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# A GHOST VILLAGE. SPATIAL CLEANSING IN WIGANCICE-ŻYTAWSKIE IN THE LANDSCAPE OF THE TURÓW MINING AND POWER COMPLEX, LOWER SILESIA

Wieś-widmo. Czyszczenie przestrzenne Wigancic Żytawskich w krajobrazie kompleksu wydobywczo--energetycznego "Turów" na Dolnym Śląsku

Abstract. The article presents an excerpt of some empirical research undertaken by an anthropologist on local ways of experiencing the operation of the Turów mining and energy complex in the Bogatynia commune in Lower Silesia within the context of an just energy transition. The aim of the reflections contained in this research sample is to present Wigancice Żytawskie – a town once located in the Bogatynia commune in the Zgorzelec poviat as a ghost village that functions in the minds of its former inhabitants and the generations that have followed as a lost and demolished yet remembered place. Wigancice was demolished by the end of the 20th century due to the expansion of the lignite open pit in the Turów mine and the creation of an external dump, which was considered a threat to the village and its inhabitants. The text draws from Michael Herzfeld's understanding of the term 'spatial cleansing', which in the case of Wigancice was closely related to the activity of the Turów mining and energy complex. Adopting energy anthropology as a theoretical

framework, the anthropologist shows the course and effects of this process in terms of human/non-human assemblage, at the same time asking questions about the special characteristics of human life in areas rich in energy resources and ways of experiencing a landscape changing under the influence of industrialization processes. The author also attempts to recover the stories of the inhabitants of the ghost village, whose fates intertwined with the functioning of the Turów mine and were marked by the experience of loss, dispossession and relocation in the process of industrial transformations in the region.

**Keywords**: anthropology of energy, assemblage, spatial cleansing, energyscape, late industrialism, ghost village, Turów mining and power complex, resource curse, displacement, dispossessions

Streszczenie: Artykuł przedstawia fragment empirycznych badań antropolożki na temat lokalnych sposobów doświadczania działalności kompleksu wydobywczo-energetycznego "Turów" w gminie Bogatynia, na Dolnym Ślasku w kontekście sprawiedliwej transformacji energetycznej. Celem zawartych w nim refleksji jest przedstawienie Wigancic Żytawskich – miejscowości położonej niegdyś w gminie Bogatynia, w powiecie zgorzeleckim jako wsi-widma, która funkcjonuje w świadomości swoich byłych mieszkańców oraz ich kolejnych pokoleń jako miejsce utracone, wyburzone, a jednak pamiętane. Wigancice zostały zlikwidowane u progu XXI wieku w związku z powiększaniem się odkrywki węgla brunatnego w kopalni "Turów" i powstaniem zwałowiska zewnętrznego, które uznano za zagrożenie dla wsi i jej mieszkańców. Tekst koncentruje się na, mówiąc za Michaelem Herzfeldem, czyszczeniu przestrzennym (spatial cleansing), które w przypadku Wigancic wiązało się ściśle z działalnością kompleksu wydobywczo-energetycznego "Turów". Przyjmując jako ramę teoretyczną antropologię energii, antropolożka pokazuje przebiegi i skutki tego procesu w kategoriach ludzko-nie-ludzkiego asamblażu, stawiając przy tym pytania o specyfikę życia ludzi na obszarach zasobnych w surowce energetyczne, o sposoby doświadczania krajobrazu

zmieniającego się pod wpływem procesów idustrializacji. Autorka podejmuje również próbę odzyskania opowieści mieszkańców wioski-widma, których losy splotły się z funkcjonowaniem kopalni Turów i zostały naznaczone doświadczeniem straty, wywłaszczenia i relokacji w procesie industrialnych przeobrażeń regionu.

**Słowa klucze:** antropologia energii, asamblaż, czyszczenie przestrzenne, krajobraz energetyczny, późny industrializm, wieś widmo, kompleks wydobywczo-energetyczny "Turów", klątwa zasobów, przesiedlenia, wywłaszczenia

The aim of this article is to present within extractive mining contexts the complex process of 'spatial cleansing', whose presence Michael Herzfeld drew attention to in an anthropological reflection forming part of empirical research focused on the relations between urban spatiality and power in Greece, Italy and Thailand (Herzfeld 2006). The researcher introduced that idiom to highlight the asymmetries and inequalities perceptible in relations between the creation and arrangement of urban space, his primary focus being the dispossession and relocation of local communities inhabiting historical city centres (Herzfeld 2006). According to the anthropologist's proposal, the term "incorporates an intentional allusion to the notion of ethnic cleansing, since, although the latter is usually far more physical in its violence, both entail the disruption of fundamental security, and especially of ontological security, for entire groups of people" (Herzfeld 2006: 142). As the anthropologist stresses, "Spatial cleansing means the conceptual and physical clarification of boundaries, with a concomitant definition of former residents as intruders" (Herzfeld 2006: 142). The process the researcher describes is most pronounced within the contexts of power, domination and economic equalities (Herzfeld 2016) and also correlates with neo-colonialism, as can be observed in contemporary India (Lahiri-Hutt, Ahmad 2012).

