A Place Between Existence and Oblivion: The Ghost City

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ABSTRACT

This study examines the concept of ghost cities, including their definition, formation processes, underlying causes, global examples, and revitalisation strategies. Based on a comprehensive literature review, this research demonstrates that ghost cities typically emerge due to factors such as natural disasters, human-induced disasters, economic collapse, administrative decisions, warfare, and unrealistic housing projects. The primary objective of this article is to systematically analyse the formation mechanisms of ghost cities and assess the approaches developed for their refunctionalization. By presenting case studies from diverse geographical contexts, the study seeks to highlight the multifaceted nature of this phenomenon. In this regard, the study is expected to contribute to fields such as urban planning, sustainable development, urban identity, and heritage management. It underscores that ghost cities should not merely be perceived as abandoned areas but rather as potential sites for revitalisation projects. Furthermore, examining the strategies employed for the revitalisation of ghost cities can serve as a valuable reference for urban areas that may encounter similar challenges in the future.

Key Words: *Ghost City, Disaster, War, Economic Collapse, Revitalisation*
JEL Classification: *R11, R14, R23*

Varla Yok Arasında Bir Yer: Hayalet Kent

ÖZ

Bu çalışma, hayalet kent kavramını ele alarak, bu tür kentlerin tanımlanmasını, oluşum süreçlerini, ortaya çıkış nedenlerini, dünya genelindeki örneklerini ve yeniden canlandırılma stratejilerini incelemektedir. Literatür taramasına dayalı olarak yürütülen bu araştırma, hayalet kentlerin genellikle doğal afet, insan kaynaklı afet, ekonomik çöküş, idari karar, savaş ve gerçekçi olmayan konut projeleri gibi faktörlerin bir sonucu olarak ortaya çıktığını göstermektedir. Makalenin amacı, hayalet kentlerin oluşum mekanizmalarını sistematik bir çerçevede analiz etmek ve bu kentlerin yeniden işlevselleştirilmesi için geliştirilen yaklaşımları değerlendirmektir. Çalışma, farklı coğrafyalarda bulunan hayalet kent örnekleri üzerinden bu fenomenin çeşitliliğini ortaya koymayı hedeflemektedir. Bu bağlamda, çalışmanın kentsel planlama, sürdürülebilir kalkınma, kent kimliği ve kentsel miras yönetimi gibi alanlara katkı sağlaması beklenmektedir. Çalışma, hayalet kentlerin yalnızca terk edilmiş alanlar olarak değerlendirilmenin ötesinde, potansiyel yeniden canlandırma projeleri için birer fırsat alanı olarak görülmesi gerektiğini vurgulamaktadır. Hayalet kentlerin yeniden canlandırılmasına yönelik gerçekleştirilen stratejilerin irdelenmesinin, gelecekte benzer süreçlerle karşılaşabilecek kentler için yol gösterici olabileceği düşünülmektedir.

Anahtar Kelimeler: *Hayalet Kent, Afet, Savaş, Ekonomik Çöküş, Yeniden Canlandırma*
JEL Sınıflandırması: *R11, R14, R23*

INTRODUCTION

Cities are socio-technical systems defined by the processes of formation, development and division. Cities are inherently resilient structures. The existence of ancient cities that have survived for thousands of years and have formed the basis for many other cities is proof of this situation. However, the fact that the urban structure has gained both physically and socially in the global age and that it has started to include different sub-areas increases the fragility of the city. Thus, if urban sustainability cannot be ensured, it is observed that numerous cities around the world are slowly beginning to disappear due to reasons such as environmental and social degradation, economic decline, weak governance and loss of identity.

The concept of ghost city is one of the last stages of this urban extinction and is used to define settlement areas that have lost a significant amount of their population. In addition, ancient places that are no longer inhabited, can only be visited and cannot survive under normal conditions other than tourism can also be included in this definition. The difference in approach also recalls the existence of several concepts related to the concept of a ghost city. Dead cities, shrinking cities, lost cities, barren cities, sleeping cities, forgotten cities, and inactive cities are some of them. Although there are many concepts that carry some of the characteristics of ghost cities, none of them are concepts that express ghost cities. True ghost settlements are settlements that remain their structural and architectural features but have been abandoned by their original inhabitants. The relevant structural characteristics may be preserved as a whole, or they may be in the form of visible remains.

Ghost cities have recently attracted increasing interest. This interest is based on different reasons in different geographies. For instance, in China, the country with the world's second largest economy, the existence and increase in the number of ghost cities characterized by vacant housing is considered one of the indicators of a potential slowdown in the country's economic growth rate (Wu et al., 2016: 105 In fact, the existence of a ghost city in its strictest sense is debatable. Considering that this concept is sometimes used to describe settlements that have experienced significant population loss compared to previous years, the approach in China should also be considered in the evaluation of the ghost city phenomenon.

