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NUCLEARE.
Dall'era atomica
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NUCLEAR.
From the Atomic Age to the Spring of Ecology

A cura di
Francesca Castanò
Roberto Parisi

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Visible and invisible Heritage of the nuclear past: the Uranium mine in Western Romania

Retaggi visibili e invisibili del passato nucleare: la miniera di Uranio nella Romania Occidentale

OANA CRISTINA TIGANEA
Politecnico di Milano
oanacristina.tiganea@polimi.it

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ABSTRACT

Uranium ore is a vital natural resource, playing a pivotal role in the nuclear sector, and its radioactivity presents enduring implications, often regarded as a "heritage of the future." The mining and utilization of uranium have profoundly transformed entire territories and significantly shaped the "atomic societies". This article delves into the complex legacies of uranium mining in Ștei, a strategically developed mono-industrial town in western Romania, shaped by Cold War geopolitics and the collaboration between Soviet and Romanian authorities. Drawing on archival research and fieldwork conducted between 2022 and 2025, this study critically assesses Ștei's urban and architectural evolution, environmental degradation, and the contested nature of its collective memory, situating it within broader European efforts to document nuclear cultural heritage. Documenting its past is a step towards acknowledging and preserving its complex legacies — tangible and intangible — and underscoring the necessity for integrated, multiscale, and interdisciplinary approaches to fully comprehend the long-term socio-environmental repercussions of uranium's modernity in the context of post-socialist Europe.

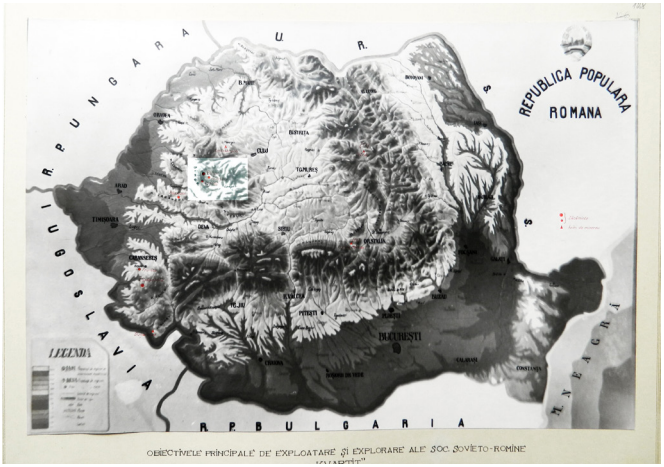
KEYWORDS

Uranium mining
Nuclear cultural heritage
Cold War
Romania
Regional studies

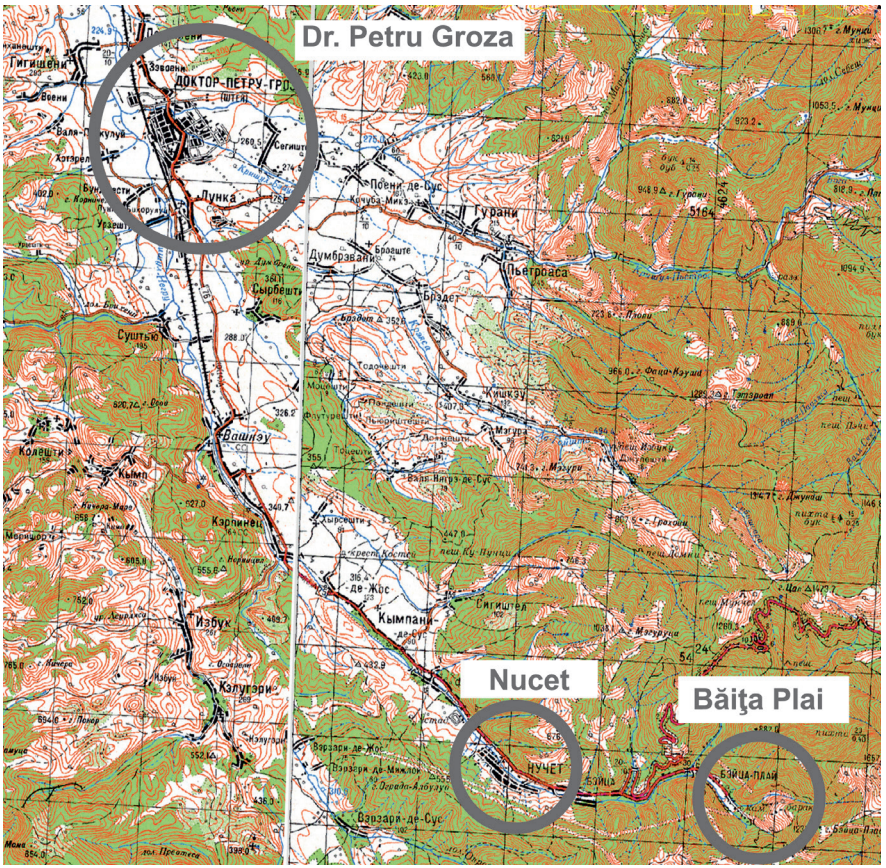
Over the past two decades, an expanding array of place-based projects and site-specific research initiatives has emerged across Europe, focusing on former uranium mining and processing sites linked to the continent's recent nuclear history. These efforts engage with the technical remnants of extractive industries alongside broader socio-political and economic narratives, underscoring a growing commitment to their documentation, recording, and eventually patrimonial recognition and enhancement. Prominent examples include the Erzgebirge Mountains Region, inscribed as a UNESCO World Heritage Site in 2019[1], the post-industrial reimagining of Sillamäe, (Estonia), through heritage tourism[2], and the memorialization of Jáchymov and Příbram (Czech Republic) as Cold War sites of memory[3].