The spatial cleansing that I am writing about does not apply to urban space and did not occur in a metropolis divided by boundaries into

a centre and periphery or zones of influence and subalternity established along ethnic lines or the possession of economic and social capital, or in recognition of a need to implement a specific cultural politics (see Bloch 2016). I locate the aforementioned cleansing process in altogether different landscapes and trajectories, because the source of the explorations and reflections contained within this text is empirical research I have been undertaking since 2021 in which I examine local ways of experiencing, comprehending and anticipating an just energy transition in the area surrounding the Turów mining and power complex in the Bogatynia commune in Lower Silesia. I also position the undertaken analyses both within the local contexts of the life of the inhabitants of that area and within wider contexts, notably the global processes of a sociocultural, economic-industrial and climate-environmental nature that are intertwined in an energyscape assemblage. In the research being described, the category of assemblage, which functions in the imaginary of the social sciences and humanities as an emergent system (Deleuze, Guattari 1980; DeLanda 2006, 2016) co-constituted by human and non-human elements (Bennett 2010; Tsing 2015) acting upon each other to form a contingent whole open to change (see Majbroda 2019: 133–164), serves as a concrete method for conceptualizing the local mining landscape. Mobilizing assemblage as an analytical category makes it possible to see the local landscape as a relational entity co-constituted by people, the raw material coal, the lie of the land, plants, architecture, material objects, machines, and the mining infrastructure – the open pit and dump. It also allows an important feature of the energyscape to be taken into account, notably its instability and the emergence, through mutual interaction, of environmental, geological, material and technological elements. During my research on the energy transition, one of my primary considerations is how the individual factors that co-create the mining landscape of Wiganice and more broadly, the region of Upper Lusatia, interact and how they constitute a dynamic whole open to successive transformations.

Once the landscape has been conceptualized in this way, the term 'spatial cleansing' can be used to refer to the process of dispossession and displacement to which the village of Wiganicice Żytawskie was subject

in the 1990s as a consequence of industrialization and the development of mining in that region. The process of demolishing the settlement began in the 1960s and continued until 1999, during which time it was completely depopulated and cleared of all houses, machinery and livestock, though it continues to function today as a ghost village<sup>1</sup>.

### Displaced places – landscapes without people

The categories of dispossession and displacement can serve as important lenses enabling a better understanding of the life situations of many individuals and social groups in different parts of the world. They allow us to evaluate and clarify the circumstances of people compelled to abandon their homes and places of life by climate disasters, such as droughts, floods, tsunamis, hurricanes, fires, natural disasters and melting glaciers (Eriksen, Strensud 2019; Hastrup, Skrydstrup 2013). Forced migration resulting from displacement is one of the most severe consequences of armed conflicts, wars, civil unrest and persecution motivated by geopolitics, culture, gender, religion and ethnicity (Winther 2013).

Such dispossession and displacement processes are also taking place ever more frequently because of the devastation caused to the environment and the industrialization of landscapes in economic and technological processes being implemented in accordance with the late-capitalist logic of growth and the profiling of global economies for development, profit and the accumulation of capital (Hornborg 2019). The spatial cleansing of areas undergoing industrialization is one of the severest consequences of putting into action the late-capitalist neoliberal ideas underpinning the

<sup>&</sup>lt;sup>1</sup> The term 'ghost village' is used in the text to highlight the present shape of a once vibrant space, which in the process of spatial cleansing has been completely depopulated and not only emptied of residential buildings, but of any architecture or other infrastructure. The notion of ghostliness also conveys the affective and memorative way in which the village endures in the minds of members of the local community who once lived there and their descendants. The ghost village exists despite its physical annihilation and endures despite being so colonized by vegetation that it is merging into the forest landscape. However, it has left its trace in maps, photographs, prints and a spatial plan.