This study aims to provide a comprehensive analysis of the ghost city phenomenon. In this direction, first, the phenomenon of the ghost city is revealed. Subsequently, the stages of ghost city formation and the reasons for its formation are evaluated through various settlement examples around the world. Finally, strategies for the revival and revitalization of the ghost city are evaluated.

I. RESEARCH METHODOLOGY

This study was designed to conduct an in-depth analysis of the ghost city phenomenon through a scientific investigation based on a literature review. As part of the research, academic articles, books, technical reports, academic theses and papers were examined using a descriptive analysis approach. By examining the case studies at both national and international scales, the concept of ghost city, their formation processes, underlying causes, and revitalization strategies were

discussed. In this context, the process of researching and interpreting the existing information related to the research topic was initiated, and thus, secondary data analysis was carried out. The literature review was supported by sources from disciplines such as urban planning, urban sociology, economics, environmental sciences, and history, enabling a multi-dimensional analysis of the phenomenon.

A. Case Selection Criteria and Limitations

In selecting the case studies for this research, a purposive sampling approach was employed to capture the diverse typologies and causative factors of ghost cities. The chosen examples—ranging from Pripyat in Ukraine and Varosha in Cyprus to Ordos in China and Burj al Babas in Turkey—reflect a deliberate effort to include a wide geographical distribution and a variety of underlying causes such as war, disaster, economic collapse, administrative decision-making, and unrealistic urban planning. This strategy ensures a comprehensive examination of the ghost city phenomenon across different historical, political, and economic contexts.

The inclusion criteria prioritized cases that (i) possess documented histories of decline or abandonment, (ii) illustrate the identified six-phase formation process, and (iii) offer lessons regarding revitalisation strategies. A key limitation of this approach is its dependence on available secondary data, which may vary in quality and depth. Moreover, certain ghost cities—especially in regions with limited academic access—were excluded due to the lack of verifiable data or language barriers. As such, the analysis does not claim exhaustive global representation but aims to establish a foundation for comparative urban pathology studies.

II. THE GHOST CITY PHENOMENON

The term ghost city refers to settlements that have been abandoned by their inhabitants due to natural or human-induced disasters, economic collapse, epidemics, administrative decisions, and warfare. The term "ghost city" emerged in the late 19th century to describe abandoned mining, milling, and lumbering communities in America. The earliest recorded use dates to 1875: A reporter for the Cincinnati Enquirer newspaper used this expression to describe mining cities that were quickly abandoned when the ore was depleted (Strazdes, 2013: 225). This concept is not a term attributed only to cities but is also used for settlements such as cities and villages.

The term "ghost estate" was first used in its contemporary sense in 2006 by economist David McWilliams to describe vacant or unfinished housing projects in Ireland (Jin et al., 2017: 99). According to Ballantyne (2001: 33), who examines the concept from a more theoretical perspective, ghost cities contradict and disrupt progressive settlement narratives. The history of a ghost city is closely linked to the collapse of the colonial economies, the closure of businesses, the demolition of buildings, the removal of railways, the desecration of church lands, the overgrowth of agricultural fields with weeds, and the erasure of settlement names from maps.

The determining factor in a settlement being classified as a ghost city is its state of uninhabitation. A true ghost city is one that has preserved its architectural and structural features but has been abandoned by its original inhabitants. In this

context, ancient sites that are not currently inhabited, can only be visited, and rely solely on tourism for preservation may also fall within the definition of a ghost city[†]. While some ghost cities are accessible to tourists and visitors, others are legally restricted due to safety hazards and unfavourable conditions.

Ghost city is sometimes used to describe settlements that have beautiful landscapes and well-developed infrastructure that have been abandoned due to insufficient industrialization, low population density, low settlement rate, and warfare, natural disasters, irrational urban planning, etc. (Nie and Liu, 2013). Sometimes, ghost city is employed as a concept to help define settlements with low urban vitality (Jin et al., 2017: 98). Generally, ghost cities are confined to specific areas rather than encompassing an entire city (Ma et al., 2018: 2311). Nevertheless, the term ghost city refers to a phenomenon characterized by the destruction of the potential economic capacity of the relevant settlement by causing a serious waste of resources.

While emphasizing the diversity of ghost city definitions, it is crucial to recognize the fundamentally different approaches of Western and Chinese perspectives on the concept. In Western countries, the term ghost city is generally used to describe urban areas abandoned due to economic decline, disasters, or structural collapse. In contrast, in China, the ghost city phenomenon is primarily associated with large-scale land use and rapid urban expansion, often emerging as a byproduct of aggressive real estate development in recent decades. Unlike Western examples, ghost cities in China are not completely abandoned (Wang et al., 2019: 10; Chi et al., 2015). A ghost city in China is defined as a new urban development that operates at a severely underutilized capacity level; that is, a place where the number of people living is far below the available area and very few businesses operate (Ge, et al., 2018: 2; Leichtle et al., 2019: 2). This phenomenon arises due to excessive construction activities in new settlements attract relatively few people and therefore these places appear empty or vacant (Woodworth, 2020: 237).

