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Oral History on the Reconstruction of the Past: Its contribution to the case of the industrial “chimney” of a brick, tile and lime factory

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Oral history on the reconstruction of the past: its contribution to the case of the Industrial "chimney" of a brick, tile and lime factory

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Article Abstract

This work recovers and reconstructs, through oral evidence, the history of the only chimney that remains standing in the city of Merida dating back to its industrial age; and of the factory, now defunct with which it was associated, and the working methods and conditions of how life was in the factory for those who laboured there, and for their families. The study was carried out as part of the research project "Oral History and the collective memory of industrial Mérida" that was developed within the framework of the UNED Senior program between 2014-2016, in the Associated Center of Mérida.

Keywords: Oral history; industrial cultural historical heritage; brick chimneys; work memory.

The oral source is an element of the utmost importance in the reconstruction of historical processes, collective consciousness, working practices and lifestyles, all of which are now in the process of disappearing. It allows us to rediscover topics that have been forgotten, ignored and/or silenced by written sources. Therefore, it is essential to give voice to those social actors who retain the memory of their experiences or that of their immediate ancestors, enriched by their own daily lives. Otherwise, there is a danger that these memories will disappear before they can be collected and disseminated (Bermúdez and Rodríguez 2009, 317). It is, in this sense, that oral history as a methodological practice is an effective resource to recover the voices of those who went unnoticed by official history and thus to respond to the problems arising from the absence of written sources referring to a certain period or a particular topic (Folguera 1994, 6).

From the construction and use of oral sources, we have recovered and reconstructed the history of the chimney and the working practices of the brick, tile and lime factory with which it was associated. The oral testimonies of the son of the final owner of the factory and other social agents have been fundamental, since we have found barely no written documentation about our object of study. These testimonies were narrated, collected, transcribed and edited within the

framework of a research project that aimed to contribute to the construction of the collective memory of "Industrial Mérida" through Oral History. This was done through interviews in which stories, life stories, memories, perceptions, experiences, objects and images of the industrial world would allow us to approach the past cultures of class, trade and business. Likewise, it was intended to locate, record and document the remains of the city's industrial heritage and material vestiges that would allow the imagination to be exercised and recreate past contexts and, above all, to contribute to the materialization of collective memory. We decided to address the issue supported by oral history, looking for the plurality of voices and by testimonies that still resonate about the city's industrial past. In our opinion, there was a need for ethnographic fieldwork by means of collaborative action and an ethnohistorical archival and documentary work that would help us to collect data and oral histories (of life, work, class, gender, etc.). This would allow us at the same time to make new interpretations of the past and open other lines of research on the industrial phenomenon and to reconstruct the collective memory of this time for and with citizens. With the fieldwork we wanted to probe to recover and reconstruct memories of people who lived and worked in "Industrial Mérida" of the twentieth century. This was to verify what remained of the industrial phenomenon in them, what weight they had in the historical discourse, in the written tradition and among its inhabitants. Also with ethnohistorical work we wanted to seek and provide historical data that would also contribute so as to know, argue and better interpret the ways of life of that era and the changes that occurred over time; and to contextualize, refute, relativize and analyze the oral testimonies collected. To do this, we created a research team with students of the UNED Senior program of the Associated Center of Mérida. These were people over 55 years of age who lived through the industrial stage of the city and in some cases worked in the industries, factories and companies that existed there. They were the protagonists of the project, acting as informants and co-researchers or ethnographers collecting data and generating it, under the supervision of the tutor. In the first phase, students were provided with training in the anthropological discipline and their respective research techniques. They also contributed their own knowledge, experiences, perceptions and remains of that industrial history that was still present in their memory and their network of socio-labor contacts. All this allowed us to expand the research and deepen the knowledge about that historical culture.

The classroom has been our place of training, but, above all, it was our particular "field of work". A space for communication, coexistence, a meeting framework in which the students expressed themselves freely and exercised their memories to re-live and re-construct past and ancient contexts and extinct cultural landscapes. There we formulated the working hypothesis from which we started, after observing that there was hardly any industrial heritage left in the city. Its presence and meanings had fallen into oblivion for the community and institutions, and in the history books there was no reference to the lifestyles and cultures of work generated by that industrialization. We think that the weak consideration and valuation that was given to the industrial past of the city and the meagre tangible and intangible heritage that was preserved could have two causes. On one hand, there is the primacy of a type of heritage of consciousness of neo-romantic bias (that prevailed in Roman antiquity) as a criterion for carrying out a selective process of what deserved to be considered historical heritage and, therefore, researched, preserved, disseminated and reinvented. On the other hand, there was the lack of awareness of the social agents, who lived through those industrial processes, of the importance of the historical transformations they experienced and the role they played as agents in those processes of change.

In addition, we assumed that the absence of “places of memory” where we could re-create and fix memories, had also permitted the forgetfulness of that period and caused the progressive loss of identity and memory of the manufacturing industry that existed in Mérida.

At this stage we also established certain work patterns. Several sessions were held in which we defined and contextualized theoretically and methodologically the objects of study. We also determined the work tools: explanation of the preparation of an interview, the use of a specialized library and the elaboration of a bibliographic file and a blog as a scientific and dissemination tool. Seminars were held in parallel with two specialists in the local history of the city. Finally, the industrial heritage was located and visited.

In the second phase, the informants were selected as a starting point. These were emerging from the group itself and from the activation of the networks that each of our senior students launched. That provided new contacts from those people particularly linked to the industrial work culture of the city. Next, several “job interviews” were carried out (not as when someone is seeking employment, but as interviews with people about the work they did) These were recorded in audio and then transcribed and edited before uploading them to the blog. In addition, during this stage of the research, the students also made bibliographic reviews and comments on scientific texts, working on the most notable publications in industrial Mérida. The intention of all these activities was at the same time to provide our students with various particular interpretations of “Industrial Merida”, to place them in a frame of reference from which they could be thought of as subjects of research, but also as an object of it. That is, it was about providing them with some contexts that would help them reflect on and analyze the industrial phenomenon with the intention of knowing it again and discovering it from another angle, one that would allow them to observe themselves as active protagonists of those industrial processes of which others spoke. This is how we began to approach some industrial contexts alongside some of their protagonists and local researchers and to discover significant questions and topics that would help us prepare the interviews.

The interviews conducted were the strong and central point of the research, the most important source of data, and the origin and response to doubts, reflections and questions. They have allowed us to obtain information that would have been impossible otherwise, due to not being able to go back in time to observe and participate in the practices and discourses of the agents as they were intertwined in their ways of life. Open, semi-structured, group and in-depth interviews were conducted that sometimes led to the collection of life history. Informal conversations and meetings were also held. The basis of the interviews was an open and indicative script that the students used flexibly in all sessions, adapting it to the specific circumstances of the informant's profile. The script was used both in the interviews that the students conducted with each other at the Associated Center and in the interviews that were done outside the Center, in private homes and public premises. This was intended not only to encourage the person interviewed to talk about specific topics (data, technical, about work cultures, work organization and social and symbolic aspects) but also to express their opinion freely and talk about all those aspects that were of interest to them. They discussed particular details of their daily lives, what job expectations they had, whether or not those expectations were met, how they lived through the dismantling of the industry and what that meant for them, in terms of their loss etc.

In the third phase of the project, the interviews were edited and, depending on the availability of resources, they were posted on a blog hosted on the Center's website. Although this editing task was carried out by the tutor and coordinator of the project, its creation was made from dialogic approaches, since the texts were read with the interviewees and exposed to their comments, criticisms, corrections and clarifications.

The chimney was investigated during the second quarter of the 2015-2016 academic year. After providing basic documentary evidence about themselves personally, the senior students progressed to a position where they discovered and realized that the existing local history of the chimney had largely disappeared. There were only sparse memories of it and its associated factory. There was little by way of documentation, signage or technical information about it or its socio-cultural context and few people even knew that it was the chimney of a brick, tile and lime factory: all this despite the fact that it was declared an Element of Urban Interest in 2000. They therefore decided to recover its oral history.

They began by investigating their memories through several open group interviews of about an hour and a half each. These were carried out in the classrooms of UNED and carried out by the students amongst themselves. As the results yielded little data on our object of study, the students activated their networks to locate and select new informants. The search and selection process was done through informal discussions. The team members asked relatives, acquaintances and local archive staff for people who could be good informants. Finally, we managed to contact one of the children of the final owner of the factory, and after several conversations, where we explained the purpose of the work, he agreed to collaborate in the project. The interview was conducted by a student and the tutor of the project outside the classrooms of the university, in a public place, was semi-structured and lasted approximately two and a half hours.

After its transcript and analysis, we had to contact our informant again to clarify some doubts and expand information on some topics that seemed to be incomplete. All the interviews about the oral history of the chimney and its factory were recorded, transcribed and edited by the tutor so as to form a coherent narrative, and arranged chronologically. The recordings of the interviews are in the custody of the project tutor, who was previously authorized by the interviewees, through informed consent, to carry out this task.