Capitalocene era, according to which the environment should be exploited as a nexus of economic-services (Moore 2016). One of the most conspicuous and increasingly observed processes associated with the capitalist and neoliberal logic of environmental and spatial management (Ferguson, Gupta 2002) is the relocation of local communities as a consequence of the expansion of the mining and power industries (Gans 1968; Downing 2002). The upshot of this is that: "carbon politics, finance capital, global industry, consumerism, and a lack of environmental protections have laid deep infrastructural grooves", not only in landscapes, but also in social life (Boyer, Howe 2019: 195).

The strategies used to dispossess existing inhabitants and methods for legitimizing their relocation are notable for their diversity. However, these processes and the practices accumulated in them are usually bound together by the development of a global narrative, which argues that the energy sector is worth investing in when it is perceived as a 'growth pole' around which various industries and services can develop, thereby providing a better future for people living in certain countries and regions and improving their well-being (Addison, Roe 2018). This happens even though dependence on natural resource extraction, as critics of the mining industry argue, is inversely correlated with economic development, a phenomenon termed 'conflict minerals' (Owen, Kemp 2015: 480) or the 'resource curse' (Ross 1999). Stuart Kirsch uses the alternative notion of 'colliding ecologies' within this context, thereby drawing attention to the fact that so-called developing countries dependent on mining and other forms of natural resource extraction are modernizing much more slowly than countries enriching themselves by means of other branches of industry. These terms also highlight the paradox that, despite various discourses promoting mining as an economic sector that raises local living standards, people living in mining areas, or in close proximity to them, suffer significant harm to their local economies, communities, culture and health, for example, as a result of the pollution of their local environments (Fortun 2015; Kirsch 2014: 18) or during the 'accumulation by dispossession' process, which can influence socio-spatial change (Harvey 2003).

### The dysfunctional anthropogenic energyscapes of late industrialism

The multidimensional crises of our time require "(...) an anthropology that takes landscapes as its starting point and that turns to the structural connections between ecology, capital, and the human and more-than-human histories through which uneven landscapes are produced and transformed" (Tsing, Mathews, Bubandt 2019: 186).

Bringing an anthropological perspective into the analysis of phenomena within which matter, the economy and the environment are intertwined makes it possible to identify many risks and perils linked to new technologies and (post)industrial practices (Fortun 2017: 2). The maturing present, or late industrialism, as Kim Fortun terms it, is:

a historical period characterized by aging industrial infrastructure, landscapes dotted with toxic-waste ponds, rising incidence of cancer and chronic disease, climate instability, exhausted paradigms and disciplines, and the remarkable imbrication of commercial interests in knowledge production, legal decisions, and politics at all scales (Fortun 2015: 158).

The contemporary pursuit of economic growth, industrialization and the maximal exploitation of fossil fuels is one of the hallmarks of an era in which human action directed at the extraction of natural resources for the purpose of accumulating capital comes at the expense of environmental, climatic and sociocultural harm on a historically unprecedented scale.

From a traditional historical perspective, the cultural landscape comprises the overlapping, multifaceted relations occurring between the people, memory and history of specific places. Accumulated within the spatio-temporal dimension of such a landscape are the identities and self-narratives of specific groups and communities, past histories and contemporary continuities (Appadurai 2013; Moore, Whelan 2007). From the perspective of critically oriented specializations such as environmental anthropology or the anthropology of energy, one important consequence of the implementation of so-called 'modernizing growth

practices' and the consolidation of various branches of industry is the transformation of existing natural landscapes, which are becoming increasingly anthropogenic. The exploitation of mineral resources is transforming the environmental, cultural and social landscape, leading to the emergence of an energy landscape (or energyscape). Rather than implying separation and observation, this notion of energy scape has ceased to be a primarily aesthetic category. The idioms through which it expresses itself are mines, power stations, lignite and black coal open pits, tips, excavations and internal and external dumps, all of which are radically transforming existing sites of human functioning in different regions of the world, challenging reflection on and action directed at the preservation of human rights, environmental justice and equitable energy transition (Narain, Boyce, Stanton 2007). Moreover, the land acquisition policies pursued by the corporations that manage mining complexes and national governments, and also the action strategies of local and, most importantly, global investors all have a different profile (Rees, Davis, Kemp 2012).

