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# TRANSHUMANCE HERITAGE IN THE STRUCTURING OF THE LANDSCAPE, CITIES AND ARCHITECTURE

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**Summary:** In the foothills of the Sierra de Guadarrama in Segovia, the main transhumant stockbreeders of Spain introduced a sophisticated framework of unique buildings which we will call shearing buildings, for the shelter, exploitation, washing and storing of wool. All of them were located next to the Cañada Real Soriana Occidental and were joined to each other through a complex system of infrastructures and cattle tracks which made the movement of large livestock population easier. This research tries to analyse and document all of the buildings and supporting elements of the landscape and the territory which, due to their lack of use, have disappeared from our environment or are highly damaged. To this effect and due to the limited existing documentation, the original sources of information are being consulted and the preserved remains accurately surveyed. This lets us reinterpret and rebuild the composition, construction, purpose and organisation of these buildings, laying the foundations for its future sustainability and preservation.

**Keywords:** Transhumance, Segovia, Shearing building, Wool scouring site, Cañada Real Soriana Occidental.

This research falls within the ones which are developed in the research group “Intervention in Sustainable Architecture and Heritage” coordinated by Dr. Pilar Chías, director of this research and the corresponding doctoral thesis. I would also like to mention that for its development this doctoral student was given a grant (university teacher training) from the the University of Alcalá’s own programme in the year 2016. Additionally, he was given a mobility grant for a stay of three months at the University of Évora (Portugal) in the Department of “Paisagem Ambiente e Ordenamento” under the supervision of Dr. Aurora Caraphina, aiming for a International honorary doctorate.

## 1. Introduction

Transhumance of livestock is a particularly Spanish phenomenon that flourished in the territory of the ancient Kingdom of Castile and that developed mainly between 1273 and 1836<sup>1</sup>. The purpose of this system was the livestock movement through the Peninsula to benefit from the more favourable weather conditions taking advantage of pastures and fodder that naturally grew in every territory. This kind of extensive livestock exploitation was highly sustainable and was established around a path: the cattle track at the two opposite ends: a place in Winter (meadows) and another in Summer (mountain passes). The 125.000Km of cattle tracks that still today assemble the vast Castilian territory reflect the importance and magnitude of this endeavour which was crucial for the development of our history.

The main purpose of this exploitation system was to obtain wool that comes from the merino sheep. This breed of sheep that was maintained and used exclusively in the territories of Castile produced the finest wool of those known until that time in the European markets (Caja 1631). Its demand increased progressively and was at its peak during the second half of XVIII century. Therefore and in the light of the new industry influences brought with the new Bourbon Royal dynasty, the main stockbreeders of the kingdom<sup>2</sup> started to build large buildings for the exploitation, storing and washing of the said wool. This fact let them reduce the time devoted to carry out the said tasks and guarantee the best spatial, environmental and technical conditions for their development. All of that equipped with an

<sup>1</sup> During these years the Honrado Concejo de La Mesta was in force, which was a national association responsible for the protection of transhumant livestock and cattle breeders. Even though and until now, the origin of the transhumance is unknown and its development, although very reduced, still takes place nowadays.

<sup>2</sup> In the second half of the XVIII century the most important stockbreeders were the monastic orders, the nobles and the rich of Madrid. The average size of the flocks of sheep that were owned during the same dates was around 20,000 head of merino sheep (García Martín 1992).



overwhelming deployment of operators<sup>3</sup> who formed an almost industrial image and unknown up to that time in the context of livestock transhumance. The vast majority of these buildings or shearing buildings were built at the foot of the northern foothills of the Sierra de Guadarrama, next to the Cañada Real Soriana Occidental and were located within the neighbouring villages or, on the contrary, isolated and adjacent to the same cattle route. In this fragment of 40 kilometres long were located in the year 1750 a total of 39 shearing buildings devoted to the exploitation of merino sheep<sup>4</sup>. In them not only the typical tasks of this event took place but also provided shelter to transhumant flocks of sheep and shepherds and all the workers and agents who participated in the tasks during the operations, around 25 or 30 days. Additionally and according to the noble position of the owners, these buildings had excellently made residences available which were integrated in these large industrial complexes. Therefore, a large part of the programme of these shearing buildings were devoted to provisioning, development and support of all of the residents.

