AN EXPLORATION IN REUSE:
Studying the Potential of Negatively Perceived Environments

by

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Submitted in partial fulfillment of the requirements
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ABSTRACT
This thesis explores the potential for the reuse of negatively per-
ceived environments. These are structures which possess seriously
negative values associated with their former uses. The study attempts
to outline the intrinsic characteristics which define one particular
example of such adversely perceived building types - prisons; and tries
to identify a deeper set of principles underlying their transformation
into a more positive environment.

Design explorations are used to speculate what are the attributes which
may be supportive of a positive reuse. This becomes the primary basis
for the development of a theoretical framework establishing the compo-
nents of reuse and their respective parameters for discussion. Evalu-
ative criteria for the 'New State', or transformed condition, is gene-
rated to enable the measurement of a positive change.

Several case studies are reviewed in order to gain a better under-
standing of the 'New State', and to test both the comprehensiveness and
applicability of the established set of criteria.

It is hoped that this study will augment the ways in which we think
about the significant contributions such buildings can bring
to the community, and how they can contribute to our environmental
heritage.

Thesis Supervisor: John R. Myer
Title: Professor of Architecture
ACKNOWLEDGEMENTS

I wish to express my deepest thanks to Professor John Myer, whose advice, criticisms and encouragement were invaluable in the preparation and completion of this study. My appreciation extends to Professors Julian Beinart, Tunney Lee, Kevin Lynch and Donlyn Lyndon, and to Giancarlo de Carlo for their continual guidance and insights.

Special thanks to John Ingwersen of Anderson Notter Finegold Inc., Boston, for his comments and support in my research. I gratefully acknowledge the assistance of the Ontario Heritage Foundation, the Toronto Historical Board, the Department of Correctional Services, and all others who have provided me with information when needed.

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Last but not least, I would like to express my gratitude to the Central Mortgage and Housing Corporation of Canada for their financial support in my studies.
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The purpose of this thesis is to explore the potential for the reuse of structures which possess seriously negative values stemming from their previous use. These include former jails and asylums where we have filed away ineffectual people in what is generally held to be an inhumane and unconstitutional environment.

The goal is to increase public awareness in the possibilities of reusing and successfully integrating some of these structures, possessing valuable architectural, historic and/or social values with their surrounding environment. It is my hope that this study will augment the way in which we think about the significant contributions these buildings may bring to the community, and how they can contribute to the environmental heritage. For the purpose of this study, we will limit ourselves to the discussion of prison structures as examples of negatively perceived environments.
The study establishes a framework for the evaluation of design alternatives for three jails in disuse:

1. Prior Conditions
2. Attributes of Change Process
3. New State

The framework will be used to outline the intrinsic characteristics which define the jails and identify a deeper set of principles underlying their transformation into a more positive environment.

The framework considers only the criteria necessary for the evaluation of the reuse of prison structures and focuses primarily on the requirements and characteristics of the 'New State'.

This study has been initiated as a result of an inherent cultural attachment to, and respect for, the values of antiquity. It is supported by a firm belief that we need some sense of stability in an age of transience. This stability can, in part, be enhanced and maintained through the propitious preservation and reuse of our old buildings.
STUDY METHOD

Design proposals and explorations are used to speculate about what is involved in a positive reuse. A list of design evaluation criteria is generated outlining the components of reuse. The list of criteria has been developed as a result of a reiterative analysis of the case studies, and as such, is open-ended and can be changed subject to additional information. The criteria are identified from an objective statement of design parameters, information obtained by interview and drawing upon design exploration of case studies.

Three case studies are identified and evaluated according to the criteria as set out in the components of reuse. These have been chosen as a result of information available and personal involvement and familiarity with the projects. The projects are as follows:
Case One. Vermont State Prison, Windsor, Vermont

Case Two. Don Jail, Toronto, Ontario
Study carried out by the author as a response to a request for proposal from the City of Toronto. (April 1978)

Case Three. San Gerolamo, Urbino, Italy
Proposal generated by architectural students, including the author, at the International Laboratory of Architecture and Urban Design, under the direction of Giancarlo de Carlo. (September 1977)

The new uses for these cases have been established as being appropriate transformations. For this study, we shall assume this to be correct.
CHAPTER ONE
DIFFICULTIES AND OPPORTUNITIES
OF REUSE

Our renewed interest in our past is becoming more apparent in many facets in our society. It is only now becoming evident that many of those things which have been important to us are beginning to disappear. Not too long ago, Alvin Toffler through his book *Future Shock* brought attention to the waning of permanence and the emergence of an age of transience and novelty.

The market of the past twenty years has reflected the American "frontier-morality" that change brings progress - a belief that anything new is better solely by virtue of its novelty. Urban antiquity and visible tradition are disappearing and need to be protected. "We raze landmarks. We tear down whole streets and cities and put new
ones up at a mind-numbing rate." The need for familiarity with buildings and institutions is an important factor to preserve a neighborhood unity and stability. These structures are part of our cultural heritage and provide us with a sense of place in which we can exist in a state of well-being.

Yet almost every society tries to eradicate its less flattering aspects and preserve those things of which is can be proud. Our explorations into reuse has only begun to extend beyond monumental architecture to include the stock of industrial and educational buildings, which only years ago, would have been demolished to make room for new developments.

But there is a handful of buildings which are perceived to be unfit for any kind of reuse primarily based on our emotional reactions to their associations. These are the building which, as a result of their

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former uses cannot easily be imagined fulfilling any other capacity, such as prisons, mental institutions etc.

Every state, and almost every city has a prison, many of which may be inadequate to meet modern standards - the Eastern Pen in Pennsylvania, built in 1829, was closed in 1966, but has yet to be demolished because of the high cost; the New York State Prison in Clinton, an old maximum security institution has also been recently slated for demolition.²

Aside from the fact that some of our old jails are no longer capable of meeting with modern standards - the 1970 Law Enforcement Assistance Association (LEAA) census revealed that half of the nation's jails are without medical facilities; over eighty-five percent are without recreational facilities; and ninety percent without educational services; the basic problem seems to be that current correctional and

Penal philosophies are in a state of rapid change.³

There are two principle notions which may have prompted the obsolescence of our monumental and institutional prison architecture:

1. Long term imprisonment of offenders has failed as a social policy.
   
   The emphasis has switched from one of warehousing inmates to one of detention and reform. Most prison officials have estimated that the number of offenders in need of continuous supervision is ten to fifteen percent of the prison population.⁴ Long term confinement has proved itself to be costly, inhumane and discriminatory, and generally disrupts the fabric of human relationships.

2. Small and specialized supportive environments are advocated.

³ Ibid. p. 31.

There is a support for small resident populations to be housed in community correctional centers, tailored to different categories of offenders, which fit into old existing houses within the neighborhood fabric. The Hawaii Plan proposed alternatives to incarceration depending on an exhaustive profile of the offender, his problems and needs.  

