

Title:

THE PROTO-INDUSTRIAL OCCUPATIONS IN THE MINING OF THE DISTRICT OF OLAVARRÍA. THE INCIDENCE OF THE ITALIAN IMMIGRATION IN THE TRANSFERENCE OF SKILLS AND TECHNOLOGIES FOR THE PRODUCTION OF LIME IN SIERRAS BAYAS, THE PROVIDENCE AND SIERRA CHICA. PROVINCE OF BUENOS AIRES. ARGENTINA

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G.I.A.A.I. Group of Investigation in Industrial Anthropology and Archaeology.
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NuRES. Nuclei of Regional and Socio-cultural Studies. Social Science Faculty of Olavarría. National University in the Centre of the Province of Buenos Aires.

Introduction

The research of the world of the mining work that we carried out from the Group of Investigation in Industrial Anthropology and Archaeology (GIAAI) from the year 1999 has allowed us to approach the matter of rescuing our mining history in a global way. This is, at first place, to incorporate those tangible elements represented by the numerous vestiges of old productive structures that belonged to the Proto-Industrial period that took place between 1870 and 1920.

But, at the same time, and according to the method of Industrial Archaeology, one of our main objectives is the recovery of the mining history, of the collective memory of the mining work in the hill communities that nowadays are satellite towns of the city of Olavarría. It is in these hill communities, where we find sites with historical, anthropological and archaeological value that not only represent the productive development of the area, but are also closely related to the identity of the region.

Material vestiges, the maintenance of pre-industrial techniques, the productive uses of the XIX century (that still survives in a globalised mining environment both in its management aspects and in the capacity of technological innovation) are the main engines of our investigation. Besides, it is what makes possible the revaluing of those old structures and the attempt to recover the "memory of the stone", understood as the traces that the mining activity left of the past. Namely, customs, rites, productive and technical practices used, the cultural loan, the transmission of knowledge and all the symbolisms articulated to the world of mining work.

In the case of Olavarría, a district located in the centre of the Province of Buenos Aires, in the sub-region Pampa Alta, defined in that way because it belongs to the orographic system of Tandilia. Its natural resources originally impelled agricultural and livestock farming

activities and towards the end of XIX century, the mineral extraction appeared and this gave this region a very particular characteristic, building an intertwining productive ecosystem where the rural mixes with the manufacturing and factory. This characteristic showed up in the two last decades of the XIX century.

Based on those ideas, there are several varied forms under which the human work has been pronounced or reproduced in the mountain mining. The craft mining of the stone was intimately articulated to human work and animal force. Even until the three first decades of the XX century, the great cement factories still had the Decauville system in their quarries, that is to say, a system of narrow trail with their steam locomotives and the traditional delivery trucks that were used to transport the mineral already crushed by the "marroneros"¹ and later by the mechanical crushing machines.

The horses became an essential element in the mining activity, even the Decauville delivery trucks which were loaded with stones, together with this type of animal force were used to cut of the enormous blocks of dolomite of more than five tons. This was a slow and exclusive process of the proto-industrial period.

Numerous interviews to the old stonemasons of Sierras Bayas and La Providencia² narrate these productive strategies and the importance that the data collection of the productive processes of the past in has because they are in a clear process of extinction.

It is in relation to the pre-industrial mining period where the importance of knowledge can be observed in a determining way, in the development of the mining production. In this activity, the overseas immigration played a fundamental role in the transference of information that modified the traditional working processes towards the end of XIX century, under the form of the cultural loan. This does not imply reference to the controversial concept of diffusion, criticised by Social Sciences and mainly by the Anthropology, but this cultural loan must be understood as an action or option that was taken in a non-induced way within the frame of labour complementariness for the optimisation of the production by the stone workers. The information that the rescue of the collective memory gives us and the memory of our mountain stonemasons lets us understand, in the same way as the physical remains, the way in which the knowledge given by immigrants became innovations that remarkably improved the scare productivity of the lime factories (Paz, 1999). The ethnographic raising has let us discover this particularity of the local mining, the oral reconstruction of the experiences of the industrial past, the contact with subjects that do not tell us what they heard but what they lived. This makes "*themselves as a physical remain of those working processes*" (Castillo, 1999, 4).