After the War of Independence (1808-1814), the final departure of the merino sheep from our territory implied a price reduction for Spanish fine wool, which started the deterioration of the wool business and hence transhumance. Due to these reasons, the large buildings devoted to the shearing industry were gradually abandoned and were sold and systematically plundered as if they were quarries. Thus, the granite blocks of stone, tiles, cover frameworks, wooden parts and an endless number of structural elements faded away from its original location and in some cases there only remains the strong brick-laid walls.



**Fig. 1** Front face of the shearing building of Ortigosa del Monte. Photograph taken by the author.

## 2. Status of the issue

The issue of transhumance had a broad bibliographic impact since the study of Julius Klein (1936) called *La mesta*. This author opened the door to more studies that have made up a very extensive documentary corpus of very assorted topics. However and from the point of view of the composition of the territory, the landscape and the architecture of the foothills in Segovia, the studies are very limited and therefore, also the topics related to the typology and industry of shearing. This fact may be because this author established mistakenly the decline of the transhumance at the end of the XVII century (Bishko 1982) and therefore the shearing industry that emerged during the following century was initially outside this provisional period and also outside the first studies.



**Fig. 2** Aerial photography of the shearing building of Alfaro. NGI, AMS-56, H0457-F27487. Taken in the year 1956.

Consequently, García (1977), after proving that the XVIII century would have been the heyday of this industry, writes an important reference manual about the shearing industry in the Segovia area. A short text titled *Antiguos Esquileos y lavaderos de lana en Segovia* -Old shearing buildings and wool scouring sites in Segovia- (García 2001) which provides a complete view on the industrial structure of wool in the Cañada Real Soriana Occidental area. In it the architectural typology of shearing is described in the light of different documentary sources used and that served as a guide to the different researches that were carried out later. So this document opened the door to our study so we will try to increase and complete the original documentation given by it.

<sup>3</sup> In the shearing building of Iturbietta worked 300 shearers, beside officers, cooks and operators (Cano 1764). In the light of the numerous professions described in this document we could estimate a total of 450 or 500 workers.

<sup>4</sup> Most of these shearing buildings were located between El Espinar and Santo Domingo de Pirón marking the foothills of the mountains. However we have included in these figures the shearing buildings of the neighbouring villages of Villacastín, Muñopedro, Pedraza and Riaza. The latter two also at the foothills but at a greater distance.



On the other hand and as a singular approximation to the phenomenon of shearing in Segovia we should mention the study carried out in the monographic publication *El Esquileo de Cabanillas del Monte* -Shearing building in Cabanillas del Monte- (Cruz y Soler 2000) in which the functions and tasks developed in it are described. A building almost completely preserved and that, although the ups and downs of the times and current abandonment we can assimilate almost completely. Thus, this study provides us with a description of the morphological features of the building, drawings and architectural plans and hypothesis on the possible changes it underwent throughout its most recent history. Also it should be pointed out the ethnographic view offered by these authors on the tasks and traditions that took place during the shearing, as well as the tools used to carry out the said task.



**Fig. 3** Interior view of the ranch in the shearing building of Cabanillas del Monte. Photograph taken by the author.

Finally, in the year 2010, and as an end to this series of specialised publications, we could find an unpublished document (Muñoz et al. 2010) about the shearing building located in the city of El Espinar<sup>5</sup>. Nowadays this building only keeps its perimeter walls that gave shelter to the noble rooms of its former owners, the Marquesses of Perales del Río<sup>6</sup>. After its abandonment and due to being located in the city centre of this thriving city, the different parts of this building were demolished, plundered and altered throughout the years. This study documents the development of the said operations and sets out a hypothesis of graphic rebuilding of this industrial and palace complex. It should be pointed out the methodological accuracy carried out to seek the original documentation and information, as well as to develop the said hypothesis.



**Fig. 4** Front of the shearing building of the Marqués of Perales in El Espinar. Photography taken by the author.

Along with these more complete monographic studies, we have found secondary sources, like articles or publications of a distinct nature, which compliment the documentation generated by the former, but which do not add, generally speaking, more importance or significance to our object of study. That is to say, we find ourselves faced with indirect testimonies which do not give a deep and unique proposal in the study of these shearing buildings. With this in mind it is important to mention the references present in the *Inventario del Patrimonio Histórico Industrial de la Provincia de Segovia* -Historical and industrial heritage inventory of the province of Segovia- (Marqués 2009), in monographies on Spanish Economics and Geography (Larruga 1791) and even in travel guides like that of Antonio Ponz (1776).