Recent scholarship in cultural heritage studies emphasizes the importance of interpreting nuclear history through the dual paradigm of the *peaceful atom* — civilian nuclear technology and energy production—and the *unpeaceful atom*, associated with military applications and Cold War geopolitics. This conceptual duality is central to the evolving notion of "nuclear cultural heritage", which encompasses both the tangible and symbolic legacies of nuclear infrastructure, while foregrounding the urgent need for preservation in the face of decommissioning of the civil nuclear sites and long-term radioactive waste management[4]. Increasing scholarly and curatorial attention is also being paid to the lived experiences and local memories shaped by uranium extraction, drawing focus to the Cold War's enduring imprint on affected communities. This includes the narratives of *nuclear families* and *atomic cities*, as documented by Kate Brown[5], and extends to the traumas associated with events such as the Chernobyl disaster[6]. The implications of nuclear decommissioning are thus not merely technical or environmental but also deeply social and mnemonic, affecting collective memory across many European countries.

This broader framework also underscores the intricate challenges of dismantling nuclear infrastructures—spanning mining, processing, and energy production — particularly where these are entangled with the histories of authoritarian regimes. In such cases, environmental remediation is inseparable from the ethical and political imperative to confront difficult past(s) marked by repression, secrecy, and coerced labour. These issues are not only technologically and financially complex but also fraught with symbolic meaning, resisting resolution through conventional heritage paradigms. These tensions could be exemplified by the case of Ștei, former Oraș Dr. Petru Groza in western Romania, where the intertwined legacies of uranium mining and authoritarian rule constitute a paradigmatic instance of the dilemmas surrounding nuclear cultural heritage in post-socialist Europe. Here, the degradation of physical infrastructure, the invisibility of environmental toxicity, and the contested memory of political repression coalesce, illustrating the pressing need for integrated approaches to documentation, interpretation, and, ultimately, public reckoning.



1. *The main operational and exploration objectives of the Soviet Romanian company "Kvartit" – Romanian Popular Republic (SANIC. Fond: CC al PCR. Albume foto. Dosar 21, 76).*



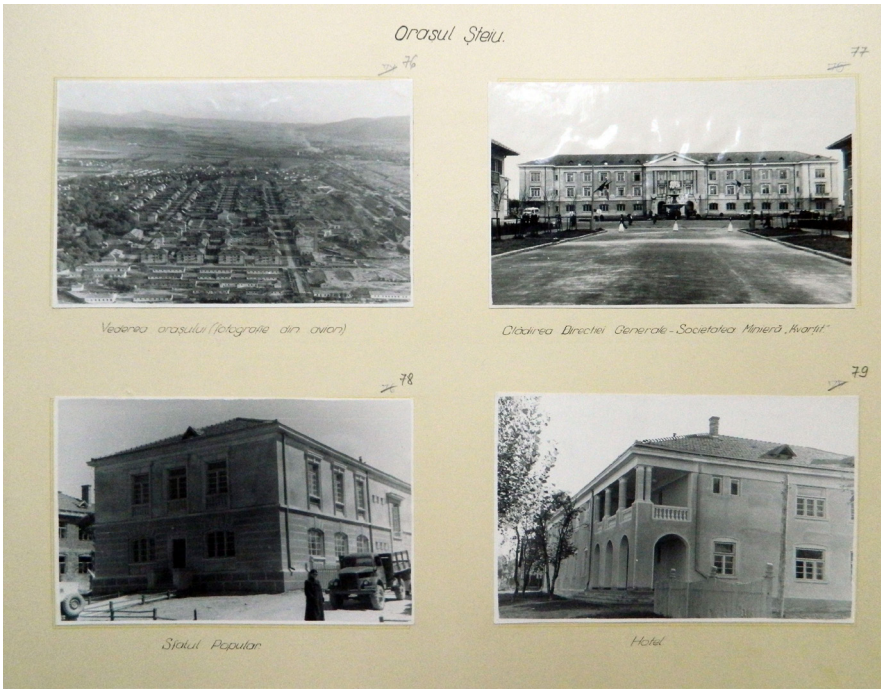
2. Soviet map created around the mid-1970s, depicting Ștei/Oraș Dr. Petru Groza, Nucet, and Băița Plai, the uranium mine (Vasile Crăciunescu, Hărțile sovietice proiectate în Stereo 70, geo-spatial.org/, Last consulted December 20th, 2015)

Ștei exemplifies a small-scale mono-industrial town shaped by the industrialisation and urbanisation policies of Romanian state socialism (1945–1989)[7], closely tied to the exploitation of significant natural resources — most notably, uranium extracted from the nearby Băița Plai site, located approximately seventeen kilometres away. Its very existence is inseparable from the presence of uranium ore, positioning Ștei as a unique urban formation and a strategic node on Romania's geopolitical map, shaped from its inception by Soviet interest in resource extraction during the formative years of the communist regime.

This article draws on bibliographical and archival research constrained by the limited availability of sources due to the classified nature of Ștei's construction and function. It also incorporates findings from multiple in-situ investigations, field documentation and recordings, and analytical observations conducted between 2022 and 2025[8]. Having in focus this case study, the article will be structured around three interrelated thematic axes confronted within the most recent process of patrimonial acknowledgement: first, the architectural and urban legacy of the settlement within the wider framework of Cold War built legacy; second, the toxic inheritance of industrial infrastructures and the processes of ecological remediation and territorial reclamation within broader heritage discourse, highlighting the narrative contemporaries omissions; and third, the multiscale methodologies — spanning architectural, urbanistic, and territorial dimensions — necessary to engage with the complex, both visible and invisible, legacies of nuclear activity.

