houses, 53.33% of the burglars entered through the doors and also 53.33% entered through the window. Therefore, 40% of victims had added double locks for windows and 53.33% of victims had installed it for the doors. Very few people in the Netherlands use the stronger materials and frames, grilles, steel or aluminium roller shutter etc. because they feel that those materials seem to dehumanize. However looking at the prevention of crime side, these materials should be considered as restricting measures of access points and should be accepted as part of aesthetic. Or, I think a burglar alarm is more appropriate if people perceive grilles as uncomfortable for humanization.

Figure 9 shows that houses have more locks than the flats. It is understandable, because houses have more accessibility. But comparing victims and non-victims as a

control group, non-victims in houses installed locks more than non-victims in flats.

Figure 9 :

Type of locks used in :

	house		flat	
	victim	non-victim	victim	non-victim
entrance door :				
-cilinderinsteeksloot/ cylinder mortise lock	: 46.67	40	40	40
-oplegslot/rimlatch/ rimlock	: 60	46.67	60	40
-afsluitbare insteekgrendel/ closing up mortise bar	: 60	53.33	80	80
-afsluitbare insteekgrendel/ closing up mortise bar without key	: 13.33	6.67	-	-
-afsluitbaar raamboompje/ closing up window latch	: -	13.33	-	-
-afsluitbaar raamboompje/ closing up window latch without key	: -	6.67	-	-
-wood for the door pane	: -	6.67	-	-
rear entrance :			balcony :	
-cilinderinsteeksloot/ cylinder mortise lock	: 80	60	100	80
-klavierinsteeksloot/tumbler mortise lock	: 20	6.67	20	20
-slot met haak-harpoenschoot/ harpoenbolt lock	: -	20	20	
-oplegslot/rimlatch/ rimlock	: -	6.67	-	-
-afsluitbare insteekgrendel/ closing up mortise bar	: 13.33	6.67	-	-
-afsluitbare insteekgrendel/ closing up mortise bar without key	: 20	13.33	-	-
-afsluitbaar raamboompje/ closing up window latch without key	: 13.33	-	40	20
-espagnoletslot/espagnollete				

lock	:13.33	-	-	-
-knopslot/knob-lock	:-	6.67	-	-
-master key system	:6.67	-	-	-
-sliding door	:6.67	20	20	20
<hr/>				
back passages :				
-cilinderinsteeksloot/ cylinder mortise lock	:6.67	-	-	-
-klavierinsteeksloot/tumbler mortise lock	:20	13.33	-	-
-oplegslot/rimlatch/ rimlock	:-	6.67	-	-
-afsluitbaar raamboompje/ closing up window latch without key	:6.67	-	-	-
-other	:6.67	26.67	-	-
<hr/>				
Window :				
-afsluitbaar raamboompje/ closing up window latch	:13.33	6.67	-	-
-afsluitbaar raamboompje/ closing up window latch without key	:53.33	40	60	80
-espanoletsloot/espagnollete lock	:-	26.67	20	20
-afsluitbare opleggrendel/ closing up rim bar	:-	6.67	-	-
-metalen spijl/metal bar	:20	-	20	-
-other	:6.67	13.33	-	-

The percentage based on total number of respondents

Another problem is that while humans try to make better locks, it only makes (potential) offenders more curious and they exert more effort to find ways of entering the buildings.

The question therefore is, are locks, as a physical control, the only important thing for solving the burglary? The answer is no. Physical and Social control must be related to each other. Social control is especially important. The more the human is bound to the society, the more social control is cultivated. Social control will be formed if among people to be responsible for their own society in order to make a peaceful neighbourhood. '*Social responsibility*' in terms of : *knowing, needing, and feeling*. It means that people should know the neighbours. If someone needs to be helped, he would be helped by the neighbours because they feel like members of a family. This

relationship binds them morally so that without talking among them, they secure automatically the neighbourhood from the suspected intruders.

Speaking about secured by design I think that not only the security system as a controlling model for buildings has to be considered but also design issues, started from site plan and then continued to design of building. Later there is the task of an architect to make the best design. It must be a city planning and design building which can foster close relationship among the people in society. The weakness of the system is that it affords an opportunity for offenders who stay, perhaps, in that area or that building because they know about the area. If that happens, the physical side has to be applied for controlling system. Therefore, besides social control, we must prepare for physical control as back up.