Although overridden with negative associations such as overcrowding, exploitation, oppression etc., many of these buildings possess qualities, like irreplaceable craftsmanship, which are similar to those elements worthy of retention in our other reuse projects. Prison structure, usually of exceptionally heavy masonry construction resulting generally in an highly inflexible internal organization, provides a building shell which requires minimal maintenance. Usually jails in disuse have a nominal purchase price, this because they are most often owned by government who wish more to dispose of the building

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than recover their cost. Even with the social and structural draw-
backs, some old jails appear to possess such other qualities that
they should be seriously considered for reuse.
CHAPTER TWO

COMPONENTS OF REUSE

This chapter identifies the components of reuse intrinsic to one type of negatively perceived environment - prisons. These components provide the framework for the discussion and evaluation of the case studies.

In order to increase our understanding of the issues relating to jail reuse, it is important to examine the PRIOR CONDITIONS which underline the overall context of the structure and which identify the opportunities and constraints for adaptive reuse; the CHANGE PROCESS which highlights the political, socio-economic and institutional forces behind such transformations from highly rigid, uniform and isolated settings to more positive environments; and the NEW STATE with the
key attributes which contribute to the measurement of its success.

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When first built, prison structures answered to a real need of society. They were initially located in socially acceptable places, and constructed in a manner deemed acceptable to their immediate environment. But many changes have occurred since these buildings were first established. Internally they have changed to meet the new needs of prison residents and externally, the communities have grown and changed with or without relationship to their presence.

There is limited flexibility in these old structures in meeting with the requirements of a modern context. As such, the buildings are no longer appropriate for the modern version of their historic uses, new facilities must therefore be made available and the old ones will fall into disuse.

This is then the problem that faces the building owners. Can a new use be found if the old is no longer appropriate?

Governments, who are the principal owners and managers of these build-
ings are limited in their ability to propose and implement certain changes. Very often it becomes necessary for private industries to join forces in establishing a new usefulness for these structures. Community residents must be encouraged to participate throughout the transformation process, but particularly in the determination of what the change should be and how it should take place. By involving the public in the decision process from the very beginning, much of the hesitancy and skepticism precipitated in the historical negative associations of the structure may be alleviated.

However there are a number of serious problems which must be overcome. First the negative image must be dealt with both physically through design, and emotionally through design participation and management. The building must be vivified and reinstated with a relevant purpose into the community life structure.

In doing the above the building physically should meet a high standard in interior and exterior treatment and design. The users should be
permitted to modify and personalize their spaces, creating not only a self-satisfying living arrangement, but also pronouncing a public statement saying "This place has changed because I am here."

These are general principles involved in any beneficial reuse of jail structures. It is not only necessary to identify the components for successful transformation, but to establish a number of criteria which may be used as a framework to evaluate and guide future reuse.

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### PRIOR CONDITIONS

This component explores the conditions of the building prior to its transformation. It is important to understand the historic context of the building and area, and the current situation which helps to identify the socio-economic and political forces that have, and will continue to shape it. With these, we may be able to discover the physical and psychological barriers toward the successful reuse of these structures.

Traditional prison architecture, constructed of heavy load-bearing masonry, with an extremely rigid interior structure of narrow cells and lengthy corridors, does not easily lend itself to other uses. In addition, these buildings generally have little or no association with their context. They are isolated monoliths of endless walls and facades that deny physical and visual penetration.

There was a time when jails were economically beneficial to the commu-
nity since they were sources of cheap labor. Today they are perceived as oppressive and hostile environments, which any community would be glad to remove. Yet jails remain a societal necessity, and as long as they are present, there will be a certain degree of apprehension in the minds of those who live in its shadows. Any proposal to vivify an old jail will be met with community hesitation, even when the new use may be a future asset to the community. If a jail is to be reused successfully, the public perception will have to be coaxed toward change. This is further complicated at times by institutional decisions which will limit change and inhibit imaginative reuse of historic structures, such as restrictions on the extent of modifications and alterations to the facade and/or the internal organization of the building.
ATRIBUTES OF CHANGE PROCESS

This component highlights some attributes of the change process that are important to the reuse of prison structures. These include the complex of change agents, institutional incentives for beneficial reuse and public participation in the planning, design and management processes.

1. CHANGE AGENTS - The opportunity for the reuse of a prison structure comes only when someone in a position of influence recognizes both the problems created by such a huge vacant structure and the potential for an economic transfer to an alternate use. However identified, it is a certainty that the undertaking of such a venture would necessitate the involvement of at least several levels of government, if not also private entrepreneurs. This complexity of actors is required because of the obvious complications resulting from an ownership and/or management transfer.

These agents of change would be required to examine and test
alternative solutions, provide estimates of financial, social, legal and political feasibility and also to negotiate any required legislative changes necessary for design implementation. They would be responsible for determining the direction for development, the evaluation of tenders, the supervision of contracts and construction, and the turning over of the project to an operating group. It is clear that the change agents, be they government or private consortia, must carry out their responsibilities if the project is to come to fruition.

2. **ECONOMIC ASPECTS** - Essential to any development project is the need for start up capital. Without sufficient funds for immediate action, the project may not advance to a stage to develop the momentum for community support. Capital-intensive ventures tend to move toward "socially beneficial" solutions, since this may entice governmental financial incentives which may help bring the proposals to implementation.
Incentives with an immediate impact like capital grants or tax concessions would probably bridge the private investors' feasibility gap. Grants to a community level project of this nature would likely be supported through either federal or state programs. The benefits to the community may flow from increased revenues and from the provision of additional local services and amenities.

3. PARTICIPATION - The participation of community advocacy groups may be a significant ingredient toward the identification of a universally acceptable solution. This is of necessity, one which can only be identified through a constant dialogue among the interested parties: the proponents of change; the community residents; the city legislators who are responsible for guaranteeing the conformity of the building use to both zoning by-laws and local planning intentions; and those other government agencies which might put forth additional incentives.
An essential part of an informed decision is that all the implications of the various changes be made known to all actors. In the initial stages this would be the responsibility of the proponents of change, i.e. the architect or developer. The other actors should be informed of the potential costs and benefits of any change in a manner that is easily understandable by all.

Participation in the planning process is a way to ensure that the decisions made are informed decisions - decisions informed by the needs and perceptions of the participants. A commitment to participation by the proponents of change may assist immeasurably in a clear definition of community needs, may assist in the gain of community support, and may establish the groundwork for a continuing interaction essential to the acceptance and success of transformed prisons.