Determining whether a settlement qualifies as a ghost city is more complex than it may initially appear. Establishing clear criteria is essential to defining a city or settlement as "ghost." Some studies attempt to quantify ghost cities by using population estimates. For example, China's Ministry of Housing and Urban-Rural Development defines cities with a population of less than half of this number as ghost cities, based on the standard population of ten thousand people per square kilometre in urban areas (Su, 2014)[‡]. Considering the presence of the unregistered population, the validity of this criterion becomes questionable. Another study proposes a measure by dividing the difference between housing supply (S) and demand (D) by the total number of housing units (N) [(S-D)/N]. This measure

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[†] To prevent confusion, it is important to make the following clarification: Seasonally abandoned settlements cannot be classified as ghost settlements. For example, Yintan settlement, which is in Rushan, China, is considered a tourist destination rather than a ghost city. Although most residences in the area remain vacant for much of the year, they become fully occupied during the summer season (Wang et al., 2019: 2; Chi et al., 2015).
[‡] According to Standard Ranking, a Chinese third-party organization, the population density threshold for identifying a ghost town is 5500 people per square kilometre (Leichtle et al., 2019, p. 2).

essentially quantifies the "frequency of vacant housing". However, this study also relies on detailed information on the housing stock, and this data is usually kept only by the government and published in large administrative regions, making it difficult to identify the small settlements that make up most of the ghost cities (Williams et al., 2019: 276). It is difficult to study ghost cities based on population data. Because determining real residence data is both time-consuming and labour-intensive, and surveys are usually conducted at infrequent intervals. Therefore, researchers usually rely on city-level aggregate statistics and reports.

There have been attempts to use high-resolution remote sensing data (satellite data) or real-time human density tools like "Baidu Heat Map" to identify or confirm ghost cities (Chi et al., 2015; Jin et al., 2017; Zheng et al., 2017; Ge, et al., 2018; Leichtle et al., 2019). Satellite-derived night light brightness values are used as an indicator of human activity and housing occupancy. However, this method is also not considered reliable because excessive glare caused by light noise makes it difficult to distinguish neighbourhoods with empty houses. In addition, since the lighting infrastructure is usually built regardless of whether there are residents living in the area, high light levels will not provide reliable information about whether people live in that area (Jin et al., 2017: 106). As can be seen, according to the ghost city approach adopted in China, ghost cities are defined by three basic characteristics: low population density, low lighting intensity and large, unlit built-up areas (Zheng et al., 2017: 34). The presence of large, unlit areas is often the result of unrealistic housing projects and zoning plans.

III. REASONS FOR THE FORMATION OF GHOST CITIES AND WORLD EXAMPLES

Ghost cities emerge due to factors such as natural disasters, human-induced disasters, economic collapse, administrative decisions, warfare and unrealistic housing projects. While each of these reasons can be considered independently, it is important to recognize that a ghost city can result from the interplay of multiple causes.

A. Natural Disasters

Epecuén, established in the 1920s on the shores of Laguna Epecuén Lake, approximately six hundred kilometres southwest of Buenos Aires, the capital of Argentina, is an example of a settlement that has become a ghost city due to a natural disaster. Epecuén, a former tourist city that was completely submerged in the lake waters on November 6, 1985, due to excessive rainfall and poor water management, and turned into a ghost city in sixteen days. At its peak, the settlement had a population of five thousand and a capacity to host up to twenty thousand tourists annually. When the waters receded in 2013, the remnants of structures, eroded by the corrosive effects of saltwater, were exposed (Peacock, 2013; VOA Documentary, 2023).

Craco, located between the Apulia and Calabria regions of southern Italy, is another example of a ghost city where people abandoned it due to natural disasters. Founded in the 8th century BC by Greeks fleeing a malaria epidemic, the city was known as a powerful local fortress in the Middle Ages. The most

significant turning point in Craco's history occurred in 1963. When the population had fallen below two thousand, a series of landslides destroyed houses and forced the people to migrate to a nearby village. Although some residents continued to live in Craco, the town was devastated by a major flood in 1972. The final blow came in 1980, when an earthquake drove out the last remaining inhabitants. Thus, Craco officially became a ghost city (Dufraigne, 2024).

The cities of Pompeii and Herculaneum in Italy are also examples of ghost cities formed due to volcanic eruptions. First shaken by a 7.5 magnitude earthquake in 62 AD, and later buried under ash by the eruption of Mount Vesuvius in 79 AD. For 1700 years, they were lost to history, only to be rediscovered by chance during a well excavation in the early 18th century. These cities, which are among the most popular tourist destinations in Italy, have been included in the UNESCO World Heritage List (romecabs.com, 2025).