Fig. I. The chimney in the 90s. (Photo: Municipal Historical Archive of Mérida).

Fig. II. The chimney today. (Photo by Antonia Castro Mateos).

The work that follows, reconstructs from oral and documentary sources the past of “the chimney” and the factory with which it was associated, the work processes and the way of life that was developed there. The article is structured in two parts. In the first, we made a brief historical and descriptive tour of the beginnings and development of industrial brick chimneys in Spain and Extremadura. The aim being to offer a possible framework from which to contemplate the history of the chimney and the factory with which it was associated. The second part is dedicated to reconstructing the oral history of the chimney. We begin by explaining, through two headings, the circumstances in which the recovery of the memory of our object of study was carried out, the limitations we encountered, how we solved them and conclude with the transcription and editing of its oral history.

1. Start and development of industrial brick chimneys in Spain and Extremadura

The industrial brick factory chimneys, described by some authors as “smoking obelisks” or “secular and proletarian torches” (Uriarte 2005, 54), is a characteristic element of industrial zones and especially of those human settlements that have an industrial past. Its construction coincides with the adoption of the steam boiler, as a new industrial technology with the use of coal as an energy resource (Díaz and Gumà 1999, 24). Although the first examples emerged between the end of the 17th century and the beginning of the 18th century in England, it was not until the 19th century, with the appearance of mass production, that their construction and use became widespread and their silhouette became a regular part of the landscape. It is a hollow tower, of variable height and section that is associated with the production of steam to provide movement to an engine that allows industrial work to be carried out in factories of different types: metallurgical, textiles, paper mills, alcohol, tiles, etc. Its construction is carried out totally or partially in brick, an economical, manageable and light material that allows the conduit to be raised whereby it aids the combustion and expulsion of fumes that come from steam boilers (López 2014, 5) and other processes requiring large amounts of heat energy, like brick firing in kilns.

According to Madoz's Geographical Statistical Dictionary (1845-1850), the first industrial brick chimneys, began to appear in Spain, gradually in the east and southeast, associated with the installation of the first steam engines used both to pump water from mines (López 2013, 98-100) and to spin and weave cotton (Thompson 2003, 31). The first steam devices installed in Spanish mines and factories were imported from England and commissioned by specialized British technicians[1] (Ravoux 1994, 144-145). The earliest case that is reported is that of the Almadén mines that began to develop and use steam technology in 1799 (Mansilla 2011, 103).

Immigrant workers were not the first in Spanish mines and foundries, as the English Parliament did not lift the last legal obstacles to the emigration of technicians and artisans, until 1825. However, the presence of foreign experts is fully verified in Andalusia and Catalonia, between 1830 and 1850, when their industrialization process began. In both territories, the shortage of

[1] The presence of British technicians in Hispanic territory is reported by the English newspaper The Mining Journal, in September 1848: "On September 9, a sloop came out of the port of Hayle, in Cornwall (...) His destiny was not ordinary, a new Argos was embarking on the acquisition of another vellocino dorado, placed not only on the romantic shore of the Colcide, but in Extremadura, at the foot of one of the mountains of Sierra Morena. This ship carried 15 or 20 vigorous children of Cornwall, with all the necessary implements, steam engines, bombs, etc." (Cabo 1995, 745).

personnel skilled in steam technology lead some entrepreneurs to hire British technicians to run workshops and train local workers. This training was essential, since during the first half of the 19th century there were few educational institutions capable of training engineers and skilled workers in those new technologies. This circumstance favoured the teaching of workers in the factory. In their facilities, the technicians prepared local workers by teaching them both "the most elaborate techniques in the operations of calibration of cylinders, molding and adjustment of the most delicate parts" of the steam engines (Ravoux 1999, 144, 155) and, probably, also the procedures for constructing the buildings that housed them and the chimneys that served them.

In 1849, the English arrived at the Linares-La Carolina mines, in southern Andalusia, to take advantage of the wells already opened in the area (Ayala-Carcedo 2001, 229). They brought both their steam machinery, necessary to drain the mines, something that was very costly by traditional means, as well as their technical knowledge for the construction of buildings, engine rooms and chimneys (Mansilla 2011, 103). In other cases, the learning of the techniques occured the other way around, as Spanish technicians travelled to England to acquire first-hand knowledge and experience there. This is the case, in Barcelona, of the textile factory of "La Bonaplata", the first industry in the sector that used steam for cotton spinning, weaving and printing, and whose owners travelled to England in 1830 to acquire direct information in the Lancashire industries, to buy machinery and place a Catalan technician in one of the companies in the aforementioned area to acquire practice (Thompson 2003, 32-38). The factory opened its doors in 1833 (López 2013, 97).

Because of the success of this company and the subsequent transformation that this factory produced in Catalan industry, despite its short existence, Pascual Madoz writes: "The smoke from the chimney of the Bonaplata factory (...) marked the beginning of a new industrial era, and pointed to the future of the Catalan industry (...) at the time of the war there have been 6 years of concerns and shocks, and despite that, today the provinces of Barcelona, Girona and Tarragona present more than 80 steam engines, and in Barcelona alone there are 50 imposing chimneys" (Madoz 1846, 178).

López (2013, 98) deduces that the chimney of the "La Bonaplata" was probably the first built for industrial purposes, and that before, only those of the mining type were built, as happened in the United Kingdom. In any case, it seems that in Spain the influence of British technicians was decisive both for the import and installation of the first steam engines, industrial and construction technology, as well as for the transmission of technical and building knowledge to local operators. Their area of influence extended to all those Spanish regions where they settled and disseminated their knowledge.

1.2 Industrial brick chimneys in Extremadura

The first brick chimneys associated with steam engines probably began to rise in Extremadura when the economy of the region, after a long period of sluggishness, experienced a certain dynamism, from the mid-nineteenth century onwards. This was in part thanks to the food sector, but above all to the mining-metallurgical sector which, under the mining laws of 1849, 1859 and 1868, was experiencing a great boost. Although in the end, it did not have enough strength to provide the provinces of Extremadura with a medium level of technological development, and drag the rest of the productive activities behind it (García and Sánchez 1991, 229).

It should be borne in mind that the secondary sector of Extremadura had not left behind its pre-industrial stage. Most of its components were not dedicated to manufacturing activities per se, but to craftsmanship. The industry was scarce, little diversified, and the main activity was concentrated in the food industry, mainly in the manufacture of flour and olive oil. It was also very dispersed in space, disjointed, lacking any medium-sized industrial nucleus and dominated by small companies managed through modes of organization closer to the artisan workshop than to the factory (Pedraja 1996, 139). Technologically, its equipment was very traditional. There is no news that there had already been in any of its subsectors or establishments a certain mechanization of operations and the replacement of old energy sources such as wood, water, animal force, etc., with another such as steam (García 1996, 85).

Although some technical advances were introduced over time, the low interest of the Extremadura oligarchy in investing in manufacturing activities, (Melón et al. 1997, 454), the excessive slowness in the incorporation of modern technology and the scarcity of changes introduced, meant this. The modernization of Extremadura´s manufacturing establishments was far behind that which was achieved not only in the most industrialized regions but also in Spanish manufacturing in general (García 1998, 327).

Extremadura continued to be eminently agricultural and livestock-oriented, remaining on the margins of the first impulse achieved by most Spanish manufactureing, particularly Catalan and, to a lesser extent, by Andalusian ones. Therefore, in the Extremaduran landscape there were not the large concentrations of industrial brick chimneys that in other regions indicated the presence of important manufacturing centers (García and Sánchez 1991, 2). On the contrary, an extensive "manufacturing desert" is discovered only dotted with some industrial chimneys that, as milestones in the agrarian landscape, signalled the arrival of some modernization in the territory of Extremadura, but not of its true industrialization. Highlights include the chimneys of the mining-metallurgical sector of the district of Azuaga-Berlanga, in Badajoz and Plasenzuela and Aldea Moret, in Cáceres (Sánchez 2009, 42). Although during the second half of the 19th century and the beginning of the twentieth, other chimneys are outlined on the Extremaduran horizon associated with manufacturing sectors such as electricity, food, textiles, paper and wood-cork, also dependent on the railway, they do not manage to transform the pre-existing landscape into an industrial one: at most they splash here and there.

