Aprendiendo de Chernobyl: colonialismo inverso y las arquitecturas salvajes *Learning from Chernobyl: Reverse Colonialism and Feral Architectures*

DOI: 10.37536/htsn.11.2023.156

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Breve biografía

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Resumen

El presente artículo orbita en torno al concepto de *colonialismo inverso*, y utiliza como caso de estudio el fascinante ejemplo de Pripyat, una ciudad profundamente afectada por el devastador accidente nuclear de Chornobyl en 1986. Tras el desastre, la desaparición de sus habitantes humanos favoreció el hecho de que esta ciudad se convirtiera en lo que los autores de esta investigación han denominado como *paisajes antropocalípticos* - escenarios donde las arquitecturas abandonadas por los humanos son colonizadas por lo que en el campo de la ecología se conoce como *novel ecosystems*-. Este

proceso, que permite a la flora y fauna silvestres conquistar el espacio urbano resulta en el surgimiento de *feral architectures* -edificaciones abandonadas que han sido recuperadas por la naturaleza-. Al explorar el proceso de *colonialismo inverso*, el artículo se adentra, desde una posición crítica, en la noción de *restauración abiótica*, una práctica convencional en proyectos de restauración de arquitecturas abandonadas.

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Palabras clave

Colonialism invertido, paisaje antropocalíptico, arquitectura salvaje, restauración abiótica, arquitectura interespecies.

Abstract

This article revolves around the concept of *reverse colonialism* and uses the fascinating example of Pripyat as a case study. Pripyat was deeply affected by the devastating Chornobyl nuclear accident in 1986. Following the disaster, the disappearance of its human inhabitants facilitated the transformation of this city into what the authors of this research refer to as *anthropo-calyptic landscapes* - scenarios where architectures abandoned by humans are colonized by what is known in the field of ecology as novel ecosystems. This process, which allows wild flora and fauna to conquer urban space, results in the emergence of *feral architectures* - abandoned buildings reclaimed by nature-. By exploring the process of *reverse colonialism*, the article critically delves into the concept of *abiotic restoration*, a conventional practice in abandoned architecture restoration projects.

Keywords

Reverse colonialism, anthropo-calyptic landscape, feral architecture, abiotic restoration, interspecies architecture.

'There is a perversity in the learning process: we look backward at history and tradition to go forward; we can also look downward to go upward.' (Venturi, Scott Brown, Izenour 1972).

In Pripyat¹, according to the detailed list of objects available on the specialized forum "pripyat.com"², there are 13.414 apartments distributed in numerous linear buildings from the 84 series³, a hospital with 410 beds, several cinemas with a total of 1.220 seats, thirty-five playgrounds equipped with swings, ten shooting ranges, and two stadiums. In Pripyat, there is every kind of thing one would expect to find in a small Soviet city from the early 1970s. However, what is not there, what is absent, defines it effortlessly: in Pripyat, there are no people.

When, also in the early 1970s, Robert Venturi, Denise Scott Brown, and their assistant Steven Izenour urged the academic and Western urban planning world to look at Las Vegas with a fresh perspective, they were convinced that this city held valuable lessons from which architects and urban planners could - and should – learn (Venturi, Scott, Izenour 1972). The audacity they displayed in recognizing the existence of academically significant knowledge in such an unexpected place for scholars like Las Vegas, completely lacking academic pedigree within the exclusive world of urban models that celebrated cities like Paris, Copenhagen, Chicago, or New York, set an

incredibly relevant precedent for the discipline. In the context of a strong conceptual confrontation between the "whites" and the "greys" (Korody 2016), the publication of *Learning from Las Vegas* was a ground-breaking act that would open a new path for future researchers in the field of design, architecture, and urbanism.

Currently, over fifty years after its publication, with the case of Pripyat, we find ourselves, according to the authors of this article, facing another fascinating city where a radically interesting urbanism has germinated for decades, yet no urbanist or theorist seems to have given it the attention it deserves. At a time when contemporary architecture is deeply exploring new formulas of *being-with-the-other* that dissolve the modern dichotomy between nature and culture in a metropolitan context, this particular case emerges as an extreme experiment in which a radical cohabitation between human and *other-than-human* agents has been put into practice. However, it is not being studied in architecture and urban planning schools.

