Memory as an opportunity for the future: Conservation initiatives of the coal mining legacy in northwest Spain


Introduction

After two centuries of coal mining, Spain closed its last collieries in 2019. Their existence had been prolonged to supply thermal power stations (TPS), closed in 2020 as part of the energy transition program towards decarbonization required by the Paris Agreements. Gone are the times when coal was presented as the fuel of Spanish industrialization promoted by the dictatorship. The need to guarantee the country's energy independence reinforced mining basins as strategic areas, especially in the framework of the oil crisis. Spanish accession to the European Union in 1986 led to the restructuring of coal mining via a plan that lasted until 2018 and shut down loss-making mines. This process also introduced changes in the extraction systems and liberalized open-cast mining, which seriously affected the physiognomy of the landscape.

Coal mining closure meant the lost of 50,835 direct jobs since 1985 [1]. For this reason, beyond a historical debt, guaranteeing a fair energy transition represents a demographic challenge for the affected regions. The continuity of the services and enterprises that sustained the mining communities is today highly compromised. Nowadays, there is not a clear economic alternative capable of reversing the demographic reduction of the segments of the working population that were seriously affected by the last economic crisis (2008–2017). The dismantling of mining facilities and power plants, along with their environmental recovery and landscape restoration, are offered as modest and temporary employment alternatives, while Fair Transition Strategy projects are being designed and implemented by the central government. This strategy is aimed at offering a planned and environmentally sensitive, social, and economic alternative for these regions [2]. Integration of the industrial heritage assets into the cultural and nature tourism offer is enunciated as a viable alternative. However, not all affected areas had foreseen mechanisms to preserve the recent legacy of mining and electric industries in view of a negative regulatory framework.

Industrial heritage and mining restructuring

Since 1990, the process of restructuring and closure of collieries in Spain was accompanied by the so-called Coal Plans. The aim was to alleviate the socio-economic impact and offer alternatives to the traditionally underequipped territories. Although the conservation of mining heritage was not one of their objectives, it is possible to identify actions sensitive to the mining legacy within the initiatives of tourism promotion, or environmental and housing improvement. In this sense, interpretative facilities have been deployed in several mining basins to reinforce the tourism offer as way to promote local development in these communities [3]. These facilities have been housed in renovated historicist buildings from the XIX century and the first half of the XX century (Table 1). However, according to the balance of the Spanish Court of Audit’s, the investments planned between 2006–2018 do not show an overall positive balance [1]. The audit notes the long lead times for project implementation and points to insufficient specialized staff, administrative errors, the absence of a strategic subsidy plan, and the lack of implementation of some of the projects planned between 2013 and 2018.

The implemented decarbonization process is an opportunity to reverse the environmental impact of mining and industrial activity, which was often uncontrolled [4]. Among the proposed environmental restoration initiatives, ENDESA's work on open cast mines is particularly noteworthy [5]. Yet, too often these environmental actions have not considered the historical or technical values of these facilities. The plans to dismantle TPS seem to be along the same
lines. However, the attachment of local communities to the industrial legacy is strong and there are growing demands for the preservation of the most significant elements of their everyday landscape, and the reuse of decommissioned installations. Moreover, previous research has emphasized the convenience of attributing the values of the local communities to these facilities, and have proposed articulating heritage processes as a key vector in the decarbonization process [6]. The last meeting of Ticci–Spain was hosted in As Pontes (Galicia) in 2017, and since then, the municipality has been proposing initiatives to enhance the company-town. In Aragon, the municipality of Escucha (Teruel) is trying to integrate TPS into the local Mining Museum. Historical, technical, and landscape considerations have been invoked to stop the demolition of Andorra (Teruel) TPS [7], which opened in 1981. In Palencia, it has been recommended preserving at least the 60’s cooling tower of the Velilla TPS, following the Provincial Heritage Commission suggestion. In El Bierzo (León), where the 40-years old Anllares TPS is being demolished, the Regional Council has asked to keep the most emblematic structures of Compostilla II TPS, built in the 70’s and 80’s, ignoring the architectural value of the original facility opened in 1960 by the dictator.

