



SCHOOL-BASED VIOLENCE PREVENTION
 IN URBAN COMMUNITIES OF
 LATIN AMERICA AND THE CARIBBEAN

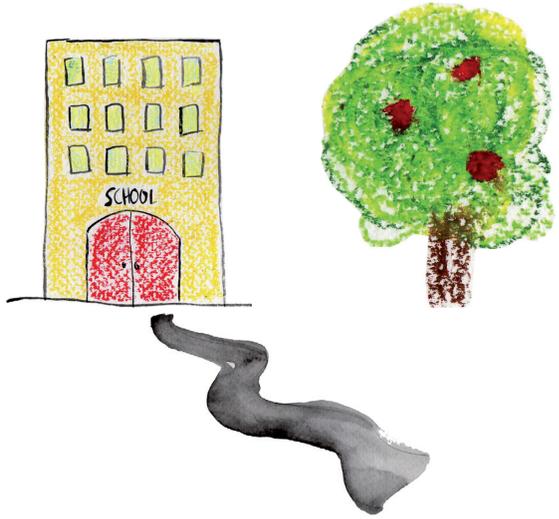


WORLD BANK
 SUSTAINABLE DEVELOPMENT DEPARTMENT
 LATIN AMERICA AND THE CARIBBEAN REGION

.2011

.4 Safe School Spaces





SAFE SCHOOL SPACES. Preface & Acknowledgements





Preface & Acknowledgements

This School-Based Violence Prevention Toolkit was produced by a team at the World Bank led by Bernice van Bronkhorst (Senior Urban Specialist, LCSUW), Ximena Anwandter (Violence Prevention Specialist, Consultant, LCSUW/LCSSO), and Lorena Cohan (Social Development Specialist, LCSSO) with extensive background research and technical input from Joan Serra Hoffman (International Violence Prevention Expert, World Bank Consultant), and under the overall guidance of Guang Chen (Sector Manager, LCSUW) and Maninder Gill (Sector Manager, LCSSO).

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This Toolkit is composed of the following five publications: 1) Practical Guide (a primer on violence and violence prevention, the role of schools and communities in preventing violence, a five stage method for the design and implementation of a school-based violence prevention program and the recommendations from the piloting workshops in Colombia and Nicaragua); 2) Tools (a variety of selected tools to assist in developing the school-based violence prevention action plan); 3) Case Studies (successful, evidence-based school violence prevention practices); 4) Safe School Spaces (a practical tool for the design of safe schools from the CPTED/environmental design perspective); and 5) Disaster Risk Reduction in the

Latin American and Caribbean School Environment (key elements for reducing schools' vulnerability to disasters).

The Tools and Case Studies were prepared by Joan Serra Hoffman (International Violence Prevention Expert, visiting scholar at Brandeis University). Safe School Spaces was prepared by Macarena Rau (Architect and President of Corporacion CPTED Region), Paulina Castillo Fajardo and Carlos Gutierrez Vera. Disaster Risk Reduction in the Latin American and Caribbean School Environment was prepared by Magnolia Santamaria (Disaster Risk Management Specialist) and Diana Rubiano (Disaster Risk Management Specialist). The Practical Guide was prepared by Ximena Anwandter (Violence Prevention Specialist) and Adriana Loche (Sociologist and Violence Prevention Specialist) based on extensive background research carried out by Joan Serra Hoffman.

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This Toolkit was validated by school and community stakeholders through two piloting workshops, one in the Municipality of Antioquia, Colombia (2008) and

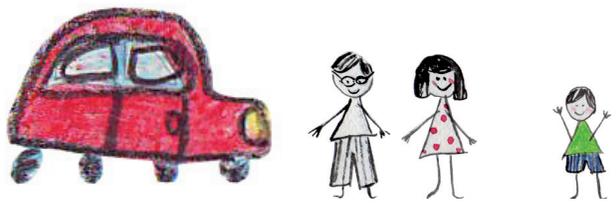
one in Managua, Nicaragua (2009). Special mention should be given to the schools whose input and participation were critical in the finalization of the Toolkit. In Colombia: Colegio María Josefa Marulanda; Colegio Monseñor Alfonso Uribe Jaramillo; Colegio Bernardo Uribe Londoño; Colegio Francisco María Cardona; Colegio Concejo; Colegio La Paz. In Nicaragua: Escuela Comunal Las Torres; Instituto Nacional Maestro Gabriel; Colegio Salomón Ibarra; Colegio República de Venezuela; Escuela Ramírez Goyena; and Colegio Benjamín Zeledón.



Prologue

Ensuring the feeling of safety and trust among children, adolescents, teachers and families in the school space should be the challenge of authorities in all countries of the region. This challenge has been the motivation to create this document; its objectives are to disseminate knowledge and concrete tools for the design of school spaces and their environmental characteristics, promote the school community's participation in this process, and contribute to improving the perception of safety and reducing opportunity crimes in schools.

This document refers to preschool, school and university educational spaces. On the one hand, it is based on the study of educational spaces in Latin America and the Caribbean, and on the other hand, on concepts of the Crime Prevention Through Environmental Design (CPTED) methodology. This crime prevention strategy, which considers spatial as well as community elements, has formed part of many comprehensive initiatives in different countries of the region. The circumstances of each country are different, and thus the nature of the CPTED approach can be easily adapted to the particular needs and limitations of each country. In this context, the aim of these recommendations is to contribute, based on practical experience and on local and international studies, to the development of a working methodology that can serve as a helpful input to safety needs in school spaces in Latin America and the Caribbean.



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1 General Concepts

1.1 DEFINITIONS

In order for the authors and readers to use a common language, the following are definitions of several concepts to be kept in mind for understanding this document:

PUBLIC SAFETY

An essential pillar for the development of modern societies. A nation that enjoys high levels of peace and tranquility generates conditions that are favorable for investment and for the social, political and cultural development of its citizens. Therefore, the initiatives that are adopted to improve the safety conditions of countries in LAC (Latin America and the Caribbean) should account for the breadth and complexity of this phenomenon.

CITIZEN SAFETY

The concept of citizen safety refers to the traditional idea of citizenship, i.e., the capacity of citizens to be active agents, not a relatively passive mass, who demand safety from a higher authority. Citizen safety shares the principles under which democratic states should exercise internal (public) safety, but its difference stems from the agents involved: persons who are holders of citizen duties and rights.

In the sphere of public policies for crime reduction, however, it has a more specific meaning. Specifically, citizen safety is associated with the

absence of crime and fear of crime. In other words, the lack of citizen safety is restricted to threats to persons and goods stemming from criminal activity.

CRIME

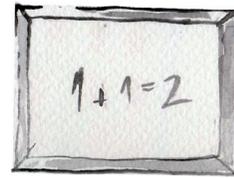
Any act punishable by law, committed by a person or group of persons, that causes physical or psychological harm to other persons, their rights, their goods or the community, in an unjust and illegitimate manner. In specific terms, the crimes considered in this document are those that occur in urban areas and are influenced by conditions that the environment generates, known as opportunity crimes.

FEAR OF CRIME

Fear of crime is a feeling that persons have with regard to their perceived likelihood of being victims of a crime. This fear expresses a feeling of powerlessness in the face of potential criminals. The variables that explain people's fear of crime are not only restricted to the fact of their having been victims of a crime, but also include other events, such as feeling that they do not belong to a place or a community and the perception of neglect in community spaces, or certain environmental characteristics such as the lack of lighting in places that they need to cross, sanitary conditions, the type of urban design, etc.

VICTIMIZATION

Victimization refers to crimes that actually occur. The actual crime and the perceived fear of crime are not always directly related. Victimization is closely related to accusation.



ABUSE

This is anything that is opposed to the proper treatment and well-being of persons, especially children. Any adult behavior and/or speech that transgresses or interferes with children's rights is considered abuse. Adults are responsible for promoting and providing the conditions for all children to be respected in terms of their rights:

- To equality
- To protection
- To food
- To housing and medical care
- To education and play
- To understanding and affection
- To protection from abandonment, mistreatment and sexual abuse
- To protection from labor exploitation

VIOLENCE AND CRIME PREVENTION

Violence and crime prevention includes strategies and measures that seek to reduce the risk of the occurrence of acts of violence and crime and their potentially harmful effects on people and society, including fear of such acts, through intervention in order to influence the multiple causes of both phenomena.

SCHOOL SPACES

These are spaces aimed at learning, for preschool-aged children (for example, kindergartens), and schools and universities.

SCHOOL COMMUNITY

Group of stakeholders in the school environment, such as teachers, parents, students, principals, administrative staff, etc.

PROMOTION OF GOOD TREATMENT

When we speak of the promotion of good treatment, the accent is placed on well-being and on conditions that favor all aspects of a healthy life.

SAFE ATTACHMENT

The capacity to establish very strong bonds of affection between the child and the caregiver, associated with the survival of the species, at least in mammals and especially in humans. Safe attachment as also been related to resilience, which refers to a person's capacity to survive and develop properly despite having endured highly adverse living conditions.

In safe attachment, the child demonstrates behaviors that reflect a basic confidence in himself and in his environment. It is related to having had an adult figure permanently available who the child identifies as a source of security. As children grow, they are able to separate from their guardians and explore their environment. Children who have had a healthy attachment are able to develop self-sufficient behaviors with a degree of trust and security.

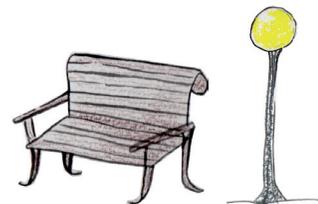
There is general consensus that, if the urban space and its environmental characteristics are appropriately planned, designed and managed, certain types

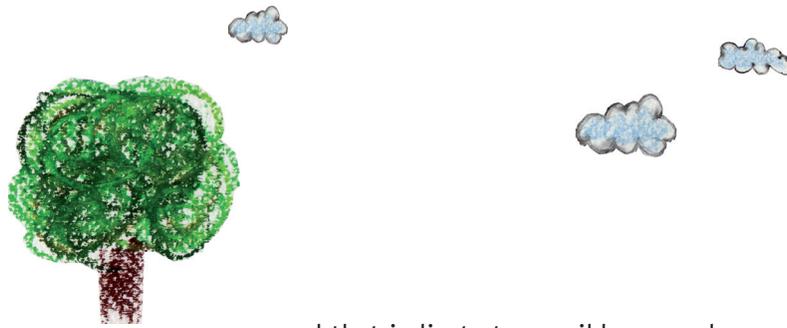




of crime and the perception of fear can be reduced, thereby raising the quality of life of the communities that live in them.

In school spaces, these relationships take place in the manner and scale of the school's space. In this regard, the school's relationship with its neighborhood is highly relevant. To more precisely understand the role of the urban space and its environmental characteristics in preventing crime and in the feeling of insecurity that this generates, the following is a summary of the elements present in the occurrence of a criminal event; these elements are then briefly defined.





1.2 RELATIONSHIP BETWEEN SCHOOL SPACES AND SCHOOL VIOLENCE

DEFINITIONS

- **MOTIVATED PERPETRATOR.**

A person who is disposed to commit a crime if the circumstances indicate that the reward will be greater than the effort and the risk of punishment he may incur.

- **ATTRACTIVE AND ACCESSIBLE TARGET OR VICTIM.**

A target is the object of a criminal act. In the case of a crime involving injury, the target is a person; in the case of theft, the target is the object taken. This is perceived as attractive and accessible by the perpetrator of the criminal act when it is very valuable and easy to take.

- **CONTEXT.**

Description of the physical, social, economic and cultural space where the crime occurs.

- **CRIME**

An action that goes against or violates the set of rules of conduct or laws that are accepted by society.

- **OPPORTUNITY CRIME**

Those crimes committed due to the existence of context variables that facilitate their commission, lowering the effort and risk of punishment incurred by offenders or increasing the reward they obtain by committing the act.

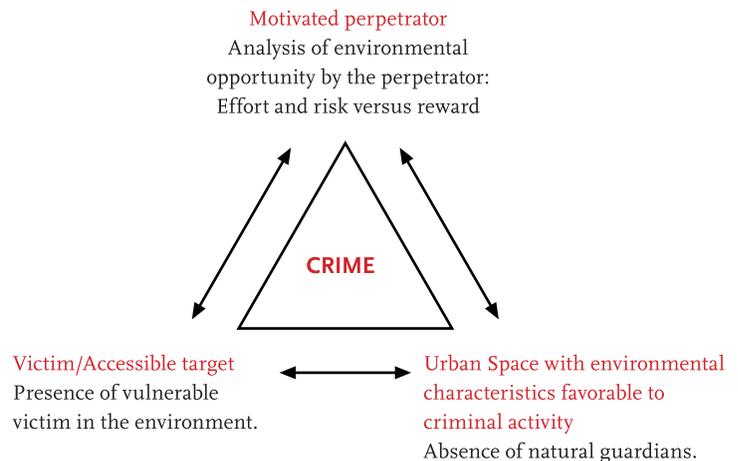
- **URBAN SPACE AND ITS ENVIRONMENTAL CHARACTERISTICS THAT FAVOR OPPORTUNITY CRIME**

Urban spaces with environmental characteristics that do not promote natural surveillance by the community

and that indicate to possible wrongdoers an absence of control over what occurs in these spaces and that therefore increase the likelihood that crimes will occur and the community's perception of unsafety.

- **NATURAL GUARDIANS**

Persons who, due to their activity or mere presence in an urban space, oversee their environment in a natural manner. The space's design can facilitate or limit the exercise of this surveillance by persons, depending on, for example, the breadth and depth of the visual fields that it generates and how attractive the space is for them. Depending on the urban context, the guardian of a space may live in it or be passing through it.



- **VIOLENCE**

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.”

(WHO – World Health Organization)





1.3 CRIME PREVENTION IN SCHOOL SPACES THROUGH THE DESIGN OF THE SCHOOL SPACE AND THEIR EN- VIRONMENTAL CHARACTERISTICS.

Crime and violence prevention in educational spaces, through the design of the urban space and its environmental characteristics, takes into consideration a set of actions or measures whose objective is to decrease the probability of the occurrence of opportunity crimes and to increase the feeling of security through the modification of the design and of environmental variables.

These techniques will be more successful if they contribute to the social cohesion of the school or university community through its participation in modifying the school space and its environmental characteristics.

A comprehensive plan for safe school spaces should consider providing preventive information to all members of the school community. This strategy is based on the following key principles:

- PROMOTING NATURAL SURVEILLANCE

Promoting the possibility to see and be seen is essential for creating or maintaining a safe space. A school's high visibility inside and outside its perimeter increases its users ability to control it and decreases the likelihood that opportunity crimes and acts of violence will occur.

- PROMOTING NATURAL ACCESS CONTROL

This principle is aimed at encouraging, by means of design strategies, social control of a school space's entrances and exits.

- ENCOURAGING TRUST AND COLLABORATION AMONG MEMBERS OF THE SCHOOL COMMUNITY

The reinforcement of the school community's mutual trust and the sense of ownership with regard to its environment promote social control over a sector; this contributes to generating its proper use and care.

- REINFORCING IDENTIFICATION WITH THE EDUCATIONAL SPACE

A strategy that reinforces identification with the educational space involves the school community in its recovery and design, so that the community feels a sense of ownership, takes charge of it, and cares for it. The design of these places with the participation of community members is a key need because it helps people to understand one another and deepens community ties.

- DESIGNING AND PLANNING NEIGHBORHOODS AT A SMALLER SCALE AND THE SCHOOL AS THE DRIVER OF THE DEVELOPMENT OF SAFE SPACES

The size of a neighborhood can affect its users' sense of security. In large-scale neighborhoods, it is difficult to establish deep community ties. At a smaller scale, a citizen feels that he can control his space, which responds to his personal size.

In this context, the school is considered a driver of the development of safe school spaces, because it can lead the process of urban transformation and regeneration in a certain neighborhood.

