

# Industrial Sugar Museum

## Motril

### WELCOME!

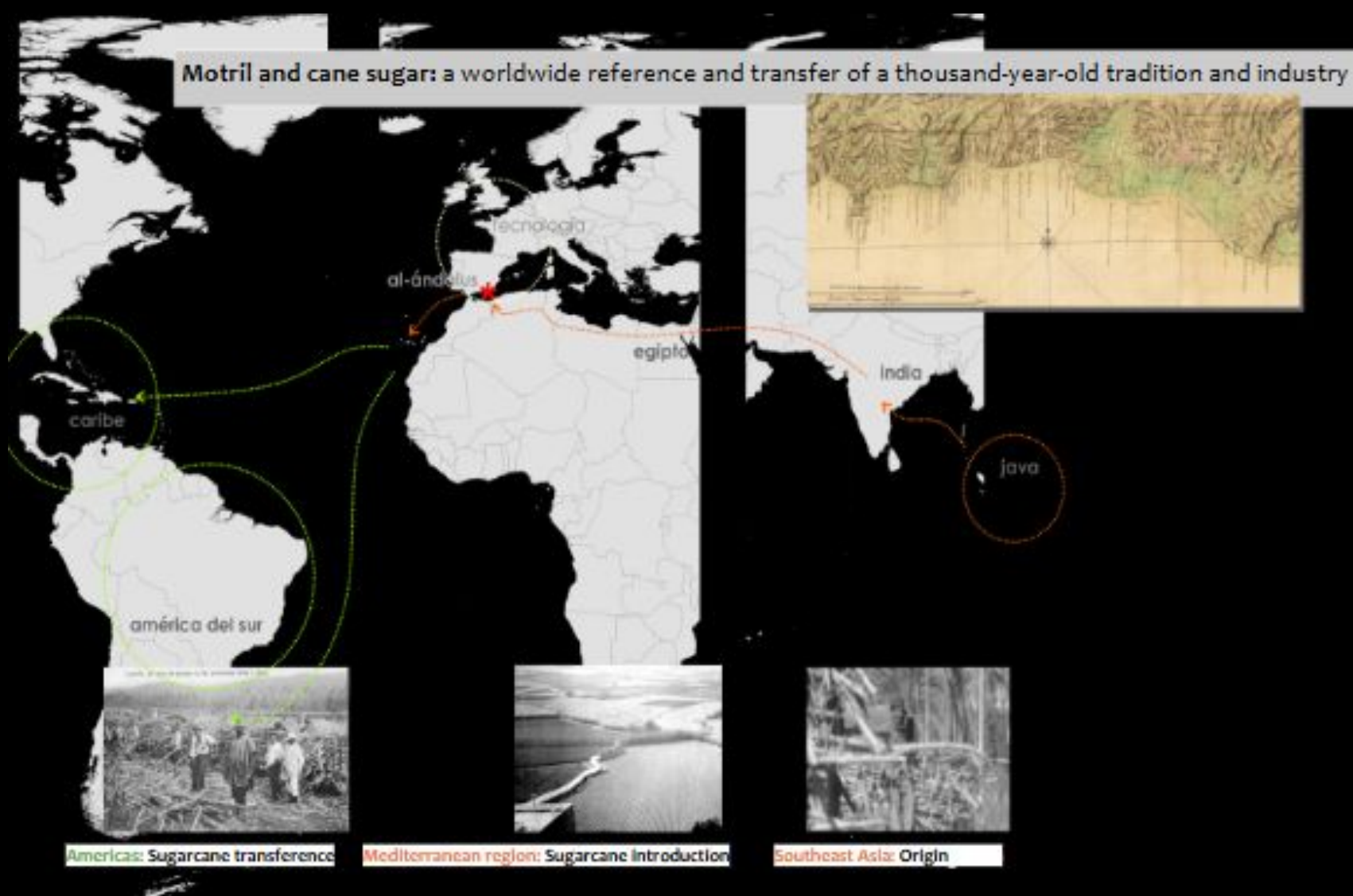
Discover the Fábrica del Pilar, a legacy of Motril's sugar history; a place of experience, knowledge, craftsmanship, tradition and technology linked to the production of cane sugar in the 20th century, which brought great advances in production techniques and labour efficiency.



*History, Technology and Tradition*

# Motril is a Sugar Route

Motril and the history of sugar have been linked for more than a thousand years. The town has been an important centre for the cultivation of sugarcane and the production of sugar, becoming a reference in this field. Its historical importance is remarkable, as it has been a bridge for the transfer of knowledge and experience between territories and continents.



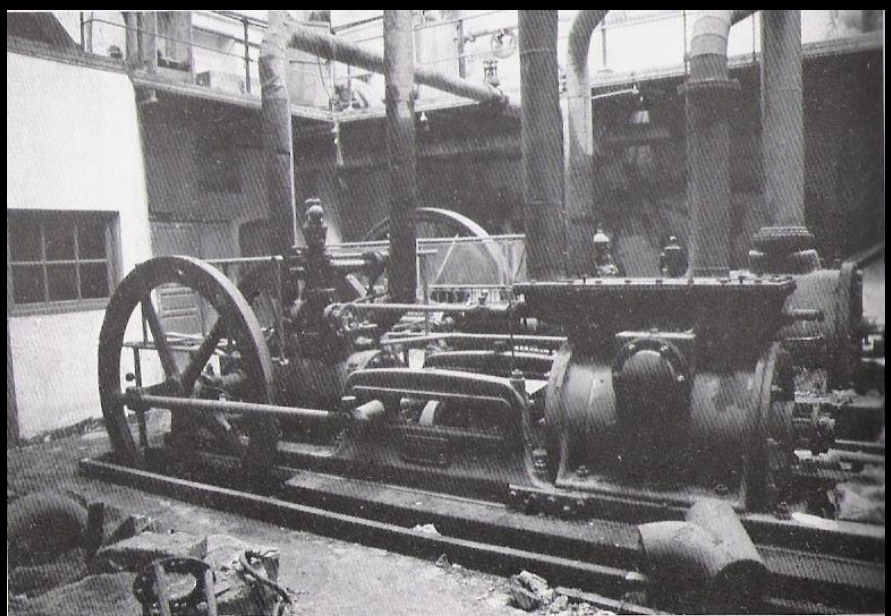
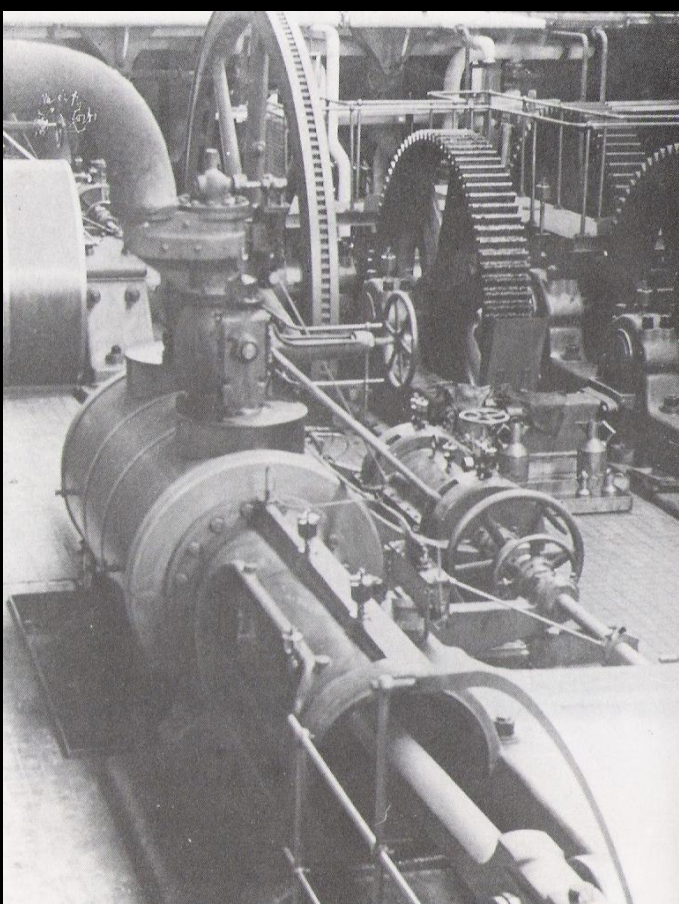
The cultivation of sugar cane originated in South-East Asia, specifically in Java (Indonesia). In the 10th century, sugar cane was introduced from the East along the trade routes and reached our shores. This crop found an ideal climate for its development in the Mediterranean and was consolidated as a key product in Al-Andalus. Motril became the centre of sugar production.

The arrival of the Spaniards on the American continent in the 15th century marked the beginning of the transfer process that took sugar cane from the South of Europe to the Caribbean and South America, where it became a strategic crop for the colonial economies.



Motril, as a centre of production and technical knowledge, played an essential role in the transfer of sugar cultivation and processing methods to the New World.

The Central American countries soon became important exporters of this product, and the sugar boom encouraged the creation of mills and rudimentary industrialisation systems for processing sugar cane.



These initiatives marked the **first experience of mechanised production** linked to the crop, boosting not only the local economy but also the global expansion of sugar. They also inspired technical improvements in other regions of the world.

