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04

Content

Morocco's post-mining territories: Jerada's mining heritage as a tool for urban regeneration

Morocco has long been a land of mineral extraction, and this activity has been one of the oldest industries practiced by Moroccan populations for several centuries, thanks to the kingdom's mineral-rich geography in many regions, which gave rise to urban agglomerations that didn't exist before. With no economic alternative to mining, these single-industry towns are experiencing an economic, urban and social downturn. In Morocco, 200 mines have been closed1 without any closure or rehabilitation plan. As a result, the urban decline of these towns is leading to an increase in vacant land and urban wastelands, with numerous multi-dimensional damages. The town of Jerada, in northeastern Morocco, is considered today to be the country's most problematic post-mining territory. The town has lost 30% of its population since the unprepared closure of the coal mines in 2000, which has greatly weakened its economy, its environment and its social and urban structure. The aim of this article is to examine the tools and strategies available to counter the crisis facing Jerada, which risks becoming a ghost town in the future. Despite its tangible and intangible potential, why hasn't the town been reconverted to date? And can the example of Jerada serve as a prototype/ thinking tank for other post-mining territories in Morocco?
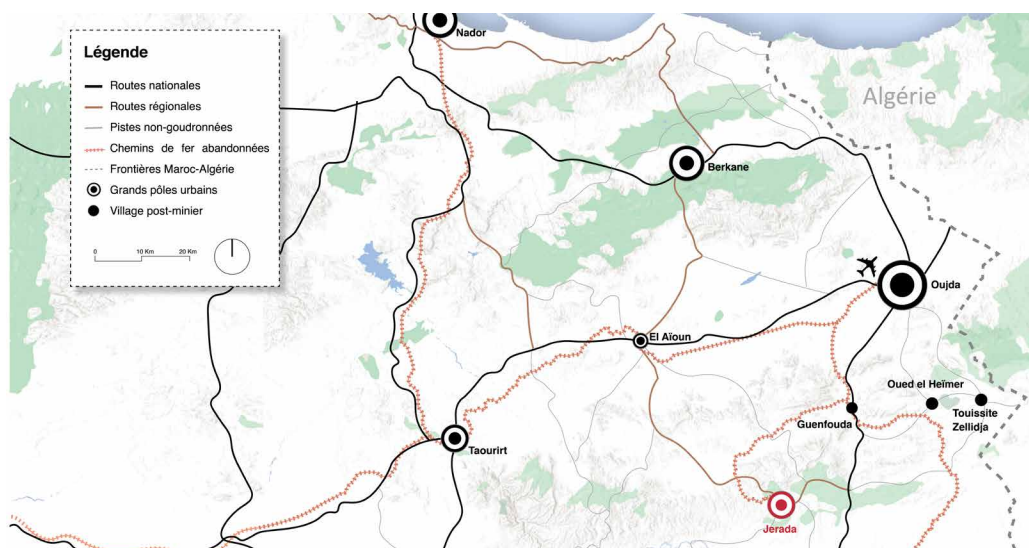
Alaa Halifi

Jerada Territorial Plan, by Alaa Halifi, 2023

Before and after collage of railways converted into a regional mobility system, by Alaa Halifi, 2023

" North Africa's oldest mining site, now in decline "

Jerada is located in the Oriental region, 60 km from the city of Oujda. Since the discovery of its mineral deposit in 1927, the town has developed into the oldest industrial and mining site in North Africa2, with coal extraction providing over 30% of Morocco's energy in the 1980s.

The problem is that, like all mono-industrial towns, Jerada's urban and social development was essentially based on mining. After the depletion of reserves and the unplanned closure of the mines in 2000, the town went into urban and social decline. According to the RJPH3, Jerada has lost around 30% of its population since the mine closed. And to this day, the town continues to lose more and more of its population.

" Why is Morocco slow to address the Jerada crisis? "

Twenty-three years after the closure of the Jerada mine, the town is still living with the damage, which is getting worse year after year. To this day, there are no plans to reconvert the town, whereas all over the world there are post-mining towns and territories that have had a second life after the mine, such as the Nord-Pas-de-Calais region in France, which has made a successful transition by reusing and safeguarding its tangible and intangible heritage, transformed into a rich and diverse industrial heritage, listed as a Unesco heritage site.