B. Human-Induced Disasters

The most well-known settlement that became a ghost city due to a human-induced disaster is the city of Pripyat in Ukraine. The city was founded in 1970 for workers at the Chernobyl Nuclear Facilities, which also brought about the end of the city. In April 1986, when the nuclear disaster occurred, the city's population was approximately forty-nine thousand four hundred. The tragedy of Pripyat was not only due to the evacuation of the entire city population and the fear of radiation, the 'invisible enemy'. Immediately after the disaster, the city, which was surrounded by barbed wire to prevent robbers, was completely abandoned, never to return. Since 1986, Pripyat has slowly fallen into ruin. The potential collapse of many structures now posing as significant a problem as the land contamination itself (Duda, 2023: 389-390). As a result, the Soviet Armed Forces established a restricted area around the reactor. This region, thirty kilometres in diameter, still exists and is in the north of Ukraine, on the border with Belarus (Benden, 2021: 7).

C. Economic Collapse

A particularly notable example of how economic collapse can transform a city into a ghost town is Detroit. Once the fourth largest city in the United States and the heart of the American automobile industry, Detroit experienced economic collapse during the latter half of the 20th century. Today, Detroit is characterized by numerous abandoned and dilapidated buildings that it has been referred to as the "poster child of ruination" (Apel 2015: 4).

Thurber, known as one of the most colourful cities in the US Southwest, is another example. Once a prominent coal mining city in the late 19th and early 20th centuries. Immigrants from all over Europe brought their cultures to this city and provided a vibrant life here. The city had a population of ten thousand between 1890 and 1920. Almost all buildings and land in the city were owned by the Texas Pacific Coal & Oil Company. The company managed the houses, schools, churches and shops. It even had its own currency. However, as oil began to replace coal in the early 20th century, the coal mining industry declined. Thurber's gradual abandonment began immediately after the coal mines were closed in 1921. By 1937, Thurber had rapidly lost population and had become a "ghost city." Today,

there are only about ten houses left in Thurber, and there are very few traces to remind us that there were once hundreds of houses there (Gentry, 2008: 104-139). Thurber is a notable example of a ghost city that took shape due to economic reasons.

The city of Bodie, situated in the Sierra Nevada Mountains in California, is another example of how economic collapse can turn a settlement into a ghost city. Bodie emerged with the gold fields discovered by William (aka Waterman) S. Bodey in 1859. A mill was established in 1861, and the city began to grow. The settlement, which initially started with about twenty miners, had reached about ten thousand people by 1880. Bodie was in its heyday, when its main street was nearly two kilometres long. During this period, the city had two churches, Catholic and Methodist, at least two newspapers, a telegraph station, a post office, twenty-two active mines, several large ore mills, various motels, several grocery and mercantile stores, stables, doctors and druggists, union halls, schools, breweries and several dozen taverns. The city's exact size remains difficult to determine precisely due to the migratory nature of the population in the 1870s and 1880s, but at that time Bodie was probably the sixth or seventh largest city in California. Bodie's heyday lasted until 1900, after which the city's population steadily declined. The city was primarily devastated by repeated fires: a major explosion in 1879, a devastating fire in 1892, another catastrophic fire in 1898, and a fire in 1932 that left less than 10% of the city's original structures standing. However, the city's real destruction came as gold reserves were depleted, and the economy was in recession. The population declined rapidly, and after the government shut down non-defence mining operations in Bodie in 1915 and small-scale mining operations ceased in the early 1950s, the population dwindled, and the remaining buildings fell into decay. In 1962, Bodie was declared a state historic park and is now open to visitors as a "preserved ghost city" and is visited by approximately two hundred thousand people every year (bodie.com, 2025; Abplanalp, 2023; Wood, 2020: 440; Strazdes, 2013: 223-228).

D. Administrative Decisions

In the global economic transformation and rapid urbanization process, unsuccessful new cities and satellite cities that took shape due to administrative decisions have led to the "ghost city" phenomenon in the Global South. For example, in the post-revolutionary period in Iran, new satellite cities built to accommodate the surplus population have turned into settlements devoid of economic and social functions (Alaedini and Yeganeh, 2022: 1614). In Morocco, the contradictions between historically segregation-based planning and contemporary neoliberal pressures have led to the failure of new cities and the emergence of ghost cities (Rousseau and Harroud, 2019: 343). The contradictions between global urbanization trends and local dynamics are clearly observed in ghost cities in the Global South, and similar experiences are also being experienced in China and the USA.

Since the late 1990s, urban development in China, influenced by globalization, marketization and decentralization processes, has resulted in the

emergence of several ghost cities, although, as mentioned before, it has been placed in a different context than the approach in the West. It is known that the central government and local governments directly influence the direction and model of urbanization through a top-down approach. The emergence of ghost cities in China is primarily due to local governments' unreasonable expansion of urban land and the creation of excessive housing supply, driven by various growth-oriented incentives. (Yin et al., 2017: 1; Yin et al., 2024: 2; Shepard, 2015; Woodworth and Wallace, 2017: 1274). For instance, a predominant construction strategy in China over the past two decades has been the 'build first, people come later' approach. In general, this process involves the transformation of state-owned urban lands into capital assets controlled by local governments.

