

KEYWORDS

Landscape, post-industrial era, Anthropocene,
transition, rebirth
Paisaje, era pos-industrial, antropoceno,
transición, renacer

When analyzing the Charleroi landscape (Belgium), the presence of slag heaps must be included since they shaped its contour while marking the urban fabric of natural islets. Charleroi's slag heaps are the product of human experimentation and the manifestation of a century of labor. Made of solid waste, shale, and other residue extracted by miners during coal mining, for a long time slag heaps have been ignored. Its ghost has haunted the mining field, shaped by the sweat and blood of miners with blackened faces. These mountains have been the subject of many struggles seeking their preservation since the progressive closing of shaft mining in the 60s.

These post-industrial landscapes and artifacts now shape a cultural and industrial activity and are the center of a new and self-governing nature [Fig. 1]. This essay rests on two main points: first, the multidimensional aspect of the object, and, second, its extension into the urban area of Charleroi in Wallonia. Indeed, after the industrial crisis shock in the 60s, the city remains bloodless, riddled all over by the corpses of factories and slag heaps. Yet, for two decades, the city, armed with a new and resolutely patrimonial and touristic policy, has embraced a period of renewal. The city project now takes its shape and Charleroi is, more than ever, embarking on its modern mutation within metropolis with projects such as Rive Gauche, Phoenix, Charleroi District Créatif, among others.

The shameful scars of the industrial crisis and, in particular, the slag heaps, have been integrated into a touristic and economic tour that participates in this renewal. This evolution of "negative" slag heaps to positive ones raises a question on how the nature and the specific situations of these artifacts contribute to a creative transformation of Charleroi's contemporary landscape. To understand the present situation, the issue will be tested through theoretical research and the examination of how this environment came to be. Meanwhile, a sensitive and *in situ* survey will lead us to a more prospective reflection on the history of the area.

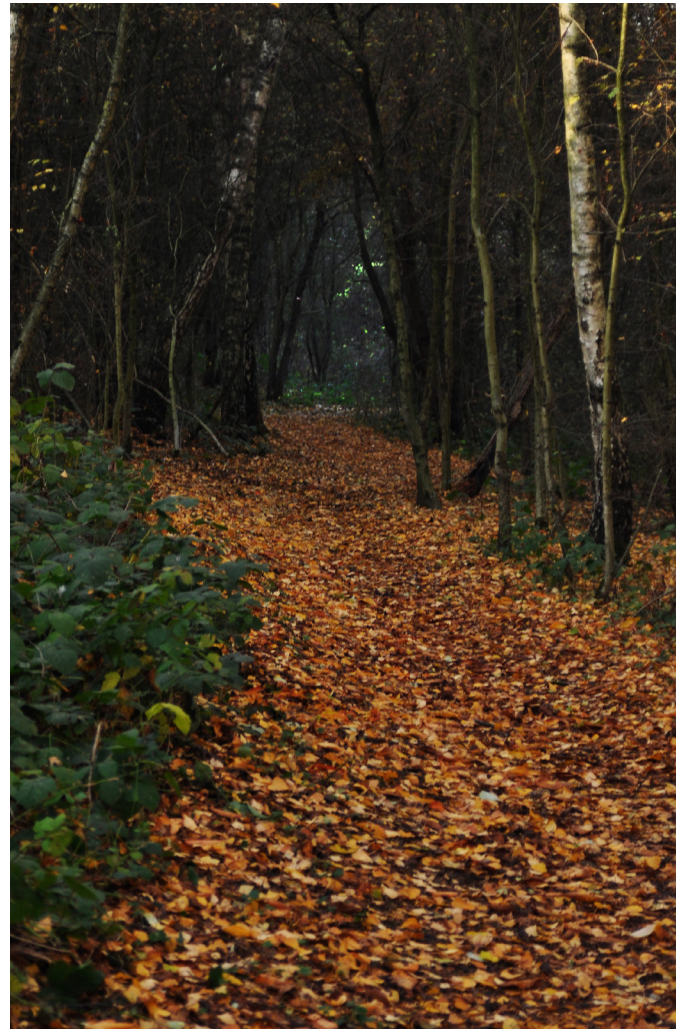


Figure 01.