Building the Atomic Periphery

In the post-1989 historiography of Cold War-era in Central and Eastern Europe, scholarly attention has largely concentrated on emblematic cases such as Nowa Huta in Poland and Sztálinváros (later Dunaújváros) in Hungary, both conceived as prototypical socialist cities reflecting the ideological, territorial, and economic agendas of their respective regimes. Romania, by contrast, long remained marginal within this discourse, its urban-industrial developments conspicuously absent from foundational works such as Aman Anders' *Architecture and Ideology in Eastern Europe during the Stalin Era*[9], which served to stimulate interest in the research and study of post-war architecture in the former Eastern Bloc. Subsequently, further comprehensive analyses were conducted on the evolution of the urban infrastructure during the Soviet Union's industrialisation in the interwar period. This includes the study undertaken by Stephen Kotkin in his 1997 publication, entitled *Magnetic Mountain*[10]. The project inaugurated novel methodological perspectives, emphasising elements of social history and proffering an innovative interpretation of documentary sources. The city of Magnitogorsk, constructed during the interwar period, emerged as a notable reference within the specific typology of industrial monotowns that was largely deployed from the remote Siberian areas during the 1930s and 1940s[11], to the newly formed Eastern Bloc during the late 1940s and early 1950s.
Recent contributions by Romanian scholars including Irina Tulbure and Mara Mărginean have begun to address this historiographical gap, offering nuanced analyses that link the architectural and urbanistic evolution of Romanian industrial cities to the broader mechanisms of socialist planning between 1945 and 1989[12]. Their research explores the central role of the state as both primary investor and beneficiary within a centrally planned system, where urban expansion was driven by strategic resource exploitation and heavy industrialisation. Cities such as Hunedoara—whose exponential growth around a steel plant exemplifies communist-led territorial transformation—along with Reșița, Brașov, Jiu Valley, and Bucharest, were envisioned as nodes of socialist modernisation. Yet, as Tulbure argues, these initiatives often amounted to «big projects, small realizations», constrained by political and economic limitations that stunted the full realization of the socialist urban ideal during the 1950s[13]. The imposition of Socialist Realism as official architectural doctrine in 1952 further complicated stylistic coherence, resulting in a built environment retrospectively labelled in popular discourse as «architecture built by the Russians» — a reference not to Soviet architects, but to Romanian professionals working under Soviet ideological influence[14]. In this context, the town of Ștei emerges as a particularly compelling and underexplored case study. Unlike all other industrial centres that were the focus of Romanian state investment strategy, Ștei was conceived from its inception under Soviet strategic oversight, revealing a complex geopolitical dynamic that emerged in the aftermath of the Second World War and, subsequently, shaped territorial and economic development.
In the early post-war years, Romania was required to settle outstanding debts to the Soviet Union, totalling 300 million US dollars. This debt represented approximately 55% of Romania's gross national product in 1945. The settlement was to be made through the provision of commodities, with half of the debt covered in oil and the remainder in grain, timber, and other goods. The establishment of the Sovroms, which were designed as joint Romanian Soviet enterprises, was a strategic initiative intended to consolidate Soviet influence over key industrial sectors in Romania[15]. The final member of this group was Sovromkwartit (*Sovromcuarțit*), established in 1952 after the discovery of uranium deposits at Băița in the Bihor Mountains, western Romania. In addition to the officially declared extraction of uranium — disguised as quartz mining as reflected in the company's name — Sovromkwartit's operations also included the construction of road infrastructure, industrial facilities, and residential colonies for its workforce[16].
This approach to regulating economic activity was common throughout the Eastern Bloc in the early 1950s. As a result, regions with a history of uranium mining, such as Eastern Germany, former Czechoslovakia, specifically the Jáchymov, Horní Slavkov, and Příbram areas, and Poland, came under Soviet control[17]. Furthermore, geological prospecting and the opening of new uranium mines across the Eastern Bloc, including Romania, played crucial roles in the broader context of this period. Thus, in the early 1950s, the Soviet Union began exploiting uranium in all areas under its influence,



3. *A page from the photographic album illustrating significant places from Ștei such as the aerial view of the town, the uranium mine headquarters, the local administration, and a house of block from the Lenin Street (SANIC. Fond: CC al PCR. Albume foto. Dosar 21).*

4. *Băița Plai uranium mine – industrial flow of mechanical ore processing (SANIC. Fond: CC al PCR. Albume foto. Dosar 21, 24-27).*

