THE CASE OF THE REHABILITATION OF “URBINO 2” DWELLINGS: A DEMONSTRATION OF THE NEED FOR INTERDISCIPLINARY COOPERATION BETWEEN CRIMINOLOGY AND 'BUILDING DESIGN'

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Abstract:
On the level of quality of life in the cities, street crimes play a relevant role because the safety of citizens is involved. It is a world-wide problem that is now increasing in relation to a number of factors, among them the new migrations, the level of maintenance of the towns, the level of community policing. The solution is of course a town designed on the basis of crime prevention through environmental design, and on this direction are acting some towns, for a limited part of them, due to the costs of the intervention. The “Urbino 2” district lays at about 15 km from the town (and University) of Urbino, and was originated from planning mistakes of private builders and public administrations as well. As a consequence the only residents became non Cée people who could rent the apartments for very cheap prices, commonly living in greater number than allowed for the apartment or renting a part of it to other poorer people, thus reducing the value of the building, and putting the owners in the condition of being unable to pay for maintenance, and perhaps not willing to do. From a recent survey on a population of 600 persons only 10 are Italians. The district has become a real slum, where the different populations follow the rules and habits of their original countries, thus originating brawls, violence, aggressions and so on.

The paper shows the problems arisen in this incorrectly born district near Urbino, and the possibilities offered by CPTED design for its rehabilitation.

Key Words: Criminology, CPTED, urban rehabilitation

The interdisciplinary nature of criminology and the contribution of 'building design' strategies for crime prevention.

Criminology is, by its nature, an interdisciplinary science. The crime is a multifaceted and complex phenomenon, which is unleashed for a variety of different causes and that attacks the property and interests of the community at different levels and with different strategies, affecting the life, physical integrity, moral freedom, honor and property of the citizens. Therefore, the contributions offered in order to study, contain and reduce crime have always been among the most disparate. Have dealt with criminological issues not only lawyers, but also sociologists, psychologists, psychiatrists, biologists and even the statisticians and economists. A particular contribution, the usefulness of which is intended to explain in this essay, is offered by the so-called 'building sciences' architecture, engineering and urban planning in one word by 'building design'.

The collaboration between this group of subjects and Criminology began in the last century and takes its cue from the fact that the dynamics of the enforcement of the criminal not only detect the author's personal motivations and characteristics of the victim, but also the physical conditions of the environment in which the crime is committed. In short, in most cases, an individual already motivated to commit crime, will decide to actually commit the crime when the surrounding territory will offer real 'criminal opportunities': environmental configurations that allow easy access to the victim or to
access with little effort to the places where houses the well desired possibility of hiding that give the possibility to operate and ambush without being detected; with convenient escape routes.

From these empirical measurements, carried out in neighborhoods with high crime rates by sociologists of the Chicago School, comes a line of fruitful speculation about the relationship between physical environment and criminal activity, which is expressed in the reflections of June Jacobs in 'The Death and Life of great American cities'\textsuperscript{12} and the work of Ray Jeffery 'Crime prevention and control through environmental engineering'\textsuperscript{13} and pushing the architect Oscar Newman to formulate the 'theory of defensible space'\textsuperscript{14}, based on the idea of changing the structure of neighborhoods and the configuration of the buildings, in order to eliminate the 'criminal opportunities' and, indeed, to reverse the situation, planning and constructing the city in such a way as to facilitate the monitoring and control of the territory by the inhabitants.' The key criteria to be applied in restyling the city are those of the mixture of functions within the same district, the fragmentation of spaces for public use and private respected, to the extent possible, barriers to acoustic and visual, good lighting and care in the maintenance of urban land and buildings.

The thesis of Newman brilliantly passed the test of practical experimentation, since the actual crime statistics show a decrease in the crime rate in neighborhoods that the Architect had the ability to rearrange according to the criteria proposed by him, due to the sensitivity and the support of the Administration of New York. The trial continues, with the same success, also in other cities of the United States and new studies on the subject are added to the first.