The case of Mérida, which is where our object of study is located, is no different from the rest of the region. The arrival of the railway, in 1864, brings with it a substantial change to the city and the development of some industries in the agricultural sector. It did not however lay the foundations for an authentic industrial and economic development that would turn the town into an industrial city in the style of Barcelona or Bilbao, points out Castaño (1988, 53). At most it became a city with some specific industries. Although there have been no material or hardly any documentary remains of the first factories, only indirect references in the *Municipal Agreement Books*[2] (Álvarez 1994) and in the local press of the time, an advertisement (Rabanal 2009, 107)

[2] They point out the presence in the city of several cork stopper factories and the noise and fumes caused by their steam engines to the adjoining homes. Although in these documents we have not found any reference to the chimneys of these factories, surely, they would have been given the indispensable character of their function: to get the necessary shot to favor the combustion and expulsion of smoke outside the factory (Álvarez 1994).

and an invoice reveal the existence of a chimney on the site where a British firm built the first cork stopper factory in the city[3]. The chimney survives the industry and the activity for which it was created thanks to Paulino Doncel who bought the site and its facilities and converted them into a factory for hydraulic and sanitary mosaics, at the end of the last decade of the nineteenth century.

Figure III. Advertisement for the Paulino Doncel hydraulic mosaic factory (Rabanal 2009).

In the drawing, figure III, we can see how the chimney rises several tens of meters above the factory. Its corner position seems to accentuate its verticality and perspective, competing in height with the towers of the churches and chimneys of other contemporary industries of the town or later, such as the large chimney of the light factory that stood next to the Roman bridge or the chimney of the brick, tile and lime factory of Juan del Rio Gutiérrez. It is however not known with certainty when the chimney was first raised, since no documentation has been preserved of the factory and none of the heirs retains a memory of either the year of construction or the name of its builder or builders. They only remember that it was built by their grandfather and built by Andalusian builders. The origin of the factory is recorded by an article in the *Diario Hoy*, dated September 1, 1954, which reports that the factory «was founded in 1860». This

[3] Researchers do not agree on the company that was installed there. Historian Javier Doncel (1991, 19) points out that it was that of *Fisher Howard* and sons and for his part, the philologist José Caballero (2008, 53) maintains that it was *Henry Bucknall & Sons*.

document also refers to the fact that that year, 1954, «a continuous kiln was being installed»[4]. This fact makes us think that the chimney could have been contemporary with the kilns, since, according to the son of the final owner of the factory, it was associated with that.

2. The oral history of the chimney

2.1. In the footsteps of the chimney

One day in January 2016, in the bustle of the classroom, entangled between words, we began to move between memories through geographies, past situations, shared scenarios and heterogeneous circumstances. Like miners we entered the labyrinthine mine of memory. We toured the quarry, explored some galleries in search of veins from which to extract memories. We moved forward slowly, wrapped in shadows that we sometimes cleared when turning on the memory light through the focus of some image and/or photograph. However, after numerous trips to the past, to those mental places where we look to remember and feel the emotions and experiences lived, we barely had any results. Only a few memories in a fragmentary state, in disorder and without chronological precision. The task of recovering the memory of the chimney to rebuild its history was not easy. Sometimes it is easier to know the ancient history of the peoples than their recent history, especially when we want to get to know it through those of its protagonists who do not see themselves as part of it.

This is how our students of the project looked, out at history, contemplating it from its margins. The proximity of their industrial past and the image of history that they had, as closed visions of distant pasts, mainly Roman, as the most important events that happened and their protagonists (social and political elites), written by specialists, led them to look like this. Some students even manifested this belief during the first session of the project. Little or nothing could be contributed by them. This conception of history prevented them from seeing themselves as active protagonists of the industrial history of the city. They failed to see that by observing that in their memories, perceptions and experiences about "Industrial Merida", there were pieces of history that could be useful to our research and, therefore, could be considered intangible heritage. Likewise, it did not allow them to observe the few industrial vestiges, amongst which there was the chimney, as heritage, because they considered that it just was not old enough. Only a few valued their memories as an industrial heritage. For that reason, most of the students were surprised when we discovered that the chimney was also an *Element of Urban Interest*, which has enjoyed patrimonial protection since the year 2000, as a symbol of an industrial way of life that was not sufficiently valued. However, we also found out, after consulting the municipal catalogue of protected items and the most notable publications in local history, which was not contextualized, that we were facing a heritage that had been poorly studied scientifically and relegated to oblivion by the community.

The chimney was presented to us as a decontextualized and nebulous artifact whose history we were not able to recompose. During one of the sessions and in the absence of sufficient information, we raised the possibility of activating networks to search for informants, other people who could shed more light on our object of study. One student of the project, Rosa, had friends and acquaintances with the family of the final owner of the factory, so we started there. After some phone calls, conversations, some encounters and mediation of various other people,

[4] The first continuous kilns to manufacture bricks and other ceramic materials reached Spanish soil in 1880 by the hand of the engineer D. Baldomero Santiagós (Lladós and Rius 1880, 217-18).

we got an interview with Juan, one of the sons of the former owner of the factory. So, Rosa was in charge of organizing the meeting.

2.2. The interview

The interview took place on January 21, 2016 at “El Trasiego”, a bar located in the heart of the city, on San Francisco Street. We met at six in the afternoon, but I went ahead fifteen minutes early, as I didn't want to be late. I entered the bar: there were not many people at the time, only three tables were occupied, and the musical thread enlivened the atmosphere, intermingled with the noise of the coffee maker. I looked for Rosa but she hadn't arrived yet. At one of the tables there was a man sitting having a coffee and checking some papers, and when he saw me come in, he raised his head. We looked at each other for a moment and we both made a gesture of assent. I went to him and introduced myself. Immediately Juan got up and reached out to me, greeting me warmly and asking me what I would like. We sat down, Juan ordered a coffee for me and we started chatting.

While I was explaining our project, Rosa arrived. It was six o'clock. Determined and with a smile on her lips, she approached our table, greeted us and sat next to us. We resumed the conversation, and by then I had activated the tape recorder with the permission of both of them. Before getting into the matter, our informant opened the envelope he had on the table, took out two old sepia photographs and some papers. The photos were of the factory and the chimney. One of the papers had an article in the *Diario Hoy* that talked about his family's factory and the other two were advertisements about the industry. This documentation, especially the photographs, helped us to start the conversation and immerse ourselves in the past almost without realizing it. From that moment on, the interview, like a powerful tide, immersed Juan in a sea of intense emotions. Memories came to his mind like waves, one after the other, stimulating him. Each evocation was like a flash that illuminated him and caused a pleasant sensation, with an element also of longing for past times. In each of his words he was willing himself to recover items from the past, to show their roots, their ancestors, how they lived, what they felt and what they dedicated themselves to. In such a way he tried to make us re-live his past, so that for a few hours we lost track of time, the history of our informant absorbed us, the past became present and the present past, the times intermingled, flowing into a sea of memories, experiences, sensations and also forgetfulness.

2.3. The oral history of the chimney and the factory

This is how our informant began to tell us, observing one of the announcements advertised by the family business, that the chimney was part of the lime and flat-tile factory founded by his grandfather Juan del Río Gutiérrez, in 1860, on the outskirts of the city, next to the Albarregas river bridge and the railway line to Badajoz. Here water and land were abundant and of good quality and the distance from the population was more than enough to ensure that the fumes generated by the kilns did not bother anyone.

During the first half of the 20th century, the Albarregas river valley was chosen, to build other manufacturing facilities of considerable importance, not unrelated to the proximity of the river, the railway station and the roads to Madrid and Cáceres. Juan Del Río Gutiérrez was one of the first businessmen to build a factory in the Albarregas River district. As described by his grandson, he was a resolute and enterprising man, endowed with a special vision for business. He

began by dedicating himself to tinsmithing, manufacturing enameled iron kitchen utensils, plumbing and installation of bathrooms and, later, to the manufacture of easels and half roof tiles, tiles, bricks, roof tiles and lime. That activity provided him with capital with which to deal with the acquisition of the land and subsequent construction of the factory. In this way Juan acquired the land. It was a plot of about twelve thousand square meters, located northwest of the city, in an area where the floods of the two rivers that flanked it -Guadiana and Albarregas - flooded with waters dyed of a color similar to clay in the rainy season. The factory, popularly known as "The Tile", was rudimentary and manual, equipped with some machinery and two circular kilns, one for lime and one for bricks.

As for the chimney, Juan explains, by showing us one of the photographs he has brought, that his father had hanging in the office. It was "the outlet of a group of continuous kilns built by my father (...) the fumes generated by the kilns went through an underground conduit to the chimney".

