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Title:

BUILDING A HOUSE AMONG THE VERNACULAR BUILDINGS OF
MORENOS (SOUTH ALGARVE, PORTUGAL)

Abstract:

Vernacular architecture emerged in the middle of the XX century as a source of inspiration for numerous architects. Throughout the contemporary era, the words vernacular and local architecture changed to a tradition that could be understood, reused, and evolve. Nowadays, vernacular and traditional are put under a microscope to see what technics, forms, and materials can and cannot be beneficial in new stylist high technologic houses. There are a large number of clients and architects that try to regain the sensations of comfort and uniqueness by bounding to a legacy of regional stories and images. Habitat is the place where all symbols and syncretism come to life and where the socio-cultural expressions come together, illuminating the heritage of each housing as well as the community. This article will observe an intermediate space of encounter between traditional and contemporary architecture, and develop some reflections on how contemporary architecture incorporates traditional symbols and techniques. During this article, I will describe my fieldwork experience during my stay at a small village in the south of Portugal.

Keywords

Rural heritage, vernacular, craftsmanship, architecture, tradition, symbols, oral tradition, local narratives, Algarve.

Introduction

Coming to light first with the *Inquérito à Arquitectura Popular em Portugal*¹ in the fifties and later with the works of Rudofsky, Rapoport and Oliver in the sixties, quickly spreading to schools and ateliers of architecture, design and art, what seemed to have been forgotten suddenly became a role model to follow since the early eighties.

After the Second World War, and in consequence of the industrial revolution in the early nineteenth, we changed significantly the way we build and use our homes in Europe. We typically spend more time indoors and use synthetic and chemical materials that isolated us from the surrounding environments.

Interpreting vernacular buildings and their different types of use can offer answers to contemporary problems, such as the accelerated environmental imbalance, a direct consequence of the industrialization of building materials. Furthermore, it can help us understand the inefficiency of contemporary buildings to regulated their inner humidify and their deficient thermal capabilities.²

Natural building materials combined with adequate architecture create living spaces where the environment is protected, and an increasing number of consumers on the housing market feels comfortable and rooted³.

It is possible to imagine the marriage of vernacular knowledge and the modern world. Natural materials can encourage the creation of structures that are designed not in confrontation with nature, but driven by it and work in harmony with it. This can link our contemporary housing with our vernacular building heritage.⁴ When there was no other architecture than the vernacular, knowledge was transmitted, re-used and adapted locally. Men and women experienced different forms of spontaneous architecture throughout their lives. The generalization of industrial construction disrupted not only forms but also ways of living. The present progressive acceptance of the intrinsic worth of forms and materials of almost extinct ways of living may create new ground.

Tradition becomes a metaphor for understanding how we live and connect to urban and rural societies. Many people find gratification in contact with the creativity of pre-industrial communities, if no longer in the original environment, in evocative manifestations, even if they go all the way to the pastiche or the decorative object.

Throughout this article, as a consultant, for a natural building company⁵, I will draw from my personal experience, working together with the habitants of small

villages of the Algarve region, Portugal. My extended contact with the most straightforward realities made me feel that their buildings generated a sense of tranquility, understanding and belonging, where the beauty of a building is a form of joy and not a statement of power, and function is what defines shape and size. The houses demanded constant attention from their owners, which made me feel they were living and cherished.⁶ There was a direct balanced exchange between the house and the builder/house owner. That results in a mutual respectful compromise where both protect and safeguard the longevity of each other.

Intermediate space

The meeting point between traditional and contemporary architecture is a space of transition, where self-learned and oral knowledge plays a significant role. When the vernacular knowledge is part of a platform between the traditional and the contemporary, a process is set in motion that tries to create a space of its own. This intermediate space, with the complex local changes it implies, allows the rising of solutions through the reading of vernacular buildings.

In this intermediate space, both traditional and contemporary knowledge meet as equals. If once local craftsmanship was associated with limited resources and simplicity, it is now seen as something unique and demonstrative of skill quality.