On the other hand and from the point of view of the configuration of the territory and the landscape in light of transhumance, studies have usually centred on the complete path of the Cañada Real Soriana Occidental (García 1992) and not on a concrete form in the specific configuration of the Cañada de la Vera de la Sierra<sup>7</sup>. That is, the corresponding Segovian part of this important route. As a consequence of this we have not found documentation or studies which specifically study the differentiating reasons or aspects which favoured the establishment of this numerous group of shearing buildings in the aforementioned specific site. Nor on the modifying or altering of cattle tracks after the construction of these buildings, which, without a doubt, determined the outline of the route network to favour the moving of large existing livestock population in that time.

This is why, and to conclude, we find ourselves at a stage where we can affirm there is a big gap regarding the investigation developed about this group of shearing buildings, and especially from the

<sup>5</sup> This document is in the headquarters of the Fundación Santa María la Real del Patrimonio Histórico in Valladolid. I thank José Muñoz and Lucía Garrote for their attention and every facility granted to access and visualise it.

<sup>6</sup> The shearing building in Cabanillas del Monte and the one in El Espinar are the only ones declared to be sites of cultural interest. We may owe the existence of these latter two monographic studies to that status.

<sup>7</sup> Originally, the Segovian section of the Cañada Real Soriana Occidental was known by the name of Cañada de la Vera de la Sierra, because that path went along the lower part of this mountain range.



point of view of our discipline, architecture, but also and as we have mentioned before regarding the historic implication of these buildings in the configuration and composition of the territory and landscape. That is to say, we find ourselves facing a very little known phenomenon but with important economic, historic and social consequences whose existence transformed the rural environment of the Segovian foothills in the light of the great transhumant livestock industry.

### 3. Objectives

In the light of what we have seen, the fundamental objective of this investigation is the study and documentation of the shearing buildings which were built by the main stockbreeders of the Kingdom during the XVIII century and whose function was to harbour in the best conditions the main tasks devoted to the shearing and treatment of wool as well as to give shelter to the large livestock populations of transhumant merino sheep. Also, the objective of this investigation is to understand the consequences and implications derived from the existence of these buildings, which have conditioned up to now the assembling features which make up the Segovian territory of the foothills of the Sierra de Guadarrama.

Specifically and from the territorial point of view we will try to give an answer to the strategic determinant which helped and favoured the setting up of these buildings in the Segovian context.

With this we are trying to understand in detail the motives for this important concentration of buildings dedicated to shearing which did not occur in any other part of the peninsular territory<sup>8</sup>. Additionally, we want to know what the landscapes changes derived from the existence of these buildings and the modifications or alterations carried out in its territory were.

In return, and from a point of view of the architecture itself, it is our objective to separate the typology or architectural typology which were born in the light of the new livestock requirements and the industrial context. The structure of shearing buildings have important spacial, functional and constructive characteristics which we believe are susceptible to be investigated and which we will try to illustrate in the light of some of these questions: how is the typology of the shearing buildings really put together? And what were its main strategic determinants? Which aspects do its morphology, composition and construction respond to? That is to say, what is the relationship between the form and function? Additionally, does there exist any type of typological variation? In the affirmative case, to which determinants does it respond to? Therefore did this typology serve as a model for other wool farms? So from the answers we obtain, we will try to suggest different graphic hypotheses of the reconstruction of these shearing buildings which will let us understand its original configuration, its evolution over time and know the real implication of these buildings in the territory.

With this group of objectives we are trying to give a scaling vision, which starts in the comprehension of this part of the territory and which culminates in the architectural detail. That is to say we are trying to form a documental graphic and written corpus which serves as a reference for future investigations, and which tries to unify the existing documentation. This we have been able to verify after our first approximation and valuation, although it is susceptible to be corrected and amplified. So, it will be fundamental for the understanding of this fragment of the territory to know the history of this place, its landscape and territorial evolution over time and all of this will let us understand the bases for its future sustainability and conservation.



**Fig. 5** Interior view of the ranch of the shearing building of Hondátegui, in Trescasas.

<sup>8</sup> Most of the big land owners of the XVIII century sheared their herds in the province of Segovia with the exception of the herd of the Monasterio de Guadalupe which did it in Extremadura near their own monastery and the Duque del Infantado who did it in Buitrago de Lozoya on land he owned.