Many local governments have overestimated the capacity of their urban areas, and the broader impacts of HSR (high-speed railway). Consequently, these newly developed 'HSR districts' and 'HSR cities' have often been labelled as "ghost cities". The frequency with which HSR cities are referred to as such has been increasing. Since the high-speed railway started operating in 2011, Changzhou's "HSR city" has been frequently described as a ghost city by the media, especially with the HSR-oriented Wujin district. In 2013, the city was featured in a special program called "Changzhou, a ghost city" broadcast on the national TV channel CCTV. Accordingly, there are numerous commercial blocks, most of which are vacant, and this situation is even more obvious in the agricultural lands on the city's outskirts (Zhao and Ma, 2017: 212).

The Quabbin region in the US state of Massachusetts is also a settlement that was evacuated due to an administrative decision and became a ghost city. The region comprises the towns of Dana, Enfield, Greenwich, and Prescott. Settled in the early 1700s, the region's population reached approximately 2,700 by 1938. Since the eastern part of the state needed drinking water, the government, against the wishes of the residents, mandated that they relocate their entire livelihoods by April 27, 1938, in accordance with the Swift River Act of 1927. Thus, these four settlements were transformed into a water basin that was depopulated. This unique ghost city presents an image that deviates from the traditional portrayal of dusty streets, abandoned buildings, and tumbleweeds blowing in the wind. (Bourgault, 2016).

The Hasankeyf district in Batman, one of the oldest settlements in the world, located along the banks of the Tigris River, was largely submerged in 2020 due to the construction of the Ilısu Dam, and the old settlement area became uninhabitable. A significant portion of the city's population (approximately 3500 people) was evacuated between 2017 and 2019 and relocated to new residences built by the State Housing Development Administration (TOKİ) on a three-hundred-hectare site in the newly established Hasankeyf settlement, located approximately three kilometres from the original location (Aykan, 2024: 2-3).

E. Warfare

The town of Oradour-sur-Glane, located in the Haute-Vienne region of France, was depopulated as a result of the massacre carried out by German Nazi

troops on 10 June 1944, during World War II. A total of 647 people were killed, and the town was subsequently burned and destroyed. In 1946, the French Parliament enacted a special law designating Oradour as a historical monument, mandating the preservation of the town's ruins in perpetuity. The law also provided for the construction of a new town adjacent to the original site. The intent was for the ruins to derive symbolic power from the image of a "wounded France" (*la France meurtrie*), while the newly built town would embody the notion of a "reborn France" (*la France renaissante*). In this way, forty acres of ruined houses, farms, and shops came to be known as the "martyred village" of France, symbolizing the suffering endured by the French people under German occupation (Farmer, 1995: 30).

Aghdam, a city founded in the 18th century in western Azerbaijan, became a ghost city after its entire population fled following the Armenian occupation that began in 1993 and lasted for twenty-seven years. The Armenian army transformed the city into a "buffer zone" between Azerbaijani-controlled areas and the occupied territories. Following the occupation, the city's population—exceeding seventy-eight thousand—was resettled in various locations, primarily in the nearby Azerbaijani provinces of Terter and Barda. After the city was seized by Armenian forces, large parts of it were deliberately destroyed to prevent the return of Azerbaijani residents. In the subsequent decades, the abandoned city suffered further devastation due to the looting of construction materials. Although Aghdam was returned to Azerbaijani control under the terms of a 2020 agreement, the extent of destruction rendered the city uninhabitable, marking it as the site of a severe case of urban devastation (Çetinkaya and Rehimov, 2020; Nuredin, 2021: 349).

As a result of Türkiye's 1974 military intervention in Cyprus, the city of Varosha (Maraş), located within the United Nations-controlled "Green Line" buffer zone, was not destroyed through direct armed conflict but was rendered uninhabited for military reasons, effectively becoming a ghost city. Once referred to as the "Las Vegas of the Mediterranean" and ranked among the ten most vibrant tourist destinations in the world (Torlak, 2016: 237), the city was abandoned by its Greek Cypriot residents in 1974 and subsequently placed under military control. It was closed to settlement and civilian use in accordance with a United Nations Security Council resolution (Arsoy and Başarır, 2019: 52). Notably, Varosha was not subjected to looting after the conflict; rather, it was sealed off from intruders and enclosed with barbed wire. This isolation effectively imprisoned the city in what has been described as a "glass bowl," giving the impression that it had been frozen in time for four decades (Torlak, 2016: 248). Finally, on October 8, 2020, a decision by the Turkish Republic of Northern Cyprus led to the reopening of the Varosha coastline—within the area known as Closed Varosha—to visitors after forty-six years (İşçioğlu, 2024: 41). It is believed that this move could serve as a catalyst for resolving the Cyprus issue.