Within the programs to-day referred to the acronym CPTED, is outlined, with particular importance, a trend that is concerned primarily to the rehabilitation of urban decay. In this regard appear exemplary direct interventions and then described by Wilson and Kelling in famous essay 'Fixing Broken Windows', related to the reorganization of the entire network of the New York City Subway and the recovery of urban areas at that time in the throes of decay, such as Bryant Park, which became, after the makeover, 'an urban jewel'. The authors of 'Fixing broken windows'\textsuperscript{15} insist on the need not to underestimate the decline, but rather to fight it immediately and incessantly since its early symptoms, because it is a potent precursor of urban crime. Act on the causes of the deterioration same means, in essence, to strike at the root of even the beginnings of such a crime.

In order for all categories of rehabilitation plans of urban space, are particularly significant modes through which these interventions are implemented. It is in fact a team effort - defined below as 'the work of participatory planning', because they are to be implemented through a collaborative effort between various social partners. Even the Chicago Area Project, agreed as the matrix of all programs of prevention through urban design, noted the need to involve in the rehabilitation of a 'criminal area' not only experts of crime and deviance - criminologists and sociologists - but also the people, government and, of course, planners, engineers and architects In this regard, the role of experts in the science of 'building design' is emerging as a fundamental step. In this category it is, in fact, the most important and demanding task of making feasible, the structural, technical and economic implementation of an abstract idea of the ideal city: a city light in his 'transparency', with no quarters of anxiety or devitalized, balanced in the interplay of services and public and private buildings, full of squares and green areas designed to unite rather than to separate. Again, the experts of 'building design' are responsible for determining, from more oriented solutions according to the criteria of 'defensible space'. those best suited to the particular case, and in relation to specific environmental conditions, both with reference to the budget available and the personal needs of users. This work of 'adaptation' plans for environmental remediation to the wishes of customers appears to be a decisive step to get to their acceptance by the private sector. In fact, not everyone may like to sacrifice his desire for privacy to the idea of 'transparency', a preference for small gardens green spaces that alternate with sidewalks along the streets, or have to endure, even in the evening hours, the animation and the buzz that comes from public houses interspersed with residential buildings. In these cases, the ability of the designer to find the most painless solution and provide it with aesthetic and functional components that make it attractive will still decisive.

\textsuperscript{12} J. Jacobs, The death and life of great American cities, Vintage, New York, 1961
\textsuperscript{13} C.R. Jeffery, Crime prevention through environmental design, Beverly Hills, 1977
\textsuperscript{14} O. Newman, Defensible space: crime prevention through urban design, New York, MacMillan, 1972
\textsuperscript{15} J.Q. Wilson, G.L. Kelling, Broken Windows, The Atlantic Monthly, 1982
Soon, the CPTED programs are incorporated within that vast movement in favor of reconstruction, social and physical, of American cities, known as the New Urbanism. The movement, which was born in the most important American Universities, especially appreciates the social value of interventions. In fact, they do not simply make it more difficult the accomplishment of the crime by creating a material barrier - made with good visibility, elevated informal surveillance or anything else - including the potential criminal and his goal, but also produce the 'effect of increasing the population's sense of responsibility and sense of ownership of the land. Additional 'social' effects are those that are positive by strengthening the sense of propinquity and decreased sense of insecurity, arising from the restoration and the consequent 'repopulation' of public spaces - streets, squares, parks in earlier abandoned because of poor maintenance and gradual infiltration of deviant and criminal people.

Through the link represented by the United Kingdom, CPTED programs, are now arrived in Europe, albeit with a delay of several decades - corresponding to the lapse of time, because even on our continent took place the socio-cultural and economic transformation that led to the spread of urban crime. - The attitude shown by individual states and by the European Community does not appear, however, homogeneous, so that in many countries only recently began to resort to programs CPTED, while in many others, including Italy, it seems not fully comprised the real potential of the these methods, nor in terms of crime prevention, or in terms of the sociologic upgrading. Criminological science itself tends to flatten methods of prevention through urban design (CPTED) within the category of situational prevention to which without doubt they belong - neglecting the social value and confusing them with the means of mere mechanical prevention. We often talk programs CPTED as a palliative compared to more effective methods or clinical social work aimed at the root causes of the criminal reasons, forgetting the opportunity presented by the application in the synergy of both types of interventions. Public authorities often fail to inform their choices to CPTED criteria, simply because they do not know them thoroughly. It is lacking, everywhere, a spread awareness among the general public, about the usefulness of specific design choices, such as lack as well, a group of engineers with specific knowledge on the subject being able to inform and 'form' users.