## 4. Methodology

The methodological system which we are developing in our investigation is organised around four stages derived from obtaining the different types of resources and sources of information required. This fact responds to the demands and particular circumstances derived from our object of study, whose bibliographic and documental sources are quite scarce. Also, the methodology applied does not respond in an independent form to any of the questions raised, but rather it is through its convergence and all-encompassing nature, which convert themselves into generators of their own singular information.

### 4.1 *Work in the field and surveys*

As we have mentioned most of the shearing sites were abandoned after losing their utility from the end of the XIX century up until the middle of the XX century. The decline in transhumance and new forms of transport<sup>9</sup> brought them to a lack of use and so to their abandonment and, later on, destruction. All this has meant that today the observation, understanding and positioning of these buildings has become a complicated task.

Field work is helping us geographically find the surviving fragments of these edifications and thus their original locations. Added to this, the adjacent and organising infrastructures which, along with their own shearing buildings, allowed them to carry out the mandatory and anthropological tasks typical of this type of livestock. With these visits we photographically register and carry out an accurate survey of the current state of these buildings. All of this lets us incorporate information related to the construction and composition through freehand sketches and establish synergies between the different shearing buildings in regard to its origin, morphology, structure and execution to move towards a graphic reconstruction using an architectural design tool.

### 4.2 *Compilation of documental sources*

The lack of bibliographic documentation means that in this investigation it is fundamental to proceed to analyse the original sources of information. Documents and historical testimonies are a fundamental tool to understand the functioning of the shearing buildings and their evolution through time. In this sense, the documental sources that up to now we have revised and got more information from are the following:

#### 4.2.1. *Catastro -land registry- of the Marqués de la Ensenada (1750-54)*

The documentation found in this enormous document which can be found in the Provincial Historical Archive of Segovia (PHAS) offers us a complete picture of the configuration, inhabitants, size and resources that in the middle of the XVIII century came together in each one of the settlements included in the scope of our study. In this, there is a register of all the shearing buildings and wool scouring sites as well as the name of their owners, the number of sheep sheared, the weight of the wool obtained and its market value. At the same time, and of special interest for this investigation, we ascertained the geographic location of each one of these buildings, the number and description of the animal sheds at those sites, and the different complementary infrastructures traditionally associated with these types of buildings.

#### 4.2.2. *The geographical, statistical and historical dictionary of Spain and its overseas possessions (Madoz 1846-1850)*

Approximately a century after the development of the Catastro of the Ensenada, we found this encyclopaedic document that also provides us with a unitary vision of the Spanish population. In it, we can find information regarding the shearing buildings in the descriptions of the different neighbourhoods, towns and cities that are located in our scope of study. However, and because of the lack of the regulatory purpose of the previous document, the information on the shearing buildings is not unitary. That is to say, in some cases, we find very accurate documents that describe with many

<sup>9</sup> At the beginning of the XX century transhumance movements began to be made by train so getting rid of long movements on foot which could take around 30 days (Rodríguez 2004).



details the configuration of these buildings<sup>10</sup>, which are of vital importance for our research, and, on occasion, much smaller and anecdotal descriptions, or even nonexistent ones.

#### 4.2.3 Archive Documentation

Most of the original documents and historical testimonies we have analyzed, and that have shed most light during our research, are located in the PHAS. In it we have located numerous notary protocols in which the orders, contracts and conditions with which some of the refurbishments carried out in the different Segovian shearing buildings were made<sup>11</sup>. Also, we have accessed several purchase and sale contracts of land and licenses for construction and for the establishment of these buildings in their new context<sup>12</sup>.

Linked to the heritage of the important noble and livestock families, we have been able to analyze different inventories and patrimonial payments, in which the individual sheds of their shearing buildings, their state of conservation and their programmatic function are detailed. In some of these documents they even provide the exact dimensions of each of the rooms, and their distribution and internal organization is described as well as the list of objects that were found within<sup>13</sup>. All this, allows us to make a fairly accurate image of the configuration and construction of these buildings, as a complement to the fieldwork done and to the additional documentation located.

