

A new Phoenix from the ashes?

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1. Introduction and methodology

1.1. Framework

The parish of Cernache do Bonjardim, according to CAOP2011¹, is a small parish in the interior of Portugal, whose history dates back to the Late Bronze Age (about 700 BC)². In 1525, a reference was made to Cernache on a descriptive map that appears in the Codex of Hamburg. The late nineteenth and early twentieth centuries were a time of cultural activity and exceptional dynamism, creating an almost cosmopolitan atmosphere in Cernache do Bonjardim, which is extraordinary, considering the Portuguese conjuncture in those times and the fact that Cernache, then just a village, is located in the center of the country. After this golden age, due to various negative pressures, it gradually declined, until the current stagnation.

The orography of the study area consists of hills, with steep slopes, and agricultural areas, mostly located on plateaus, with small pieces of land and small owners. Cernache currently has 3,000 inhabitants (Census 2011) distributed in a territory with around 7,200 hectares. Desertification and the aging of the population are two of the great problems, being signs of its interiority.

Two opposing forces, water and fire, threatened this territory and its population: in the 1950s, the construction of a dam flooded a large part and, in June 2017, a forest fire devastated about half this territory.

¹ CAOP means Organizational Administrative Charter of Portugal.

² Batata 1998.

Despite all this, this community has shown innate resilience, primarily as a result of its persistence and high sense of belonging and pride, improved by the vernacular heritage the people possess, which allows them to remain in this territory, despite the setbacks they faced.

Regardless of the richness of its vernacular heritage, which increases identity, it is an underestimated territory, since all its wealth is little publicized. That's why one of the objectives of the basic thesis³ was the dissemination, registration, explanation and discussion of its heritage and use, serving as a support for future actions and territorial revitalization.

Those past catastrophic events will make it possible to study whether the population remains resilient, fighting for "their" land and "its" roots, allowing their parish to rise like a phoenix from the ashes.

1.2. Methodology

Bibliographical, iconographic and photographic research was done, simultaneously with field surveys that confirmed the information obtained and which posed new questions to be clarified in the bibliography, constituting a cyclical method of analysis. The bibliography that deals directly with the territory under study is quite scarce, in part due to a fire in the City Hall of Sertá in 1917.

Field surveys are absolutely fundamental to provide direct contact with people and constitute empirical methods⁴. These methods require the observation and investigation of events, verifying how people react to them. In the field under study, the collection of information directly from the territory, the populations and the development of an empirical basis for drawing conclusions constitute an important part of the research.

In order to evaluate the community's resilience, it is necessary to collect qualitative and quantitative data to help to define and understand better the object of study, but mainly to understand the relations between the parties that constitute it and the interactions between the object and its surroundings ("participatory method of action"⁵). For this purpose, direct inquiries were carried out according to the adopted

³ Gonçalves 2016.

⁴ Martínez Zárata 2006 and Serra 2006.

⁵ Serra 2006.

method⁶, taking the opportunity to collect information directly from the respondents.

The “qualitative method”⁷ was applied in order to deepen the knowledge about the study’s object, describing the observed events from the approach’s point of view.

The evaluation of the community’s resilience presupposes the observation and analysis of that community and has an eminently descriptive character about the environment that surrounds the inhabitants, aiming to include the opinion of the people in those situations, and being so-called phenomenological, informative or descriptive surveys⁸.

2. Characterization of the Cernache do Bonjardim’s parish from the point of view of community resilience

2.1. General considerations. The community resilience

Resilience has been pointed out as a way of predicting and dealing with problems caused by catastrophic or sudden disturbances⁹. It is important, from the perspective of resilience, to make the temporal distinction between a sudden disorder and a *slow-burn*. In the first case we have as examples the tsunamis or the Olympic Games and in the second case, the desertification of the territories or the global climatic change¹⁰. In both cases, there may be positive and negative disturbances. The territory under study has suffered a kind of slow-burn phenomenon, since the 1960s, at which point it began gradually to lose population¹¹.

When working on community resilience, bottom-up governance is emphasized, since people in the community need to know what will be best for them.