On the Andalusian coast, particularly in Motril, the first industrial experiences were made between the 18th and 19th centuries. The town, which had been an important centre for sugar production since the 10th century, adopted modern technologies such as advanced mills and steam-powered machinery. This allowed it to consolidate itself as a benchmark in the industrialisation of sugar, in a process of exchange of influences that linked Europe, America and the ancient knowledge of South-East Asia.



# Our history

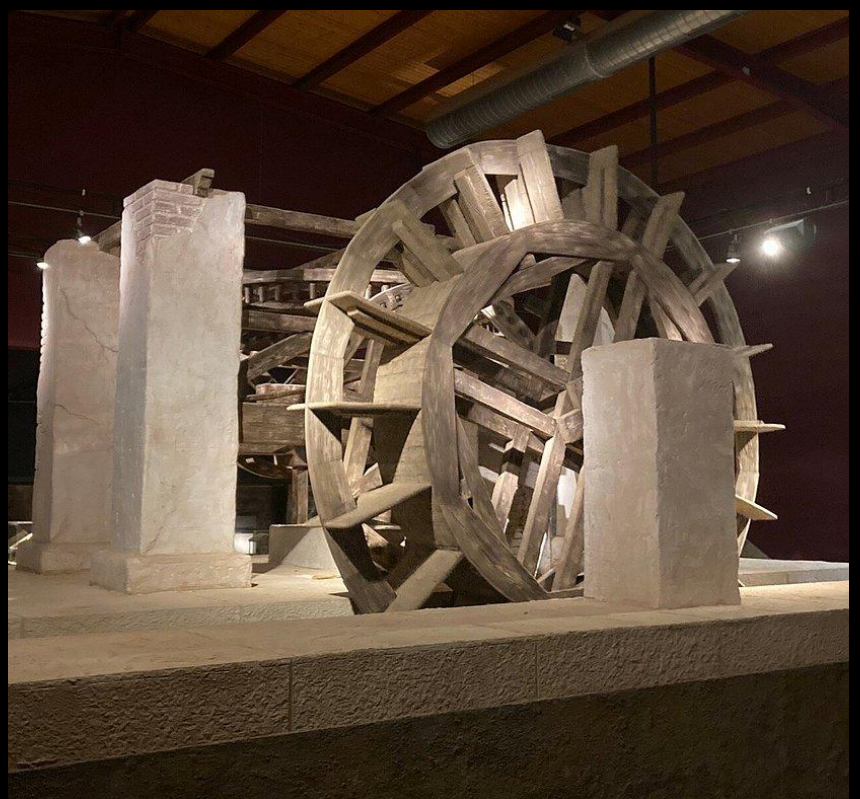


Motril, with its sugar cane tradition, is part of the historical heritage that has shaped the economy and culture of many societies.

Sugar cane and its industry have gone through periods of decline and transformation.

In the 18th century, the sugar system in Motril fell into crisis from 1750 onwards and almost disappeared by the end of the century. This was due to competition from colonial sugar, a lack of modernisation, fiscal pressure and the low profitability of the mills, which led to sugar cane being replaced by other crops, such as cotton.

Thanks to personalities such as Ramón de la Sagra, who promoted the transformation of sugar, and technological advances such as the steam engine, Motril regained its place on the national sugar map.





During the 19th and 20th centuries, this industry once again became the economic engine of the region.

Today, through the Sugar Route, Motril is proposed as the starting point of a cultural, heritage and gastronomic itinerary based on the sugar tradition and its historical impact.



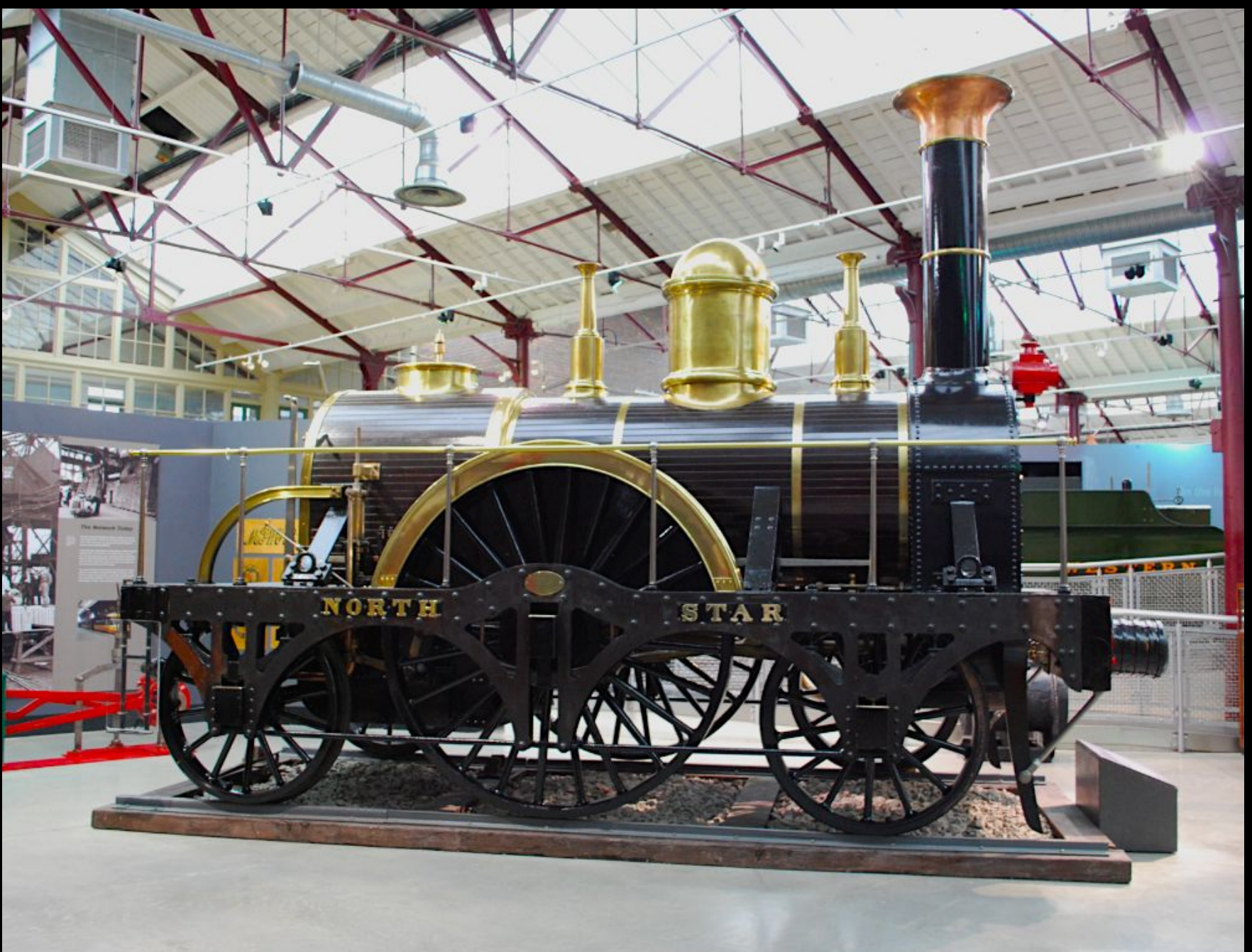
Its role as a bridge between Europe and America will be highlighted, as well as how the knowledge generated in this region contributed to the global development of the sugar industry.

The history of Motril is a reflection of a glorious agricultural past and a great opportunity to rediscover, understand and disseminate the local identity, economy and culture in a global geographical context.



# INDUSTRIAL HERITAGE

Industrial heritage comprises a wide range of elements, from structures and machinery to industrial complexes and communities, that represent the history and development of industry and technology. These elements are fundamental to understanding economic and social development, particularly during the Industrial Revolution. Industrial heritage includes not only the preservation of physical objects, but also the protection of the knowledge, skills and traditions associated with them, providing a unique insight into the history of technology, working conditions and ways of life in the past. These challenges require conservation, interpretation and adaptive re-use strategies that not only maintain the historical integrity and legacy of these sites, but also provide opportunities for community and cultural development. Industrial heritage is therefore an important part of collective history, providing important lessons about the progress and challenges of industrialisation.



Replica of the North Star locomotive designed by Isambard Kingdom Brunel (1806-59) for the Great Western Railway, England. The North Star class was in service from 1838 (Swindon Steam Museum). Image by Hugh Llewelyn, licensed under Creative Commons Attribution-ShareAlike (CC BY-SA).



# INDUSTRIAL REVOLUTION

The Industrial Revolution, which began in Britain in the late 18th century and spread throughout the 19th century, radically changed production techniques from craft methods to mechanised manufacturing; developed steam-powered transport systems such as railways and ships; and reshaped the global economy, laying the foundations of modern society and acting as a major catalyst for technological development and progress in the centuries that followed.

From the second third of the 19th century until the second half of the 20th century, Andalusia stood out for its industrial mining activity in the regions of Almeria, Cordoba, Jaen and Huelva. Malaga became Spain's second industrial city after Barcelona, in the iron and steel, textile and chemical sectors. It was also a pioneer in the introduction of steam engines and other advanced technologies of the First Industrial Revolution.

