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Research in Design and Architectural
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Halfway housing for inmates

Typological alternatives to traditional prison

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Abstract

This research addresses the issue of prison architecture, specifically it talks about minimum security institution. The aim is to identify new design criteria and to develop alternative architectural proposals.

The expansion of prison population in the last 20 years led many governments to produce guidelines and reference standard to ensure uniform treatment and shared levels of comfort. The awareness reached by every Western nation that the goal of punishment is to re-integrate inmates into society, raised the need to understand deeply the detention effects on people and to understand how prison design can influence the behaviour and the life of the users (inmates, staff and visitors).

The research focuses on minimum security institution (or open house) to elaborate new organizational and functional principles through the analysis of functional areas and to develop a meta-design that identify dimensional, environmental and technological requirements indispensable for design. The purpose of the research is to define alternatives architectural types of prison that reflects the needs of the inmates, in which the residential and rehabilitation functions predominate on classic organization of traditional prison.

Given the huge complexity of the variables which must be taken into account in the design of prison, this research aim to identify the key design factors, such as: location, dimension, overall layout, control's activities, type of living accommodation and, last but not least, the quality of the space both inside and outside. The identified key design factors will be synthesized in several architectural design proposals with the goal to resolve the relationship between functional layout and building typology, or rather the relationship between functional patterns and the space configuration, and furthermore the relation between building typology and the urban spaces or the urban facilities that surround the prison.

The achievement of the goals of quality, livability and safety of such facilities represent the aim towards which the research want to arrive for

codify a set of 'principles and rules' useful for effective design of the new prison model. Also the aim is to understand the space's characters and the nature of activities to define new design criteria and to steer future policy choices about building prison to simplify the management and maintenance procedures and to avoid unnecessary costs.

Keywords

Penitentiary Building, Minimum Security, Collective Housing, Responsibilization-based Penitentiary Treatment.

Introduction

The inadequacy of Italian correctional facilities, exacerbated by increasing overcrowding, has reached such critical levels in recent years that Italy was condemned for inhuman and degrading treatment of prisoners. If the issue of overcrowding mainly concerns the legal system and State laws, the issue of inadequate prison space undoubtedly has to do with the architecture and planning of new facilities. As demonstrated by European statistics, there is a decrease in the re-offending rate in States where inmates have the possibility of working and living in detention facilities that provide adequate comfort levels and respect for human dignity. Austria, Spain, Denmark and Norway have adopted penitentiary treatments based on the principle of responsabilization in specially designed facilities, in which inmates have the opportunity to express themselves, to take on responsibilities by getting involved in activities offered by the detention center and, within certain limits, to organize their time. In order to introduce the responsabilization-based penitentiary treatment even in Italian correctional facilities it is necessary to adapt the building typologies currently in use to the new criteria for prison treatment, and therefore develop new architectural alternatives in which the residential and collective nature of the structure prevails on traditional typologies. To plan new facilities according to the "residential" criterion means to consider prisons as a collective house, similarly to a hospital, a convent, a residential home for the elderly, or a reception center. Inside, all of these structures present increasing degrees of permeability and accessibility to the various areas, as well as differentiated levels of privacy and security. The space with the highest degree of privacy and independence is the living area, that is, the residential unit. The purpose of organizing such a structure in units is "the creation of a space that can be regarded as a 'house', in which the

private area with bedrooms and bathrooms on one side, and the more public space comprising the unit's facilities on the other, can be viewed as the "living area" and the "sleeping area" within the same residence. Inside said units it is possible to identify a gradual progression of spaces, from private to semi-private, that can simultaneously guarantee both privacy requirements and socialization requirements, drawing on the family environment example" (Di Giulio, Terpolilli, 2002, p.74). As demonstrated by a number of European experiences, structuring a prison according to the residential unit arrangement has the effect of decreasing stress levels associated with incarceration, while increasing the effectiveness of the re-education treatment and of reintegration into society.

Consequently, the work herein described will focus on the definition of organizational-functional criteria for open detention facilities through the analysis of the relevant functional areas and unit spaces, as well as by determining the key factors that influence the design of penitentiary facilities, with the intention of reviewing and updating them in view of specific considerations concerning typology and organization.