Because the building has been for many years, perceived as a negative element, it is important for the designer to convey a
sense of confidence that the project can, and will, be an asset to the community. This can be accomplished by aiding them in understanding how and what changes will take place; and how the community will be affected, a process which can only take place as a result of a free and open participation process.
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**NEW STATE**

This component of reuse projects a new state of the building after its transformation. In order to bring about a positive change, one must identify those attributes which support it. To overcome the physical, psychological and social overtones of the jail, the new state should strive to achieve compatibility and relevance in relation to its surrounding context. It should also encourage and maintain a dynamic interaction between the inhabitants and the environment through a balanced co-existence of the powers of design, powers of use and the powers of management which will be supportive of the whole.

1. **IMAGE COMPATIBILITY** - The adverse image of prisons embedded in the minds of community residents for decades, resulting from both its physical appearance and its inferred operational oppression, is the most difficult obstacle to overcome. In order to successfully change the image of the existing environment, one has to reject the re-establishment of the structure as a prison or any other uses with negative associations. Through the
introduction of transparency, the modification of scale and edge conditions, and the creation of a responsive management, one can achieve a higher degree of compatibility with the surroundings.

Transparency -
Visually a prison is opaque; iron bars, gates, high walls, barbed-wires and chain link fences all contribute to not only keeping the prisoners in, but also the public out. What is required is transparency\(^6\) - visually and physically in the new use. This may be through the removal of those elements representative of confinement or by superimposing on them a new set of meaning.

\(^6\) Transparency is used here on two levels: Visual transparency - the ability to observe what is happening behind or around a barrier, to provide vistas through spaces; and physical transparency - the ability to move through a space or the perception of a permissible movement through a space.
Scale/Proportion -

Jail structures often present a dramatic contrast to the surrounding community by virtue of their size and mass. The austerity and immensity of the facades appear imposing and severe, creating barriers to complimentary co-existence or assimilation. This contrasts can, in part, be lessened through the use of landscaping, essentially making the massive exterior edge more habitable. Through the creation of transition zones and built form, which set the jail apart, can also reduce its impact on the surrounding community. Since proportion is a comparative relation of two or more variables, which in this situation may be the size of the structure and the distance of an observer from the building. The increase of one can cause an illusive perception resulting in the decrease of the other.

Edge Conditions -

A sense of place is often marked by one’s initial impression - the impact of the approach to the building. Special attention
should be paid to the design of the interface between the site and the surrounding context. Edge conditions should be changed to respond to a new set of activity and access patterns. One must take full advantage of vistas which permit a vivifying penetration between the community and the jail. By providing "visual sequences" and by layering of spaces or zones suggesting what is beyond can stimulate one's curiosity. Only then can the 'edges' become supportive of the establishment of unifying links between the new 'non-jail' and the adjacent neighborhood through the encouragement of public interaction.

Managerial Responsiveness -
The public's antagonism toward the 'operational oppression' of prisons can only be erased through deliberate attempts to promote participation, in the design as well as in the management process. The continuing management process should be responsive to public needs. This demands therefore, an ongoing communications among community interest groups, users and the new administration to
ensure that the management will be responsive to the present as well as future needs of the inhabitants.

2. **RELEVANCY** - Our prisons have always been an autistic element in our society. It is an environment which severs ties by limiting contacts with people, places, activities and ideas, and where time is duration without meaning. In order to successfully integrate the structure into the existing context, it must maintain a sense of relevancy - a programmatic, physical/visual and temporal order.

Programmatic Relevance -
An essential part of the advocacy process is the identification of those elements seen as necessary for the integration of the new use with the community. Many reuse projects turn structures into museum pieces. For a beneficial reuse, the transformation should satisfy, to an extent, the needs of the community. By the same token, the structure itself should maintain a level of

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integrity such that the new function can compliment the existing form. A use which encompasses the built form and connecting it to a larger order to public interest can significantly contribute toward a relevant solution.

The program must also be cognisant of the flexibility to change over time; changes that will be dictated by some future and currently unforeseen needs and aspirations.

Physical/Visual and Temporal Relevance -
To maintain relevance in design, the solution must understand the need to establish formal relationships among the physical, visual and temporal characteristics of the structure, its immediate context and the larger community. Reuse should preserve traces of the building's past. Combining the old and new, one can establish links both in time and space. Temporal links of association through contrast or through the reiteration of classical forms can integrate the new elements into the character of
the community fabric. Physical/visual links created through an hierarchy of spaces and enclosures can impart a sense of continuity, the old, the new and the transformed.

3. **ATTRIBUTES OF USE** - The attributes of use define the range of interactions between the user and building necessary to enrich our environment, and how that richness can initially be instilled and encouraged to grow as a result of inspired user input. The creation of a positive environment promotes the interplay between 'inhabitant' and 'setting'. Both of these elements are essential to the development of a vital and dynamic environment. The design of the 'setting' must provide the initial thrust by permitting a flexibility of use, and a richness in space definitions which then draws the inhabitant into physical and visual interactions with the structure. This will give the structure its dynamic support through subtle changes affected by the user's initiative. A collection of identifiable images will increase legibility in an environment, providing a framework for the recog-
nition and emphasis of individual actions.

The architect can provide the optimal environment for participation and yet exercises little control over the input which stems from use. In this regard, a dynamic environment is not generated by design alone, but can grow with use over time. The architect must draw upon all his skills to provide the medium, through the powers of suggestion, wherein a dynamic and vital environment can germinate. The presence of **legibility** and **flexibility** of our environment provide the support for self-expression and personalization. This enables the user to gain an 'identity of place' and an 'identity of self', neither of which can exist in an over-determined, uniform and controlled setting of prison architecture.

Legibility -
It is important for an individual to recognize his own place by maintaining a perception of it relative to his surroundings.
This is facilitated by designing into our environment references such as a diversity of vistas, and hierarchy in spaces and circulation patterns.

Design should try to preserve existing and create new vistas because they are identifiable cues for orientation. An old jail structure is often a physical as well as social landmark within the community because of its mass, siting and historic associations. But because it is a pessimistic environment, its impact on the neighborhood should be minimized. At the same time, it is important to recognize the features of the surrounding natural and built landscape, traditionally interrupted by the prison walls, whenever they can compliment the new setting.

By providing a diverse definition of spaces, and paths linking these identifiable spaces, contribute to the legibility of our environment - an interplay of public and private, large and small, open and enclosed, hard and soft, or light and dark spaces, to-
gether connote a distinct sense of place. An occasional dominant point of focus establishes a frame of reference for the internal spaces and the external environment.

Fluidity of spaces enables visual and physical permeability. It provides a sense of direction, distance and access, which are all important elements for orientation.\(^7\)

Flexibility - 
A positive environment is one which supports interaction between the user and the setting. Flexibility in our environment enables inhabitants to bring their own lives and associations into play. To maintain an optimal environment, the architecture and administration must be dealt with in co-existence in order that they may reinforce each other.

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Flexibility of use should be examined from several standpoints: the flexibility to modify and change; the flexibility to choose; and the flexibility to improvise or impose on our environment a new set of meaning. This should exist at all levels of interaction. Flexibility, or non-specificity of our environment provides room for individual interpretation and enables people to gain "powers of inhabitation."\(^8\) A positive environment is one which is invested with expectations and welcomes the unanticipated.