F. Unrealistic Housing Projects

The ghost city phenomenon occasionally emerges during periods of rapid urbanization, particularly under conditions such as excessive real estate investment

and the sharp decline in housing prices following the formation of real estate bubbles. An unprecedented level of urbanization—marked by the rate of land urbanization significantly outpacing that of population urbanization—plays a significant role in the development of ghost towns (Ma et al., 2018: 2311). In a sense, this phenomenon reflects the consequences of irrational housing and urban planning. Local governments, despite declining population growth and the slowdown of the local manufacturing sector, continue to intensively sell residential and commercial land, even as effective housing demand decreases—ultimately contributing to the emergence of such urban outcomes.

Housing projects that do not correspond to actual housing needs are often left incomplete or, even if completed, fail to function as residences, as they are not constructed based on genuine demand. These projects frequently suffer from flawed or inadequate feasibility studies and lack long-term sustainability. As such, they can be classified as unrealistic housing developments—concrete manifestations of a failed illusion. For an area to be considered a "ghost city," it must include a substantial number of housing units, cover a vast expanse of land, and, most importantly, remain uninhabited.

Located in China's Inner Mongolia Autonomous Region and home to one-sixth of the country's total coal reserves, Ordos is considered one of China's wealthiest cities (Yin et al., 2017: 3). Despite ambitious urban planning and speculative real estate investments that began in 2003, the Kangbashi District has become a ghost city, with a population density far below expectations. Although the district attracted significant real estate investment, particularly from Chinese investors, few residents have chosen to settle there.

Three years after construction began, the Ordos municipal government attempted to revitalize the district by relocating major public institutions—including government offices, schools, and hospitals—to Kangbashi. However, many officials and residents continued to live in the older parts of Ordos and commuted to the new district, often citing the lack of essential amenities such as supermarkets, clothing stores, department stores, and other convenience services.

Although the city was initially designed to accommodate one million people, its population remained under thirty thousand in the early years. According to 2016 data, this number had increased to approximately 153,000. Nonetheless, the ghost city image persists, particularly because around five square kilometres of building construction—representing about 45% of the total planned built-up area—remains unfinished§ (Otede, 2017: 79). Moreover, the unused structures in Kangbashi are not limited to residential buildings. Across the river, six office towers intended to form a new Central Business District (CBD) stand mostly vacant. Only two are currently in use; in one of them, which has forty floors, just twenty-five are occupied by two companies. Another tower has been allocated to government offices (Xu, 2015: 37–38).

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§ Kangbashi covers a total area of 352 square kilometres, of which 32 square kilometres constitute the built-up area (Yin et al., 2017, p. 4).

In Türkiye, the Burj al Babas housing project in Mudurnu, Bolu, has emerged as a ghost settlement, representing the outcome of an irrational planning approach. Targeting affluent tourists from Gulf countries such as Bahrain, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates, the project was launched in 2011 on a 750-decare construction site. During the construction phase, 350 villas were sold; however, in early 2018, construction came to a halt despite the completion of 587 villas. This was due to the company's inability to collect payments from its customers. The construction firm's subsequent bankruptcy led to the suspension of the project. Today, Burj al Babas remains an abandoned site and evokes a surreal ghost city impression with its haunting and desolate atmosphere (Çınar, 2024: 52).

As observed, the defining characteristic of ghost cities resulting from unrealistic housing projects is not decay, but rather emptiness. New, unoccupied buildings generate a continuous sense of ruin and visually represent the phenomenon of incompleteness. Moreover, contrary to popular belief, the issue here is not abandonment, but rather a lack of population.

IV. GHOST CITY FORMATION STAGES

The stages a settlement undergoes before becoming a ghost city can be broadly divided into six phases: a) Exploration and Growth, b) Production, c) Decline, d) Abandonment, e) Decay, and f) Disappearance of traces of life. If applicable, a "revival" stage may be added to these phases (Prideaux and Timothy, 2011: 232).

In the first stage, known as the discovery and growth phase, the city experiences rapid growth in both structural elements and population, a characteristic commonly seen in the early development of most cities. During this period, the city begins to realize its own potential. In the production stage, the construction of solid, permanent structures that contribute to urban heritage occurs. These long-lasting elements, even if later abandoned, hold the potential for a possible revival phase of the ghost city. The third stage, the decline phase, marks the period when the city starts to lose its socio-economic vitality, regardless of the underlying causes. During this stage, the city ceases to make new economic and demographic gains and begins to lose its existing potential. Once the closure of industries and businesses and a decrease in population reach a certain threshold, reversing this process becomes nearly impossible. At this point, the city can only avoid becoming a complete ghost town if it gains a secondary role as a service centre for the surrounding rural economy. In the fourth stage, the abandonment phase, only a few individuals, typically retirees or those unable to find employment elsewhere, remain. These residents continue to live in the ruins of what was once a vibrant settlement. If no revitalization efforts take place by this stage, portable buildings are dismantled and moved, some structures are sold as scrap, and the remaining infrastructure is abandoned. At this point, the process of ghosting is fully evident. The fifth stage is the decay phase, where remaining buildings and infrastructure begin to deteriorate, though the rate of decay varies depending on the materials used and environmental conditions. Eventually, all structures collapse

into rubble, blending into the natural landscape. In the final stage, the disappearance of traces of life, the city no longer bears any evidence of the activities that once occurred there (Prideaux and Timothy, 2011: 235).