The link between craftsman and society depended on the idea that local artisans were unschooled, and had little connection to the outside of their small communities. The result was the mythical assumption that makers and their creations were one, leading many to write about "spontaneous architecture"⁷, "invisible architecture" (Mario Piana)⁸, "architecture without architects"⁹ or "anonymous builders" (Rudofsky)¹⁰, and other expressions, sometimes suggesting that buildings *happen*. This creates a scenario where tools and materials have no other stated reason besides being local and abundant. Techniques meet the materials available and are shaped to the capacities of the habitants, who need many generations to master a *native* craft. However, this also creates a scenario where action/reaction *happens* as an organized set of tasks and conventions, which are essential to the people who live by these traditions,¹¹ and where spontaneity would invalidate the seriousness of the sequence of choices.

Rational understanding does not harm the spontaneity of the creation, but instead clarifies the method by which it was constructed. The description of a creative

process helps to understand how art and crafts *do not just happen*. Where inexplicable creativity lives, there is undoubtedly a method, and such descriptions may serve perfectly as a structure for understanding architectural narratives¹².

Vernacular buildings can be a source of inspiration. Everything was done with criteria for a function. Even the humblest buildings contain a myriad of details that add grace and style and reveal the owner's aesthetic values. These details leave a historical record of the occupant's skills and daily preoccupations.¹³

My encounter with Morenos

As a student, I was impressed by the experiences of Hassan Fathy¹⁴ and Nader Khalili¹⁵, where the vernacular traditions provide solutions leading to innovation and creativity rather than imitation.¹⁶ When I began working as a researcher for the Anthropology Museum of Tavira, in Algarve, my duties implied visiting a large number of small mountain villages, to collect data for the museum's permanent exhibition. Through these visits, I discovered a closed world inside the mountains, where many still used donkeys as transportation and had little or no contact outside their rural context. Many of the inhabitants of such villages I interviewed, had rarely seen the ocean just a few kilometers away. They looked at me with curiosity and showed me their daily customs with kindness. I found one of these settlements particularly interesting, this was Morenos, a village set in a valley in the mountainous border of Algarve and Alentejo, a small place crossed by a stream, with around seventeen houses on both riverbanks and a cluster of dwellings inside the river curve.

When I first entered the village, this region was still within the vernacular tradition: all the houses were built with shale stones collected directly from the stream, local earth and lime were used to produce the mortar binding the stones, and the roofing was made with terracotta tiles on a frame of local river reeds and eucalyptus wood beams. Both roof tiles and floor tiles were baked in the nearby kilns of Santa Catarina¹⁷.

The houses were divided into small rooms, each with a precise utility and without connection to each other¹⁸, opening to a central courtyard. This was the transition area for the rooms and where their habitants would spend most of the day. The courtyard worked as well as a connection to the outside, as a place of reunion with neighbors and family, and also as a place of work, where fruits and vegetables

were sorted. Most of the daily domestic occupations were performed in the open air, giving to the courtyard a central and fundamental role.

In the center of the house, at one end of a porch, there was often a tank filled every day with fresh river water. This was the only water supply, used for drinking and cooking, for plants and animals and all daily chores. In the hot, dry areas, water is the life of the house and therefore symbolically placed in the center of the housing complex so it can be easily accessed from all directions¹⁹. Houses had no plumbing system in the kitchens, nor toilets or bathrooms. It was simply not necessary, as people bathed in the river and used dung zones as toilets.

The kitchens were an open fire with a large chimney, where pork meat was smoked. It was a very dark room, where we would spend several hours during winter, exchanging stories and stirring the fire. The pans were made of iron and cooked sweet potatoes and other local delicacies. Most of the food came from their work in the fields. Each act of consumption translated a long chain process and several efforts. They would produce the cereals and make the flour to make the bread once a week; that day women would work the dough and men would collect the wood to make the fire.

Houses were built in a direct connection to the nature around them. Animals lived in harmony with the inhabitants of the house; they were kept safe, comfortable and alive to produce cheese, honey and eggs; or to be slaughtered and produce meat. At any rate, their pens were constructed with the same materials and dedication as the houses for people.

In most cases, there was electricity, but often people preferred to use oil lamps. Radio was the only electrical appliance, but in later years a new compartment was created, called the TV room. People worked on the land and with the animals every day from dawn till dusk, only going home mostly after work and during meals. Between habitants exchange was very active, goods and foods were shared as well as tools and natural resources (such as wood or water), and most of the tasks were done in a collective rhythm. The exchanges inside the village were made with fruits and vegetables, wine and bread, or seeds and plants. In the city and at local markets, people would sell their surpluses and in exchange, bring home what land could not give them, like sugar, coffee or rice.