using joint ventures to achieve this goal. It was within this framework that the Băița Plai mine commenced uranium extraction in an open-pit mining method[18].
Currently, there is no accessible documentation that confirms the Soviet strategy for stabilizing the workforce engaged in uranium mining or its planning for broader uranium network formation within the Eastern Bloc. Interviews conducted within the local community, alongside analyses and recording of the built environment, suggest that the town of Ștei was purposefully established to accommodate Soviet specialists stationed in the area, with a temporary purpose. These specialists were primarily engaged in the geological prospecting and documentation of the broader region, while simultaneously developing a research and administrative hub. The primary objective of this initiative appears to have been the creation of a strategically significant national settlement to oversee and coordinate all uranium operations across Romania. Functioning more as an administrative and residential centre than as a mining town per se, this characteristic likely accounts for its location at seventeen kilometres from the actual uranium extraction sites.
Initially, the workforce directly involved in uranium mining was supposed to be settled in various locations around the mine, such as Nucet and Băița Plai, which were described as a *working colony*, while the large mass of miners was migrating in a daily basis from the surrounding villages towards the working place, the uranium mine. This arrangement eventually led to differing narratives between the *Russians' town* and the surrounding Romanian settlements.
In 1956, Ștei was granted town status, boasting a population of approximately 6,000 residents and featuring architecture characterized by the Socialist Realism style[19]. Two years later, in 1958, the town was renamed *Oraș Dr. Petru Groza* in honour of the political leader who passed away that year[20].
The town was constructed on an orthogonal plan adjacent to the existing village, featuring three parallel streets initially called Lenin, Gheorghe-Gheorghiu Dej and 23rd August Streets, that connected the administrative and cultural centre with the social one, all marked by monumental buildings. One end of the main urban compositional axes included the uranium mining headquarters, the research centre and laboratory, the house of culture and the hospital, defining what today represents the town's city centre, while on the other end were located the sport facilities – an indoor sport hall and outdoor pool – merged in a green area. The space between these two points of interest comprises various types of housing, including duplex wooden dwellings, commonly referred to by locals as BWs (bungalows), as well as collective housing of two to three stories high, some of them following the urban and architectural principles of the *cvartal*[21]. Located at a distance from the *Russian town*, across the river Băița Crișului, the Petrileni *cvartal* was developed, allegedly for the Romanian population, as well as the temporary barracks for the Romanian army personnel.

5. Typology of a duplex dwelling built between 1952 and 1956 and known in local memory as a BW house, probably an abbreviation of bungalow (SANIC. Fond: CC al PCR. Albume foto. Dosar 21).

6. The BWs documented in 2022 (Paolo Mazzo, 2022).

The grandeur of the town is still evident in the administrative, social, and cultural buildings constructed in the style of Socialist Realism, as officially defined by the Romanian legislation that regulated the architectural profession and practice in 1952[22]. This sense of monumentality is also reflected at the urban level, characterized by wide streets, prominent main axes, the repetition of type-design housing models, and thoughtful design of green spaces. The Soviets withdrew from Ștei at the end of the 1950s, following the departure of the Soviet army from Romanian territory in 1958. Consequently, the administration of the uranium mine was handed over to Romanian authorities, nevertheless, no official archival documentation was possible to track the precise date of the administrative passage[23]. However, the Central National Archives in Bucharest hold a photo album that was handed over to the Romanian side when the Soviet army withdrew from Romanian territory and the Sovromkwartit enterprise came, supposably, under Romanian state. The album contains photographs of the mining infrastructure, aerial photos of the *Russian town*, as well as details of the main buildings that made up the administrative, educational, cultural, and sports infrastructure of the city. Also captured are various housing blocks and the main streets. At that time, the Petrileni *cvartal* was still under construction. Studies focused on Romanian recent nuclear history state that the uranium ore continued to be extracted and exported directly to the Soviet Union until 1962, specifically in Sillamäe, Estonia, where was further processed[24]. These shifts heightened tensions surrounding the issue of uranium mines in Romania. The Soviet Union was concerned that Romania might sell uranium to the United States, while Romania hoped to utilize the uranium to develop its own atomic power plant. The consequences of this decision were both immediate and significant, leading to the opening of new uranium mines throughout the country. Notable examples include the mines at Ciudanovița in the Banat Mountains (south-western Romania), as well as Crucea, Britusana, and Grinties in the Eastern Carpathian region[25]. In the following decades, Ștei continued to play a crucial role in the administration and management of uranium extraction activities nation-wide. During this time, the area experienced further industrial development, which included not only industries related to uranium extraction and general mining, such as mechanical plants, but also light industries like textiles and furniture production throughout the 1960s, 1970s, and 1980s. Additionally, the urban and economic developments of the city incorporated and preserved the *Russian town*, without significant alterations and populated by Romanians, focusing instead on its continued use and maintenance.

Contested tangible and intangible continuities

Hidden to the public eye and absent from the official socialist narratives, Ștei gained visibility only recently, in the post-socialist setting. Through a local community and administrative initiative, in 2020 the town joined *Atrium – Architecture of Totalitarian Regimes of the 20th Century in Europe's Urban Memory Cultural Route* and, thus, presented itself as a heritage site of the recent totalitarian past. The network's promotion of Ștei on an international level is a significant development, placing it alongside nineteen other sites in Italy, Croatia, Albania, Bulgaria, and Romania[26].