In Morocco, however, the urban decline of post-mining towns has not yet been the subject of genuine reconversion, and we realize that the problem stems mainly from the fact that the phenomenon of the decline of these towns is still poorly understood, and treated as a simple urban deterioration, whereas the crisis of these cities is multidimensional, and much more complex to be solved with small-scale gestures, when in reality, it requires a whole urban, economic and social reflection.

These initial discourses on territorial decline have not led to any real change in public policy: the areas concerned, such as Jerada, have simply been "upgraded". While this may be a way of demonstrating the presence of the state, it is not likely to revitalize these areas.
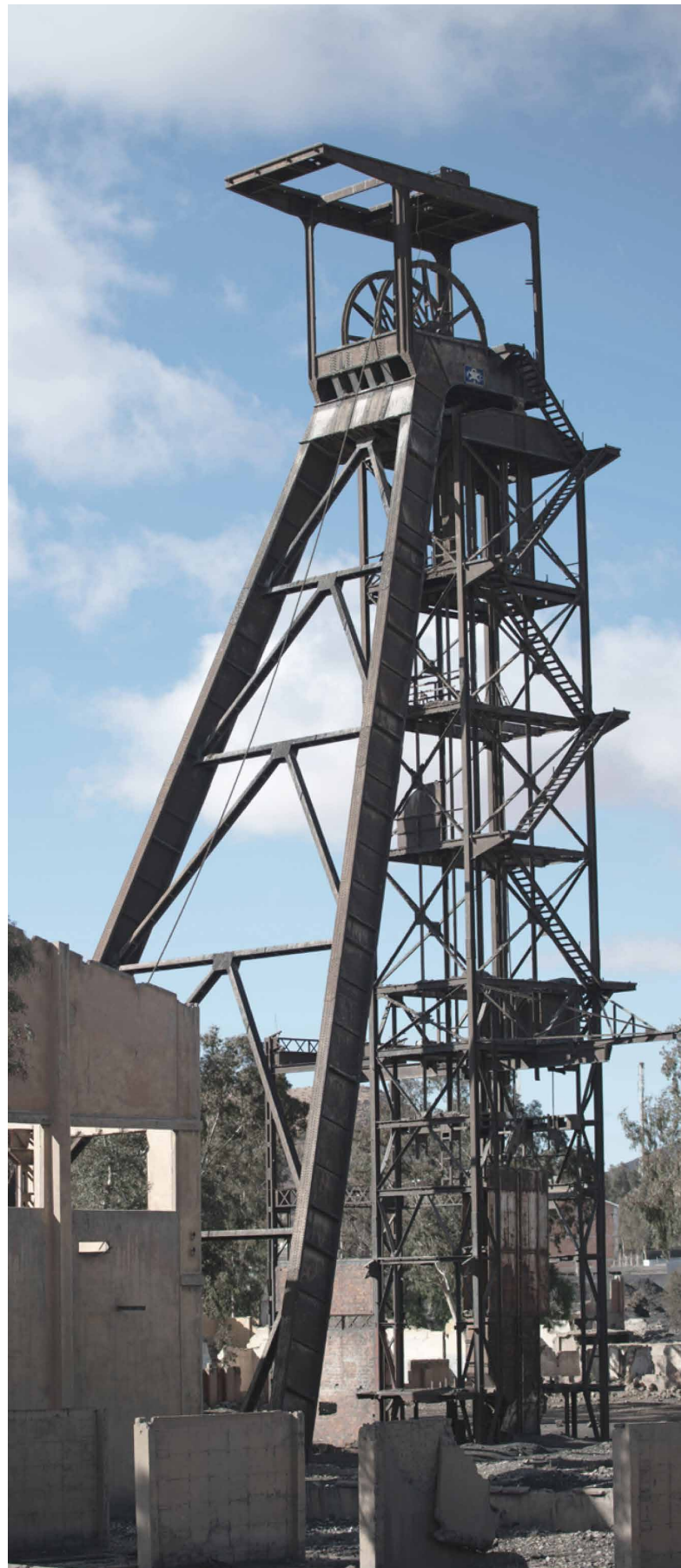
Structure of an urban wasteland in Jerada by chloe liang, 2022

" What vision for Jerada's future? "

Since misunderstanding this crisis is preventing Jerada from being reconverted, the overall vision of a reconversion project is to rethink this territory in crisis with all its complexities, from the lack of connectivity between the town and neighboring urban communities, to the material and immaterial consequences of the mine's closure, while enhancing the ecological network interrupted and degraded by mining activities, and integrating the town's human capital into the transition process.