The mountain range of Olavarría was one from the places where different ethnic groups arrived (Montenegrins, Spaniards, Yugoslavians, Croatians, Serbs, Portuguese and Polish among other groups that came from neighbouring countries, but that corresponds to a migratory process that began in the middle of the XX century). The particularities of the mountain productive surroundings were, for many immigrants, one of the most attractive factors for the settlement in the area, consolidating, in this way, migratory chains or networks

¹ The group of workers who are expert in breaking the stones, a manual job in which a hammer of 12 – 14 kilograms was used. This kind of mallet was called "marrón". A great ability was needed to know where the best place to hit the lime or dolomite blocks was. These stones which were obtained in the blastings.

² In the sites of Sierras Bayas, La Providencia y Boca Sierra, the greatest number of vestiges can be found of the proto-industrial period and they have to be considered as the first mining settlements of the district.

that with the help of relatives or companies attracted newcomers to the centre of the Province of Buenos Aires. In many cases, labour relationships, as it happened with some trades related to the mining activity and that were acquired in their countries of origin, were the reasons of confluence to the area.

But the Italians were the ones who got involved in all the levels of the Argentine society not only for their number, but also for their socio-cultural particularities. Ways of life and working stories have been registered by the social history of our country. In many cases, they are stories that refer to success and others that refer to failure that implied coming back to their countries. But without doubt, as in the case of Olavarría, they contributed to the local development and the transformation of certain productive structures with a preponderant presence as regards that (Paz, 2005).

Fortunately, the mining micro-societies of the mountain range of Olavarría can be found among other many places of the world that have inherited an industrial patrimony of enormous significance, not only for its study, but also for the potential benefits to rescue old working processes. For that reason, to reveal the mining memory is to make it last because the knowledge that it gives us *"feeds its sensation on identity and cohesion, gives meaning to the historical trajectory of a community"* (Martinez, 2002, 2). In the case of the mountain stonemasons, they are in danger of extinction, partly because of the destruction of material things and partly because of the gradual disappearance of the old trades in the craft mining³ (like the fire-starter or the lime kiln-carer, who became the last exponent of the trades reproduced orally during decades, passing this knowledge from generation to generation and it is where the Italian immigrants stood out.

There are early historical references, as it is the case of Ambrosio Colombo. He was the first Italian miner who settled in the surroundings of the local airport and who established in Sierras Bayas towards 1870, where there still is a lime factory that belongs to his family. Other references also refer to inhabitants in all the mountain area. By just mentioning certain productive structures, we can see that they were and still are Italian properties. Their surnames: Molina and Anisan (1870), Ragnolli (1890), Ginocchio (1885), Malegni and Ragonese, Yánez (1873), Datelli (1880), Toffoleti (1892) among others. They also demonstrate that the old lime kilns, some of which are still in operation, were operated and constructed by Italian immigrants.

Immigrants of this origin also appear in other hierarchies of the mining labour structure. Labourers, overseers and bosses of this nationality are common in the proto-industrial period, being active participants in the first cement companies in the period between 1917 and 1950⁴. The task carried out in the files of the first granite quarry in the town of Sierra Chica, in the north west of the city of Olavarría, shows that in pay rolls there were a lot of Italian workers,

³ This is one of the consequences of the development of technological innovations in the mining activity and in the business re-structuring. The mining activity no longer generates jobs because of the technological complexities of the productive processes that have completely changed that skills required. The most factual case is the new cement factory of the Fortabat Group. This factory works with only 90 people distributed in three shifts and is built by a staff where operators or unskilled worker have disappeared. They are technicians or engineers those who are in charge of the productive sectors. This phenomenon has advanced since the 80s and increased during the last 10 years.

