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AEMuseum: from Heritage to build the Future

EOGAN 2024 at TotalEnergies

How can archives help to answer the question: "Who has shaped energy transitions?"

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I am so glad to be here, after 7 years from the EOGAN Conference held in Paris, to talk again about Heritage and energy transitions. The pandemic period was not easy for EOGAN but we are here together again as a network sharing common projects and perspectives, even more special on the occasion of the 100th anniversary of Total, which I thank for its hospitality.

To start, just two words to remember who we are and our activities: Fondazione AEM was established in 2007 to preserve the historical heritage of AEM (Azienda Elettrica Municipale di Milano), one of the most important energy companies in Italy, now Gruppo A2A.

Beyond the protection of its industrial heritage, Fondazione AEM supports scientific research for energy sustainability, cultural and charity projects, especially in Lombardy region.

All projects are in line with the UN 2030 Agenda - Sustainable Development Goals that Fondazione AEM share with Gruppo A2A.

If I wanted to define the history of AEM with one sentence, I would use the final gloss of one of the film masterpieces of our archive "A river of light" (1958) by the poet and director Nelo Risi: "A public work is never finished". Established in 1910 after a public referendum by the Municipality of Milan, following the Giolitti law on the municipalization of public services (1903), the Electric Municipal Company of Milan accompanied the economic and industrial growth of Milan throughout the twentieth century, benefitting, since its foundation, from innovative hydroelectric plants, in a fragile and symbiotic balance between the city and the mountain area of Valtellina Valley.

100 years of work between territories and communities that has generated not only economic and social progress, but an important historical heritage composed by archives (former administration papers, photos, movies, oral history, etc.), historical power stations, paintings, library and more.

All these funds are preserved in the old Piazza Trento Power Station, one of the most important places for the industrial history of AEM and great symbol of modernity of Milan.

Headquarter of Fondazione AEM is instead an old electric substation transformed into an interactive and multifunctional hub open to citizens of all ages dedicated to A2A Heritage, culture and sustainability. Protection of historical memory and look towards the future come together in a coherent and wide-ranging project, always in connection with the life and well-being of citizens.

So, let's go to the topic: How can archives help to answer the question: "Who has shaped energy transitions?"

For us, a possible answer is provided by the soul of our new corporate museum: AEMuseum, a multifunctional space and dynamic open everyone in 2022, dedicated to the heritage of AEM, culture and sustainability. The space is designed as a truly immersive area in which the past comes to life thanks to the use of photographic and filmic archives, industrial objects and paintings from our art collections with a close relationship between analogue and digital.

Movies, interactive exhibits and exhibitions of objects accompany visitors on a journey of discovery of the extraordinary history of AEM from the origins of public lighting to its transformation into a Life Company and its fundamental role in the industrialization of Milan and the country.

So, preserving memory to build the future means sharing the extraordinary richness of its archives in a dynamic way and with different languages: this is the desire of Fondazione AEM to implement a valorization in a contemporary key of its historical heritage to reach a variety of audiences in a dynamic and effective way with is AEMuseum.

A museum that must be a reference for communities and for the company, preserving values and identities, at the same time being a beacon for the future and new generations.

The most representative exhibit of our museum is certainly the "Rattin" (little mouse) station: moving a joystick users will be able to operate and control the "rattin", which will activate, through its movement, various contents multimedia on the history of AEM. The "Rattin" is that same prodigy of mechanical technique which allowed, alone, the ignition of over 600 gas jets placed on a track in the Galleria Vittorio Emanuele in 1867. If once this little mouse lit the gas lights in the heart of Milan, now it lights up the stories of AEM, through the description of four different objects and periods.

Gas, yes, I said gas, but what does an electric public company founded in the twentieth century have to do with this previous period. We now come to some examples of how the archives told in our museum can lead to thinking about past and future energy transitions.

It's not possible to describe the energy evolution of the city of Milan without talking about the evolution of the gas industry for lighting and the important transition that will lead Italy to ride the Second industrial revolution characterized by the use of electricity. Thanks to an enlightened entrepreneur and professor at the Polytechnic of Milan, Giuseppe Colombo, Milan had the first continental thermoelectric power station of Santa Radegonda (1883), only one year after the first world power station of Pearl Street in New York City built by Thomas Edison.

This is beginning of a process that will lead to the birth of the Italian Edison Company, which will slowly establish an electricity monopoly in the city from tram traction to the supply of energy for private users and industry, soon destroying the previous monopoly of gas lighting.

If the basis for the gas industry and the start of the first thermoelectric power plants is still coal, in the mind of Giuseppe Colombo and a polytechnic ruling class there was already another objective: the use of the *Houille Blanche*. A country poor in fossil fuel like Italy had to immediately bet on technological innovation and its water resources, not because they are clean or naturally renewable - as we would say today - but because they are necessary for the development.

With the start of the innovative Bertini power plant in Paderno d'Adda in 1898, hydroelectric power found a privileged place in the Lombardy region. The Adda and Ticino rivers immediately offered their waters but soon the first hydroelectric power plants proved inadequate to satisfy a growing demand for energy, not only for lighting and public transport, but above all for the growing demand of large industry. The mountain territories and their rivers in the valleys began to be coveted by private and municipal companies, starting the great season of the Italian hydroelectric industry which lasted more than half a century.