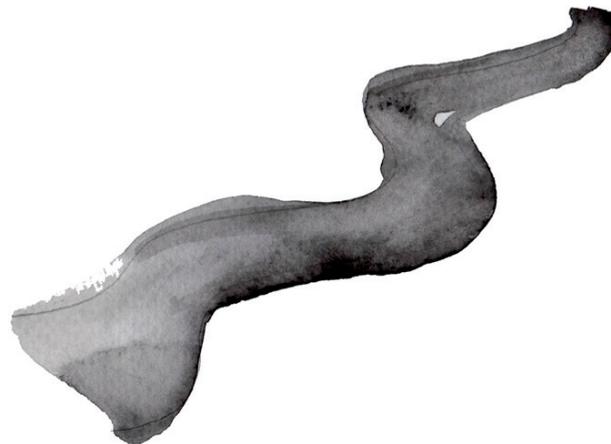
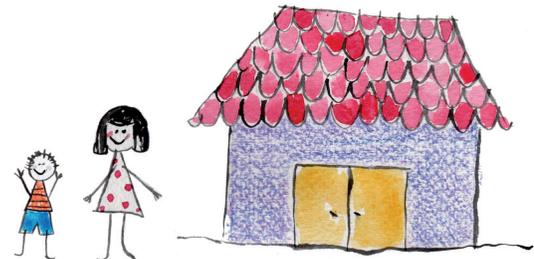


- **PROMOTING THE PARTICIPATION AND RESPONSIBILITY OF THE SCHOOL COMMUNITY**

This implies that residents participate actively in the social life of a community, using a spatial and administrative structure that supports them.

- **ADEQUATELY ADMINISTERING SCHOOL SPACES**

The administration of a new or recovered space over time, establishing municipal maintenance programs and community activities that delegate part of the responsibility to members of the school community, is vital for a prevention strategy to be sustainable and to promote the finding and collective use of said space.



2 Design Recommendations

2.1 ANALYSIS OF EDUCATIONAL SPACES

INTRODUCTION

BUILDING DESIGN

This is defined as any structure that houses educational activities. The structure’s form, size, construction quality, design, materials and age may vary, depending on the specific conditions of the educational institution. Thus, some educational buildings may, for example, be old buildings adapted as a school, a new building with high-tech elements, or a very simple building made using local construction techniques in a rural community.

Thus, there are numerous types and quality of educational buildings.

The design recommendations presented in this manual are generic and would need to be adapted to the local conditions of each community. However, they should always be aimed at generating better environmental and safety conditions in the school enclosure. The photographs illustrate different types of educational buildings in which several of the strategies presented in this manual can be applied, but the purpose of these photographs is merely to illustrate specific situations in order to better understand them. The circumstances in some communities may be very different from what the images show. Therefore, what

is important is the concept that is presented; the application of the various design proposals should be adapted to local conditions and circumstances.



2/ Access to a school in a small urban community in Colombia. Simple building reflects the construction style of its era.



1/ Rural school in Paraguay. The school is a large room built using local techniques.



SUSTAINABLE BUILDINGS

In the case of the construction of new buildings as well as improvements to existing buildings, it is recommended that sustainable (as well as ecologically and energy efficient) design strategies be used. This may signify significant savings in heating in cold climates or in cooling in hot climates. These savings may release significant amounts of resources that can be used to educate students.

One should not think that these techniques necessarily imply high-tech, costly procedures. The techniques used can be simple and economical, and would need to be implemented by specialists in sustainable architectural design.

It is important to mention this point, because although it is not the main theme of this manual, it is an aspect that can contribute significantly to improving environmental conditions inside an educational building. The idea is that the “green building” can also contribute to a nonviolent “green mentality.” Comfort inside educational enclosures is a factor that also has an influence on students’ behavior.

This design strategy can also be a positive contribution in remote communities where the supply of fuels and electricity may be limited or nonexistent in some cases.

The proper use of solar energy can provide hot water and heating (when the climate requires them) at minimum cost and complete independence from traditional energy grids.



✓ GOOD PRACTICE
3/ School in Argentina constructed with sustainable design. Note a greenhouse in front.



✓ GOOD PRACTICE
4/ School constructed with self-sustainable design. Note solar panels on roof that provide hot water in an economic manner.



✓ GOOD PRACTICE
5/ Classrooms of a new school, La Belone, Haiti. Note simplicity of construction, maintenance of lighting and ventilation.



GOOD PRACTICE

6/ Safe route, clear visual fields, signs, lighting, cleanliness.



SAFE ROUTE TO AND FROM SCHOOL.

DEFINITION

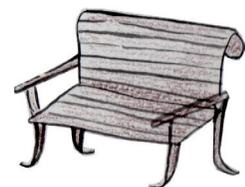
This is the name given to the route to and from the school, depending on the place's individual conditions. This route may be under urban or rural conditions, but in all cases it should contain the necessary elements to allow for safety along the way.

PROBLEM

- The school route lacks adequate bus stops. In rural areas and if there are no means of school transportation, these can serve as rest stops and shelters for students who walk to school.
- The same concept applies to similar situations in urban areas. Bus stops, if they exist, are inadequate and opaque, block visual fields and in many cases more than one shelter becomes a hiding place for a surprise attack.
- There are no adequate signs that provide information on the area and facilitate arrivals to the school.
- The school route may be full of traps where crimes can be committed: tall, overgrown vegetation; lack of cleanliness; poor lighting; blocked visual fields; lack of gathering places that facilitate natural surveillance.
- Lighting that is inadequate, nonexistent, blocked or destroyed by vandalism. This also creates dark spaces due to the lack of uniform distribution from lighting sources.
- Sidewalks or pedestrian paths in poor condition. The route is difficult due to poor conditions of the

walking surface. This can cause pedestrian accidents and favor the perception of neglect and fear along the route.

- Isolated route without the presence of other people. The route is through places without the presence of people who could provide natural surveillance. For example, this is favored by the lack of kiosks or small shops that encourage people to congregate.





✓ GOOD PRACTICE
 7/ Simply constructed bus stop allows a clear view of surroundings. It has a roof and seating. This design can be adapted in accordance with local conditions and materials. What is important is to preserve its transparency, simplicity and functionality. It is located on a small paved area, facilitating cleaning and comfort of movement in the immediate area.



✗ POOR PRACTICE
 9/ Traffic sign vandalized; shows neglect and lack of protection of the area and creates a feeling of insecurity.



✓ GOOD PRACTICE
 8/ Pedestrian crossing sign. A simple sign serves the purpose of informing the community.



THE EDUCATIONAL FACILITY IN THE SPATIAL CONTEXT OF THE NEIGHBORHOOD AND IN RURAL AREAS.

The school is characterized as being a place where a human being's potential is developed, and where all types of learning, social relationships and the development of knowledge, etc. are conducted.

Therefore, the school has always been perceived within the community as a special place in it. It is a place that needs to feel safe, because it is there that the essence of what is conducted is related to issues and subjects that make a person grow from early childhood to adolescence. The school as a place of learning also becomes a point of social reference and support for the community, both in terms of its infrastructure and the possibility of having trained staff to facilitate community projects and initiatives.

From an urban perspective, the school building becomes a key point in the social architectural landscape. Keeping this in mind, the spatial relationship that the school offers to its setting is very important because, depending on its design, and especially on its perimeter and access points, its link will be one of greater or lesser integration with the urban and social setting and will facilitate a process of urban regeneration of the neighborhood.

RECOMMENDATIONS

All school routes should contain:

- Bus stops/shelters
- Signs
- Good lighting
- Clear visual fields
- Cleanliness and order



- An area for vehicular and pedestrian movement, in good condition
- Presence of people and gathering points to facilitate natural surveillance
- Well-maintained telephones

Bus Stops

These should be located at strategic points, in coordination with traffic authorities or other relevant institutions.

They should be:

- Transparent, with materials that allow a clear view and do not block visual fields.
- Well lit. They should have lighting at night.
- Covered, to protect people from weather conditions, such as excess sunlight in the summer and rain in the winter.
- Have seats to facilitate waiting, as well as the presence of elements of natural surveillance.
- A trash receptacle to help keep the place clean.

Signs

Signs should be located in visible places, in accordance with size and color regulations, if applicable (especially in urban areas where this may be regulated by authorities), so that they are easy to read.

Signs can also be adjusted to local conditions, in which what is most important is that the message can be clearly read by the community. The form, color, material and size can be adjusted to the place's conditions. It is important to respect the communication codes and language of each community. In any case, a design criterion should be respected, showing that behind these signs there is an organized community that uses this resource as a means of communication, and that the signs do not appear to be individual occurrences.





10/ This photograph shows how a group of children make use of the space outside the school to practice sports. The school's presence is felt not only because of its architecture but also because of the influence it exerts over the use of urban space.
<http://www.efdeportes.com/efd79/rural>.

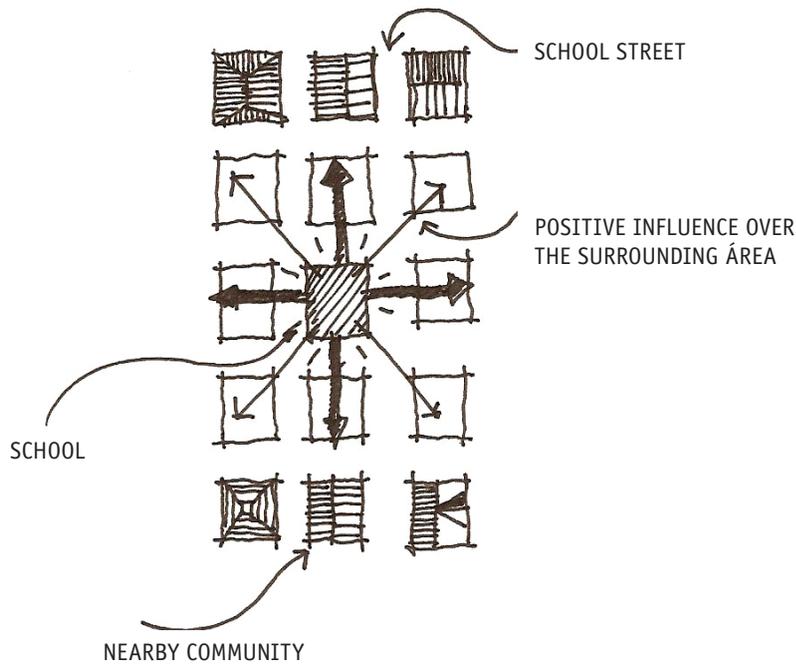


FIG 02.
 The school as a center of positive influence on the urban and social setting.



Organizational design of buildings:

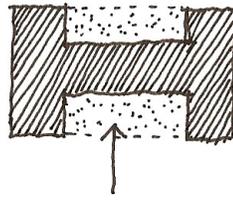
fig. o3



Compact, one or more floors.

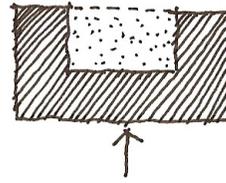


fig. o4



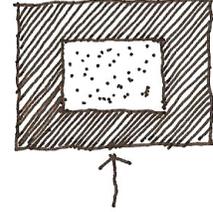
H configuration

fig. o5

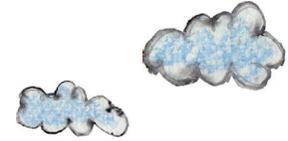


U configuration

fig. o6



Closed interior courtyard



ORGANIZATION OF BUILDINGS ON THE SITE

DEFINITION

An educational complex may be composed of one or several buildings, depending on variables such as the size of the community that it serves, the type of education offered, resources available for construction, etc.

Thus, the organization of the various buildings that form the complex will define the relationship with the urban or rural setting where they are located, and the relationships and functionality among buildings. Each type of formation also involves situations of spatial management and control by members of the school community.

From a security standpoint, regardless of the type of organization, the following must always be present:

- Natural access control
- Natural surveillance
- Territorial reinforcement

PROBLEM

- The various ways of organizing the buildings in an educational complex generate various access points, making them lose hierarchy and also making it more complex to control them.
- Accesses are located in places with little natural surveillance.
- The single access control strategy that is used does

not reflect the variety of accesses.

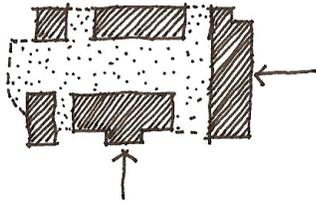
RECOMMENDATIONS

Accesses have special relevance from the standpoint of school safety. They are crucial points that must be designed in accordance with the spatial typology that will be used in the overall design. Some of these typologies include:

- a. Compact, one or more floors
- b. Configuration in the form of the letters A, U, L, H, etc.
- c. Organization around courtyards
- d. University campus-style

Organize the components of the educational complex so that they facilitate natural surveillance, both of the spaces outside it and of campus-type exterior spaces, which is necessary to achieve safer school spaces.

fig. 07



Campus-style configuration

CHECKLIST

- Spatial configuration is clear and favors good visual control of the areas it defines.
- Spaces between buildings have transparent planes that favor natural surveillance of their users.
- There are spaces that offer activities and places that encourage people to congregate for adequate natural surveillance, such as cafeterias, photocopying services, etc.



✓ GOOD PRACTICE
11/ Building with configuration of an interior courtyard and exterior corridor that increase natural surveillance of the school community.



✓ GOOD PRACTICE
12/ Entrance to one of the school's courtyards where natural surveillance is reinforced, allowing the installation of a book kiosk and a telephone.

✓ GOOD PRACTICE

13/ Transparent fence that defines the building's perimeter. It allows a good interior-exterior ratio and favors natural surveillance with the exterior space. The building's design has taken into account the urban location and is connected to it through windows opening toward the street. This also favors natural surveillance.



LOCATION

DEFINITION

When we refer to the building's location, we are speaking of its placement within a certain piece of land and also of its relationship with the surrounding context. The location of the school and its relationship with the surrounding area define the initial scope for analysis and design recommendations.

The relationship established by the building and its setting will be an important aspect that will have an impact on the building's safety conditions, since it is from here that a relationship is established with other activity settings that may have highly diverse characteristics. Thus, an isolated school building, with no neighboring constructions connected to it, has conditions that are very different from a building that forms part of an urban block, where it has contact at one or more points with other buildings. Therefore, the perimeter and its relationship with the setting will be an aspect for analysis, on which design recommendations will be generated.

PROBLEM

- The building complex does not recognize its setting, thus generating a separate unit that is not functionally or spatially inserted in the context where it is located.

RECOMMENDATION

Design the location by taking the setting into consideration and integrating it with the urban fabric in a functional manner. If the location is rural, take into account aspects of accessibility, climate and topography so that its relationship with immediate surroundings is friendly and facilitates access by users of the educational complex.

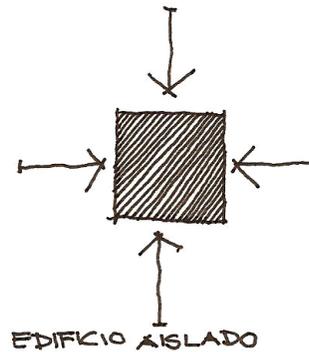


fig. 08. Isolated building. We can recognize four points where the building is exposed to various types of spatial communication with the surrounding space. Perimeter open at four points.