However there are limits to the effectiveness of the powers of suggestion. Building management is continually setting restrictions to individual change. These rules are laid down on the assumption that they can protect the physical and visual integrity of the whole. This is not entirely falacious; but in order to

maintain a continuously spontaneous, relevant and dynamic environment, the rules themselves must be opened to change. The administration/management group, the keepers of the rules, must be constantly aware of the needs and aspirations of the users. This can be achieved through a steady and open dialogue between the two such that the "powers of decision" along with the "powers of inhabitation" can be channeled in a direction supportive of the whole.

Personalization -
The ability to express personal identity is a need inherent to all individuals. People change their environments and superimpose on them signs which continually announce their presence. Acts of personalization cannot be programmed into design, but they can be encouraged by the provision of a support structure on which individual actions can take place.

Personalization exists in many forms and at many levels of inten-
sity. Certain attributes of use should be present to promote this expression of self. The flexibility of the setting supports and encourages its existence while legibility of our environment recognizes and reinforces its presence. They provide the vehicle for the juxtaposition of collective forms and individual actions which acknowledges personalization.
In this chapter, three design cases are identified outlining proposals for building reuse. Each proposal will be evaluated building upon the components previously outlined:

- Prior Conditions
- Attributes of Change Process
- New State

As such, it will emphasize design principles and thought processes which a successful transformation should possess.

The unique elements of the case studies, as they relate to the components, will be expanded upon and highlighted in the final section.
CASE ONE:

Vermont State Prison, Windsor

This prison, a maximum security facility, was built in 1807. It is the oldest state prison structure in the country. Now in a state of "fiscal desperation" and "visionary reform", the State has closed the building and the inmates have been transferred to regional community correctional centers.
SITE SECTION
Proposed prison conversion, Windsor, Vermont

Section
Demolishing existing prison cells

Constructing new floors
PRIOR CONDITIONS

1. HISTORIC CONTEXT - In 1807 when the State Legislature of Vermont was planning for a state prison, many towns bid for the location of this structure. At that time, Windsor was one of the trade and population centers of Vermont. After the citizens agreed to purchase the site and deed it to the state, and further agreed to haul the necessary stone for the building from a local quarry, the state decided to locate the prison in Windsor. On the day of completion, a mass of people attended the celebration with music, and the cornerstone was laid amid the roar of cannons and shouts of spectators.

Between the years 1809 and 1875, there were major reconstructions, replacing many of the earlier buildings. The original appearance of the buildings has long been lost in a series of

9 Information from an unpublished report on the Vermont State Prison prepared by the Vermont Department of Corrections.

10 Ibid.
renovations and additions.

Back in the 1820's, a gazeteer of Vermont reported that inmates were engaged in stonemaking and weaving. The prison had "become able to support itself, with a small but increasing profit to the state." Even less than twenty years ago, the prison still had a cannery, a furniture-repair shop, a maple-sugar operation, a farm, a logging operation and more. But because inmates are no longer carrying out these tasks, the prison became an increasing financial burden to the tax-payers.

Recent occurrences have focused public attention on the inadequacies of the prison. For the last several years, it has been beset by an all-out and almost continuous warfare between the guards and the inmates.

Information from an unpublished report on the Vermont State Prison prepared by the Vermont Department of Corrections.
In January 1969, the Vermont Department of Corrections cited the prison as unsafe, insecure, expensive to operate, and with a limited potential for improving the social effectiveness and productivity of its wards. The Vermont State Prison was officially closed in August 1975, after having served for 168 years as a state maximum security institution.

2. CURRENT SITUATION - The jail is located on a three and one half acre site, less than half a mile to the west of the town center. It is in a low density, almost rural residential neighborhood. Current zoning in the area permits residential developments at a minimum density of 4,000 sq. ft. per unit. The property overlooks a magnificent view of the mountains and the Connecticut River.

There are four buildings within the prison walls, all of which are of brick construction - the main cell block, a dining hall, and two manufacturing buildings. The structure of the main cell
The block is of load-bearing masonry, and the others of timber frame construction with masonry infill. These buildings are in sound structural condition.

There was some hesitancy concerning the reuse of the structure, not only from the community, but from the local and state government as well. This has been partly due to the unsavory image the building has projected for many years, and the fact that Vermont has not been involved with many adaptive reuse projects, especially not housing projects with this scale and complexity.
Old Vermont prison to become apartment units

By Peter Anderson
Globe Staff

WINDSOR, Vt. — "It was dark as midnight" in those punishment cells. Prisoners had one blanket to sleep on in the coldest winters, only the bare floor in the summer. "The only sunshine was one piece of bread. We were so sure there would be no homes, a short walk from Main street in the center of town. Part of the back wall will be knocked down so give full view of the green hills running steeply down to the Connecticut River."

It is easy to believe the horror in this 1800s account if one visits the 186-year-old Windsor Prison here. Though empty, the prison is layered in debris, from the basement death room to the tiers of cells in newer parts of what was Vermont's only maximum security prison.

Windsor Prison is American "vernacular" architecture, not monumental, but solid. Peabody Construction Co. of Braintree, Mass., has purchased the closed prison from the state and plans to rebuild it into 15 apartments.

"It's a godsend," said Richard Purcell, chairman of Windsor's selectmen. The prison, after 168 years, will become taxpaying property for this town of 460 people bordering the Connecticut River. The walls and roofs of the buildings will remain. The inside walls will be knocked down to make one-bedroom apartments and two-bedroom, two-stoory townhouses. The whole project will cost about $2 million, said Maney.

Windsor, a two-family town, is not a resort. "We don't get too many flatlanders here," said Delano.

Windsor Prison sits on a hill on a residential street of neat, single-family homes, a short walk from Main street in the center of town. Part of the back wall will be knocked down so give full view of the green hills running steeply down to the Connecticut River.

Still visible on the basement floor of old death room are the marks where the electric chair was set. Here in December 1864 Donald E. DeMag was electrocuted, the last man executed at Windsor.

Outside, in the prison yard where DeMag once commanded a brass band and crashed his way through iron gates, will be a formal garden. "There will be a two-family, working-class town, in not a resort. "We don't get too many flatlanders here," said Delano.

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2. **ECONOMIC ASPECTS** - Eligible and successful in obtaining the section eight federal Housing and Urban Development (HUD) subsidy, Peabody Construction was also able to negotiate a tax concession to help offset some of the initial financial burdens of the project. The mortgage on the development is financed by the Vermont Housing Financing Agency (VHFA), which involved bond authorizations, and construction loans are obtained through state and local banks.