This deficiencies are probably the primary reason for the failure to implement its program in a law itself, by the European Union. Fact, there is not yet at the level of European Community legislation, a regulatory intervention giving CPTED criteria a binding value. They, in fact, have been incorporated exclusively within a system of 'pre-standards' for crime prevention through urban planning and design of buildings, prepared by the Comitè Européen de normalization, European body responsible for the certification of quality 16. This document is comprehensive and detailed and has the advantage of fully reflect the CPTED criteria adapted also to the European population, but unfortunately, being by its very nature, devoid of binding force, has the value of a proposal, the adherence to which is dependent on the good will and, especially, awareness of the recipients.

Is emblematic in this regard, the situation in Italy, in which we distinguish a few universities and public administrations 'virtuous' in the background of a general panorama of indifference and misinformation about the usefulness of the methods CPTED. All this takes place in a context in which the urban criminality and fear of crime are reaching worrying levels, while, in the meantime, poor choices in zoning and planning do aggravate the situation. The case of ‘Urbino 2’, which will be explained in the next section, illustrates clearly the terms of the problem, showing both issues: to which social and criminological continuation is a consequence of short-sighted planning policies, as well as what can - or better could be done- with an action applying serious and comprehensive CPTED methods, applied through the process of participatory planning and the valuable support of planning experts, in the application of the criteria for removal and measurement of crime opportunities, displayed in the CEN norm.

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16 For a detailed description of CEN pre-norms, see : R.M. Barboni, *Il ruolo dell’architettura e dell’urbanistica nella prevenzione situazionale ,all’interno delle strategie di contenimento della criminalità*, in Città e criminalità, edited by R.M. Barboni, Metauro edizioni , 2005
‘Urbino 2’ district: from a wrong urban choice to the possible solutions of the problem.

The Urbino 2 district is a typical example of the so-called “Incorrectly born districts” 17. In the specific case there was a fault of the Municipality of Urbino that planned a new district 15 km from the town, without providing any urban service, from bus to social and commercial services. The original goal was to create a students’ district and with this perspective it found builders aiming to gain a lot of money building little apartments (one or two rooms and WC) in an area of cheap lots. The mistake was due to the lack of services in situ and lack of transport facilities. Students never inhabited the district which quickly lost its value on the market. The consequence was the substitution by irregular citizens and a great percentage of immigrants; from a recent survey on a population of 600 persons only 10 are Italians.

![Fig 1: The original planning of Urbino 2 district around the year 1990](image)

The district itself and even the external parts of the houses or the common parts of the apartment buildings became foreign and dangerous places in which people walks through speedy and do not stop (as said at Urbino 2 common people do not dare to enter). Relationships becomes rarefied, and in this district limited to groups of the same origin: north Africa Muslims, central Africa negroes, eastern Europe people, and so on. The way of life has become individualist and introvert. Everywhere we can assist at a particular phenomenon: people take some care of the inside of the houses (at their concept) but the outside part of the houses and the common parts in apartments buildings are totally neglected.

To give an idea of the actual level of life in the district we point out that a recent police action (100 policemen, drug dogs, an helicopter!) got the result to find out some illegal immigrants and to discover that on a population of 600 persons (compared with an authorized number of 120) only 10 were Italians. The district has become a real slum, where the different populations follow the rules and habits of their original countries, thus originating brawls, violence, aggressions and so on.

**The intervention programs**

In the last years the Province of Pesaro-Urbino is trying to carry on a rehabilitation program, but they are working only at urbanistic level without the advice of any criminologist. As a second step the planning of the intervention was entrusted to the ERAP (public housing institute). A first idea of intervention was simply to destroy the actual buildings, rebuilding a fully new district with different characters. The idea quickly resulted impracticable because several apartments were private.

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property of strangers who didn’t have any other solution to live in. Nor could they be legally forced to sell out their property. Moreover destroying the district would have as an immediate consequence to find out an accommodation for about 600 persons, some of which minors without a family. A second negative factor came from a market enquiry that showed a very little request also for new buildings in this area, putting this type of intervention out of the market.

