

**Titled:**

**INDUSTRIAL ARCHEOLOGY AND CULTURAL TOURISM:  
ALTERNATIVES TO VALUE THE INDUSTRIAL MINING PATRIMONY OF  
SIERRAS BAYAS. THE CASE OF THE LIME FACTORY “LA  
LIBERTADORA” (OLAVARRÍA. ARGENTINA)**

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## **Introduction**

For more than a century, the mountain range of Olavarría has undergone constant transformation. And from its original agricultural and livestock farming activities, it derived in a process of industrialisation of extraordinary characteristics. Due to socio technical and socio cultural changes operated from the beginning of the extractive activities, the open air mining has given a very particular identity to this area in the sub region of the Pampa Alta, in the centre of the province of Buenos Aires.

These processes of change began by the end of the XIX century, specifically, towards the end of 1870 with the primitive and craft mining activity when Mr. Ambrosio Colombo settles in the surroundings of what today is the local airport and starts to exploit a rustic horizontal kiln for lime production, in order to establish, afterwards, at the bottom of Long Hill (Cerro Alto) which is located in one of the entrances to the town of Sierras Bayas, where, still today, the production of different rocks goes on.

Some years later, Aust, Colombo, Ginocchio, Campagnale, Ragnoli, Yánez, among many other relevant actors are the surnames of who became a referent in the extractive activity, in the mining of dolomite and lime that begins to play a dominant role in the development of the mountain area and that can be defined as “craft” or proto-industrial mining that had its outstanding period between 1870 and 1917.

This kind of mining; the one of the mountain stonemasons whose characteristics were given by its few and manual means of productions and its preponderance of human and animal force built an important economic activity within the years. This increased with the settlements of big extractive plants which produced cement and limestone<sup>1</sup>, that

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<sup>1</sup> In 1917 the first cement plant established in Sierras Bayas. It was called “Lone Star” and its capital was from North America. It was then renamed “Compañía Argentina de Cemento Portland” (Argentine Company of Portland Cement). Afterwards, towards 1928, Loma Negra Company built its plant and some years later, Avellaneda Cements Company did the same.

together, powered the working market and made it reach an extremely high level of productivity. Towards the 70s, this situation generated stereotypes that refer to Olavarría as the “Capital of Cement” or “Olavarría: the Capital of Work”. All this happened within a prosperous economical context for mining production in the hills that made this area worth considered as the centre of development.

This enormous labour market, the creation of direct and indirect jobs, the subsidiary companies that provide services to the mining activity were the factors that gave our mountain area a very particular characterisation.

This great start of the mining activity allows the Industrial Archaeology to analyse the traditional productive ways, the techniques and technologies used, the incidence of cultural loan provided by immigrants not only from Italy, but also from other ethnic groups such as Montenegrins, Spaniards, Yugoslavians, Croatians, Serbs, Portuguese and Polish. And it is also worth remembering the internal immigration and from neighbouring countries (Paz, 2005).

This cultural variability generates very particular ways of life in a multiethnic community. One example of this are the stonemasons who still live in the collective memory.

The proto industrial mining activities (1870-1917) and the professional mining activity from the factories (1917 - nowadays) gathered in same productive spaces. And what is more, they lived together for decades. Although a clear distinction begins from the very start of this factory activity as regards the levels of productivity, employment, technology and the conformation of the “Cottage System” or “Systems of Factory with Working Village”, characteristic of all the mountain range and as the product of a “Ford” system of production.

### **The generation of industrial vestiges in the mountain area.**

As it happened all over the industrialised world from the beginning of the Industrial Revolution, technological changes occurred non stop. And particularly in our mining system, the consequences showed up in different ways, but a bit later.

New techniques and technologies, new ways of management, the growth of the commercialising circuits, the use of the railways, the access to financing sources from big mining companies, a new and determining concept: market competence contributed to the overwhelming of the small company by the big capitals of this extractive activity. (Paz, 2002).

During the 80s, the unequal economical and technological coexistence begins to tumble down, but it had allowed the survival of craft mining activity. Within this temporal context, companies that win and those that lose arise. The later are related to their impossibility to have access to new technologies, to modern supplies, to other ways of business management and to a constantly growing market.

Little by little, the small lime factories start to close down. Together with this fact, the decadence of the stonemasons starts to leave, as legacy, industrial monuments which play the role of witnesses of a time and of a peculiar kind of industrial architecture.

Both have something in common - its function: production. But they are varied in use: machinery, tools, offices, storage areas, transportation, etc. (Paz,2003).

These are architectural shapes that belong to a historical period and answer to the economic and productive functioning of a period in history. And from a cultural point of view, they are the results of particular lifestyles.

Today, we have become aware that this patrimony is part of a cultural patrimony, understanding the word patrimony as *“the group of cultural goods that a society receives and inherits from its ancestors with the obligation of keeping and increasing it in order to pass it to future generations”* (Terán Bonilla,59, 2002)

In our particular case, the vestiges generated by the proto industrial mining activity are part of an architectural patrimony of a deep cultural content. This is so because they represent the lifestyles of a society and are representatives of that society because they let us visualise the economic way, the ideology, the technology and the appropriation of the natural resources by the human group that populated and still populate our mountain area. Moreover, as they are part of certain historical monuments, they therefore have a social, cultural and historical value.