SLAG HEAPS OF CHARLEROI:
HISTORY AND DEFINITION

The slag heaps of Charleroi, Belgium are basically the offspring of the mining industry of the nineteenth and twentieth centuries. These artificial monticules [Fig. 2] are synonymous with a landscape in constant evolution. They shape the territory, which, in this manner, retains the memory of this venture. Slag heaps have transformed and are still transforming our environment, whether morphologically, culturally, or structurally. Thereby, these surface changes, remnants of an industrial wasteland, are followed by what the population see as mutations. The territory is considered polysemous: in order to give it a proper definition, it needs to be seen through different landscape filters—scientific, historic, cultural, formal. We explore multiple definitions of slag heaps. In fact, as proposed by geographer Philippe Bachimont, the right understanding of the constant changes performed on the landscape (i.e slag heaps) is linked to the rhythms of transformation.¹ Looking through the eyes of the local protagonists is to enter into a human universe. Thus, the dynamic meaning of the word "landscape"

01. Philippe Bachimont, "Paradoxaux friches urbaines," *L'Information géographique* 78, no. 2 (2014): 42-61, doi:10.3917/lig.782.0042.
02. Alain Roger, *Court traité du paysage* (Paris: Gallimard, 1997), 23.

Figure 02.



then makes sense: landscapes are the reflection of human history and its interpretation.

The slag heap is an artifact, as it is the product of human activity. According to French philosopher Alain Roger “every landscape is a product of art”² because every landscape is a part of human production. In fact, if it originally was the product of nature, when it comes in contact with humans, it becomes an artifact as a, territory is a representation of human action on the environment. It bears all our actions dictated by our needs. Landscape becomes the fittest element for expressing the deep sense of our civilization’s organization. Territory is also a representation of natural action, constantly shared by people who make room and time for it to set in. Nature can take advantage of each interstice of landscape that it inhabits spontaneously. Thus, an interplay can begin where temporality is decisive and where people and nature take turns on the landscape. Consequently, every landscape is both a human and natural fact.

Slag heaps characterize an evolutionary environment resulting from successive human and natural actions that complement one another in shaping a complex area that has become a unique environment [Fig. 3]. These environments are part of the territory, a testimony of cultural and environmental qualities as well as a testimony of the evolutionary feature of a place left in the hands of time. It represents the embodiment of memory, of the back-and-forth movement of people and nature.

If the composition of slag heaps bespeaks the history of a geological period, its shape recounts the evolution of techniques. Indeed, the shape of

a slag heap depends on the surface of the waste deposit areas, on the will of the coal board to form more or less stable banks without any nuisance, though it also depends on the loading technique used. It reveals the importance of the exploitation, of its concession and its region. As extractions techniques improved, the modes of “slag heaping” had to evolve as well.

Before the industrial revolution, slag heaps were unimportant little “clumps”. During the eighteenth and nineteenth century, the concentration of small mining companies and the use of horses to carry coal and rock waste led to the accumulation of the first slag heaps. Their rounded shape can reach up to 30 feet high, giving way to a city overrun by waste heaps left behind by the mining industry.

The attention drawn by these objects kept evolving after the closing on mining concessions. Slag heaps are part of these abandoned areas. Intensively exploited by human beings, the loss of activity gave them the shape of exhausted bodies, left there waiting. The connection between abandoned areas led to the notion of “wasteland” that entomologist and writer Gilles Clement attributes to a field which is not yet a part of a reinvestment project. “Wastelands” are usually located in urban and/or peri-urban areas, where nineteenth century industries and residential areas had seen them insert in. Since the end of the twentieth century, questions have been raised regarding the future of these post-industrial sites, which have left irreversible marks on the city.

During the first decade after their closing, slag heaps received their first economic and



Figure 03. Photograph of Adrien Tirtiaux's intervention on Ferril des Piges.

commercial value assessment, thanks to their recovery potential, but they still remain abandoned. People are looking for coal, reorganising them, preferably to extract shale, to build/pave surrounding highways. Newly valued for their energy potential, local committees have opposed, aiming at preserving the slag heaps just as they are. These committees advocate for saving the new vegetation that now grows on the slag heaps and are proposing that this new natural vegetation will heighten and diversify their value. At present, ecological, environmental, and historical readings are the principal field of research regarding these artifacts. Several books have been written thanks to these committees. All of them are the result of historical research, photographic inventories, and written testimony. In the 90s, following the call of the Rio de Janeiro Earth Summit dedicated to the globalization and banalization of landscapes, these environmental aspects have become urgent. Right now, Wallonia is implementing slag-heap management tools within the competency of regional and environmental development where slag heaps are sorted in three categories: not exploitable, possibly exploitable, and requiring further research. This directive no longer allows for the exploitation of mineral matter. Some of the slag heaps are also classified as sites and can no longer be part of any exploitation. This new management allows the release of several hectares of land, once more available as sites for new possibilities. For instance, in Charleroi, Carollywood—the cinema complex—and a shopping mall have been built on the site of a former heap at Mambourg. Some slag heaps have been turned into semi natural sites that host their own biotope promoting new life: these sites have become a place for promenade and leisure.