The solution was found out by the ERAP, asking to the actual residents who wanted to sell or was interested to an upgrade. The institute was able to buy (at really cheap prices) a great part of the apartments, and then as a major owner, to legally oblige the residual owners to participate to an upgrading program. In the few cases in which the actual owner could not participate economically, the ERAP offers the possibility to swap the apartment at Urbino 2 with an equivalent one, property of the Institute, elsewhere.

On this basis the public housing institute planned the upgrade of the buildings and in the meanwhile the Municipality planned an intervention on external common areas.

Goal of this paper is to evaluate the efficacy of both the plans in order to achieve a good CPTED level.

**CPTED efficiency of the different options of intervention on the buildings**

The upgrading process got through different planning options: at a first step the Province territorial office pursued the goal of integration with the surrounding buildings of the industrial area of a nearby municipality (Petriano); at a second step, as said, the total rebuilding was an option; finally the adopted solution was to upgrade the existing buildings.

![Fig 2: shows the plan of integration with the surrounding buildings of the industrial area of the nearby municipality of Petriano](image)

The alarming situation described above has been developed over more than twenty years: in the first instance, the owners as well as the local governments have completely ignored the warning on the need to counter the deterioration since its first appearance. Especially the owners preferred to save on maintenance work and pretended to ignore that the only users of the area – immigrants- filled up the apartments like animals, in order to be able to pay the rent required. On the other hand, the municipality of Urbino has for a long period 'forgotten' the area, ignoring the supply and maintenance of essential public services and failing to strengthen connections with the nearby town. So, after almost a century, it was possible to create a social disorganization at high risk of crime and deviance, very similar to that described in the 'classic' studies of the Chicago School.

Also subsequent attempts, aimed at curing the problem once it had exploded, were weak, uneven and inefficient. Initially it was attempted a sort of social integration, through interventions in social, often managed by the Volunteers destined from their beginning to a sure failure, due to the complexity of the critical area, and to a set of laziness, ignorance and lack of resources. Public
Administration though urged by police forces, by citizens’ committees by articles of complaint in the local newspapers and by studies conducted periodically by the Department of Sociology and Law at the University of Urbino, failed to put in place a general rehabilitation program, as those suggested by CPTED methods, with the goal of a structural and social rehabilitation of the area through the involvement of all stakeholders and in collaboration with criminologists and experts in architecture, engineering and urban planning. It's clear, in fact, that in order to remove illegal immigrants and criminals from ‘Urbino 2’ a structural reorganization of the area was required, reorganization which, starting from a restoration of essential public services - lighting, sewerage, roads and degraded buildings - and passing through the construction of community centers such as shops, bars and sports areas, favored social integration, sense of belonging to the territory, self-empowerment and the activity of informal surveillance by the inhabitants themselves.

Finally, in 2010, a turning point: a redevelopment of the neighborhood who finally analyzes the urban aspects of the matter and in which the need for involvement of different actors is take in count. Things then move on to a “Memorandum of Understanding” signed by the towns of Urbino and Petriano, the Province of Pesaro-Urbino, by the regional office for public housing and by a cooperative of solidarity in DIY. Meetings are held between the public and residents, participating actively being sensitized to the problem. Yet the intervention has in itself the seeds of its own failure. In fact, the unique solutions provided, in order to restore the environment of the area, is the demolition of buildings that house more than one hundred families and a reconstruction based on criteria that include the transformation of the studios in bigger apartments, resulting in an actual reduction of receptivity from 76 to 46 apartments. An expensive solution that shows to be impractical. Demolition and reconstruction require to find, for a large number of people, housing, in some cases temporary housing, in other cases - who he will have to go forever? - definitive housing elsewhere. Moreover the cost of this type of intervention is evaluated in the order of 7 million euros for 76 apartments of medium surface of about 45 square meters!

