

# Revista de Administración Pública

The logo for the Instituto Nacional de Administración Pública (INAP) is displayed in a bold, black, sans-serif font. It consists of the letters 'I', 'N', 'N', and 'P' in a stylized, blocky arrangement.

## Recovery of abandoned buildings in Mexico City for environmental and cultural integration into the public space

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### Introduction

The recovery of abandoned architectural spaces implicitly includes sustainability as a integration phenomenon; and even though we address recovery, revitalization and reintegration, the main goal is to understand them in a way sustainable development processes are imbued with these concepts. Likewise, sustainable architecture is becoming more and more relevant to modern societies. And even though this is not a new issue in the architectural agenda, this branch has to be re-evaluated in light of the current ecological demands that require maximum use of natural resources in our projects. There is still time to apply science, technology and the use of elements and first-level knowledge to develop an architecture that decrease its impact on the environment, which combines itself harmonically with the landscape and improves the individual's quality of life.

Mexico City is a good lab to study and implement policies against soil erosion, water and air contamination and loss of native flora. Even though recent government administrations have drafted several environmental preservation programs, these have proved insufficient due to demographic growth and poor urban planning. On the other hand, the use of different well-known basic sustainable alternatives has been rejected, as well as new planning strategies to take advantage of water and green areas.

These elements offer methodological alternatives that have been used in other countries, which could be adapted to our country's own problems and could be implemented in the short-to medium-term. As an example we can mention the recovery of degraded landscape, which can recover functionality by giving it a different use to the intended one through an abandoned architectural space requalification. Acquiring necessary skills to give society an architecture which integrates itself with the environment, which answers to the user's needs and at the same time significantly reduces the exploitation of natural resources.

Taking into account the following principle: “matter cannot be created or destroyed, only transformed”<sup>1</sup>, we can assert that by reinterpreting and metamorphosing the abandoned architectural space, emphasizing the re-architectural culture, promoting it and giving building recycling greater importance. Consequently, its use and initial conceptualization will be transformed without destroying it to create a new one; some spaces will be modified through revitalization to give them new social, environmental and architectural uses.

It is very challenging to think that abandoned architectural spaces such as markets, slaughterhouses, factories, movie theaters, tenement blocks, etc. in Mexico City can be architecturally rescued and not precisely in the way they were initially and functionally conceptualized. We can do this to empty and forgotten places; however, the main goal is to transform them to benefit society and the State.

These transformations favor the reinterpretation of the place and its context, changing people’s everyday lives. On the other hand, the deterioration of natural resources can be prevented if the destruction of these places is avoided; using the resources that would have been wasted if they had been demolished to subsequently build a rehabilitation project.

Unfortunately, our country does not favor the recovery of abandoned spaces; it seems to be common knowledge that the words ‘abandoned space’ stand for *junkspace* –*what coagulates while modernization is in progress*–<sup>2</sup>. Through re-architecture is it possible to regenerate these spaces and view the problem from another perspective: turn it into an integral solution, a reemerging space that reactivates a specific zone and contributes to the recreation of itself. Mexico has a great potential to use tools that take advantage of abandoned and forgotten architectural spaces, revitalize specific points within Mexico City and at the same time create a scheme that serves as a model to attack this same problem in other states of the Mexican Republic.

## Background

For a while now –and not just recently–, the innumerable texts, practical models, measures and actions that have been developed reflect man’s consciousness before an issue that concerns us all. Currently one of the greatest problems, in this sense, is some government’s capitalist and neoliberal thinking which does not value natural resources, viewing them as infinite natural capital.

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<sup>1</sup> Antoine-Laurent de Lavoisier, Conservation of mass (matter) / First Law of Thermodynamics.

<sup>2</sup> Rem Koolhaas, “El Espacio Basura”, Barcelona, 2007.

As time goes by, we realize that these resources are finite and that even renewable ones require a period of time beyond the time of men.