These abandoned sites —where biodiversity had been impacted by time and human inaction—that had become a wasteland, are now guided by a new dynamic. Gilles Clément describes these sites on the fringe as the “Third landscape”³. These parts of the territory, no longer subject to human action, give nature a chance to take them over again. Indeed, nature and time, with their inseparable labour, have become the only operators on these sites. The evolution induced thereby give to these sites the possibility to obtain a brand-new identity. This transition endows slag heaps with new values, both biological and beneficial: their retrieval by nature. Once separated from urban life and leaving behind a damaged landscape, these slag heaps are now part of the system, from a cultural, social, and landscape point of view. Now, slag heaps have been packed with several meanings connected to the view of the population, to time, to natural action, and to human factors.

Waste heaping has now become a symbol of mining and industrial landscapes, making history, activity, and social structures. These reliefs highlight a vanished prosperity. The contradiction between the meaning of metaphors and accumulated waste is not that obvious. These heaps are vestiges of an activity that has considerably fed the urban conglomeration, a purveyor of employment for the city and the neighboring region. It is not only a mark of pollution and industrialization: for the poorest part of the population, it also represented a source of small profits. Disadvantaged people would come during mining work seeking small chunks of coal that had not been swallowed by selective sorting. On the other hand, the engineer’s task was very limited: taking an expert look at the construction of the slag heap and checking for possible dangers, and not much more. The engineer focused on the machine, technique and mining process. Then and now, the slag heap does not affect the engineer nor the rest of the population in the same way: when mining is over, mining waste is no longer of value for the operators, though it gives the entire local population a new imaginary.

According to philosopher Michel Serres, what is dirtier (city garbage, for example) becomes the cleanest part for the community in question—it is what the population owns the most in a proper way.⁴ Nothing is more important to an individual or a group than the garbage and waste they produce. Slag heaps are without a doubt, a heritage that perfectly illustrates the notion of inversion, i.e. the transition from dirty to clean.⁵ Slag heaps are, in a way, refined, even if the values of refinement are profuse and frequently contradictory. The versatility of the distinction lies on a central element: the transformation of the waste heap. As it is no longer active, it can subsequently embrace all the meanings people endow upon it. The first transformation is inherent and provoked by natural psychochemical processes. Slag heaps have gone through changes caused by bad weather (frost, thaw, streaming), and also due to gradual cooling on compacted materials and diverse chemical transformations.

In 1994, Charleroi’s Department of Urban Development already addressed the idea of heap trails. In the prospect of showing a case of the environment, one can find routes passing by former railways, unused country roads, and alleys. These new promenades, completely original, embody sites of urban explorations. Some areas—well-known by the residents—turn out to be real shortcuts. They constitute a new vision of Charleroi, passing through localities, connecting slag heaps, parks, green areas.

In 2006, the city of Charleroi and Espace et Environment stirred up the new potential of mining landscapes—its originality⁶. The findings and observations in the field are indexed. Thanks to urban policies, verdant heaps are now part of a long list of what to see and do in Charleroi, first for their unique viewpoint and, second, for the natural areas

03. Gilles Clément, *Manifeste du tiers paysage* (Paris: Sujet/Objet, 2004), 4.
04. Michel Serres, *Le Mal proper: Polluer pour s'approprier* (Paris: Le Pommier, 2008).
05. Anne Michaud, “Il était une fois . . . les crassiers,” *Bulletin du vieux Saint-Etienne* 179, no. 3 (1995): 2-18, <http://www.emse.fr/AVSE/michaul.htm>.

it hosts. It no longer reminds us of an industrial past that shaped the territory, though two centuries of industrialisation have left us traces, more or less noble or polluting, that should be classified, analyzed, and underlined. These are legitimate traces of our heritage.