Poyner said that one of the best methods of crime prevention has been the use of publicity to persuade the public to take precautions to reduce crimes through spreading leaflets produced in concert with the police, public authorities, insurance companies, and lock manufacturers giving advice on safe behaviour such as warning precautions to beware of strangers. These precautions would be useful if people took them as recommendations. The problem, however, is that it is really difficult to persuade them to act on advice given. For example, the 'Politiekeurmerk Veilig Wonen' concept has not yet been applied in all regions in the Netherlands because some people perceive that it is costly to pay for extra security devices.

8. Insurance

In the Netherlands, insurance is necessarily taken to make people perceive safety for their property, because the company will reimburse the lost or damaged things if there is an accident. Two sorts of insurance are usually taken, that is insurance for building and insurance for furniture. In Leiden only one victim did not take the insurance for the furniture, and also in Woerden one non-victim did not insure both.

The Dutch fire insurance statistics shows that in the period 1990-1995 the claimants increased 35% in connection with burglary. Nowadays, almost 40% of damaged houses are due to burglary. Because of this reason, one of the insurance companies which is accredited by the Dutch Council of Accreditation (RvA) and has the EN-45011 and 545012 requirements has established since 1995 a system of quality assessment for security. This organisation is called BORG, the Dutch certification system for burglary prevention. It is supported by insurers, consumer organisations, the security industry, and the public sector (the Ministry of the Interior and the Ministry of

Justice).

The certification takes on two levels. First, the certification of the security companies is given to whomever fulfilled the administrative BORG-criteria. Since 1996, 525 security companies have the certification and have installed 80% of all burglar alarm systems. The second level is the certification of the package of security measures. No certificate is given if all the necessary measures as indicated in the security devices are not executed.

In 1996 BORG and the Police Label Safe Housing project were harmonised. In January 1997 BORG started the certification of Private Alarm Exchanges. These exchanges, according to the new Dutch Law on Security Organisations that will be effective on 1 January 1998, may only transfer signals of certified alarm systems.

9. Conclusion And Suggestion

Some points which led me to the conclusion of my observation are :

1. House

- Fences are part of security devices, besides locks and grilles.

A lot of the houses in the Netherlands have back passages but mostly without fences. This design seems to attract burglars, because the houses which became burgled victim mostly have no fences. But if the resident uses a good security measure for the doors and windows as a prevention, using fences becomes unnecessary.

- Lighting

Most of the houses utilize street-lighting so that it is necessary to add more lighting in front of the house and also the back side in order to prevent the burglar from hiding in the dark.

2. Flat.

It is more difficult to enter the flat compared to the house, because there is less accessibility and also security measures in flats are better than in houses. But for prevention they also need neighbourhood watch as a social control system. This system needs the design of window like the housing window facing the corridor which is parallel to the entry door. Thus everybody who walks in the corridor will be seen from the flat inside or from the neighbour's window. This model, perhaps, will prevent an offender who also lives in that flat.

3. Using security devices is a means of physical control to backup social control.

Thus, physical control has to be installed with comfortable design of security devices so that the user does not perceive that his house seems like a jail, but his house seems like a fortress or barrier of defence against the intruder.

4. Some of the victims in flats are led to carelessness, e.g. they left the door unlocked, or only installed one lock, or did not even install the locks inside their room at all.
5. Clearance between two buildings face to face has influenced surveillance. If these are far from each other, it is worthless. But the clearance between two neighbours is necessarily considered for collaborating among them for social control. Therefore, building design influences cooperation among residents to cope with the intruder. This cooperation will deter someone from intended evil.
6. The owner is more attentive to add security devices after the burglar came. But most of the tenants only paid the damages.
7. Taking insurance helps people to gain profit from their lost or damaged things. However, it would make people careless. They may even become less motivated to install the security devices because the insurance company will reimburse all of the insured goods.
8. Insurance has the role of reimbursing the lost things. But before accepting a client, it is better if the insurance company observes the building first to avoid disadvantages, because I found some unworthy buildings getting insurance. The company should cooperate with the Police Label Safe Housing.
9. In the Netherlands, besides improving the physical control, people should form the 'social responsibility' by knowing, needing and feeling for each other to reduce the number of burglaries. However, it would take a long time to change the way of thinking because most of the people possess an individualistic attitude. It is not easy to change this way.
10. I found from my observation that the burglars in the local area have different ways of entering the buildings, and it depends on the model of the buildings. For example, in one area the burglars came inside the building through the window-

roof, but in another local area, they entered through the rear entrance/back passage by drilling the frame of the window first. It would be better if there were more empirical research to give input for the architects when they design the model of buildings in that local area.

11. Also, it will be interesting to do research about the effectiveness of the sorts of tools used by burglars, because it will give more information to the police on order to prevent crime, to the architects for their choice of building materials, to the locksmiths for creating better locks, or to others for making the best security devices.

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