Finally we highlight that the archive work shows us almost systematically the agents intervening in the building of these refurbishments carried out in these shearing sites. Thus, it is habitual to name the different master stonemasons, builders and carpenters who participated in them. Sadly, the same thing does not happen in the case of the architects, whose names have disappeared from the vast majority of documents, so that, up to now, the authorship of the majority of these buildings remains anonymous.



**Fig. 6** Satellite photo of the shearing site of Iturbietta. Google Earth, 2016.

#### 4.2.4. Testimonials of visitors and travellers

In the National Library of Spain, there are some documents that make partial or secondary reference to the Segovian shearing sites, and that they are to be found in different travel guides and visitors diaries<sup>14</sup>. These records document the course and proper development of the different operations and work carried out in the shearing sites, and they lend to our investigations a different view from the rigorous and thorough documentary archives. The combination of both types of documents allows us to understand the functioning of these buildings, in order to establish the relationships between their morphological and functional aspects.

Likewise, in the National Library of France, we have located a series of reports and news items related to the work of classification and washing of fine wool in Segovia. This fact is the result of the investigations carried out by different French agents, once they had acquired Spanish merino sheep<sup>15</sup>, with the aim of importing into their country the Segovian classification and washing systems. Thanks to this, we have tremendously exhaustive graphic and written documents, which detail the composition, functioning and morphology of this complex washing system<sup>16</sup>.

### 4.3 Historical Cartographies and Aerial Photographs

<sup>10</sup> Highlights the descriptions of the shearing buildings of Iturbietta and Alfaro, which dedicate a complete and independent entry. The other shearing sites are detailed in the individual reviews of each locality.

<sup>11</sup> So far, we can highlight the finding of 24 especially relevant notary protocols.

<sup>12</sup> PHAS, P.2944, fols. 381r-392v, Segovia, 1744, and P.2970, fols.358r-377v, Segovia, 1748.

<sup>13</sup> PHAS, Marquesado de Lozoya, ML-43, No11, Cabanillas del Monte, 1765.

<sup>14</sup> The most relevant belongs to Alonso Cano (1764), and in it, the shearing site of Iturbietta is described in much detail.

<sup>15</sup> The first official export of Spanish Merino sheep happened in 1761, after the Family Pact between the Bourbons of Spain and France. Specifically, 80 sheep, 39 rams and 3 lambs left (Teyssier 1997).

<sup>16</sup> It emphasizes the investigation carried out by Poyféré de Cère (1808), on the Alfaro wool laundry.



Until the beginning of the XX century, we did not have cartographic records relevant to our study in the scope of our investigation<sup>17</sup>. The first editions of the National Topographic Map (NTM), corresponding to the Segovian<sup>18</sup> foothills, provide us with relevant information regarding the compositional aspects of the territory. In them, we can observe the productive structure of their soils (crops and pastures) and, above all, the whole livestock network in all its dimensions<sup>19</sup>. Along with all this, the location, name and delimitation of many of these shearing sites were registered, which has facilitated their search, documentation and georeferencing.

The Cartographic Minutes and Maps of Populations (CMMP), which were also drawn at the beginning of the xx century, provide us with important information regarding the integration of the livestock structure within the populations in which there were some shearing sites. This allows us to understand the magnitude of livestock herds that accessed these buildings in light of the length of the routes. However, the most relevant graphic records on the geometry and configuration of the shearings are found in the various photogrammetric flights taken during the XX century over the Peninsula<sup>20</sup>. Thanks to them, we have been able to document the different stages of regression suffered, facilitating the surveying work and subsequent graphic reconstruction.



**Fig. 7** La Cañada de la Vera de la Sierra (NE-SW) as it passes through the Segovian foothills. NGI, NTM, Sheet 483, Segovia, year 1927

#### **4.4 Comparative and approximative studies**

Once all possible documentary and bibliographical references concerning shearing sites have been exhausted, it becomes necessary to resort to indirect instruments from which to extract information to formulate new conclusions, and to design the different reconstruction hypotheses. Thus, and through the observation and study of similar, confluent or reference buildings, we can explain the original configuration of our shearing sites. To this end, we are studying the different models of contemporary industrial exploitation, and whose relationship is feasible, in regard to its programme, relevance, closeness, architect and construction. With this in mind, the Royal Crystal Factory of La Granja stands out as well as the industrial and residential complex of Nuevo Baztán, or the different palaces and royal houses that were located next to this place.