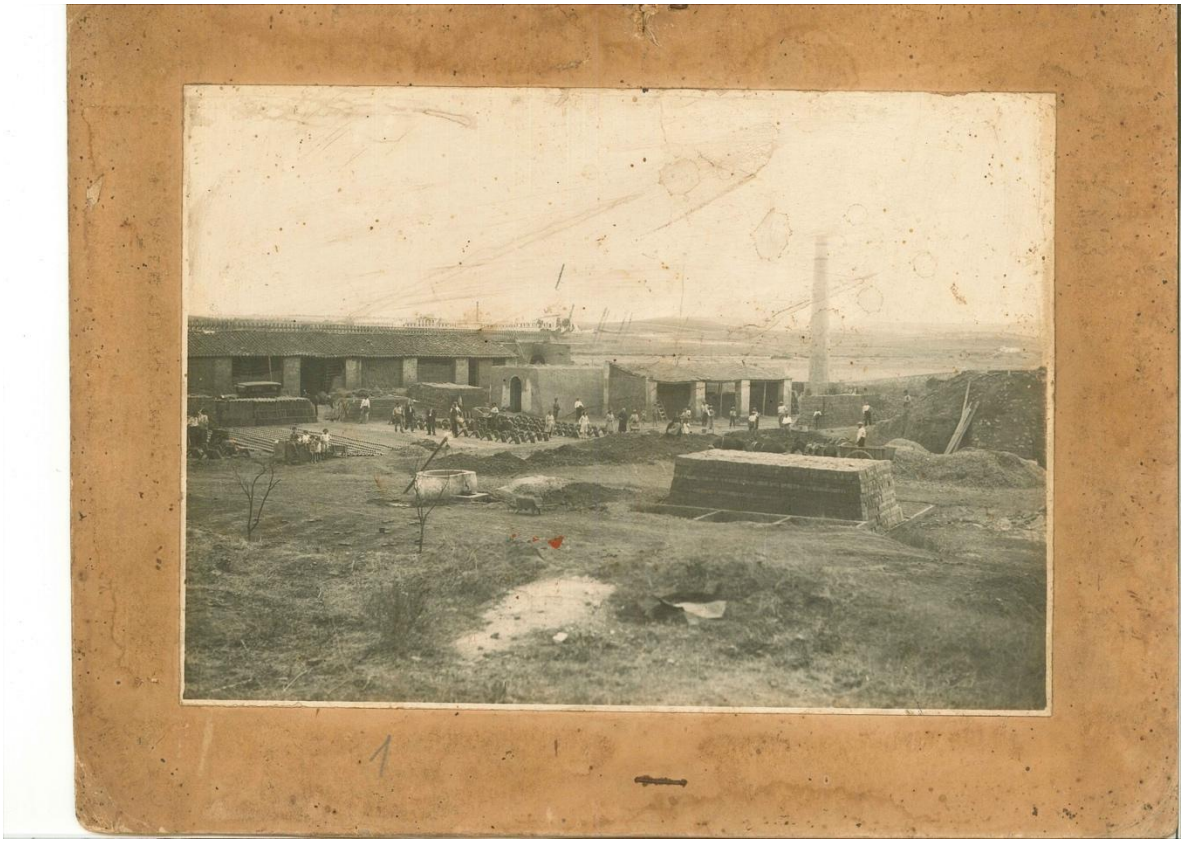


Fig. IV. Overview of the lime, brick and tile factory popularly known as roofing. In the background you can see the silhouette of the chimney. Photograph courtesy of Juan del Río Gutiérrez.

The continuous kiln was used for firing bricks. It consisted of a rectangular gallery compartmentalized in chambers. This system allowed the heat to spread continuously throughout the firing process along each of the compartments. In this way, the application of heat moved through the gallery sequentially: while in one section the material was being maintained at a steady temperature, in the next, the temperature was beginning to rise while, in the previous one, the already baked material began to cool, thus allowing it to be unloaded and filled again. And

so, sudden changes in temperature were avoided, achieving gradual and homogeneous firing and a more economical operation of the kiln by making the most of the heat. The continuous kiln consumed about one third of the energy of an ordinary kiln (García 1871, 107).

The chimney was built by a team of Andalusian builders, who undertook the work at that height with a sober and simple style with very little ornamentation, but with a skill in its construction that has allowed it to last to this day. Probably, they were masons specialized in the construction of this and other types of chimneys, because at that time this type of construction was in high demand for the new factories that were being created: mills, light factories, cork factories (García 2010, 135). It's a structure composed of a stem of decreasing circular section topped with a pair of rings of two lines of fascias that mark, in turn, the beginning of the crown. The body of the crown is undecorated and closed, that is, following the decreasing slope of the shaft. Near the crown are three lines of fascia and atop the chimney is a nozzle formed by six rows of bricks with decreasing slope with respect to the shaft and concluded in a ring.

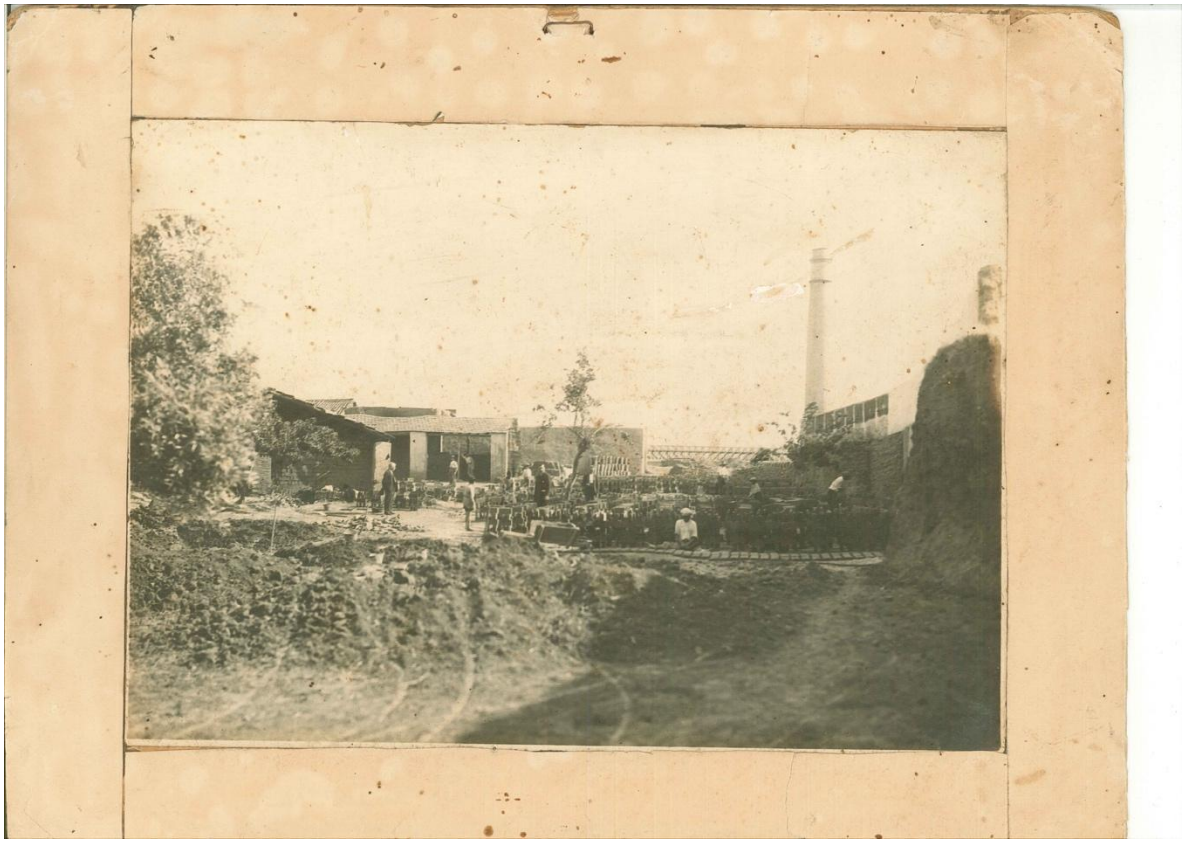


Fig. V. View of the chimney in its original context. Photograph courtesy of Juan del Río Gutiérrez.

This type of chimney was the most used in the Western world because of the advantages it entailed: its wind resistance, its ease of construction, for favoring the rapid movement of gases and the least cooling of them for the benefit of the updraft as well as the low costs of material and labour involved in its work (López 2013, 120). Undoubtedly, its construction sought its functionality, but it probably was also intended to give the company a distinctive image of solidity and slender verticality.

2.3.1. The artisanal work of weaving

Until the mid-1950s, the elaboration of bricks and tiles was carried out manually, by hand and piecework. Although it was a simple profession and did not require a specific qualification, some experience, skill and strength were needed. As some of the tasks became exhausting it was desirable to add to human strength, but the only available technology was that of a donkey and cart to transport the earth from the "terreros" of the Albarregas River to "The Tile", and a "Persian" or "Rehat" wheel to draw the water from the well. "The Tile" was the area where the bricks and tiles and tiles were made.

To make bricks and tiles, Juan del Río turned to experienced workers who knew the trade because, according to his grandson, he did not know this manufacturing technique: "My grandfather hired people who knew how to make them and brought those people from towns such as Oliva, Villafranca de los Barros, de la Zarza, Villagonzalo, Oliva de Mérida, Mérida etc.".