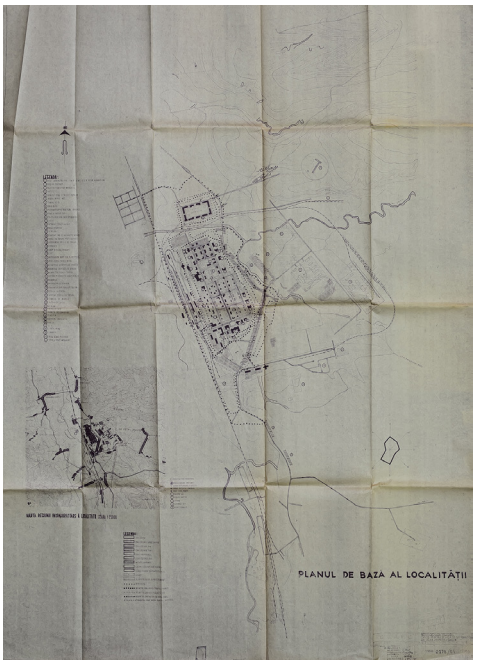
The town possesses a unique quality, resembling a time capsule where the urban, architectural, and structural features of the *Russian town* are still clearly discernible. This can be attributed to two main factors: the town's continued habitation and the minimal modifications to its built environment. Additionally, the limited investment at the local level has contributed to this situation. On Atrium online site, Ștei is described as a true «open-air museum of Socialist Realism» and a «prosperous garden city» that «witness to a period of totalitarian post-war regimes»[27]. Despite this romanced presentation, the town has been directly affected by the economic decline due to the closure of mining activities in 2008 and, consequently, the other industrial sites including the mechanical plant and, most recently in 2024, the textile plant. Therefore, Ștei shares a common destiny with many small-sized Romanian towns that thrived on industrial activity during the communist era and experienced significant demographic, economic, and socio-cultural decline after 1989, during the deindustrialisation process[28]. Despite the challenges faced by other small post-industrial towns, where deterioration of the built environment led to what is referred to as *living ruin*, Ștei has preserved its main urban and architectural features. However, even here, the built environment bears clear traces of its initial temporality, privatization of the housing stock and abusive and informal transformations of the urban public space.

7. The Petrileni cvartal, built between 1952 and 1956, outside the urban centre defined by the administrative and socio-cultural core developed along Lenin, 23 August, and Gheorghe Gheorghiu-Dej Streets. In the immediate vicinity of the block unit, temporary barracks for Romanian workers and military personnel were built (SANIC. Fond: CC al PCR. Albume foto. Dosar 21).

8. Petrileni cvartal (Paolo Mazzo, 2022).

Following the fall of the communist regime in 1989, the privatization of housing in Ștei at minimal cost led to widespread, unregulated alterations by new owners, reflecting individual tastes and economic constraints. These transformations extended beyond the residential architecture itself to the urban fabric, including the parcelling of formerly collective green spaces. Such changes significantly altered the spatial coherence and integrity of the garden city model that once underpinned the urban layout of the *Russian town*. This feature of a garden city appears commonly nominated and associated by the local inhabitants in relation to the BWs dwellings, likely derived from the English term *bungalow*. The only archival image found to date, shows the BWs surrounded by greenery, without clearly defined private property boundaries. Other details—such as the functional model, design, and builder—remain unclear. However, based on surveys and analysis of the construction materials and techniques, as well as its state of preservation, it can be stated that these duplex houses were constructed from prefabricated wooden elements, resembling the more classical American balloon frame system, patented in Chicago in 1833 and subsequently distributed across various geographical, social, and cultural contexts, including Europe and the Soviet Union during the interwar years[29]. From a different perspective, the BWs bear a resemblance to the wooden houses in the Baltic countries, with which Ștei was historically connected through the Soviet's Cold War uranium network. Currently, the BWs clearly illustrates the variety of transformations that the housing in Ștei underwent during the privatisation and deindustrialisation process of the 1990s and 2000s. Some transformations are complete, entirely altering its structure and volume, while others are partial, preserving key elements but incorporating visible modifications to enhance living comfort. These partial changes — such as improved thermal insulation, expanded living spaces, or the addition of essential utilities like running water and electricity — are thoughtfully executed. One such house, well-preserved, and owned by the local administration, is the focus of a project to transform it into a "house-museum", featuring a collection of objects donated by local community members. However, to prevent it from becoming a unique and isolated case of architectural preservation, now is the time to introduce urban planning regulations to coordinate future transformations of the overall housing stock, ensuring that the tangible legacy of history is not entirely lost. The conservation of the built ensemble could be achieved through a coordinated and participatory transformation led by the local community.

However, this would also require the active and continuous involvement of specialists, yet the town's geographical and economic isolation complicates this process.
Unlike the southern area of the city, where small apartment blocks and individual dwellings are alternately placed on plots, in the northern area, on land islands of the same size (approximately 0.80 hectares), only apartment buildings are placed at smaller distances from each other, more clearly shaping the typical image of a 1950s district. Sportului Street (today), with the sports hall building, separates these two types of housing arrangements. Despite dating the same period of construction with the "Russian town", Petrileni cvartal is not considered worthy of attention by the local authorities, due to its spatial separation from the main built core of the settlement. This approach suggests that the narrative of colonial segregation (Russians vs. Romanians) is largely preserved and passed down to future generations. However, it is essential to carefully unravel this narrative to reveal the complexity of the people who lived in that region.
After the Soviet specialists left Stei, their houses and specially designed spaces — such as the Russian school, the swimming pool, the house of culture, which was occasionally transformed into a theatre and cinema, and the hotel—were taken over by the local population. The period of permanence of the Soviet specialists is way inferior to that of the Romanian community, that slowly grew due to a continuous process of industrialisation and urban expansion of the town. From this perspective, the authorities' attitude on the historical significance of Ștei can be best described as ambivalent.
Ștei has become member of Atrium, which indicates the local recognition of the "Russian town" as historic area and acknowledging the need of protecting specific urban and architectural values, nevertheless, continuing to fuel a segregationist narrative exclusively oriented towards the Soviet presence. On the other hand, Ștei is not officially recognized as a "historical area" under Romania's monument protection laws and urban planning tools. Instead, its designation comes from a local council decision, lacking any official urban and architectural tool for intervention. Local authorities fear that listing the site as historically significant would likely delay the processes required to secure funding for infrastructure projects, particularly those supported by the European Union, which are subject to tight deadlines.