For this, it is necessary to know each other, which implies an analysis of the negative and positive aspects of the community. For this purpose,

⁶ Colussi 2000.

⁷ Martínez Zárata 2006 and Serra 2006 op. cit.

⁸ Ibid.

⁹ Atkinson, Dietz, and Neumayer 2007.

¹⁰ Pike, Stuart Dawley, and Tomaney 2010.

¹¹ Gonçalves, Perez-Cano, and Rosendahl 2017.

the method proposed by Colussi¹² was adopted, which is aimed at rural communities such as the parish in the study.

In this method it is intended, in a first stage, to elaborate what is called “Community Portrait”, CP, which is the “*description of a community from the perspective of resilience*”¹³, based on surveys and analysis of several factors. Based on these data, it is possible to elaborate a SWOT analysis, an advanced SWOT analysis and to draw conclusions. This method is based on the so-called “Community Economic Development” Plan, CED, that is, a plan to design a strategic plan for the community, valuing the positive points and improving the negatives. The next phase is the implementation of findings on the ground, but this point is not included in this study.

It is important to note that being more prosperous does not necessarily mean that more money is generated, but rather that greater well-being is generated: as Callaghan¹⁴ says “*the focus should be on development rather than growth*”. The intention is to increase responsiveness to new ways of thinking and focus efforts on key issues for the community in order to strengthen the community’s capacity to lead its own future¹⁵.

From the SWOT analysis¹⁶ it was concluded that: in relation to internal factors, the “strengths” seem to be superior to “weaknesses”, with a positive balance. It is a community where everyone tries to involve people in decisions, one in which a general sense of mutual support exists, employment is diversified, there is no fear of embracing another profession, most of the five largest employers in the parish are owned by natural persons and the illiteracy rate is not too worrying. However, there is some confusion as to whether or not there are specific economic objectives for the parish or if there is an economic development plan, CED; education, especially higher education, is not valued. These are aspects whose improvement only depends on the community itself.

With regard to external factors, “opportunities” are apparently inferior to “threats”, and therefore have a negative balance. It is an attractive community for those who come from outside; there are many informal

¹² Colussi 2000.

¹³ Ibid. pp. 1–21.

¹⁴ Callaghan and Colton 2008.

¹⁵ Colussi op. cit.

¹⁶ Gonçalves 2016.

associations and organizations, many kinds of infrastructures, there are “buy-in” campaigns to which the strong sense of attachment and pride in the community contribute. Nevertheless, it is a community that is threatened by interiority, desertification, population aging, unemployment, the loss of basic infrastructures such as health care, among others. These aspects are exogenous to the community and do not depend only on the characteristics of the community; however, there are some aspects that may cease to be “threats” if some internal work is done. An example of this is the fixing of young people with higher education: young people want to return to their villages, but there are no opportunities, they say. If these opportunities would be created, the likelihood of these youngsters getting fixed increases. This can be done, for example, through incentives to open an office, as in the case of some “business nest” models, or to create possibilities of “home-working”.

2.2. Impact and resilience caused by water

The characteristics of the Zêzere river before the construction of the Castelo do Bode dam (the *old river*) and after (the *new river*) are quite different. This change had a profound impact on the population of the Cernache do Bonjardim’s parish, since, among other things, the best farmlands were flooded (and some compensations were never paid); the systems for grinding the wheat were flooded, so many of them were lost, making it difficult to “*grind the bread*”.

The landscape changed: in about two years, a relatively narrow river, with some broad valleys where agriculture was practiced, was changed to an immense mirror of water, with an area of about 32.9 km¹⁷ where the steep slopes of the mountains end. An immense heritage was lost and the landscape was modified radically. The exploration for gold, which was carried out since the Late Bronze Age¹⁸, disappeared in the middle of the twentieth century, leaving only the *conheiras* (“an ancient alluvial exploration of gold, which may have been explored from the Chalcolithic to the twentieth century”¹⁹) as evidence of this activity.

¹⁷ Ambiente n.d.

¹⁸ Batata 1998.

