

THE *CARAMELA* DWELLING – THE IMMATERIALITY OF THE MATTER

Teresa Sampayo¹, Inês Oliveira², Paulina Faria³

¹ Palmela County, Museum of the County of Palmela, 2954-001 Palmela, Portugal, e-mail: sampayoteresa@gmail.com

² NOVA School of Science and Technology, Dep. Civil Engineering, 2829-516 Caparica, Portugal, e-mail: ic.oliveira@campus.fct.unl.pt

³ CERIS and NOVA University of Lisbon, NOVA School of Science and Technology, Dep. Civil Engineering, 2829-516 Caparica, Portugal, e-mail: paulina.faria@fct.unl.pt

ABSTRACT

Adobe construction is very common in Portugal. Pinhal Novo parish is estimated to have more than 200 dwellings made of adobe masonry, all built in the early 20th century. Most of them are now in ruins, but some still remain in use. Through the years people have been making some refurbishment to improve their living conditions and comfort. Some interventions contributed to increase the durability of the dwellings. This study intends to present the *Caramela's* culture, how it came about in this particular region and its dwellings characteristics addressing the building technology, materials used, built elements and structure composition. It started with the work developed by the Museum of Palmela County and a study performed in 2008 by an architect, it has been updated this current year (2017) and is mainly based on oral sources and in situ survey.

Keywords: Oral source / Immaterial heritage / Dwelling / Masonry / Adobe

1 INTRODUCTION

A wall results from a combination of materials. The types of materials differ from region to region; the building techniques adapt to the available materials and the know-how of each time period. But ultimately a wall is a functional structure that shelters and/or divides an area. Is it possible, from these wall structures, to rescue another dimension of history?

Starting on the work developed by the Museum of the County of Palmela (from now on designated as Museum) it will be demonstrated that, although matter is visible and touchable, it should include and integrate another dimension to be complete. This dimension is an intangible cultural heritage.

2 INTANGIBLE CULTURAL HERITAGE AND ORAL SOURCES DATA-BASE

The «intangible cultural heritage», according to the Convention for the Safeguarding of the Intangible Cultural Heritage means «the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated there with – these communities, groups and, in some cases, individuals recognize them as part of their cultural heritage. This intangible cultural heritage, passed

on from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity» (UNESCO, 2003).

Portugal rectified this convention in 2008. The “Divisão do Património Imóvel, Móvel e Imaterial do Departamento dos Bens Culturais da Direção Geral do Património Cultural” has the mission to develop and perform the Portuguese cultural policy, promoting their study, safeguard and dissemination. Nevertheless, their existence and safeguard depends almost exclusively from the communities, which detain that heritage. That is why the Museum started the Oral Sources Archive, in 2003. The research that is performed on different themes include, whenever possible, gathering of oral sources by interviews. The selection of interviewees depends on obvious requirements: coherence and clarity of ideas, capacity to talk, regular memory processes, participation in the events. It is a goal to obtain information concerning the life of each interviewee – starting with questions of a late past, retreating to previous generations (name, original birth place and parents’ occupation), childhood memories, professional life, etc. – so that it is possible, after gathering a considerable number of interviews with different people, on the same theme, to draw a realistic scenario of a past time period.

But there are discordant opinions about the role of oral history. Pierre Bourdieu, a known French sociologist, condemned the appeal of individual memory to define the portrait of a society. In his opinion, the course of life results from a combination of abstractions and random events, non linear chronologically and, therefore, completely distinct from History. An artificial meaningless creation (Bourdieu, 1986).

The Museum, being aware of the singularity of oral sources, considers their absence in a contemporary research a dramatic silence in History. The event report by the voice of who lived that event is an important source, even though crucial, for the knowledge and understanding of facts. Not only because of the content but also by the way of expression. The oral sources gathering technique not only collect data from words but also from gesture, facial expression, silences.

«(...) we had six brothers and we all slept together in a small kind of bed (*tarimba*). The room does not, well, because I was the youngest I had a difference of age from the oldest of eighteen or nineteen years and the oldest got married and left. If they were to stay four, they were staying three. But it was a small rough wooden bed made up of a dais in the floor with some blankets on the carpet and we slept over some blankets covered with others. (...) The dwelling had in a winery and there we had the bed. And my sister was the one that was sleeping in a small room, on the side of my father. But there was a partition wall. There were very small rooms only with space for the bed and a chair, or something similar to place the lamp on»

(Joaquim Cavaleiro, 72 years old, interview performed in 2003).