Anthropo-calyptic landscapes

People suddenly disappeared from Pripyat on April 27, 1986, between 11:00 a.m. and 3:00 p.m. (Kushnir 2011), approximately thirty-six hours after the tragic Chornobyl⁴ nuclear accident. Fifty thousand people were evacuated in just four hours, leaving behind the echo of empty streets and the vast majority of their cherished belongings⁵. Many of those belongings still

¹ Pripyat, a desolate urban center situated in northern Ukraine close to the border with Belarus, holds historical significance. Established on February 4, 1970, and recognized officially as a city in 1979, Pripyat flourished with a population of 49,360 until the fateful day of April 27, 1986, when it was promptly evacuated following the aftermath of the Chernobyl catastrophe. ² The public project "pripyat.com" was founded in 2004 as an unofficial site of the city of Pripyat. "Pripyat in Numbers", last modified February 2012.

³ The Series 111-84, commonly referred to as "84," were developed by TsNIEEP Zhilischa in Moscow and commissioned for construction by enterprises under the USSR Ministry of Energy. These buildings were widely employed in cities and towns housing nuclear power

plants across the USSR. In the Ukrainian SSR, the series 84 underwent modifications by local design institutions and house-building factories to cater to regional requirements

⁴ In compliance with international rules (United Nations Group of Experts on Geographical Names), the transliteration of names of settlements is made only from the country state language, where the object is located. Chornobyl (Чорнобиль – Ukr.) – ancient Ukrainian town, first mentioned in chronicles in 1193. Accordingly, the only correct transliteration from Ukrainian state language is Chornobyl.

⁵ As Zinaida Kovalenko, voiced by Svetlana Alexievich in her book "Voices of Chernobyl," informs us, during the city evacuation process, the residents of Pripyat also left behind their cats and dogs (Alexievich, Voices of Chernobyl, 32).

Recepción: 03-10-2023, Aceptación: 30-12-2023 www.hipo-tesis.eu | 2023 | ISSN 2340-5147

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remain there today, covered in mould, dirt, and rust. And vegetation; a dense vegetation that permeates every corner of the city. From the moment humans vanished from Pripyat (a process that occurred abruptly and swiftly), a second process began, directly resulting from the first but much slower and gradual: wild flora and fauna began reclaiming the urban space, reclaiming the place that had once belonged to them. The result, nearly four decades after the mass evacuation, is striking: both the main metropolitan nuclei of the area, Pripyat and Chornobyl, as well as the multitude of small villages scattered around them, have been completely taken over by vegetation and have become havens for wild animals (Gill 2015).

Although the mechanisms that allow living organisms to inhabit the Exclusion Zone are still a subject of study and controversy within the scientific community, it is undeniable that, nowadays, the biodiversity of the Exclusion Zone has fully recovered (Orizaola 2019). And this process of healing refers not only to the damage caused by the nuclear accident but also to the effect brought about by human presence in the region⁶. Species such as brown bears, European bison, and Przewalski's horses, which were not present in Chornobyl at the time of the accident, have now recolonized the area uninhabited by humans (Orizaola 2019). A similar phenomenon has occurred with a wide variety of bird species and invertebrates, demonstrating that the expansion of biodiversity in Chornobyl is surprisingly, despite the intense radiation, indisputable (Orizaola 2019). Furthermore, this expansion of flora and fauna has not spared the heavily urbanized environments of the area. An aerial view of Pripyat (Img. 1) eloquently shows us a town that has been completely engulfed by vegetation to the point of blending in with the landscape. On a territorial scale, the urban fabric disappears before our eyes.



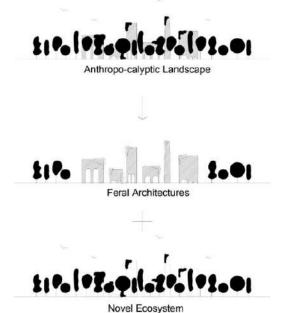
Img. 1. Aerial view of Pripyat.