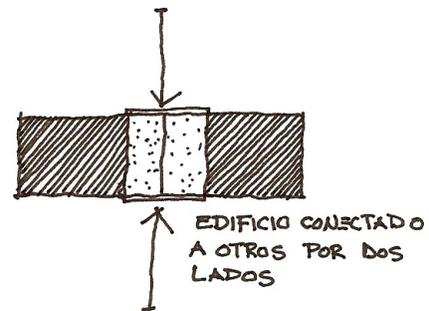


fig. 09. Building connected to others on two sides. Smaller perimeter of contact with surrounding space

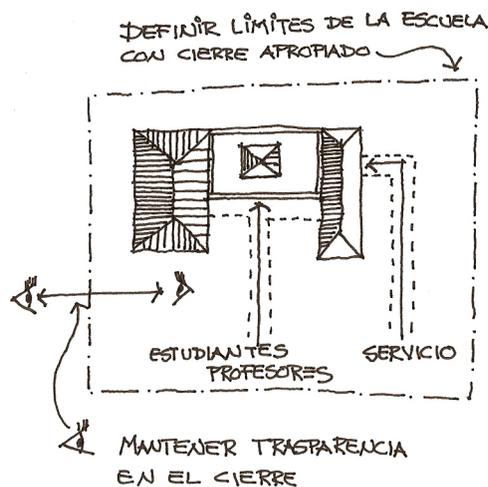


fig.10. Define school boundaries with appropriate fencing. Maintain transparency in the fencing.

PERIMETER

DEFINITION

The perimeter of a building or an educational complex is the entire exterior border that defines it both formally and functionally, and that is also the point of contact and relationship with the exterior space. The perimeter may have various forms and qualities, depending on the unique features of the design of the school building or of the set of buildings that form it.

PROBLEM

- The perimeter is irregular, offering multiple sides in which there is the potential for accessing the interior of the educational complex.
- The perimeter or part of it is formed by opaque walls, which generate potential areas of environmental deterioration and possible points for antisocial acts.
- Along the perimeter there are accesses of different categories and uses, which multiply the possibilities for unwanted entry.
- It is more complex to control entry and exit through multiple accesses.

RECOMMENDATIONS

- Clearly indicate the line that defines the property.
- Define accesses to specific, well-defined accesses.
- Clearly define the boundaries of public, semipublic, private and semi-private spaces.
- Ensure that the perimeter is defined in such a way that it is not possible to trespass on the property.

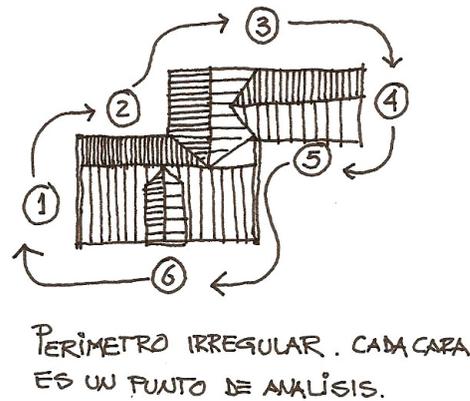


fig 11. Building with an irregular perimeter. Each side offers a point of security analysis and potential control to avoid unwanted entry.

- If the dimensions of the lot and the size of the building allow it, define separate accesses for students and for school services.
- Locate an entry point in a high-visibility area, so that it can be easily monitored by students and school personnel during the normal course of their activities.
- Promote clear visual fields, avoiding interference with overgrown vegetation, signs, or opaque fences.
- Covered exterior corridors should be designed taking into account the fact that they must facilitate natural surveillance. They must be provided with good lighting for evening operations.
- The design of the complex should ideally incorporate windows that look toward these walkways. Natural surveillance from them but also toward them must be taken into consideration.
- Exterior corridors should be designed in a T-shape by connecting with another building along its path. This way, continuous protection can be ensured for the user, and the creation of recesses or places where someone could hide in the access to the building can also be avoided.
- Their height should be slightly taller than the average height of a person with his or her hand raised. This avoids the possibility of climbing onto them and then climbing up to other points of nearby buildings.



✓ **GOOD PRACTICE**
14/ Transparent fencing has been used to avoid unwanted access from a neighboring building



✗ **POOR PRACTICE**
17/ Perimeter that communicates with street is opaque, with no visual relationship to the outside. This does not facilitate natural surveillance.



✗ **POOR PRACTICE**
15/ Improper way of defining school perimeter. Opaque perimeter impedes a proper interior-exterior ratio, hindering natural surveillance.



✓ **GOOD PRACTICE**
16/ Entrance located on the school perimeter forms an urban corner and defines a wide visual field. The building's curve reinforces the location of the entrance and its connection with the urban context.

CHECKLIST

- The school's perimeter is clearly defined.
- Perimeter fencing is transparent and allows good visual communication.
- The perimeter's various access points are clearly defined and there is good visual control of their use.
- There are no abandoned or neglected areas along the perimeter.
- The perimeter is well lit and well maintained.
- Vegetation does not obstruct visual fields.
- Entry points along the perimeter have safety lock systems.
- Entry points are well lit.

PERIMETER ACCESS POINTS

DEFINITION

Perimeter access points are all those points that permit entry into the educational complex, whether a particular building or any space belonging to the complex. Therefore, the following are access points:

- In general, an access is any point on the perimeter that is permeable and can be crossed to enter the educational complex.
- Main entrance to a building.
- Entrance to parking areas.
- Entrance to service and loading/unloading areas.
- Entrance to sports facilities.
- Entrance to courtyards and recreational areas.

PROBLEM

- The access is not clearly defined in spatial terms.
- It does not have a defined function because, for example, it admits people and vehicles at the same time, such as visitors and students.
- They are poorly lit at night.
- There is poor or no visual control over them in order to control entrances and exits.
- Access doors lack an adequate safety lock system.
- Automated visual control measures have not been implemented (cameras or other similar systems) when natural surveillance is difficult or impossible.
- Poor design creates traffic congestion and delays.
- Dimensions are not adequate for the assigned function.



✓ GOOD PRACTICE
18/ Fence that clearly defines the exterior space, deterring unauthorized access toward a restricted-use building.

RECOMMENDATIONS

- Accesses must be well defined, clear, and with unblocked visual fields.
- Accesses must be transparent, well lit, with no elements blocking vision.
- They must be wide enough for a large number of people to pass through at the same time.
- They must be scaled in accordance with their assigned use.
- They must be sufficiently lit at night.
- They must have well-functioning security lock systems.
- They must be within a visual field that allows entrances and exits to be controlled.
- They must be equipped with automated systems when direct surveillance is not possible.





X POOR PRACTICE
 19/ Open, uncontrolled space from an access zone to the sports equipment sector.



✓ GOOD PRACTICE
 20/ Exterior space of a school that clearly defines areas, using architectural elements.

CHECKLIST

- Exterior spaces are clearly defined and delimited.
- The necessary measures have been taken to avoid unauthorized access between areas.
- Visual fields are unobstructed, especially through proper maintenance of plant species in gardens.
- There is good lighting for evening activities, it is even and avoids pockets of darkness.
- There is furniture that allows people to congregate.
- There are elements that protect people from adverse weather conditions.
- There is good visual control from neighboring buildings on exterior areas.

CONTROLLED ACCESS

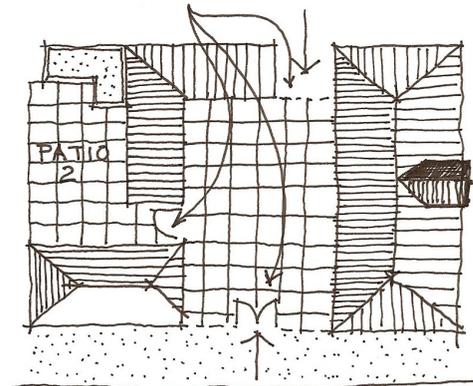


Fig. 12 Diagram showing the closure of exterior spaces to halt unauthorized access.



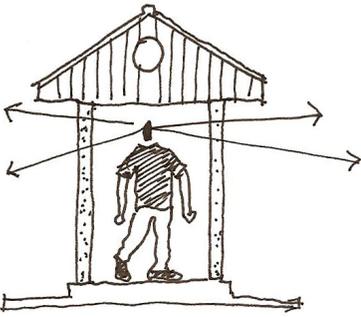


fig. 13. Isolated exterior corridor with good visual field to see and be seen, since its walls are transparent.

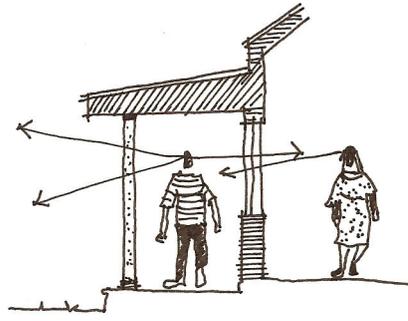


fig. 14. Porch-type exterior space as part of a building, facilitating natural surveillance.

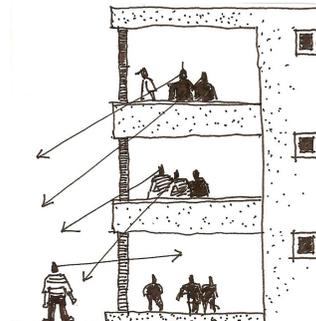


fig. 15. Exterior walkway as part of a building, good surveillance of exterior space. Possible visual contact with the building's interior if there are transparent points such as doors and windows.

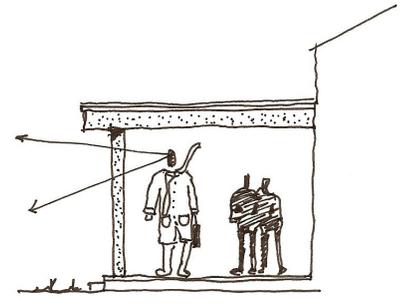


fig. 16. Exterior connector walkways offer good surveillance of exterior spaces.

2.2 BUILDING DESIGN

EXTERIOR SPACES

DEFINITION

Exterior spaces are understood as open spaces with lateral faces, or with roofs, where traffic activities, short stays or sporadic recreational activities are carried out. These also include service areas.

PROBLEM

- They can act as a bridge connecting various areas of the educational complex and thus could be used to access unauthorized sectors.
- They can be spaces that connect with the exterior space of the educational complex, such as the street or other neighborhood spaces.
- They are exposed to weather conditions.
- Various activities can be carried out in them; these may spatially and functionally overlap, creating conflict situations, such as sports and traffic activities, access and games, etc.
- They have blocked visual fields, due to landscaping or architectural elements, thus hindering surveillance of the site.

RECOMMENDATIONS

- Clearly define the functions of exterior spaces.
- Through controlled accesses, limit traffic between areas, thus avoiding movement toward unauthorized sectors.
- Care for landscaping elements so that there no vegetation or overgrown trees block visual fields.
- Provide adequate lighting at night, especially in those places used for activities held at special times.
- Provide adequate furniture that allows the presence of elements of natural surveillance.
- Take care of the quality and type of lock at points of contact with non-school spaces, thus deterring unauthorized access.
- Use informational signs to strengthen understanding about the use of the space and about traffic.



✓ GOOD PRACTICE
 21/ Exterior space that allows people to congregate under adverse weather conditions. It facilitates natural surveillance and good visual control of the area.



✗ POOR PRACTICE
 22/ The fence along the edge of the corridor and the sign on the entrance can be used as footholds to climb up to the second floor.



✗ POOR PRACTICE
 23/ Corridor of an upper floor with no visual connection either from inside or outside. Poor natural surveillance. Opaque boundary wall and overgrown lateral vegetation hinder adequate visual control from outside the corridor.

COVERED EXTERIOR SPACES

DEFINITION

These are any spaces that, whether or not they are part of a building, are open on at least three sides and have the function of protecting traffic or of serving as a transition between the exterior and interior space.

In this type of space, we will find:

- Exterior corridors, both those that border a building as part of it, and those with an independent structure that are used as connectors between buildings.
- Porches that provide access to buildings.

PROBLEM

- The space cannot be easily watched from inside the buildings.
- Their structures can be used for “climbing” up to higher points in order to make unauthorized entry through upper floors.
- They can cause visual blocks.

RECOMMENDATIONS

- Pillars and columns should be designed to avoid their being used as a point of support for unauthorized entry. Therefore, it is recommended that materials with a smooth finish be used to make it difficult for hands to hold on to in climbing; in addition, any type of ledge that could be used as a foothold should be avoided.
- Low walls, trees and window boxes for plants should

be located away from these corridors, because they could serve as footholds for climbing and reaching, for example, the windows of an upper floor through which to enter the building.

CHECKLIST

- Design of hallways and corridors does not facilitate climbing to upper floors.
- Finishing materials on pillars and columns are smooth and do not facilitate climbing.
- Furniture and architectural or decorative objects are not close to the corridor.
- Nearby visual fields are clear.
- Lighting is adequate and works properly.
- The corridor’s height does not facilitate climbing.
- Anyone who uses the hallways and corridors can easily see and be seen.



✓ GOOD PRACTICE
25/ Glass doors and clear windows at the entrance are a good practice that favors natural surveillance.



✓ GOOD PRACTICE
24/ A simple roof defines the entrance from the street and provides protection from environmental conditions.

ACCESS TO THE BUILDING

DEFINITION

Dependiendo del complejo educacional este podría tener uno o varios edificios principales. El acceso a ellos, sin importar su uso específico, mantendrá los mismos principios de diseño. Se definirá como acceso principal del edificio por donde se ingresa a su interior de manera masiva. Este punto de entrada recoge al mayor número de usuarios al momento de entradas o salidas de él. Desde este punto de ingreso se distribuyen en su interior de acuerdo al propósito e interés específico de cada persona.

PROBLEM

- The access is not sufficiently noticeable and is not clearly recognizable from outside the building.
- The access lacks a checkpoint that makes it possible to detect unwanted entries.
- The visual field from inside is blocked and does not allow good natural surveillance of neighboring spaces.
- Lighting is inadequate and systems do not work properly.
- The entrance is not seen from the administrative area.
- Doors and windows are opaque, hindering the view of the surroundings.
- The access point lacks furniture that makes people want to congregate inside it.

RECOMMENDATIONS

- Minimize the number of uncontrolled entrances to the building.
- Locate the main entrance in the front of the building, near the administrative area and with a clear view toward the outside.
- Avoid any kind of hidden entrances.
- Secure any kind of secondary entrance and reinforce it with surveillance cameras, using closed-circuit cameras whenever possible.
- Access doors and windows with wide glass to provide a good view.
- Administrative offices close to the access with glass windows and doors for natural surveillance of the entry point.
- Avoid any place that would allow someone to hide in secondary accesses.
- Proper lighting at entry points.
- Clear access design and clear signs pointing to administrative offices during class hours.
- Provide the access with a protective roof that is large enough to cover a number of people during inclement weather.
- Provide chairs for waiting in the access area.



X POOR PRACTICE
26/ Opaque entrance door does not allow a good visual field toward the outside.

✓ GOOD PRACTICE
27/ A courtyard with well-tended gardens, lighting, furniture and significant objects that contribute to a sense of identity.



COURTYARDS

DEFINITION

The courtyard is defined as the open area surrounding the buildings that form the educational complex; it is used for recreational or sports activities, or for activities that complement classes. It is generally paved or covered with vegetation.

The courtyard is the place where students of an educational establishment gather when they are not in scheduled learning activities or other activities assigned by the school authority.

The general design of an educational building may be the best architectural resource for creating a protected, enclosed courtyard. The traditional form of a school courtyard is one that most efficiently and simply allows good visual control of the activities conducted in it. A corridor along the sides of the courtyard allows one person to have a good view of the entire courtyard with little difficulty; this increases this person's feeling of safety with regard to the use of the space. This space for perimeter traffic also provides good protection from prevailing atmospheric conditions. Access to these courtyards is an aspect to be considered and must be controlled.

PROBLEM

- Several courtyards are interconnected, creating transitional spaces that must be controlled.
- The courtyard lacks clear visual fields because they are obstructed by architectural elements or by vegetation.
- It lacks adequate furniture to encourage people to congregate there.
- It lacks good lighting for safe evening activities.
- There is a lack of good visual relationship from

CHECKLIST

- The entrance is clearly defined at the front of the building.
- The entrance has a roof or protective awning.
- There are no hidden entrances.
- Secondary entrances have safety locks in good working order.
- It is large enough to avoid congestion or traffic problems.
- Lighting uses lamps with anti-theft devices.
- Doors and windows at the entrance are transparent.
- Administrative offices are close to the entrance.
- There are no places to hide near the entrance.
- Signs clearly point to administrative offices.
- Seats for waiting in the entrance area.
- The area looks clean and well maintained.