Purpose and objectives of the research

The purpose of this research is two-fold: the first one is to further deepen the study of the architectural typologies relating to open detention facilities, in order to fill a gap in the architectural discipline and to respond to the evolving needs of the prison system with regard to the classification of inmates held in differentiated penitentiary systems. The second aim is to define the typological characteristics, the functions, the users and finally the functional organization of open detention facilities so as to rationalize building and management costs, as well as to optimize the quality level of the service provided.

By way of the methodology described herein, we intend to finally identify a basic organizational project that allows to contextualize - within an architectural plan - the usual, daily activities performed inside a prison. Firstly, the objective consists in defining the general design criteria and in drafting a meta-plan that establishes all the dimensional, environmental and technological requirements needed to design new facilities, or rather to refurbish existing buildings that are likely to be converted on the basis of shared typologies. Secondly, the objective is to describe, through the use of illustrative planning solutions, the

possible aggregations of the various functional areas identified.

The prison project: a reflection on some key factors

In order to define the general design criteria for minimum security level housing, the first step was to identify the key factors relating to the organization, management and morphology of prison structures. Subsequently, the factors identified were reevaluated on the basis of a number of considerations pertaining to typology, function and organization. The key factors constituting the foundation of the general design criteria are:

- | | | | |
|---|-----------------------------|---|---|
| 1 | Typology | → | Typology similarities with collective housing |
| 2 | General layout | → | Definition of functional zones |
| 3 | Aggregation of parts | → | “Island” arrangement |
| 4 | Arrangement of living areas | → | Layout of the living areas |

Typology similarities with collective housing

The first aspect that needs consideration when reassessing prison typology, as currently standardized today, is the development of an analogy process linking prison typology to collective housing. There are several examples of collective residences in the history of architecture: monasteries, hospitals, residential homes for the elderly, student housing, etc. The most interesting architectural structure for the purpose of this research is represented by the monastery, and in particular, by the structure of the Carthusian monastery (*Certosa*). From a perspective of functional organization, the Carthusian monastery model is the best at combining the level of individual life with the requirements of community life. This particularity is due to the presence of various different “spatial contexts” (three in particular), each with its own predominant function and each characterized by a specific level of autonomy and privacy. The spatial contexts that compose a Carthusian monastery are three: the first one groups together all service areas and represents the place of interaction with the outside world; the second one includes all areas intended for community life (church, sacristy, refectory, etc.) and constitutes the connection between the

primarily private space occupied by hermit monks, and the slightly more open one used for trade with the outside world; the third one is composed of the living areas used by hermits (i.e. cells arranged around the cloister) and represents the main area where the monks conduct their life of isolation. The presence within the prison structure of a similar functional arrangement (balance between individual and community life, need to interact with the external world, gradual levels of permeability) makes it possible to adapt the Carthusian monastery organization to a prison structure without upending the founding principles, with the difference that the second spatial context (the one pertaining to community life) takes on a greater import in prison, given it must ensure that a wide array of activities - educational, occupational, cultural, religious - are carried out.

Definition of functional zones

A reassessment of the traditional organizational-functional models is the second aspect that needs to be considered to ensure that prison architecture effectively contributes to the positive implementation of prison treatment. Given that the current configurations, with regard to typology and distribution, are exclusively based on criteria of safety and surveillance, the purpose of this research is to encourage experimentation with those architectural typologies that instead, on one hand, promote conditions capable of recreating a setting in which spaces feel livable and usable just like in a domestic environment, and, on the other, represent a rationalization of the functional and management organization of services (Di Giulio, Terpolilli, 2002, p.72). The need to rationalize may indeed be satisfied using a “functional zones” arrangement (figure 1): each zone features specific levels of openness/closure, autonomy/dependence and multi-functionality/single-functionality, depending on the activities and on the various types of users it accommodates.

The “zones” arrangement allows to gradually pass from community spaces, in which the administrative, educational, occupational and cultural functions are performed, to the more private spaces, which instead comprise the housing areas, inclusive of the living area, the sleeping area and all necessary unit facilities.



Fig. 1 Schematic example of functional zones arrangement [author]

The differentiation of permeability levels between the various functional zones carries three significant benefits:

1. It provides detainees with the possibility of moving freely within certain functional areas, thus expanding their range of action and limiting the confinement effect typically connected with imprisonment;
2. It adapts the organizational models and distribution features to the profound differences that lie between the various functional areas in view of the activities and users that characterize them;
3. It increases the efficiency of security personnel by collocating strategically positioned filter areas, so that staff may be employed for more qualifying and productive tasks compared to detention.