¹⁹ Ibid.

Fishing was an important element in the medieval economy, and this region was very important due to its richness in fish. Before the Castelo de Bode dam (concluded in 1951), the Zêzere river and its two tributary streams (Cerdeira and Sertã) were abundant in fish, with barbs, bogues, trout, eels, shads and lampreys, for example. With the rise of the waters, most of these species disappeared, so that nowadays only largemouth bass and perch exist²⁰. Connected to fishing there are activities such as the manufacture of nets and the construction of the typical boats of the Zêzere river, the *abrangel* or *barco de três tábuas* (three boards' boat), still used today by the riverside populations as a way of mobility.

Much heritage disappeared, as did villages or parts of them: no mills are found today in the village of Moinhos da Ribeira (Stream's Mills); the village of Foz da Cerdeira, like some others was devoured by the floods; the wooden irrigation wheels on the banks of the Zêzere river have disappeared... The construction of the Castelo do Bode dam and its reservoir has had an extraordinary impact on the environment and the socio-economic structure of the region. The filling of the reservoir was a very painful process for this community, strongly agricultural and rooted in the land. The mills and watermills were submerged quickly, and suddenly, and there was nowhere to grind the wheat²¹.

The memories of the *old river* persist in some rare photos, in illustrated postcards and in the engravings of Alfredo Keil (a Portuguese composer, painter and poet). The generations born after 1950 have a completely different image, having only known the *new river*, an immense mirror of water with a lush forest landscape. When, in the 1950s, the dam of Castelo do Bode on the Zêzere river was built downstream of the parish under study, there was no concern to mitigate the impacts that could arise. Nevertheless, the Cernachenses (natives of Cernache) reacted, readjusted and reorganized themselves and they survived, demonstrating an innate resilience.

2.3. Impact caused by fire

Nearly every year this region is plagued by forest fires. The question then arises: what was different about the fires in Central Portugal in June

²⁰ Gonçalves and Rosendahl 2011.

²¹ Mendes 2009.

2017? In these fires, about 66 people died (officially 64) and 254 injured, 7 seriously. These fires were considered the deadliest in the history of Portugal²² and the eleventh deadliest in the world since 1900²³. Forty-seven of the victims died on the road trying to escape from the fire. These numbers are involved in a controversy, as it is thought that there will be more than 80 fatalities²⁴.

In Fig. 1 we can see the evolution of the forest fire, seen from space: a) on the eve of the fire, on June 16; b) two days later, on the first day the fire is visible from space; c) the next day, where the huge column of smoke merges with the clouds; and at the end, d) seven days later, showing the burnt area, equivalent to about 53 000 hectares²⁵.

Several factors contributed to this tragedy: on the one hand the operating system did not work properly, because whenever a fire starts, the local firefighters have to communicate with headquarters in Lisbon and wait for orders, losing any autonomy of command; when firefighters went to help other corporations in distress, such as those of Cernache do Bonjardim, the fire crossed the Zêzere river in areas where the riverbed is narrow, having passed to the parish under study. So, firemen from other corporations needed to come to help because the way back, meanwhile, became impassable. However, these firemen did not know the terrain and did not know where the villages and isolated houses were located (sometimes neither GPS nor satellites can help). Some corporations who fortunately came to help were foreign, but there were no firefighters who knew the terrain to guide them. So, the populations called them and helped them, even though they spoke different languages.

²² “Grandes Incêndios Em Portugal. Uma História Que Começou Em 1986,” 2017.

²³ Barros 2017.

²⁴ Alves 2017.

²⁵ Diário de Notícias 2017.