Despite acknowledgement of local communities, a large part of the vast recent legacy that remained in use in recent decades has been left out of the patrimonialist gaze of the competent autonomic administration and faces the legal requirement of its dismantling for the sake of environmental restoration requested by the national regulatory framework (Royal Decree 975/2009, Spanish Law 24/2013). This regulation is inconsistent with the operational guidance of the Just Transition Strategy, which insists on promoting sustainable tourism around the culture, history, and art of local communities affected by the closures. Although mining heritage does not have an individual heading within this governmental strategy, it does have a special role in the SWOT studies carried out in the affected areas [8] as a potential tourism resource. Furthermore, Housing Rehabilitation Plans proposed within this strategy could serve to recover part of the mining housing stock and company towns, as it was the case with previous aids packages. In any case, the absence of explicit mention of mining heritage, the lack of a joint strategy for the enhance and reuse of the recent legacy, and the discrepancies of the different regulations are symptomatic of the scant importance given to industrial heritage and cultural planning within the operational framework of the Just Transition [6]. As it has been seen in previous mining restructuring process, without a clear planning methodology, the opportunities for the patrimonialization of the mining legacy are difficult to plan and implement.

The reality is that the environmental restoration process and the Just Transition Strategy overlap, so the conservation of the different facilities affected by the closures is conditioned by the sensitivity of the autonomic regulations or the municipal commitment to offer viable alternatives to dismantling. Although industrial heritage has a long trajectory in Spain, and the closure of mines and TPS was a scheduled itinerary, the application of cultural protection figures is not generalized and is often not enough to ensure the preservation of characteristic landscapes. The different heritage considerations that can be distinguished between the Spanish territories are explained by the constitutional framework of competence, which confers on autonomous governments the protection of the landscape and heritage. Despite the existence of a National Industrial Heritage Plan for the coordination of autonomic actions, certain gaps are noted, such as the lack of sectorized monitoring of the impact of closures on the cultural legacy of coal mining and electricity production, not even those that were state-run and managed by the National Institute of Industry (INI). Data provided by the Ministry of Culture are based on autonomic catalogues and censuses of industrial heritage, which often do not include recent or
active installations that were not even registered in companies’ archives. And although the dismantling of these facilities is subject to environmental impact studies that should consider the possible effects on cultural heritage, little room is left for their conservation when these facilities do not hold a figure of protection. In addition, it is conceivable that the poor state development of landscape protection may also explain why the recent legacy of industry and mining often receives little consideration.

The mining basins of El Bierzo and Laciana (León)

In northwest Spain, besides historic Asturian bituminous coal basins and late Galician lignite mines, the provinces of León and Palencia provided relevant anthracite mining basins, which were the subject of several proposals to improve their value one decade ago [9]. However, unlike in the well-known Asturian case, the poor development of the Castile & León autonomous heritage strategy for mining basins and the deficient promotion of the "Tierras Mineras" tourism brand left them in the background [10]. Nowadays, these territories provide an illustrative example of the obstacles and threats to the legacy of coal mining in Spain.

El Bierzo and Laciana regions (León) used to be one of the most important coal and anthracite basins in Spain. As a result of the state-sponsored energy policies of the mid XX century, a dense network of coal mines and TPS were deployed with the encouragement of the National Institute of Industry. Since the 1990's, these territories were the subject of investments aimed at solving significant urbanistic and social deficiencies, and the serious environmental gaps derived from mining. However, the cultural dimension was not included in the political agenda until the 2000's. In addition to its character of recent legacy, local resistance to reconversion could explain, to a certain extent, the slow assimilation of heritage approaches in local administrations. It resulted in significant heritage losses such as the MSP briquette factories in Ponferrada (2002) and the dismantling of the steam-train facilities between Ponferrada and Cubillos (1996). In other cases, the lack of foresight in the application of cultural protection figures has allowed controversial demolitions for the sake of environmental restoration or the mere sale of scrap metal, as was the case of the Villablino coal preparation plant (2018) or Campomanes Pit headframe (2017). This phenomenon is common to several Spanish basins.

