

Re-mining Punta Corna. A Laboratory on the Local Impacts of the Critical Raw Materials Act in the Alpine Region

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Special Session 2

Re-mining Punta Corna. A Laboratory on the Local Impacts of the Critical Raw Materials Act in the Alpine Region

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Abstract

The transition to a clean energy economy requires securing critical minerals—such as nickel, copper, and cobalt—vital for low-carbon technologies. The EU Critical Raw Materials Act (2023) promotes domestic sourcing to reduce reliance on external suppliers. Our investigation explores the environmental and socio-economic impacts of renewed extraction in Europe, focusing on Italy, which holds 16 of the 34 listed materials but has seen no active metal mining since the 1970s. Using Punta Corna, a former cobalt mine in the Alps, as a case study, we analyze tensions between extractivist strategies and local economies based on tourism. Through cartographic analysis, we contrast industrial development with protective territorial approaches, raising questions on sustainability, peripheralization, and governance. The findings illuminate broader trade-offs in implementing green transitions within contested Alpine landscapes.

Keywords: re-mining, alpine region, territorial patrimonialisation, extractivism, depopulation

Introduction

The transition to a clean energy economy requires secure access to critical minerals—such as nickel, copper, and cobalt—which are indispensable to advanced technologies and low-carbon infrastructures. The European Critical Raw Materials Act (2023) addresses this imperative by promoting the domestic extraction, processing, and recycling of such materials, with the aim of strengthening the EU's strategic autonomy¹ while reducing its dependence on external suppliers. This paper explores the environmental and socio-economic implications of renewed extractive activities in Europe, focusing in particular on Alpine landscapes. Among European countries, Italy presents a particularly relevant case: despite possessing 16 of the 34 critical raw materials listed in the CRMA, the country has not hosted active metal mining operations since the 1970s.

Our investigation centres on the Italian government's current strategy, which aligns with European directives and proposes the reopening of former mines and the exploration of new sites, especially in the Alpine regions. This strategy is paralleled by the necessity of substantial investments to recover industrial and technological capacities eroded over decades. A particularly emblematic case is that of Punta Corna, once the largest cobalt mine in Europe, which today represents a critical site for interrogating the tensions between extractivist development and alternative local economies grounded in tourism, environmental valorisation, and territorial patrimonialisation.

Through cartographic and discursive analysis, we examine the conflicting narratives surrounding these mining

¹ Strategic autonomy refers to the European Union's capacity to act independently in key policy areas—such as defence, energy, technology, and industrial supply chains—without excessive reliance on external powers. Originally developed in the context of security and defence, the concept has expanded in recent years to include economic and technological dimensions, particularly in response to geopolitical instability, global supply chain disruptions, and the growing rivalry with China and Russia. Within the framework of the Green and Digital Transitions, strategic autonomy has become central to EU policy discourse, justifying initiatives like the Critical Raw Materials Act as means to reduce vulnerability and strengthen Europe's resilience in a rapidly changing global landscape.

initiatives. On one side stands a re-emergent extractivist paradigm; on the other, what Boltanski and Esquerre (2019) term the “enrichment economy”, oriented around ultra-protective territorial strategies and the valorisation of heritage, landscape, and place-specific assets. These competing visions raise fundamental questions concerning the sustainability of new extractive projects and their alignment with the values and aspirations of local communities, often situated on the margins and affected by processes of depopulation and infrastructural retreat.

By framing Punta Corna as a case study, we argue that it serves as a privileged lens through which to understand the socio-political and territorial impacts of the Critical Raw Materials Act. The site functions as an experimental laboratory where local fears and hopes surrounding extractive futures materialise, offering broader insights into the contradictions embedded in Europe’s green transition and the contested geographies of sustainable resource governance.

In this context, the reactivation of mining frontiers in the Alps occurs not in a vacuum, but amid rapidly accelerating climatic and ecological changes. As one of the fastest-warming regions in Europe, the Alpine space is experiencing the retreat of glaciers, permafrost thaw, and hydrological shifts that threaten both ecosystems and livelihoods. These transformations form the critical backdrop against which new extractive activities must be assessed.