The estimated construction cost for the project is approximately $2 million, averaging $26,000 per unit. This figure is comparable to other recycling efforts of similar use and capacity, yet the cost breakdown for this development revealed a much higher percentage accountable to demolition than normally associated with the reuse of other building types. Its overall economic success may have been accredited to the relatively low acquisition cost
of the property at $27,000, accompanied by competent management and a sensitive and imaginative design solution.

3. PARTICIPATION - Participation from the residents and various planning agencies were encouraged since the very beginning of the project. The development team emphasized that they would not finalize the purchase agreement until they are fully satisfied that the town approves of their involvement in this project. 12

The participation in the planning process included representatives from two Housing Study Committees, a large local industry, the Regional Planning Commission, the various federal and state housing agencies, (HUD, VSHA, VHFA), and the residents of Windsor.

These groups held a series of open public reviews in which they were presented with graphic illustrations of the alternatives available for the reuse of the prison. The images projected

through the sketches conveyed to the public the implications of the proposed alterations, and more important, it illustrated graphically how an eyesore like the prison can be transformed into a community asset. They also served as an excellent basis for future discussions, suggestions and revisions made by the participants.
NEW STATE

1. **IMAGE** - The architect proposed several physical changes which may help in altering the public's perception of the prison. Most objects representative of confinement are removed, such as iron window bars, chain-link fences etc. The single iron gate has been left intact and welded in a permanently opened position. The high prison walls are lowered to various heights and retained to offer the place and the residents a sense of identity, and security.

Extensive landscape is proposed along the street where the impact of the long facade seems the strongest. This, together with the existing projection of the Warden's house, a "handsome two storey building, with dormer windows and English cottage roof,“\textsuperscript{13} made the edge more habitable. Many entry points are created along the

\textsuperscript{13} Information from an unpublished report on the Vermont State Prison prepared by the Vermont Department of Corrections.
edge as opposed to the former single gate access. Arch openings made in parts of the perimeter wall provides access to the play fields beyond. Parking areas are strategically located on both sides of the remaining wall, creating an overlap of activities and diminishing its importance as a barrier.

2. **RELEVANCY** - The Windsor Jail has been in existence for over 150 years and has since become an important element of the town. Many residents have had some contact with its operation over the past years, be it for maintenance, delivery or other services. It is widely felt that the buildings can contribute to the character and heritage of Windsor if an appropriate use can be sensitively introduced.

By converting the buildings into 66 apartments for the elderly, the program has responded to the regional need for senior citizen housing. The design offered spacious units, some support facilities, and a community area that opens onto a central courtyard.
Other amenities are available in the town center within close proximity to the jail. The inclusion of ten family units provides an integrating force to the development.

Attempting to save and preserve as much of the historic qualities as is physically and economically feasible, the solution not only establishes a relevant spatial structure within the surrounding context, but also achieves a sense of temporal order. Aside from the main cell block which required a major reconstruction of new flooring and partitions, the other buildings retained most of their interior and exterior structure. The design has also dictated that many outdoor elements be saved - iron grilles formerly installed to prevent prisoners from scaling the walls are used as trellises for planting; granite blocks and hard bricks removed from the prison walls are integrated into the new design; and reused as surfacing and landscaping materials for the proposed roadway and courtyard.
3. ATTRIBUTES OF USE - The removal of one of the existing structures provided the necessary room for the creation of an interior courtyard which the architect described as an amenity so "delightful" that "you get an euphoric feeling when you think of the walls being opened up."\textsuperscript{14} It has been set up to meet the needs of both family and senior citizen groups, and as such, convenient passages are set up to encourage interaction. All the public spaces, and some of the living units, have been specially designed to accommodate the handicapped. The arched openings along the south wall framing the vistas of the Vermont landscape provide access to the adjacent fields.

\textsuperscript{14} Nancy Walker, "From Iron Bars to Camelot?" The Windsor Chronicle, (September 18, 1975).
CASE TWO:
Don Jail, Toronto

Designed and built in the 1850's, the Don Jail is the oldest prison structure still standing in the city. The institution was officially closed in December 1977, after almost a decade of continuous battle over its inadequacy, and the prisoners were transferred to district jails.
PRIOR CONDITIONS

1. HISTORICAL CONTEXT - When the Don Jail was built, it was a forceful addition to the suburban landscape of old Toronto. The Jail is located east of the Don River on Garrard Street and Broadview Avenue, approximately three miles to the east of the City's core area. Broadview Avenue, once part of a trail, was travelled time and time again by the pioneers who paved the way for the coming of the city.

The original site of the Jail was purchased by the City Council of 1856 from a Mr. Scadding for a sum of 10,000 pounds. The 135 acres now houses, in addition to the Don Jail, the Public Library, Riverdale Park, Riverdale Hospital and some residential development.

Prior to the City's annexation of the area in 1884, first class

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housing was located in the vicinity. The extension of public transit in 1893 across the river at Gerrard Street brought along a burst of development. The increased access to the area coupled with the re-routing of the Don River to make way for the construction of a major highway along its east bank, encouraged the development of industrial uses along part of the Don Valley. These industries employed local residents and subsequently prompted the construction of more workers' housing. The area north of Gerrard Street continued to house many upper income families. Broadview Avenue had become "a paved street with rows of brick buildings, of large stores and handsome residences on either side." The neighborhood south of Gerrard began to house a proportionally greater number of working class families.

Between the years 1900 to 1920, many public and community facili-

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ties emerged to serve the growing population. Since then Ger-
rard and Broadview has been established and developed for shopping
and commercial uses. Its appearance has not changed much since
the 1920's.

The style of the Don Jail was inspired by the classical forms of
Italian and English Renaissance architecture. The building has a
central stone pavilion flanked by a pair of brick wings. The
layout is a modified version of the "pan-opticon" prisons, with
spreading wings of back to back cells, meeting at an eighty feet
high, skylit open interior space, from which an officer can effi-
ciently supervise all the prisoners.

The jail was constructed in a humane and enlightened spirit,
guided by recommendations from an 1849 report of an investigation
conducted on a regional penitentiary by the Royal Commission. As
the building was near completion, an inspector described the
structure as "the finest kind in the Province, one which will be
an ornament to the city and a credit to all parties connected with its construction."

Yet this popularity was not long-lived. On May 12, 1914 and November 29, 1929, successive attacks on the building were made before the supreme court of Ontario by the grand jury, branding the Don Jail as a potential "fire-trap", "a disgrace to the city, over-taxes and too small."

The Don Jail continued to operate amidst public controversy. Despite continuous efforts to improve the living conditions, the increasing cost of maintaining an outdated structure finally warranted its closing on December 31, 1977, after 133 years of existence as a penal institution for the City of Toronto.

17 "Plan to Abolish the Toronto Jail," The Mail, (May 12, 1914); and "Don Jail, When First Built was Looked Upon as a Luxury," The Mail, (May 10, 1929).
2. CURRENT SITUATION - The Don Jail is located in a primarily low-scale residential neighborhood of two and three story row houses. The site is approximately two acres and rises 12 feet above the level of Gerrard Street from the southwest corner. The Don Valley Parkway, to its west, is a major north-south expressway. Locally the neighborhood is served by a network of one and two-way streets, opening onto the main arterials.