In the political narratives that have been developing for years in Poland – a country 'based on coal mining' – the cultural landscape co-created by the Turów mining and power complex is being co-opted as an expressive component of national history and identity sustaining a nationally oriented topophilia (1990) that transforms the spaces of the homeland (or region) into a source of pride and security as well as a symbol of economic development (see Kuchler, Bridge 2018: 136-140). In the current circumstances of an energy crisis caused by such factors as Russia's invasion of Ukraine, contemporary energy policy in Poland is even more emphatically linking the extraction of black coal and lignite not only to the maintenance of energy security, but also to the preservation of national sovereignty. Running through the narratives of politicians, experts and local and national decisionmakers is a political notion of the energy scape that represents and objectifies the specific perspectives of certain interest groups, thereby stabilizing the close correlations between mining coal and maintaining economic development (or growth) (see Lis 2020).

Transformations of mining landscapes have thus far accumulated the strategies, plans and investments of privileged stakeholders possessing specific economic and symbolic capital that could be described as 'energopower', a term proposed by Dominic Boyer to highlight the circulation and flow of energy and social, economic and political relations that occurs within the context of energy systems. The anthropologist's conception corresponds well with the sociologist Sharon Zukin's observation that landscapes are essentially spatiality of power (Zukin 1991: 19), because regimes of domination and subordination, and social orders and certain hierarchies are intertwined in them (see Haarstad and Wanvik 2016: 440).

## Wigancice Żytawskie the energyscape surrounding the Turów complex

Entangled within the energyscape assemblage that took shape during the creation and expansion of the Turów mining and power complex are historical forms from its past as well as local manifestations of global scenarios of environmental, economic and social transformation. In his reflections, Herzfeld describes ordinary situations in which, by virtue of a decision made by the authorities, certain communities and historically and culturally important sites are being relocated to spaces "where they can be subjected to increased surveillance, and away from those spaces where their continuing presence is indeed viewed by the authorities as 'matter out of place'" (Herzfeld 2016: 132). Not infrequently, the removal of populations from high-profile monumentalized places popular with tourists to places on the periphery, for example, marginal districts on the outer fringes of socially and culturally recognized centres, are legitimized as the clear sign of a commitment to the preservation and protection of material heritage or, for example, a desire to recovery important archaeological structures (Herzfeld 2016: 132). In the case of Wigancice Żytawskie, the dispossession and displacement procedure took a different course guided by industrial, late-capitalist logic.

That village's location consigned the daily experience of its inhabitants to "life in the vicinity of a coal open pit and waste dump"<sup>2</sup>. In and around the village, under the patchwork of houses, buildings, road networks, gardens and allotments, lay reserves of lignite, which is viewed as one of the most valuable high-energy natural resources, not only in Upper Lusatia, but over the whole country as well<sup>3</sup>. After the Second World War, to be precise in 1947, a redrawing of borders led to the division of a region that had been within the borders of different states into Czech, German and Polish sectors, which caused the aforementioned complex to be broken up. The Turów lignite mine (formerly known as the Graniczna, or 'Border', mine), at present second in size only to those in Bełchatów and Konin, was taken over by the Polish administration under Ordinance no. 3 of the Minister of Industry and Trade (Dobrzyński, Skrzęta 1998: 34).

Wigancice was located on the actual Polish-Czech border, 5 km from the German border, at the Tripoint of three countries. Up until 1961, the mining industry developing in that region was transnational in character as the coal extracted on the Polish side was used to fire a power plant on the German side. In 1958, the coal mine was expanded and work began on the construction of a power plant in its immediate vicinity, which to this day burns lignite mined at Turów. At the beginning of the 1960s, a decision

<sup>&</sup>lt;sup>2</sup> The earliest mention of Wigancice Żytawskie, the Waldhufendorf (lit. 'forest village') whose ghostly character I present in the text, dates from 1334, although it is supposed that it could have been established during the German colonization of the thirteenth century. Subsequently, in fifteenth-century sources, it functions under various names, including Weigersdoff, Waigisdorf, Weissdorf and Weigsdorff (Bena 2003: 462). In 1635, when Upper Lusatia was controlled by the House of Wettin, part of Wigancice Dolne was annexed to Bohemia and still functions today as the small village of Višňová directly adjoining the area where the former village once stood (Bena 2003: 462).