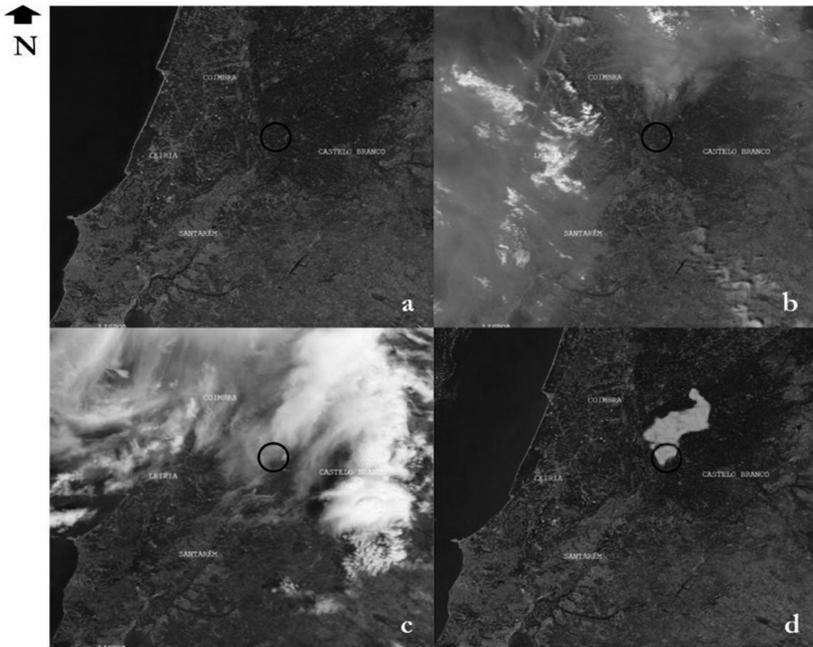


Fig. 1. Forest fire of June 2017 in the Centre of Portugal, with the parish in the study indicated: a) on June, 16; b) on June, 18; c) on June, 19; d) on June 23, light shading; burned area. Source: www.observador.pt, based on NASA images. Accessed on 24/4/2018.

The question of the loss of the decision-making power of the corporation's commanders arose: anyone who knows the area of Cernache do Bonjardim's parish knew that when the fire arrived on the riverside of Figueiró dos Vinhos, in the North, it would pass to the zone of Almegue and Sambado in Cernache's parish, where the river is narrow. It is questioned why this was not considered, knowing the winds that blew that day. At least half of the parish's territory was consumed by fire (Fig. 2, left), but fortunately the damage was only material, and no death occurred there, although the fire was very close to the houses (Fig. 2, right).

The full reliance on satellite images, which in part led to the extinction of the Forest Rangers, has also been called into question, considering

presently the reactivation of this unit. A few years ago, watchtowers were scattered across the mountain range, but they were considered obsolete.

Natural factors were also not favorable, because a heatwave with temperatures above 40°C prevailed, together with a dry thunderstorm²⁶, according to the official version; on June 18th, there were 163 active fires all over the country²⁷. The forest cover, mostly composed of eucalyptus and pine trees, is extremely conducive to the rapid advance of the flames.



Fig. 2. Part of the studied territory (left) and village of Matos do Pampilhal (right), after the June 2017 fire. Photographs taken on July 9, 2017.

Source: Authors.

One of the concerns of the entities was to rescue the elderly because, besides being the majority, they have reduced mobility. However, many young and old people did not want to leave their homes, preferring to stay and defend them, even if it would cost them their lives. This reaction, which may be considered unconscious by many, is not strange to those who know the people of this part of Portugal, so linked to their land, with a very strong sense of belonging and identity.

Leaving their home and not being able to defend their belongings, means to tear the roots that bind them to their land, as if they were lost in a strange world. To see the work of the whole year and life destroyed, to hear the sound of the fire advancing, to smell the smoke, the forest's ashes and the burnt animals, are experiences that take a lot of time to forget. The struggle of man and fire filled the days: when there was water

²⁶ Naves 2017.

²⁷ SAPO 2017.

in the wells, the electric pumps did not work because the cables had been incinerated (Fig. 3, left); when you could get water, the hoses were burned... meanwhile, the wind changed direction again, burning what was left... the feeling of impotence is enormous (Fig. 3, right). Gigantic disappointment and frustration. There was very little help. The urbanite, who has never experienced this feeling of union with the environment felt in the rural world, has difficulty understanding the love for the animals, trees and land that the farmer has.