The present approach is in agreement with Paziani (2010) interpreting individuals and specific groups while anonymous people but characters of History. Each action implicates a consequence and it is by the conjunction of this set of actions, of path traced individually, that History materializes.

3 CAMELA CULTURE

Framed in a research project using oral sources, the Museum was motivated to look to

the earth dwellings spread in the rural area of Palmela county. The aim was to know and understand the use of the term *Caramelos* by the population of Pinhal Novo parish – one of the four parishes of the county. Although it is a territory characterized by a permanent entry of people from different regions of Portugal, in chronologically equivalent human mobility flows, this term appeared as a figure of powder and union; as the main bastion of local identity. It designates the symbolic process of social, cultural and politic construction and re-construction, strategically designed and carried out by the local actors. Today it is understood that its use creates and disseminates a collective conscience of the territory; it expresses and congregates a set of narratives and practices of the community of Pinhal Novo about themselves and their relation with others.

Originally the term referred to groups of men, women and children that came from the Central Northern coastline region, seasonally for periods of about nine months to work in big farms in the Pinhal Novo region. From *Caramelos* “to come and go” they turn in to *Caramelos* “to stay”, in a spontaneous colonization of the territory that welcomed them. Here and there they built small dwellings with adobe masonry walls that document the settlement process.

So, it was the search to understand the meaning of the term, and the memories associated to it, that lead to the *Caramela*’s dwellings typology. The collected memories draw a portrait of day to day life, distribution of working tasks by the different members of the family, the neighborhood, the gastronomy, etc. And everything led to the form of appropriation of the domestic space.

«The popular dwelling is one of the most meaningful and relevant aspects of landscape humanization, in which, on their big diversity of types, appear, with popular evidence, numerous fundamental constraints – geographical, economic, social, historical and cultural – from respective areas and human groups that built and inhabited in» (Oliveira and Galhano, 1998, p.13).

The nowadays called *Caramela*’s dwellings are a testimony, by their similar characteristics, a collective cultural process of adaptation and land appropriation. In a territory that expands beyond the border of the county of Palmela, the dwellings point out in the landscape. Some are in total ruin, others alone, very few still in use and even less trying to fulfill actual comfort requirements. But while remaining in the landscape those walls enclosure histories of those who inhabited them, as examples of complementary between built heritage and immaterial heritage.

This research work gave way to two exhibitions which had as a motto the architectural dimension of this settlement process. A “pedagogical briefcase” [W1] was also created, inevitably exploring the earthen-based regional construction, which contains some examples of the Worldwide Built Heritage of UNESCO. Later on a protocol established between the Museum and Foundation Childhood Occupation Centre (COI) gave birth the Pedagogical *Caramela* Farm which has, among other valences, the recreation of a *Caramela* dwelling [W2]. Free visits to this farm of scholar groups are included in the annual pedagogical program of the educative Service of the Museum.

In the context of research and articulated with the creation of a small think tank on cultural heritage of the county, an architecture student, friend of the Museum, helped to understand this architecture. He voluntarily performed the first attempt of location data survey in 2008 (Fig. 1). About 200 *Caramela*’s dwellings were identified. The research gave some answers that allowed to understand the settlement process in the territory that gave way to build these dwellings but not about their future.