Slag heaps highlight the double transformation that happened here: the heap itself that went from a negative connotation to a more positive one, and a transformation of the heritage that came out of the limited domain of historical monument or master piece to connect with daily objects or human activities less gratifying than artistic creativity and intellect. Slag heaps warrant a chance to connect to the historical and technical place they have held on our territory. Even though the expression *lieu de mémoire* is used often, we should question the application of this concept to slag heaps. As defined by historian Pierre Nora, a *lieu de mémoire* is a place that imagination has endowed with “a symbolic aura”. Nora also talks about “an intention of memory” that turns a place of history into a place of memory. Thus, it is important to produce “the maximum of meaning with minimum of signs”.⁷ Memory and meaning are indubitably tied to these mountains of waste, symbols of employment, and long-lost prosperity.

At first glance slag heaps embody the history of exploitation of people and wealth. They also point to the lack of management—or mismanagement—of a site on which industrial activity developed, damaging the environment to a certain extent. Slag heaps cannot be *patrimonialized* under veiled intentions, i.e. for a motive other than their inherent nature—that their presence and existence make life tolerable for a community. What means do we have to enhance the value of what already exists and to reap the potential of its characteristics? How do we make its qualities visible again? How to implement a modern approach with a brand new eye on the landscape, the city, and its history?

REBIRTH

Since the end of the mining exploitation during the 90s, the government of Charleroi have seemed divided with regards to these mysterious mountains. The heaps’ aforementioned change of status and the civic engagement faced with the preservation of these areas, led the city to consider the new symbolic representation (see the new logo of the city of Charleroi, the “C” letter with multiple slag heaps right above it). However, the project of selling some slag heaps to keep extracting shales remains threatening to the inhabitants of Charleroi. The issue of

preservation is still topical and we cannot help but notice that the main population touched by these potential transformations are the residents who day after day coexist in this environment. The ultimate objective is to end, once and for all, the constant financial speculation. Slag heaps not only need to be classified as historical heritage, they should be protected from any and all commodifications.

The soil condition of every slag heap is different and complex. The presence of microclimates give these rock heaps a bipolar personality which can be explained by analyzing their two distinct sides. The south side hosts dry soil, facing the sun, covered with a mat of vegetation at ground level, populated by succulent plants. The north side hosts a dense forest, dark and humid, with a soil blanketed with different sorts of moss. Because of this noticeable duality, the singular elements gathered on the two sides result in the presence of very rare plants and lichens. This remarkable biodiversity contributes to the preservation of heaps in a new natural imaginary, one which needs to protection and further study.

Indeed, in the last few decades, some of the post-industrial landscapes have been revalued. Places as the Landschaftspark in Rhur and the Naturpark Südgeländ in Berlin, both located in Germany, are tangible examples of the transformation of factory functions to nature and walking areas. These sites are a vivid representation of the third landscapes that absorb the abandoned places of humanity. The existence of a large number of abandoned infrastructures is due to the transfer of primary industries and secondary sectors out of “developed countries”. Thereby, the existence of the black tour in Charleroi—a path along its industrial sites—is a positive initiative toward the permanent preservation of several slag heaps and former industrial constructions, and a sign of vitality for the city.

Similarly, several heaps with a large surface area are turning into vast urban parks. For instance, the slag heap at La Pige, whose surface exceeds 18 hectares, is a densely wooded area with many short paths which allows to explore the site from different angles. While walking through it, the city landscape is almost imperceptible—the only clue of its urban location is the noise of the surrounding highways and factories. Slag heaps are a place for relaxation for Charleroi’s inhabitants. They are also considered green lungs, an important element for a city in the middle of a process of rebirth, after a dark industrial past where some factories are still producing polluted and suffocating fumes.

Finally, what happens to ugly slag heaps? Should they be destroyed? These may be used as architectural experimental fields, in order to explore spatial and social interests. For instance, would it be relevant to create a modular system that could apply and be adapted to all heaps? Architect Cedric Price promoted a social commitment to the architects of his generation and the next to come. Through his project Potteries Thinkbelt⁸, he developed a new education system and elaborated a university on rails by reevaluating a former pottery complex

06. Ville de Charleroi and Espace Environnement, “Planifier une nouvelle valorisation des terrils dans la région: dans une perspective de développement durable,” March 2006, https://www.espaceenvironnement.be/wpcontent/uploads/2015/08/Valorisation_terrils_Brochure.pdf.