A different degree of accessibility is assigned to each functional zone in consideration of the functional areas it identifies. For example, category A, which presents a lower degree of accessibility (higher degree of privacy), will be accessible only to specific types of users, while category D, which is more open, may be used by all of them (with the exception of inmates). The four functional zones identified in such a way may in turn be organized in three different groups (figure 2).



Fig. 2. The three groups of spaces are organized according to the respective degrees of accessibility of the functional zones [author]

It is useful to point out that such classifications and subdivisions do not possess any real practical value yet, and cannot exactly be transferred to project level; still, they are helpful, as they provide some conceptual indication of the spatial configuration and of the functional organization, hence anticipating a variety of architectural solutions. Consequently, they can be regarded as indications for a meta-plan.

“Island” arrangement

During the last 20 years, several different strategies have been developed allowing inmates to expand their range of action and, therefore, releasing the guards from the duty to accompany each prisoner to their respective space during the course of the day. The arrangement that better combines the need for free movement with the previously described organizational structure is the one that provides for an “island” arrangement of the prison, figure 3.

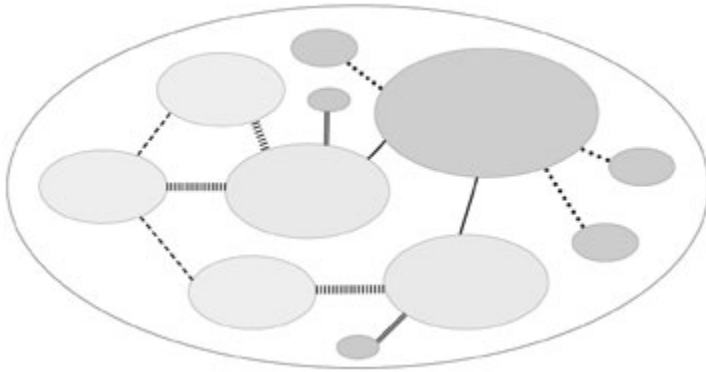


Fig. 3 Schematic example of the “islands” arrangement, with the different types of connections [author]

The “island” arrangement requires that the main functional areas (residential area, visitor and interview area, community facilities, etc.), which are grouped together according to the above said principles, possess such a ‘degree of inner circulation’ that inmates are allowed to move without necessarily having to be accompanied. Each ‘island’ has a dedicated area for prison guards: in this type of arrangement surveillance can be performed directly (direct supervision). With direct supervision, instead of performing surveillance from a single viewpoint, guards move freely among inmates, thus encouraging the creation of positive relationships aimed at consolidating the active role played by the agents in the inmates’ re-education process. In addition, the ‘island arrangement’ makes it possible to differentiate accessibility for different categories of users, figure 4, and to associate a specific level of accessibility with each typology of user (programmed accessibility, global accessibility, partial accessibility and definite accessibility).

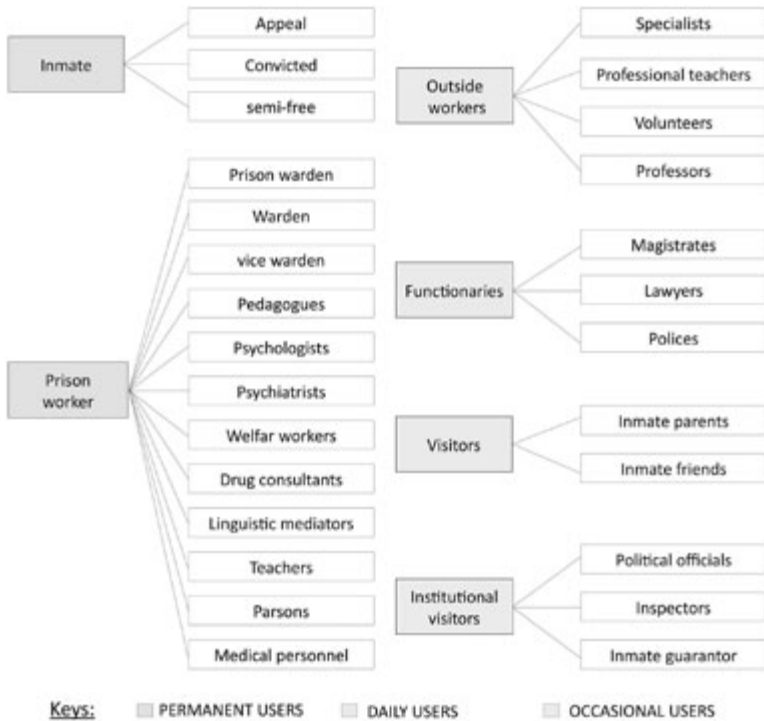


Fig. 4 Example of classification of users into categories [author]