In the fields of environmental sciences and ecological studies, a term has emerged in recent decades to define these kinds of situations from an ecosystem perspective: novel ecosystems (Hobbs et al. 2006). A novel ecosystem is one in which the existing biodiversity is notably different from what existed prior to its establishment and, at the same time, has been influenced by humans but is not under human management (Marris 2009). Obviously, this definition encompasses many other scenarios beyond the specific one analyzed in this article: a forest dominated by invasive species would also be considered a novel ecosystem (Marris 2009). However, in this research, we focus on those specific types of novel ecosystems that are hosted by abandoned architectures. The authors of this article will henceforth refer to this type of scenario as *anthropo-calyptic landscapes* (Frías-Sánchez and Perailes-Santiago 2023). From our perspective, an *anthropo-calyptic landscape*

balance has been formed between herbivores and predators, so if there are more wolf victims in one year, the next year their number decreases. Now, according to various calculation methods, we are talking about 100-200 wolves in the Exclusion Zone and the same number of lynxs.

⁶ "Wild animals that lived here 100-200 years ago have been restored, the whole set: predators, large and small, wolves, lynxes, badgers, foxes, ungulates," says Denys Vyshnevskyi, head of the scientific department of the Chornobyl Biosphere Reserve. In particular, the number of wolves has increased. It is high and regulated by the amount of food available for the predator. A

is composed of the colonizing novel ecosystem and the architecture that is being colonized, which we will term *feral architecture* (Img. 2).



Img. 2 Composition of an anthropo-calyptic landscape: feral architectures+ novel ecosystem

Certainly, beyond the city of Pripyat or Chornobyl itself, there are numerous examples of *anthropo-calyptic landscapes* in the world, such as Houtouwan, a small abandoned fishing village on the north side of Shengshan Island (CNN 2015), or Tskaltubo, a Soviet-era spa town in Georgia (Zachos 2018)⁷. Houtouwan has gained notoriety recently due to its spectacular abandoned houses, which stand as clear examples of *feral architectures*, completely

covered by dense vegetation that blends them with the surrounding landscape. A similar phenomenon has occurred with the palatial-style buildings in Tskaltubo, where the interiors of many structures within the complex have been entirely invaded by an outstanding overgrowth of tall vegetation. However, while ecologists and environmentalists have approached these scenarios through the study of the ecosystems themselves, we aim to explore *anthropo-calyptic landscapes* from the perspective of the other party involved, from the perspective of *feral architectures* and their potential as a setting for positive human/*other-than-human* cohabitation.

Reverse colonialism

So, a question arises: how could we use the Chornobyl Exclusion Zone as a model in terms of coexistence between human and other-than-human agents if it is uninhabited by humans? The answer is simple: because, indeed, there are people living in Chornobyl⁸. Even in the areas surrounding Pripyat, despite its extreme proximity to the nuclear plant where the accident occurred. Certainly, there are scientists and military personnel who continuously inhabit the zone (Chornous 2019). In addition, since visits to the area were opened to the public in 2011 (Walker 2010), and until the outbreak of the Russo-Ukrainian war, there have been numerous groups of tourists and specialized guides constantly roaming the streets of Pripyat and Chornobyl (Img. 3). And finally, there are the unofficial residents, known as Samosely (or self-settlers), who dwell illegally (though with the consent of the authorities) in a place where the need for self-provisioning of food and energy sources constitutes their daily routine (Ustinova et al. 2020). It is this third group that is of greatest interest from the perspective of this research, since the Samosely have developed a notable adaptability to the intrincate

⁷ For more examples, see: Rachael Bunyan, "After mankind has left: Abandoned buildings around the world now teeming with plant-life after being reclaimed by nature", DailyMail, 11th May 2021, https://www.dailymail.co.uk/news/article-9566709/Abandoned-buildingsworld-teeming-plant-life-reclaimed-nature.html

⁸ In 1987, over 1,200 residents were in the exclusion zone, but by 2007, the number had decreased to 314. As of 2019, around 150 permanent residents lived in settlements like Chornobyl, Vilcha, Dibrova, Illintsi, Kupovate, Ladyzhychi, Lubianka, Opachychi, Otashiv, and Paryshiv (Ustinova et al. 2020).

Recepción: 03-10-2023, Aceptación: 30-12-2023 www.hipo-tesis.eu | 2023 | ISSN 2340-5147

balance between *the wild* and *the domesticated* that has been established, unplanned, in the *anthropo-calyptic landscape* represented by Pripyat, Chornobyl, and their surrounding populations (Solonina 2015; Alexievich, 2006, 30-34).