In this sense, our concerns should not only alert us, but also makes us take actions like the ones presented in international forums such as Rio 1992 where concerns regarding the Environment and Development were shown; the Declaration of the United Nation's Conference on Human Environment approved on June 16<sup>th</sup> 1972 was reaffirmed. The forum's main goal was to establish a new and equitable world alliance through the creation of new cooperation levels between States, key sectors of society and people; working towards international agreements that respect each other's interests and protect the integrity of the environmental system and world development, but above all recognize the integral and interdependent nature of Earth, our home.

Thus, for centuries and up until now we can find a variety of constructions, urban elements and equipment that do not represent or have sustainable elements like the ones in vernacular architecture; the point is not to prove that said urban or architectural spaces were made this way –maybe “they did not need to be constructed that way, maybe there was no culture that made them do them this way or someone just did not want to”– but emphasize the importance of an ecological, environmental and sustainable consciousness required by architecture and urbanism.

However, ever since the 20<sup>th</sup> century, we begin to notice the features of some architectural spaces that are rehabilitated and revitalized to improve the urban landscape or to improve the quality of life of their context, without becoming historical centers. On the contrary, the urban core grows as the population spreads and holes are filled with cement without considering the abandonment many architectural spaces that could be transformed and recovered suffer.

The regeneration of these spaces is based on concepts such as reutilization and recycling, its basic premise being sustainability. However, there are numberless reasons and motives to abandon an architectural space; an important historical reference point is the Industrial Revolution. It began in Mexico up until the beginning of the 20<sup>th</sup> century when small spaces set aside for manual labor where transformed into big spaces devoted to manufacturing and industrialization; with the help of the railroad and the steam engine the marketing of products spread favoring displacement and urban growth.

Nonetheless, the second element that came into play in the modernization of Latin America made these and other architectural spaces such as shops, movie theaters, industries, among others stop being what they were or were moved from the centers and abandoned. This was caused

by the ideology of this movement which basically sought capitalist growth and accumulation; which had two main political thoughts: democracy and bureaucracy.

## **Environmental history**

Currently, environmental history is a paradigm in which we have to reinforce and deepen our knowledge to carry out geographical, biological, historical, ecological, anthropological and even economic studies about a specific region and link them so as to break misunderstood models, concepts and transformations concerning this development.

Its goal is to understand the transformation processes of human activity that changed nature because of specific way of production; as well as the cultural and scientific processes that were a part of this environmental change. Not forgetting that geography is the key to these processes along with the history of mankind.

To understand the process of formation of environmental history in our context, we have to find ourselves in the ideology of western civilization itself. So we should define the concept of nature and synthesize the elements of the contributions concerning the study of life in our home, planet Earth. However, our approach must include a biological, ecological and natural evolution perspective within history as a discipline.

The environmental history goes beyond history itself, in the natural sense: it helps the latter, collects data and captures them in a time line which allows us to analyze and compare evolutionary processes and the development of a specific geographical sector so as to objectively understand the present state of said region, as well as its past.

The development of environmental history as a concept is based on *natural history and human history, both are two sides of the same general process; they modify each other and in extreme cases determine each other. That is why it is impossible to draw simple causal lines between natural history and human one; each one is the context and content of the other*<sup>3</sup>. In this sense, we understand that both histories are continuously linked and modify human culture and nature.

## **The abandonment phenomenon**

### **Economic Circumstances and Process that brought it about**

Architectural places and spaces have a life of their own: they are born, established, modified, mutate, they can die, be abandoned and can be

<sup>3</sup> James O'Connor, "Causas Naturales", Siglo XXI, México, 2001.

reborn. The abandonment phenomenon and the decay of architectural places or spaces manifest itself in different ways according to the context and specific circumstances in which it is found: historical, social, political and natural changes.