The clay and water were extracted from a "terrero" and a well both located inside "The Tile". The well, cylindrical in shape, had a high rim, probably, to avoid accidents. On the rim the worker rested a wooden stick with a pulley to raise and lower a bucket with which to draw water. However, when large amounts of water had to be obtained, the extraction was carried out "with a wooden waterwheel moved by a mule". The water, recalls Juan, "was famous, because it was delicious. Everyone was going to drink water from "The Tile" (...) the workers of Sierra Carija, who were walking or the people who passed by".

The clay was extracted by hoe and shovel from the "terrero" located in the western part of "The Tile". It was land of good quality and a reddish hue. But when the vein of clayey land ran out, Juan del Río acquired a plot in the surroundings, next to the Albarregas River. From there, the clay was transported by cart to "The Tile". Then, as his grandson described to us, they unloaded it and "they screened it and threw it in to a kind of pool (...) where they mixed it with water. Then (...) the mud was kneaded with by the workers' feet (...). (The workers[5]) they pulled up their pants, rolled up their sleeves (...) treading the mud to soften it so that there would be a homogeneous mixture. My uncle Manolo stayed at the factory until eight or nine at night with his feet in mud". Juan specifies that to make tiles you had to "sift the earth very well so that it had no stones or any kind of object in it. They had screens onto which they threw the earth to leave it very fine. And tiles were made with that clay". In fact, clays that are extracted for the manufacture of pieces of baked clay rarely appear pure. They are almost always mixed with other elements such as limestone grains and small siliceous stones. This is the reason why it is necessary to always prepare them (García 1939, 4).

Once the soil was well mixed with the water, and had the right consistency, and uniform texture, it was taken out of the pool and piled up on the ground, by stacking it in order to release all the trapped air inside it. Thus accumulated, the mud was then covered with wet sacks to prevent it from hardening.

The molding was carried out in the "Era" an outdoor area like a small field, where the ground had been compacted by ramming it down, and then smoothed by scraping and rubbing so as to

[5] The parenthesis is mine.

obtain a hard flat surface The worker in charge of molding and cutting the pieces or “cutter” worked at the “bench”, a brick structure that served as a table and allowed the molding to be carried out in a straight posture, thus facilitating the task.

Before starting the molding, the “cutter” sprinkled the “bench” with fine sand to prevent the mud from sticking. Immediately afterwards, he placed the wooden mold or frame on the surface of the “bench” and filled it with a piece of clay that was smoothed with wet hands. For this purpose, there was a bucket of water near the work area. Next, with a “rasero” or tablet, also wet, he removed all the excess mud. Then, he lifted the frame and poured the contents of the mold onto a curved sheet called "galapago". Immediately, another worker took the tile to the “Era” and put it out to dry outside, placing it upside down so that it could dry for a day or two. After that time, the tiles were raised in pairs, leaning against each other, a position in which they were allowed to dry for a few more days. Once dry, they were put in the kiln. See figure IV.

2.3.1.1. Manual manufacture of bricks

Likewise, the manual manufacture of solid bricks was similar to that of tiles, only the mold and the type of clay varied, which must have been stronger, probably because it had to resist contact with cement and lime. In “The Tile”, says Juan, the bricks were made with clay extracted from the Albarregas. Juan remembers that his uncle Manolo “when he left the Slaughterhouse, he was a slaughterer, he went to the factory to make solid bricks, he did them wonderfully because he was a great perfectionist”. Moonlighting in the 1940s was commonplace, and many people managed to earn a bonus with activities that combined with their working hours in other factories or occupations.

The clay was placed on a wooden rack or “rack” with capacity for two pieces. Next, it was smoothed with wet hands and the excess mud was removed in the same way as was done with the tiles. To obtain the brick, the mold was dumped on the ground, previously sprinkled with ash to prevent the mixture from sticking. The pieces were left outdoors so that they could take on consistency. The drying time depended on the weather: when it was very hot, two or three days were enough.

Subsequently, the bricks were scraped with a knife by cutting off the parts protruding at their edges and dried in the sun, placed in the “form of catillejos or small towers” so that air could circulate between them. Once the pieces were dried, they were placed in the kiln for firing, the bricks in the lower part and the tiles in the middle area. This was due to their thickness, they did not need to undergo such intense heating. The kilns were composed of thick walls that allowed heat to be preserved. As Juan recalls, in the factory there were three brick kilns, one round and two square “one next to the continuous kilns, below, another round one, and next to the “vaquerizas”[6] another”.

The traditional firing of bricks could also be done outdoors in kilns called “anthills”. Juan explained to us that these were temporary rectangular kilns made outdoors and with the same bricks that were going to be baked. To build the “anthill” the workers first levelled the ground, tamping it so that it did not sink in a place near where the dry bricks were placed, to save labor. Then, they placed the edge bricks in the form of a “grid”, leaving gaps between them to allow the

[6] A place where livestock are kept.

passage of the fumes and the placement of coal. Juan points out that these kilns were called “anthills”, because the coals scattered among the bricks looked like ants. Thus, after a first row they placed another in a perpendicular direction and then, another in the direction of the first and so on, up to ten or twelve layers. In this way, the “anthill” took the shape of a truncated pyramid with a rectangular base. Usually, up to and including the fifth row, previously baked bricks were used, while from the sixth onwards they were made with raw bricks between which coal was interposed (see figure IV).

Finally, the workers lit the coal they had placed through the hollows and watched the progress of the fire, making sure that it was uniform, for which purpose the entrances of the ducts were closed and the walls and the last row of the “anthill” were covered with a clay plaster to reduce the contraction and give it consistency. Juan emphasized that as they worked in the open air, the worst thing that could happen while the bricks were being baked in the “anthill”, or drying in the “Era” floor, was rain. This caused a significant part of the bricks in that batch to be lost. Therefore, the manufacture of bricks, and also tiles, was mainly done in summer, when the temperature allowed them to be made outdoors.

Even so, the risk of rain, especially from summer storms, which are so frequent in August, could not be avoided either. This is how Juan remembers it: “When a stormy day was coming, well, if the castillejos, the bricks and the tiles were almost dry, then everyone ran quickly to pick them up to put them under a roof. With the storm, it was goodbye to the work. They had to start over”. In the midst of so much work there was also time for some celebration. Juan remembers with nostalgia that his grandfather, and then his father, on St. John's Day “made a sangria and invited all the workers. Then, some would go for a few days to the festivities in their town”.

Summer also brought to Juan in his childhood and adolescence, other events, moments of fun, leisure dotted with books, games with his brother, racing horseback riding, baths in the river beach, with “la gang”, swimming championships and jumps from the pilaster of the iron bridge known as “La Millonaria”[7]. Once finished, the bricks were loaded into a cart for distribution by the works. The cart used in “The Tile” had two shafts, and two wheels with wooden spokes and iron hooped treads. This cart was made in Mérida, in the blacksmithing and cart workshop that Juan Ramos Guillén had on Calle General Margallo 79, today Morerías. The workshop was located above the old Municipal Slaughterhouse.

[7] Because of how expensive its construction was.

Fig. VI. Juan Ramos Guillen´s blacksmith and cart workshop. A family business of four generations. In the center of the image, we see Juan Ramos (second generation) together with his son Juan, on the right, and with his two grandsons. Photo taken between 1956-1958, courtesy of Juan Antonio Ramos Blanco, grandson of Juan Ramos.

2.3.2. The mechanization of tile in the middle of the 20th century

From the 1950s, demand for bricks and tiles began to grow considerably in the city of Mérida as a result of the new buildings that were beginning to be built outside the urban center to house the hundreds of workers who came to work in the factories. Such demands are probably the reason that lead Juan's father, Norberto del Río, to mechanize “The Tile”. Norberto de Río took over the company in the early years of the 1950s. “The Tile” continued to operate under the name of “Cerámicas Santa Eulalia”. The prosperity of the business allowed him to invest in machines, new “terreros” and means of transport. We know, from an article published in the *Diario Hoy* that at the beginning of September 1954, “new and very modern machinery and continuous kilns were being installed in the factory for the production of millions more pieces annually”.

The interviewee also informed us that in the factory “25 to 30 workers work” and focuses on the production of bricks, hollow brick, Arabic tile, flat tile and lime. Among those workers were two brothers and a cousin of Norberto's wife. Juan specifies that “his uncles were Emeterio and Manolo. Emeterio was in the quarries of Carija and he is the one who placed explosives to extractthe stone and make quicklime and white lime. Manolo was in the factory making bricks (...) And José Chamorro was my mother's cousin and my father hired him as head of the factory”. Along with material resources, the family was a key element of the factory. Maintaining the workforce of foreign workers in the factory meant solving the problem of their housing,

especially that of whole families, since their economic precariousness and low wages prevented them from paying the rent of a house. Therefore, the company built three houses and some warehouses inside the factory. The houses, says Juan, were the accommodation of “the families who lived there all year round, while the temporary workers stayed in the warehouses with their belongings (...) There were whole families, a lot of people. The kids you see in the photos, because all of them lived there”.