<sup>&</sup>lt;sup>3</sup> Rich deposits of this natural resource had been discovered in the region as early as the seventeenth century (1642). The Żytaw deposit is located in the Zittau Tectonic Basin, which stretched over territory in Poland, Germany and the Czech Republic (see Dobrzyński, Skrzęta 1998: 10). In the nineteenth century, 69 small open pits operated in the region, most of which did not survive into the twentieth century (Holinka 2002: 3-4). Those of them that continued operating did so from 1904 as the Herkules Joint-Stock Society, at which point industrial exploitation of lignite deposits began, and by 1911 a modern mining and power complex with a mine, power plant, briquetting plant and workshop had been established in Hirschfelde (Dziubacka 2015: 98).

by the incumbent authorities to exploit the rich deposits and develop the Turów complex and infrastructure serving it led to the establishment of the Turoszów Industrial District (Bronsztejn 1966: 1)<sup>4</sup>.



Photo 1. Panorama of Wigancice Żytawskie 1925–1930<sup>5</sup>

The region of Upper Lusatia's erstwhile agrarian landscape changed radically, transforming into an industrial and post-industrial landscape. Cultivated fields, orchards and gardens were replaced by:

huge mining waste dumps and tips, sinkholes caused by underground mining, brick kilns, stones, lead, sand and gravel pits, ash and cinder dumps, road cuttings, rail and road embankments,

<sup>&</sup>lt;sup>4</sup> From the late 1950s, jobseekers arrived in the region from different parts of the country; in the first period, they were workers interested in working in the mine and economic migrants who found employment in the newly established sectors centred around the mine and the power plant, as well as in the chemical and food industries. This economic migration populated the surrounding villages. In Wigancice Żytawskie, the number of inhabitants doubled within a decade, with 430 people living in the village in 1950 and 895 by 1960 (Kapusta 1964: 218).

<sup>&</sup>lt;sup>5</sup> Retrieved from: Panorama of Wigancice Żytawskie, Wigancice Żytawskie – polska-org.pl (accessed 13.06.2022).

micro-sculptural elements of dumps and excavations, post-mining zones and re-routed riverbeds (...) (Szpotański 2019: 113).

The construction of the plant interfered with the area's pre-existing topography and rearranged the natural environment into a complex assemblage animated by humans and machines that encompassed raw materials, matter, geological entities, hydrographic networks, and elements of industrial and technological infrastructure. The process of dispossessing and dislocating the villagers living in Turoszów and neighbouring settlements such as the village of Rybarzowice, which no longer exists, began in 1958, leading to "the disappearance of villages along with their churches, cemeteries and buildings. Woods, cultivated fields and orchards also disappeared" (Szpotański 2019: 120).

The displacement of Wiganicice's inhabitants, a process lasting many years, was connected to the identification in the late 1960s of an environmental crisis. Environmental surveys carried out by experts showed that a dump by the village created to dispose of overburden from the nearby lignite open pit mine posed a huge threat to the safety of the neighbouring community.



Photo 2. Map of Upper Lusatia marked with the coal open pit mine and internal |and external dumps situated close to the edge of the village of Wigancice Żytawskie (żródło: Dobrzyński, Skrzęta 1998: 6).

The lignite deposits at the Turów mine are situated at great depths and the open pit is currently more than 300 metres deep, so during the first few decades of coal extraction, it was not possible to carry out internal dumping and this did not begin until the mid-1990s. Initially, the open pit was widened in the direction of the villages of Rybarzowice, Opolno-Zdrój and Sieniawka, but when water from the River Nysa Łużycka began seeping into the open pit, threatening to flood it, the expansion of coal mining in that direction was halted and external dumping began (see Szwarnowski 1996). Along with concern being expressed for the welfare of the community, preliminary plans were made to demolish part of the village. However, as my research partners have stressed, protests by local inhabitants not included in the dispossession and dislocation plan led the provincial governor to decide that a protection zone should be created, obligating the administrators of the Turów mine and power plant to completely demolish Wiganice. At the same time, the local authorities issued a prohibition on future settlement in the area.

Researchers studying a local community's experience of living near a mining and power complex while an energy transformation is taking place not only need to position themselves in relation to established theories, but first and foremost in relation to their own practice and scientific, political and ethical loci (Pels 2000: 137). They also need to be aware that they may need to carefully navigate networks of discourses on development, modernization, pauperization and environmental (in)justice (see: Sze 2018) so that they do not overlook secondary hierarchies and new centrisms and supremacies, one of the pitfalls of privileging already highly recognizable configurations of power and subalternity agency and passivity when faced with the unstable situation of coal landscapes (Haarstad, Wanwik 2016: 440). When the successive uncovering, over the course of field research, of motifs and aspects of the progressive depopulation and destruction of the village of Wigancice is correlated with the growing external dump located in its vicinity, which is an important actant in the process being described, the anthropologist is made to realise that the conjecture that the inhabitants of the villages in the mining region were forcibly and aggressively dispossessed is too hasty. The realities of that

place, social strategies and attitudes, and the operating tactics employed by the local community in response to ongoing spatial cleansing are much more complex, ambiguous and difficult to interpret than may be supposed.