The sudden changes of the 19<sup>th</sup> and 20<sup>th</sup> century have totally modified the world in which we live in. As aforementioned, the Industrial Revolution of the 19<sup>th</sup> century has left traces due to the radical changes in the use and exploitation of natural resources. It changed the time-space notion and therefore, the world. In fact, it was the movement that revolutionized mass production, accelerating production in society and also included the need to rapidly build spaces that would characterize this period of development. The urban landscape was completely transformed at an accelerated rate; compared to place permanence in preceding periods. The geography of the place was modified, waterways were diverted, deforestation took place and mountains of waste were created.

Next to the hubs of production activity, new infrastructures were constructed for material transportation such as streets, avenues or the railroads around industrial areas. The latter is the city's great space and economic transformation, reducing travel time, communicating industries and cities.

As a result of the increasing industrial production, the construction of new structures was promoted; favoring the abandonment of those constructed in the first stage of industrialization.

Progress advanced with its pros and cons; it came and left at the same speed, by the end, the urban areas had various space scars within the cities, located between the old centers and the new outskirts which were brought on by the explosion of urbanization. A big blow considering that entire sections of the city had numerous factories and industries and other architectural elements that were abandoned.

Consequently, the face of the city and urban landscapes have continued to change during the 20<sup>th</sup> century; the century of devastation and reconstruction. The destruction occurred during the Mexican Revolution brought on a period of reconstructions and transformation, influenced by the movement of great masses of population, traffic organization and migrations.

This is why we are constantly witnesses of the abandonment phenomenon in places or spaces within the city or a bigger territory. Occasionally, these empty spaces are tightly linked to those which are completely full: non-productive land, areas without a specific function, surrounding the city or infiltrating it, *sketching in bas-relief the areas of uncertainty*<sup>4</sup>, never

<sup>4</sup> Augé, Marc, "El tiempo en ruinas", Barcelona, Gedisa, 2003

knowing where the city starts and where it finishes. And also constituting testing ground to explore the possibility of a new city.

These are places that have been apparently forgotten, where the past prevails over the present, places full of new questions regarding the city and contemporary landscape. These areas generally appear to be far away from the city, although they are part of it. *These desolated places, soulless centers, occasionally mortified, devastated, objects without a cure and filled with speculation, they can be defined as non-places, striving to come back, to be recognized and reasserted as new places.*<sup>5</sup>

The purpose of these spaces has to be understood as the ones at risk of disappearing, of being cancelled, eliminated and devastated. It is necessary to capture and interrogate the meaning of life and memory, never in inhabited and lived-in places, full of people, objects, buildings and cars; but paradoxically in places where life itself seems to end, finding the seeds of life where men runs the risk of getting lost, losing its place and its relationship with it.

So, abandoned places never die; although it may seem like it. They solidify in the memory of those who once lived there; constructing an irreducible element of identity. They live on their own materiality, substantial and material coherence. They are not static; on the contrary, they represent movement, a physical and mental path to continuous re-conquest. Generally, we think these places have no sense: they do not have more sense if they have never had one. However, these places do have sense, a sense that has to understood, listened and lived.

Occasionally, it is thought that abandonment is brought on by a lack of use, however, this lack of use does not generate space decay, it is more complicated than this, falling into disuse is the result a series of unfortunate events that end up in identity loss and loss of image over context.

An urban characteristic of these spaces is that they look for a meaning within their historic, architectural and social context, it is important to note that when one appears it is clear because an incompatibility and an inconsistency that crashes with urban composition arises.

## Recycling of architecture

### Re-architecture

If we speak of architecture, we must speak of the art of space: the public, the private, the relationship and the interstitial one, among others. New meanings that never break are adopted. The space is recycled and

<sup>5</sup> Teti, Vito, "Il senso dei luoghi. Memoria e storia dei paesi abbandonati", 2004.

architecture constantly feeds on the existing one, taking into account current circumstances.