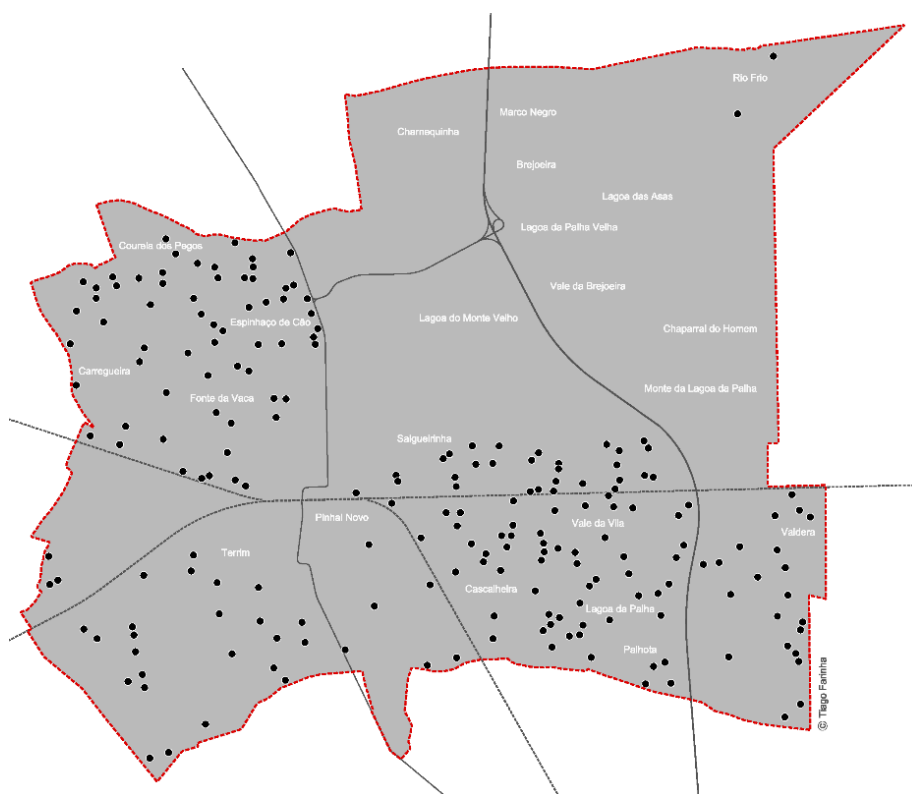


Figure 1: Map from 2008 with *Caramela*'s dwellings located in Pinhal Novo, Palmela, Portugal (unpublish survey of Tiago Farinha)

4 ONGOING RESEARCH

4.1 FRAMEWORK

As presented in the previous session, it is therefore urgent to understand the meaning and the value of these dwellings, to discuss what can be done and, hopefully, how to provide owners the conditions to preserve *Caramela*'s dwellings. Therefore, the NOVA School of Science and Technology of the NOVA University of Lisbon contacted Palmela's county and are trying to contribute to the research, for now on the parish of Pinhal Novo. This contribution has also the support of the DB-Heritage project financed by the Portuguese Foundation for Science and Technology, that is gathering a database of materials used in old buildings with the aim of contributing for efficient and compatible interventions on the built heritage, and Centro da Terra Association that is trying to map the location and specificities of earthen-based constructions all over Portugal.

Palmela is a large county located in a central area between two rivers; Tejo in the North and Sado in the South. Pinhal Novo is a rural small town located in the Lisbon's and Setubal's suburbs taking 5444,3 Ha of area from a total of 46512,01 Ha of Palmela's county [W3].

Historically the *Caramela* dwelling emerges at the beginning of the 20th century. As said in the previous section, it resulted from migrant movements between the central-northern coastal region of Portugal and some regions of Palmela country for the harvest period. Therefore, people started to build some temporary dwellings where to live during that period. As time went by, they settled and started to build long-stay dwellings: the *Caramela* dwelling. In the will of José Maria dos Santos, owner of Rio Frio homestead, there were guidance for transfer of plots of land for families who wanted to settle (Cabrita, 1999). The objective was to assure available manpower in the territory. After some years, a huge region was populated by *Caramelos* as never before. A similar situation occurred in the *Comporta* region, in the South side of the river Sado, with people that were coming for the rice harvest. But as it is a sandy region and therefore the type of dwellings that were built applied different materials – in that case, wood and vegetal fibres (Bruno and Faria, 2010).

In the central-Nord coastal region (the region from where the *Caramela*'s population were coming) the *Gandaresa* dwelling was popular (Fernandes and Tavares, 2016; Fortuna, 1997). Both were regions with clayish soils, lack of stone and financial resources and many sources of water. Therefore, it was standard to build with earth because it was available and cheap. So adobe masonry was the predominant type of construction in the begging of the 20th century.

4.2 DEPLOYMENT OF CAMELA DWELLING IN THE TERRITORY

Focusing the study in the Pinhal Novo region, these dwellings were very isolated and rural. Most of them were located in agricultural fields without neighbours. There are two different plots of land types where the dwellings are located. In the East of the parish, the land is geometrical distributed due to a process of breakdown of land. In the West of the parish, the plots of land are very disorganized and the roads are very curvy. In both cases, the dwellings have not a standard of implantation. Some are placed very next to the roads; others are very far. The only rule that seems to apply in this matter was that the dwellings were built in the highest point of the plot of land to avoid flood in the rainy season.

From the survey performed in 2008, in 2017 many of the 200 dwellings that were identified have been sadly neglected over the years and nowadays some of them have turned into ruins. Most of the dwellings are now being used as warehouses or animal shelters to support agriculture activities.