The paper is structured in four main parts. Part 1 introduces the European Critical Raw Materials Act (CRMA) within the broader framework of the green transition, outlining its objectives, regulatory mechanisms, and geopolitical implications. Part 2 turns to the Italian context, describing national strategies for the reactivation of mining activities and the tensions these raise with existing territorial models centred on heritage, tourism, and environmental valorisation. Part 3 shifts the focus to the Alpine region, analysing how renewed extractive pressures intersect with accelerated climate change and historically stratified landscapes. Part 4 presents the case study of Punta Corna, examining local conflicts, governance asymmetries, and the competing visions for development in marginal mountain areas. The conclusion reflects on the broader stakes of extractive reterritorialisation in Europe, advocating for more situated, democratic, and ecologically attuned approaches to resource governance.

1. The Critical Raw Materials Act and the Return of Mining in Europe

In her State of the Union address of September 2022, President von der Leyen, while addressing Europe’s dependence on Russian gas, also drew attention to the risk of overreliance on third countries for the supply of rare earths. On that occasion, she announced the forthcoming European legislation on strategic raw materials: the so-called Critical Raw Materials Act (CRMA). This strategy aims to reinforce the European supply chain through a combination of trade agreements with countries such as Canada, Japan, and Vietnam; the promotion of material recycling; and—most controversially—the development of new mines within EU borders and the reopening of old mining sites (“re-mining”) using advanced technologies.

In March 2023, the European Commission outlined the contents of the CRMA, whose main goal is to guarantee a “secure, diversified and sustainable” supply of critical raw materials—resources deemed essential for both the green and digital transitions. One of the key aims of the CRMA is to reduce Europe’s excessive dependence on a single supplier country, in line with the broader objective of strengthening the EU’s strategic autonomy in an increasingly unstable geopolitical landscape. At present, the EU’s dependence on imports is both acute and highly concentrated: 98% of its heavy rare earths and 99% of light rare earths, along with 93% of magnesium, come from China; 68% of cobalt is imported from the Democratic Republic of Congo; 78% of lithium from Chile; 71% of phosphorus from Kazakhstan; 64% of bauxite from Guinea; and 62% of antimony from Turkey (II Sole 24 Ore 2023a) (as shown in Fig.1). This reliance on non-European suppliers raises not only questions of strategic vulnerability but also significant ethical and environmental concerns. For example, cobalt extraction in the DRC has repeatedly been linked—by Amnesty International and other organisations—to child labour, human rights violations, and severe environmental degradation (Martin Sanchez, Gori Nocentini 2025).²

2 Almost three quarters of the world’s cobalt production takes place in the Democratic Republic of Congo. Most mining

In its communication A Secure and Sustainable Supply of Critical Raw Materials in Support of the Twin Transition (European Commission 2023a), the EU provides projections that illustrate the dramatic rise in demand for these materials: demand for rare earths is expected to increase 4.5 times by 2030 and 5.5 times by 2050, while lithium demand—primarily driven by the growth of electric vehicle batteries—is forecast to rise elevenfold by 2030 and seventeen fold by 2050. As with other domains of the green transition, the implementation of this new EU framework for critical raw materials reveals that the transition—often portrayed as clean, sustainable, and immaterial—is, in practice, underpinned by extractive logics that produce tangible and far-reaching effects on European territories, economies, and ways of life (Martin Sanchez, Gori Nocentini 2025).

2. Re-mining Italy: National Strategies and Territorial Contradictions

Despite the near-total dismantling of its mining sector over the past five decades, Italy remains geologically endowed with a wide array of minerals now considered strategic under the European Critical Raw Materials Act (CRMA).⁵ According to official data from the Ministry of Enterprises and Made in Italy, the country holds confirmed or potential availability of 16 out of the 34 critical raw materials listed in the regulation. However, the extractive industry—particularly in the field of metal mining—underwent a gradual and definitive decline during the 1970s, due to a combination of increasing labour costs, growing technical and financial challenges linked to deep extraction, and the broader economic crisis triggered by the oil shocks (Madeddu 2020). Since then, metal extraction has effectively ceased, and Italy has become fully reliant on imports to meet its industrial and technological demands.