Img. 3 A group of tourists walking by the Palace of Culture Energetik, Pripyat.

Therefore, what has actually disappeared from the exclusion zone is not the human being itself, but the *systems of control over the wild* derived from the ways of inhabiting that the human being performs in an urbanized context. As we were able to witness during the worst moments of the COVID-19 crisis, when many countries around the world ordered strict confinement, the sudden cessation of human activities in cities had a great impact on *other-than-human* species inhabiting the surrounding landscapes (Miraglia and Di

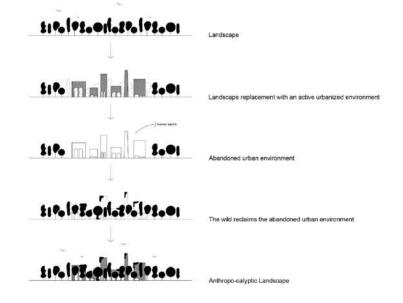
Brita 2022). As soon as the systems of control over the wild diminish in their constancy or even disappear, wild flora and fauna initiate a process of recolonization of the urban space from which they have been expelled. In this research, we propose to connect this phenomenon to the ongoing discourse regarding the concept of *reverse colonialism*. As it has been employed in other fields of thought (Higgins 2022), reverse colonialism typically refers to narratives, political ideologies, or movements that examine power dynamics, often in the context of imperialism and colonization, from the perspective of the colonized or as a reversal of traditional colonial scenarios. In contrast, our interpretation opens up to a different dimension to the term by applying it to the realm of architecture. Here, we explore the concept of reverse colonialism within the context of architectural spaces that have been "recolonized" by wild flora and fauna. It offers a unique lens through which to examine the evolving relationship between human-made structures and those other-thanhuman beings with whom we share the territory. This perspective shifts the focus from human power dynamics to the interaction between built environments and nature, emphasizing the resilience and adaptability of natural elements in reclaiming urban spaces. Unless the untamed flora and fauna have been completely eradicated from the abandoned zone (Caitlin and Medoro 2018), they will succeed in reclaiming the territory that has been denied to them by human activity, thus giving rise to a novel ecosystem and a new anthropo-calyptic landscape (Img. 4).

Consequently, it is essential to accurately identify the different agents that shape these mechanisms of control that human beings exert over the rest of the living beings with whom we cohabit, especially focusing on those species labelled as *unauthorized*⁹ within the urban context. The case of Chornobyl can be particularly useful for this purpose. Although the phenomenon of *feral architectures* has occurred and continues to occur in many other places

⁹ By "unauthorized," we refer to those synanthropic animals that inhabit cities worldwide, yet are often regarded as invasive, unwanted entities within urban spaces, subject to unimpeded

direct violence. Prime examples of such "unauthorized" species include the rat or spontaneous vegetation, often labeled as "weeds."

around the world, such as the examples of Houtouwan or Tskaltubo, what makes the Exclusion Zone such a special case is the fact that, due to its particular circumstances, it has been extensively documented from a scientific point of view. Initially, and for obvious reasons, the hard sciences were extremely interested in the region, but Chornobyl has recently gained popularity among the social sciences as well, in fields such as human geography, anthropology, sociology, history or tourism studies (Davies and Polese 2015). Thus, our understanding of the place, its inhabitants, and their way of inhabiting has grown dramatically in recent times. Now the fields of architecture and urban planning join this list of disciplines interested in what is happening in this peculiar corner of the world.



Img. 4 Formation of an Anthropo-calyptic Landscape.