The dwelling's owners consider these constructions too poor, and it is usual to find other dwellings that are bigger and more recently built next to them. Those new dwellings are built with fired bricks and cement-based materials. Earth and wood are no longer used to build.

4.3 THE CAMELA DWELLING – TYPOLOGY, BUILDING TECHNOLOGY AND MATERIALS

4.3.1 Typology

Generally, these dwellings were built with the main facade facing East. The original plan of the dwellings was rectangular, with the kitchen on the right side facing North, bedrooms on the left facing South and in centre the living room. Usually, there were two exterior doors, one in the kitchen and the other in the living room.

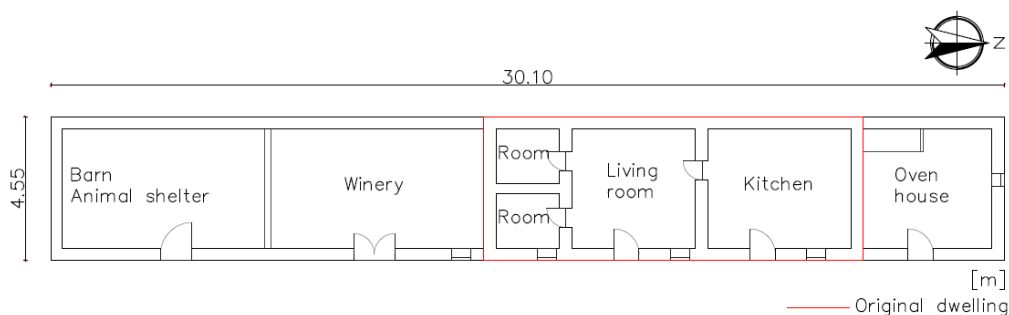


Figure 2: *Caramela* dwelling original house plan located in Vale da Vila, Pinhal Novo, Palmela, Portugal (2017)

The kitchen had a large chimney for cooking and heat. The living room was a decorative space for visits. There were two, very small rooms, where all the family slept. The main room, facing the facade, was for the parents, and the other was for the children, mainly for the girls (Fig. 2). When the family was too big, boys had to sleep in exterior spaces (as reported in the oral survey, presented in section 3). These kind of dwellings were associated with complementary constructions: the winery, the barn, the animal shelter and the oven house. Sometimes, when there were many children, boys could not sleep in the main dwelling due to lack of space. In that case they stayed near the animals because it was warmer.

4.3.2 Building technology and materials

As it was said before, it was common to build with materials directly from the land. There were some specialists for the dwellings construction process, always men who lived in the neighborhood, who knew all the techniques and proper materials. A dwelling was built by a taskmaster, with the help of the family members that were going to inhabit it.

The dwelling had a dynamic plan: it would grow in the following years with annex divisions and other structures, essential for the rural economy, as the pit, the tank, the animal shelter.

The taskmaster searched for a proper clayish earth and used it to produce the adobe blocks. The process was very simple. The main materials were coarse sand and clay is hearth. They were mixed together on the field by foot.

It was common to add some natural fibers coming from agricultural activities because it could improve thermal behavior of the dwellings. After the mixture was ready, it was compressed into a wood mold, typically called “adobeira” or “adobela” in Portuguese.

«An *adobela* was used. Furthermore, the clay was stacked up. It was stacked up with water. And was mixed with our feet. Treading with our feet, two to three people, four treading the clay mix, even children, well, that were seven or eight years old that should have been in school, were doing that task».

(Joaquim Cavaleiro, 72 years old, interview performed in 2003)

The next step was letting the blocks dry in open field exposed to the sun during 2 or 3 days allowing water to evaporate. During that time the dimensions of the blocks started decreasing (clay-based materials shrunk) so it was possible to remove the molds and the manufactory process was complete.

The typical adobe blocks from this region are parallelepiped and approximately 0.50 m x 0.30 m x 0.13m. All over of the world, this kind of construction was only made during the hot season. The Construction time period was variable, because it depended on the number of people who helped building the dwelling.

4.3.3 Built elements and dwelling composition

The foundation of the dwelling was done with excavation throughout future walls. Afterwards it was filled with different materials. Some sources indicated adobe blocks, like the one for the walls, and another mentioned it as filled with some stones and fresh adobe mix for layering it.

Originally the dwellings had adobe masonry exterior walls with 32cm thick (masonry made with the second dimension of the blocks), layered with an earth-based mortar made with the same clay used for the adobe production. Outdoors the walls were rendered with an air lime-based mortar and also lime washed (painted with an air lime milk).