In this context, the CRMA has provided renewed impetus to national discussions on resource sovereignty and strategic autonomy. The Italian government, through the Ministry of Enterprises and Made in Italy and the Ministry of the Environment, has outlined a strategy aimed at mapping disused or dormant extraction sites, with the goal of reopening or activating new ones in response to the anticipated surge in demand for strategic materials. This mapping process—entrusted to ISPRA within the framework of the PNRR-funded GeoSciencesIR programme—has resulted in the development of the GeMMA database, a national inventory of geological, mining and environmental data presented in early 2024 (ISPRA 2024).

According to this updated national dataset (refer to Fig.2), Italy hosts around 900 sites historically associated with metal extraction, none of which are currently active. At present, only feldspar and fluorite—non-metallic but CRMA-listed materials—are being commercially extracted. These minerals are essential for the ceramic, glass, and electronics industries. In particular, the fluorite mine of Genna Tres Montis in southern Sardinia—currently undergoing restructuring—is expected to become one of Europe's most significant sites (Ispra, 2024). Other formerly productive fluorite mines, especially in Lombardy, Trentino, Lazio, and Sardinia, are being reassessed, as the market price of fluorite has quadrupled since the 1990s (Il Sole 24 Ore 2023a)).

raw materials, 16 are considered 'strategic': bismuth, boron-metallurgical grade, cobalt, copper, gallium, germanium, lithium-battery grade, magnesium metal, manganese-battery grade, natural graphite-battery grade, nickel-battery grade, platinum group metals, rare earth elements for magnets (Nd, Pr, Tb, Dy, Gd, Sm, and Ce), silicon metal, titanium metal, tungsten.

5 With a law of 1982, the Italian state attempted – unsuccessfully – a revival of the sector by deploying substantial public resources to support activities from mining research to production (Madeddu, 2020).



Fig. 2 Cartographic representation of identified critical raw material reserves across the Italian territory.

Source: ISPRA, 2024. TO BE UPDATED

While active extraction of metallic critical raw materials is currently absent, ISPRA's data confirm the presence of numerous promising deposits. Copper, for instance—crucial to both energy systems and digital infrastructures—is documented in the Colline Metallifere, the Ligurian-Emilian Apennines, the western Alps, Trentino, Carnia, and Sardinia. Manganese was historically extracted in Liguria and Tuscany. Tungsten, often found alongside lead and zinc, is present in Calabria, Sardinia, and the central-eastern Alps. Cobalt is found in Sardinia and Piedmont, where the deposit at Punta Corna has been explicitly identified as a site of strategic relevance at the European scale (ISPRA 2024). Other resources include magnesite in Tuscany, magnesium salts in the Venetian Prealps, and bauxite in Apulia and northwestern Sardinia, particularly at the Olmedo site, the last operational metal mine in the country before its closure.

The Alpine arc, in particular, re-emerges as a key spatial node in this renewed extractive geography. From Friuli-Venezia Giulia to Piedmont, passing through Trentino-Alto Adige, Veneto, Lombardy, and Liguria, northern Italy hosts a significant share of the country's identified strategic resources. In Liguria, the well-known titanium deposit located within the Beigua Regional Natural Park—a UNESCO Geopark—is currently excluded from development due to environmental concerns. In the Veneto region, deposits of blende, pyrite and mixed sulphides, magnesium salts, clay, cement marl, baryte mines, and deposits of betontite, bleaching earth, refractory earth and kaolin are currently explored for a reopening. Abandoned in the 1950s they are located in areas of high landscape, naturalistic and tourist interest (Corriere del Veneto 2023, 2024). In parallel, new extraction frontiers are emerging in geothermal contexts: recent studies have confirmed the presence of lithium in geothermal fluids across Tuscany, Lazio, and Campania, with multiple research permits issued in 2023, especially in the Lazio region (Il Sole 24 Ore 2023b).