The site is presently accessible, for both pedestrians and vehicles from the Don Jail Roadway. For reasons of security, the entrances to the property north along the perimeter walls have been sealed off.

To the north of the Jail is a modern eight story health facility for patients requiring chronic care. The recreational land to the west is occupied by a lawn bowling club, presently very much under-utilized. To the south of the Roadway is located a social service center, housed in two woodframed structures. This parcel
is shared by the Public Library which is an attractive early 1900's single story brick building. The five story brick addition to the east of the Don is operating as a city jail. Its design has been completely insensitive to the character of the existing structure.

The present zoning of the site is R4Z3 with the normal uses permitted under the City of Toronto By-Laws for that designation. The Official Plan has classified it as "low density residential", allowing residential re-zonings to reach a density of 1.35 F.A.R. At present the properties around the Jail are separately owned by city and provincial governments.

The Proposal Document, a report prepared by the City inviting feasible alternatives regarding the future of the Don, has stated that the brick addition to the old jail will be retained and used by the Ministry of Correctional Services for an indefinite period. Thus any likelihood for expansion of the property
will have to occur at the southern and eastern edges.

The structure of the jail is bearing masonry. The floors are primarily made up of 4 inch stone slabs resting on iron purlins spanning between the masonry walls or iron posts.

On visual inspection, the structure appears to be in good condition. Survey did not reveal any building movements and settlements, or apparent over-stress of the floor systems.\textsuperscript{18}

ATTRIBUTES OF THE CHANGE PROCESS

1. CHANGE AGENTS - The official closing of the Don by the Department of Correctional Services finally ended the continuous debates over its inadequacy as a penal institution. The Ontario Heritage Foundation, and the Toronto Historical Board, both aware of the architectural and social significance of the Jail, have announced that it should not be slated for demolition until proper investigations can be made into the possibilities for its reuse.

A committee established by the Toronto City Council succeeded in collecting some base data on the structure. These include a preliminary structural report, a cost estimate for the necessary facade restoration, and information on the historic and current development of the Jail. Their Proposal Document invited public suggestions for the future uses of the building and, at the same time, outlined restrictions on the extent of alterations to the structure in order to protect its historic character - the
facade of the jail should be preserved and the existing vista of the building from Gerrard Street must be maintained.\(^\text{19}\)

The City is solidly behind the idea of reuse for the Don Jail, and as such, any builder successful in obtaining a development agreement will undoubtedly receive municipal support. But support from other levels of government may have to be negotiated.

2. **ECONOMIC ASPECTS** - The City speculates that the building may be turned over for a nominal fee since it was originally sold to the Province for the sum of one dollar. But the government has stated that no special grants or tax arrangements can be made available beyond existing funding programs.

Although some money would be available from the Heritage Founda-

\(^\text{19}\) City of Toronto Development Department, *The Don Jail Proposal Documents*, (March 1978) p. 3.
tion for preservation, none of the government agencies have sufficient funds to effect any changes on their own. Consequently they are in search for some group to lead in the financing and the management of the project. Should this prove unsuccessful, the demolition of the structure will cost up to $250,000.

3. PARTICIPATION - Although there were no established patterns for participation in the initial planning stages, various interest groups and concerned individuals from both public and private sectors have succeeded in voicing, either formally or informally, their opinions on the subject.

At the city level, the Mayor and several aldermen headed appeals for constructive ideas for reuse and were continually involved in bringing the public into the decision making arena.20 This

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20 David Miller, "Don Jail's Last Chance is an Animal Shelter," The Toronto Star, (April 15, 1978).
activity was supported by the media, especially through the local press which published continual public announcements and editorial comments on the topic. Although the majority of the responses were positive, a small percentage of Torontonians maintained a degree of skepticism which made any resolution all the more difficult.

Collective efforts in the promotion for public participation were initiated by the department of architecture of a local university through the organization of an open competition for the best solution for reuse. The primary motivation for action came from an official request for proposals made by the City. This prompted a flurry of activities among the local professionals. Their responses have not yet been fully evaluated, but the acceptance of any one proposal may be an important step toward a positive reuse of the Don.
NEW STATE

1. IMAGE COMPATIBILITY - The strong negative image of the Don Jail must be effectively dealt with in order to ensure a positive transformation. The design had to comply with the set of restrictions on reuse specified by the City document. Although the character of the building has been preserved, all offensive reminders of its past occupation have been eliminated. These include window bars, prison walls and the guard towers.

The Don Jail Roadway, a small local collector street strongly identified with the jail, physically divorced the prison from the adjacent community. This has been removed with its traffic re-routed to permit an extension of the foreground which may visually help to lower the physical imposition of the structure. It also facilitated the siting of additional housing which can act as a mediating element between the existing building and the surrounding houses.
By relocating the entry of the adjacent jail and by creating buffer zones, the design tries to minimize the impact of the prison on the new development. The encouragement of a continuous public edge along Gerrard Street may aid in the integration of the Don Jail into the surrounding community.

After it has proven to be economically unfeasible to work with and around the highly rigid interior structure of the jail, the architect opted for the gutting of the building and to start anew. The main rotunda has been transformed into an enclosed courtyard. Formerly an area of supervision, this space has been opened up into a place of intense activity; a place where one can go "to see and be seen" - with public and private balconies, communal lounges and a glass elevator employed as vehicles for participation.

2. RELEVANCY - Recently Toronto, like many other fast growing North American cities, is experiencing a sharp increase in the
number of white collar workers and young professionals who are eager to escape from their suburban lifestyle and return to city living, not only for the convenience, but also for the cultural and social diversities it has to offer. The conversion of the Don Jail into 60 apartment units can help meet some of the increased demand for inner city living accommodations.

By assembling adjacent land parcels, it facilitated the construction of new community facilities, 32 units of family housing and provided for the requested additional hospital parking. The design attempts to invest the diverse interests of the neighborhood in order to increase its probabilities for public acceptance and support.

3. ATTRIBUTES OF USE - The jail has been in existence long before the neighborhood emerged. Consequently it has become an important landmark within the community. The planning of the site preserves the vistas of the Don Valley and of the Toronto cityscape.
Internal legibility is reinforced by the central skylit rotunda, the volume of space which highlights the entry to the building. From this, major corridors branch into collective entries leading to individual units. This established a visible hierarchy of circulation through a combination of both horizontal and vertical elements of movement.

The diversity in unit types offers a range of choices. Variations in floor levels, ceiling heights, textures and views enable a clear sense of orientation. Built in ledges, planters etc. encourage individuals to display personal objects which announce their presence, not only within the unit, but also to the public at large.
A final word...