This village had the peculiarity of being on both banks of a stream with no bridge to cross it; thus, many times, when the river flooded villagers, with their

horses and donkeys loaded with groceries to sell in the vicinities, would have to wait a few days before being able to cross to the other bank, filling the local establishments with amusing tales.

One of the most socially aggregating activities of every village was whitewashing²⁰, which was also a necessary act of hygiene, performed before a celebration or to mark the beginning of seasons, symbolically giving a new face to their homes. Once a year, the habitants used to get together in the morning to burn the lime for the following year and prepare the mix, pigments and surfaces. After the painting, people spend the day together “eating and drinking” inside the new fresh homes. In Morenos, as in other villages of southern Portugal, people used to paint big white crosses, which due to the brightness of the lime, could be seen from far away, and were believed to give protection to their houses.

There are many examples where industrialized paint replaced lime; this shift represented damage to the local sustainability but also translated the new way of living in the village. I will look at two examples: a) the outside walls and b) the open fire room.²¹

a) The walls were whitewashed every year with lime offering a new white coat to the house that breathed, was antiseptic and cooling. To paint the outside walls with lime would prevent the weeds and roots from growing around the house and into the walls, opening cracks through the shale stones.

Industrial paint, recently introduced, had a negative impact both in terms of internal temperature and breathability, essential in hot weather zones such as Algarve, where lime keeps the heat away and in the environment, contaminated by the leftovers of such materials, during the application, and later, with the cleaning of the tools, on the local river. Since there is no information on the potential damages of these products, the habitants treat them indistinctly from natural paints. Also, industrial paint peels easily in this climate and peelings contaminate the earth; the peeled-off walls need to be repainted, and every few years the process is repeated, leading to more contamination. Although the aim is to have less maintenance and more durability, the results of such change do not seem to be up to those of whitewashing.

b) The open fire room could become a very dark area that had to be regularly painted, to bring back the light inside and, most importantly, for hygienic purposes.

The name whitewash comes from its antiseptic properties, when cleaning products were scarce or inexistent. The utilization of industrial paint is completely associated with the introduction of different kitchen fixtures, with plumbing, gas range, fridge and other appliances. The central fire loses the role it had as an aggregating element during the winter season.

The changes at the cultural level are innumerable to a point where traditions are lost and sometimes even rejected. During my research, it became difficult to open up a conversation about this topic with the local community. Lime was told to be poor, weak and unreliable when compared to other paints, so the villagers were caught up in a mix of information, between old and new; not having access to the science that proved them right, they preferred to remain silent.

If we look from the economic perspective there is a profession and a craft that are progressively fading away. Small acts, like buying lime on the local store, became difficult and chemical mixes replaced mineral pigments.

However, the losses are not only in the performance of the materials. The collective workforce needed to paint the house is no longer needed; and, with this, the promotion of social cohesion and the transmission of knowledge, in a long-lasting structured way, are prevented. The effort to perform such tasks is so heavy that, if not done as a collective workforce, it loses its potential to be effective.²² If there is only a small group of persons that know how to burn and apply lime in one village, and all the other villagers choose to do differently, automatically the collective work ceases to grow and the tasks became tiresome. The calendar of the village changed as festivities were connected to such practices. The autonomy and creativity of the villagers, in consequence, were undermined.²³

My building in Morenos

It was in this context that my student days fascination for Hassan Fathy triggered something: I saw a ruin, a mountain of stones with a huge olive tree in the middle of a small field, and I thought: I could rebuild this house myself. My companion at the time was keen on the idea; he was Dutch and I was from Lisbon but for the villagers we were both foreigners... We decided to do it and bought the property. Our first shelter there was a camping tent; and our first reason for contact with the villagers was to collect and store water. There, when it became necessary to build a tank, the villagers got together and helped us. Our contacts continued by trading the oranges

from our grove (and that was all we had to trade) with what the villagers had to offer. And they offered a lot.

Manuel and Adelaide had a house just like the ones I described above, and for many years, we lived together with them. As the working site was just 200 meters away, Manuel's house became our base, the place of meeting with the villagers and their heritage.