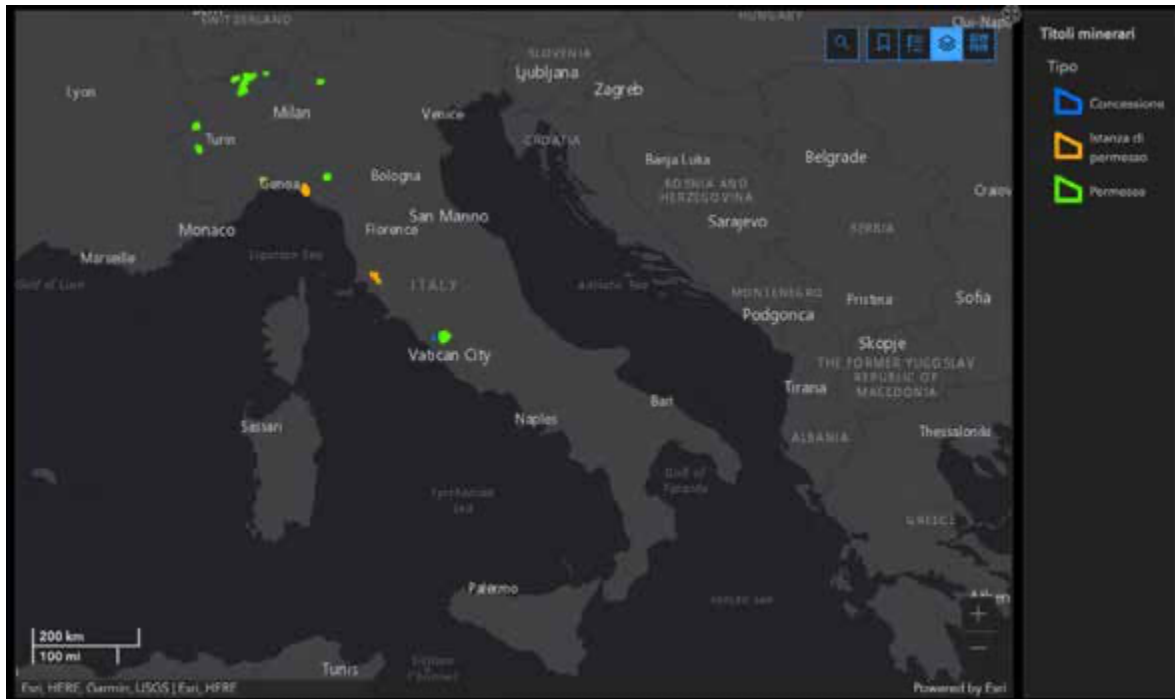


Fig. 3. Mining titles: concessions, permit applications, and permits. Source: ISPRA, 2024. TO BE UPDATED

These developments are now feeding into the elaboration of Italy's forthcoming National Mining Strategy, mandated by EU Regulation 1252/2024 and assigned to ISPRA through Decree Law 84/2024. This strategy is expected to define a comprehensive framework for the evaluation, prioritisation, and potential reactivation of mining operations, marking a shift from decades of abandonment to a new phase of institutional and economic attention to subsoil resources.

However, the reopening of mining sites in Italy after decades of inactivity raises a number of issues regarding the long-term sustainability of such projects and their compatibility with the development trajectories and imaginaries of local communities. For instance, mining appears in clear tension with the broader economic repositioning that Italy has undergone in recent decades—a shift that Boltanski and Esquerre (2019) define as the transition toward an economy of enrichment. This model marks a rupture with the Fordist paradigm of mass production that characterised the post-war period, and instead centres on niche markets and high-end goods, whose value is tied less to functional utility than to uniqueness, authenticity, and territorial specificity (Martin Sanchez, Gori Nocentini 2025).

In this context, patrimonialisation has increasingly become a strategic tool for territorial development. It seeks to identify and mobilise undervalued or overlooked resources—be they historical, cultural, or environmental—and turn them into economic assets. Often, this results in the transformation of dormant heritage into active heritage, enabling actors to appropriate and even reconfigure history in order to increase the perceived value of goods and services. As Boltanski and Esquerre (2019) note, this process tends to strip concepts such as heritage, identity, tradition, and memory of their inherent ambiguity and complexity, recasting them instead as instruments of market differentiation (ibid.).

Against this backdrop, the return of extractive activities not only disrupts the symbolic coherence of such strategies, but poses deeper contradictions regarding the role and meaning of territory in contemporary Italy. As Pank (2022) reminds us, the production of operational landscapes for mining requires profound transformations in material arrangements, value systems, and property regimes. These are not merely technical operations, but political reconfigurations—often at odds with the logics of territorial enhancement and with the forms of economic life currently dominant in many of the areas targeted by the CRMA. Yet, the reactivation of mining frontiers in the

Alps does not occur in isolation. These developments unfold within a context marked by increasing ecological vulnerability and climatic instability (Longhin, 2025), which profoundly shape the implications of extractive activities in these territories.