Psychoanalyst Ernst Kris said: *For the longest time we have understood that art is not produced in an empty space, no artist is independent from those who came before him or those who model him; the artist just as the scientist or the philosopher is part of a specific tradition and works in a structured field of problems*<sup>6</sup>. This architecture finds it hard to find a tabula rasa because it never goes back to being the same pure and original architecture.

The recycling concept was introduced by the need to give new answers to urban complexes that have become obsolete. Reactivation projects that can be developed in various scenarios such as: old factories, housing estates, suburbs and non-functional suburbs. Also, to slow the process of aging and abandonment through redefinition and restructuration operations, creating new relationships between the building and its environment.

Besides the intrinsic architectural value a work can have, a preexisting building has the advantage of having won the respect of its environment, of occupying a unique and recognizable space; recovering the latter involves recovering the surrounding space thus, avoiding decontextualization.

Unlike the rehabilitation culture of the beginning of the 20<sup>th</sup> century which demanded –after a period of abandonment– to rehabilitate and leave in its original state some architectural space that had a specific function; the recycling culture can build something new over an existing base. *Injecting life to buildings that are part of our history and at the same time recognizing the special importance of the architecture*.<sup>7</sup>

When a building is built, we think it is inserted in a specific space, but not as being inserted in time. Nonetheless, buildings are capable of developing a life of their own as a consequence of the life that is developing inside them; they are capable of changing, adapting and renewing themselves. When architects work, they not only have to be space artists, but also time artists; like Stewart Brand says: *working with time and not against it*<sup>8</sup>.

A building that has lost its original function, has not necessarily lost its importance, *this does not necessarily lead to his death, the loss of function does not impoverish the semantic capacity of the architecture*<sup>9</sup>, it is simply

<sup>6</sup> Ernst Kris, "Psychoanalytic Explorations in Art", London, 1952.

<sup>7</sup> Gausa M., Guallart V., Muller W., Morales J., Porras F., Soriano F., "Diccionario Metàpolis de arquitectura avanzada", ACTAR, Barcelona, 2001.

<sup>8</sup> Brand, Stewart, "How Buildings Learn: What Happens After They're Built", 1994.

<sup>9</sup> André Corboz, "Edificios Viejos con Nuevas Funciones", Revista "Lotus International" n° 46, Electa, Milán, Febrero 1985.



in a state of transition, of changes, because of this loss allow it to be more receptive to a later regeneration and revitalization; however, it is not mummified, justifying the building's presence as a museum object, but as an act of innovation and entering a new cycle within them.

The architectural aspect still maintains its importance even when its function is totally different to the previous one. There will always be inevitable signs that will allow us to read the past history of the structure without blocking the new reality of the present.

It is worth mentioning that recycling can take on various aspects depending of the case and can manifest itself with different methods. This can obey economic rules, the valuation of the city's central areas where old industries –areas that had been fled before– leads to the recovery of the existing architecture; a simple and pure renovation cannot exist.

Recycling can be seen as the best procedure to preserve architecture, considering it means for their survival. A historical dimension has to exist, materially and ideally.

Whenever we find a historic building we must understand the relationship it has with its authenticity. We have to see if its true nature is the original one, if it has multiple origins or if its value has been reduced because of the falling of the productive activity circle. These differences change the way we face the building, recovery can be achieved through restoration or *reanimation*<sup>10</sup>.

Restoration ensures conservation and guarantees the building's material continuity. Changes do not usually affect function; they alter the container, the form. Thus, lost order is regained by giving the building unity and singularity back.

Reanimation allows the building to adapt to its current needs, mainly to modify content and substance; the building has lost continuity and has to be revitalized. The various fragmented and discontinuous histories intertwine to give back the building its continuity; if they had not been broken reutilization could not have happened.

A continuous emerges from discontinuity which has the same structure and thanks to this time oscillation between structure and given functions we can achieve a change of destiny.

### **Why would the state be interested in recovering abandoned buildings?**

As aforementioned, the social complication that these spaces promote can be controlled and the problematic perspective of these can be redirected.