To begin unravelling the systems of control over the wild that have receded in the case study of Chornobyl, it can be argued that one of the main agents that has disappeared from the Exclusion Zone is the governmental authority system itself. In their article titled "Informality and survival in Ukraine's nuclear landscape: Living with the risks of Chornobyl" (Davies and Polese 2015), researchers Thom Davies and Abel Polese explore, through intensive ethnographic work carried out inside the Chornobyl Exclusion Zone, how these informal inhabitants, whom they frame as post-nuclear "bare life"10 suffer the hidden violence of abandonment by "the state" (Davies and Polese 2015). Throughout their research, they document how those who decide to settle in the contaminated zone manage to survive in a world where the constant risk of radiation remains invisible (being outside the protection of state apparatuses consequently means not having access to the technological devices that make radiation visible) and what political and social systems they are able to put into practice. Davies and Polese conclude that the creation, at a local scale, of a circular and solidarity-based productive system based on the exchange of goods, services, and care is essential for survival in the zone (Davies and Polese 2015). The Samosely cultivate their own food on contaminated land and primarily rely on wood gathering as a source of energy. This is something we can see reflected in some of the narratives voiced by Svetlana Alexievich in Voices from Chernobyl: The Oral History of a Nuclear Disaster. The portrayal of certain characters, such as Zinaida Kovalenko, or the discourse held by other Samosely individuals like Anna Artyushenko, Eva Artyushenko, Vasily Artyushenko, Sofya Moroz, Nadezhda Nikolaenko, Aleksandr Nikolaenko, Mikhail Lis in the chapter "Monologues by those who returned," vividly illustrates these ways of life (Alexievich, 2006, 30-34, 60-67). They establish an economic system based on bartering, in which elements such as care or labour acquire value as a medium

¹⁰ In their article, Thom Davies and Abel Polese reference the concept of "bare life," coined by Agamben (Agamben 2005), in the sense of establishing themselves as lives stripped of their political and civil dimensions. Specifically, they refer to a "*status of post-nuclear bare life*."

of exchange. The Samosely, positioned in this zone of exclusion, epitomize the nexus between capitalism and *necropolitics*, as their existence is marked by the denial of resources and the abandonment of societal obligations (Agamben and Mbembe 2021, 343 - 354). This conceptual synthesis underscores the insidious ways in which capitalism operates within zones of exclusion, perpetuating forms of governance that Mbembe identifies as the sovereignty over death. The marginalized populations in these zones not only symbolize the "bare life" characteristic of Agamben's theory but also exemplify how capitalism reinforces necropolitical practices through economic exclusion and structural violence. As Davies and Polese say in their article: here -like in other modern spaces of exception suggested by Giorgio Agamben, such as Nazi concentration camps or Guantanamo Bay - certain people are excluded from the normal protections of the law, and allowed a 'death without consequences' [...] To live inside contaminated territory is therefore to live outside the de facto protection of the law' (Davies and Polese 2015, 38).

Another significant change that has taken place in the urbanized environments is the drastic decrease in population density. It is difficult to assess which factor has been more influential in generating the *anthropocalyptic landscape* of Chornobyl (and its *feral architectures*), whether it is the *de facto* abandonment of the governmental apparatus or the radical reduction in human population density, but it is clear that both emerge as determining factors in the process. Whatever the answer to this may be, the remission, to a greater or lesser extent, of the violence applied to *unauthorized other-thanhuman* bodies in the urban setting allows for the advancement of novel ecosystems and their prosperous colonization of *feral architectures*. It is precisely this process, which we have referred to as *reverse colonialism*, that the authors of this article propose to focus on in order to extract valuable knowledge for the implementation of new architectural practices.

Alternative forms of human/other-than-human cohabitation

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The Samosely community represents an interesting case study in the realm of alternative habitation practices. Their approach stands out for its integration of co-design and co-configuration principles, fostering a shared spatial environment with the non-domesticated entities that coexist within their habitat. This approach is marked by the tolerance of a relatively high level of anarchy in the urban [non]planning, challenging conventional notions of structured urban development. For instance, the village of Lubyanka, once inhabited by around 1,000 people prior to the Chornobyl disaster, now harbors a peculiar community of feral cows. According to the staff at the Chornobyl Radiation Ecological Biosphere Reserve, these cows emerged approximately four years ago (Zhyla and Vyshnevsky 2021). Previously cared for by a reclusive woman, the cows adapted to an independent existence after her passing. During daylight hours, they typically seek repose within the forest, while at night they seek refuge in the old farms, finding comfort and enhanced safety compared to the exposed forest. The presence of walls diminishes the likelihood of wolf attacks. Thus, their territory remains confined', explains Serhii Zhyla, a senior researcher at the Chornobyl Radiation and Ecological Biosphere Reserve (Zhyla and Vyshnevsky 2021). In Voices from Chernobyl, we encounter, among others, the account of Zinaida Kovalenko, to which we have previously referred: 'Oh! Look there-a crow. I don't chase them away. Although sometimes a crow will steal eggs from the barn. I still don't chase them away. I don't chase anyone away! Yesterday a little rabbit came over' (Alexievich, 2006, 31). Kovalenko continues to say: 'one time-I had a nice little kitty. Vaska. One winter, the rats were really hungry and they were attacking. There was nowhere to go. They'd crawl under the covers. I had some grain in a barrel; they put a hole in the barrel. But Vaska saved me. I'd have died without him' (Alexievich, 2006, 33). Throughout the book, we can find numerous references that illustrate this capacity for multispecies coexistence. As in the chapter "Monologues by those who returned," where characters engaged in a