Even with these design transformations, the Don Jail is still confronted with a problem which can only be resolved through a policy change. Within the neighborhood area, the continuous existence of the adjacent jail precludes the creation of a totally new image. The imposition of the new jail, in spite of any operational change inside the old structure, will undoubtedly jeopardize the possibility of an altered positive perception.
CASE THREE:
San Gerolamo, Urbino

San Gerolamo, a 17th century convent structure located within the historical center, presently functions as a regional prison. A recent proposal recommended the relocation of the jail to the outskirts of town and that San Gerolamo be turned over to the University of Urbino.
URBINO...a series of unforgettable spaces that close and unfold with every piazza, passage and window.
1. HISTORIC CONTEXT - San Gerolamo, a 17th century structure, is located in the Via Saffi area - a housing district at the south end of Urbino within the ancient walls. One of the chief hill towns of the northern province of the Marche, Urbino has been, and is an art and cultural center of Italy. It reached the summit of its political, cultural and artistic importance in the 15th century under Federico di Montefeltro.

The town, gathered around the Palazzo Ducale and the Basilica, keeps intact the structure of its most flourishing period, with its lanes, ramps, passageways, which here and there suddenly open onto building or wide panoramas. The intact city walls are still experienced today by the residents as a meeting place; likewise its architecture, piazzas and loggias, all contribute to the creation of a framework of unity.
Urbino, rising 500 meters above the Adriatic, retains the concentricity of the hill town system. The main street Via Saffi, running against the natural contours, houses major institutional and commercial facilities. The collector paths, laid out along the contours, are primarily residential.

San Gerolamo, one of a series of convent structures has since been transformed into a regional prison. This change may have occurred around 1860 when Urbino ceased to be a church state, and some of the buildings were expropriated to house new government and institutional facilities. Although San Gerolamo has undergone changes in form as well as in use, its style is still visibly late baroque, and its internal organization remains characteristic of convent architecture.

2. CURRENT SITUATION - Urbino is today a university town. Many of the old buildings have been reused to house new teaching facilities. The Via Saffi area has lately been undergoing major trans-
formations. Many of the public functions including the hospital and the prison have either been relocated or are scheduled to be relocated to the outskirts of town, resulting in the underutilization and isolation of this area from the rest of Urbino.

The site of San Gerolamo is bounded by Santa Chiara and its gardens to the north, Via Gerolamo to the west, residential dwellings and new university facilities to the south, and the orchards and regional landscape of the Marche to the east. The jail, sitting against the hill, is a brick structure with roofs of Roman tiles and deep overhangs at the eaves. Its height varies from two stories along Via Gerolamo, where the main entrance it presently located, to four stories along the orchard accommodating the change in grade. The two interior courts have, over the years, provided space for peacemeal additions. The garden, presently a prison yard, has had limited usage due to its restrictive access. The church, part of the original convent plan, is now used as a chapel by the inmates,
and consequently, the exterior entrance has been closed off.

The jail has never been filled to its maximum capacity. The average number of prisoners confined at one time seldom exceeds eight or ten. Yet the Ministry of Justice favors the construction of a new prison outside the walls of Urbino, and as such, is in the process of planning for its relocation.
ATTRIBUTES OF CHANGE PROCESS

1. CHANGE AGENTS - The Ministry of Justice have offered San Gerolamo to the University in exchange for a new prison, constructed according to specification, in the outskirts of Urbino. The conversion of the old jail into student housing would undoubtedly ease some of the pressures for more student accommodation to be located within the 'Centro Storico' or historical center.

This proposal was proved by far too costly for the University, and that for an economic conversion the building would have to be secured at minimal cost. Such an equitable position with the government would be extremely difficult and time consuming to achieve. But the University will continue to pursue and negotiate for this and other available 'contentori' within the center.

21 'Contentori' or those shells of buildings which could contain some functions.
2. **ECONOMIC ASPECTS** - Although it is less problematic to convert a convent structure into student housing, it would nevertheless require a substantial amount of money for the necessary restoration and infill.

Because the University of Urbino is a 'free' university, it is not qualified for state funding. No special monies for restoration are available since San Gerolamo has not been considered by the state preservation committee to be architecturally significant. Under these circumstances, the project will have to rely completely on bank financing.

If and when the University secures state accreditation, as is its intention; and an acceptable agreement is made regarding the ownership transfer of the property, the program would become more economically feasible for implementation.
3. PARTICIPATION - Participation in this project is, of necessity, different from that which is perceived to be an active participation process. The designers were foreigners to Italy and had to rely more on their skills of visual interpretation than those of verbal communication in the attempt to analyze and understand the problems of Urbino. It was necessary to seek understanding by visually 'reading' the design elements of the community, by searching through literature and by discussing, through whatever means possible, certain problems and concerns with the local residents. Information from these sources was then incorporated into the design and the decision making process.

The local residents participated in an open review of the work. It was emphasized that this product is not to be considered a final solution, but one which suggests and provides opportunities, through a series of identifiable images and inhabitable spaces, which through use and inhabitation, may add to the qualities of Urbino.
FEELING OF BEING IN ONE SPACE CUT OUT OF A SINGLE MASS - EVEN THOUGH IT IS DEFINED BY SEPERATE BUILDINGS.

MOVEMENTS RELATED TO TOPOGRAPHY

A: 90° RAMP / STAIRS
B: DIAGONAL " "
C: FOLLOWING CONTOURS

TIPICAL STREETPATTERN

LANDSCAPE

ORCHARDS
FROM PIAZZA

VIEWING

ARCADE

COURT

SILHOUETTE OF ROOFLINE
+ STREET OUTLINE

MAIN AXIS

VERTICAL CONNECTOR

FRAMING OF IMPORTANT CITY IMAGES
1. IMAGE COMPATIBILITY - San Gerolamo projects a strong image, not of oppression and hostility, but of 'impermeability' - a denial of physical and visual access, characteristic of many public buildings in Urbino. Since the building had existed for several centuries as a close environment, its re-integration into the community fabric will require major gestures of accessibility.

The overall solution is the establishment of a 'connector' linking different parts of the town together through the opening up of buildings and the redesigning of the spaces in between. This will contribute to the revitalization of the area.

Sections of the garden have been opened up to provide a stronger sense of entry. The wall of the garage is designed to support

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22 'Connector' is used here to refer to a community pathway, a string of activities through which people pass, connecting one place in the community to another.
and accommodate new small-scale commercial infill of various kinds to meet the needs of the adjacent residential area. Forms have been added to encourage, channel and direct movement, marking new entries and supporting old ones.

The penetration of the south facade creates an interior arcade; an axis around which different public spaces gravitate - the piazza, courtyard and garden. Secondary elements superimposed onto, and deleted from the existing structure will help maintain a visual and physical fluidity of spaces.