Indoors the dwellings had two partition walls made of adobe masonry, but with a smaller thickness (the blocks were layered with their smallest dimension). They could be plastered with an earth-based mortar and finished with a lime wash. Alternatively, these partition walls were built with wattle and daub (a light wooden structure with small section wood or cane, filled and coated with an earth-based mortar and lime washed). The lime wash was generally white, as Fig. 3 shows, but the one of the kitchen and the oven house was pigmented with ocre.



Figure 3: *Caramela* dwelling located in Lagoa da Palha, Pinhal Novo, Palmela, Portugal (2017)

The original floor was only compacted earth.

The roof had a wooden structure, generally with two roof sides with ceramic roof tiles originally without any ceiling lining. That structure was supported by a wooden beam on top of the adobe walls. In more recent times a false lining of MDF or other materials were used in the bedrooms and the living room, to assign more comfort, but generally not in the kitchen.

Windows had small size, with wood frames and interior wooden covers. The exterior doors were also of wood. Indoors there were two different scenarios. Poor houses had no doors; curtains were used to separate compartments. Afterwards curtains could be replaced by small wooden indoor doors. On top of the doors and windows it was normal to use wooden beams to support the adobe masonry.

Masonry buttresses were sometimes used outdoors, but almost all the dwellings had horizontal iron stabilizing rods from the façade wall to the opposite wall confining them (Fig. 4). Some sources believe that masonry buttresses were used not only for seismic confinement but also for aesthetic reasons, because the dwellings looked stronger.



Figure 4: *Caramela* dwelling detail of iron stabilising rods in Vale da Vila, Pinhal Novo, Palmela, Portugal (2017)

5 DISCUSSION AND CONCLUSIONS

This survey focused on the characterization of Caramela's dwellings, a very typical construction in this region. The construction materials and techniques used were very simple and very similar to the Gandaresa dwelling due to a very strait connection between the central-Nord coast of the country's culture and the origin of caramela's culture. The big difference between them is the surroundings. Caramela's dwellings are isolated rural houses. The main materials were coarse sand and clay. The plaster and render were based on air lime and sand and the walls were lime washed. Inside, all the structures were made by wood. Most of the houses were white with a blue or red bar in the main facade.

Now, in 2017, and after almost a decade from an initial survey, the Caramela's dwellings remain on the landscape. But a great number aren't in use, left to abandonment and other problems on the renders and roofs occur, letting water accessing the inside of the building and especially their adobe walls. The owners, generally grandchildren of the initial ones, do not seem to be interested in the dwellings itself but more on the land where the dwellings are built so they can sell it for future constructions.

What should and can be done? If nothing is done these important witnesses of a time in history and a stage of territory development will disappear. Should the involvement of other agents that can contribute to draw a plan of intervention and can contribute to the preservation of these dwellings be encouraged? And should that plan only admit conservation and repair? Or should it include rehabilitation, in the sense of upstanding the requirement standards that the dwellings can fulfill and allow new uses?

To answer these questions and to preserve these constructions a study is being done. The main goal is to collect as much information from the elder generations as possible

on the typical process of construction and the original materials used. Most of them still remember some details about this kind of construction. As soon as the typical process, the composition and mechanical behavior of this kind of construction is known, the more possible it would be to understand the best step to take to preserve this important heritage.

Concomitantly, the work around the oral sources will allow us to collect information about the inhabitants, the social dynamics, the local traditions, the know-how and the knowledge that, being only transmitted orally from generation to generation (and we are talking about a community that did not have the opportunity to go to school), otherwise it would have been lost throughout time. And it is that narrative composition that we want to build, from the events that the memory kept (the oblivion is an essential part of the memory, for which the process of the unspeakable must be integrated in the process of reflection), and in its relation with the place and the matter. History has to be made, precisely, from the interpretation of this relation between the material and non-material heritage, which cohabit.

There is still no answer for many of the questions but the fact is that these dwellings are built based on earth walls, seems to be an advantage nowadays, due to ecological and environmental concerns of society.

6 REFERENCES

ANDRADE, Paula, 2006 - **Pinhal Novo: Movimentos Migratórios dos “Caramelos”, Povoamento e Construção de uma Identidade Cultural**. MSc thesis. Lisbon: Faculdade de Ciências Sociais, Universidade NOVA de Lisboa.

ALEGRIA, José, 2000 - **Da Paixão...Da Terra...Da Arquitectura**. Darquitterra.