debate cite situations such as the following: '[...] we have all the land we want! You can plow 100 hectares if you want. And no government, no bosses. No one gets in your way. The cats came back with us, too. And the dogs. We all came back together. [...] Sometimes a wild boar will come into the garden, sometimes a fox. But people only rarely. Just police. [...] There was a rabid fox here during the spring—when they're rabid they become friendly, very friendly. But they can't look at water. Just put a bucket of water in your yard, and you're fine. She'll run away' (Alexievich, 2006, 60-67).

What distinguishes the Samosely community's mode of engagement with their territory is their acceptance to the evolution of novel ecosystems. Unlike conventional dwelling models that might seek to control or limit ecological changes, the Samosely approach embraces the inherent dynamism of the complex urban environment of Pripyat and its environs, which are being affected and altered through a process of reverse colonization. Rather than reverting feral architectures to their previous states as mere-architectures, it recognizes and appreciates the transformative energies exerted by otherthan-human agents in reshaping architectural spaces. Crucially, this approach refrains from employing violence or coercive measures against the other-than-human bodies entities sharing their habitat. It embodies a cohabitation ethos, rooted in mutual recognition and collaboration, where human and other-than-human entities coexist. This human/other-thanhuman coexistence through the mediation of feral architectures is a phenomenon that we can also observe in the abandoned village of Houtouwan, mentioned earlier. Abandoned in the 1990s due to its remote location and the logistical challenges it posed, Houtouwan is currently inhabited by fewer than a dozen people (Zachos 2018). These inhabitants occupy feral architectures, completely overgrown with vegetation to the extent of blending into the landscape (BBC 2018). The singularity of this

anthropo-calyptic landscape and the distinctive mode of dwelling practiced by its few residents have turned this place into a growing tourist attraction, garnering significant media attention in recent times (Zachos 2018). Another interesting *anthropo-calyptic landscape* where we can find *feral architectures* inhabited by humans is the case of Tskaltubo, Georgia (Zachos 2018). Tskaltubo is a Soviet-era spa town that remained abandoned for decades, and its impressive structures have become *feral architectures* through a process of *reverse colonization*¹¹. Currently, Abkhazian refugees inhabit these feral architectures by constructing makeshift homes and cultivating vegetable gardens (Zachos 2018).

The authors of this article seek to emphasize and illustrate this distinctive manner of urban and architectural cohabitation and co-design that embraces processes of *reverse colonialism*. The inhabitants of these case studies serve as an example of how human communities can coexist with, adapt to, and welcome the transformative forces of their environments, fostering a more harmonious and inclusive relationship between humanity and the *other-thanhuman* worlds.

Feral architecture as an opportunity for the 21st-century city

When we employ such remarkable and arresting case studies like Chornobyl, Houtouwan or Tskaltubo, there exists the peril of nurturing an erroneous perception that *anthropo-calyptic landscapes* are exclusive to remote, faraway settings, disconnected from our own urban practices and daily lives. However, that is not the case. Indeed, *anthropo-calyptic landscapes* are a rather common urban phenomenon. In a multitude of cities across the globe, we can find abandoned industrial heritage that has been, to varying extents,

¹¹ To view images of the *anthropo-calyptic landscape* of Tskaltubo and its impressive feral architectures, see: Jamie Ditaranto, "This Deserted Soviet Resort Town Is Attracting New

Visitors Through Art", Condé Nast Traveller, <u>https://www.cntraveler.com/story/soviet-resort-town-georgia-tskaltubo</u>.