X POOR PRACTICE

28/ The courtyard's vegetation looks neglected and abandoned. The handicap sign is in the wrong place.



surrounding buildings, thus hindering good natural surveillance.

- Access to courtyards is not controlled, thus facilitating unauthorized entry.
- Vegetation or trees are overgrown, thus hindering visual control.
- The courtyard lacks proper maintenance, which gives an image of neglect and lack of concern.
- There is no visual control from the administrative area.

RECOMMENDATIONS

The courtyard of an educational establishment is an important space within the places that form it. It is where socialization is carried out and where there is personal contact between students and the school community; it is a space where people can meet, spend time together, relax and have fun, without the restrictions that exist inside a classroom. It is the place where students can freely express themselves and develop conditions for communication and interaction that are very important for their development. But the courtyard is also a place where conflicts can arise, in many cases resulting in violent acts that must be prevented.

The recommendations presented will thus be in two areas. The first is aimed at functional control (enclosures, visual control, etc.) through conditions provided by architecture. The second is aimed at creating spatial and perceptual conditions that generate a state of well-being among users of the place. Thus, the space is an environment that leads students to a state of nonviolence. Adequate landscaping, use of color, control of atmospheric conditions, aromas, etc. can generate conditions that positively affect sensitivity and facilitate an internal state of nonviolence.

CHECKLIST

- The different entrances to courtyards are secure, with good visual control.
- The courtyard can be seen from the administrative offices or another place with the constant presence of persons in charge.
- Entrances are designed to avoid unauthorized access.
- The visual field is clear and unobstructed.
- It has good lighting in good working order for evening activities.
- There is adequate furniture that encourages people to congregate there.
- There are complementary activities such as kiosks that facilitate surveillance of the area.
- The windows of neighboring buildings have a good view of the courtyard.
- There are no places to hide.





X POOR PRACTICE
 29/ The design of fences, although they have a functional purpose, is also a reminder of confinement that is not suitable for an educational establishment. Spaces should be controlled and their access should be limited, but they should not look like jails.



✓ GOOD PRACTICE
 30/ Access gate to a children's playground. Designed using motifs made by children. This also generates a sense of identity.

RECOMMENDATIONS FOR SPATIAL CONTROL IN COURTYARDS

- Clearly define and secure accesses to courtyards. Enclosure elements should be designed so that their image is pleasing within the architectural complex and is not visually aggressive.
- Design accesses to deter entry during unauthorized hours.
- Visual fields from inside the surrounding buildings must be clear in order to provide good control of the space.
- Provide good lighting for evening activities.
- Install windows that provide a good view of the courtyard.
- Keep visual fields clear in the courtyard, avoiding any kind of obstructions such as those caused by trees, signs or other elements.
- Clearly define traffic areas and those designed for specific activities. The use of different types and qualities of flooring or paving is recommended for this task.
- Include furniture that encourages people to congregate in the place. Benches and water fountains are highly recommended elements.
- Provide equipment that encourages people to practice nonviolent recreational activities. Chess and ping-pong tables are recommended.

RECOMMENDATIONS FOR ENVIRONMENTAL IMPROVEMENT

- The use of landscaping elements such as flowers with bright colors and pleasant aromas is highly recommended to create a peaceful setting.
- Gardens with aromatic species that can be used as a practical complement to science classes or similar subjects.
- Water fountains that produce peaceful sounds.
- Use of decorative sculptures that are inspirational for students.
- Furniture that encourages people to congregate, ideally designed with forms that avoid angles and an aggressive aspect.
- Installation of sound equipment that can transmit soothing music. Subtle natural sounds have been proven to be highly useful for this purpose.
- The use of natural materials such as wood and stone is recommended.

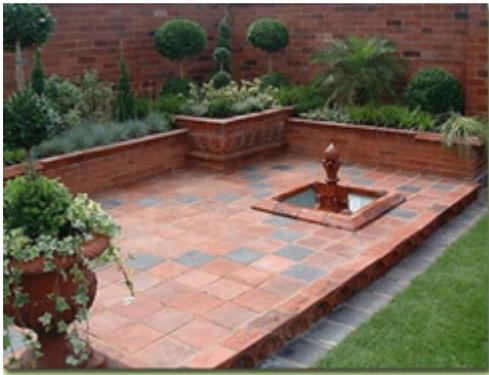




✓ GOOD PRACTICE
31/ Access gate to elementary school student area. The children of the school designed it.



✓ GOOD PRACTICE
32/ Garden that uses round forms and natural elements to create a peaceful setting. The species planted are vegetables cared for by the children.



✗ POOR PRACTICE
33/ Drinking fountain in courtyard looks neglected and poorly maintained.



✓ GOOD PRACTICE
34/ Courtyard built with plants along the edges and a central water fountain. Visual fields are clear.



✗ POOR PRACTICE
35/ Hard courtyard with no natural elements to make the space look pleasant. It looks poorly maintained and neglected.



✓ GOOD PRACTICE
36/ Courtyard with well-tended gardens, lighting, furniture and meaningful objects that provide a sense of identity.



✗ POOR PRACTICE
37/ Courtyard vegetation looks poorly tended and neglected. The handicap sign is in the wrong place.

CHECKLIST/RECOMMENDATIONS FOR ENVIRONMENTAL IMPROVEMENT

- There are landscaping elements such as flowers, trees and shrubs.
- There are aromatic species that make the place especially pleasant.
- Landscaping elements are in good condition and do not block visual fields.
- Natural elements such as wood and stone have been used in designing the area.
- There are decorative elements such as water fountains and sculptures.
- There is furniture for people to congregate there. It is in good condition and has a pleasant design (without elements that are aggressive to the touch or to sight).
- Color has been used in buildings and nearby architectural elements.
- Landscaping elements are used as educational materials.
- There are installations for playing soothing music.





✓ GOOD PRACTICE
38/ Exterior space that defines areas clearly, using architectural elements.

EXTERIOR WALLS

DEFINITION

Exterior walls are all those structures that form part of the design of an open space but do not play a structural role as an integral part of a building. They may be used as a support to define sectors of use, or simply as part of the on-site furnishings.

PROBLEM

- They may be used for hiding.
- They may be used as supports for climbing and unauthorized entry.
- They may block visual fields.

RECOMMENDATIONS

- They should be far enough away from buildings that they cannot be used to climb over.
- Locate them in places that do not block the visual field.
- Use textures and finishings that are not aggressive or can cause any type of injury to children who lean on them.
- Consider the use of this architectural resource only if it is an evident contribution to the design of the school complex.

ARCHITECTURAL DESIGN ELEMENTS

DOORS

DEFINITION

Doors are defined as any kind of regularly shaped opening in a wall, from the floor to a convenient height that makes it possible to enter or exit.

This is also the name given to the wooden board, metal plate or other material that is installed in the opening and that controls entry/exit by means of a hinge and closing mechanism.

PROBLEM

- There is no adequate lock system, thus allowing easy, unwanted entry.
- They are not designed in accordance with the specific purpose that they are meant to fulfill.
- The wall reinforcement system is not the most appropriate, thus allowing the door to be easily dismantled.
- They block visual fields because they are opaque, thus hindering proper surveillance of surrounding areas.
- Their opening blocks the visual field.
- They are located in “recessed” spaces, making visual control of the surrounding areas even more difficult.

RECOMMENDATIONS

- The design and type of doors used in the design of an educational building must be adjusted to the building’s specific conditions.
- Doors must be easy to open in case of emergency. The use of hinges without removable pins and with a protective cover is recommended to avoid unauthorized entry by breaking them.
- Glass doors or doors with small windows incorporated allow a view from inside to what is happening in



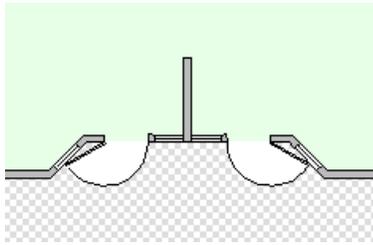


fig. 17. Recess with corners at 45° angles that contain two doors. Small lateral windows allow wider angles of vision.

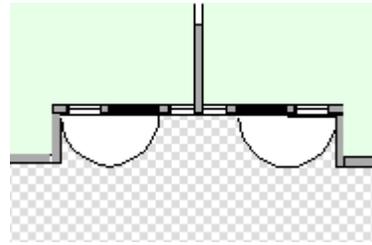


fig. 18. Recess solution that groups together two or more doors. This alternative provides more restricted visual angles. Compensate with small lateral windows.

adjacent spaces, thus allowing good visual control.

- Especially in the case of doors that open onto a hallway, these should open at a 180° angle to offer the most space possible.
- If possible, avoid recessed doors because they create a space where someone can hide and also hinder the angle of vision from inside the classroom. If this is unavoidable, a good solution is to have the corners of the recess at a 45° angle, which makes it possible to expand the visual field from inside.
- In cases where it is not possible to avoid creating a recessed space that holds doors, try to group them in such a way as to generate a larger recessed space; this improves visibility conditions.

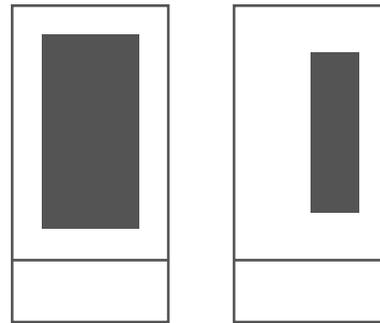


fig. 19. Esquema de puertas con vidriado que permite una buena visión desde el interior de la sala.

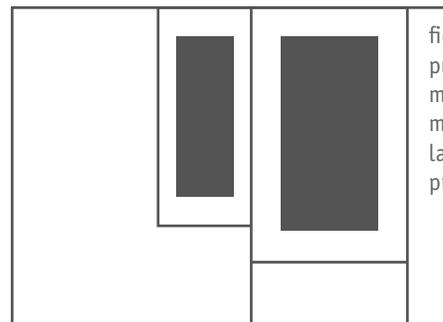


fig. 20. Esquema de puertas que permite maximizar la visión por medio de ventanillas laterales. Placa de protección.

CHECKLIST

- Walls do not block visual fields.
- They are far enough away from the buildings and cannot be used to climb to unauthorized access points.
- Their appearance is not aggressive for users of the place.
- They do not look like a place to hide.





✓ GOOD PRACTICE
39/ Transparent door allowing a good interior-exterior ratio.



✗ POOR PRACTICE
40/ Opaque, set-back doors impede view from inside.



✓ GOOD PRACTICE
41/ Door that opens directly to the entrance hallway, with glass panels that allow a good view from inside.

WINDOWS

DEFINITION

A window is defined as any opening made from the middle to upper part of a wall for the purpose of providing light, ventilation and a view into the room where it is located. Wide, clear windows are of vital importance in administrative areas, allowing staff to maintain good visual control of sensitive areas such as access points and others of a similar nature. In the classroom, the use of smaller side windows is strongly recommended in order to increase the range of visibility from inside.

PROBLEM

- Windows lack proper locks, making them a potential point for unauthorized entry.
- Their location does not allow for an efficient visual control of the surrounding area.
- The view through the windows has been blocked by furniture, landscaping or decorative or publicity stickers.
- The type of glass used allows light to pass through but does not allow any view.
- Glass is broken or missing in the window.

RECOMMENDATIONS

- Place windows strategically in walls and glass partitions to maintain good levels of security, and especially to provide good natural surveillance.
- Use transparent glass, unless for privacy reasons opaque glass must be used.
- Ensure that locks work properly and are in good condition.
- Protect windows with exterior protective devices when necessary.
- Avoid blocking them with landscaping, furniture, etc.
- Keep them clean.
- Immediately replace broken or missing glass. These give a feeling of neglect and of lack of concern.



✓ GOOD PRACTICE
42/ Wide windows in a classroom allow a good view of the exterior space.





X POOR PRACTICE
 43/ Window that has been covered with an adhesive to block the view inside. It is located in a space set back from the main hallway, making it even more difficult to see from the inside to the outside.



✓ GOOD PRACTICE
 44/ Window located in a stair landing offers a clear view of a small interior courtyard between buildings.



X POOR PRACTICE
 45/ Missing glass gives a feeling of neglect and lack of concern about the place

CHECKLIST

- Windows are in good working condition. Locks work and are secure.
- Windows are strategically located to provide natural surveillance of critical spaces such as access points, parking lots and courtyards.
- The view through them is not obstructed by architectural or landscaping elements.
- Glass is in good condition and is not missing.
- They are protected by metallic or similar bars to avoid unauthorized entry.
- The window glass is clean.

ROOFS

DEFINITION

A roof is understood as any structure built with horizontal or inclined planes and located in the upper part of a building for the purpose of covering it. It may be made of various materials, but it always defines the upper end of the building.

PROBLEM

- It is a point that is neglected and can generate unauthorized entries.
- Due to its distance from the usual traffic pattern, its surveillance is difficult.
- The building support systems (air conditioning, ventilation, etc.) that are located on it offer weak control points and can favor unauthorized entry.
- Windows are sometimes installed in it for lighting or ventilation, such as skylights or transoms. If these are not protected, they become potential points for unauthorized entry.

RECOMMENDATIONS

- Make sure that any type of accessory used to climb to the roof is not operational or reachable by unwanted persons. This includes rigid ladders that lean against a wall. The use of retractable ladders is recommended, so that they are operational only when needed.
- Protect windows or skylights with bars to make them more difficult to open.
- Preferably use mechanisms to open them from the



X POOR PRACTICE
46/ Broken glass in a window gives a feeling of neglect.



✓ GOOD PRACTICE
47/ Windows of a group of classrooms allow natural surveillance in the direction of a parking lot.



X POOR PRACTICE
48/ Skylight without exterior protection. Facilitates access by unauthorized persons

inside.

- Use safety locks and reinforce those that are standardly installed because they may not offer the required safety conditions.
- In the same way, protect all building support devices installed on the roof (air conditioning, ventilation and similar devices). This keeps them from being violated by unauthorized persons and also avoids accidents when they operated by curious children, for example.
- Avoid all types of landscaping elements such as window boxes, low walls, trees and similar elements near walls to keep them from being used as footholds to access the roof.

FURNITURE

DEFINITION

Furniture is understood as all objects and devices that complement the proper functioning of an educational establishment.

Furniture is organized into two groups: essential and support.

Essential furniture

- Blackboard
- Teacher's desk
- Students' desks
- Chairs
- Furniture to store materials and supplies

Support material and equipment

- Exterior benches
- Trash receptacles
- Soft drink vending machines
- Lamps
- Telephones

FURNITURE

PROBLEM

- Furniture is in poor condition.
- Feeling of neglect due to poor condition of furniture.
- Premature fatigue in students as a result of lack of comfort. This creates tensions that can later be expressed in the form of acts of violence.

g.2. SUPPORT FURNITURE AND EQUIPMENT

- Benches, vending machines and telephones are located in places away from any point of observation, thus facilitating acts of vandalism.
- It is not in good working order, thus creating a feeling that the place is abandoned and neglected.

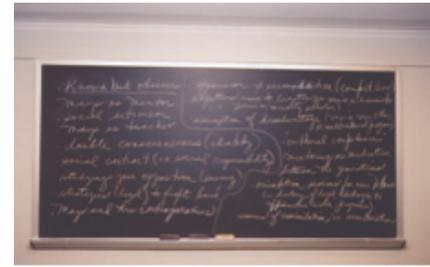
RECOMMENDATIONS

- If furniture is not in good condition, generate strategies for repair work so that the school community as a whole can be included. Its contribution to the repair of furniture is valuable, as is the creation of a sense of ownership and identity with regard to those objects that contribute to the learning process.
- If furniture is lacking, work together with the





✓ GOOD PRACTICE
49/ A wooden plank becomes a good seat for the classroom.