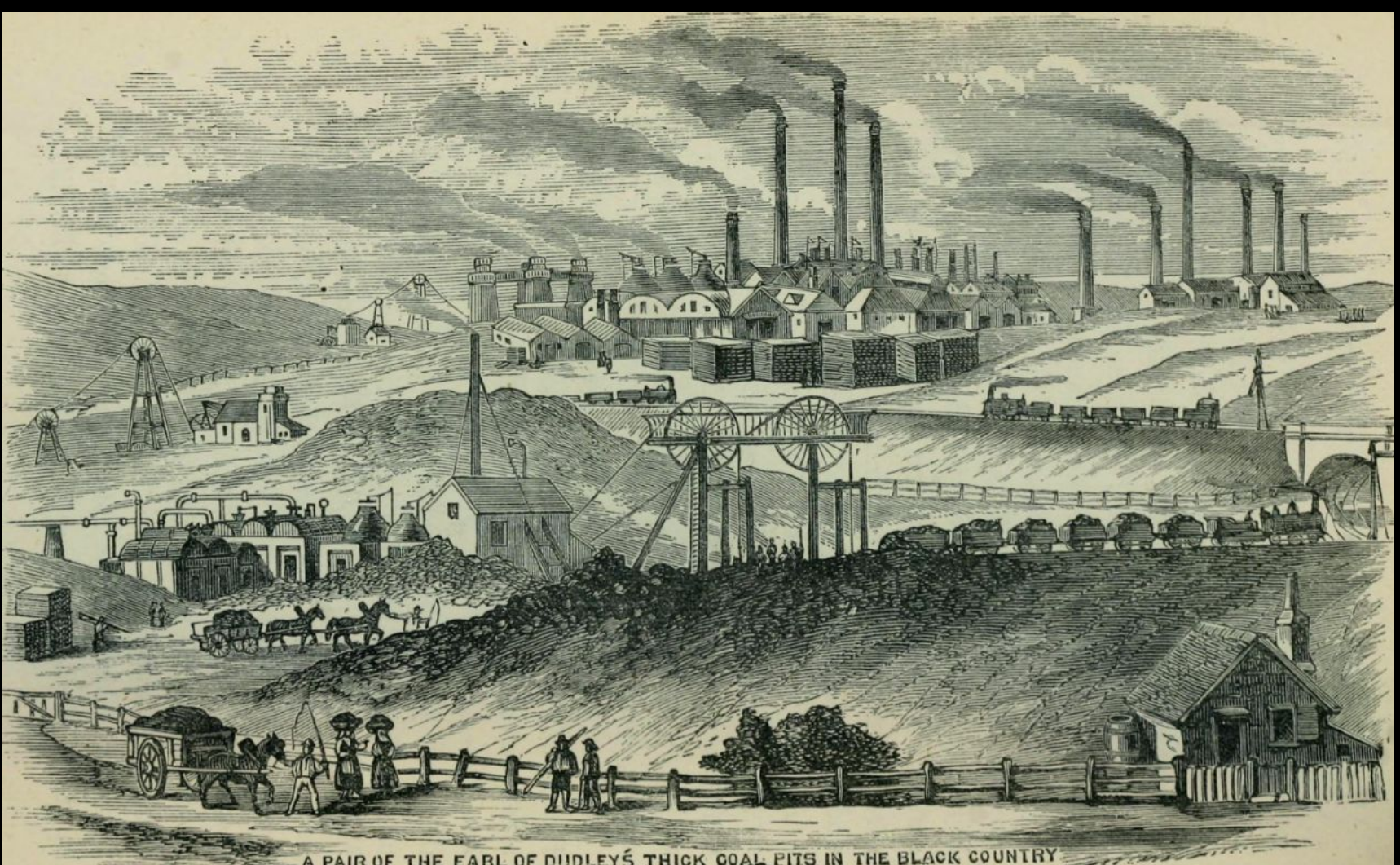


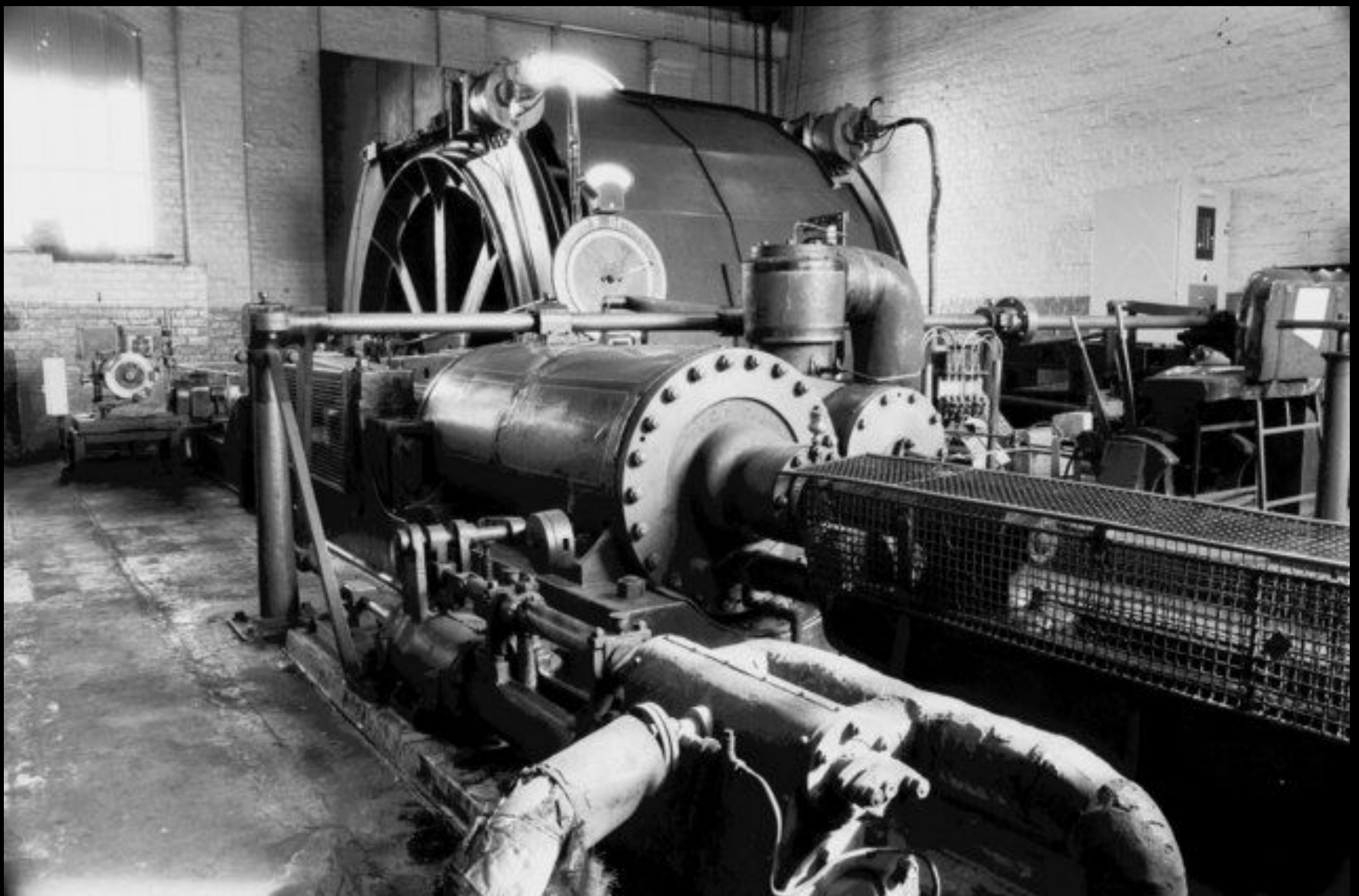
Illustration of a coal factory in the Black Country, England' (Griffiths, 1873). Image by Samuel Griffiths, from Flickr, licensed under Creative Commons Attribution-ShareAlike (CC BY-SA).



# INDUSTRIAL REVOLUTION

Agro-industry has always been a key sector of the Andalusian economy. The wine industry and the historic sugar industry are clear examples of this. The latter had a strong presence in Granada and Malaga, although by the end of the 20th century most of the factories, machinery and buildings had disappeared. On the Costa Tropical, Nuestra Señora del Rosario Sugar Factory (Salobreña) was the last to close in 2006.

The Nuestra Señora del Pilar Sugar Refinery closed in 1984, but to the very end it retained the steam engine as its main source of power, with machinery ranging from large mills to small steam engines. Its unique decommissioning process has allowed the preservation of the steam engines in their original location, making it a reference of Spanish industrial heritage and the history of the Industrial Revolution and technology in Andalusia.



Double-action horizontal steam engine built in 1924 by Murray & Paterson of CoatbridgesteamCurrently preserved in Summerlee Heritage Park. Image by Chris Allen, licensed under Creative Commons Attribution-ShareAlike (CC BY-SA).