⁴ Many Italians occupied high posts in the factories, being common to find them as bosses, especially those who migrated before the Second World War and during the decade after the end of the conflict.

in addition to its owners, the Gregorini brothers who came to Argentina from Vezza d'oglio at the end of the XIX century.

These matters are essential in the development of this work, because not only did the native communities receive the migratory impulse in relation to the consolidation of the working force, but also it is evident that in our mining contexts, there is a very important transference of techniques (ways or style to carry out a working process) and technologies⁵ (like mechanisms or tools that allow the process to take place) were contributed by the Italians. They transferred their knowledge of the mining trade (previously acquired in the country of origin). All this made the workers stand out and they were appreciated by their knowledge.

Towards 1883, the main professions and trades of the Italians were: agriculturists, day labourers, craftsmen, retailers and “marroneros”⁶ or stonemasons. This last trade arose with the increase in the mineral exploitation in the mountain range of the city, although some antecedents affirmed that they appeared earlier. The Italians of mining areas like Carrara, among others, came to work in Olavarría (Sierras Bayas, La Providencia and Sierra Chica and in Olavarría itself), and in the cities of Tandil and Mar del Plata in the Province of Buenos Aires.

In addition to the cultural capital that was transferred by generations, the Italians became teachers of the artisan work of the quarries and lime factories. The techniques and technologies for the work of the dolomite marble, the granite and the limestone were reproduced in the hills of Olavarría in the same way that in certain regions of Italy like Carrara. Even nowadays, the majority of the small mining companies use Italian cutting technology to work with the stone⁷.

That technological transference is not only represented in the current vestiges and in the modern technologies of the production, but also in words that were added to the everyday language in the productive work of the lime factories. “Martello”, “punchotes”, “the martelina”, among so many others and just as an example, are the names of the techniques and technologies of the Italian stonemasons that were reproduced and became part of the lexis of the stone workers.

⁵ Although technology can be defined as a unique concept that also includes the techniques, I prefer to define them in that way because the Italian stonemasons not only produced technological innovations for the baking of the lime, but also they were real instructors in the teaching of different methods that included the drilling of holes, the use of fuels, the ways of baking the minerals, the different techniques used to break the minerals to pieces, the cut of the dolomite blocks and the artisan curving. The technological innovation arose in the case of the Italians, in the structural development of the kilns used for baking limestone and dolomite.

⁶ The “marronero” trade consists in the working with the stone in an area of the mountain system of Tandilia, known because of its deposits of lime and granite. It was known because it gave place to the open-air mining in the cities of Olavarría and Tandil. The “marronero” was one of the most difficult jobs in the lime, dolomite and granite quarries and it consisted in hitting the stones until breaking them to make them enter the lime production circuits and later to the cement. It was an activity that occurred until the mechanic crushing machines appeared in the mid XX century. It was also a trade that happened to be the punishment of thousands of prisoners in the prison of Sierra Chica that exploited a granite quarry inside the jail. It implied a knowledge of the mineral and where it was the exact place to break it. This job was done with a tool called “marron” that was a big mallet that weighed between 8 and 12 kilograms. (See Paz, 2002)

⁷In some interviews carried out with some Italian ex-stone workers, as it is the case of the Malegni brothers who arrived at the region towards 1940, reference is made to this matter when they say: “we came to Olavarría because of the mining development...we worked the dolomite marble as we worked the marble in Carrara”. (Paz, 2005).

The Italians appear among the first to use vertical kilns to bake the limestone, produced at the beginning with dolomite. The kilns were built in some cases by themselves and in others, by specialised hand work. That is the case of the Ambroggi brothers, Italians who settled in Sierras Bayas and of Ricardo Ruppel, a Volga German (who had also learned the trade from Italian workers)

Foreign techniques and technologies were used and reproduced in the mountain exploitations that in some cases adopted new productive strategies⁸ transforming certain labour habits into the search of greater productivity and a better yield of the limekilns.