In the process of dispossession and displacement that affected the village, procedures backed up by the official discourse were set in motion – as was the case with Opolno-Zdrój, a village situated on the perimeter of a lignite open pit mine – that conformed to the global operational patterns of mine managers, investors and decisionmakers, who begin by developing a recognizable temporal politics, managing the timing and course of the dispossession process, while stifling and obstructing critical social discussions on the ecological and social consequences of their actions (Kirsch 2014). Next, they introduce a set of practices in the legal-financial sphere, conducting negotiations, entering into contracts, proposing compensation packages, thereby presenting the capitalist enterprise of removing people from places they had previously called home within a discursive framework expressing concern for those people's welfare (see Moore 2016). At the same time, it is stressed that business partnerships are being established throughout the procedure, which effectively nullifies the impression of violation and injustice left behind by spatial cleansing (see Kemp, Owen 2013)6. However, when the language of law is interpreted too literally by those seeking to create legally binding agreements, this can mask "the complex processes that distribute people in space" (Li 2000: 149). What is more, the actors most affected by those actions may seize on this 'business' argumentation in an attempt to rationalize the environmental injustice they are experiencing. My observations indicate that it is not uncommon for villagers who were party to an agreement with the PGE GiEO Group, the company managing the Turów mine, to highlight the motif of reaching an agreement with that firm in their recollections of the village's destruction.

<sup>&</sup>lt;sup>6</sup> It is clear from critical analyses of the changes taking place across the world in places undergoing industrialization that discourses on rights claimed to land, membership, compensation, etc., are an important factor in the construction of local community identities. (Ballard, Banks 2003: 298).

At that time, there were no special offers for locals. It was a toss-up between moving to Bogatynia or Zgorzelec. And the place of residence was imposed by KWB Turów. There was no choice of any kind. This mine also determined the payment, at government rates, of compensation for lost property (KM\_Zgorzelec\_19-05-2022\_RM2).

Anyone who had a farm, a private house, was dispossessed. But there were also families resettled in Bogatynia and Zgorzelec from rented accommodation. To this day, that's more than 20 years [later], people are living in a temporary block in Bogatynia. And those were supposed to be interim flats (KM\_Zgorzelec\_18-05-2022\_RM3).

Some of the interviewed people do not, however, perceive the dispossession process in terms of a business arrangement, preferring instead to focus on the act of the village's destruction:

The communist authorities had already decided by 1965 to annihilate our beautiful village. Basically bury it in spoil from KWB Turów (KM\_Zgorzelec\_18.05.2022\_RM1).

I don't know why they did it. What good has the money done? People left, the village fell into ruin. There was really no need for it and no amount of money can bring that back (KM\_Zgorzelec\_19-05-2022\_RK2).

The residents of Wigancice who had been living in rented accommodation were resettled in Bogatynia and Zgorzelec; some members of the community who had received financial compensation for their own properties also moved to those towns by choice. Some settled in neighbouring villages: Działoszyn and Wyszków. A few families left for Malbork, Zielona Góra and Kraków. Some residents decided to leave for Germany, Canada or the United States. For many residents, their departure from Wigancice marked the start of a better, more comfortable life, something not usually highlighted in publications reporting on the devastation

caused to landscapes in the process of industrialization or resource extraction. In the literature on environmental justice and energy, opposing a landscape's transformation is one of the primary strategies of local resistance, irrespective of whether the issue at stake is the appearance of a network of power lines in the immediate vicinity or the announcement that drilling rigs are to be installed near homes in shale gas extraction zones (Elmallach, Reames, Spurlock 2022).

Furthermore, ethnographic research and an anthropological perspective that refuses to be satisfied with widely circulated opinions can access memories indicating that the very act of leaving Wigancice was not always experienced as an injustice or violation. It is not uncommon for the villagers' recollections to contain a very pragmatic approach to the situation they were faced with at the time as well as hope for a better, more comfortable life in the city. Each person who owned a house received financial compensation for it that more often than not exceeded the market value of the homes they had lost.