9. Ștei/Oraș Dr. Petru Groza Masterplan, dated 1964: the town's industrial development is clearly visible alongside the existing "Russian town", as well as its proposed urban development through new residential units. (Local Administration Archives, 1964).

Invisible Heritage of the uranium mine

The closing of 80% of mining activity in Romania occurred during 2006 and 2008, when a national plan was adopted by the government that emphasized underground water-filling as the sole solution. The preservation of former-mining galleries was officially accepted and designated only for "toxic waste management" purposes, as in the case of Băița Plai where the uranium mine become the national radioactive waste deposit[30]. This toxic waste deposit served as main subject of the 2009 documentary *The Children of Uranium (Copiii uraniului)*[31], highlighting issues related to radon radiation in the surrounding area, which were the focus of research from the early 1990s to early 2010, during which a variety of measurements were conducted in the region between Băița Plai, Nucet, and Ștei[32].

Romania still lacks a comprehensive and nuanced analysis of the environmental and socio-political implications of mining and post-mining activities. Despite being significantly impacted by extractive industries during both the communist and post-communist periods, public discourse and scholarly attention remain fragmented or absent. While other European countries have responded to environmental crises by tightening regulations—such as through the 2006 Extractive Waste Directive[33], which aimed to ensure the safe management of extractive waste following several high-profile mining disasters — Romania's engagement with such frameworks has been limited and reactive. The adoption of this directive coincided with the European Union's eastern enlargement, incorporating post-socialist states like Romania[34], which by that time had already experienced numerous mining-related environmental disasters. Among the most notorious was the Baia Mare cyanide spill of January 30, 2000, when over 100,000 cubic meters of wastewater contaminated with cyanide were released into the Lăpuș and Someș tributaries of the Tisza River, ultimately reaching the Danube[35]. The incident triggered widespread transnational concern, affecting communities across Romania, Hungary, Serbia, and Bulgaria, and became a symbol of the region's hazardous legacy of extractive industrialisation[36]. Environmental organizations such as Greenpeace have documented the broader context of toxic hazards in Romania throughout the 1990s, pointing to both mining operations and broader industrial activities as major contributors. Although historical research has provided valuable insight into the relationship between socialist economic planning and the exploitation of local natural resources — particularly in terms of landscape transformation, forced industrialization, and demographic reconfiguration[37] — recent academic work addressing the environmental aftermath of these processes remains limited. This is especially true for Romania, where systematic studies of post-industrial contamination, socio-environmental injustice, and long-term territorial consequences are still underdeveloped[38].

Public debates on topics such as these tend to arise in isolated and reactionary ways. One notable example is the case of Roșia Montană, where a proposed gold mining project in the 1990s and early 2000s threatened to inundate a historic village with cyanide-laced tailings. This situation sparked national and international protests but remained an exception rather than the norm[39]. In contrast, areas like Ștei and its surrounding territory have received little critical attention. Its association with uranium is regarded by the local administration as problematic from the perspective of environmental impact and its toxic legacy — one that is perceived as detrimental and best forgotten, as it represents a potential obstacle to investment opportunities and redevelopment.

Uranium extraction has been the primary driver of territorial localization and transformation across the entire region. The militarized implications of this activity created an environment characterized by secrecy, control, and centralized planning, which in turn shaped both the built environment and local social relations. Currently, the narratives surrounding uranium mining are not singular; they are contested and layered. These narratives intersect with broader Soviet Romanian collaborations, requiring careful analysis to uncover the political, social, and material implications of Cold War-era dynamics and their lasting effects on even the most marginal areas within the Eastern Bloc. However, discussions around uranium mining remain largely unexamined at the local level, as its association with toxic consequences has become a taboo topic among the town's residents. Furthermore, if we trace the invisible threat of toxicity along the entire Băița Valley, it clearly outlines the triadic configuration defined by Băița Plai (the

extraction site), Nucet (the main workers' colony), and Ștei (the administrative headquarters and the primary deposit area for uranium ore before transportation to other locations). The legacy of Ștei must be understood not merely as architectural or symbolic, but as an integrated system of production, habitation, and control. Its built environment, social fabric, and environmental scars form a complex palimpsest of Cold War uranium modernity. Much remains to be documented — both tangible remnants like mining infrastructure, and intangible dimensions such as collective memory, silence, and trauma. It is in this dual archaeology of matter and memory that the contours of an "atomic society" might yet be fully revealed.

10. View towards the main access street to Băița Plai uranium mine (Paolo Mazzo, 2022).

11. *Ștei (Paolo Mazzo, 2022).*

12. *Residential block-of-flats in Nucet (Paolo Mazzo, 2022).*

[1] Helmuth Albrecht, *The heritage of uranium mining in the German Czech Ore Mountains*, in «Entreprises et histoire», n. 87(2), 2017, pp. 88–106.

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[7] During the socialist development years, a small-sized town was considered the urban settlement that was spanning up to 20,000 inhabitants. At the national level, this urban typology recorded the highest growth rate during the period 1948-–1956, corresponding to the first socialist industrialisation phase, with a population composed of more than 75% migrant labour. Moreover, a chart created at the end of the 1970s indicated that this urban typology exhibited the highest urban viability due to the concentration of a large industrial flow in direct relation to a relatively small population (up to 20,000 inhabitants). Vasile Cucu, *Orașele din RS România. Probleme de geografie economica*, PhD Thesis Universitatea Alexandru Ioan Cuza, Iasi, 1977, p. 23. Per Ronnas, *Urbanisation in Romania: A Geography of Social and Economic Change since Independence*, PhD Thesis Stockholm School of Economics, Stockholm, 1984, pp. 203-208, p. 216.