In this process characterized by a polytechnic ruling class and witnessed in our museum the dialogue between our different archives, the history of AEM began, which will allow the production of electricity, from hydroelectric sources, at a lower cost, breaking the monopoly of private companies and allowing the industrial development of Milan in the twentieth century.

The municipal company extended soon its power supply to the tramways network, and, in the inter-war years, designed new power plants and large dams and reservoirs in Valtellina to meet the higher energy requirements of a growing urban population and industrial development.

After the Second World War, AEM implemented three business plans to extend and enhance its whole hydroelectric system, creating the synergies that supported post-war reconstruction and the industrial development of the metropolitan area during the raise of the Economic Miracle.

The key person of this period was the president of AEM Roberto Tremelloni (1951-1962). Journalist, professor at the Polytechnic and politician, three times minister of the Italian government, Roberto Tremelloni is also the key person of the Marshall Plan. In this context it's interesting to note how Tremelloni counters American pressure on fossil fuels and instead launches in AEM a large hydroelectric plan that will guarantee energy for the next 50 years. Again, who shapes the transitions? A smart ruling class, with technical support and innovation and awareness of the resources in the territory.

Unfortunately, with the nationalization of electricity (1962), the Italian energy policy was directed towards the use of fossil resources. The Vajont tragedy of 1963 symbolically decreed the end of the utopia of hydroelectric autonomy, leaving also a profound mark in the collective memory, in particular for the price paid for modernization, imprinted in the transformation of the territory and in local communities.

A final example of how past energy transitions can be told by our archives in the AEMuseum can be given by AEM's reaction to the energy crises of the 1970s. After a difficult period, in the 80s AEM took over the gas service formerly provided in Milan by Montedison and was involved in the progressive methane supply in the city. In this time AEM (now Energetic Municipal Company) change its identity in a multiutility and, at the same time, created a new energy plan whose fundamental principles were energy efficiency and the diversification of strategic interventions, such as the launch of district heating or the underground cabling of the city, anticipating by decades activities that then became urgent with the new millennium. Again, in times of troubles, thoughtful and long-term choices from a smart ruling class.

All these themes in the AEMuseum are then directly connected to our "Archivistic soul" on the Fondazione AEM website and to the new online platform of the AEM historical archives, which today contains around 13,000 images.

For today's and future energy transitions? We come back to the AEMuseum, in a second exhibition space of which has as its founding principle the use of historical heritage to understand the present and project visitors towards the future through the Sustainable Development Goals of the UN Agenda 2030.

This space, inaugurated last year and a natural continuation of the existing one, is the result of careful recovery, valorization and energy efficiency work of the previous area dedicated to the school.

In the new area there are two interactive LED walls dedicated to the themes of sustainable development and energy poverty, designed as a dissemination tool, but also as a tool for "navigating" between the company's past and the Foundation's present through the SDGs.

Through a periscope, it's also possible to "fly" 100 meters above the Foundation's headquarters and see the historical places of AEM. A particular section of the museum is dedicated to the younger generations thanks to the European project "Let's Act!!", designed as a gaming platform to actively educate young people about sustainable development.

AEMuseum, in addition to being part of the Museimpresa network, the Association of Italian Corporate Museums and Archives, is within the European industrial tourism routes promoted by the Council of Europe thanks to ERIH - European Route of Industrial Heritage.

Speaking of how archives can be useful in understanding and guiding the energy transitions of the future, I close with a few words on a project that sees the museum as the cultural epicenter on the topic.

Last year Fondazione AEM, together with other partners, has created the first industrial tourism route in Italy. The Po Valley Water Route, focused on water and its uses, will allow us to unite historical heritage, environment, economy and society in a very long-term perspective.

The Lombardy hydraulic system is a widespread heritage of exceptional historical and cultural significance, which for an important part continues to play a role of significant importance for the regional economy and the hydraulic balance of the territory. Today, the potential of this heritage is finally beginning to be recognized, which on the one hand testifies to the importance of technical culture in the economic and social history of Lombardy, and on the other offers great opportunities for local tourism capable of combining entertainment and environmental sustainability.

Climate change has drawn the public's attention on this asset, which for way too long has been considered as a sheer natural component and has unraveled its interdependence with natural and social factors.

The Route can be traveled across starting independently from two points: on the one hand, from the Museum of Hydroelectric Energy of Cedegolo (Anchor Point ERIH and main gateway) and, on the other, from Milan through the AEMuseum. The large - and already existing - network of bicycle paths - ideally connecting cities and mountains - allows to activate other important landmarks in the countryside and to form integrated touristic itineraries. A capillary and eco-friendly network of public transport connects all landmarks.

This Regional Route and its network can promote knowledge of the historical and environmental heritage, enhance the touristic potential of the multitude of landmarks on regional territory, promote environmental awareness and collective awareness on the protection of natural and historical landscapes, organize a huge agenda of cultural initiatives and spread new environmental awareness on sustainability and renewable energy.

Another small example of how archives and historical heritage are extraordinarily relevant today in accompanying us in the challenges and transitions of the future, while waiting for new and more smart ruling classes, the salvation of our planet also relies on us.