There was no road, mud all over the place, because that dump was getting closer. Everywhere else around us everything was improving, but in Wigancice, [there was] neither a doctor nor any larger shop. Back then, in the 60s and 70s, people wanted to live in the city – to have clean, warm and comfortable surroundings (KM\_Bogatynia\_10-07-2021\_RK5).

In those days, people wanted a taste of city life. Most residents got given new flats in apartment blocks in the towns of Bogatynia and Zgorzelec, where they didn't have to fire up a stove, and it was this that lured them. Some were dispossessed and received financial compensation for their land and forests as well as their houses, hardly a small amount of money at the time, with which they could buy decent houses, flats in other places. However, neither the mine authorities nor Wigancice's residents expected the village to be demolished. Only a historic building, Kolodziej's House, was dismantled and moved to Zgorzelec (KM\_Bogatynia\_13-07-2022\_RK2).

The appearance in the vicinity of Wigancice Żytawskie of an external dump – an anthropogenic entity – changed the villagers' quality of life and ultimately, decisively impacted its future. During the years of inter-species proximity between the villagers and the growing mountain of excavated debris and dust, the air was notably 'heavier' in the village, and residents' "feet sometimes got trapped in the mud", especially when there had been a downpour and the wind was carrying dust and ash from the embankment into the village. The village's location far from transport links and the increasingly oppressive proximity of the pit meant that much of the local community did not rebel against the dispossession, even seeking to speed up the process. This is mentioned by a former resident of this village, who emphasized that the fact that there was no proper road and it was so difficult to get to neighbouring villages had the effect of discouraging the community from staying in that place:

The flooding of the village during torrential rain from unsecured water bodies on the slag heaps was a major inconvenience. It was ash mixed with mud. As soon as I stepped into it in wellingtons, it was impossible to pull the wellingtons out again...because they were lodged in the thick ash. Time and again, the residents tried to restore order and normality on their own. The mine partially covered the cost of any damage incurred. People were tired of constantly battling against the slag heap. Life had become unbearable. The locals started to demand better living conditions, at which point the mine started to resettle them in stages because that was easier for them (KM\_Zgorzelec\_20-07-2022\_RK5).

With time, positive emotions, including hope, expectation and excitement, associated with the move and opportunity to live in another place, be it in Bogatynia commune or in a completely different part of the country, or sometimes abroad, gave way to nostalgia, a sense of loss and even of the infliction of harm. Some villagers make it completely clear today that they consider the displacement caused by the development of the local mining industry to have been harmful socially, economically and culturally and equate the demolishment of the village with the uprooting of

a local community that was deprived of its family homes, neighbourhood, togetherness, local traditions and cultural heritage. The nature of the dispossession they experienced was absolute, manifesting itself in multiple ways – physically, topographically, materially, sensorially and visually, as the following comments illustrate:

We had our past taken away. Supposedly, you could have bought a house anywhere you wanted, because they paid us well, a lot. But nowhere is anything like where you grew up, lived with your friends, family, knew places, your home, surroundings, everything. That won't return now, it won't be like it was in Wigancice (KM\_Zgorzelec 20-09-2021 RM10).

Back then, in the 60s, life in Wigancice was beautiful, peaceful and prosperous. It was a well-maintained village. Despite the immigrant population, everyone lived in harmony. We had a beautiful, large school, a shop, club, health centre and three dancehalls, including one of the original Balaton cinemas. On the border with Višňová, there was a WOP military unit, which guarded us and our borders (KM\_Zgorzelec\_20-07-2022\_RK5).

The elder generation could not reconcile themselves to a new life of wandering and it was tough for them to leave their village. For the young, this was a real chance to obtain a flat and move to a city. But anyone who has experienced true freedom, whether as a boy or adult, will always return in their heart to the place where they left that spirit of freedom behind (KM\_Zgorzelec\_17-09-2021\_RM2).

The lost mining landscape of Wigancice is inextricably linked to family histories and neighbours whose fates were intertwined with this region after the Second World War. These were people who had either arrived in the village or resettled there from various parts of the country after finding employment in the mine, and from the 60s, in the Turów power station as well.

My parents arrived in Wigancice at the end of the 50s as repatriates from Vilnius seeking work. My father immediately found work in

the Turów lignite mine, and mum started work at what was then a cotton factory, which was opposite the home that they settled down in, a beautiful Umgebindehaus [a traditional Upper Lusatian house]. I'm greatly attached to the village, because I spent a wonderful childhood and the most beautiful years of my youth there. Wigancice Żytawskie was a large village about 2.5 kilometres in length in the Jizera foothills. The village borders on Czechia. There were factories, performance halls, a school, a club, a cinema, and people were very friendly and that's why I'm so attached to my small homeland, which is the village of Wigancice Żytawskie (KM\_Zgorzelec 10-05-2021 RK2).