[8] The first phase of the research: – *Ștei, the Secret Uranium City: Industrial Legacy between Ecology and Architectural Preservation*, coordinated by Oana Țiganea, was developed during 2022-2023, and was funded by the DAStU - Politecnico di Milano. The second phase of the research: - *Hidden Legacies of the Cold War: Territories, Architectures, and Memory*, coordinated by Oana Țiganea and Irina Tulbure, was developed during March 2023 and February 2025 and was funded by the Romanian Order of Architects. During these years were developed built environment surveys, photographic recording, interviews with the members of the local community, archival research (where possible), territorial surveys and digitalization of the built environment.

[9] Åman Anders, *Architecture and Ideology in Eastern Europe during the Stalin Era: An Aspect of the Cold War History*, Architectural History Foundation-MIT Press, New York-Cambridge, 1992.

[10] Stephen Kotkin, *Magnetic Mountain: Stalinism as a Civilization*, University of California Press, Berkeley, 1997.

[11] Calyton Strange, *Monotown. Urban Dreams Brutal Imperatives*, Applied Research & Design, San Francisco, 2019.

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[14] In 1952, during the plenary session of the Central Committee of the Workers' Party held on November 13, a ministerial decree was issued to regulate in detail the architectural practice in Romania. The new ministerial decree, which focused on the postwar urban construction and reconstruction, stressed the State's direct involvement and control of the architectural practice. 1952 is considered the year when political interference with the architectural production became official, subordinating its aesthetics to Socialist Realism as the only officially accepted architectural manifestation. Ana Maria Zahariade., *Arhitectura în proiectul comunist. România 1944-1989 / Architecture in the Communist Project. Romania 1944-1989*, Ed. Simetria, Bucharest, 2011, p. 6.

[15] The Sovroms were created at the end of the war, for each existing industrial branches on Romanian territory. In general, the newly mixed Soviet Romanian enterprises were identifiable due to their names formed from the combination Sovrom- plus the name of the industrial branch that the enterprise was part of. The first Sovrom formed was in the oil industry – Sovrompetrol in 1945, followed by Sovromtransport (Transportation Sovrom), Sovrombanc (Banking Sovrom), Sovromlemn (Wood and Timber Industry Sovrom), Sovromchim (Chemical Industry Sovrom), Sovromgaz (Gas exploitation Sovrom), Sovromcărbune (Coal Mining Sovrom), Sovrommetal (Metallurgy Sovrom), Sovromconstrucții (Construction Industry Sovrom), Sovromquart (Uranium Exploitation Sovrom). The first three Sovroms formed immediately after the agreement was signed in 1945 (which were also the most important for the Soviet Union in the first post-war years) were Sovrompetrol, Sovromtransport and Sovromlemn. Ghiță Ionescu, *Communsim in Romania 1944-1962*, Royal Institute of International Affairs, Oxford University Press, London-New York-Toronto, 1964, p. 113. Florian Banu, *Asalt asupra economiei României. De la Solagra la Sovrom*, (1936-1956), Ed. Nemira, Bucharest, 2004. Bogdan Murgescu, Romania si Europa. Acumularea decalajelor economic (1500-2000), Ed., Polirom, Iasi, 2010, p. 333.

[16] HU Open Society Architve 300-60-1 (Romanian Unit within the Radio Free Europe), Box 399, item 3189.60, pp. 3-4.

[17] Zeman, Karlsch, *Uranium Matters*, cit.

[18] The uranium extracted from the different mines surrounding Stei, was never processed chemically here, but simple stocked usually in open-air deposits and transported to the Soviet Union, specifically in Sillamäe, today's Estonia. Dumitra Lucan, *Scurt istoric al dezvoltării cercetării științifice dedicate domeniului nuclear in România*, in «Studii si Comunicări/DIS», Vol. XVI/2023, Academia Romana – Comitetul Român de Istoria si Filosofia Științei si Tehnicii, 2023, pp. 43-82.

[19] Ronnas, *Urbanisation in Romania*, cit., pp. 203–208; p. 216.

[20] Between 1958 and 1996, the town carried the name Oraș Dr. Petru Groza, taking the name of the prime minster of the first Communist government in Romania. This change of name demonstrates the strategic importance of the town despite its small size.

[21] The urban layout of the *cvartal, kvartaly* in Russian, was developed during the 1930s in Soviet Russia and was based on the principle of collective housing. Blocks of flats framed the inner collective urban space through their spatial position, structuring the "neighbourhood unit" in the urban layout. This layout laid the foundation of the new collective urban space. Through this approach, the socialist State showed its ideological interest in the urban community and the entire society. Alessandro De Magistris, ed. by, *URSS anni '30-'50: Paesaggi dell'utopia staliniana*, Mazzotta, Torino,1997.

[22] Zahariade, *Arhitectura în proiectul communist*, cit.

[23] Arhivele Nationale Istorice Centrale (SANIC). Fond: CC al PCR. Albume foto. Dosar 21.

[24] Lucan, *Scurt istoric al dezvoltării*, cit. p. 45.