Recepción: 03-10-2023, Aceptación: 30-12-2023 www.hipo-tesis.eu | 2023 | ISSN 2340-5147

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colonized by novel ecosystems¹². These are architectures and architectural environments in which the *system of control over the wild* has ceased, consequently transitioning towards *feral architectures* (Img. 5).



Img. 5 "*Industrial forest*", Italy 2019. An old industrial complex located near a small town in Italy. This image effectively illustrates how the original industrial structure has transformed into a feral architecture through a process of reverse colonization. Author: Stefan Baumann.

In a context of urban expansion (indeed, this century has been labelled as the "Century of the City") (Ahern 2016), it is natural that these abandoned spaces in proximity to our cities have already caught the attention of disciplines

responsible for urban regeneration. In fact, these spaces have already been recognized as opportunities for socioecological regeneration (de Almeida Santos 2022). Currently, there are numerous truly interesting projects revolving around the recovery and reuse of these valuable heritage environments abandoned by human management¹³. However, while at a programmatic level, the authors of this article align themselves with the majority of the proposed ideas, the same cannot be said for those purely architectural and material aspects. The way architectural restoration is being conventionally managed tends to prioritize the immediate restoration of control systems over what we have defined as the wild, namely, nondomesticated flora and fauna (Watt 2006). This process of restoring the systems of control leads to the drastic elimination of the flora and fauna that had become the primary users and designers of the space for a variable period of time (sometimes years, sometimes even centuries) (Mishra, Jain and Garg, 1995). As a result, the traditional approach we have taken towards feral architectures undermines the efforts made by other-than-human bodies, which have invested their energy and time in *recolonizing* and *renaturalizing* these architectures. We will refer to this process of eradicating the biota with the aim of returning the architectures to a purely abiotic state as *abiotic restoration*, and through this article, we intend to challenge it.

In his renowned work *The Seven Lamps of Architecture*, John Ruskin referred to restoration as the "*most total destruction a building can suffer*" (Ruskin 1849), and we aim to extend that statement not only to the material modifications and abiotic patinas that the building may have acquired over time, which Ruskin saw as an inseparable part of the architecture's unique history, but also to the biotic organisms that have become its new inhabitants. From our perspective, these organisms that constitute the novel ecosystems

Abandoned American Resort Towns", National Geographic, September 2017, https://www.nationalgeographic.com/photography/article/poconos-catskills-abandoned-resorts-photos-spd.

¹³ See: https://www.archdaily.com/tag/factory-renovation

 ¹² There are numerous cases of *anthropo-calyptic landscapes* scattered throughout cities around the world. See: Matthew Christopher, Abandoned America: The Age of Consequences (Jonglez Publishing, 2014); Stefan Baumann, "Inspiring plants", 2019, https://inspiringplants.com/stefan-baumann; Sarah Gibbens, "Creepy Photos Show

-which, contrary to what one might think, can be extraordinarily rich in terms of biodiversity (Hobbs et al 2006)- have acquired the *right to inhabit* the building in question. They are part of the context to which the human being aims to reintegrate, and therefore, they must be taken into account in how to carry out this reintegration in a way that does not negatively affect those *other-than-human* beings that have become closely intertwined with that architecture (Bullock and Ferneyhough 2013).

In a time when contemporary perspectives on the territory have moved away from the romanticized view of the built environment to delve into new postnatural contexts, the opportunity arises to develop an alternative approach to urban anthropo-calyptic landscapes. An alternative approach that offers continuity and development to contemporary ideas of great value and with significant potential, such as the case of the "Third Landscape" theory proposed by Gilles Clement (Clement 2019), which presents an interesting framework that aligns with the core principles of our research into anthropocalyptic landscapes. Gilles Clement's emphasis on embracing and understanding neglected and transitional spaces within the urban environment, often considered wastelands, resonates with our exploration of abandoned architectural environments transitioning towards feral states. Gilles Clement's theory offers a valuable perspective on how we can reimagine and engage with these spaces. By drawing inspiration from the "Third Landscape" theory, we aim to integrate a more holistic and ecologically sensitive approach into our research, recognizing the potential of these environments as vibrant and evolving ecosystems. This theoretical foundation enriches our traditional perspective of the city by encouraging us to perceive these urban landscapes not as problems to be solved, but as opportunities for harmonious coexistence and co-design between humans and other-than-human entities.