Juan is reminded of the image of the interior of those warehouses and how the workers separated spaces seeking privacy. They did it with ropes, which they nailed from one wall to another and on which they hung blankets, or with raw hollow bricks. There they made food and slept, although most of the day they spent working. The days were from sunrise to sunset, just stopping to eat and take a nap. In the factory, Juan emphasizes, “there were no Sundays or Mondays: there, every day you worked. There was some rest in winter and so less work, but in summer there was a lot of work”.

The activity was constant. Juan specifies that “simultaneously they took out the soil from the pools, they carried the water, they mixed it with the mud, kneading it with their feet, they made the bricks, the tiles were put out to dry, and then scraped, and they loaded them into the kilns while also unloading them”. All available hands were needed to help in the hard work in “The Tile”. Therefore, it was common for the women and children of the workers who lived in the factory to also collaborate by carrying water to mix with the clay, watering the Era floor, transporting bricks, etc. The most common thing was for women and children to work part-time alternating those tasks with domestic tasks, school and playing, respectively. As we can see, the division of labor was superimposed by a marked sexual division of labor. The tasks carried out by women and children involved little or no qualification and were unpaid.

The scope of this factory was local and regional. Juan remembers that “they placed orders with him and my father supplied them (...) to city builders such as Texeira, Juan Castro, Soriano. (...) He also sold to Villafranca, Alange, La Zarza, La Oliva and all the surrounding towns”.

The machines, Juan informs us, “were bought by my father from Francisco Martín Delgado”, a company that sold, among other things, agricultural machinery for construction, cars and motorcycles. After the purchase of the new machinery, the modernization of the factory was carried out, for which new kilns and warehouses were built to house the machines and dry the bricks. At that time, the house that housed Norberto del Río's family inside the factory was also enlarged: “Once my father had updated it, he put new machinery to make hollow bricks (...) he made other kilns with my grandfather. (...) He built new roofs on the warehouses where the bricks were dried. (...) He enlarged the house and made another terrace facing the factory”. Juan points out that mechanizing the company cost his father a lot of money at that time.

With these new facilities and machinery, the production of bricks increased and with it the need for raw materials. To meet this requirement, Norberto del Rio acquired new land “in the old Tiro Pichón” where Cepansa was and on the farm of the “Retuerta”, in “Seven Mattresses”. Juan specifies that the farm was so called “because a stream passed by there making a meander”. The extraction of clay continued to be carried out manually with a pick, hoe and shovel and it was transported by truck to the factory. It was a dump truck that, in the words of the interviewee, was

Russian and was “bought at Fregenal de la Sierra”. It was probably one of the trucks brought from Russia to Spain during the civil war.

Once in the factory, the clay was unloaded and piled up outdoors. After a variable period of outdoor exposure, it was passed to the roller shredders to be crumbled. This was “a mill that had steel rollers that ground the earth (...) crushing the smallest stones, but with the big ones it got stuck. So, you had to go back and take out the stone”. Next, the earth passed to a conveyor belt that moved it to a mixer, an iron machine of considerable size that had a central fixed axle around which blades rotated so that it mixed the clay, homogenizing it and eliminating all the air it might contain. Then, the mixture passed to a mechanical molding machine, which carried out the molding, depending on the type of brick that was going to be produced. Hollow bricks and flat tiles were made. The hollow bricks were so called because they were crossed longitudinally by four cavities that considerably reduced their weight. This feature was a revolution in the ceramic world, as it saved costs in terms of raw material and transport and came to replace conventional bricks in certain uses (García 2010, 190).

Like bricks, flat tiles were molded and pressed mechanically. Juan does not have a clear memory of what those machines were like, in his memory there were hardly any traces, but what he does remember was that they rotated and that he and his brother when they were little clung to their bars and the machine made them spin as if they were on a fairground ride. The next process was cutting the bricks to size. This was done by a machine that cut them automatically with very fine steel wires. Next, the cut bricks were loaded and transported three-by-three on wooden trays to the dryers or warehouses that Juan's father expanded to have more space and improve the drying process of the pieces, so as not to be so dependent on the weather.

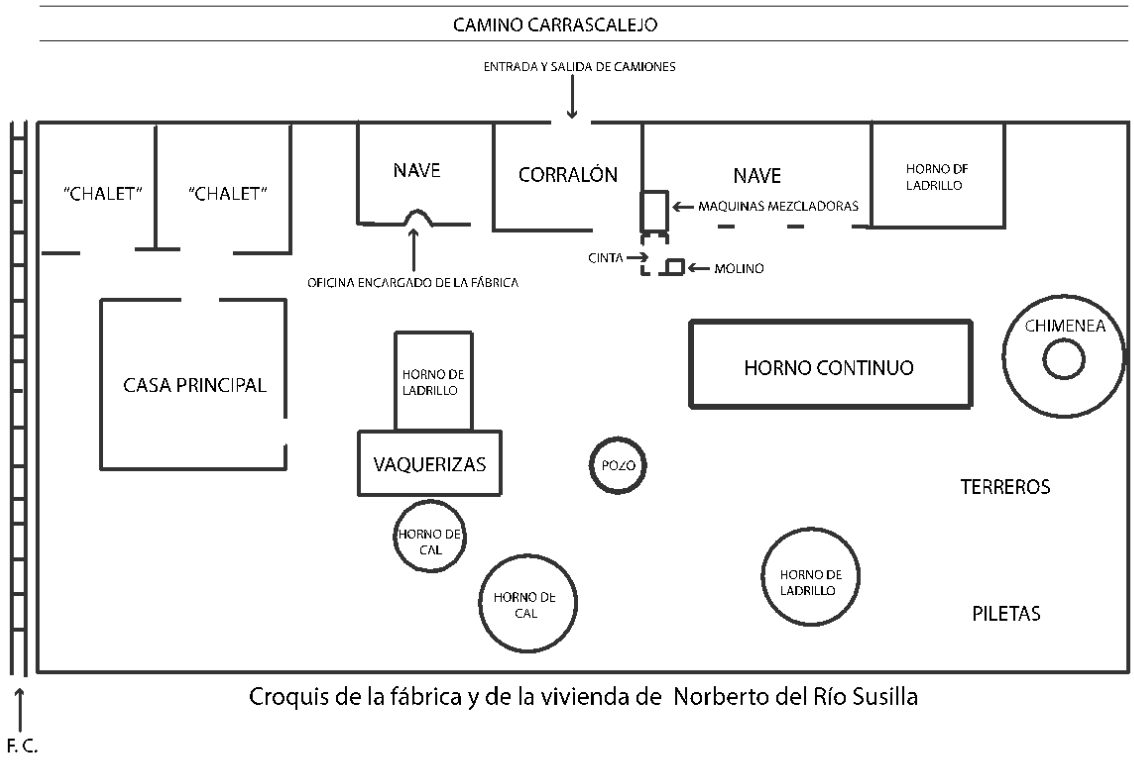
Although Juan does not remember the date on which the warehouse was built, he does remember that it was the women who were in charge of loading and transporting the bricks on wooden trays, and putting them at the bottom of the warehouse to dry before putting them in the kiln. They placed them in the form of “castillejos of six or eight bricks”. This process saved costs by decreasing the firing time in the kiln and the energy used. This work is probably in Juan's memory from his own experience, he tells us that “when my father punished me, I had to help them put the bricks in the warehouse”.

The next phase of the process consisted of transporting the bricks to the continuous kiln for firing. This task was carried out by a team of operators, some of whom carried the material to the kiln and others who placed it inside. This work was especially important, as it required experienced operators, since the correct baking and the quality of the bricks depended on it. Once the bricks were fired the orders were sent out. The transport was carried out first by wooden cart and later by truck, at first rented from “Transportes Castelló”, then their own. Juan tells us: “My father started with wooden carts taking the material to the works. Then he hired Castelló to take the loads to them. They were two brothers who started with truck rental, they were the carriers. Then, my father would call them and say to them: You have to take a truck or bricks to such a place. Afterwards my father got the Russian truck”.

In the main house, there was the administration. It was Norberto del Rio´s office, a spacious room with large semicircular windows through which on sunny days there entered a warm and

whitish light that shaded the walls entered the room. This highlighted the dark sobriety of the sturdy Castilian desk where the manager of the factory, Mr. Espadiña, an accountant who also ran an insurance agency, worked and dispatched the affairs of the factory with Norberto. It was a sober, simple and elegant place. In the center stood the wooden desk full of delivery notes, papers, a few folders, an inkwell with a pen and a stapler. On one side, there was a wooden cabinet that served as a filing cabinet, and on the other side, an umbrella stand and some chairs. On the walls, there were some photographs of the factory that stood out.