✓ GOOD PRACTICE
50/ A board of pressed wood attached to the wall can be a good blackboard.

community to schedule work-days for making simple furniture that can be a great contribution to the students. A simple pressed wood board painted black and affixed to the wall can become a blackboard or a bulletin board for the school community. A good way to protect against vandalism is to create a sense of ownership. Generating this feeling stems from the joint effort of the community in projects that are simple but provide a sense of unity.

RECOMMENDATIONS FOR LIGHTING

- Easy access to lighting devices.
- Avoid producing shadows that create a “zebra” effect.
- Protect lighting devices from acts of vandalism.
- Use lamps that provide even light, avoiding glare, reducing shadows, and lighting horizontal surfaces.
- It is recommended that a lighting specialist be consulted, because this aspect is not only related to everything pertaining to the proper performance of work activities, but is also essential in terms of safety.

RECOMMENDATIONS FOR TELEPHONES

- Situate them in a centralized, highly visible location, for example adjacent to administrative offices.
- Provide good, unobstructed visual control of telephones from nearby windows. This can appreciably reduce vandalism.
- Situate them in places that do not generate congestion.
- Install them in such a way that they are accessible to people of all ages or those with some type of handicap.

RECOMMENDATIONS FOR ELEVATORS

- Situate them in a central location, adjacent to key traffic areas, i.e., in hallways at the entrance and in main hallways, in an arrival zone where they do not obstruct traffic.
- Elevator hallways should be well lit to promote surveillance and safety. The use of elevators for criminal activities can be considerably discouraged through natural surveillance.
- The use of transparent cabs or electronic surveillance such as closed-circuit television (CCTV) inside the elevator is recommended.

CHECKLIST

- Roof access elements are not available to unauthorized persons.
- Roof windows and skylights have exterior protection with safety devices.
- Skylights or windows open from the inside.
- Locking mechanisms are secure and in good working condition.





✓ GOOD PRACTICE
51/ Telephone located in a place with heavy student traffic and with nearby lighting.



✗ POOR PRACTICE
52/ Courtyard with no lighting for evening activities.



✓ GOOD PRACTICE
53/ Telephone located next to the entrance to administrative offices.

INTERIOR SPACES

LOBBIES AND RECEPTION AREAS

DEFINITION

A lobby or reception area is understood as the space that receives people as soon as they cross the threshold of the entrance to the building from the outside. From this space, traffic inside the building is regulated according to different areas of use.

PROBLEM

- This point of entry to the building is not well controlled, thus allowing the entry of unauthorized persons.
- The administrative area is not close to the access point.
- Visual control from this point of entry to the outside is not good, hindering the natural surveillance process.
- It lacks adequate furniture for people to gather there.
- The size of the lobby or reception area is not large enough to hold the number of people who use it, thus creating congestion and confusion that can be misused for unauthorized access.
- Lighting is not good, hindering good visual control of the area at night.
- The lock system is inadequate and is in poor condition.

RECOMMENDATIONS

- Position a primary checkpoint between access doors and other areas of the school.
- Locate an area of attention or control near the principal access.
- Design the lobby area so that it can be securely locked.
- Install surveillance cameras when necessary.
- Use forms that do not obstruct sight. If possible, design angled or rounded corner walls to obtain better visual fields.

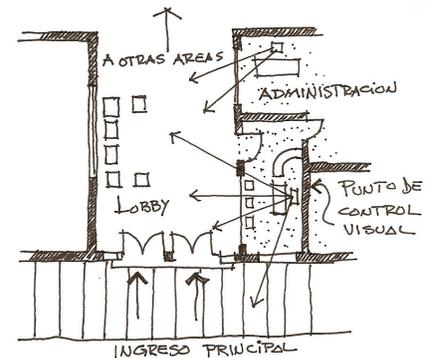


fig. 21. Scheme showing good lobby location.



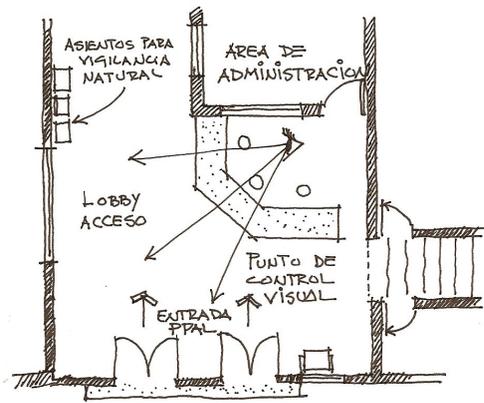


fig. 22. Reception area with a reception counter and access control. Note that from this point there is a good visual field toward the administrative area and other areas near the entrance.



ADMINISTRATIVE AREA

DEFINITION

The administrative area is defined as all spaces that are used for non-academic work and that allow an educational institution to operate.

The administrative area includes administrative offices, teachers' offices and lounges, file areas, and emergency clinic.

PROBLEMS

- Because it contains items of value and important information, this area can be the target of theft.
- If the area lacks sufficient surveillance, it can allow unauthorized entry.
- It lacks electronic surveillance mechanisms that can prevent unauthorized entry.
- There is more than one access that leads to this area, making it difficult to control the entry and exit of people.
- The windows in this area are not sufficiently secured and can become points of unauthorized access.

RECOMMENDATIONS

- The administrative area should have an unobstructed view toward the hallway by which it is accessed. It should eventually be protected with a transparent, resistant material such as plexiglass, especially if any valuables are handled in this area. This transparent screen should not hinder proper surveillance of the access area.
- When considered appropriate, the administrative area may have a "safe room" with a security lock and a telephone in good working order.
- Teachers' offices and a room to store student records should be separate from the lobby entrance and should be accessible by means of a hallway that can be closed and thus be separated by the access area which is more "public."



GOOD PRACTICE
54/ A control desk next to arrival area makes it possible to observe entry and exit from the access hallway.

CHECKLIST

- Lobby lighting is even and well maintained.
- Access doors can be securely locked.
- There is a checkpoint at the access.
- From the lobby and the administrative areas, it is possible to see outside and observe school bus arrival points.



RESTROOM

DEFINITION

A bathroom is any space specifically meant for carrying out the functions of releasing liquid and/or solid waste from the human body and to conduct acts of personal hygiene and cleanliness.

For cultural and hygiene reasons, privacy is required during these acts, which implies the design of separate, independent compartments in public buildings for the conduction of these functions; as well as separate space for men and women. These are generally neglected, isolated spaces away from zones of regular activity.

PROBLEMS

- They are out of sight, making them vulnerable to the occurrence of illegal or violent acts inside them.
- Vandalism, disorderly conduct, violence and use of tobacco, alcohol and drugs can be some of the acts commonly committed inside these areas.
- Constant attacks on installed artifacts, causing operational problems and high maintenance costs.
- Presence of graffiti on walls.

RECOMMENDATIONS

- The access to bathroom should be located in a place where natural surveillance of their entrance can be conducted. Places near a main corridor or administrative area are suitable.
- They should be highly visible from recreation areas.
- Use of interior divisions in the form of a labyrinth.
- All implements for common use, such as paper and soap dispensers, shelves and trash receptacles should be highly resistant and preferably attached to the wall in order to avoid vandalism.
- All finishing materials on walls, panels, ceiling and floors should be graffiti-resistant and easy to maintain. Maintenance and cleaning are essential in this

✓ GOOD PRACTICE
55/ Office with transparent panels that allow a good visual field from inside.



area, not only for reasons of hygiene, but also as a very clear sign that proper maintenance means constant surveillance and care by those in charge.

Windows should be hard to reach and their size should not allow a person to enter or exit. If they are larger, it is suggested that protective devices be installed to deter the entry of unauthorized persons.

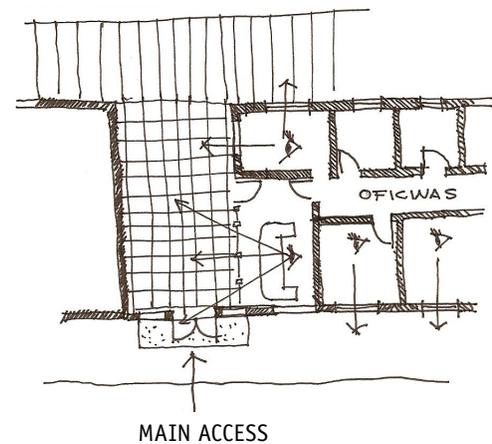


fig. 23. Diagram of the general organization of the administrative area.

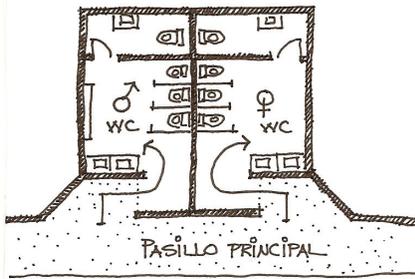


fig. 24. Design of bathroom access. When possible, avoid 90° angles in corners. An angle can improve visual control of the access while maintaining privacy.

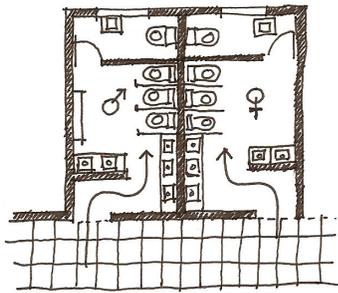


fig. 25. Design of bathrooms with paneled labyrinth-type entrance. Provides privacy but does not require a door, generating a perception of control over the area.

Interesting ideas to consider and that have worked very well in some places include:

- Give the bathroom a visual quality that goes beyond the traditional image. Use of decorative motifs on finishings, use of uncommon colors “to break the idea of being in a bathroom” and installation of posters with meaningful images for youths. This can be done with student participation, thus helping to generate a sense of ownership and increasing care for the place.
- The allocation of a space for students to post information on their activities is another of the ideas proposed, to be evaluated on a case-by-case basis, but it has been proved to be effective.
- In terms of common acts such as graffiti, the very common practice of using dark colors on surfaces to avoid scratching is not recommended. This only makes the place darker and more lifeless, and denotes fear and neglect. Colors that reflect light and cleanliness are the most suitable. Combinations of colors can be a good alternative for generating a space that is more pleasant and offers a feeling of care and concern.
- Design bathrooms in groups, with doorless or labyrinth-type accesses, and with entrances in a main traffic area.
- Locate bathrooms near areas that are already under natural surveillance.
- If bathrooms are not in an area with natural surveillance, then study the implementation of mirrors or cameras for remote visual control of bathroom entry.
- Use of non-traditional solutions for interior design.
- Maintenance and repair in the operation of accessories and artifacts.



✓ GOOD PRACTICE
56/ A wall that simulates a movie poster breaks the classic bathroom model and turns the place into a space with a different kind of look



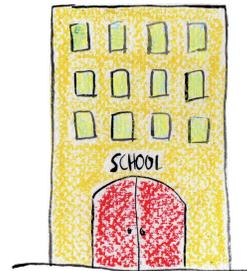
✗ POOR PRACTICE
57/ Dark colors make the place look gloomy and give a feeling of neglect.

CHECKLIST

- Bathrooms are located in a principal traffic area.
- Access has natural surveillance.
- Access is labyrinth-style, without a door.
- The interior is maintained and all accessories and artifacts work properly.
- Lighting is even and works properly.
- Windows are protected to avoid unwanted access.
- Light, bright colors are used to facilitate maintenance and give a feeling of being cared for.
- The interior design is creative and has been carried out with student participation.



✓ GOOD PRACTICE
58/ Easy-to-clean materials have been used in the case of graffiti, colors are light and bright. The place is observed to be well maintained and well cared for.





X POOR PRACTICE
59/ The room looks dark and neglected; dark colors have been used, creating an unstimulating atmosphere.

CLASSROOM

DEFINITION

A classroom is any enclosure within an educational building where various modalities of learning activities are conducted with different types of students, from basic education to technical, professional and university education.

PROBLEM

This is the space where students congregate for the most hours and where confrontations can arise as a result of:

- Poorly managed conflicts between students and teachers or among the students themselves.
- Physical and emotional fatigue, frustration stemming from the demands of academic activities or other types of social situations that spark inside classrooms.
- Overpopulated environments resulting from the admission of more students than the place can comfortably hold and the teacher can handle.
- The emotional conditions resulting from study can be aggravated by environmental factors and spatial design, such as poor ventilation in the classroom, excessive heat or cold, poor lighting, deficient or inadequate furniture.
- The classroom is an isolated, self-contained place and lacks a good interior-exterior visual ratio. It is hard to recognize from the outside any violent action on the inside, making it difficult to provide help in an emergency situation.

RECOMMENDATIONS

- The design should incorporate transparent surfaces between the classroom and exterior hallways, thus increasing natural surveillance.
- Classroom implements and accessories, such as loc-



X POOR PRACTICE
60/ Deteriorated walls with inappropriate color. Furniture neglected and in poor condition.

kers, cabinets and similar items, should be built into walls, thus avoiding visual obstructions and possible hiding places.

- It is suggested that windows be designed to communicate with the outside, thus increasing the observation of activities inside the classroom.
- Windows should also be protected to avoid unauthorized entry and window glass should be well maintained and clean.
- For doors, it is suggested that safety locks be used; these can be operated from inside to avoid access to the room in an emergency situation but also allow quick exit at any time.
- Maintain proper ventilation in order to provide fresh air at all times.
- Maintain comfortable temperatures both in summer and winter. In many school communities, this involves high costs, especially for heating. Therefore, it is strongly suggested that sustainable “green architectural” systems be implemented. Especially in the design of new buildings, it is strongly recommended that the use of self-sustainable designs be used.

This has positive repercussions on the good quality of comfortable temperatures in the building without involving high maintenance costs. It has been shown that the possibly higher costs of implementing the system are amortized in a short period of time, generating independence from traditional energy systems and maintaining constant levels of comfortable temperatures. At the same time a school community assumes a “green mentality” that is reflected in the building itself, it is also an opportunity to generate a “green working environment,” characterized by non-violence and cooperation among community members.



✓ GOOD PRACTICE
61/ The classroom has built-in wall storage space, thus avoiding the obstruction of visual fields. Even lighting and soft colors emphasize light.



✓ GOOD PRACTICE
62/ While windows provide a good visual field toward the exterior, they are also protected with curtains to control sunlight and brightness. The space beneath windows is used to store school supplies.

CHECKLIST

- Classroom has windows that allow activities inside the room to be observed.
- It has facings that allow visual control from corridors outside the classroom.
- Interior furniture that does not obstruct visual fields.
- Good maintenance, clean, all systems operational.
- Room has proper temperature.
- School furniture is in good condition and is adequate for the type of task conducted.
- Doors and windows have lock systems that are operational and in good condition.

LABORATORIES, WORKSHOPS AND COMPUTER ROOMS

DEFINITION

These are defined as any spaces where learning activities are conducted and require sophisticated instruments or electronic equipment. These rooms include chemistry, physics and biology laboratories; electronics, carpentry and drafting workshops, etc.; in general, spaces equipped for manual labor and rooms where computer equipment and related accessories are located and used, such as printers, plotters, scanners, CD burners, etc.

PROBLEM

- These places hold high-cost equipment, making them targets of theft.
- The equipment is in plain view; due to its complex

installation, it cannot be stored daily in a secure compartment.

- The equipment is installed in rooms that were not originally created for this purpose, and therefore there may be more than one access point, or there may be windows or other places that could allow unauthorized entry.
- They may be freely accessed by students and thus do not allow an adequate control system.

RECOMMENDATIONS

- Staff in charge must be able to watch accesses and areas of operation.
- These place must have only one main entrance; if a second one exists, it must be secured and have some sort of alarm system like that of the main entrance.
- It is worthwhile to design a checkpoint at the access so that the person in charge can record entries and exits at all times.
- Delicate and costly equipment should be stored in a separate compartment with a special lock, preferably built into the wall and visible by the person in charge of the checkpoint.
- Special care should be taken with laboratory chemicals and tools that could be used for harmful purposes.
- Check that all locks, both for windows and doors, are in good working condition.