From an architectural point of view, the choice of organizing prison spaces in islands affords greater planning freedom, the possibility of separating the various categories of inmates more easily by using specific housing arrangements, as well as to create a different relationship - both internal and external – with respect to living areas and community areas alike (sitting rooms, dining halls etc.)

Layout of the living areas

One of the most innovative planning principles concerns going from the detention block (used in current typologies) to the residential unit, figure 5. Usually, the detention block is composed of rooms for overnight accommodation (cells), toilets, and in some

cases, of a - generally inadequate – association area. The residential unit arrangement, instead, aims at creating an area that conceptually reproduces the domestic environment of a house, somewhat imitating the same gradual progression from “private” to “semi-private” spaces. Due to the presence of areas that are diversified as differently equipped for intimacy, conversation and recreational activities, the spaces within the unit provide inmates with the opportunity to choose between seclusion and association, individual activities and social activities, communication and isolation (Di Giulio, Terpolilli, 2002). Near each bedroom there are other rooms, such as living rooms, sitting rooms, teaching spaces and meeting areas that support the development of personal relationships among the detainees, who are encouraged to express their personality. The domestic character of the unit is ensured not only by the spatial arrangement, but also by the presence of small groups of inmates . Statistics on violent episodes show there is a decrease in stress levels caused by forced cohabitation when the number of cohabiting inmates decreases, specifically because of the possibility of cultivating interpersonal bonds, which in turn helps to reduce the sense of alienation and disorientation due to very big groups. Besides reproducing the domestic and family environment, the residential unit arrangement aims at helping inmates develop the most positive outlook possible with regard to their personal detention experience, which is an indispensable element in support of social rehabilitation.

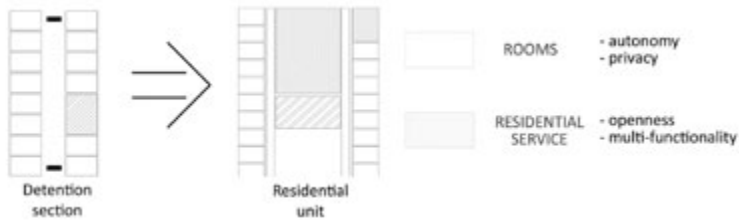


Fig. 5 From traditional custodial section (left) to the new residential unit (right), with rooms organized around the area of relationship [author]

Conclusions

Just as the considerations herein above sought to explain, the concurring factors in the definition of an efficient and civilized prison environment are many and varied, and they require further investigation

and multidisciplinary research. In this sense, the contemporary architectural culture must become aware of the complexity of prison structures, in order to fully comprehend the connections that tie spatial organization to psychological, perceptive and behavioral aspects. As the few studies carried out so far have confirmed, the difficulty of establishing conclusive results with regard to the key factors that positively influence the prison environment depends, on one hand, on the extreme complexity of the penitentiary system and, on the other, on the conflicting cultural stances that sometimes hamper the change and innovation process that research in this field could instead promote. The vast economic resources that prison administrations worldwide spend to keep the prison building system going could be reduced by designing prisons that are more efficient from the perspective of quality of service and of the safeguard of inmates' rights, as well as of those of prison operators and external users.

Notes

1. The total number of inmates in Italy is approximately 54.000 individuals against a prescribed capacity for the entire Italian national territory of 49.000 beds. Figures as of 30 September 2014, source: Department of Justice. Said outcome is the result of the government's great commitment in recent months due to the ongoing emergency situation in penal institutions, mainly caused by overcrowding, which peaked to 146% in 2012.
2. Ruling by the European Court in Strasbourg, Sulijmanovic vs. Italy: 16-7-09
3. The re-offending rate in Italy is close to 68%; in countries where inmates are guaranteed a job it reaches 19%. (Source: Associazione Antigone).
4. References to responsabilizing detention can be found in the essay by Mauro Palma, "Due modelli a confronto: il carcere responsabilizzante e il carcere paternalista" included in the volume "Il corpo e lo spazio della pena. Architettura, urbanistica e politiche penitenziarie" edited by Stefano Anastasia, Franco Corleone, Luca Zevi.
5. Among the newly conceived detention institutions, we'd like to point out: Justizzentrum in Leoben, Austria; Halden Prison, Norway; Bastoy Prison, Norway; East Jutland State Prison, Denmark.