# The sugar factory

Nuestra Señora del Pilar Sugar Factory operated from 1883 to 1984. After its closure, it began its complex transformation into the Industrial Sugar Museum, initiating its rehabilitation and valorisation.

1883

Aerial view of the Nuestra Señora del Pilar Sugar Factory.  
1970s



## LATEST NEWS

The factory is still undergoing a process of restoration and renovation.

In this context, the 'Open for Works' project allows visitors to see first-hand how this industrial space is taking on its new identity as the Industrial Sugar Museum.

A unique opportunity to learn, step by step, how a dynamic museum is configured, where past and present dialogue, integrating disciplines such as industrial archaeology, architectural restoration, ethnography and oral memory.



# NUESTRA SEÑORA DEL PILAR SUGAR FACTORY (1882-1986): ONGOING PROJECT: "OPEN FOR WORKS"

The Nuestra Señora del Pilar de Motril Sugar Factory is currently undergoing a process of restoration and transformation that will make it an Industrial Sugar Museum and a cultural reference point for the region. A treasure trove of memories, personal experiences, technological, social and scientific milestones, to which is added the identity of the people of Motril and its region.



Craftsmanship and knowledge handed down from generation to generation are now the driving force behind the transformation of this industrial site into a place of culture and memory. Many disciplines are involved in the creation of a vast history: architectural restoration, industrial archaeology, oral and documentary memory, which give shape to the museum project.

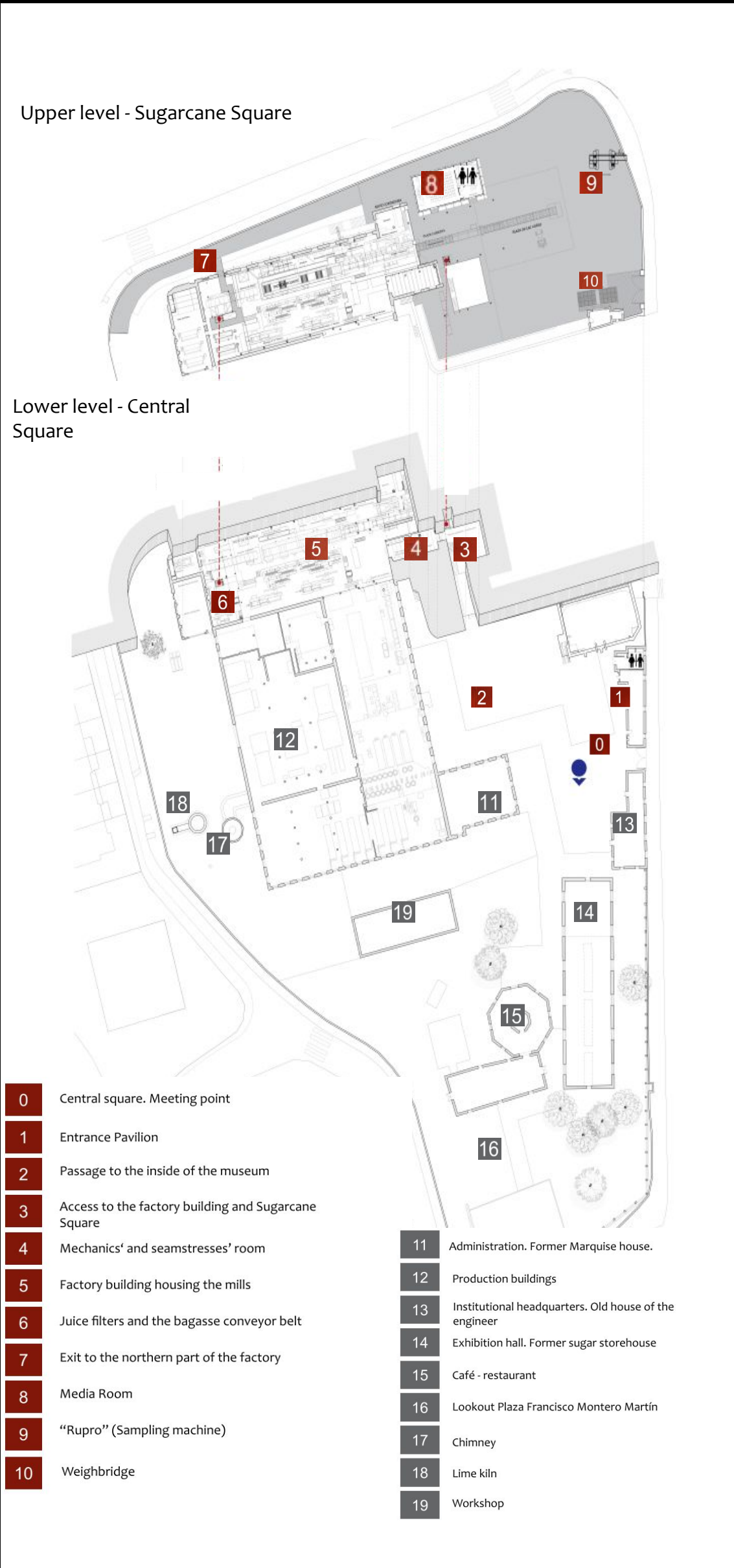
For this reason, the project foresees a gradual enhancement with an open and transversal method, regulated by the project "Open by Works", where the contents of the museum are shown and the evolution in the development of the same, or "how to be while doing it".



# THE MUSEUM

The Sugar Museum opens with the inauguration of the Mill Train building, dedicated to the first phase of the production process. As work progresses, new exhibition areas will be added.

In the Entrance Pavilion you will find a map of the site, like this one, showing the route of the visit, with your position marked at point 1.





This small building was originally used as a canteen and as the workers' attendance office. Today it is the Entrance Pavilion, transformed into a small interpretation centre whose mission is to introduce you to the industrial and social world of the last century and to bring you closer to "life in the factory".



**FORMER CANTEEN  
ENTRANCE PAVILION**

You will find a map of the municipality of Motril with the distribution of the sugar factories that coexisted, a collage of images of the time and the "timeline".



We have restored some original pieces of furniture from the factory that take us back to the language, design and working methods of the last century, such as the administration desk, a cupboard, a safe, fans or an electrical panel. You will also have your first contact with original elements of the machinery used in the manufacturing process, which will give you an idea of the scale and proportions you are dealing with.

## SUPPORTING PART FOR MILL



Together with another twin, they form the support for the three hammers of the mill that grinds the sugar cane. According to the workers themselves, they called it the 'Virgen'. The one on display is a spare part that was never used.

## STEAM COMPRESSOR

Vertical steam compressor used for sulphitation. Made by the Castaños company in Granada.





## WORKERS' ENTRANCE

The workers entered the factory through the same green gate as nowadays, after crossing a small bridge that, until the mid-20th century, crossed the canal that came down from the *Rambla de las Brujas*, the current access avenue to the site.

This entrance was controlled by a primitive front desk on the left, and it was an important meeting place for workers coming in and out of their shifts. It was also the place where the staff was controlled, whether it was visitors and carriages, in the beginning, or lorries with materials and goods from the company, later.





# THE DOORMAN AND THE CLOCK IN

The clock in task was carried out by the doorman, who was a different professional category within the subordinate staff, and who used a register to check the entries of the workers who arrived to start work.



Each worker was given a numbered bronze tag, made by the factory's boilermaker and hung on a board called “*chapero*”. The tag had to be removed by the workers before the time of entry and carried in their pockets throughout the working day, to be put back in its place at the end of the shift.



## THE “*LISTERO*”

The doorman would isolate the tags that had not been collected during the working day so that another employee, known as the "*listero*", a member of staff who had the full confidence of the management, could write down the numbers of the tags that had not been collected, which, if not justified, usually led to a sanction. He would then go to each department to check the presence of the employees who had collected their tag, as the number of days worked and absences made up the monthly salary.





# TIMELINE

The timeline below relates key milestones in the factory's history to relevant facts and discoveries in the world of science and technology.

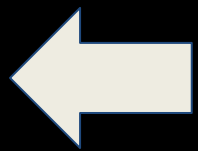
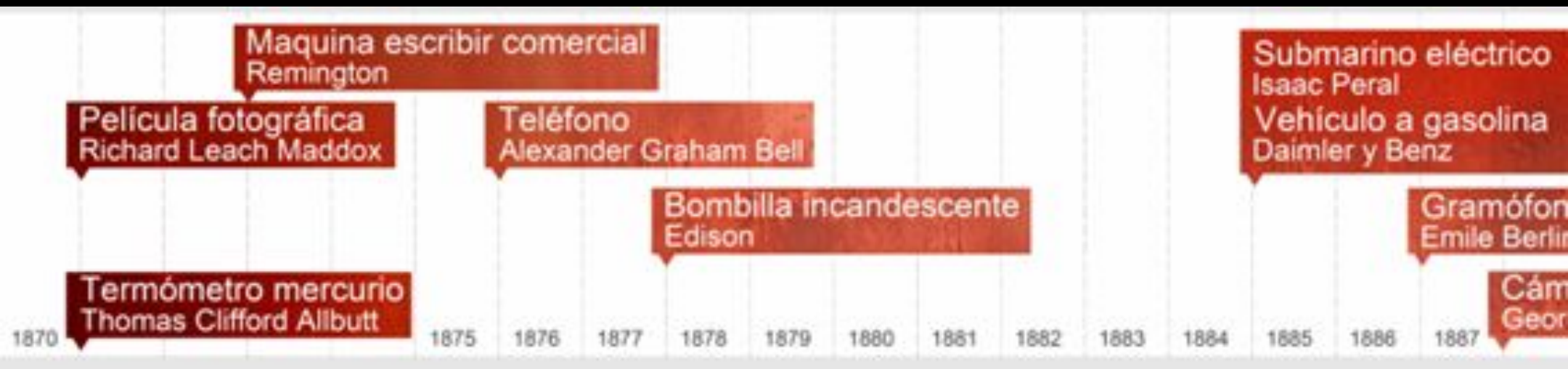
1860



2025

The visit continues  
at point 3 on the  
map.