X POOR PRACTICE
 63/ Large window leading to an exterior space enables unauthorized access. Although in this case there is a protective fence, it is still a potential point for unauthorized access. The place looks dark and is difficult to control visually.



J GOOD PRACTICE
 64/ Well-lit, clean, organized room. Only has one window for natural light and ventilation but does not allow access.

CHECKLIST

- Room has only one well-defined entrance and a checkpoint for entry and exit.
- From the checkpoint, there is good visual control of the room and its surrounding area.
- Existence of other entry points, such as windows or secondary doors.
- Maintenance of the room.
- Alarms or other mechanical control systems in good working order.
- Valuable or hazardous items are stored in a specific, safe place.

CAFETERIAS

DEFINITION

These are any spaces where food and beverages are prepared and served to students. This category includes small places with only a few tables and simple foods such as sandwiches and beverages, as well as larger places where food is prepared and served to a large number of people.

PROBLEM

- A large number of students congregate in the cafeteria for a short period of time, implying a large movement toward the inside.
- Students access this place after many hours of schoolwork; fatigue and possible frustrating experiences during the day are the perfect materials to spark conflict in an overcrowded and uncomfortable area.
- Overcrowding, difficulties in movement, and delays in service are all factors that can generate acts of violence within this enclosure.





✓ GOOD PRACTICE
 65/ The place is uncluttered, with a good visual field. Tables that bring together a small number of students help avoid overcrowding. The space between tables allows smooth traffic flow.



✗ POOR PRACTICE
 66/ Student overcrowding has made it necessary to use shared tables. Proximity and lack of space can create friction among students, which can lead to violent reactions.

RECOMMENDATIONS

- Design of separate entrance and exit, with wide, well-operating doors.
- In this case, as recommended in other chapters, it is suggested that sizes exceed the minimums stipulated by the corresponding codes.
- Provide sufficient room for moving between tables.
- Designate a checkpoint near the entrance and exit, from which there is good visual control of the entire area.
- If there is a point to pay for food, it should be located in a place that is secure and visible from observation areas.
- Keep the place orderly and clean.
- Maintain furniture so that there are no loose parts or hazardous elements (unstable chairs or tables with parts that are loose or in poor condition).
- Maintain proper conditions of environmental hygiene, clean air and good lighting.

CHECKLIST

- There is a well-located checkpoint for visual control toward the inside.
- Entrance and exit are separate.
- Entrance and exit doors are a good size, thus avoiding congestion.
- Hallways are wide enough to avoid congestion.
- The place has windows that look toward the outside and allow people to see and be seen.
- The place where students receive food and the cashier station, if any, are visible from the cafeteria.
- Kitchen has safety lock devices, and hazardous items are stored in a special, safe place.
- Windows and secondary entrances are secure.
- There is an alarm and surveillance system to complement other means of caring for the place.
- Orderliness and general maintenance show concern for the place.





✓ GOOD PRACTICE
67/ Well-lit, clean, organized room. It has only one window for lighting and natural ventilation, but it does not allow access.



GYMNASIUMS AND COMPLEMENTARY SPACES

DEFINITION

These are any structures built for the purpose of hosting students' physical and sports activities. These structures contain areas for physical activity as well as complementary activities such as showers, dressing rooms, bathrooms and administrative offices.

PROBLEMS

- Due to their size and design, they may be separate from the school complex, and their surveillance is more complex.
- They may be used by persons outside the school community at times and on days when there are no school activities. This enables access by "outsiders" to the community who could commit vandalism or other acts against the school. Therefore, it is necessary to have two well-controlled accesses: one for students and one for persons from outside the school community.
- This type of infrastructure requires additional equipment, such as air conditioning, ventilation and similar elements. The devices installed on roofs, such as skylights, ventilation equipment, ducts, etc., can potentially generate unwanted access points.

RECOMMENDATIONS

- Both accesses (if there is more than one) should have a checkpoint. If this is not possible, then mirrors for visual control from a remote point or surveillance cameras should be installed.
- Emergency exits should be in good working condition and secured from the outside to avoid unwanted entry. They should open freely from the inside but not from the outside to the inside. They are only for exiting.
- Any opening in the roof should be secured and should be away from interior architectural elements



✗ POOR PRACTICE
68/ Large window leading to an exterior space enables unauthorized access. Even if it has a protective grate in this case, it remains a point of unwanted access. The place looks dark and is difficult to control visually.

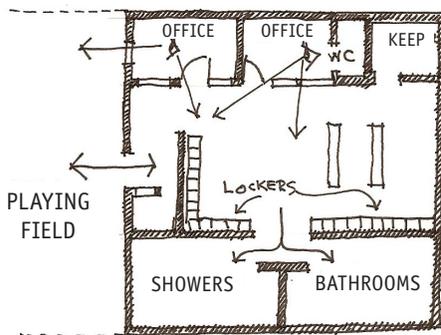


fig. 26. General organizational diagram. Note office area that has visual control over the sports enclosure.



that can facilitate access in case they are violated.

- When possible, use retractable ladders to keep the visual field as clear as possible, also avoiding other hiding places. If this is not possible, then it is recommended that the lower space be enclosed, as was suggested for ladders.
- Locate places to store equipment and other items in an area visible from the playing area, thus increasing natural surveillance.
- Review possibilities of entry through transoms, skylights or high windows, if there are any. Secure their locking mechanisms.
- Install electronic surveillance systems if natural surveillance is too difficult.
- Avoid installing this equipment in rooms that are isolated and away from traffic flows. It is recommended that it be part of the library and near it (in the case of computers).
- If there are windows on the perimeter, avoid visual obstructions, for example controlling exterior landscaping elements, bushes, window boxes, etc. This control makes it possible to look inside and conduct surveillance.
- Maintenance of the area, cleanliness and proper operation of the systems.
- Locker, shower and bathroom areas should have doors that open onto a main traffic area.
- For bathrooms, use the same criteria as those mentioned in the chapter dealing with this type of enclosure.
- An administrative area may be a good point for visual control of the locker area.
- All implements should be stored in a space designated for this purpose, and should have security locks and access from inside a controlled area such as an office.
- For doors and windows that open to the exterior, the same general recommendations as those given in other chapters are used.

CHECKLIST

- There is a visual checkpoint at accesses.
- All accesses have locks in good working condition.
- Doors and windows in good condition.
- Lighting systems in good working order and light is adequate for the size of the enclosure.
- Spaces outside the enclosure are lighted at night and there is some sort of visual control over them.
- Roof windows and openings have locks in good working order.
- Perimeter windows have unobstructed visual fields that promote natural surveillance.
- The place is clean and hygienic.
- The locker, shower and bathroom area is located in such a way that accesses open to main traffic areas.
- There is an administrative area or office from which there is natural surveillance of the play area and accesses.
- Implements and equipment are stored in a protected, secure space.



3 Community Participation

3.1 INVITATION AND PROCESSES OF RAPPROCHMENT

The following sections describe how to conduct a process of implementing crime prevention projects through the design of the educational space and its environmental characteristics in the school community environment. Although the strategy to address problems of unsafety in educational spaces may consider multiple actions, this chapter focuses mainly on design solutions. It also places special emphasis on those methodological tools that allow active participation by the school or university community, as the case may be.

One of the key points is to invite the school community and obtain its adherence to the project through its participation in the project's various stages. For this purpose, an open assembly can be held, in which information is provided on the purpose of the project and how it will be carried out.

The community is also invited to join the various groups that will be implemented, such as diagnostic workshops, focus groups, safety walk-throughs and design workshops. The invitation to participate in the project should be as broad as possible, taking into special consideration the leaders of local community and school organizations.

3.2 DIAGNOSTIC TOOLS

The objective of the diagnostic is to generate information that makes it possible to define the problem of unsafety to be addressed and to decide on concrete actions to be carried out.

STAGES OF THE DIAGNOSTIC

GATHERING BACKGROUND INFORMATION

Generally, each community and/or school district has general background information on the different sectors and populations that comprise it. These make it possible to preliminarily identify those places in which a certain problem of unsafety or school violence appears to be associated with certain schools. Once a problem area is identified, it is necessary to collect the information that already exists on the problem and on the community affected by it.

AVAILABLE INFORMATION ON PROBLEMS OF UNSAFETY.

The police and several municipalities have systemized information on problems of unsafety in the community's schools, such as statistics or surveys. If there is no relevant information to define the problem, then the various techniques described later and detailed in Part 3 of this module can be used to generate it.





CHARACTERISTICS OF THE COMMUNITY

Having information on population features such as gender, age, occupation, number of students inhabiting the problem space, and the history of the school community helps in understanding its operation and its needs in terms of use of the space.

SCHOOL COMMUNITY'S RESOURCES

With the objective of understanding the community contribution that the project management team can count on, the following must be identified: institutional resources (neighborhood committees, sports clubs, cultural groups, nongovernmental organizations, schools, etc.), urban resources (green areas), skills (for example, persons specializing in construction), and economic resources existing in the school context.

DEFINITION OF THE PROBLEM OF SCHOOL UNSAFETY

Once the abovementioned general background information is collected, the problem of unsafety to be addressed is defined as concretely as possible. An adequate description of the unsafety of a certain sector may consider all or some of the following elements:

Description of the crime problem

- The number of crimes committed in a certain period of time, totals, and listed by type of crime.
- Where crimes or behaviors that create fear occur or are located, also by totals and by type of crime, inside the school and in its context.
- If possible, determine how these figures have varied over time: hours, days of the week, and periods when crimes occur (for example, weekdays versus weekends).
- Description of the way in which the crimes are committed.

- Characteristics of persons affected (age, gender, occupation, etc.).
- Characteristics of offenders.

Description of the perception of fear

- The school population's level of fear, in terms of the number of people who frequently feel afraid.
- Description of users of a space who feel afraid and their reasons.
- Places in which students most often feel afraid and the reasons for this (ideally expressed in a map).

Description of school activities possibly associated with the problem

- What type of school activities are related to a certain situation of unsafety? It is useful to describe how the place is used, including types of use and times when common spaces are used, types of users, hours when people leave and return to work, etc.
- What activities are inhibited by fear?
- What types of school activities could be promoted?

Analysis of the design of a school space and its environmental features

- Are there features of the school design that contribute to the location of problems of unsafety? What are they?
- Are there features of the school design that contribute to inhibiting certain community activities? What are they?
- What features of the school design could mitigate the problem?
- What features of the school design would promote a change in the use of the space?

EVOLUTION OF THE DIAGNOSTIC

Informing the school community about the diagnostic at workshops or assemblies is very important because, besides validating its content and conclusions, it





fig. 27



makes it possible to establish the level of accuracy in its preparation. The results of the diagnostic, together with the community's impressions, make it possible to formulate the project's concrete objectives. During the process of feedback, possible alternative solutions can be presented and proposed.

during the walk-through. This makes it possible to obtain first-hand impressions and analyze the variables that affect the lack of safety felt by teachers and students, such as physical structures, personal attitudes, etc.

DIAGNOSTIC TOOLS

In-Depth Interviews Or Informal Conversations

The diagnostic tools described below may contemplate a greater or lesser degree of participation by the school community. Workshops, interviews, exploratory safety walk-throughs, and focus groups are techniques that ensure a high degree of participation by the school community in the diagnostic.

These are conversations with key persons in the school community, through the use of a guideline, for the purpose of obtaining information on the community's perceptions of the problem that is being analyzed.

On-site observation, analysis of official statistics, and preparation of safety maps are diagnostic tools that do not include community participation, but may be very useful as inputs for the school community to discuss and reflect on the problem.

Focus Groups

The focus-group technique provides a structured space for discussion that makes it possible to elicit the opinion of a segment of the school community represented by selected participants.

TOOLS FOR COMMUNITY CONSULTATION

Surveys Of Fear And Victimization

Unlike in-depth surveys or focus groups, which allow a qualitative analysis, surveys of victimization and fear allow the conduction of quantitative analyses.

School Safety Diagnostic Workshops

These workshops are structured spaces for meeting, discussion and reflection among citizens on issues such as citizen safety. By reaching consensus, the aim is to identify, describe and analyze problems and define their possible causes. Likewise, the aim is also to set priorities and analyze alternative solutions.

These are characterized by the use of structured questionnaires in which alternative answers are restricted or are given and the interviewee chooses from among them. The use of these tools is more complex than the previous ones and, depending on their scope, may require the participation of specialists.

Exploratory Walk-Throughs

The objective of this tool is to evaluate people's sense of safety in determined spaces and associated with specific physical variables such as lights, signs, visual and audio control, etc. It is conducted by means of an on-site walk through places to be evaluated together with members of the school community and the use of a questionnaire that participants should answer

Drawing Workshop

The Drawing Workshop technique is frequently used in Situational Prevention because it has the advantage of being a technique that uses drawing as a language of communication; it can therefore be used with children or adults, even when they speak different languages.





fig. 28

Drawing also expresses unconscious emotional content that also includes fear of urban and emotional spaces associated with quality of life.

The following is a description of the steps to be taken when conducting a drawing workshop, for example inside a school:

1. It is suggested that there be a favorable environment for children to concentrate, with soft background music (such as classical music) and a light snack and something to drink close at hand, so that they do not have to get up during the workshop (optional).
2. Ideally, the full activity should take no more than 45 minutes.
3. Seat 2 to 4 children at each table.
4. Put the blank side of the paper on the table surface.
5. Take crayons out of the box or case and put them on the paper so that the available colors (at least six) are in view and in reach of the children.
6. Ask them to draw **THE SCHOOL OF THEIR DREAMS**.
7. While the children draw, it is important to give them the necessary space to reflect among themselves without adult intervention.
8. At this time, it is recommended that the teacher conduct a parallel, non-disruptive activity that favors the working environment, such as reading, test correction, etc.
9. Once the children have made their drawings and



fig. 29

feel they are ready, they should approach the teacher and hand in the drawings.

10. When more than half of the children have handed in their drawings, begin to hang the drawings on the classroom walls, one next to another, preferably at the children's height.

11. When all the drawings are hung, invite the children who made the drawings to come forward and ask them:

- a) What is most important in their drawing?
- b) What did they mean to express?

Write down the children's answers on the attached sheet.

12. Other questions to ask the group in general are:

- c) What common element do they see in all the drawings?
- d) What element distinguishes them (what makes them unique)? Note on the back.

13. It is vitally important that answers be given orally so that all of the children can hear what the others were thinking while they made their drawings.

14. It is suggested that the drawing workshop close with applause.

15. Once the workshop has ended, remove the drawings from the wall and attach the answer sheet corresponding to each drawing, using a pin or clip.

16. Check that the children have written their names, grade level, school, age and community on their drawings and that this information is also on the attached sheet.



fig. 30



17. Collect all papers and store them in the box.

Participatory Mock-Ups

The Community Mock-up Assembly is a frequently used technique in CPTED because it helps to clear up questions and obtain information in a diagnostic stage and to progress with guidelines for architectural or urban design in a space that encourages consensus and prioritization of physical interventions.

It is recommended that the Community Mock-up Assembly be used once an Exploratory Walk-through has been conducted and the Characterization Matrix of the neighborhood subject to intervention has been completed.

For the assembly, it is first necessary to define the scale of intervention, whether in an educational establishment or a particular sector.

Based on the definition of this scale of work, it is suggested that the mobile mock-up be built with study materials. In other words, a mock-up that can be easily handled by assembly members, either because its volumes are not glued to the base or because they are modular and can be moved by participants.

Because this mock-up needs to be manipulated, it is suggested that no more than 30 people be invited to this assembly. It is important to ensure that these persons are representative of the entire school community.