It is known that ghost cities sometimes undergo a revitalization process alongside the linear collapse. This revitalization can occur after the city has fully transitioned into a ghost town, or it may begin as early as the end of the third stage, during the fourth stage, or at the beginning of the fifth stage.

V. REVITALISATION OF GHOST CITIES

Urban revitalization is an effort to reverse urban decline, aiming not only to improve the physical infrastructure but, more importantly, to strengthen the economy of the affected regions. This process involves the rebirth or reconstruction of cities by addressing factors such as economic challenges, demographic shifts, insufficient investment, structural or cyclical business issues, social tensions, physical deterioration, and changes in the urban environment.

In the case of revitalizing ghost cities, the focus is not on new construction but on improving the existing social and physical structures. To achieve this, three key elements must be activated: social life, economic value, and physical/environmental value. The main area of focus that encompasses all three elements is tourism. Therefore, examining the role of tourism in making ghost cities visible would be an appropriate starting point.

Ghost cities around the world are increasingly being opened to visitors as tourist destinations and are temporarily utilized by people. There is a growing interest in settlements that have witnessed significant historical events. It has been observed that ghost cities often function as film sets or museum cities. In some cases, tourism does more than just revitalize ghost cities; it can prevent cities with dwindling resources from becoming fully abandoned, as seen in the case of Sawahlunto in Indonesia (Marlia et al., 2020).

Some ghost cities have become notable tourist attractions for various reasons. For instance, ghost cities located in mountainous timber or mining regions are often situated in areas renowned for their natural beauty. Many examples can be found in the northwestern United States and the deserts of Australia and Tasmania. In other cases, these cities are recognized and visited due to their association with a famous event or historical period, or because they are linked to a legendary figure (e.g., Tombstone, Arizona). Additionally, some ghost cities are preserved for their architectural, aesthetic, or artistic value, or because they remain relatively intact in their original state (e.g., Bodie, California) (Prideaux and Timothy, 2011: 227).

One of the most significant concepts related to ghost cities as tourism attractions is "dark tourism." Dark tourism refers to the presentation and consumption of real or commercialized sites associated with death and disaster by visitors. People are often motivated to visit such places by the desire to uncover the truth behind media portrayals and/or to establish a personal connection with inhuman events (Foley and Lennon, 1996: 198). Although the term was coined in 1996, it has only gained widespread media and public attention in recent years.

Visits to sites associated with death and tragedy, such as the 9/11 Memorial or Auschwitz, are examples of "dark tourism." While the concept itself is relatively new, its roots extend back to Ancient Rome, where people travelled to the Colosseum to witness deadly gladiator fights (dell'Agnese, 2015: 88).

Stone (2006) introduces the concept of a "Dark Tourism Spectrum," classifying sites based on the intensity of death-related associations. Ghost cities like Pripyat fall closer to the "darkest" end of this spectrum due to their association with real, catastrophic loss. Sharpley and Stone (2009) further argue that dark tourism is not merely a consumption of tragedy but also a form of secular pilgrimage that contributes to the cultural and emotional re-signification of abandoned spaces. In this context, ghost cities gain renewed purpose by functioning as interpretative landscapes of past trauma.

Moreover, Light (2017) emphasizes that dark tourism sites act as "mediated spaces of memory," where selective storytelling, commodification, and state narratives play critical roles. This theoretical lens is particularly relevant when analysing state-sanctioned revitalisation strategies in places like Chernobyl or Oradour-sur-Glane. Thus, integrating dark tourism into the revitalisation framework requires a sensitive balance between historical authenticity, ethical representation, and economic viability.

There are various reasons that attract people to dark tourism. Sometimes, a simple sense of curiosity drives this interest, while at other times, the desire to gain scientific and/or human knowledge plays a more significant role, depending on the context. The urge to witness disasters firsthand and the desire to experience such events are key motivations for individuals visiting dark tourism destinations. Just as people are drawn to dark tourism, the concept itself is categorized into various types, such as genocide tourism, war tourism, prison tourism, slavery tourism, cemetery tourism, and disaster tourism. As human history progresses, these types are likely to expand, with ghost city-related dark tourism being one of them.