A few meters from the main house was the manager´s office, inside the warehouse where the bricks were dried, next to the transformer and the yard where the trucks entered and left. It was a small place that had a small window on one of its walls where the manager, José Chamorro, paid the salary and the "piece rate salary" every Saturday. It was the most anticipated day of the week for all the factory workers, because each man's subsistence depended on it. Juan remembers it this way: "When Saturdays arrived, my father took out the money and paid the manager and the manager is the one who paid the wages to the workers. It was paid each week".



Croquis de la fábrica y de la vivienda de Norberto del Río Susilla

Fig. VII. Sketches from the factory. Directed by Ma Terera Romo.

In that landscape, Juan also remembers running around with his brother, getting scolded by his father for breaking a "vase" or spending a few hours learning from the accountant about such things as papers, payroll and invoices. Norberto del Río was clear that his son had to be trained to continue with the family business. It was his dream that the business would grow and that his descendants would continue with the company by adding value to the family's assets, as he did with his father. This is how Juan recalls it: "My father told me to learn from Mr. Espadiña and when he arrived Juanito had to go and stand by to see what Mr. Espadiña was doing". For some

years Juan's dream came true, his children got involved in the company. José, as the firstborn, assumed some responsibilities and Juan combined his studies with work in the factory. However, this participation was shortlived, because, as Juan informs us, “my brother went to study in Seville (the draughtsman's degree) and I entered the Bank (...) Until then, I was helping my father”.

The absence of his children, the strong competition from other factories[8] together with the departure of some workers and the fatigue of leading the company on his own, lead Norberto, after a few more years of activity, and advised by his wife, to decide to close the factory. In Juan’s words: “My father was alone and no longer so strong….and also there was a lot of competition (...) and some workers left even before the factory closed (...) It was thanks to my mother the decision was made. She told him: “This is over, there is a lot of competition”.

Like all the people we have interviewed for the project who lived during the years of “Industrial Mérida”, Juan ends the interview lamenting the disappearance of all the landscapes of his youth and the loss that the closure of its industries meant for the city. He talks about the changes that occurred with a serious expression, affected by nostalgia for those times lost, and for those factories and ways of life that have now disappeared. It is as if he were taking stock of the past with the present, and as if the improvements that it has brought were overshadowed by what was lost in the economic aspect. “There were many factories in the city (...) Mérida was a place of industrialists, you can't imagine the industries that were in Mérida: ““La Corchera”, “Hilatura”, “Cepansa”, “El Águila”, “La Casera”, “Inhor”, “Fortes”, “El Matadero”, “Harinas Galán” (...) they fed hundreds of families (…) what makes me sad is that Mérida as an industrial place has been lost”.

In the same vein, during the interviews we conducted with people, at the beginning of 2015 other project informants express themselves when they talk about the closure of the factories in which some of them worked. For example, Agustín Gil y Gil, a Corchera worker, says: Let's see! Let's see, here was a deck of companies where they played with 20,000 jobs, huh?
Twenty thousand jobs and I fall short. Look At ““La Corchera”, “El Matadero”, “La Renfe”, “La Casera”, “El Águila”, “La Hilatura”, “La Cepansa”, “La Tabacalera” (...) “La Cruz del Campo” (...) “Rumianca” (...) “La Campsa” (...) “El Silo” (...). All these companies have been lost (…) Here in Mérida we have seven or eight thousand unemployed people If those companies had stayed open, there would be at least 50% of them” working. In the same vein, Mª Carmen says: “What a pity! What it used to be (...) what Caballero told us the other day, also about “La Renfe” aswell, would have been impressive...”.

The stories of our informants denote emotions and feelings of nostalgia that translate into regrets for the dismantling of industrial facilities, the loss of jobs and the impact that this had on workers, their families and the community. It is, in the expression of Cowie and Heathcott (2003), the “nostalgia of chimneys” for the juxtaposition established by our interviewee among industrial ways of life, the good jobs it generated compared to those of current times. The speech also suggests with some sadness and helplessness that the dismantling of industry and the subsequent disappearance of the industrial heritage is also noticeable in the loss of the collective

[8] Such as "Cerámica Mérida", "El Gato", "Serafín Molina" in Calamonte and other factories in the towns of Aljucén and above all Bailén and Toledo more modern and efficient in the production process.

identity of the people who endured that process. It is also the case that the deindustrialization caused more than a change in the socioeconomic model in the city, a society of work: its ways and habits of life were dismantled. The closure of its numerous and varied companies and industries, meant the disappearance of the places that made possible the existence and formation of the social identities of workers in a locality where the relationship between industrial work and the community was very strong. In factories, companies or workshops, workers not only learnt to be workers in certain departments or sections, to develop skills, to learn work processes and their professional language, they also established relationships with those who participated in that process. They were integrated into the formal and informal organizations that were created there and intervened in collective actions in defense of their rights, but also in recreational, sports, and gastronomic activities. Work wasn't everything in the factory. There the workers established bonds of companionship, friendship, affection, sponsorship and commitments that crossed the manufacturing walls and led them to share their free time to go to the clubs, to dance, to drink beers, to play in the company´s soccer team, to participate in "mate"[9] competitions or in the meals that the company gave or organized themselves. Fifty years later they still feel the loss of their ways of life, of the values and norms that guided them, wondering if perhaps it could have been avoided, reviving and recreating that time as if it could be done again. In Mérida, deindustrialization was considered by their contemporaries as a conditioning factor in their lives, forcing them to embark on new paths in the field of construction, in the service sector (trade, tourism, administration) or migration.

The chimney built more than half a century ago is the symbol of the history of the factory of Juan del Río and his son Norberto. It synthesizes the transition from tradition to modernity. The artisanal production of solid bricks and Arabic tiles versus the mechanical manufacture of hollow bricks, *rasillas* and flat tiles. The first alludes to the traditional, the second opens up expectations for new times that also come to an end, and of which there is only a chimney left today. A mute witness of a past that has already disappeared and is wrapped in the smoke of oblivion.

Conclusions

Through this work we have verified that industrial brick chimneys are part of the landscape of Extremadura, and while they occur only sporadically, single it out, testifying to the fact that industrialization, although late and incipient, also arrived in the region and generated changes in the ways of earning a living. Productive and technological activities led to new constructions that transformed some of its landscapes and with them some of its inhabitants. The trail of chimneys, represent the memory of economic activity, the industrial development of the region, technological modernization, industrial work and the conditions, which were and the workers desire to improve them. Business entrepreneurship, work cultures, and moments of celebration, etc. As a sign of identity, they contribute to preserving the memory of societies or communities, marked by industrial work. They represent and give meaning to that past, which means that they serve to build the sociocultural and industrial history of these communities or some of their characteristics. Linking that industrial heritage, now forgotten, and with little protection, to oral history, to the testimonies of those who lived and worked in those industrial scenarios, it is essential to be able to understand that chimneys are more than just urban and rural landmarks that evoke an earlier time. They are the places around which the life of the factory and that of its

[9] It was a competition between people and consisted of killing, skinning and removing the intestines of cattle as fast possible. It was organised by the Mérida´s slaughterhouse.

workers developed. Reconstructing their life and work stories allows us to unravel the particularities of each industrial reality and rescue them from oblivion for populations.

In relation to Mérida, with the hypothesis that we had proposed in this work, we have verified that it is fulfilled, although with nuances. The lack of knowledge that our informants had about the presence and history of the city's industrial heritage and the little or no value given to it by those who knew it, lay in the fact that they handled a concept of cultural heritage reduced to its material dimension and associated with a distant past. This was especially true of the Roman era, and the life and work of the sociopolitical and economic elites. This prevented them from observing the few industrial vestiges, amongst which, one was the chimney, as heritage, and seeing themselves as protagonists and part of the past, that these remains represented. Only a few valued them as an industrial heritage. For that reason, most of the students were surprised to discover that the chimney was an *Element of Urban Interest* that had enjoyed heritage protection since the year 2000. However, we also found out, after consulting the municipal catalogue of protected goods and the most notable publications of local history, which was not contextualized, that we were facing a heritage that had been little studied scientifically and relegated to oblivion by the community. We also found that there was no accessible explanation that would inform the traveler or the citizen Emeritense of its meanings. The chimney, its history and working memories, were shrouded in the smoke of oblivion.

However, thanks to the oral history project, we discovered that, despite the fact that its decontextualization had encouraged its oblivion, its memory had not vanished, and that it persisted in some memories that we have recovered, built, interpreted and recorded. These memories told us about the history of the chimney and the factory with which it was associated, the sociocultural and historical environment in which it was built, and the set of facilities in which the production process of bricks and tiles was carried out. They also told us about machinery used, the work processes and technical knowledge that were applied and their changes over time, the division of labor by tasks, age and gender, working conditions. Also learnt were the relations between the employer and workers, festive events in the factory, life in the factory and the stages through which it travelled until it closed. In addition, oral history has not only been useful in expanding our knowledge about the chimney, but it has also allowed us to reevaluate it as heritage. This was done by documenting and recording through research, its intangible dimension that was not collected and by recognizing and academically valuing the guardians and creators of that heritage.