# 1860 SUGAR CANE MANUFACTURING INDUSTRY

Ramón de la Sagra was a versatile Galician man who actively participated in the sugar cane transformation process.

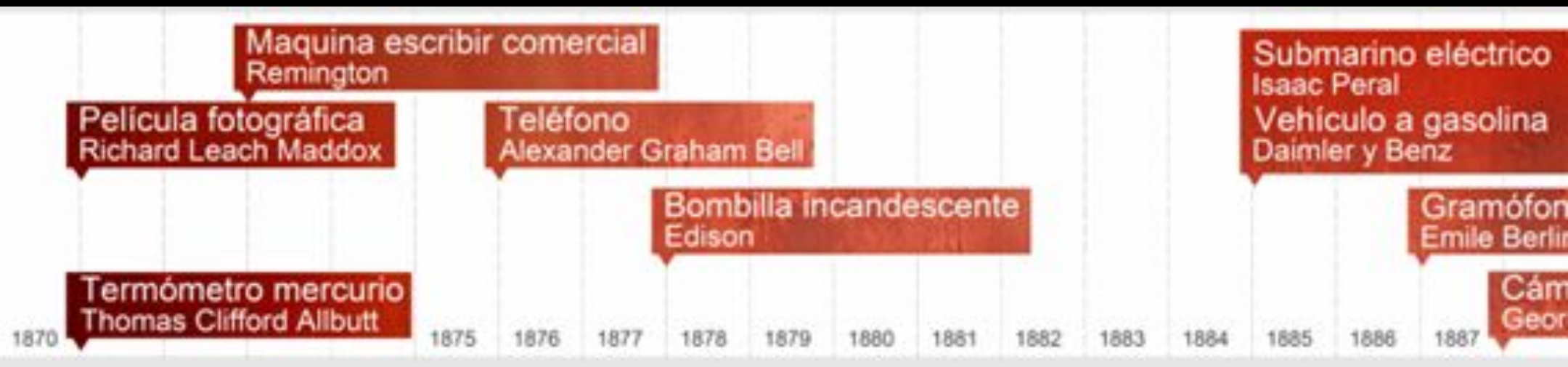
He wrote a report that was a valuable analysis of the farming and manufacturing methods followed on the coast.

After his conclusions and with the use of steam as the engine of these transformation processes, the Peninsular Society installed the first mechanized factory in Almuñécar in 1845.



From that date on, the industrialization of sugar began, by taking the pre-industrial sugar mills and factories completely. until the early 1860s, thankfully to the protectionist policies of the State.





## INAUGURATION OF NUESTRA SEÑORA DEL PILAR SUGAR FACTORY

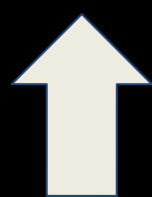
# 1882

On 14th January 1882, the official deeds of sale to the company Burgos, Domínguez y García were formalized. Later, in 1893, the Marquise of Esquilache, Ms. Pilar de León y Gregorio, became the owner of the entire property.



The original design of the factory was by an architect from Granada, Francisco Giménez Arévalo, who followed the typology of the sugar world, the factory-colony model: the factory building, three warehouses for belongings and tools, two houses for employees, two houses for doormen, twenty-seven houses for workers, farm equipment and stables.





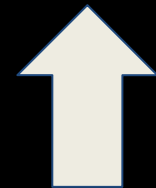
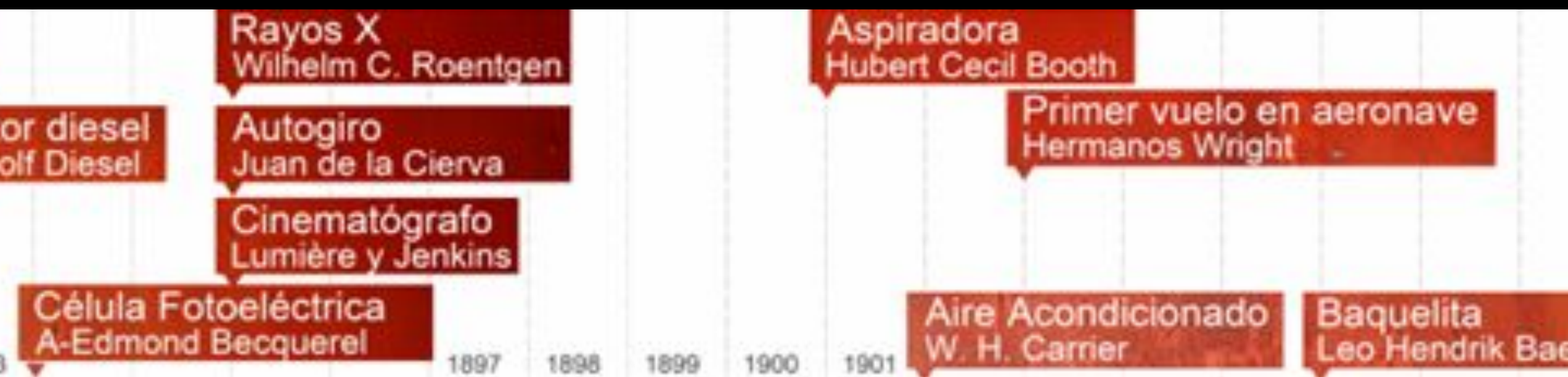
## FIRE IN NUESTRA SEÑORA DE LA CABEZA SUGAR FACTORY

# 1901

The vigorous development of the sugar industry on the coast of Granada and Malaga was not unconnected with the social inequality typical of industrial areas. The low prices imposed on sugar cane by landowners and businessmen, and the situation of scarcity, ended up into the desperation of day laborers and farm workers, which exploded on 24 April 1901, causing the fire in Nuestra Señora de la Cabeza Sugar Factory. At that moment, the factory was owned by the Larios family.







# 1903

## SPANISH GENERAL SUGAR COMPANY – (SGAE)

In 1903, the Spanish General Sugar Company, (SGAE) was created to control the production and the general sugar market due to the overproduction that caused large losses. The production will reach the 97% of the national sugar, both cane and beet, in its 56 factories.

On 4th December 1903, the agreement was formalised for the sale of the Nuestra Señora del Pilar sugar factory (Motril) by the Marquise of Esquilache to the SGAE, whose ownership it would hold until the factory's definitive closure.



The SGAE acquired too, among others, Nuestra Señora de la Cabeza Sugar Factory (also known as “La Alcoholar”), Nuestra Señora de las Angustias Sugar Factory (also known as “Fábrica Chica” or “Fabriquilla”), San José Sugar Factory (located in Varadero - Port of Motril) and Nuestra Señora de Lourdes Sugar Factory.

# 1927

## AERIAL CABLE FOR SUGAR IN MOTRIL

In 1925 was planned the construction of an aerial cable for the transport of goods (flour, cement, sugar and fertilizer) in wagons with a load capacity of 700 kg each. The aerial cable linked the port of Motril with the town of Dúrcal and was inaugurated in 1927.

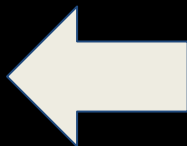
The first station of the Port of Motril was located in this sugar factory. The distance between the factory and the port was 2,673 meters.



This station was a rectangular construction inside of the factory complex and located on the left side of the entrance to the Plaza de las Cañas.

The cable crossed the sugar factory at the height of the offices and the Sugarcane Square until it ceased to operate in 1950.

	1939
LSD Albert Hofmann	1938
Puente Golden Gate San Francisco	1937
	1936
Radiolocalizador (radar) Robert Watson-Watt	1935
	1934
	1933
	1932
	1931
Neopreno J. A. Nieuwland y Carothers	1930
	1929
Penicilina Alexander Fleming	1928
1ª Película comercial sonora T. W. Case	
Televisión John Logie Baird	1926
	1925
Electroencefalograma Hans Berger	1924
	1923



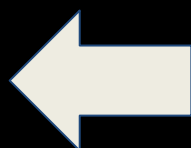


# 1930

## THE SUGAR FACTORY EXPANDS ITS PRODUCTION CAPACITY

As a result of a major modernization carried out by the Sociedad General Azucarera de España (SGAE) between 1929-1930 to improve its production, the "Nuestra Señora del Pilar" sugar factory became an important factory milling about one third of the sugar cane of the Vega del Guadalfeo

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	1923



Then, was installed a new mill train ordered from Fives-Lille of Paris, a new 550 liters per minute direct-acting (steam) pump, two new Philippe mechanical syrup filters, a Vernon mechanical sugar drying system, a sugar elevator, a Sterling steam boiler. And the existing chimney was built, which was ordered to M. Jacobson, with a height of 45 meters and a diameter of about 4 meters.