As expected, the practical and economic difficulties, after a series of events that last at least two years, have the upper hand: the city of Urbino is forced to strongly reduce the project, including the discontent of the people who, in an open letter to local newspapers, denounce their situation of abandonment and the climate consequently arisen <that fostered attitudes contrary to the rules of public spirit>. Still, we could do more and better if in planning interventions had been involved criminologists and experts in the design according to the CPTED criteria. The identification of the minimum level of interventions needed to reduce the risk level, would in fact have led to the identification of proposals to restore the blighted buildings rather than demolish them and rebuild completely. In this regard it should be noted that an analysis of the project of reclamation of 'town of Urbino 2', carried out by the experts of the Politecnico University of Marche in accordance with the scale of the risk assessment proposed by CEN tables, shows that the actions planned in relation to each building, were not sufficient to achieve a satisfactory level of risk reduction. ‘Urbino 2’, in essence, is an area that has served three times the consequences of misinformation on the part of all stakeholders - owners, public administration, planners, in order to programs of crime prevention through urban design. A first time, when you have not realized that building a new neighborhood without fitting of community centers and necessary infrastructure meant to condemning him, a second time when you chose to ignore the first symptoms of decay, preferring policy of profit maximization to that of a careful restoration of direct investment to maintain the decorum and, no matter how small, the market value of the property; finally a third time at the moment in which, even in setting up a comprehensive plan for recovery of the area has been omitted the use of a body of rules which, although not binding, could provide useful frameworks and suggest methods of restyling less radical and expensive.

Conclusions

It is true that ‘Urbino 2’ is not, in Italy, the only case of incorrectly born district: similar problems arose in other districts which sometimes got international relevance, as the famous district

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19 R. Montagna, E. Pandolfi, G. Agarbati, *Rehabilitation of Urbino 2 slum: Criterions to upgrade the safety level in building design* in proceedings of IAHS Congress, Milano 2013
'the sails' of Scampia in Naples, also condemned the demolition. However, in some cases the choice of the government was more aware, as, for example, in the neighborhood Braida in Sassuolo in Modena 20, with a high concentration of immigrant population and in serious overcrowding and poor physical health and the buildings, marked by crime and incidents of social unrest. In this case, the clean-up, has been entrusted to experienced designers of CPTED, with excellent results. Seems particularly worthy of note the fact that, beyond the provisions for a few buildings in dangerous conditions, it is preferred to use the restructuring and maintenance, implementing also the offer of services and areas for recreational activities in order to increase the mileage and spontaneous surveillance. Therefore, it seems more and more desirable the formation of a 'common understanding' of the existence and the potential of a method for the prevention of crime which, if properly applied, has always given good results. This is a goal that calls at the forefront both the scientific experts involved, and the government authorities responsible for the safety and welfare of citizens, in order to study in more detail and then spread through publications, seminars, demonstrations and conferences, such a useful knowledge. Without a doubt, luck of these programs lies not only in their practical efficiency, but the effect is upstream of the crime problem and acts on warning signs of discomfort that leads to the crime itself. For this reason they cannot be collapsed into other situational prevention programs that are only mechanical.

References:
C.R. Jeffery “Crime prevention through environmental design” Sage Publications inc. Beverly Hills, California USA, 1977
R. M. Barboni “Forma del costruito e prevenzione del Crime” in: Normative edilizie e forme del costruito, Clua edit. Ancona , Italy 1999
R. M. Barboni “Perspectives of crime prevention involved by building design” XXX IAHS world Congress, Lubiana 2001
R. M. Barboni, R. Montagna, E. Pandolfi, “Crime prevention in building design” XXXI IAHS world Congress, Montreal, Canada 2003
R. Selmini -a cura di- La sicurezza Urbana, il Mulino Bologna 2004
R. M. Barboni: “Città & Criminalità, prevenzione situazionale Criminalità urbana, strategie di intervento” Metauro edizioni, Pesaro 2005
R. M. Barboni, R. Montagna E. Pandolfi, Influence of building codes and site conditions on the alteration of a typical low-cost housing design - consequent alteration of crime risk levels proceedings of XXXVII IAHS World Congress on Housing , Santander, Spain October, 2010
R. M. Barboni, R. Montagna E. Pandolfi, Alteration of crime risk levels and formal aspect of typical low-cost housing design due to site conditions and building codes in : Journal of Civil Engineering and Architecture, David Publishing Company, USA 2011

20 Laboratorio qualità urbana e sicurezza, Dipartimento di architettura e pianificazione Politecnico di Milano, Quartiere Braida- Sassuolo, Studio sulla sicurezza urbana, in C. Cardia, C. Bottigelli, Progettare la città sicura, Hoepli, Milano, 2010