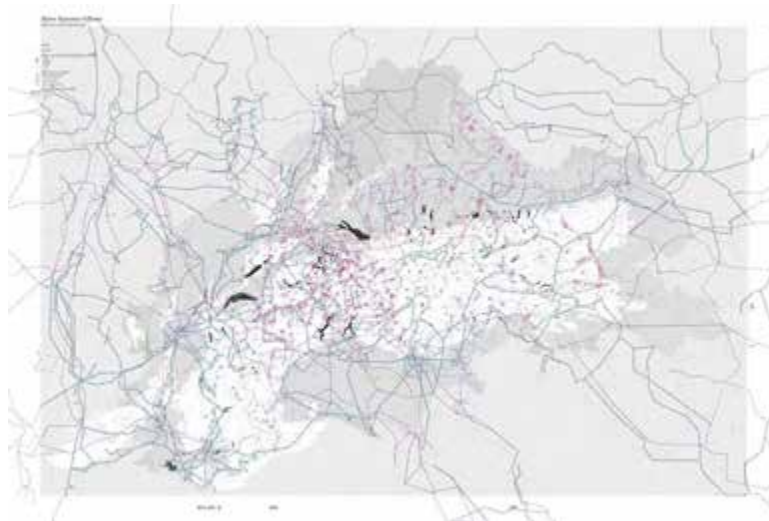


Figure. Cartography of the Alpine Operationalising Landscape. Author's elaboration, 2025. TO BE UPDATED

3. The Alpine Landscape at the Crossroads: Extractivism and Climate Dynamics

Over the past decades, the Alps have become a paradigmatic site for observing the entangled effects of climate change and extractive development. In this mountainous region—characterized by steep topography, fragile ecosystems, and historically layered forms of human appropriation—the accelerating retreat of glaciers, permafrost degradation, biodiversity loss, and the intensification of extreme weather events are reshaping both ecological processes and the viability of long-standing economic activities (Cherisch et al., 2015, Longhin, 2025). Climate change here is proceeding at more than twice the global average, with temperatures in the Alps rising by nearly two degrees over the past 150 years (Permanent Secretariat of the Alpine Convention, 2019a; 2022). These environmental shifts converge with deeper structural transformations in land use and territorial economies, placing new pressure on already fragile alpine regions (Longhin, 2025).

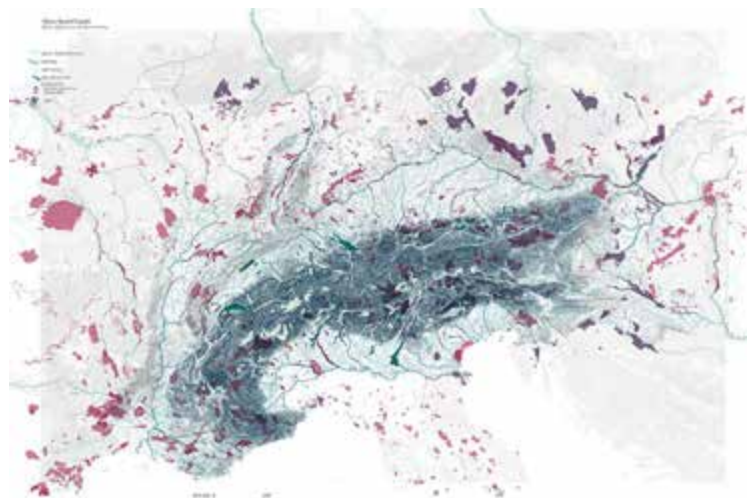


Figure. Cartography of the Alpine Spatial Capital. Author's elaboration, 2025. TO BE UPDATED

Among the most emblematic of these pressures is the resurgence of mining, which is increasingly promoted as a strategic response to Europe's demand for critical raw materials (CRMs). In recent years, extractive activities have re-emerged not only as an economic opportunity but as a geopolitical imperative, reframing peripheral mountain territories as potential resource frontiers in the green transition. Yet these dynamics are not new. Across the Alps, extractive infrastructures—ranging from mineral quarries to hydropower networks—have long left material and symbolic imprints, inscribing the landscape with layers of industrial heritage and unresolved socio-environmental tensions. The historical development of alpine regions is inextricably linked to extractive logics: mining, forestry, water appropriation, and later, tourism and industrialization, have all contributed to the transformation of the alpine space into a complex operational landscape (Modica, 2022, Longhin, 2025).