# 1936

## SPANISH CIVIL WAR

During the Spanish Civil War (1936-1939), the sugar factory was a strategic production site and was militarised, with part of its facilities converted into seven air raid shelters. It was bombed on 26th April 1937, killing fifteen people and destroying the sugarcane conductor, which paralysed production for ten days.



In the 1940s, as a result of the war, machinery and equipment brought in from other SGAE sugar factories was installed to bring the factory back to full capacity.



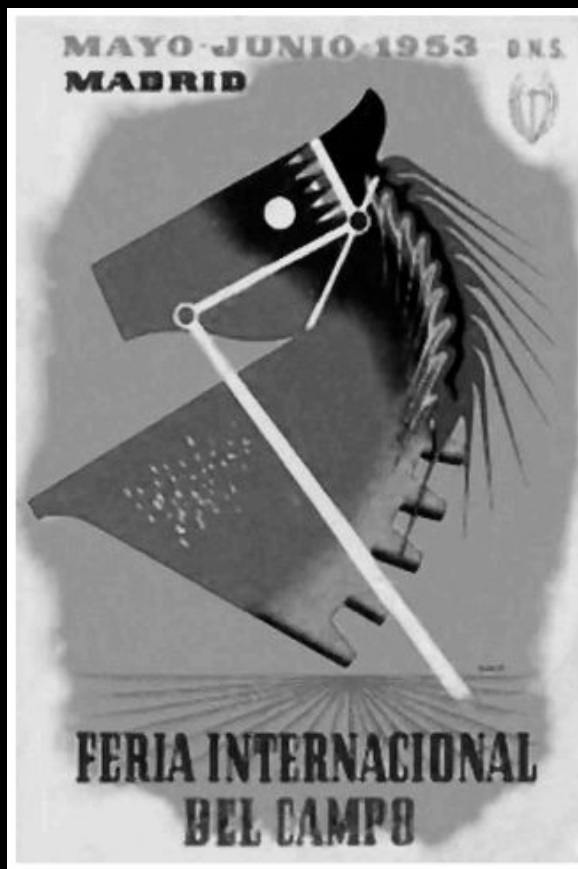


# 1953

## GENERAL SUGAR COMPANY OF SPAIN

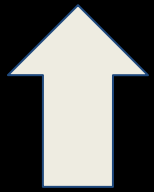
En 1953, the II Feria del Campo in Madrid was an international event.

The provinces of Málaga, Granada and Almería shared a pavilion with a model that could produce sugar and illustrated the process of making it from sugar cane.



At the fair, each day was dedicated to a different province, making a journey through the whole of Spain and capturing some of its rural, folkloric and culinary atmosphere.

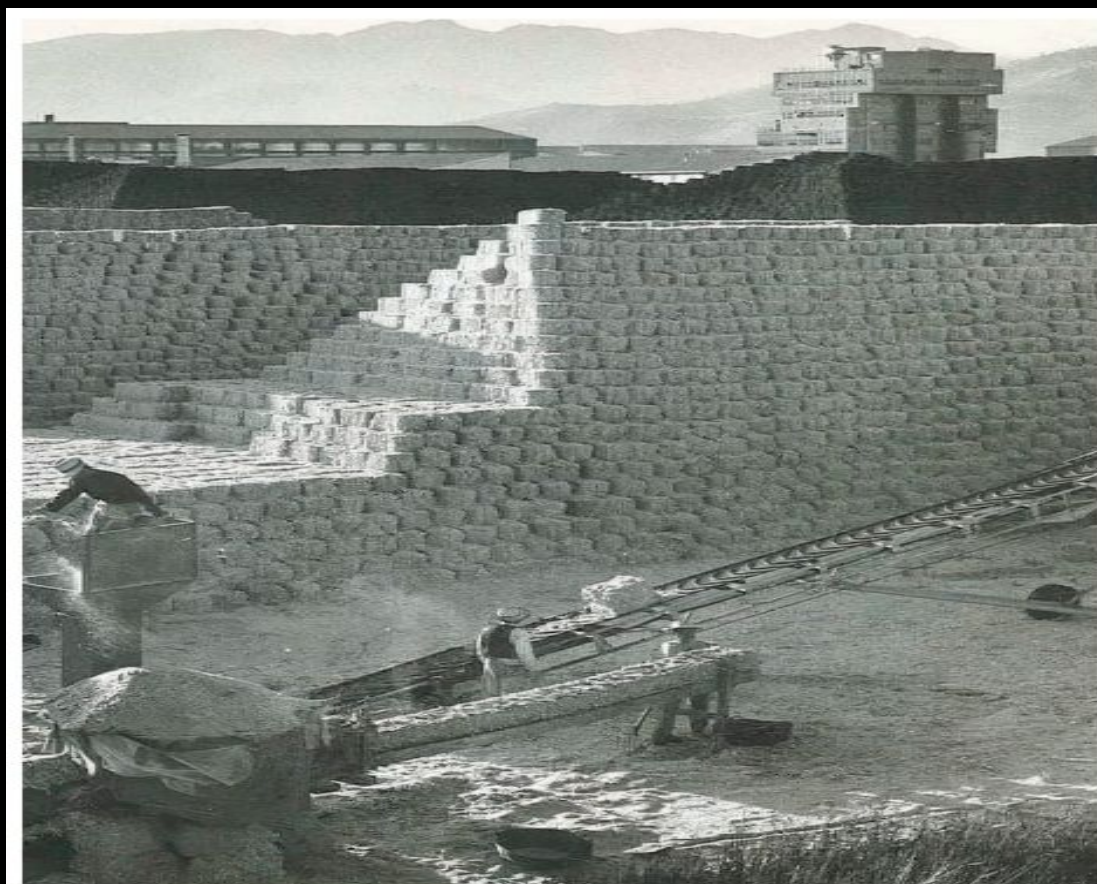
It was made by the Escuela de Artes y Oficios de Motril and is still preserved, now in the Fábrica del Pilar.



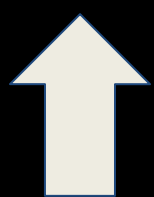
## THE PULP MILL STARTS ITS OPERATION

# 1963

In 1963, the National Cellulose Company was inaugurated. It was set up near the port of Motril, driven by the surplus of bagasse. This is the waste from sugar cane that is used to make paper, exploiting the cellulose content of its fibres. The bagasse was piled up in mountains overlooking the fertile lowlands. The importance of the mill to local society was undeniable, and more than three thousand workers passed through it.





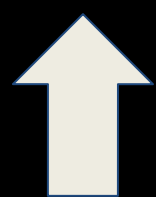


# 1970 PAYMENT FOR QUALITY

In a process controlled by the company and the cane growers' cooperative, the product was analysed on arrival at the factory to determine its composition, and each consignment was paid according to its quality (sucrose content).

The analysis was carried out in the laboratory, located in the Sugar Cane Square, with the help of the tasting bridge or “rupro”, which took the cane samples directly from the truck load.





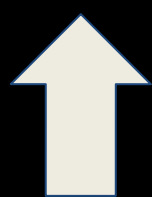
# 1973

## ATTEMPT TO MECHANISE SUGAR CANE HARVESTING

Two "Massey Ferguson" cane cutters arrive at the port from Australia, bought by the "Azucarera Montero". They came to make up for the lack of labour due to emigration, but were unsuccessful due to the small size of the properties, which did not allow them to be used, despite unsuccessful attempts to merge the properties of different farmers.







# 1979 THE FILM FACTORY

The Pilar Factory is the setting for the film 'Cuba', an action-adventure film starring Sean Connery and directed by Richard Lester. The locations and scenes of the film take place in Jerez, Cadiz and Motril, in this sugar factory and near the Camino del Canal, in the area of Monte Castillo known as the Era del Maíz, more precisely above the aviation barracks.