### **The need for preservation**

There are multiple factors which currently affect this so particular patrimony all over the world, considering it useless or unusable. This fact has contributed to its immediate disappearance, alteration or partial destruction, also taking, in many cases, to the irreversible loss of the patrimony.

In our case, the most common factors that contribute to its disappearance are articulated to the loss of its functioning, to the consideration of its obsolescence, to the lack of legislation or protective laws, to the inability or disinterest to manage over these cultural vestiges and mainly, by the deep lack of a historic and protectionist awareness.

Nowadays, it is possible to reverse these negative conditions in numerous sites such as the lime factory “La Libertadora” which can be rehabilitated and conserved with cultural ends.

This matter is essential because *“when the end of industrial buildings is revealed inadequately to the needs of a society in constant change, the risk of a destructive change of the historical-cultural values contained in those buildings is being run”* (Terán Bonilla,62,2002).

### **The putting on value and the recovery sense of the lime factory “La Libertadora” (1874)**

One of the most favourable matters to develop the project of revaluing this lime factory was the decision of its owner, Mr Atilio Ragnoli to recycle this old building so that it could have a cultural end in the town of sierras Bayas.

In that sense, this project established a series of points that tried to fulfil those objectives. Everything was always based on the respect for the age of the building, the

no alteration of its architectural spaces and its original physical structure within the lines of the discipline of restoration. All in all, everything was done trying to respect its identity and authenticity, without adding anything that would look strange and that could change its original scope.

As regards the putting on value of the lime factory, the action on its spaces was not carried out under the concept of re-using that refers directly to *“the usage that will be given to the building is the same that it originally had”* (Terán Bonilla,63,2002). This was impossible to be carried out since the lime factory stopped working in 1984 and some of the machines that kept it functioning and some elements related to the production processes are no longer available. Without leaving aside the obsolescence of the machines and the will of the owners not to keep it open two decades ago.

For that reason, the project had to focus on recycling that consists on *“using again, in an adequate and respectful way, the architectural spaces and the original physical structures of a historic building to give it a new use”*. (Terán Bonilla,63,2002).

Different alternatives had to be planned, trying to articulate past and present, being this last point possible to do, because the lime factory presented good and suitable conditions to answer the new functions without modifying its current structures.

As regards that, the better-kept areas of the lime factory were designated to the development of cultural activities with a very positive answer from the inhabitants of the town of Sierras Bayas, because “La Libertadora” is one of the most significant industrial monuments of this mountain village.

The building is quite big and is located in the centre of this mining community. Like other similar lime factories, it has four horizontal kilns in its upper structure whose origin goes back to 1890, a storage and unloading area in the lower structure and another area where the production and grinding machinery can be found.

Although the storage and unloading area is in quite acceptable conditions, they had to be intervened to exploit its usage with cultural ends and the didactic exploitation in its spaces. This is the case of the machinery room and the need to restore the important technology that it has that corresponds to 1890 and 1906 that will be carried out in a second stage of this project that has already been planned.

### **The recycling programme of the lime factory**

The intervention of the building was carried out through:

The research and the historical analysis of the lime factory, taking into account the different stages in its building, the historical and architectural characteristics, being the starting point the fact that the building is a monument in itself. And from this analysis, the social medium in which it is can be described. For that purpose, the Group of Research in Industrial Anthropology and Archaeology of the Social Science Faculty of Olavarría collaborated. This group is formed by anthropologists, archaeologists, social communicators, historians and architects who have worked together in mining sites for years. The architectonic research revealed, specifically, the architectural aspects and the

environmental, expressive and constructive functionality of the building, which, needless to say, became part of the diagnosis.

The recompilation of documents and the ethnographic practice let us carry out a historical reconstruction of the building, of its original functionality, of its growing stages and transformation. Afterwards, the conditions and determinants for the new stage were analysed and in this case, they are going to be articulated with a didactic and cultural function. In this particular case, it can be positively evaluated due to the expectations of the inhabitants as regards the meaning that this lime factory has in the local identity. This is a determining point since an industrial vestige of this kind relates to a full series of meanings that in reference to this lime factory, involves the lifestyles and symbolisms articulated to the mining labour world that has characterised this society since it was born with the extractive activities.

### **The Needs and possibility intervention programme related to the didactic – cultural end.**

As it has already been mentioned, the socio technical changes that happened within the XIX and XX century have given place to an important process of obsolescence of productive mining units. However, in the mountain area of Olavarría, numerous lime factories of the end of the XIX century are still working with the techniques and technologies that are more than a century old. These are the case of the kilns of Ginocchio (of the lime quarry “La Victoria” and others that have been renamed as the “Mandinga” by the old workers of what used to be the lime factory of Perez Perry).