### **5. Results and conclusions**

In the light of the investigation carried out so far, we have tried to organize the results and conclusions based on the questions that were lacking in answers or whose initial approaches were likely to be expanded and revised in the framework of our investigation.

#### **5.1. Strategic positioning**

In the first place, we have tried to understand and to reason the motives that favoured the implantation of all these buildings next to the Segovian foothills. To this end, we will try to extend the general opinions proposed by García (2001) during the development of the thesis, namely: the geostrategic situation, the favourable conditions of the environment, and the closeness to the Court of Madrid.

<sup>17</sup> With the exception of the work done by Pedro de Brizuela in 1627 (Archivo General de Simancas, M.P. and D., VI-58); which, in any case, does not provide information on the subject of our study.

<sup>18</sup> National Geographic Institute (NGI), National Topographic Map (NTM), Sheet 483, Segovia, 1927

<sup>19</sup> Even today, this network of cattle routes is conserved in relatively good condition because it crosses mainly hilly areas, and continues to be used by different breeders (Elias and Bacaicoa 1997).

<sup>20</sup> Especially relevant are those taken on the American Flights Series A (1945-46) and Series B (1956-57), NGI.



Specifically, and in relation to the environmental conditions, we are in a position to extend his views after analyzing the ecological conditions that shaped this landscape naturally, as well as those generated by the hand of man (Martinez and Molina 2017). Thus, the studies analysed demonstrate that in this fragment of territory not only can we find high quality grasslands produced by the natural thawing and high rainfall of the Sierra de Guadarrama, but we also find some lands with a productive capacity much higher than any other similar ones. This is due to the existence of an important network of *caceras*<sup>21</sup> -irrigation channels-, which artificially formed the hydrographic configuration of the landscape (Martín and Pinillos 2005). Also, since it has not been treated so far by other authors, we cannot ignore the existence of an important forest mass in the foothills of the Sierra de Segovia (Madrado 2007) whose historical importance remains to this day, and with all certainty served as an incentive for the creation of these buildings.

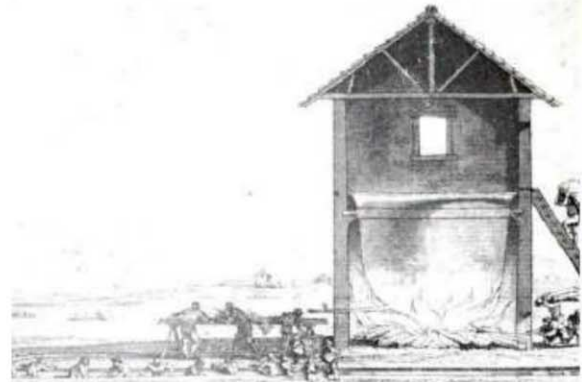
All this responds, therefore, to the initial questions raised, and gives us information about the specific positioning of these shearing sites in their context. The existence of the *caceras* provided a great quantity of water to the settlements of the foothills and explains, consequently, the existence of these shearing sites in the context of the population and cattle routes<sup>22</sup>. This is a fundamental resource for the feeding of flocks and the large numbers of workers, as well as for the washing of the numerous fleeces of wool. In addition, livestock were able to enjoy highly productive pastures and of excellent quality that were constantly watered by these channels, which guaranteed and ensured their food during their stay in Segovia.

On the other hand, it is demonstrated the crucial importance of having nearby wood resources for the full operation of these industrial complexes. The wool washing system that was traditionally used in Segovia<sup>23</sup> required an important quantity of wood, which would also be required to acclimatize the rooms and bedrooms in the light of numerous contenders for the wood<sup>24</sup>. Also, we must mention that the wood required for the construction of these buildings had to be of sufficient height and quality, since in some cases the spans to be covered reached 12.5 m without intermediate supports<sup>25</sup>.

## 5.2. Architectural typology

In this second stage, and in the light of the different studies already mentioned, we are faced with the rethinking of the shearing site as a unique and original architectural typology of the Segovian foothills, as well as its possible variables within this same context, and influences as an architectural model of exporting wool.

The internal organization of these shearing sites is well known, and consists of a set of rooms that are directly related to each other, and that form the core of the typology, namely: the sweatroom, the ranch, the markets, the branding pens and the wards<sup>26</sup>. Around it were located the rooms destined to the lodging of owners and workers, as well as those storing the food provisions for the latter during the time that these operations took place.