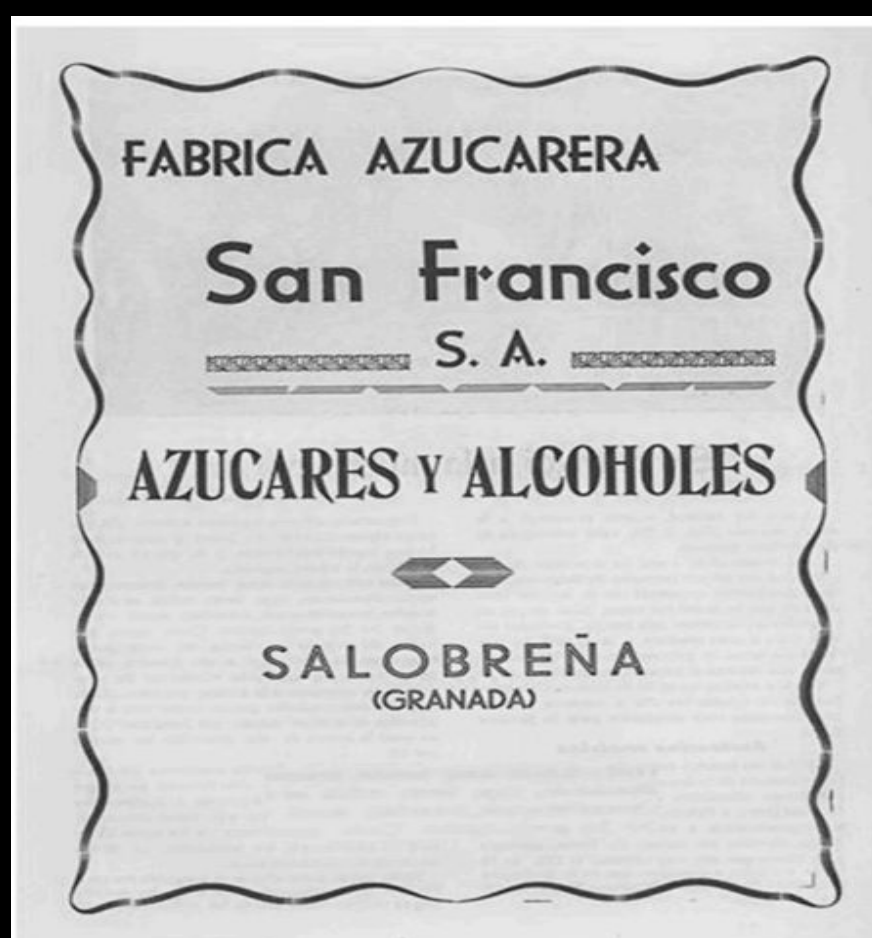


# 1980

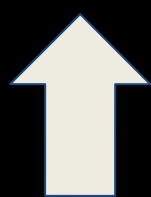
## NUESTRA SEÑORA DEL PILAR AND SAN FRANCISCO (IN SALOBREÑA) SUGAR FACTORIES

A new trading company, “Sociedad General Cañera S.A.”, was set up to address the low profitability and persistent losses of the two mills.

the low profitability and persistent losses of the two factories. It acquired the land and buildings and is planning works to increase the technical operating yields.







## NUESTRA SEÑORA DEL PILAR SUGAR FACTORY CEASES TO PRODUCE 1984

An extraordinary general meeting was held on the 26th September 1984, at which the closure of the facilities for sugar production in the factory was approved, as well as an employment regulation plan, whereby the workers could be relocated in other centres of the company or its subsidiaries, receiving free accommodation at the new site or financial compensation of 15 000 pesetas.





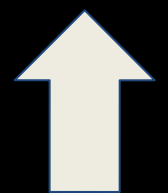
# 1988

## MOTRIL SHOWS OFF ITS TECHNOLOGY WITH A MODEL FROM THE 1950S



In 1988, the national commission coordinating the exhibition "Spain, 200 Years of Technology", to commemorate the second centenary of the death of King Carlos III, chose Motril to show the evolution of technology in Spanish industry over the last two centuries.





# 1989

## ARCHAEOLOGICAL DISCOVERY, PRE-INDUSTRIAL SUGAR MUSEUM

During the construction of the Casa de la Palma in Motril, the archaeological remains of a sugar mill were discovered behind the house.

A museum has been created with replicas of the machinery used to produce sugar cane in the pre-industrial era in Motril, when sugar cane cultivation flourished between the 16th and 18th centuries.

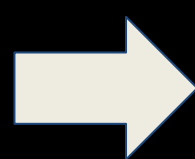
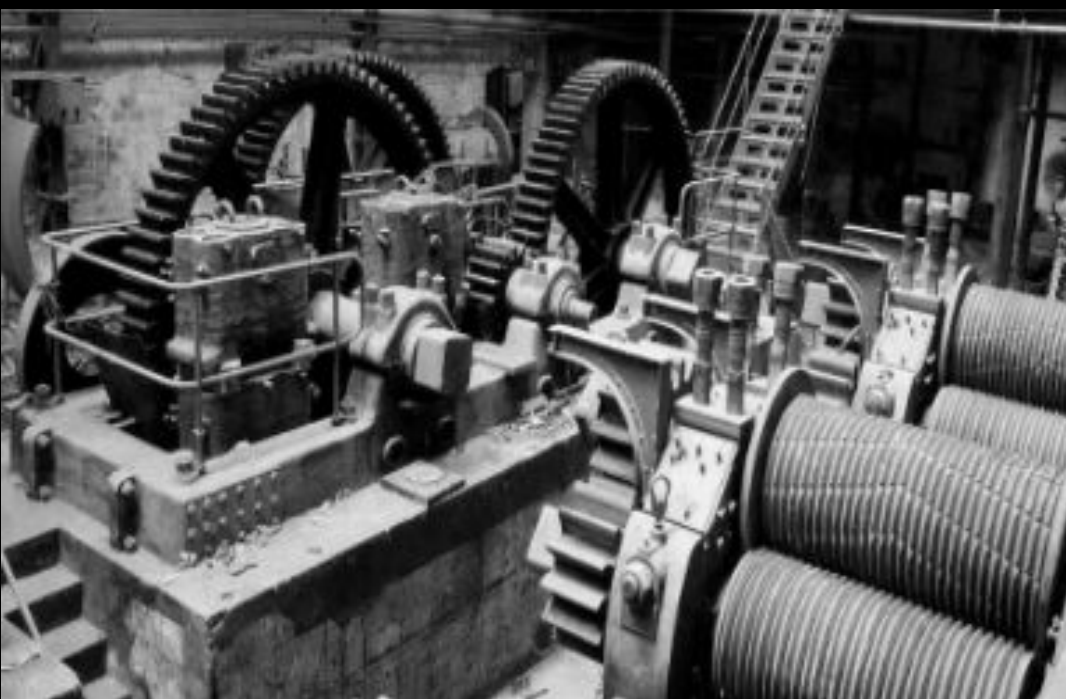


# 1997

## THE PROCESS OF TRANSFORMATION INTO AN INDUSTRIAL MUSEUM BEGINS

The Motril Town Council and the SGAE reached an agreement on the transfer of the sugar refinery to the Sugar Cane Industrial Museum.

A year earlier, in 1996, the machinery was protected thanks to its registration as a BIC (Asset of Cultural Interest), in the General Catalog of Andalusian Historical Heritage, thus beginning the path to its transformation into a museum.

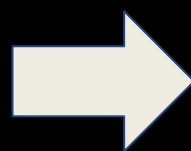




# 2008

## FIRST WORKS TO ADAPT THE COMPLEX

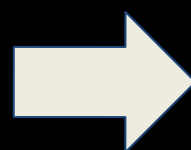
Between 2005 and 2008, consolidation and cleaning work was carried out on the site, which will allow the gradual activation of all the buildings and new uses.



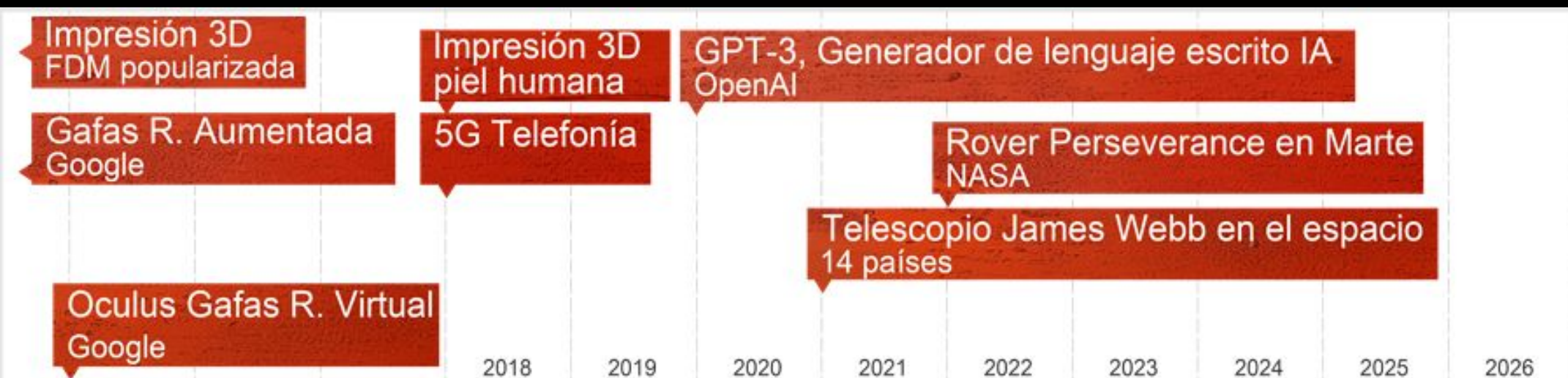
# 2011

## OPENING OF THE EXHIBITION HALL - THE SUGAR WAREHOUSE

The Sugar Warehouse is inaugurated as an exhibition and multipurpose space where very relevant activities for the future Museum are carried out. It is the first building in the complex to be activated, allowing the factory to be incorporated into the cultural activity of the city.