<sup>10</sup> Ibidem.



Knowing what the forces of recovery, reutilization and revitalization bring forth in these forgotten and abandoned places, as well as in their urban-social and architectural context, and the various positive environmental, ecologic and sustainable solutions that can be carried out in these buildings; it is objectively clear that there is an explicit benefit for the State.

However, within this framework, the State plays an important role to validate and boost all of the policies, laws and regulations that promote and give solid bases to carry out *architectural recovery plans*. Therefore, the State is an organism capable of motivating, stimulating and provide the necessary guidelines to develop, create and implement these actions; in an environmental, urban-landscape and social sense the benefits are entirely for the State, increasing the quality of life and improving the social environment.

Needless to say, these reforms would generate consequences almost only for the State, which would benefit from the regeneration of healthy spaces, in every sense; thus, allowing the exploration of new architectural forms and artistic, cultural and environmental expressions through the recovery of these kinds of spaces; these buildings could be considered as a mine of renewable resources.

Likewise, social cohesion increases around these types of re-projects; globally and gradually they can be considered as an improvement in quality State-provided services and infrastructure. The inhabitants and characters living nearby the recovered space are beneficiaries; although the most benefited one is the State; in economic, tourist, environmental, social, urban and even political areas relating to changes that constitute and shape these new space, re-projecting an already projected element.

The State is aware that there are a great number of abandoned buildings in the Federal District, presenting a rescue proposal of abandoned architectural spaces would somehow mean eradicating the decontextualization and devaluation of the latter, as well as several red flags. If these spaces are considered as an integral source of renewable resources which promote economic, social and cultural reactivation they can be seen as green flags within Mexico City.

Nonetheless, if the planned goals of these *architectural recovery plans* are achieved, this “model” could be implemented it in other states of the Mexican Republic in the near future; to have sustainable microcosms capable of self-satisfaction and recreation in a unique and different manner, valuing and satisfying the needs of their contexts. The recovery of public spaces is an activity that every level of government must perform.

## Economy

Renewing old structures also means new economic activities because these spaces are often made ready to accept cultural or recreational activities. If we take into account that the economy promotes the reuse of spaces, if the destined use is altered an uncertainty arises because the original use was forgotten; instead a lighter one is picked until the economy confronts culture. On the contrary, if the original elements are re-qualified, presented in the city or small towns a tourist-cultural circuit can be created. The assessment of existing architectural-cultural elements promotes visitor flow and consequentially economic flow.

Culture manifests itself as an ideal within its reuse intervention, in museums, libraries, cultural centers, auditoriums and archives, giving new life to buildings and many abandoned parts of the city after the change of the economy.

To exemplify this, we should think about some famous buildings such as Madrid's Queen Sofia Museum (Museo Nacional Centro de Arte Reina Sofía) which used to be a hospital or Madrid's Caixa Forum Cultural Center (Centro Cultural Caixa Forum) created by Swiss architects Herzog and De Meuron's restructuring of an old power station; the National Center for Visual Arts Bernard Tschumi in Le Fresnoy, northern France, where new and old structures are united to create new urban forms suitable to host a group of buildings such as a jazz center and a film set; the recovery of Roundhouse, an old train depot located in North London, famous in the 1960's and 70's for being a meeting place for rock music and after it was closed it reopened to house an Art Center for kids designed by John McAslan & Partners; as well as the emblematic Tate Modern building where recovered spaces in London's former power station, also developed by architects Herzog and De Meuron, are now an optimal setting for art shows or the Loreto Plaza in Mexico City, conducted by Carso Association S.A., which was the former Loreto y Peña Pobre paper mill and after being restructured and regenerated is currently a commercial and cultural center; revaluing a part of the city and promoting the production of visitor, economic and heritage flow.

In the city's outskirts, passing through old mining sites, we can find other sites like the Norman Foster Design Center in Essen where most of the interior spaces of the machine room were preserved to be later used as new German Design showrooms; or the Grand-Hornu Museum of Modern Art in Belgium.