**Fig. 8** Wool scouring site in Segovia. The large suspended cauldron stands out. André Dubuc, 1791.

<sup>21</sup> The *caceras* are natural channels, manmade, whose purpose was the derivation of waters flowing through streams and rivers, and whose destination was that of supplying settlements, and the irrigation of meadows and crops.

<sup>22</sup> All Segovian shearing sites are located next to a constant source of water, either along the natural course of rivers and streams or next to the said *caceras*.

<sup>23</sup> The type of washing that was practiced in the Segovia foothills was first operated with the removal of the fleeces and later with washing in lukewarm water, which was heated in large cauldrons (Casas N 1844).

<sup>24</sup> In 1777 a complaint was made after the felling of 900 oak trees for use in the wool scouring site of Riaza (Madrado 2007).

<sup>25</sup> This length, documented by the author, complies with the width of the cradle of the Iturbietta shearing ranch, whose framework must have been connected with a Spanish wooden truss.

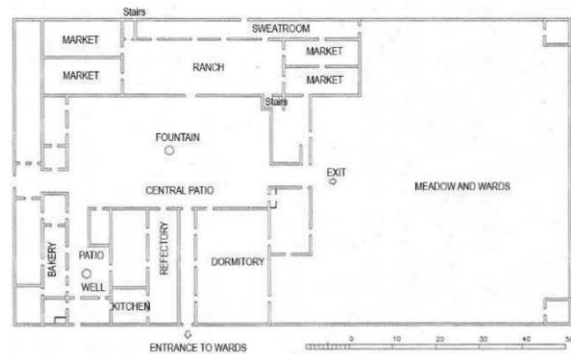
<sup>26</sup> The sweatroom was designed to make the sheep sweat to facilitate the extraction of wool; the ranch to the tasks of shearing; the sheds stored the already cut wool; and in the branding pens the sheep were branded with the tar and the iron of each livestock owner.



The study and analysis that we have done on the basis of the configuration of these buildings, and in relation to the composition and morphology of their rooms, reveal a well defined typological structure whose scheme is repeated, with little variation, in all the Segovian shearing sites. Their rooms are defined with their own nomenclature<sup>27</sup>, and they have specific formal characteristics linked to the tasks that had to be carried out in them according to an entirely original programme. That is, they are not multipurpose spaces that could accommodate any type of function, but are designed and expressly executed so that they can shelter, in the best possible way, the development of the different tasks and requirements needed.

However, the typological variable observed in the Cabanillas shearing site, and the almost identical coincidence of the latter with the hypothesis proposed by García (2001) in the Iturbietta shearing site, have led other authors to try to reflect it, invariably, in their approaches and hypotheses without querying it. This fact has led us to think that all the Segovian shearing sites had the same internal configuration and, therefore, not to find another range of typology or, rather, typological variable.

In the course of this research, and after numerous field visits, surveys and analysis carried out on all these buildings, we have been able to find different grouping formats, which offer a much richer view of this type of shearing sites<sup>28</sup>. With this, we can affirm, in the light of the documents that corroborate it<sup>29</sup>, that it was not, therefore, a systematic repetition of a fixed and limited typology, but rather the adaptation of the same, through its morphology and needs, to the conditions of the environment in which it is found. These facts are manifested in the configuration of the different volumes, the composition of the patios, their adaptation to the terrain, and in the location and programmatic organization. This is what we will try to document, demonstrate and draw throughout our thesis.



**Fig. 9** Graphic reconstruction of the shearing building of Iturbietta. Image made by the author.

### 5.3. Reconstruction hypothesis

Finally, and in the light of the aforementioned results and conclusions, the research is in a position to propose a first hypothesis of graphic reconstruction. The chronology of these reconstructions, as well as the selection of the building object of each study, is linked to the quality of the remains conserved in terms of their state of transformation. Together with them, the documentation found in each building acts as a natural guide for the steps we took in our investigation.

The shearing building of the Marqués de Iturbietta<sup>30</sup>, which is the subject of this reconstruction, finds itself in a state of ruin and very advanced abandonment after being completely plundered in the mid-twentieth century.