The first autonomic initiatives to enhance the value of the mining legacy were promoted between 1996–1999: Mining Museum of Barruelo (Palencia), the Iron and Steel Museum of Sabero (León) and the Railway Museum of Ponferrada (León) [10]. Then, within the framework of the PAHIS Plan, between 2006 and 2011, the autonomic administration developed an industrial heritage census to support the subsequent development of management, conservation and dissemination instruments integrated in the so-called "territorial heritage systems". This figure was conceived as itinerary landscapes that should link dispersed groups providing routes capable of explaining the industrialization of the territory. However, the mining territorial heritage system tested in Sabero did not seem to have further continuity in El Bierzo o Laciana. Complementary to previous initiatives, in 2007 the central government proposed an ambitious scientific and cultural project in the El Bierzo and Laciana basin managed by the City of Energy Foundation (CIUDEN). In 2008, this foundation convened a forum of experts with the aim of defining the reference operational guidance in Spain for the conservation of industrial mining heritage, which resulted in the so-called "Charter of El Bierzo" [11]. Within this framework, a local development program lead by CIUDEN was proposed for these regions based on the recovery of the mining legacy [9]. To this end, the inventory of cultural resources, the improvement of tourism facilities, and the deployment of a museum pole were promoted. A national museum should be housed in the three former TPS of Ponferrada to provide a
"gateway" to a "museum-territory" articulated by smaller-scale initiatives spread throughout the regions as an activation strategy (Figure 1). The project was also accompanied by restoration of spoil tips and abandoned mines programs. Unfortunately, the global economic crisis of 2012 and changes in government significantly limited their implementation. Other large-scale projects proposed a decade ago were not completed either: works for Ecomuseum of Bembibre remain interrupted, and the new interventions for the Mining Park of Fabero did not go beyond the paper. Also controversial are the three decades that dragged on the touristic development of the mining train known as Ponfeblino.

Despite a not very encouraging scenario, municipalities, councils of commons, associations, and individuals have acted as promoters and supporters of modest initiatives that seek to take advantage of the attractiveness of UNESCO heritage sites recognized in these areas: the Roman Mine of Las Médulas, the French Way of Saint James, and the Biosphere Reserves of Laciana and Ancares. Although often uncoordinated, the different localities of the mining basin have provided themselves with pedestrian and cycle itineraries where they have tried to integrate simple interpretative installations of their mining past. In any case, they offer actions with strong resilient identities, which allow these areas to be repositioned on the national tourism scene. Among these initiatives, the case of Fabero stands out (Figure 2). This town has set up an interesting interpretative and memory preservation proposal around the work and the mining habitat, thanks to the facilities provided by mining companies and residents. Restored mining pits, company stores, workshops, and dwellings offer a complete itinerary. The autonomic government’s commitment to this initiative led to the application of a protection figure (BIC) to different sites of this landscape and the financing of rehabilitation projects. The initiative of the municipality of Igueña to regularize several mining housing complexes in Tremor and sell them at reduced prices to attract new residents has been widely publicised. Different tourist resources of Laciana Biosphere Reserve have been linked through the old railway route adapted as green line thanks to state funds. While the future of the Ponfeblino touristic train is being unblocked, the municipality of Villablino is collaborating with the former miner’s association in the deployment of routes through the old mining facilities and has ceded the railway workshops to a private business to maintain industrial activity. Private agents have adapted the former Lumajo Dress Room for a brewery, and the Mining Dorms of Caboalles and Toreno into hostels, where local gastronomy is maintained. The mining museum in Torre del Bierzo is the result of the interest of a local former mining businessman. To these initiatives must be added the recovery of other heritage assets, such as watermills or dairies, which help to structure a tourist offer through territory. These initiatives partially reverse the poor state of conservation of the area’s vast industrial legacy that Hispania Nostra has echoed. In large part, the success of these initiatives can be explained by the municipal involvement and the collaboration of commons and local associations. This commitment has achieved the involvement of upper administrations with lines of funding for mining heritage and technical support. It is also worth mentioning the role of the University, as the UNED-ULE Chair has appeared as a relevant agent for the dynamization of the mining legacy recovery [12].

Unlike in Asturias, where a significant volume of collieries belongs to the public company HUNOSA (Table 1), in El Bierzo and Laciana, access to the ownership of mining facilities seemed a major obstacle to their enhancement. However, nowadays the opportunities are wider for public tenants: relevant mining buildings of the extinct UMINSA and CMC companies are for sale as part of the company's liquidation. However, such operation is difficult to assume for the local administrations, neither the implementation of maintenance and sustainable use
programs, or the subsequent tourism promotion. Therefore, it is essential the involvement of autonomic or state administrations in the enhancement, conservation and promotion of the mining legacy within the framework of a coordinated territorial planning.