All the locals gathered to teach us how to build with shale stones, river reeds, lime and earth mortars and how to clean and reuse roof tiles that had lost their function in other ruins. People's enthusiasm was as big as ours, but they were intrigued by our choice. Why did we want to do everything following their advice with so much care, and with no external help from professionals or machines? At the same time, they were delighted to be able to recreate, reinvent and adapt techniques and solutions that were once current, now lost and associated with a form of poverty.

The first house we built there was similar to a goat pen in shape and proportion. It was a challenging job to do because it was the first house we built entirely of river stones. The stream bathed the plot, so we had direct access to the stones and collected them every day for months, trying to find the best shape and size according to the villagers' advice. It took a very long time because there is a small number of stones one can carry a day when they are so big and heavy. On the site, under the ground, there was a huge rock, but we only discovered that after we started. Because we had no machines to break it, we had to make a step. The result was a beautiful closet. Not wanting to risk a mistake, we decide to make a very small window, forged by the local blacksmith. It really looked like a goat house, but later with the charm of the plants and porch we build next to it, "the little house" became very pleasant to live in. It was a comfortable place, with a little window that viewed the river. From that moment on, that became our base.

When it came to reuse the walls of the complete ruin, we were helped by the old villagers' advice, as we were when it came to whitewash the walls. We used the local river stones technique again. This time we had some more experience. However, the work was much more than double. The ruin was five times bigger than the little house. With about 30m², many stones were needed to rebuilt the wall all around. As it had no roof for an extended period, the top stones of the walls started to fall. Many of the stones laying around could be reused, but many came again from the river in a wheelbarrow. It was necessary to rise about 40 cm of the wall to then place the roof

so we could have enough height inside. The challenge here was to match the stones that were already there with the new ones, trying not to make a visible separation line, and by doing so respecting the aesthetics of the wall.

With time we found that we needed more space. A boarded-up opening suggested an extension. By then, three or four years had passed since we arrived and the village had adopted us. No wonder then that when it came to this extension, the husband of Manuel's daughter, who was the constructor of most of the new houses around, came to give us his advice: nothing like a good insulated roof and double brick walls with insulation in the middle. So be it. Here, reasons of personal taste interfered: the view of the brick surface was so obtrusive that we built an outer stone wall.

Building with industrial materials was more accessible because the bricks were brought to the construction site by a lorry. The mortars to bind the bricks and for wall rendering were ready-made; and by this time we had a concrete mixer. However, what seemed "lighter" at first, became worse with time. We could feel the damages the materials were making in our respiratory system and skin. We finished the extension as planned, and the result was rewarding, but halfway we realized that industrial building was not healthy for our bodies.

After building the extension we decided, as mentioned before, to build another stone wall around to cover the bricks, but this wall not completed. Some parts were left to render and whitewash.

I liked the space here, it was large and bright and yet we could feel the materials such as the stones from the walls, the earth baked tiles on the floor and all the earth around us, as the house was in direct contact with the land. The conjugation of this space with the ones in the rehabilitated ruin worked well. However, in winter, the walls were comparatively colder than the ones in the part rebuilt in stone.

At this point I should mention the climatic conditions of the village houses. The way these people lived implied that all the doors were permanently opened to the courtyard, be it because of the circulation to and from the rooms, or because of the smoke generated in the kitchen. Therefore it is difficult to evaluate the climatic potential of the materials in cold weather. For at least two months it was cold, period. But they were not humid and had no mold. As the weather got warmer, and particularly in the extreme summer temperatures, the house was the good place to be

in. The baked earth tiles were always the coolest place to be. So many would simply sit on the floor.

We needed 80 m² more. After a disastrous attempt at making another room with lighter materials – by then, simply looking at the stones made our shoulders ache – we decided to seek help outside the village.

At this point, we came to know a German builder that was living and working in the city nearby. He had the knowledge and was looking forward to sharing it. He was so impressed with our effort that he became a permanent adviser. With him we started a new journey collecting information about lime, earth, straw and cork. He brought a scientific approach to what were the empirical methods of the villagers, but sometimes his north European rigor clashed with the easier going local rhythm.

The new house was totally built in wood and cork and incorporated the first structure we built, which became a large bathroom. The siting was particularly crucial in this case: being of a completely different material than the settlement's houses it was placed so that, both by being encroached in the slope and protected by a small cluster of big trees, it was inconspicuous.