The knowledge of the stonemason trade was for many Italians a factor of socio-economic promotion and some like Datelli (owner of the quarry "La Providencia" - 1880) reached an appreciable fortune. From quarry workers to bosses and later owners and still today numerous quarries and lime factories go on in charge of their Argentine descendants. In the XX century, many Italian immigrants entered the local cement factories and occupied important posts and even those who had a technical or university degree were caught by the technical sectors of factory to work in the laboratories or in the process commands. But others without qualification were given jobs as workers (Paz 2002).

We know that other productive activities of the Italians were related to agriculture. Numerous Italians that worked in quarries of the mountain ranges, also had small parcels; and it was common that the bosses of the quarry with investment possibilities, rented fiscal parcels to develop small operations that had to do with cattle raising or wheat crop. In this environment, where primary and secondary activities came together, it was common to observe the passage from rural labourer to manufacturing worker in the search of better working conditions, something that characterised the process of local industrialisation during decades, becoming serious towards 1920 with the establishment of the first cement plant, the "Lone Star" in the town of Sierras Bayas.

As we have seen, the boarding of the Italian presence in relation to the mountain mining world, allows to incorporate different variables for its analysis that we developed in the project of the GIAAI, paying attention to:

From a **socio-economic point of view**: the occupational trajectories, the labour circuits, the incidence of the knowledge of the trade of the stone on the processes of adaptation and integration to the local society, the patterns of establishment, the circuits of commercialisation, the concept of "cultural loan" in relation to the technological innovation that they drove, the alternative jobs, the migratory strategies like survival mechanisms, the social minimisation of the risk in relation to the migratory chain and networks, the types of productive structures in which they are inserted, the functionality of the job like an element of mediation in the adaptation process, the income levels, its location in the labour structure of the mining activity (roles), the structures of accumulation.

⁸ Among some of the innovations we find the covering of the walls in the areas of the vertical kilns, the use of tools for cutting the dolomite marble. It also needs to be mentioned that in the case of the covering with clay, this knowledge was transmitted from the immigrants from Poland and Yugoslavia, who were also asked about this activity. There are references in interviews carried out in Sierras Bayas about the participation of two Italians who dedicated exclusively to the construction of vertical kilns and their repairing. It is important to mention that these kilns belonged to a well known kind of industrial construction in the mid XIX century in Latin America and in Europe, being these productive structures known as lime factories. The same production structures can be seen in some regions of Mexico (State of Hidalgo) as in Tula and Bernal (State of Querétaro) among others.

From a **socio-cultural point of view**: the reproduction and education of knowledge acquired previously to the moment of immigration related to the trades, the forms of insertion of the immigrants in the local society, the importance of the migratory chains and networks that worked in the area, the forms of life of the mining communities, the socio-cultural impact on the local population, the factors of attraction, social mobility, the migratory strategies and the causes of the migration, the centres of sociability, lifestyles, customs, myths and traditions that have become part of the industrial culture of these mountain micro-societies, the alternative productive circuits (articulation of the mining trade with the one of agriculturist)⁹, the centres of sociability and their role as recruitment agents, Italian immigration and the conformation of an ethnic minority, the access to the information on the destiny places, the use of marine agencies or other intermediaries, the social organisation, the participation in social events of the global community, the existence of conflicts derived from the interethnic contact or by frictions in the labour world (existence of discrimination or prejudices), the effects of the circulation of the information on local scale as a strategy to attract the groups of immigrants.

The Italian participation in our mining development is an undeniable and proven matter, partly because we can mention that *"one of greatest attractiveness that Argentina offered as a place for Italian immigration with a farmer-artisan perspective, it is different not only from the U.S.A., but even from the new European industrial cities like Torino; is that it used to allow a certain economic progress, preserving to a certain extent cultural traditions and own labour practices of the independent or semi-independent peasant or artisan"*(Miguez, 1992, 347).