The Chernobyl Exclusion Zone and the city of Pripyat have become significant dark tourism destinations since 2011. According to data from the Ukrainian State Agency, there has been a dynamic increase in the number of visitors to the Chernobyl Exclusion Zone. The number of visitors, which was 17,757 in 2013, rose to 36,781 in 2016, coinciding with the 30th anniversary of the disaster. In 2019, 124,001 tourists visited the region, a surge believed to be influenced by the TV series *Chernobyl* (Hunder, 2019; Duda, 2023: 390). The changes brought about by increased tourist traffic have also been acknowledged by Ukrainian authorities. In July 2019, President Volodymyr Zelensky issued a decree titled "Some Issues Regarding the Development of Areas Exposed to Radioactive Contamination as a Result of the Chernobyl Disaster," which aimed to establish a strategy for tourism development in the region. The decree sparked a lively debate about the creation of new tourist routes and the need for specialized training for guides. Additionally, increasing security in the region and improving access to restricted areas have been key topics on the agenda (Duda, 2023: 390). These actions taken by the Ukrainian government regarding the radioactive city [though

disrupted by the ongoing war with Russia] serve as an example of the revival of a ghost city through tourism.

Reviving a ghost city for any purpose is not an easy task. Sustainable revitalization requires a multidisciplinary approach. Beyond restoring the ghost city as a place for living, even turning it into an object of the tourism activities requires fulfilling various conditions. First and foremost, the ghost city experience must be commodified in a way that generates income for investors. Additionally, relevant public institutions involved in revitalization must implement the necessary legal and administrative regulations. Furthermore, if feasible, reopening a ghost city for settlement carries the risk of degrading the existing urban fabric. It should not be overlooked that there is a delicate balance between preserving the historical and cultural integrity of the city and seeking ways to economically revitalize it.

CONCLUSION

The existence of ghost cities reveals an urban pathology. This phenomenon points to structural dysfunction, ecological disintegration, and destruction in the social fabric. In fact, the absence of a coherent economic program leads to discontinuities in urban transitions, social inequalities, and spatial separations. Unplanned development further results in the waste of land resources. "Speculative urbanization," which is known for causing these outcomes, stands as the primary cause of ghost urbanization, particularly those triggered by human intervention.

Ghost settlements, which symbolize the absence of what once existed, are remembered for the horror they contain in one sense, while in another, they reveal society's sense of belonging. Regardless, their emergence represents an undesirable situation, and the destruction process itself, along with its consequences, offers valuable lessons. Ghost settlements are often discussed based on one-sided media coverage and basic statistical data. These studies, which present large-scale spatial evaluations, carry subjective values. A more comprehensive approach involving multi-dimensional, objective, structural, and social analyses would provide deeper insights into these areas of destruction. It is hoped that such methods could also significantly contribute to regional sustainable development.

There is a growing body of research and efforts aimed at revitalizing ghost cities. While these efforts are primarily focused on tourism activities, it is anticipated that future initiatives will strive to reconnect these areas with human life on a continuous basis. This requires ghost settlements to become liveable spaces, not just places to visit. In this context, a multi-stakeholder and participatory approach is crucial. Although these areas are currently disconnected from human life, when a future is promised to these places, the most eager to return will likely be the former residents. Involving them in the decision-making and implementation processes will foster a sense of ownership over their heritage, ensuring that revitalization efforts align with the needs and expectations of those who once lived among the remnants of history.

The analysis of ghost cities presented in this study reveals several key insights. First, ghost cities are not homogeneous outcomes but result from a complex interplay of factors—environmental, economic, political, and social.

Second, revitalisation strategies must be tailored to the specific typology and historical context of each site. This study finds that tourism, particularly dark tourism, often emerges as a viable economic pathway. However, tourism alone cannot substitute for structural revitalisation unless supported by inclusive planning and sustainable development frameworks.

One of the central dilemmas in the revitalisation of ghost cities is the tension between preservation and commodification. As cities transition from abandonment to functional reuse, stakeholders must balance the need to protect architectural and historical integrity with the pressures of touristic accessibility and modern adaptation. A similar dilemma exists between functional reuse and identity preservation—where efforts to re-inhabit or re-purpose ghost cities risk eroding the very features that made them historically significant. For instance, in Pripyat or Hasankeyf, reconstruction efforts have sparked debates on authenticity versus utility.

To address these dilemmas, revitalisation efforts must adopt a multi-stakeholder model that incorporates local voices, especially former residents, heritage experts, and sustainability planners. A participatory approach can ensure that economic interests do not override cultural memory and that revitalisation is not simply a physical transformation but a social and symbolic one as well.

Considering these findings, the paper proposes three recommendations: (1) integrate dark tourism development with conservation planning, (2) involve local communities in reactivation processes to foster emotional ownership, and (3) prioritize flexible, context-specific revitalisation policies that mitigate identity-functionality trade-offs.

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