There are many examples of revitalized cultural centers that took the place of forgotten buildings, and usually big names of modern architecture develop these expansion projects and readjustment of existing buildings to create museums and art centers.

In the words of Manuel Gausa, it can be noticed that our working society is becoming a society of free time and leisure. Thus, the transformation of big areas into landscapes to relax is promoted through the creation of pauses throughout the territory and pauses in our productive activities. So, our life and our work are surrounded by games; a hybridization of cultural, sport and recreational programs.

### **Environmental recovery**

Speaking of container recovery, the architectural heritage that fell into disuse can be seen as a “mine”, its exploitation is like an ecological movement due to the recycling of materials and soil; to recover is to preserve.

In fact, the architectural reuse process includes building rehabilitation, preserved removal and reuse of recovered materials. When we usually think about environmental damages we think about heavy industries and natural resource exploitation due to production, its “residues” could become a rescue opportunity through the exploitation of existing materials to promote human development. However, it is also an environmental damage because these forgotten spaces do not reuse the resources they have.

The benefits of reutilization go beyond the preservation of our cultural heritage. The reuse of complete buildings reduces the use of natural resources, reduce material and site preparation costs; avoiding demolition costs. If certain structures had to be demolished, the damage to the soil would be minimum; also, if there was a residue that was difficult to eliminate and could not be recovered.

### **Reactivation strategies**

The material and immaterial wealth of abandoned buildings poses questions about their future, even more when the construction is in danger of extinction. Abandoned buildings have serious reutilization problems due to different factors. The typological variety of buildings cannot be identified only by their abandonment; it includes geographical, geological, economical, historical and anthropological aspects.

To execute a valid reutilization process it would be necessary to carry out a project capable of innovating, maintaining the relationship between persons and specific signs of the old structure; reaching a balance committed with the needed transformations and safeguarding the existing link between construction models, territory and environmental culture.

In structure recovery, we need to recognize the intense heritage preservation that exists to reconstruct what is needed and find a compatible possibility between existing artifacts, protection demands and new needs.

In light of the valuation and redefinition of forgotten or abandoned places, attention must be paid to Local Entities and the community. "The revitalization hypothesis can include spaces that are spontaneously reborn with another function"<sup>11</sup>, for example: transforming into cultural, investigation and education areas, art, experimentation and/or environmental labs.

Maybe some specific actions can be carried out that focus on a single property and set guidelines to train and promote a standard instrument; or diverse actions carried out by institutions which seek to revalue a series of properties through their different typologies. These two approaches represent two different ways of facing the abandonment problem through revitalization.

Whatever strategy is used in a given space –having determined the correct strategy– it is necessary to collect information obtained during a phase previous to the reading of the context. The identified data constitutes a base to build a system which will point out the instruments which will be used in a possible reactivation project.

The area's resources must be identified to understand the factors that promote the area's development and find possible solutions to the identified problems. Every reality must adopt a different strategy based on its own resources and conditions. Maybe 'strategy' refers to a long-term plan of action used as a whole; and consequently coordinate intertwined actions to reach a specific purpose.

Strategy is used in all areas in which to reach a goal a series of separate operations are necessary, the choice is not unique and/or the result is uncertain. Speaking of identifying possible alternatives that allow us to reach one or more objectives; in the case of reactivation –that represents the object's mission– the objectives are the population's security, improvement of the economy and the quality of life.

Based on the studied context and the socio-demographic, economic and territorial characteristics, the necessary instruments need to be chosen to carry out the strategy. Preexistent examples can be analyzed to evaluate instruments and decide which are the benefits and the problems.