In it, all the elements that made up this space were lost, such as the blocks of stone, the supports, the roof trusses and the roof tiles. Therefore, the image that we can contemplate today, in which the walls of masonry are hardly standing, is very different from the old reality of this building<sup>31</sup>. Likewise, there



**Fig. 10** Reconstruction of the Shearing building of Iturbietta, made by García (2001). Translated by the author.

<sup>27</sup> This nomenclature is repeated invariably in all the historical documents analyzed so far, even in those shearings sites outside the province. National Historical Archives, D-C, 198, N.23.

<sup>28</sup> The typological similarities of the Hondátegui shearing sites in Segovia, in Trescasas and that of Ortigosa del Monte, stand out, showing a configuration very different from the one mentioned.

<sup>29</sup> PHAS, P.2738, fols. 322r-360v, Ortigosa del Monte (Segovia), 1745.

<sup>30</sup> This building is located at the junction of the Cañada de la Vera de la Sierra with the Cordel de Santillana, municipality of Revenga, Segovia (40°53'15.77"N, 4° 4'4.48"W).

<sup>31</sup> In order to extract all the elements of stone and the wooden supports, the collapse of the walls of the upper floors was caused. This has formed a new topography that has completely altered the original level of the floor.

are no obvious or planimetric data on the latter that can be reconstructed unquestionably and reliably, although there is a very relevant testimony describing its configuration (Cano 1764). García (2001), drew the design of this building, in the light of this document, and proposed a hypothetical programmed location linked to the surveying of the ruin.

After carrying out field visits and surveys, as well as studying and analysing all the documentary sources available to us<sup>32</sup>, we were able to bring to light a large part of this building that had been overlooked in the reconstruction by García (2001). Thus, the ground plan we propose demonstrates the existence of an important ward, intended to shelter sheep, which occupied a large part of the plan, and which formed the second courtyard of this building<sup>33</sup>. Likewise, we have been able to document and reconstruct most elements that configured it, as well as the composition of gaps and the material used in the main facade of this building. All this has allowed us to form an approximate image of the real magnitude of this shearing building, whose constructed dimension reached 9,620 m<sup>2</sup>, and which, therefore, proves the importance and transcendence of these great wool complexes built during the XVIII century.

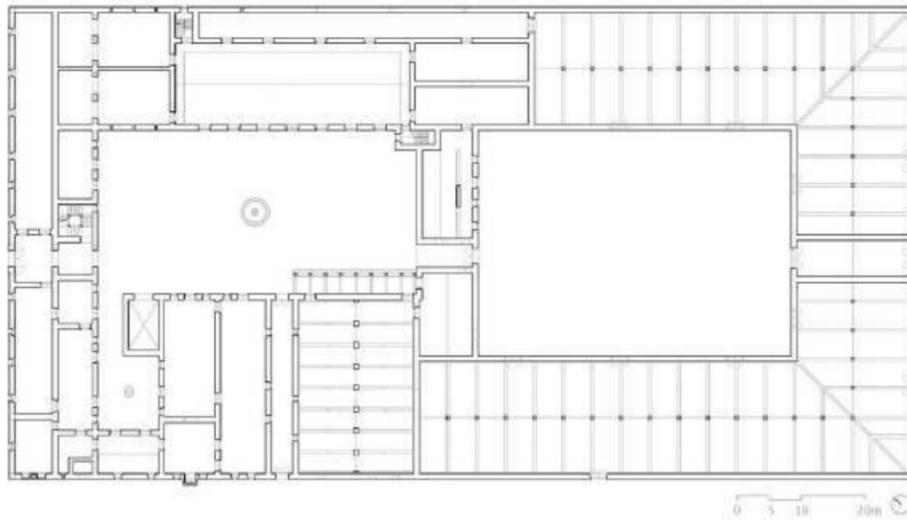


Fig. 11 Graphic reconstruction of the Iturbietta shearing plant. Author's drawing.

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<sup>32</sup> The re-reading of Cano (1764) and Madoz (1846-1850), and NGI photogrammetric viewing, AMS-45/47, H0483-F173, and NGI, AMS-56, H0483-F9549 were particularly productive.

<sup>33</sup> The protection of the sheep was necessary because they were very damaged after shearing due to having lost the layer of protection provided by the wool. If they got wet or cold they would very often die (Del Río, 1828). The yard served to acclimatize and accustom them to their new state in accordance with the evolution of the climatology. Specifically, this ward occupied 3240 m<sup>2</sup> constructed and the yard 1688 m<sup>2</sup>.

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