At the first session of the assembly, it is important to show in detail to participants how the mock-up works, its parts and its form and mobility with respect to the base. For example, if an alternative roof for a sports space is going to be discussed, it is recommended that the roof be removed and shown to the

assembly to view possible locations with respect to the teaching mock-up.

Next, once the various possibilities have been analyzed in the mock-up and there has been an interactive space in which members of the assembly can handle the parts of the mock-up, the decisions should be stated in writing on a blackboard before the entire school community.

Once the community reads these decisions and everyone agrees, it is recommended that members sign it on the board or in meeting minutes.

This is extremely important because, based on this document, project decisions will then be made that involve professional time and work costs, which must be determined in writing and agreed by the community attending the assembly.

Once this assembly has ended, the professional team should convert the design decisions into a draft architectural design that should also be presented to the school community.

Assembly With Flipcharts

The assembly with flipcharts is used in CPTED especially when the aim is to have the community precisely define the situational problem that needs to be resolved.

The most representative members of the school community are invited (20 to 30 people) and they are given a list with issues for discussion. For example, when discussing the remodeling of an area or enclosure, the issues can be listed as follows: location, leisure areas, ceilings, rooms for various uses, map of offenders, and clusters of bathrooms.

For each of these issues, it is recommended that the facilitator place a flipchart sheet on the wall, write the name of the issue underlined and highlighted at the beginning of the paragraph, and invite participants to brainstorm about each issue.

It may happen that on some issues the community will be in close agreement, while others will be open to discussion. In such cases, it is important to make room for discussion and once completed close it with agreements by the group. It is not helpful to jump from one issue to another if these are not closed.

Once all issues have been reviewed, it is suggested that the facilitation team remove the flipchart sheets from the walls and ask the community to sign each of the sheets. This represents a sort of record of the agreements made.

OTHER TOOLS FOR THE DIAGNOSTIC

Direct observation

Direct observation is aimed at detecting good and poor practices of the design of the educational space and its environmental characteristics that may be influencing the problem of unsafety in a determined area.

The analysis is structured by means of guidelines that direct the observer's attention to particular elements of the educational design. The design guidelines and questionnaires used in the safety walk-throughs are tools that support direct observation.

Statistics

Various statistical series generated by public agencies or by nongovernmental organizations can be used as inputs for the diagnostic. One of the main disadvantages of these statistics is that they are mostly separated by communities but not by neighborhoods or sectors. This hinders their use for diagnostics of safety and educational design.

Maps of unsafe areas

One method of analyzing crime is to pinpoint criminal acts on maps. Although the preparation of computational maps is a complex technique, at local scale it is possible to use non-computational maps as a means of channeling discussions by the school community on the problem of unsafety that affects the place.



3.3 OUTCOMES AND RECOMMENDATIONS

Experience indicates that a design that considers the resident to be an environmental expert in all phases of a project will be successful. CPTED is a pioneering methodology for reducing the perception of fear and opportunity crimes by including the local community in the diagnostic, design and implementation. This methodology encourages the creation of social capital, because the process of co-production of educational spaces requires strengthening the bonds of trust of the various members of the school community.



3.4 COMPREHENSIVE SCHOOL SAFETY PLAN

The key objective in designing a plan of this nature is to include the community in achieving school safety, allowing the following specific objectives to be met:

To build a participatory school community

A substantial part of the school culture is expressed in the types of relationships among educational stakeholders; the way to address situations of conflict, misdemeanors and punishment; the greater or lesser ability of students, guardians and members of the educational community to express themselves; the opening of school or university spaces for activities proposed by students; the acceptance or rejection that students, parents or teachers receive for their proposals or concerns, among other levels of the daily life of school that give rise to what is known as school coexistence.

To strengthen the improvement of quality in learning and the formation of citizenship among students

Because "experience allows us to affirm the relationship existing between the quality of coexistence and the quality of learning. Thus, the major objective of achieving a good quality of coexistence will significantly affect the quality of students' personal and shared life, and will be a factor of key importance in the formation of citizenship and will favor opportunities for cognitive learning, thereby improving achievements and outcomes." (Plan de Trabajo de la Convivencia Escolar [Work Plan for School Coexistence] - MINEDUC)

To strengthen mutual trust

The participation, commitment and pooled efforts of each and every educational stakeholder with regard to



actions defined in the plan is only possible if there is an underlying relationship of mutual trust, respecting the experience and duties of each other's roles.

In this regard, the legitimacy that a project of this nature achieves in the community is much greater if it stems from a truly participatory process that has made it possible to generate learning and commitment by those involved.

Learning to live with others, respecting mutual differences

This working space can serve as a valuable opportunity for the educational community to look at the style of the relationships that have been built and to evaluate whether it favors the creation of favorable spaces for learning, or instead is an obstacle for achieving the quality objective. Learning to live with others in a climate of respect for differences depends on the quality of school coexistence that the community has built.

Stages of a plan

A comprehensive plan requires the following stages:

Diagnostic

a diagnostic of the area vulnerable to crime and subject to intervention in the context of the school space. Direct observation methodologies are used, along with environmental safety walk-throughs and a workshop of methodologies using drawings, in which the the school community participates.

Design of the plan

formulation of a comprehensive solution to the requirements of the educational space, based on the maximization of impact for purposes of resource allocation. A CPTED strategy is designed jointly with local stakeholders, i.e., with the administration or supporters and with the school community. Once the design

is established, it is validated with the participation of the school community.

Execution

the project is constructed, again requiring the participation of relevant stakeholders of the school community.

Evaluation

a qualitative evaluation of the area intervened and of its impact on the school community's perception of safety is conducted.

Recommendations

for the proper development of the stages of a comprehensive school safety plan, schools or educational establishments should form a permanent "School Council," that is, a management team that involves the participation of the school's principal, the teacher coordinator, a teacher representative, a parent representative and a student representative.

In addition, it is proposed that a "School Coexistence Regulation" be prepared and that it be agreed upon by the School Council and informed to the entire school community. This instrument will be an essential tool for the design, execution and evaluation of any school safety strategy or plan.

Finally, it is proposed that a project bank be generated, called "Plans for physical and social improvements," that will enable comprehensive intervention in the educational space.



4 Evaluation

4.1 INTRODUCTION

The evaluation of the intervention in the educational space using the crime prevention through environmental design methodology can be conducted at three levels:

a. EVALUATION OF THE PROCESS

The evaluation of the process should be considered during the conduction of the entire project, not only after it is completed. The evaluation should preferably include the opinion of the school community, and it is worthwhile to know whether the effort was adequately administered and executed.

b. EVALUATION OF OUTCOMES

The evaluation of outcomes confirms whether the planned changes in school space's design were made, in terms of quantity and quality. For example, it states the number of lights installed, the formation of recreational spaces and their relationship with enclosures aimed at education, plants, and the number of games installed.

c. EVALUATION OF IMPACT

The impact that the modification of the educational space's design had on the initial problem of unsafety is evaluated. Thus, it is possible to observe the evolution of impact indicators defined in the decision-making phase. Here, meeting the objective does not depend on the level of execution of the work per se,

but on whether the intervention effectively improves the safety conditions of the school community.

4.2 TOOLS FOR EVALUATION AND ANALYSIS FOR SCHOOL DISTRICTS

The survey of schools should take no longer than 30 minutes and have no more than 24 questions, so that the persons surveyed can complete it correctly. The evaluation tool should begin with a general introductory statement and be divided into three subject areas:

First section, Part 1: Background and context, basic demographic information, focusing on the interviewee's familiarity with safety principles of the school design. In addition, Part 1 should indicate the degree to which safety principles and school design guidelines were perceived after having been incorporated in school design, as well as the perceived effectiveness of these design principles.

Second section, Part 2: The criminal activity and the school design determine specific places and locations where crimes occur, as well as the specific period of the day when these frequently occur.

Final section, Part 3: Propose suggestions on the school design and present concerns about the administrative policy of the establishment and/or its supporters.





FOR UNIVERSITY DISTRICTS

Similar to the above, the evaluation tool was divided into three sections:

Part 1: Background and context, basic demographic information collected from interviewees. Part 1 should begin by focusing on the interviewee's familiarity with the safety principles of the university design.

In addition, Part 1 aims to discover the degree to which the safety principles of the design of educational spaces have been incorporated in the university design and the perception of their effectiveness. Part 1 also categorizes criminal activities, describing and cataloguing them by their occurrence throughout the educational system. This provides comparative crime data on the activity, even though universities are considerably different from schools in many aspects.

Part 2: The criminal activity and the school design determine the specific places and locations of crimes, as well as the specific period of the day when these frequently occur.

Part 3: Suggestions on design and on the policy to be followed, university design and concerns about the effectiveness of the university administrator's policy.

FOR SUPPORTERS OF EDUCATIONAL ENCLOSURES

These basically have the same structure. Through the evaluation tool, the questions can also be aimed at evaluating administrative trends and the effectiveness of administrative policy, as well as the supporter's considerations on his or her own evaluation; this is a key component of the safety design of the school and/or university.

FOR ARCHITECTS AND DESIGNERS

First section, Part 1: Background and context, basic demographic information collected from interviewees.

It is also focused on the interviewee's experience and familiarity with the safety design of the school and with crime prevention through environmental design (CPTED).

Second section, Part 2: The criminal activity and the school design determine the perceived usefulness of safe school design principles.

Final section, Part 3: Suggestions on the design and on the design policy, and concerns.





EVALUATION EXAMPLE

As an example, a case in Colombia will be described, specifically that of the Institución Educativa Concejo Municipal located in La Ceja, in terms of the comprehensive intervention using the CPTED strategy.

CONTEXT

This institution is relatively small: it has approximately 680 students and 19 teachers. The school team shows interest in and willingness to conduct project activities and execution.

From a physical standpoint, this institution is recognized as a consolidated, homogeneous unit in a roomy space surrounded by green areas. This perception is aided by the same furniture and a homogeneous volume throughout the enclosure.

This condition of solid and homogeneous volume has strengths and weaknesses. In terms of strengths, it makes it possible to reinforce the unique identity of the educational establishment, which in turn can be territorially reinforced by means of small details that increase the unity of the whole.

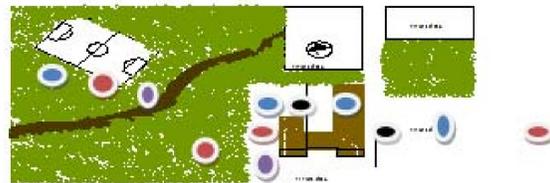
In terms of weaknesses, the presence of so many walls makes it easy for someone to hide and blocks natural surveillance in spaces where windows are too small or too high for the user's line of sight.

VIOLENCE AND CRIME PROBLEMS

The key problems of violence reported by the school community are:

- Aggression among students.
- Possible point for the sale and purchase of drugs.
- Consumption of drugs and alcoholic beverages.
- Carrying of weapons inside and outside the school.

These problems were "spatialized" by the management team, yielding the following map:



1. Aggression among students (in blue)
2. Possible point for the sale and purchase drugs (in purple)
3. Consumption of drugs and alcoholic beverages (in red)
4. Carrying of weapons inside and outside the school (in black)

As shown on the map, the problems of violence have a spatial logic because they are spread unevenly throughout the school enclosure. Aggression among students is associated with the athletic field area, the building's perimeter, a specific part of the school, and an undefined space within school grounds.

The possible point for the sale and purchase of drugs is associated with exterior spaces for pedestrian

flows, and entrances and exits both from the athletic field and the school. This decision has a cost-benefit logic and the possibility of intercepting buyers and escaping easily.

Drugs and alcoholic beverages are consumed in open areas that probably have limited natural surveillance inside the school enclosure and its immediate context.

Weapons are carried on the building's perimeter. In those places, it is necessary to increase natural surveillance and measures to control the belongings of the various members of the school community.

This first map (map 1), is what is called a baseline from the standpoint of the evaluation of a CPTED strategy. This spatialized information shows what the phenomenon is and the space where it is occurring.



After strategies to prevent violence and crime in the school enclosure are designed and implemented, this map should be modified.



▲ The multiple classroom and two classrooms built above it, completely closed, obstruct natural surveillance of the back of the students' leisure area, where aggression, the possible sale and purchase of drugs, and alcohol consumption occur among them.

★ The institution is demarcated by a metal fence that is close to points of drug consumption and sale.

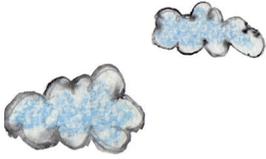
☒ Physical education classes are held outside the institution. Point for the purchase and consumption of drugs.

↓ Place with limited lighting; natural surveillance cannot be installed.

The following is a second map (map 2) by the Institución Educativa Concejo Municipal management team. This second map links detected problems of violence with environmental features of the school enclosure.

The spatial role of the classroom is highlighted; it could effectively increase the potential for natural surveillance due to its strategic position on the grounds and in relation to the spatial location of violence problems such as aggression among students, possible point for the sale and purchase of drugs, and consumption of drugs and alcohol. Increasing this potential would perhaps mean building windows where they do not exist or providing lighting to strategic places in this enclosure.

The existence of a metal fence to define the institution's perimeter is described. The fence is perceived as a fragile boundary to protect safety inside the school, and is easy to break through it for the sale and consumption of drugs. The map shows



that this point is associated with the fence. In this regard, there are various strategies for reinforcing this point, associated with increasing natural surveillance (targeted lighting, installing benches where people can sit, placing school information that attracts more natural surveillance, etc).

Physical education classes are held outside the school; therefore, creative strategies need to be reinforced in order to permanently keep an “eye on the park” by clearing vegetation, lighting, scheduling activities, and teachers who take turns conducting surveillance.

It depends on the school community’s management team whether to present the information in two separate maps or summarize it in one. What the information in a baseline map of a CPTED strategy should not overlook is the spatial location of crime and violence, preferably in a highly detailed map that shows the school’s exterior context as well its architectural facilities.

CPTED SOLUTIONS

Based on its own diagnostic, the management team proposed the following solutions:

- 3.1. In the multiple classroom and other rooms, provide large windows to promote natural surveillance in the institution.
- 3.2. Install several tables and benches (for multiple games) in the student’s leisure area to entertain them and to spend their free time, thus avoiding aggression and rough play.
- 3.3. Building a Sport Field inside the institution, to keep students from leaving during the school day.
- 3.4. Expansion of the school library, providing a reading room that students can use during leisure periods.

With regard to their proposals, those dealing with the multiple class room are very important in light of the information stemming from the diagnostic. If natural surveillance can be increased in the other classrooms, this is also relevant.

If it is possible to install tables and benches to activate natural surveillance in strategic areas, it is suggested that this be done using participatory design to therefore encourage their use by interested students and avoid future neglect.

The Sport Field would be a major contribution to improving the use of more vulnerable areas and it is therefore essential to decide where to locate it and how to spatially and socially connect it with the existing institution.

The library expansion is very important; it would be necessary to reconcile the physical possibility of natural surveillance (transparency) with the ability of students to concentrate on reading.

SOLUTIONS CARRIED OUT

In the initial phase, the school conducted the following interventions:

SUBPROJECTS	Describe what will be done under the subproject
Marching band	Formation of groups
Theater Group	Group awareness
Dance Group	Obtaining an instructor
Guitar Group	Obtaining implements

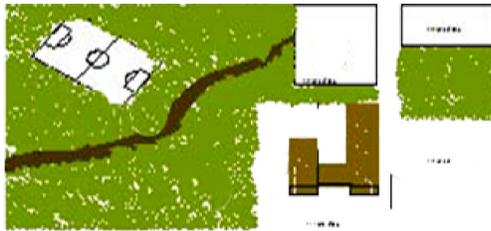


These social interventions are expressed in the environment.

Once these interventions are conducted, and if physical interventions such as those mentioned previously are added, the mapping of crime and violence incidents should be repeated, using the same survey with the same audience in order to establish whether there are any variations.