Different circumstances have allowed to keep old machines which were used until recently. These are the vestiges which have significant cultural value, becoming exponents of old technologies of production. Nowadays, there are some buildings which are empty or were converted for other industrial uses or services. Some other vestiges were lost, especially those machines and equipment that were sold as junk.

In that way, there has not been a preservation policy, difficulty that is increased by size (for example, machines used for grinding or crushing). But the conservation of the mining patrimony of Olavarría should not only be exclusively limited to obsolete buildings, since there is a series of complementary buildings that also have to be preserved to give an idea of the complexity of the production processes. Within this, we can mention the transportation, the services and the energetic systems.

In relation to our industrial vestiges, we have an enormous potential that has to be used with imagination and in an educational sense. The organisation of the mining industry built a highly complex process in which many different activities existed: respect for the technology to be used and advantages of the commercialising systems. At the same time, it has to be explained what mining has presupposed from the social life point of view.

As regards that, the lime factory plays the role of a very important factor to motivate protectionist policies because from the moment that cultural activities are to take place, its inclusion in a bigger cultural circuit has to be considered. And of course, it could integrate other inactive lime factories of the town and from neighbouring areas as well.

As regards some of the aspects that have already been mentioned, the Industrial Archaeology – understood as the study of material “left-over” and the intangible elements of the industrial past – became a valid tool to carry out the different tasks in the site, for example:

The total raising of data in the place, of architectonic maps with the help of professional architects and the current technology allowed to elaborate three dimension maps in AUTOCAD of the entire lime factory and even rebuild the original state of the site. The total mapping of the site is another fundamental tool that helped in the diagnosis of its conservation state and its interpretation.

On the other hand, the excavations were carried out in the places where the working processes took place: in the places where the mineral was loaded, in the stretches of the productive circuits. By this technique, we tried to detect the vestiges articulated in the pre industrial tasks, in dunghills, in tools and in all the evidence of human activity. This activity can also have a didactic end because work in squares tends to detect material objects that belong to working processes and they can be exhibited in the same place, following the modern archaeological techniques in this particular case, applied in an industrial site.

The recycling and intervention criteria were established by considering the characteristics of the construction processes and the materials used. These essential facts arose from the historical and anthropological investigation, necessary to understand the changes operated in the site and to know how certain structures and the articulation between the architectural concepts and the functioning of the productive unit were set. It is fundamental to distinguish each of the historical periods and the way they interacted, since the adaptation of the site to the technological and architectural changes gave place to other constructions and the obsolete ones could have been recycled.

The areas that needed direct intervention were spotted according to how deteriorated they were. This is a crucial function to know if it is pretended that the lime factory had a cultural end (to display photographs, as an auditorium, to show artistic pieces, as a cultural centre) because the place should be apt for that function (light, temperature, etc)

Those spaces that were really deteriorated were intervened because they could not be kept and could become potential risks for the maintenance of the structure of the site, for instance, wooden beams, iron roofs, excessive moisture, among others. The wood and stone structures were kept according to the original conditions of the construction. This kind of strategy of restoration and recycling let us keep the age of the site.

A site museum was established by designing and placing spaces. For example, the creation of a cultural room where a permanent display of photographs on the past and present of the lime factory will always be shown.

The site was contextualised by placing a number of notices with didactic information on each of the rooms about the lime factory. These notices include the characteristics of the working processes, data on the workers and on the machinery involved in the processes. This is determining task that can be done by photographic material and even drawings that show the human activities inside the lime factory. It is also possible to

reproduce the way people dressed in those days and the working conditions of the workers in the past. In that sense , we are considering the possibility of creating not only a library of videos but also, a digital record of photographs with information about the past and present of the town, the lime factory and the other industrial monuments of the community of Sierras Bayas.

### **Final considerations**

We are convinced that the recycling programme of the lime factory “La Libertadora” is a tool to grant its preservation in time, to keep the industrial patrimony, acting as an alternative of conservation and recovering allows us to give it a new usage, as being part of a historical legacy. This legacy that remotes to a not-so-far time and that is still connected to the moments in which the mining activity was born in our district and with it, the emergence of economic and social changes that have been essential for the configuration of the local identity.

The lime factory is the starting point to keep all the industrial vestiges in the mountain range of Olavarría. The possibility to achieve this lies in the sum of wills that includes all of us who are interested in the preservation of the local history, its tangible and intangible patrimony and the inhabitants of the community of Sierras Bayas. This hope should also gather politicians, political parties and cultural charities and, in that way, we will be able to save these spaces with didactic ends and articulate them with cultural tourism.

### **Images:**

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1. Chute to pulverize mineral in Lime Factory “La Libertadora”
2. Opening unloading of mineral in chute
3. Lime Factory “La Libertadora” . Site Museum in Sierras Bayas
4. Tools and information into of the site
5. Tools to the work mining
6. Unloading lime and pocket area
7. The inauguration of the Site Museum in September 2005

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**Note:** this paper arose from the participation of the Group of Research in Industrial Anthropology and Archaeology (GIAAI) of the Social Science Faculty of Olavarría, National University of the Centre of the Province of Buenos Aires, in the project of putting on value of the lime factory “La Libertadora” .