## **Ecological measures**

Speaking of recovery of abandoned spaces and architectural elements, we can assert that this practice allow us to reduce the use of natural and energy resources, allowing urban and social context reanimation. We can

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<sup>11</sup> Columbu, Danila, "El Espacio Arquitectónico Abandonado como un Recurso Renovable: Recuperación y Reactivación del pueblo Ex-Enel Taloro en Cerdeña". Master's thesis. MAYAB. Madrid, 2011.

also mention the fact that the rehabilitation of these spaces allows the inclusion of bioclimatic elements. This way we can increase the positive impact of revitalization.

Rehabilitation can be considered a sustainable process if the useful life of the new building is better or at least equal to the one before, it can be said that maintenance and the use of something rehabilitated does not previously determine an energy residue, unless the building includes techniques or implants that are typically *ecological*, i.e. *installation of systems to capture solar energy*<sup>12</sup>. In fact, bioclimatic systems can be passive or active. The passive systems are better than the actives because they do not require any mechanisms to work, as well as a good performance with the correct materials, techniques and strategies.

Summarizing, “rehabilitating a building means in most cases energy savings of 60% compared to demolishing and rebuilding it, avoiding various ecological impacts”<sup>13</sup>. In fact, rehabilitating a building using sustainability guidelines, keeping the walls and the framework, only changing the internal parts, substituting some enclosures, providing insulation and changing architectural plants; in any case there would be a 60% energy and contamination production savings. The rest will be guidelines used according to the regeneration project.

## Conclusions

The basis of the transformations and mutations does not solely fall on urban image reconstruction or on the integration of plastic, artistic and cultural elements to these revitalizations such as cultural arts centers, libraries, art movie theaters, workshops, courses, etc., but also on the general integration of elements and spaces to implement environmental techniques, bioclimatic elements, clean energy production; benefiting the State and the users and the population.

It is important to mention the ability of the State, as government to redefine programs and normative plans that support and allow the recovery of said buildings. The benefits are mutual; State and society take part in the positive changes in recovery projects. Thus, the context is transformed bestowing a new use to the architectural space capable of containing new activities devoted to leisure, recreation, culture and art.

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<sup>12</sup> Margarita de Luxan, retrieved from: <http://www.fomento.es/NR/rdonlyres/74FCECEE-AFE7-41D7-86C9-9A045978DF0C/98663/MLUXAN1.pdf>, November 9<sup>th</sup> 2010.

<sup>13</sup> Higuera García, Ester, “Buenas Practicas en Arquitectura y Urbanismo para Madrid. Criterios Bioclimáticos y de Eficiencia Energética”, Madrid, Ed. Área de Gobierno de Urbanismo y Vivienda del Ayuntamiento de Madrid, 2009.

Likewise, environmental virtue ethics must be included in these re-projects insomuch as the elements of bioclimatic architecture are totally space and climate flexible in every project. This way, economic reactivation was born due to the previous phenomena, generating an integral and interdisciplinary project with a healthier, safer and active social context, an architectural context made up by its landscape and the environment and a revitalized economic context.

Somehow, this investigation includes issues that are related to the reuse of abandoned buildings –background and related phenomena– carrying out an analysis and reaching the conclusion that to develop the recovery projects there must be a strong state government support and public administrations.

Moreover, general guidelines and proposals developed during the investigation can be summarized for readjustment and revitalization projects into four main points: implementation of environmental measures including bioclimatic architecture elements, economic reactivation of the environment, social cohesion and recovery of degraded landscapes (urban and architectural). This research project was condensed in the final draft of the “*Rescue Law for Abandoned Buildings in the Federal District*” (la “*Ley de Rescate de Inmuebles Abandonados del Distrito Federal*”)<sup>14</sup>. It aims to encourage and promote the property reuse initiative that have been vacated and are currently in a state of abandonment.

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<sup>14</sup> José Arturo Alvarado Ortega, “Reinterpretación del Espacio Arquitectónico Abandonado en la Delegación Cuauhtémoc, Ciudad de México, para su integración ambiental y cultural al espacio público”, Master’s thesis, UNAM, México, 2011.

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