The fact that certain conditions and practices of some trades could be kept in the mining activity was one the factors that also permitted the social promotion of many Italian immigrants and the existence of a class division given by the access to the ownership of quarries and lime factories (productive units) and groups of poor stone workers.

The conjunction between men and industry has left us a significant patrimony, in the material world by the wealth of the mining vestige, and in the immaterial world by the maintenance of a stone culture in our mountain micro - societies. Social conventions, sense of belonging and identity reinforce the rich trajectory of those communities and in this case, the revaluing and the rescue of the collective memory allow us to know the recent past of the working mining world.

Vestiges and collective memory become the main historical references of these micro-societies and of the region itself. It is a story of the mining work also forged, as we have seen, by hundreds of immigrants who contributed in different ways to the growth of our region, starting from the cultural loan of productive practices that are generated in an intercultural context since the end of the XIX century, allowing the reconstruction of a bridge between past and present, the reconstruction of historical and social processes, of experiences of work that have had a high social impact and that have determined, as in this case, the identity of a whole region.

⁹ It is an interesting variable, since in some cases, the miners developed strategies to minimise risks. In the same way of the agricultural activity, some cattle is kept to reduce or avoid potential losses, the agriculture as a parallel trade presented a quite common mechanism in these societies of stonemasons. This made possible to face the changes in the demands in the mining productions in the proto-industrial period that was characterised for the exploitation rhythms which were depending on the regional market.

Images:

1



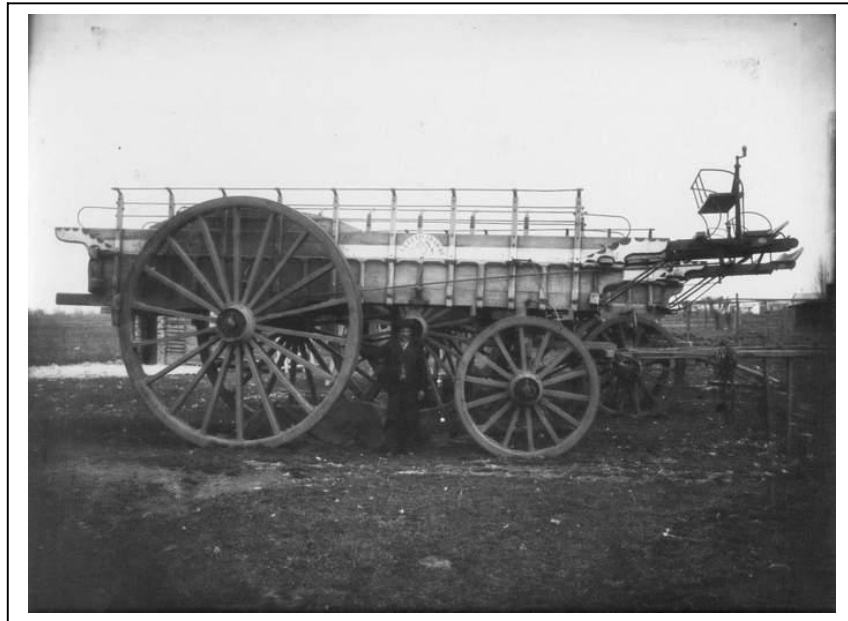
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3



4



5



6



1. Anibal Farinella italian worker in the cooker lime. Sierras bayas. Olavarria
2. Workers of the lime in the ancient Factory of the Ginocchio family (1885)
3. The lime factory "La Providencia" of the Datelli family (1880)
4. Cart to transport lime and stonemason in "La Providencia" lime factory
5. Ancient Lime factory "El Mandinga". Campagnale family (1883)
6. Office workers and cooker workers of lime in the Yánez factory (1904)

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