[25] Petru D. Georgescu, Stefa Petrescu, Tiberiu F. Iuhas, *Restructuring the Uranium Mining Industry in Romania-Actual Situation and Prospects*, in «Proceedings of ICONE 10» (Arlington, VA, April 14-18, 2002), 2002, pp. 1-6.

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[29] Olgaana Martignago, *Conoscenza e riconoscimento dell'eredità costruita del Secondo Novecento. Il modello costruttivo prefabbricato in legno a Ștei (Romania, 1952-1958)*, Thesis Politecnico di Milano – School AUIC, March 2025, supervisor: Oana Țiganea, co-supervisor: Paola Condoleo.

[30] Department of Radioactive Waste Management, available at: https:// dmdr.nipne.ro/ (Last consulted July 15th, 2025).

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[33] *Mining Waster Directive EU*, 15.03.2006 date of effect: 1.05.2006, European Parliament https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32006L0021 (Last consulted on August 27th, 2024).

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[35] *Baia Mare Gold Mine Cyanide Spill: Causes, Impacts and Liability*, by Greenpace, originally published on 12th of April 2000.https://reliefweb.int/report/hungary/baia-mare-gold-mine-cyanide-spill-causes-impacts-and-liability (Last consulted on August 27th, 2024).

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[38] Anna Barcz, *Environmental Cultures in Soviet East Europe. Literature, History and Memory*, Bloomsbury Academic, London–New York, 2021. Stefan Dorondel, Stelu Serban, ed. by, *A New Ecological Order. Development and Transformation of Nature in Eastern Europe*, University of Pittsburgh Press, Pittsburgh, 2022.

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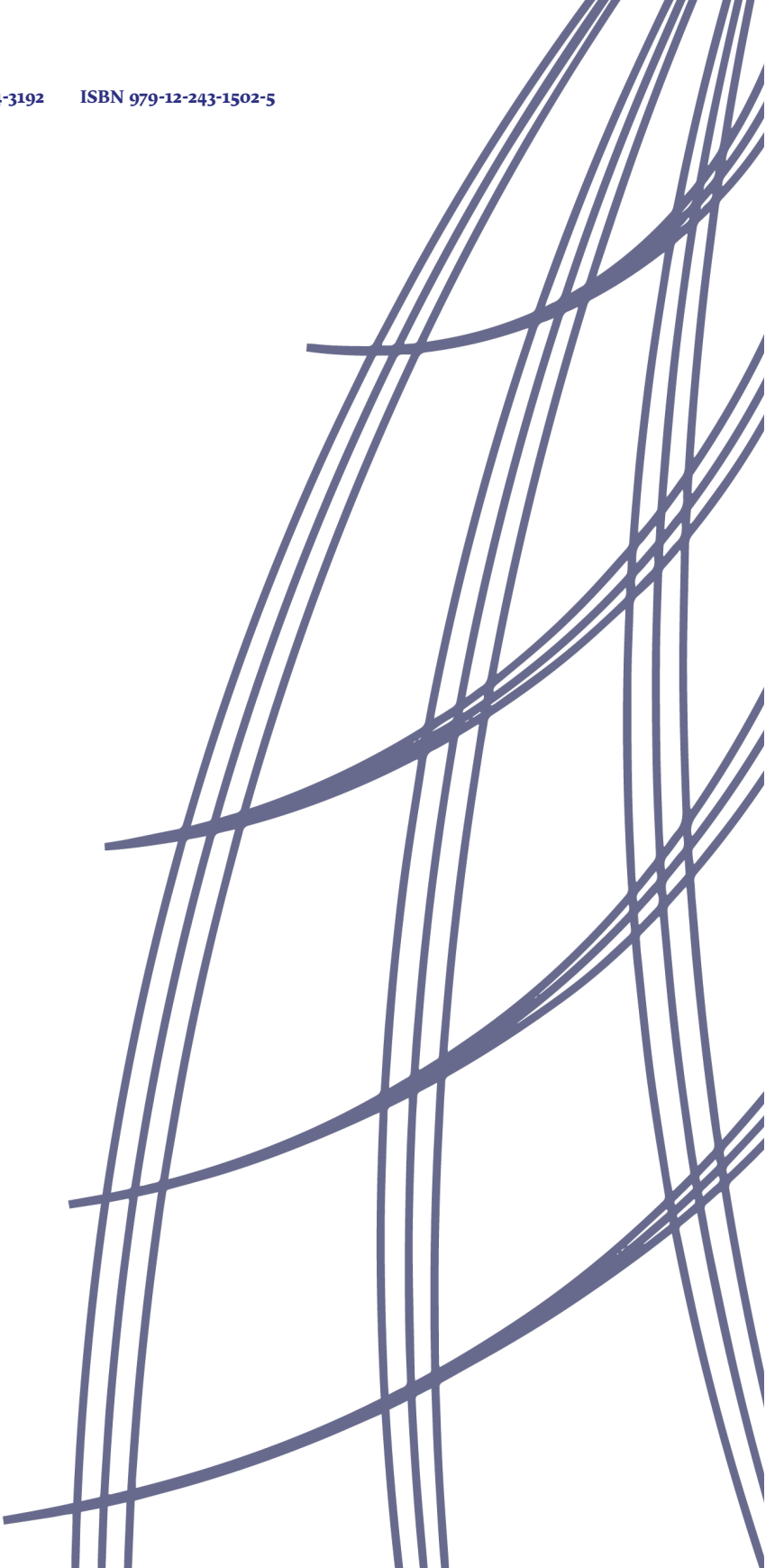

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