This landscape, far from being a neutral container for development, reflects the cumulative impacts of extraction and the often-conflicting interests inscribed within it. Alpine valleys, in particular, bear the marks of infrastructural and territorial regimes that have alternated between periods of exploitation, abandonment, and selective reinvestment. Brownfield sites, depopulated mining villages, and residual industrial infrastructures stand as material evidence of cycles of accumulation and neglect, often concentrated in areas with limited political voice. Today, the push toward a new mining economy risks reproducing these asymmetries under the banner of sustainability and energy transition. In this sense, the Alps can be read not only as a hotspot of climate vulnerability, but also as a testing ground for the contradictions of contemporary extractivism: where green imperatives collide with local ecologies, contested legacies, and demands for environmental justice (Longhin, 2025 forthcoming).

Understanding the transformations underway in the Alps thus requires a multi-scalar reading—one that situates renewed extractive pressures within broader climatic, economic, and political shifts. It also demands critical engagement with the histories sedimented in alpine landscapes, which continue to shape the possibilities and limits of territorial futures. The mining resurgence is not happening in a vacuum: it is embedded in long-standing territorial imaginaries, institutional fragilities, and the socio-material residues of previous extractive cycles. As such, it calls for planning and design approaches that are not only technically adaptive, but historically and ecologically situated.

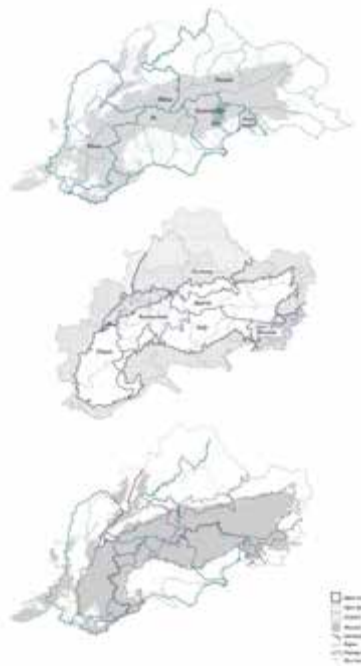


Figure. The legislative subdivisions of the Alpine Space. E. Longhin's elaboration, 2021. From: *The Machine in the Mountain*, PhD IMAGE TO BE UPDATED

4. Punta Corna: Between Neo-Extractivism, Depopulation, and Territorial Valorisation

Punta Corna, a peak in the Piedmontese Graian Alps rising to 2960 metres, offers a paradigmatic example of the dynamics shaping many Italian mountain regions. Situated in the Lanzo Valleys, between the Viù and Ala valleys, this territory has followed a markedly different trajectory from neighbouring areas such as the Susa Valley, where the Agnelli family initiated mass winter tourism in the 1930s through the development of the winter resort town of Sestriere. In contrast, the Lanzo valleys have seen limited touristic infrastructure and investment. Their economy remains fragile, supported in part by slow and nature-based tourism, as well as a high incidence of second homes. Traditional practices such as sheep farming and the seasonal use of *malghe*—high-altitude pastures used for summer grazing and artisanal cheese production—continue to play a central role in local livelihoods (Figure to be integrated here).

Within this seemingly pastoral context, the Piedmont Region granted in 2019 an exploration licence for cobalt, nickel, copper, silver, and associated minerals at Punta Corna to the Australian company Altamin. Altamin is a so-called junior miner, focused on a limited number of targeted projects involving exploration and prospecting activities. In Italy, the company operates through two subsidiaries—Strategic Minerals srl and Energia Minerals srl—and is involved in four active projects. Its most advanced initiative, concerning zinc extraction in Gorno (Bergamo province), was rejected in June 2022 by the Ministry for Ecological Transition (Pons 2022). At Punta Corna, however, the exploration licence was renewed in December 2022.