07. Pierre Nora, dir., *Les lieux de mémoire* (Paris: Seuil, 1984), 124.

Figure 04.



situated in Staffordshire, England. Today, Cedric Price might tell us that Pottery Thinkbelt was a valid project for a specific context, but obsolete for our contemporary era, and he would not be wrong. Would it be possible to think about slag heaps' place in Charleroi within the same sort of project? Several decades later, Potteries Thinkbelt remains renowned for being a pioneer in the reuse of abandoned industrial sites but also for the thorough study of social stakes and ideas proposed to solve past issues.

As the second project of its kind concerning Charleroi's case, Marco Casagrande's Paracity⁹ is at the moment being tested in the district of Treasure Hill in Taipei. This project is based on a tridimensional grid that spreads in the landscape. A grid gives the site a constructive system where inhabitants can come and build their own facilities. This mechanism takes its place in what Casagrande defined as "third generation city", the city after industrialisation. As to the rearrangement of the slag heaps, could we move draft a flexible and modular grid that would allow us to adapt these sites and transform them into a human scale?

CONCLUSION

In the contemporary landscape of Charleroi, the place of slag heaps is important because it allows for the preservation of collective memory in terms of how humanity has treated and still treats the environment. It is an indisputable truth that we live in the new era of Anthropocene. We now have to learn how to live with this past, even if it means revaluating the city, its inhabitants, and our planet.

As sociologist Bruno Latour argues in his book *Politiques de la nature*, at this point, it seems to be essential to merge culture and nature¹⁰ to facilitate the resurgence of slag heaps in harmony with their environment. The project of registration of former industrial sites, and particularly slag heaps, can only survive time by creating a general awareness of the need to return these mounds to their natural state. Slag heaps are shaping Charleroi's landscape in terms of time, nature, and imaginary [Fig. 4]. The change of customs of our time and the general awakening in the face of global climate change led slag heaps to lose their value. That is why they are a part of creative reinvention of a post-industrial, brand-new landscape.

There is a transitional phase between the moment a land is abandoned and when a project is created. During this period, the site seems to "deteriorate" or transform into another. It is actually this waiting time that gives nature the possibility to reign again over the area. How can we use this transitional time to support natural dynamics of the landscape? The urgency to act now is due to the uncertain future of Charleroi's slag heaps. The idea of an impending crisis unfolds against the flow of the ecosystem which needs more time to reinvent itself.

08. Cedric Price, *Potteries Thinkbelt* (London: Routledge, 2008).
09. Casagrande Laboratory, "Marco Casagrande: Paracity," last modified 2019, accessed October 2, 2018, <https://www.casagrandelaboratory.com/2014/02/28/marco-casagrande-paracity/>.
10. Bruno Latour, *Politiques de la nature* (Paris: Découverte, 2004), 87-133.

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ON MARGINS AND ABSENCES: NOTES ON HOW ENRIC MIRALLES ENGAGED WITH “PLACE” *Felipe Lanuza*

KEYWORDS

Enric Miralles, EMBT, Venice, absence, unrealized architecture, place, architectural drawing, site
Enric Miralles, EMBT, Venecia, ausencia, arquitectura no-realizada, lugar, dibujo arquitectónico, sitio

Written by Enric Miralles in collaboration with Carme Pinós,¹ the first version of “Place” was published without its title in 1987, in *El Croquis* magazine N°30.² It introduced, among other designs, the project La Llauna School in Badalona (metropolitan area of Barcelona),³ where partners Miralles and Pinós intervened on an old factory, adapting it to be used as a high school. It was republished with a few changes in 1995 under the name “Place,” signed by Miralles only, in an extended compilation of previous issues on Miralles/Pinós and Enric Miralles by *El Croquis*.⁴ Without addressing the load that the word “place” had in predominant discourses in the field of architecture during those years—tinged either by tradition, by architectural

interpretations of phenomenology or semiotics—Miralles went beyond to describe a more intimate and direct engagement with the site. Similarly, the architectural practice of the young couple—Miralles and Pinós—gained visibility through their fresh approach in breaking through the postmodern landscape of architectural production of the 1980s,⁵ which Miralles continued into the early 1990s and from 1994 with Benedetta Tagliabue forming Miralles Tagliabue EMBT.

In an elusive yet seductive fashion, “Place” flows crossing boundaries between the different situations described and ideas addressed in the text. Some parts have certain autonomy regarding the rest. There are sudden stoppages and new beginnings, where the same things seem to be said from different angles, then weaving into the next idea. The overlaps and exchanges between paragraphs somehow resemble Miralles’s way of working, where ideas, drawings, and projects freely contaminate each other across different stages of the creative work.