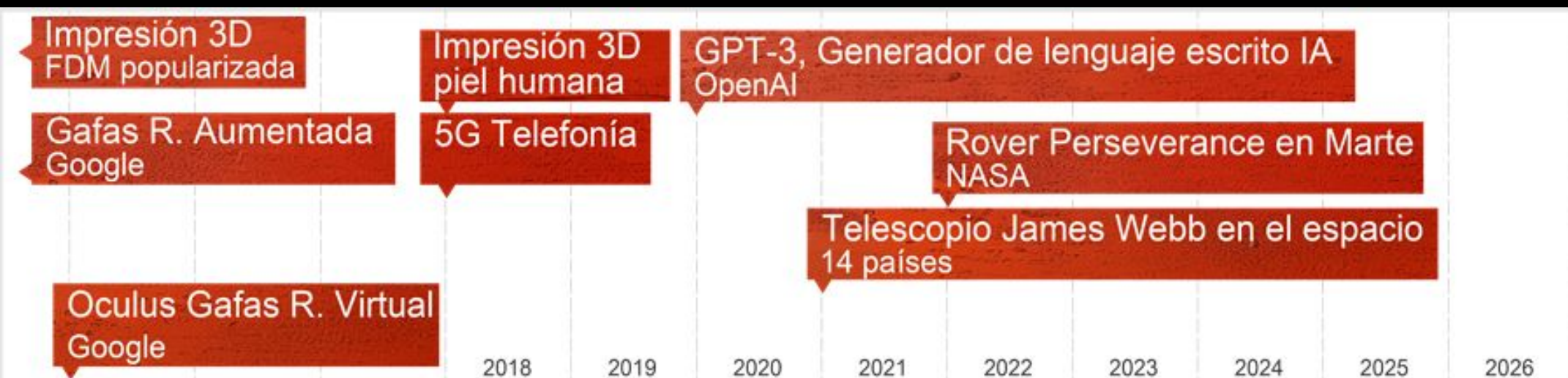


# 2013

## MOTRIL AND THE SUGAR: LANDSCAPE, HISTORY AND HERITAGE

The Andalusian Legacy, the Junta de Andalucía and the Motril City Council organize an Exhibition with more than 350 elements, among which the first restored original pieces belonging to the factory machinery are already incorporated.





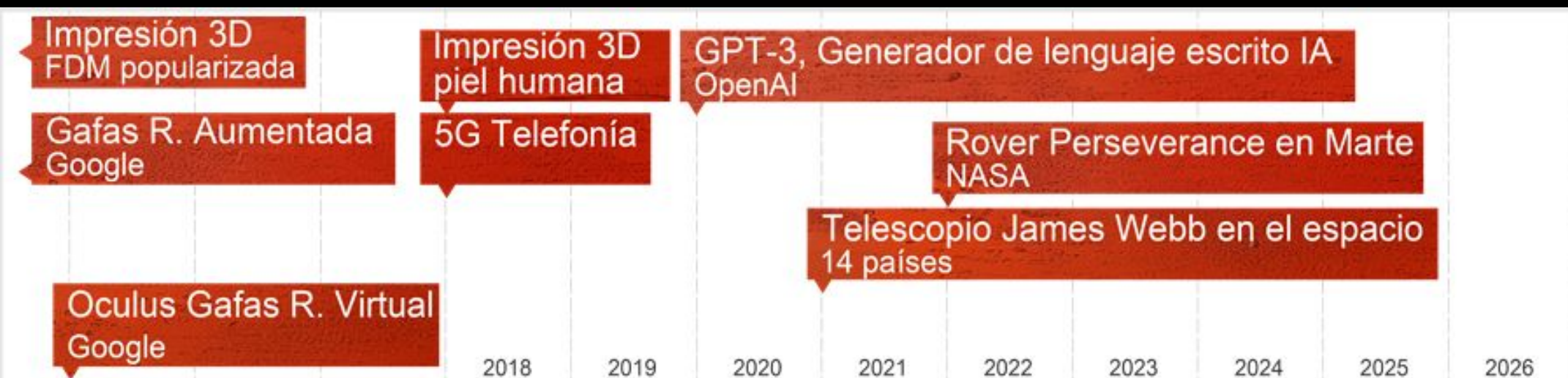
2015

THE MUSEUM ALREADY HAS A MASTER PLAN IN PLACE

The Municipal Plenary assembly unanimously approves the Director Plan of the Industrial Sugar Museum and an endorsed document is now available to manage the actions and resources necessary to bring the museum as a reality.





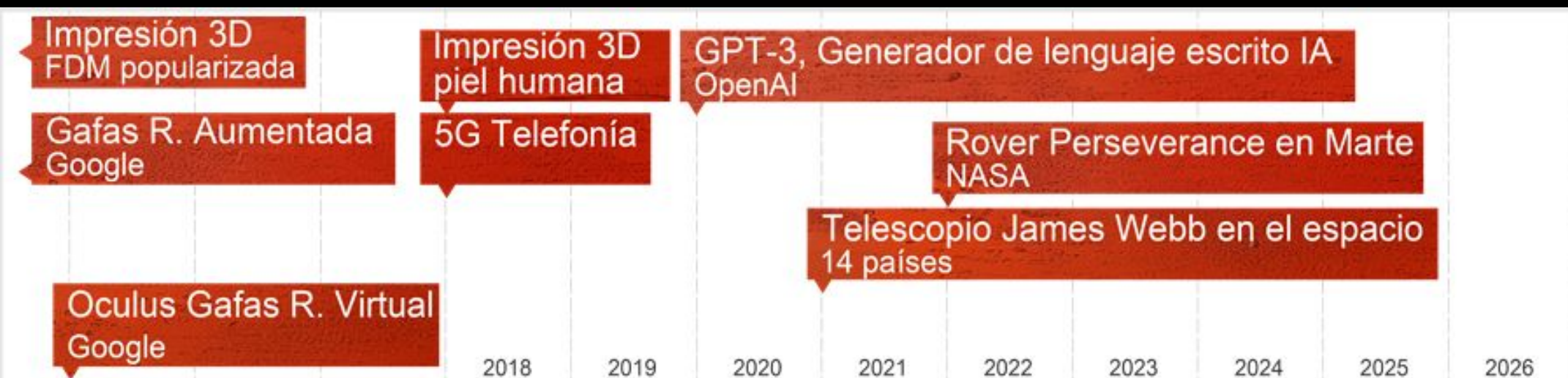


# A CAFE-RESTAURANT FOR THE FUTURE MUSEUM 2016

The Museum's new cafe-restaurant is located in the former chapel and stables of the factory complex with public and private investment.







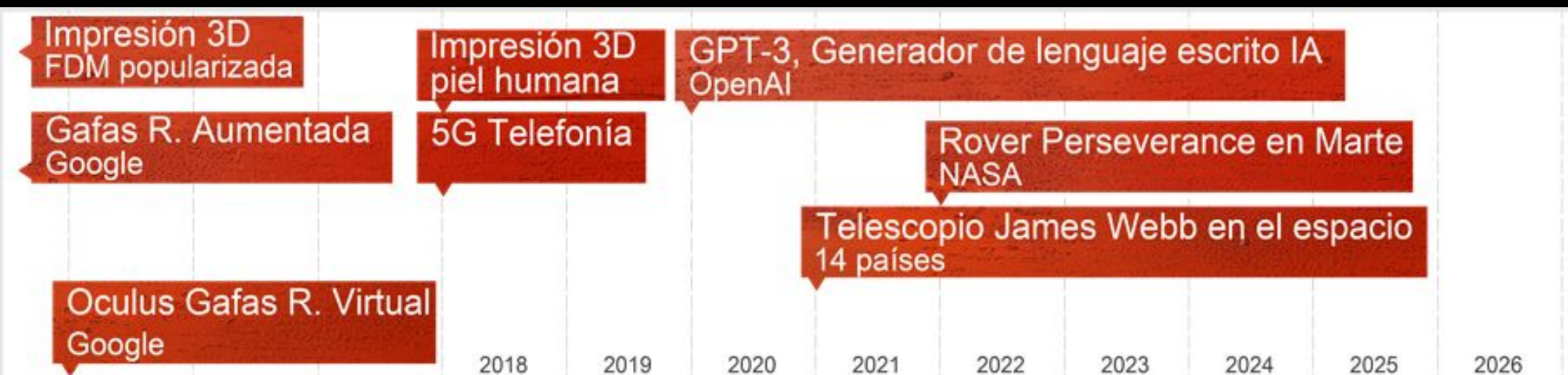
2022

## INSTITUTIONAL HEADQUARTERS OF THE SUGAR INDUSTRIAL MUSEUM

The former Engineer's House becomes the Institutional Headquarters of the factory.







# COMPLETION OF ACCESS TO THE INDUSTRIAL BUILDING HOUSING THE MILLS

# 2023

Completion of the works that will allow visitors to visit the building that houses the mills and the Plaza de Cañas, thus opening the museum in the factory.



The visit continues at  
point 3 of the itinerary.



Museo del Azúcar

CONCEJALÍA  
**PATRIMONIO INDUSTRIAL  
DEL AZÚCAR**

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