Given that we are currently immersed in the midst of a profound climate crisis, energy crisis, crisis in the production systems, and the search for new forms of cohabitation that more justly integrate all that is non-normative into the built space, we are convinced that practices such as *abiotic restoration* need to be critically examined. The challenges faced by the 21st-century city require, of that we are certain, new ways of coexistence between human and *other-than-human* bodies in the context of the city. The Chornobyl model described in this article (which points to the way the *Samosely* inhabit *feral architectures*, extending practices that not only do not prevent or reverse the expansion of the novel ecosystems that colonize these architectures but also find viable and mutualistic ways to coexist), provides a promising approach to the projects aimed at reclaiming our abandoned industrial heritage. It is urgent, thus, to develop interventions in *feral architectures* with projects that propose measures so that, as humans return to them, the expansion of the novel ecosystems that give them their feral status is not interrupted.

Some examples of this approach to industrial heritage can be found in the projects "Species Deposit" by Langarita&Navarro¹⁴, and "Cohabitation Dome" by Takk¹⁵. "Species Deposit" is situated in an undeveloped area within the industrial environment of Matadero (Madrid), where an old elevated water deposit stands. According to the plan approved by the Madrid City Council, this vacant space will be transformed into the roof of an underground transport interchange, becoming a "hard" square. As a result, the spontaneous vegetation currently present on the site will disappear. The architects Langarita&Navarro conducted a rigorous study of this vegetation and discovered a surprisingly large variety of plants and biodiversity in the area. Their architectural proposal was to repurpose the old elevated water deposit into a kind of Noah's Ark, allowing these species to continue inhabiting the site. This transformation turns the industrial infrastructure into a pavilion-garden that highlights these *unauthorized* inhabitants and

¹⁴ See: https://langarita-navarro.com/Species-Deposit

¹⁵ See: https://takksarchive.cargo.site/Cohabitation-dome

asserts them as legitimate denizens of urban space. On the other hand, in 'Cohabitation Dome,' the architectural firm Takk proposed an architectural intervention in an abandoned industrial warehouse in Vierzon, France, that breaks with hygienist standards and the logic of *abiotic restoration*. Instead of restoring control systems designed to prevent water leaks, the entry of insects, plants, and other wildlife, Takk suggests a way to re-inhabit the space without denying the conditions that have allowed the proliferation of novel ecosystems, embracing and facilitating the process of reverse colonization. The result is a space co-designed by a multitude of agents, both human and non-human (Img. 6).



Img. 6 "Cohabitation Dome", by Takk. Photography: José Hevia

However, for proposals of this nature that reject *abiotic restoration* and, conversely, embrace processes of *reverse colonization* to proliferate, it is imperative that our perspective on the *novel ecosystems* inhabiting *feral architectures* evolves. In their article, 'Asset or Liability? Ecological and

Sociological Tradeoffs of Urban Spontaneous Vegetation on Vacant Land in Shrinking Cities,' researchers Riley, Perry, Ard, and Gardiner conclude that spontaneous vegetation and plant communities thriving in abandoned urban spaces can indeed be considered urban assets. One of the case studies examined in the article involves an abandoned factory in Detroit (USA), which has been colonized by the highly aggressive invading subspecies (P. australis australis) of the common reed. The result of this reverse colonization process has given rise to a wetland. As the authors themselves assert, 'from a conservation standpoint, the proliferation of an aggressive invasive species is undesirable, and this wetland may serve as a source habitat for its dispersal into the surrounding landscape. However, the reed has modified the space to enhance regulating ecological functions and services such as atmospheric carbon sequestration and storage and stormwater runoff reduction. The question of whether such habitats should persist given these tradeoffs is important for ecologists and urban planners' (Riley et al. 2018).

These proposals may offer us the opportunity to put into practice alternative and exciting theories and approaches to the purpose of integrating humans and *other-than-human* agents into *feral architectures* through a rich process of co-designing, embracing *reverse colonialism* and using it as a starting point; the valuable opportunity to co-create a city that does not exclusively belong to humans. From this research, we are convinced that the time has come to seize that opportunity.

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