When the house was ready we naturally invited the villagers there. When we were building the other houses they came to give us advice. This time they came out of curiosity to see how this house performed compared to theirs and the villas. "This house makes me feel good" Manuel said. I understood here that, more than form shape or style, what was important was the comfort, climatic and spacial.

During the period of my presence in Morenos, people living as I described above were already aged and losing vitality. One could already foresee the change to new ways of living.

Like many other villages in the Algarve hills, Morenos suffered the significant drain of population caused by emigration started in the 1960s²⁴. Villagers would leave to distant countries with no idea to return. When the sense of ownership and attachment to a building is lost, and habitants leave their homes to abandonment and degradation, houses merge back to the earth and the rocks from which they were built. A timeless and intangible cycle is closed, where what came from nature goes back to nature, and the trilogy human, shelter and surroundings leaves no imprint.

In Morenos, the small cluster in the river curve is still intact, but some houses on both banks have been destroyed and renovated. Examples of the self-made buildings remain untouched, but until recently, there was no interest or know-how in maintaining the history and vernacular architecture alive inside these communities.

Outsiders to this rural scenario, who had no notion about the potential of its built elements, bought many of these 'abandoned' or ruined houses to have them rebuilt and modernized. Local builders and architects were incapable of proposing solutions other than to destroy and build new houses in the current industrial materials and following whatever figurine was on in domestic architecture. Thus was cultural heritage erased, starting a long chain of negative factors with an impact on the local environment and social and cultural dynamics²⁵.

The new houses, mostly villas, were concrete frame/ceramic brick constructions providing modern lifestyle comfortable areas, with big rooms and big windows, air-conditioning, swimming pools and ornamental gardens instead of orchards.

These places became holiday homes and with their multiplication tourism started. Many farmers (especially those returned from their spell as emigrants) replicated this new type of building as fast as they could. Stone, lime and earth houses were replaced by these models and their owners would feel as if they were moving forward, because the new modern materials and the grandiosity of the big villas transmitted the idea of a better future. For the villagers, it was not just about the signs of power and richness that could be transmitted by this new housing form, it was also about the change that this brought on their everyday habits.

Nowadays, villagers perceive that new buildings bring along a diversity of problems that have been resolved by their ancestors²⁶. The villas have very bad thermal inertia and have zero breathability and ventilation, creating condensation zones and humid houses²⁷. Comfort relies entirely on modern appliances.

At the same time, locals understood that villas provided inadequate housing for people and animals, but going back to tradition was no longer an option. As if the peasants were part of a movement to which they did not belong; they had shifted and would have to learn how to live in the new houses.

The tendency to build airtight houses has led to problems concerning how vapor inside the building should be treated. Natural building materials can present several answers to these problems.²⁸ For example, the use of clay renders in contemporary buildings, depending on the thickness, can efficiently absorb the relative humidity of

the air, as shown by the analysis by engineer Prof. Dr. Ing. Christof Ziegert, Berlin Laboratories. In this study, it is possible to see the moisture absorbing properties of clay plaster when compared with other materials.²⁹

As stated by Schneider, the house should not keep us isolated from the outside world. It should select and filter, keeping out and expelling what is bad, and welcoming in and storing what is good. This is possible through the selection of the right location, appropriate materials and shape of construction, and the right technical installations.³⁰

Conclusion

How does contemporary architecture incorporate traditional symbols and techniques? As a result of my fieldwork, I experience it can be done through the use of traditional building techniques in contemporary architecture; or by using vernacular studies as reference models for industrial building solutions.

What did I learn, and what was my contribution to the community by making a house that crosses three different technical approaches? I believe that my personal experience both as a user and as a laborer helped me to understand problems where words like vernacular and contemporary are key.

The houses we built, were not humid, cold or hot. Because they had been built with local materials and according to traditional techniques. And at the same time, they were in perfect match to our contemporary lifestyle and needs.

These houses were integrated into the surrounding area and were very comfortable to live in. From the outside, they seemed exactly like the others in the village, because they were not disturbing the landscape. It was the landscape that defined the shape and the materials the house was made.

For the locals, this was particularly important because it did not out shadow their homes, and it brought a sense of richness to their traditions and their ways of buildings.