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Bibliography

Álvarez, José. María. *Materiales para la Historia de Mérida. De (1637-1936)*. Badajoz: Diputación Provincial de Badajoz, 1994.

Ayala-Carcedo, Francisco. J. *Historia de la tecnología en España*. Barcelona: Valatenea, 2001.

Barrientos, Gonzalo. "Transportes y comunicaciones en la Extremadura del Novecientos". *Revista de Estudios Extremeños*, 54, nº. 1 (1998): 207- 220.

Bermúdez, Nilda y Rodríguez, Marisol. "La fuente oral en la reconstrucción de la memoria histórica: su aporte al documental "Memorias de Zulia Petrolero"". *Revista de Ciencias Sociales* (*RCS*), vol. XV, n.º 2 (2009): 317-328.

Broder, Albert. Pérez de Perceval, Miguel Ángel, Sánchez, Alejandro, *et al.* (Eds.) *La inversión extranjera en la minería española*. Madrid: Instituto Geológico y Minero de España, 2014.

Caballero, José. *Maximiliano Macías y su tiempo (1867-1934).* Mérida: Artes Gráficas Rejas, 2008.

Cabo, José. Manuel. "Comienzos del maquinismo en la minería española. Práctica empresarial y técnica minera inglesas en Sierra Morena: The Guadalcanal Silver Mining Association (1847-1850)". *Revista de Estudios Extremeños*, 51, nº. 3 (1995): 745-774.

Castaño Félix. Jesús. *Los paisajes urbanos de Mérida. Una introducción a su estudio geográfico*. Madrid: Asamblea de Extremadura y Excmo. Ayuntamiento de Mérida, 1988.

Díaz, César, y Gumà, Ramón. "Patología, diagnostico y recuperación de chimeneas industriales de fábrica de ladrillo cerámico". *Informes de la Construcción,* 51, nº 464 (1999): 23-39. https://doi.org/10.3989/ic.1999.v51.i464.871.

Doncel, Javier. *Mérida, historia urbana (1854-1987).* Mérida: Excmo. Ayuntamiento de Mérida, 1991.

Folguera, Pilar. *Cómo se hace historia oral*. Madrid: Eudema, 1994.

García, J. M. "Horno de Hoffann para cocer ladrillos". *Revista de obras públicas,* nº. 9 (1871): 106-108.

García, Marcelino. *Manual completo de cerámica o fabricación de toda clase de objetos de tierra cocida*. Madrid: Librería de Luis Santos, 1939. http://bibliotecadigital.jcyl.es/i18n/consulta/registro.cmd?id=14962.

García, María Isabel. "*Evolución de los procesos de fabricación de la arcilla cocida estructural en la industrial ladrillera desde 1940 hasta la actualidad: Caso de la comarca de la Sagra"*. Tesis doctoral. Escuela Técnica Superior de Ingenieros Industriales. UNED, 2010. http://e-spacio.uned.es/fez/eserv/tesisuned:IngInd-Migarcia/Documento.pdf.

García, Juan. *Entre la manufactura tradicional y el desierto fabril.* Cáceres: Cámara Oficial de Comercio e Industria de Cáceres, 1996.

García, Juan. "La economía extremeña en el tránsito del siglo XIX al XX. Los avatares de un tiempo en crisis". *Revista de Estudios Extremeños* 54, n.º 1 (1998): 287-340.

García, Juan y Sánchez, Fernando. "La industrialización extremeña en los siglos XIX y XX. Un balance provisional". *Alcántara*: *Revista del Seminario de Estudios Cacereños* nº 22 (1991): 225-260.

Jiménez y Guited, Francisco. *Guía Fabril é Industrial de España*. Madrid: Del autor, 1862. http://bdh.bne.es/bnesearch/detalle/bdh0000167951.

López, Juan Carlos. "El periodo franquista en Mérida (1936-1975)". En *Historia de Mérida. Tomo II De los tiempos modernos a la contemporaneidad,* editado por Félix Palma, Juan Carlos López y Javier Jiménez, 469-515. Mérida: Consorcio Ciudad Monumental de Mérida, 2018.

López, Gracia. "Arte e industria valenciano: Chimeneas industriales de ladrillo en la comarca del H´Orta Sud". Revista Digital de la Real Academia de Cultura Valenciana, (2014): 1-34. http://www.racv.es/files/Chimeneas-industriales-ladrillo-en-Horta-Sud.pdf.

López, Gracia. "*Chimeneas industriales de fábrica de ladrillo en el levante y sureste español. Influencia sobre otros territorios. Estudio y análisis de las tipologías constructivas"*. Tesis doctoral. Universitat Politêcnica Valencia, 2013. https://riunet.upv.es/handle/10251/33181.

Lozano, María del Mar. "Urbanismo y arquitectura de Extremadura en torno en 1898, una etapa de tránsito". *Revista de Estudios Extremeños* 54, nº. 3 (1998): 973-1016.

Roca Antoni M. y Lusa, Guillermo. "Historia de la ingeniería industrial. La historia de la escuela de Barcelona (1851-2001)". *Documentos de la Historia de Ingenieros de Barcelona*, nº. 15 (2005): 13-94.

Lladó y Rius, M. "Nueva fábrica en Madrid: La cerámica madrileña". *Revista Minera*, tomo 31 (1880): 217-218.

Madoz, Pascual. *Diccionario Geográfico-Estadístico-Histórico de España y sus posesiones de Ultramar*. Tomo III. Madrid: Establecimiento tipográfico de P. Madoz y L. Sagasti, 1846. http://www.bibliotecavirtualdeandalucia.es/catalogo/consulta/registro.cmd?id=6353.

Mansilla, Luis. "Aproximación a la evolución de la tecnología minera a lo largo del siglo XIX". *Cuadernos de Estudios Manchegos*, nº. 36 (2011): 93-109. http://biblioteca2.uclm.es/biblioteca/Ceclm/ARTREVISTAS/Cem/CEM36_Tecnologia_Mansilla.pdf.

Melón, Miguel Ángel, Rodríguez, Alonso, Sánchez, R. "Los tiempos modernos". En *Extremadura, la Historia,* dirigido por Fernando Sánchez, 325-377. Badajoz: "HOY" Diario de Extremadura, 1997.

Mora, Julián (Dir). *Radiografía sociodemográfica, económica y territorial de Extremadura.* Asamblea de Extremadura, 2014.

Moreno, Isidoro. “El Patrimonio Cultural como capital simbólico: valorización y uso”. *Anuario Etnológico de Andalucía*, 1995-1997 (1999): 325-331.

Pedraja, Aurora Teresa. “Un sector raquítico. La industria extremeña desde mediados del siglo XIX a 1930”. En *La industria de una región no industrializada: Extremadura, 1750-1990”*, coordinado por Santiago Zapata, 115-162. Universidad de Extremadura, 1996.

Quintana, Ignacio. “Las instalaciones mineras de la mina Santa Catalina en Berlanga, Badajoz: Un ejemplo sobresaliente del Patrimonio Minero de Extremadura”. *De Re Metálica*, nº 10-11 (2008): 39-46. http://dialnet.unirioja.es.

Rabanal, José. *Mérida. Perfiles del pasado*. Ed. Amberley, 2009.

Ravoúx, Olivier. “El papel de los técnicos ingleses y de la industria metalúrgica en el norte del Mediterráneo (1835-1875): Una primera aproximación”. *Revista de Historia Industrial*, nº 6 (1994): 143-162.

Sánchez, Alejandro. (Dir). *Estudio del patrimonio minero de Extremadura*. Ministerio de Ciencia e Innovación. Fondo Europeo de Desarrollo Regional. Junta de Extremadura, 2009.

Sánchez, Alejandro. “Estudio del patrimonio minero de Extremadura”. *Cuadernos del Museo Geominero,* nº 12 (2010): 3-30. Instituto Geológico y Minero de España.

Thompson, J. K. J. “Transferencia tecnológica de la industria algodonera catalana: de la indiana a la selfactina”. *Revista Historia Industrial,* nº. 24 (2003): 13-49. http://www.raco.cat/index.php/Historia**Industrial**/article/download/.../86905.

Uriarte, Iñaki. “Euskal Herria, la industria fábrica del paisaje”. *Revista IeZ: Ingurugiroa eta zuzenbidea* nº 3 (2005): 51-61. http://www.eitelkartea.com/dokumentuak/2.kapitulua8.pdf.

A.S.O. “Vestigios de un pasado industrial”. *Diario HOY*, 25 de noviembre de 2006. Disponible en https://www.hoy.es/prensa/20061125/plasencia/vestigios-pasado-industrial_20061125.html]