BOURDIEU, Pierre, 1986 - **A Ilusão Biográfica**
<http://pt.scribd.com/doc/52032536/BOURDIEU-Pierre-A-Ilusao-biografica-in-Usos-abusos-da-historia-oral>

BRUNO, Patricia, FARIA, Paulina, 2010 - **Cabanas de materiais vegetais na Herdade da Comporta. Tradição construtiva e novas abordagens**. In: Terra em Seminário 2010, M. Fernandes, M. Correia, F. Jorge (Eds.), Coimbra, Portugal, 240-243. Argumentum, Lisboa.

CABRAL, Carla, 2011 – **Património Cultural Imaterial. Convenção da UNESCO e seus contextos**. Arte e Comunicação. Lisboa: Edições 70.

CARVALHO, Ana, n.d – **Os Museus e o Património Cultural Imaterial. Algumas Considerações**. <http://ler.letras.up.pt/uploads/ficheiros/8935.pdf>

CABRITA, José, 1998 - **Entre a Gândara e a Terra Galega**. Colecção Origens e Destinos, 2. Pinhal Novo: Junta de Freguesia de Pinhal Novo.

CABRITA, José, 1999 - **José Maria dos Santos. E Antes de “Grande Agricultor?”** Colecção Origens e Destinos, 3. Pinhal Novo: Junta de Freguesia de Pinhal Novo.

CABRITA, José; SOUSA, Aníbal, 2006 - **Rio Frio, Retracto de uma Grande Casa Agrícola**. Colecção Origens e Destinos, 8. Pinhal Novo: Junta de Freguesia de Pinhal Novo.

DIAS, Mário, 2000 - **Círios de Caramelos**. Colecção Origens e Destinos, 4. Pinhal Novo: Junta de Freguesia de Pinhal Novo.

FERNANDES, Maria; TAVARES, Alice, 2016 – **Adobe**. Cadernos de Construção com Terra 2. Lisboa, Argumentum.

FORTUNA, António M., 1997 – **Memórias da Agricultura e Ruralidade do Concelho de Palmela**, Câmara Municipal de Palmela, Palmela.

RIBEIRO, Orlando; LISBOA, J. Ribeiro, 1998 – **As Transformações do Povoamento e das Culturas na Área de Pinhal Novo**. Coleção Origem e Destinos, 1. Pinhal Novo, Junta de Freguesia de Pinhal Novo.

OLIVEIRA, Ernesto; GALHANO, Fernando, 2000 - **Arquitectura Tradicional Portuguesa**, Lisboa, Dom Quixote.

PAZIANI, Rodrigo, 2010 - **Problemas, Limites e Possibilidades: os Paradigmas dos Desafios Bibliográficos**. Revista Brasileira de História & Ciências Sociais, 2 (4), 146-158.

POLLAK, Michael, 1989 - **Memória, Esquecimento, Silêncio**. Estudos Históricos. Rio de Janeiro, 2 (3), 3-15.

SAMPAIO, Teresa, 2005 - **Memórias do Habitar – Arquitectura e Vivência Caramela**. Boletim + Museu, 4 e 5. Palmela: Câmara Municipal de Palmela, Museu Municipal.

SAMPAIO, Teresa, 2009 – **A apropriação do Apelativo Caramelo na Construção Identitária do Pinhal Novo**. MSc thesis, ISCTE. <https://repositorio.iscte-iul.pt/handle/10071/1467>

SAMPAIO, Teresa, 2012 – **Conversas de Poial. Quando a Memória é a Várias Vozes**. Palmela: CMP, 2012.
https://issuu.com/museumunicipaldepalmela/docs/publicacao_poial

SOUSA, Aníbal, 1988 - **Pinhal Novo - um Breve Retracto**. Conference História de Palmela ou Palmela na História, 14-15 March 1987, 169-183. Palmela: Câmara Municipal de Palmela.

UNESCO, 2003 - **Convention for the Safeguarding of the Intangible Cultural Heritage**. Paris.

W1 - <https://tinyurl.com/hzdxcbc>

W2 – <https://tinyurl.com/h9392tz>

W3 -

http://www.dgterritorio.pt/cartografia_e_geodesia/cartografia/carta_administrativa_oficial_de_portugal__caop/caop_em_vigor/

ACKNOWLEDGMENTS

The authors wish to thank architect Tiago Farinha for the data from the 2008 survey, Sara da Silva Carreira, graduated in Portuguese/English Translation for the text review and Fundação para a Ciência e Tecnologia for supporting project DB-HERITAGE – Database of building materials with historical and heritage interest (PTDC/EPH-PAT/4684/2014).