6. The typologies currently in use in Italy are the following: typology with differentiated building units, compact kind and telegraph pole kind. For further details, please refer to Scarcella L., Di Croce D. (1997), *Repertorio del patrimonio edilizio penitenziario in Italia al 1997*, Ministero Grazia e Giustizia.
7. The open detention regime “must be used for individuals of limited dangerousness by gradually overcoming the criteria that delimits detention within the space of their overnight accommodation. In this sense, the detention perimeter must be extended at least to the boundaries of the block, that is, whenever possible including also its external open areas, thus complying with the guidelines of the penitentiary system. Within the new perimeter a new kind of detention can be conceived, one that is characterized by the freedom to move in compliance with specific rules of conduct that regulate its practice (Circular letter of the Prison Administration Department, 25 November 2011, “Procedures for sentence execution. A new treatment model that includes safety, acceptance and re-education”.
8. Refer to ft.7
9. In its complexity, the building layout typical of Carthusian monasteries manages to combine different typologies of space, progressively decreasing the degree of isolation from the outside world: “In the panorama of Carthusian charterhouses it is possible to distinguish three basic structural units. The units lived by the hermit, by the coenobium and by the converted, each one organized around its own cloister, are distributed according to the idea of a gradual detachment from the outside world and that increasingly serves as a diaphragm, protecting the monks’ isolation” (M.A:Giusti, 1988, quoted by Terpolilli, 2012).
10. “These three levels of space, from a typological and functional point of view, are the three levels that every structure should have in order to achieve, at any moment, that condition of coexistence between individual life and community habitat” (Terpolilli, 2012, p.68).
11. The traditional organizational-functional prison arrangement is made up of two elements: 1) an area beyond the surrounding wall perimeter, which contains the administration, the barracks and the offices; 2) an area within the surrounding wall

perimeter, which instead contains the living areas (blocks), the visitor rooms and the areas used for recreational activities. All blocks are generally structured according to a triple or quintuple distributive system (room-hall-room; room-hall-facilities-hall-room), and they are normally arranged in a “T” or “L” shape around a single observation point (principle of radial surveillance), thus allowing a limited number of guards to be able to visually check all blocks at one time.

12. The “island” arrangement has been successfully tested in the prison of Halden (Norway) and of East Jutland State Prison (Denmark).
13. The expression “degree of inner circulation” indicates the capacity of users to freely enjoy and use the space as a result of the absence of containment measures (railings, armored doors, bars).
14. Prisons that employ direct supervision are generally known as ‘new generation prisons’ and are the result of research conducted in the United States by the Federal Bureau of prison: ”Direct supervision prisons have a much larger central association area surrounded by only one or two storeys of cells. The central space is usually triangular or rectangular, and officers roam and mingle there with the inmates. Greater staff-inmate contact has been found to lead to increased positive relationship, allowing more effective surveillance and better security” (Fairweather, 2000, p.35)
15. With regard to living areas, a number of aggregation methods are possible, as the range of worldwide experimental typologies currently used in prisons demonstrates, such as: single rooms, double rooms, small residential units (from 3 to 6 people), open dormitories, segmented dormitories, ‘safe’ cells. Studies confirmed that a reduction, or the absolute deprivation, of privacy produced by certain aggregations leads to high tension situations and to violent episodes between inmates.
16. Research conducted in the United States concerning the optimal number, if such a definition is possible, of inmates inside a living area fluctuates between 10-15 people. Certainly studies on density and proxemics provide a useful resource for the architectural investigation of new possible solutions.
17. “The design of the prison environment is crucial to its operation and to the impact it has on the achievement of

correctional goals for inmates, staff and public users. However, the physical environment cannot guarantee or ensure the achievement of those goals. It can only work in conjunction with the administration, staffing, operations and activities, and with community support, to help the prison become an effective institution serving society's ends" (Fairweather, 2000, page 48).

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