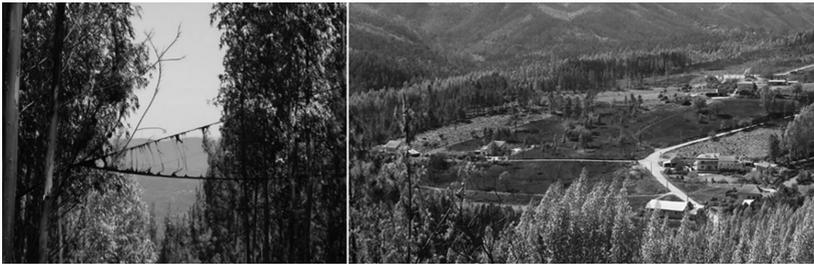


Fig. 3. Melted electric cables (left) and Casal do Moinho (right), after the June 2017 fire. Photographs taken on July 9, 2017. Source: Authors.

In the parish of Cernache do Bonjardim, losing belongings means losing the traditional and still used form of subsistence agriculture: people, when they leave their jobs, go home to work on the land they own and feed domestic animals. That is the reason why it is almost impossible to sell houses without some land annexed, the *leiras*.

It is early August 2018 and most of the millions of euros gathered due to the solidarity of all Portuguese citizens, to help those injured by these fires, have not yet reached the destination and some believe they will never arrive. However, people stayed, fought, helped each other and tried, as much as possible, to reorganize their lives, having proved and proving that they are resilient. More elements will be gained only over time; in this article we can only report what is happening a year later. At the next Census we will have more to count on this subject.

3. The future

Based on the SWOT analysis carried out by Gonçalves²⁸, an advanced SWOT analysis was performed, making the interception between the various fields of this analysis (Tab. 1), and not only between endogenous and exogenous factors.

Tab. 1. Advanced analysis of the various items of a SWOT analysis. Authors' elaboration.

| | | External factors | |
|------------------|------------|--|--|
| | | Opportunities | Threats |
| Internal factors | Strengths | <p><u>Leverages</u></p> <p>They are forces that are or may be linked to opportunities.</p> | <p><u>Vulnerabilities</u></p> <p>These are the forces that meet with non-controllable threats; they are factors that can be adverse in the short, medium and long term and need to be filed with defence strategies.</p> |
| | Weaknesses | <p><u>Constraints</u></p> <p>They are the result of the relationship between weaknesses and opportunities; that is, what cannot be exploited due to weaknesses. These weaknesses need to be eliminated to conquer opportunities.</p> | <p><u>Problems</u></p> <p>This field constitutes the real problem; they are the points that intersect in weaknesses and threats.</p> |

This analysis consists²⁹ of the attribution of weights to each factor listed in a range between 100 (most important) and 0, based on the probable impact of this characteristic on the strategic position in the community. These weights must add up to 100 in total, for both internal and external factors. In the same way, a factor of importance, between 1 (weak) and 3 (excellent), is attributed to each characteristic, based on

²⁸ Gonçalves 2016.

²⁹ Aprenda a Análise SWOT Com Modelo No EXCEL n.d.

the community's response to this factor. The result for each characteristic is obtained by multiplying the weight and the importance factor. The ranking of importance in the advanced SWOT analysis is obtained by the sum of this result for each interception carried out.

As for the method adopted to define the community's resilient portrait (CP), certain relationships between some characteristics exist. This allows us to reduce the number of interceptions and to carry out only those that are related. The following conclusions were drawn from this interception:

- The three main points of leverage are the attractiveness of the community to outsiders, the diversity of employment and the fact that 60 % of the five largest employers are natives of the parish. The main characteristics that attract outsiders are the optimism of the community, the faith that they will be able to overcome this bad period, the high level of pride shown and the existing "can do" attitude, believing that they are able to influence the future by working hard on issues that directly affect them. Subsequently, as leverages, there are: the existence of a large number of informal groups, with good cooperation between them; public participation that is encouraged and solicited; a concern to have compulsory schooling; and the improvement of accessibility, which facilitates out-of-community and professional contacts that can boost the economy.
- In spite of the economic situation and the optimism that exists in the community, there is a risk that all of this is compromised by the fact that there are few children under the age of 14, indicating a decrease in the number of young families and the aging of the population. The feeling of attachment is very high, as is the level of pride, so that despite the difficult economic environment, unemployment and poverty, most people continue to stay and fight for their community, cooperating with one another. This mutual support and the positive reception of new ideas in doing things, is threatened by the aging of the population, and the inability to see continuity or a future. In this community there is also a "reinforcement" of the elderly population by the settlement of retired couples from outside the parish. All this put at risk the existing optimism and sense of pride, which, despite being felt in the younger ones, will tend to disappear. Gradual depopulation and loss of heritage is also a risk. The non-valuation of the property belonging to natives,

and the absence of a study that makes it possible to identify and help the companies that are in danger of closing, does not encourage the creation of new ones. The lack of a general economic plan for the community (CED) with a common goal hinders cooperation between organizations, as well as changes and more active participation of the population in matters that concern them directly. Traditional education is not valued, partly because there is no employment for young people with a higher degree, which makes it difficult to change the way of thinking. These were the main vulnerabilities encountered.

- As main constraints, a large number of informal groups, organizations and associations have been set up, but meetings on community affairs are sparsely attended, with people not taking the opportunity to express their opinion, and there is no clear perception whether or not public participation influences the most important decisions for the community. This does not facilitate the change of mentalities that the economic crisis requires. When there are issues involving neighbors, most prefer not to act; nevertheless, the parish has good external attractiveness. The crisis has also brought back people of working age who have lost their jobs in large urban centers, but are usually not skilled. This trend can be countered by the fact that accessibility has been improved, and advantage taken of this to generate some market opportunities and the creation of new products.
- The major problems encountered are unemployment, aging populations, lack of a common economic plan (CED), no definition of strategies for the community, with the stagnation of mentalities: most people still think that a large employer would be the best solution to unemployment. The question of not identifying and helping companies that are in danger of closing does not make it possible to direct resources, causing a failure to define commercial areas with more or less success in the conjuncture of the parish, thus making investment in education itself attractive in order to respond to requests that would appear.

This analysis confirmed in general the conclusions of the SWOT analysis presented. The leverages (about 23) are almost as many as the problems counted (about 25), both below the vulnerabilities (about 49) and above the restrictions (about 13).

The parish has many vulnerabilities because, despite its strengths, it is very threatened by external factors; these vulnerabilities may improve while leverage almost equals problems; apparently, the community is taking advantage of some of the opportunities that arise, despite their weaknesses (constraints).

4. Some final remarks

Throughout the history of the Cernache do Bonjardim's parish, there have been moments of great impact on the population; curiously, the largest ones, are due to two opposing elements: water and fire. The first with the construction of the Castelo do Bode's dam with its reservoir, which has submerged an immense heritage and also the best farmland, changing the physiognomy of the landscape. At that time, the population adapted, reorganized and survived. The second was with the catastrophic fires of June 2017. These forest fires were especially prolonged and burned an immense area of land, not only in the parish, but practically the whole center of the country.

Due to the analyses presented here, having as main strength the sense of attachment and pride in their land, there is a real hope that the population will adapt, reorganize and survive. In fact, there was apparently no abandonment of the houses or the land, and in 2018, a year later, the fields have been planted again, there are vegetables and fruits and the domestic animals are seen again.

As a final question, will we have "a new Phoenix from the ashes?" From the analyses made and the knowledge acquired on the ground with the population, we can almost certainly say yes! Cernache do Bonjardim will be reborn from the ashes. However, this will only be confirmed in the coming years, and with the upcoming Census.

The hope of renewal and rebirth, after such a tragedy, is real; and from the ashes, a flower is born (Fig. 4). It is important to see these tragedies not as threats, but as opportunities, making the best of misfortune.



Fig. 4. The parish of Cernache do Bonjardim, a shoot of a plant, after the fire of June 2017. Photograph taken on July 9, 2017. Source: Authors.

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