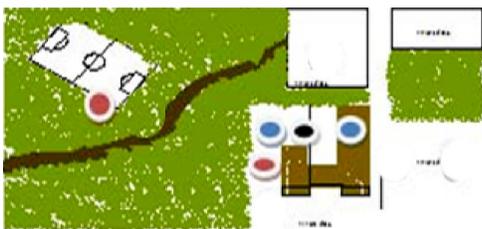
EVALUATION

If the strategy is successful, it should be represented in the following map:



As shown, there is no crime or action associated with violence. This outcome is generally difficult to achieve immediately.

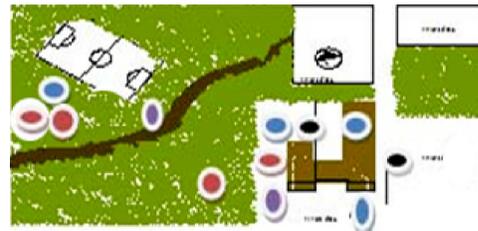
Therefore, it is more likely that this type of map will be obtained.



This map shows fewer locations where violence and crime take place. This is more likely to occur fo-

llowing an initial intervention. In this case, this second baseline should help to pinpoint those points where crime and violence persist.

The following map may also emerge:



This map shows a “displacement” of violence and crime, not necessarily a reduction. In light of this evaluation, it is very important to refocus the strategy that is being used.

This is an example of a CPTED evaluation based on mapping. Baselines can also be established and repeated based on exploratory walk-throughs and other tools described in the annexes to this manual.

5 Annexes



ANNEX A EXPLORATORY WALK-THROUGHS

Exploratory Walk-throughs are conducted by walking through the educational space, which is evaluated by means of a checklist that seeks to elicit the school community's feelings of unsafety. At the same time, it seeks to facilitate the proposal of viable solutions to improve the design of the educational space, in terms of decreasing people's fear.

1. INVITATION

Exploratory walk-throughs are conducted by teams of five to ten. A larger number of people can hinder the systemization of information. Consideration may be given to the possibility of linking more than one walk-through group, especially if the space to be covered is large, as in the case of a university campus.

2. DEFINITION OF THE AREA

Before beginning a walk-through, it is necessary to delimit the size of the area to be covered. This may correspond to the entire educational enclosure or only one sector, a school's surrounding areas, etc.

3. CONDUCTION OF THE WALK-THROUGH

Participants should be introduced (half hour), with a presentation by the facilitator and an explanation of the objectives and the type of work to be conducted.

A questionnaire is given to each participant, with a brief explanation of the factors to be evaluated and the types of answers that may be given (see checklist later in this annex). Each school community partici-

part is asked if he or she has had any bad experiences in the place that will be visited and what changes he or she would like to see in that place.

The walk-through (half hour) is conducted, according to the initial guidelines already established; giving participants time to answer the questions. The facilitator should encourage conversation among participants, since the experience or observations of one participant can make another remember something important.

At the conclusion of the activity, it is important to leave some time for discussion of the participants' overall impressions (approximately half an hour).

4. ORGANIZATION OF OUTCOMES

One way to organize outcomes is to group the information obtained (both from the checklist and from participants' comments) on a particular factor, such as lighting or maintenance. It is also possible to group the information according to a certain space, such as bathrooms or traffic. Another way of organizing the information is to graph it on a map.

The following is a proposed checklist to be used in exploratory safety walk-throughs.



CHECKLIST – EXPLORATORY WALK-THROUGH

This list contains suggested questions. Questions may be added or removed, as considered appropriate.

Location
Specific sector
.....
Day
Day of the week
Hour
Team

Purpose of Exploratory Walk through
.....
.....
.....
.....

1. OVERALL IMPRESSIONS

a. Describe your spontaneous reaction about the place
.....
.....
b. Five words that describe the place
.....
.....

2. LOCATION

a. Describe the neighborhood adjacent to the school
.....
.....
b. How is the route between home and school?
.....
.....
c. How is the lighting along the path of the walk-through?
... very poor
... poor
... good
... very good
... satisfactory
d. Is it easy to recognize the school’s location?
yes no
e. Is it easy to recognize the school’s boundaries?
yes no

3. LIGHTING AND SIGNAGE

a. How is the lighting in the access(es) to the school?
... very poor
... poor
... good
... very good
... satisfactory
b. Is lighting even throughout the school?
yes no





c. Are lights turned off?

yes no

d. How is the lighting in general?

... very poor

... poor

... good

... very good

... satisfactory

e. Is there any identifying sign, poster or notice in the place?

yes no

f. Are there escape signs or indications about where to obtain emergency aid if needed?

yes no

g. What is your overall impression of the quality of existing signage?

... very poor

... poor

... good

... very good

... satisfactory

4. VISUAL FIELDS

a. Can you clearly see what is happening up ahead?

yes no

b. If not, the reasons are:

... blind corners

... pillars

... walls

... shrubs or vegetation

... others

c. Are there places where someone could hide?

yes no

d. What are they?

.....
.....

e. Are lights turned off?

yes no

5. TRAPS

a. Are there any unused rooms that should be closed?

yes no

b. Are there other potentially dangerous places?

... stairs

... hallways

... secondary accesses

... others

c. Are there small, confined places where someone could hide?

yes no

d. What are they? (interior/exterior)

.....
.....

6. USE OF THE EDUCATIONAL SPACE

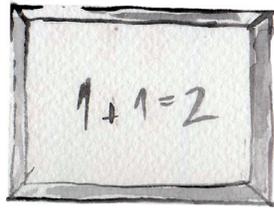
a. Does the school enclosure look cared for?

yes no

b. Does the school enclosure look neglected?

yes no





c. What gives this impression?

.....
.....

d. Is there graffiti on the walls?

yes no

e. Are there signs of vandalism?

yes no

f. How is the maintenance of the school enclosure?

- ... very poor
- ... poor
- ... good
- ... very good
- ... satisfactory

e. Do you see any trash?

yes no

7. DESIGN OF THE EDUCATIONAL SPACE

a. What is your overall impression of the design?

- ... very poor
- ... poor
- ... good
- ... very good
- ... satisfactory

b. If you were not familiar with the place, would it be easy for you to find it?

yes no

c. Is the access visible and well defined?

yes no

d. Do public areas have clear visual fields?

yes no

e. Is the place pleasant?

yes no

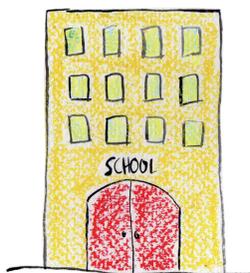
f. Comments:

.....
.....
.....
.....
.....
.....
.....
.....

b. Do you have any specific recommendations?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....





ANNEX B IN-DEPTH INTERVIEWS

This technique helps to conduct the initial assessments, both of the characteristics or definition of the problem, and of the association between it and the design of the architectural space and its environmental features. Likewise, it helps to define the most appropriate diagnostic methods and to delimit and formulate questions for a possible survey.

It is advisable to interview the largest possible variety of persons representative of the school community in terms of their impressions about the problem or about the project that is to be implemented.

The following is an example of guidelines for personal interviews, aimed at learning about a school community's safety concerns and how a possible intervention in the school space will be received, in accordance with the perception of community leaders.

GUIDELINES FOR QUESTIONS

1. OVERALL ASSESSMENT OF SCHOOL SAFETY

- In general, do you think the neighborhood where the school is located is safe or unsafe? Why?
- In general, do you think safety in the sector is improving or worsening? Why? How did you come to this conclusion? How is it noticeable?
- Identification of problem areas: What safety-related problems did you observe in the school enclosure?
- What do you think will have to happen for it to improve? How will you know that safety in the school space is better?
- In comparison with other problems that the school may have, how important is safety for the school community?

2. ASSESSMENT OF THE PROPOSAL

- Do you think that the proposal could help improve safety in the school space? Why? If not, what should be done?
- How do you think this proposal will be received by the school community? What do you think? Do you think it will work? Why yes or no?
- How willing do you think the school community will be to collaborate in formulating or maintaining the proposal? How do you think cooperation can be achieved?
- What other person do you think should be asked for his or her opinion?





ANNEX C MATRIX OF THE DIAGNOSTIC OF SAFE SCHOOL SPACES

The following is an example of information used as an input for a matrix of the diagnostic and design of safe school spaces interventions.

1.

Write down school data:

a. Name of School:

Profesor Guillermo González

b. Location:

Comuna Estación Central. Santiago. Chile

c. Number of students:

2,500 students

d. Names of Strategy Management team:

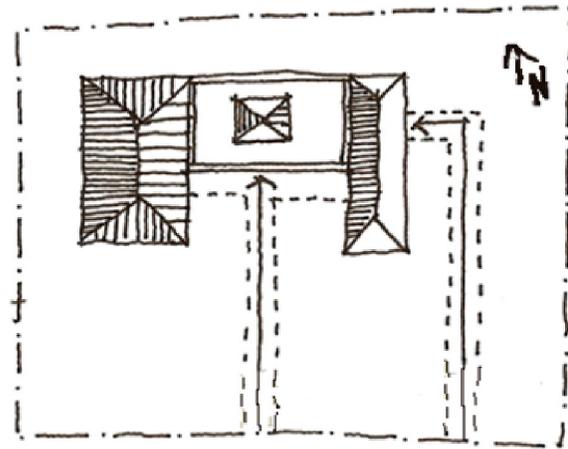
Claudia Donoso, Carlos Gutiérrez, Paulina Castillo,
Valeska Naranjo

e. Name of CPTED strategy counterpart person:

Claudia Donoso
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2.

Draw a map of the school, indicating where the north side is (architectural blueprints can also be scanned and included, supported by photographs of the exterior and interior façades). This example shows the roof layout but a layout of interior enclosures is also recommended.

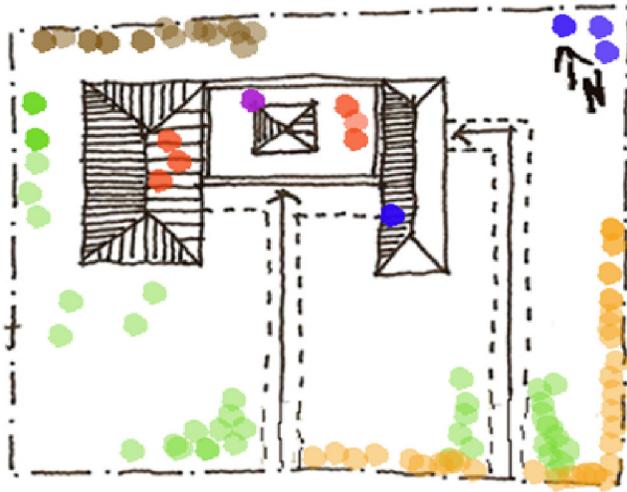


3.

Identify the existing citizen safety problems, emphasizing the most recent ones and making a list to prioritize them.

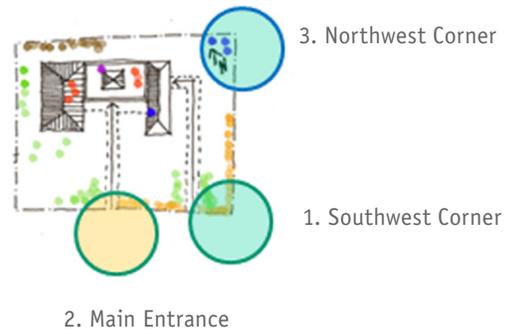
1. Violence among students (in green)
2. Thefts from students inside the school (in red)
3. Sexual abuse (in blue)
4. Drug sales (in orange)
5. Alcohol and drug consumption (in brown)
6. Theft of school infirmary (in purple)

4. Identify and mark problem areas on the map (pinpoint and map the problems). It is recommended that the color legend be placed on the side the map. This exercise can be accompanied by an exploratory walk-through.



- 1. Violence among students (in green)
- 2. Thefts from students inside the school (in red)
- 3. Sexual abuse (in blue)
- 4. Drug sales (in orange)
- 5. Consumption of alcohol and drugs (in brown)
- 6. Theft of school infirmary (in purple)

5. Analyze the map's critical spaces according to CPTED principles and describe the following observations, supported by photographs.





1. Southwest Corner
This corner is defined by fences that allow the sale of drugs inside the school.



2. Main Entrance
The main entrance has natural surveillance and lighting but there is not enough space to install natural surveillance elements.



3. Northwest Corner
This space is isolated; there is no natural surveillance or activities that encourage natural surveillance.

6. Propose alternative solutions, using CPTED principles as a basis.

1. Southwest Corner

It is proposed that a leisure area be reactivated adjacent to this corner, with the theme of a storytelling garden that encourages natural surveillance of this space. Seating that is currently underused should be moved here.

2. Main Entrance

It is proposed that a space be provided for parents to sit while waiting for their children. This will be supported by the placement of a kiosk that will activate the use of this space.

3. Northwest Corner

It is proposed that the opaque door be replaced with a transparent one and that traffic through this part of the school be activated so that it no longer harbors danger; urban furniture should be installed and marked territorially with children's drawings.

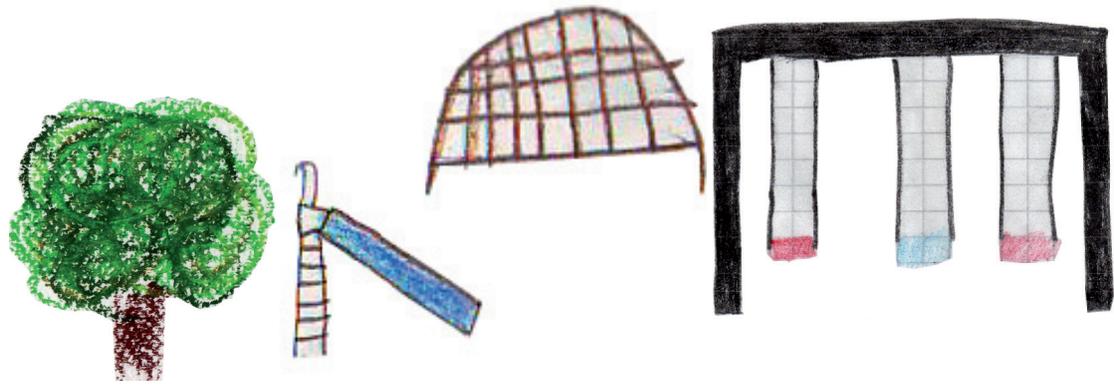


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INTERNET SOURCES

- United States Conference of Mayors (USCM): www.usmayors.org
- Florida CPTED Network: www.flcpted.net
- Secured by design: www.securedbydesign.com
- Instituto australiano de criminología: www.aic.gov.au
- Corporación CPTED Región: www.cpted.cl/www.cpted-region.org
- Territorio Capital de Australia: www.act.gov.au
- ICA (International CPTED Association): www.cpted.net
- Designing Out Crime Association (DOCA): www.doca.org.uk
- E-DOCA: www.e-doca.net
- Fundación Paz Ciudadana: www.pazciudadana.cl
- Centro Internacional para la Prevención de la Criminalidad: www.crime-prevention-intl.org
- Depto. de Urbanismo y Ordenación del Territorio U.P.M: www.habitat.aq.upm.es

USEFUL CONTACTS

- World Bank: Grupo temático de la prevención de la violencia y el crimen en Latino América: <http://inweb18.worldbank.org/lac/lac.nsf/>
- Comisión Económica para América Latina y el Caribe, CEPAL: <http://www.eclac.cl>
- Banco Interamericano de Desarrollo, BID: <http://www.iadb.org/topics/index.cfm?language=Spanish>
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. UNESCO: <http://portal.unesco.org/es/>
- Instituto Latinoamericano de Naciones Unidas para la Prevención del Delito y el Tratamiento del Delincuente: <http://www.ilanud.or.cr>
- Fondo de las Naciones Unidas para la Infancia (UNICEF). Chile: www.unicef.cl
- Centro Reina Sofía para el estudio de la Violencia: <http://www.gva.es/violence/>