That said, the reconversion plan must not be reduced to a simple reconversion of a wasteland or a district, nor reduced to architectural gestures such as a factory or upgrading of tracks, but it must act on several scales that respond to the different facets and complexities of the territory, which we have divided into two strategic axes:

1- Suturing the territory: a regional mobility network

Firstly, on a territorial scale, the town of Jerada is strongly disconnected from its region. It is essential to open it up and reconnect it to its regional context, not just in terms of infrastructure, but as an area of interest for the Oriental region. This can be achieved thanks to the existing network of abandoned railroads, built in 1936 to connect with the port of Nador, where coal was exported to Europe. They are connected to the rest of the region, in particular to major cities such as Oujda and to a number of satellite villages where coal was processed.

With the closure of the mine in 2000, this rail network lost its original function. As a result, today we have 450 linear kilometers of abandoned railroads, but with Jerada's landlocked location, and the overriding need for a connection with neighboring urban centers, these railroads present some rather interesting mobility possibilities, especially as they link Jerada to Oujda Angad airport, and to the future large West Med Port in Nador.

The reuse of these abandoned railroads can offer a means of rebuilding public transport on a regional scale, by creating daily links between Jerada and its surrounding region. This presents a tool for opening up the area and a means of energizing the region, while bringing economic benefits to the city of Jerada.

2- Humanizing the city: the patrimonialization of the industrial mining heritage

Secondly, on a city-wide scale, the major aim is to adapt the city to the current number of inhabitants, in order to offer them a pleasant environment that will encourage them to stay and live in comfort. We therefore need to propose a restructuring plan focusing on: an economic development program, improvements to the city's housing stock, public spaces and mobility, and above all the rehabilitation of the mining industry's wastelands, which offer real potential for the city's transition.

It's a collective memory that bears witness to a crucial period in Morocco's history that is now being lost. It's time to put in place an intervention strategy aimed at rehabilitating and enhancing mining areas, considering them as part of the national cultural heritage. Rehabilitation and enhancement can take several forms: preservation of architectural and town-planning character, rehabilitation and enhancement of fallow areas. These include excavations, underground galleries, slag heaps, abandoned facilities and warehouses.

These spaces can be used for leisure activities (mining museum, sports facilities), administrative or commercial premises".

The precarious neighborhoods of Jerada, by chloe liang, 2022

Jerada mining wasteland, by Mehdy Mariouch, 2017

The citizens of Jerada waiting for change, by Fadel Senna, 2018

Before and after collage of a slag heap converted into an urban park, by Alaa Halifi, 2023

" Towards a successful transition "

As we have just seen, the reconversion of a post-mining area must be based primarily on multi-scale urban strategies, and not on small-scale architectural gestures. The proposed system focuses on the reuse, enhancement and patrimonialization of the territory with the elements and vestiges of the mining era, rather than creating a clean slate and remaking the city from scratch.

" Opening up to integrate "

Intervention at the macro, territorial level is essential because the intervention that follows (at the city level) depends enormously on integrating the city into its regional context, and secondly, because in the case of Jerada, it's impossible to have a successful reconversion without reconnecting the city to its region.

If we look to the future, we'll see that reconnecting the area with neighboring urban centers, through the creation of a regional mobility network by reusing the old industrial railroads, will bring new dynamics and accessibility to Jerada. The construction of a new regional mobility system will link Jerada's various hubs to the major urban centers. The aim of the new regional network is not only to improve mobility, but also to serve as a development tool to enhance opportunities for local residents, by improving access to jobs and services. Not to mention the fact that, based on several identical experiences, opening up the city will lead to higher land prices in Jerada, while attracting new projects and investments to the city.