2. RELEVANCY - Student residents contribute to about one third of the town population. Many arrive during examination periods and seek temporary accommodations in Urbino and in the neighboring villages of Pesaro and Fano. The housing shortage will become acute when the University implements its policy of increasing the number of resident students. The conversion of San Geronlamo to house over 60 students will help in alleviating some of
the pressures on the existing housing stock.

The design program has also provided for 4 family managed units which contain rooms designated for student rental. The church has been redesigned to accommodate a variety of activities including political meetings, small concert performances, exhibitions and other community functions supportive of the local lifestyle. The overall program strives to promote the basis for sharing and understanding between the Urbino residents and the student population.

The design solution attempts to structure a physical/visual and temporal order through the preservation and juxtaposition of old and new elements in space and time. The east facade of San Gerolamo is one of the many significant pieces which make up the historic elevation of the town and should be maintained. Classical forms of entry are introduced to reflect a cultural and temporal reference. The existing circulation pattern of the
garden is preserved and enhanced by a contrasting diagonal path continuing the "connector" to other parts of Urbino.

3. **ATTRIBUTES OF USE** - Internal legibility is created through a series of forms, textures and levels which lend an identity to the different parts of the building and garden. They provide a "visual sequence" which suggests and stimulates curiosity.

The hierarchy of enclosures defines distinct areas and an overlapping of activities. With a variety of settings, it is possible to promote different mixes of use - quiet areas for passive retreats and more active spaces for group encounters.

The richness of formal elements will enable inhabitants to personalize and improvise. Prominent wall surfaces will be employed as bulletin and advertisement billboards. Such future individual and group actions will build upon and contribute to a more meaningful and dynamic living environment.
san gerolamo

TO SIT UNDER TREES, WITH BACK TO WALL, TO READ A BOOK, OR PLAY ON THE GRASS.

TO CHANGE LEVELS, TO STOP, TO SIT, AND TO MOVE BESIDE AND BETWEEN WALLS.

TO KEEP PATTERN, DIRECT MOVEMENT.

CHANGE IN LEVEL, MEET PEOPLE, CHOOSE WAY OF WALKING.

ORCHARD: EXPERIENCING ANOTHER KIND OF NATURE.

PARKING UNDER, GARDEN ON TOP.
HIGHLIGHTS OF EVALUATION

A review of the case studies revealed that there are many common threads which link the approaches taken toward their resolutions. They will be examined here using the components of reuse to highlight those aspects which are most relevant to this analysis.

IMAGE COMPATIBILITY - The severe negative images associated with both the Windsor and Toronto jails have been a result of an operational oppressiveness of former use, as well as a physical austerity in the structures themselves. The emotional rejection of an over-determined administration can often be dealt with more effectively after the building has been occupied and responsive management programs have been set up to integrate the building activities into the community. The rejection of the imposing appearance of the prison, on the other hand, must be dealt with through environmental change.
In both cases, the mass of the structures are played down through extensive planting along the edges. In Windsor, the length of the jail benefits from the projection of the warden's house. Moreover, its adjacency to the main street provides the option for a more spontaneous access, which has been further induced by the architect's decision to lower and open up the perimeter walls. The Don Jail suffers a more serious problem. Despite efforts made to contribute to a more habitable setting, the success for a positive image change may continuously be jeopardized by the physical presence of the adjacent jail.

The opaqueness of San Gerolamo is partly overcome by puncturing the continuous facade providing visual and physical transparent zones into the building. This acts to draw people inside and participate, if they so choose, in the activities within. At the same time, it provides a 'visual relief' to an otherwise closed and confined environment.
The establishment of connecting spaces through the introduction of linkages form the basis for a lasting and beneficial image change, integrating the old jail into the built fabric of Urbino - a series of unforgettable spaces that close and unfold with every piazza, passage and window.

**RELEVANCY** - In each of the three cases the building reuse applications are relevant to the community needs and aspirations, and to the internal design coherence.

The San Gerolamo project has proposed that much needed housing be provided for the students of Urbino in a manner which greatly enhances the quality of the neighborhood life, and encourages the integration of the student population with the residents of the town. In Toronto, the Don Jail will provide apartment units for small households and play some part in easing the demand on downtown living accommodations.
The Windsor jail seems to answer the most pressing of needs - senior citizen housing. Considering that many of the young people are leaving the area in favor of new industrial regions, the older population are left to maintain their large houses and farmland without their help. The Windsor development can offer them an alternate lifestyle. Not only will it provide them with an opportunity to unload some of their responsibilities of upkeep, but it will provide them with a place for socializing and interaction.

In addition, the Windsor jail renovation has set a precedent for the future reuse of old buildings in the state of Vermont. As such it may help to promote the redevelopment of other buildings to a socially and relevant use.

**ATTRIBUTES OF USE** - Evidence of use and personalization can only be seen and interpreted after the building has been built and inhabited for some time. At present, the Windsor
jail is in the process of renovation and the Urbino and Toronto projects are still at the proposal stage. The analysis would have been much richer had these all been established reuses.

The Vermont State Prison has provided some degree of legibility through the introduction of openings in the perimeter wall along with a series of exterior spaces providing successive vistas of the landscape. In San Gerolamo, the potential for an extremely rich environment exists through the creation and inclusion of a hierarchy of forms and spaces along the 'connector'.

The Don Jail, although relatively limited in its outward flexibility because of restrictions set down by the preservation committees, has a tremendous potential for an interesting internal legibility. The dominant central volume is one of a larger group of spaces. It is the fundamental element in an order of form vocabulary. While the main element is symbolic of a
collective entry for the building, the secondary elements are collective entries for groups of units. Both these elements provide the opportunity for self-expression through the provision of forms for personalization and room for interaction, linking the built spaces through an internal hierarchy.
From our theoretical explorations, it appears that negatively perceived environments can maintain a valuable place in society when treated through environmental design, which help to reduce the adverse impact and re-establish an appropriate reuse within the community.

A number of evaluation criteria have been identified against which the success of the new state can be measured. These are as follows:

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<th>PARAMETERS FOR DISCUSSION</th>
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<td>IMAGE COMPATIBILITY</td>
<td>• Transparency</td>
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<td>• Scale/Proportion</td>
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<td>• Edge Conditions</td>
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These criteria have been unique in identifying the strengths of the transformations in each of the case studies toward a positive reuse. San Gerolamo achieved a successful new state because of design approaches to 'transparency', the Vermont Prison proved itself to be highly relevant toward social change in meeting the local demand for senior citizen housing and the Don Jail succeeded in providing the greatest degree of internal legibility and identity.
Each of the proposals have satisfied the list of criteria in different ways and with varied emphasis. The cases provide examples which test both their comprehensiveness and applicability.

This set of criteria is a potential tool which may possibly be applied to other cases, or even other building types. It should be remembered however that the basis of these criteria are theoretical and should be treated as such.
BIBLIOGRAPHY