I realize that, when looking at the new houses, mostly villas, villagers feel diminished in their ways of building. The younger generations did not see their habits and traditions as something empowering. Yet they were won over by the easiness of the new ways. They were happy to lighten up the workload.

On the other hand, they felt that the contact with the new population, however, estranged from them, allowed the village to go on living. The fact that many houses

had been destroyed and replaced by villas was a form of keeping the legacy of Morenos alive. Even if it changed the looks of the landscape, the villagers were happy that the houses were not abandoned, and the hills were not empty. "The more people the better", the locals used to say. Even if many times they could not communicate with the new house owners, a simple gesture, like a greeting, was fulfilling, leading the villagers to feel part of a more significant community.

What I feel is that, not knowing anything about construction, when I arrived there, brought by juvenile dream, I managed to build a house which combines successfully my capacity to built according to local traditions, draw a space using what the mainstream building allowed, and finally apply the solutions of the new ecological approaches as a counter-proposal to the rapid invasion of villas in the village.

I am satisfied that I was successful because the house is integrated into the surrounding area and is very comfortable to live in. What I wish is that others, and especially, the ones nearby, see in it an example to follow for future practices. Especially the large number of foreigners that buys and restores houses in the Algarve.

Furthermore, I feel that in some way, I managed to bring into harmony what had charmed me from the vernacular and what served me from the contemporary.

Nevertheless, in consequence of the collective work that labor-intensive based methods demand, it is necessary that natural building materials, to present themselves as a realistic counter-proposal, to the rapid industrialization, must be adjusted to the new labor realities. Different companies are doing this in many different ways providing service and materials to a growing number of clients.³¹

¹ In 1961, the SNA (National Union of Architects in the fifties) published the result of this work, in two volumes, under the title *Portuguese Vernacular Architecture*. The survey covered all the territory of the Portuguese Continent, which for this purpose was divided into six regions, each one with a designated team of three architects: Zone 1 – Minho: Fernando Távora, Rui Pimentel, António Menéres; Zone 2 – Trás-os-Montes: Octávio Lixa Filgueiras, Arnaldo Araújo, Carlos Carvalho Dias; Zone 3 – Beiras: Francisco Keil do Amaral, José Huertas Lobo, João José Malato; Zone 4 – Estremadura: Nuno Teotónio Pereira, António Pinto Freitas, Francisco Silva Dias; Zone 5 – Alentejo: Frederico George, António Azevedo Gomes, Alfredo da Mata Antunes; Zone 6 – Algarve: Artur Pires Martins, Celestino de Castro, Fernando Ferreira Torres. During this research work, performed during the fifties, teams covered over 50,000 kilometres of land, by automobile, scooter, horse and feet. More than a 10,000 photographs, drawings and written notes were taken.

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- ⁷ Smith, Kieron. *Spontaneous Architecture*. Montreal: 2008. Notes for a thesis about Montreal's residential communities. *Spontaneous Architecture refers to the built form that 'emerges' from an anonymous body of authors. It is inspired by the desire to build things, to modify and to personalize space, that in turn, embody intimate meaning and purpose.*
- ⁸ Mario Piana is a Venetian restaurateur and conservator of historical buildings. During the biennale of Venice in 2012, he exhibited an installation together with Wolfgang Wolters called *The Invisible Architect*.
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- ¹⁷ The village of Santa Catarina da Fonte do Bispo is located 15km away from Morenos.
- ¹⁸ Houses differ according to their owner farming activities. In general they had: a bedroom for the owner couple; a kitchen (the place of fire); a room for children (in some cases); a TV room; courtyard; several storage rooms, some for food and others for tools; granary; animal pens; dung zone; porch/garage for storage of more significant tools and straw. The number of rooms varied, depending on how many children or family members lived together and the type and size of cattle.
- ¹⁹ In the hills of Algarve and Alentejo water is seen as a symbol of fertility, the house shadow turning around the place of water like a sun.
- ²⁰ Freire, Luísa. *O ciclo da cal [The cycle of lime]*. Lisboa: Campo das Letras, 2003.
- ²¹ The same scenario happened with the lime renders, which were replaced by cement renders, leading to both thermal and mould problems.
- ²² The collective work played a fundamental role, also in all the agriculture activities, performed by the villagers.

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- ³¹ Companies such as Kreidezeit in Germany, Embarro in Portugal and Alen&Calche in Spain.

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