" Territorial resilience: from macro to micro and vice versa "

The reconversion of the city's mining wastelands can form the new backbone of Jerada, a city that has depended on mono-industry since its birth, will be endowed with a rich and diversified programming, the new functions must be connected to each other both materially with voices, corridors, railroads, public spaces, and immaterially on a functional level in a kind of synergy, scenography and circular economy.

Existing wastelands, due to their monumental size and appropriable structures, have the potential to be transformed into real facilities with a regional or even national impact (a national mining museum, for example). Opening up the region is closely linked to the reconversion of these wastelands, in the sense that it will connect the proposed new programs to the rest of the region, giving them added value and dynamism.

What's more, we shouldn't forget that some of Jerada's inhabitants have adapted to the decline in recent years with cooperatives that create products derived from local agriculture. Most of these products are exported to major cities. That said, opening up Jerada will not only lead to more sales and exports, but may encourage local markets within Jerada, such as the Saffron market in Midelt and the silver jewelry market in Tiznit, where customers and wholesalers come to Jerada to buy these products from their sources at low prices.

" *Jerada as a laboratory for Morocco's post-mining towns* "

The proposed strategies are based on the reconversion of existing elements. The industrial railroads that cross the region, the housing estates, the slag heaps and the wastelands are indispensable elements in every mining territory, not just in Jerada.

This brings us to our next point, there are several post-mining towns all over Morocco, for example Kettara, Ahouli, Boulanoire, Touissit and Sidi Boubker, which are all Moroccan mining towns that are in the same situation as Jerada, a serious urban decline that poses a multidimensional, economic, social and urban challenge, without ruling out the risk of turning into ghost towns. What if we were to propose strategies for these areas based on the Jerada experience?

For example, Jerada could have a cultural and heritage vocation, Ahouli could be reconverted by integrating it into existing tourist circuits in the Atlas region, Kettara could have an artisanal vocation, and so on.

Today, Morocco's urbanization and population growth rates are multiplying, leading to an increase in the number of cities and metropolises. On the other hand, many cities and regions are facing the opposite trend of severe urban decline.

During this research, which is the fruit of academic work that I carried out both theoretically (research, documentation) and practically (field investigations, discussions with citizens), I came to realize that the reconversion of this type of site requires quite different thinking, the first issue of which, which interrupts the transition of these territories, is the misunderstanding of the phenomenon of urban decline. Jerada, on the other hand, has real potential for reuse and development: an untapped tangible and intangible heritage that could be the key to its conversion.

Jerada's experience could serve as an experimental laboratory for other post-mining towns, because beyond these territories already in decline, we must also remember that in the years to come, several mining sites will close after their reserves are exhausted. So we need to start thinking now about the transition strategies we need to develop, in order to cope with the damage, and perhaps in a more global vision, can we one day see a national program for the reconversion of these post-mining towns? with the same vision and mobilization as the new towns program, but with more optimism and contextuality?

Before jend after collage of a slag heap converted into an urban agriculture area, by Alaa Halifi, 2023

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Alaa Halifi is a Moroccan architect, writer and researcher, winner of first prize at the Pittsburgh International Architecture Competition in Pennsylvania, USA in 2020. His first novel 'Éloge de la folie' won the international Al-Rafidain First book Awards in Lebanon in 2021. He has published several articles and research projects in Moroccan and international media.

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Africa Innovation Network serves as a dynamic crucible, uniting an array of experts across diverse fields, devoted to crafting ingenious and sustainable solutions for a brighter urban future across Africa. We stand as an intellectual powerhouse, pioneering novel methodologies to foster inclusivity, resilience, and sustainability within African cities. Our arsenal comprises groundbreaking initiatives, projects, programs, and resources aimed at propelling urban centers towards more sustainable human habitats. Our approach, rooted in human-centered principles and frugal innovations, nurtures uncomplicated, participatory concepts and remedies that elevate the quality of life in both urban and rural settings. Our work thrives on the twin engines of creativity and innovation, churning out solutions that pave the way for a superior tomorrow within our cities, enriching the lives of all their inhabitants. The initiatives of Africa Innovation Network are meticulously crafted for the purpose of dissecting, comprehending, and engineering solutions that galvanize sustainable urban development.

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