Contrary to appearances, mining is not a recent phenomenon in this area. Between 1753 and the 1930s, Punta Corna hosted what was, at the time, Europe's largest cobalt mine. Many of the settlements in the area originated from this mining economy (Forti 2023). Initially used as a pigment, cobalt lost economic relevance with the introduction of synthetic dyes in the early twentieth century, leading to the mine's decommissioning. However, cobalt has since become central to a wide array of industrial applications, owing to its distinctive chemical and physical properties. Today, it is employed in the production of superalloys for jet engines and gas turbines, in high-performance permanent magnets, in high-strength cutting tools, as well as in chemical processes such as the synthesis of adipic acid for nylon production. Cobalt's strategic value has increased significantly in recent decades due to its role in lithium-ion batteries for portable electronics, electric vehicles, and other clean energy technologies. With the EU's planned phase-out of petrol and diesel vehicles by 2035,⁶ cobalt demand is expected to rise sharply. It is therefore not surprising that, as early as 2020, the European Union classified cobalt as a strategic raw material—alongside lithium, coltan, and rare earth elements—in support of both the green and digital transitions.

The Punta Corna deposit lies between two municipalities in the Lanzo Valleys: Usseglio and Balme. These local governments have expressed diverging positions regarding the potential extractive redevelopment of the site. Their respective stances are emblematic of the broader debate over development strategies in contemporary mountain areas: on one side, a model rooted in extraction and energy production—a legacy of modern industrialisation; on the other, a model aligned with Boltanski and Esquerre's (2019) economy of enrichment, centred on niche markets, tourism, and territorial patrimonialisation.

In the municipality of Usseglio, the legacy of modernity is embodied by the large dam built in the 1930s for hydroelectric production, which gave rise to the artificial Lake Malciaussia and submerged the original village bearing the same name. The construction, emblematic of early twentieth-century modernisation, brought roads, a railway, and new employment opportunities to the Lanzo valleys.⁷ Today, the Usseglio administration views the prospective reopening of the cobalt mine as a potential catalyst for revitalising a region suffering from

6 The European Parliament on 14 February 2023 gave final approval to the measure banning the sale of vehicles with combustion engines from 2035. The measure is part of the 'Fit for 55' package to halve pollutant emissions in the EU by 2030 and sets a target of zero emissions from new cars and vans for sale in the EU from 2035.

7 Cf. A. De Rossi. The construction of the Alps. The twentieth century and Alpine modernism (1917-2017).

infrastructure deficiencies—particularly digital connectivity⁸—and long-term depopulation (Forti 2023).⁹ Mining, from this perspective, is seen as complementary rather than antagonistic to existing economic activities such as tourism. However, significant frictions emerge between mining ambitions and the region's orientation towards tourism, environmental conservation and heritage-based development. The environmental and spatial impacts of mining—long the subject of extensive critical scholarship¹⁰—are difficult to reconcile with the experiential and ecological qualities that sustain mountain tourism (Martin Sanchez, Gori Nocentini 2025).

In stark contrast, the municipality of Balme, located on the Val d'Ala side of Punta Corna, passed a resolution in June 2020 opposing Altamin's exploration activities (Pons 2022). Balme's local economy revolves around nature-based tourism and environmental valorisation. One of its areas, Pian della Mussa, has been part of the European Natura 2000 Network since 2016. Yet Balme is not devoid of extractive activity: the Pian della Mussa Srl company bottles spring water in the area. However, this activity is framed as compatible with the landscape and falls within the logic of the economy of enrichment—relying on the symbolic and ecological value of place, and oriented towards niche, high-quality production. From this perspective, mining represents a radical disruption to the narratives and uses of territory that have underpinned Balme's development strategy.

Still, processes of territorial patrimonialisation are not without their contradictions. Designating a landscape as a heritage asset necessitates its valorisation (Lazzarotti 2003), which can lead to the commodification of territorial identity and the marginalisation of other narratives and uses. While official recognition—such as inclusion in the Natura 2000 Network—may support local development, it can also result in what D'Eramo (2017) calls iconic reduction: a flattening of territorial complexity into standardised images tailored to tourism. Moreover, the protocols for environmental protection may exclude local actors from participatory forms of territorial transformation, as Vassallo and Martin Sanchez (2022) have argued.