**Conclusions**

The enhancement of the mining legacy and the electricity industry are important signs of identity of communities and their integration as a tourism resource that offers a potential alternative to the closure of the sector. Although the commitment of local agents is an essential factor in guaranteeing the continuity of proposals for the conservation and revitalisation of memory, a coordinated involvement of upper administrations is required to supply funding sources, technical support, and legal protection. In this sense, a regulation sensitive with the recent legacy of mining and industry is required to avoid the loss of heritage assets in the event of future industrial closures.

**References**


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### Tables and Figures

Table 1. Spanish cultural and tourism facilities related with the built legacy of coal mining. Prepared by the author based on Cañizares Ruiz [3], Valenzuela et al. [9], and Hortelano Mínguez [10].

<table>
<thead>
<tr>
<th>Cultural Interest/Location</th>
<th>Management</th>
<th>Program</th>
<th>Owner</th>
<th>Open</th>
<th>Adaptations of Historical Buildings</th>
<th>Ref.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Andalucía</strong></td>
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<td></td>
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<tr>
<td>Mining Historic Center of Huelva</td>
<td>To be completed</td>
<td>Province</td>
<td>Municipal</td>
<td>2004</td>
<td>Reina + Cerca industrial</td>
<td>X</td>
<td>R</td>
</tr>
<tr>
<td><strong>Historical and Mining Territory Museum of Ronda</strong></td>
<td>Municipal</td>
<td>Municipal</td>
<td>Municipal</td>
<td>1999</td>
<td>Museo Pithead buildings</td>
<td>X</td>
<td>O</td>
</tr>
<tr>
<td><strong>Industrial Heritage: Abandoned Villas and Mines</strong></td>
<td>Municipal + university</td>
<td>Municipal + provincial</td>
<td>Municipal</td>
<td>2015</td>
<td>MDL Pithead (office building)</td>
<td>X</td>
<td>R</td>
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<td><strong>Áragón</strong></td>
<td></td>
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<tr>
<td>Mining Museum of Teruel</td>
<td>Municipal</td>
<td>Municipal</td>
<td>Municipal</td>
<td>2002</td>
<td>&quot;La vieja&quot; collar + Trent</td>
<td>O</td>
<td>1946</td>
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<td>Huesca Mining Interpretative Centre of Sos</td>
<td>Municipal</td>
<td>Municipal</td>
<td>Municipal</td>
<td>2014</td>
<td>Huesca Mine gallery buildings</td>
<td>1966</td>
<td></td>
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<tr>
<td>Museum del Pinieta Felipina</td>
<td>Municipal + association</td>
<td>Municipal + association</td>
<td>Municipal</td>
<td>2010</td>
<td>Huesca gallery</td>
<td>1870</td>
<td></td>
</tr>
<tr>
<td>Uteilla Mining and Railway Theme Park</td>
<td>Municipal + association</td>
<td>Municipal + association</td>
<td>Municipal</td>
<td>2007</td>
<td>Pithead + Roundhouse/Sheds</td>
<td>X</td>
<td>O</td>
</tr>
<tr>
<td><strong>MINHMI Mining and Technology Park Añeres</strong></td>
<td>Regional</td>
<td>Regional</td>
<td>Municipal + Private co.</td>
<td>2005</td>
<td>S. Luis Pithead + open college venue</td>
<td>O</td>
<td>1942</td>
</tr>
<tr>
<td>ENCASE-ENDESA Archive of Asturias</td>
<td>Public/private consortia</td>
<td>Public/private consortia</td>
<td>Municipal by cession</td>
<td>2016</td>
<td>San José Pithead</td>
<td>O</td>
<td>1958</td>
</tr>
<tr>
<td><strong>Centro de Interpretación de la Minería del Asturias</strong></td>
<td>Municipal + association</td>
<td>Municipal + association</td>
<td>Municipal</td>
<td>1999</td>
<td>Workers housing</td>
<td>X</td>
<td>R</td>
</tr>
</tbody>
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**Figure 1.** ENDESA’s thermal power plant in Ponferrada (León), refurbished for CIUDEN. J. Magaz-Molina, 2021

**Figure 2.** Julia Pithead at Fabero Mining Park (León). J. Magaz-Molina, 2017.

*Ref.: asset registered as "good of cultural interest" under the protection of the of the Heritage Law.
*Fn.: former facility used by the National Institute of Industry holding among 1942/95 (O) or by a related supplier company (R).

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* Cultural and tourist facilities deployed in the area of study of this paper.