Balme thus stands as the site of a profound and unresolved tension between two contrasting territorial visions. The mountain, once conceived as a productive landscape, is now framed primarily as a space to be preserved—even if this means restricting opportunities for change. In such a scenario, combating depopulation appears contingent on strengthening infrastructures that could attract new residents and support the tourism sector.

What this case study illustrates is the absence of a shared vision for Punta Corna's future. In Usseglio, the mining project is seen as compatible with existing economic practices and potentially able to attract investment and development. In Balme, by contrast, the mine is viewed as fundamentally incompatible with the territorial model based on conservation, tourism, and symbolic valorisation. Yet both municipalities share a concern with reversing demographic decline and revitalising local economies and welfare—whether through new industrial activities or enhanced touristic appeal (Martin Sanchez, Gori Nocentini 2025).

Finally, the divergent local perspectives on Punta Corna's future—brought to the fore by the mining project—currently lack a meaningful space for deliberation. The project itself exemplifies a top-down policy dynamic: rooted in a European regulatory framework (the CRMA), implemented by two national ministries, and executed by a private actor operating under a regional licence. Local governments, by contrast, are relegated to a consultative role and hold no real decision-making power (Forti 2023). This asymmetry raises pressing questions not only about governance and legitimacy, but about the actual capacity to imagine and construct plural, situated futures

8 On the state of digital infrastructures in the Italian Alpine territories with a specific focus on Piedmont, see F. Cavallaro & A. Dianin, *Beyond the transport infrastructure: the paradigm of accessibility*.

9 In Usseglio there are 200 residents (as of 31 December 2019) with an advanced average age. On the depopulation issues of Italy's inner areas, see A. De Rossi ed., *Riabitare l'Italia. Le aree interne tra abbandoni e riconquiste*; Italian National Network of Young Researchers for Inner Areas Committee, *Inner Areas in Italy. A testbed for analysing, managing and designing marginal territories*.

10 See M. Arboleda, *Planetary Mine. Territories of Extraction Under Late Capitalism*; M. Bjørnerud, *Timefulness How thinking like a geologist can help save the world*; N. Brenner & N. Katsikis, *Operational landscapes: hinterlands of the Capitalocene*; J. Sordi, L. Valenzuela & F. Vera, *The Camp and the City: Territories of Extraction*.

for marginalised territories (Ibid.).

Conclusion

This article has examined the socio-environmental and territorial implications of renewed extractive strategies in Europe through the lens of the Critical Raw Materials Act and its potential implementation in the Italian Alpine context. By focusing on the case of Punta Corna—a former cobalt mine now identified as a site of strategic interest—the analysis has traced how European green transition agendas become materially and spatially articulated in marginalised mountain regions. These agendas are not merely technical responses to supply chain vulnerabilities but are embedded in specific territorial configurations, historical trajectories, and socio-political tensions.

The Alpine arc—already under significant pressure from accelerated climate change, infrastructural obsolescence, and demographic decline—emerges as a critical arena for interrogating the contradictions of contemporary extractivism. In this context, the promise of re-industrialisation and strategic autonomy coexists uneasily with alternative territorial economies rooted in tourism, ecological valorisation, and patrimonialisation. As demonstrated, the logics of extraction and enrichment not only diverge but also expose deep-seated asymmetries in governance, wherein supranational imperatives and corporate actors hold disproportionate influence over processes of territorial transformation.

The Punta Corna case foregrounds the limitations of existing policy frameworks in addressing the multiplicity of values, claims, and temporalities that characterise alpine landscapes. It highlights the absence of meaningful deliberative mechanisms for local actors, who are often confined to consultative roles within broader top-down governance structures. In this sense, the reactivation of mining frontiers raises not only environmental and economic questions but also those of democratic legitimacy, distributive justice, and spatial equity.

Rather than treating mining as an inevitable corollary of the green transition, this analysis calls for more situated, historically informed, and democratically grounded approaches to resource governance. This entails recognising the Alps not simply as repositories of strategic materials, but as complex and contested territories shaped by layered histories of appropriation, resistance, and reconfiguration. In this light, the future of sites such as Punta Corna will depend less on their geological potential than on the capacity of planning, design, and policy to engage with the plural vulnerabilities, identities, and aspirations of the regions they seek to reshape.

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