Reflection on the overhasty decision to demolish the village only began to emerge in the memories of the inhabitants once it became clear that their homes had not really been threatened at all<sup>7</sup>. This decision was reached in the 1980s, when the residents of private and council houses began to be dispossessed and houses were bought from their owners. Some of the houses had been destroyed by mining operations. Some had sunk into the ground and others had been buried. As the villagers recall, some houses had already been dismantled, with their wood being taken for fuel, and stripped bricks and roof tiles being sold on the free market to people building in Zgorzelec and other towns in the region. Between 1991 and 1995, the last 33 families were dispossessed; in 1999, Wigancice Żytawskie disappeared from the face of the earth in a process involving the systematic dispossession and displacement of people and the demolition and removal of material objects. Reflecting on the further transformation

<sup>&</sup>lt;sup>7</sup> According to the original plans for the expansion of the open pit, which would have brought it closer to the village, it was envisaged that as the area given over to mining spread outwards, houses, farm buildings, shops and the school would be engulfed by earth. It soon became clear that the coal extraction area would not pass under Wigancice. Nevertheless, an external dump appeared in the close vicinity and if it collapsed, it could cause the complete destruction of the village along with all its buildings, making it uninhabitable. When it became necessary to expand the area used for the disposal of overburden from the Turów lignite mine (overburden, as Tomasz, whose family come from Wigancice, explained to me, is waste rock that needs to be removed to access the lignite mine), it was assumed that the area would soon incorporate two neighbouring villages: Strzegomice and Stare Zatonie.

of the area over the course of the last two decades, it could be said that the depopulated village was ultimately engulfed by forest and vegetation that grew over the roads, colonizing the farmyards of previously existing houses and invading farmland, greens and what had once been the residents' communal spaces. Currently, it is a green and 'wild' space in which a sharp eye may nevertheless spot the remains of a few house foundations overgrown with vegetation and 'alien' fruit trees in wooded space, witnesses to that place's past history.

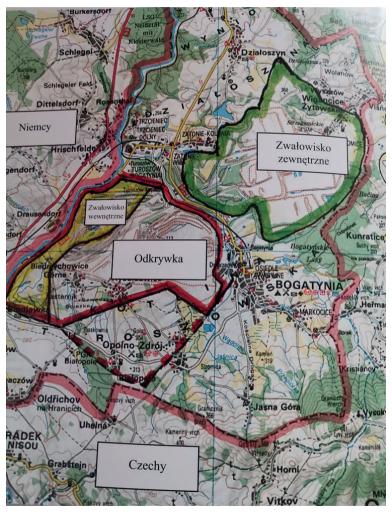


Photo 3. A board containing the name of the village at what was once the former village's boundary.



Photo 4. The remnants of former buildings in Wigancice Żytawskie.

### A ghost village and ghost neighbourhood

The notion of landscape transcends such categories as region, area or terrain, as it refers to the emotions, affects and lifestyles of specific people (Cosgrove 1984: 15). When existing topography is disturbed by, for example, a mine and its infrastructure, an attitude of topophilia may be transformed into topophobia, which is characterized by aversion and a sense of losing 'one's own place' that can result in a conspicuous weakening of ties and positively valued relations with the landscape, which manifests itself in certain affective social poetics (Majbroda 2019: 254-255). However, the spatial cleansing of Wigancice Żytawskie that led to that place's annihilation and removal from the face of the earth was primarily topographical-physical in nature. The phenomenon of the desertion of former places of living due to the implementation of modernization and growth objectives has not only been linked to the loss of homes and land, but also to the disintegration of ties within families and between neighbours, making it impossible to express one's own viewpoint (social disarticulation) (Adam, Owen, Kemp 2013: 3). The disappearance of houses

and other architecture belonging to a village does not, however, spell the end of relations and ties between neighbours, as these usually arise and endure due to the cohabitation and sharing of co-occupancy of a specific space. This motif appears in many of the reminiscences heard in the field:

I'm deeply affected by the absence of the place where I was brought up. Sentimentally, I'm still attached to the wonderful local community. Today, in the EU, we'd have many new opportunities for development – like in, Zgorzelec/ Görlitz, for example (KM\_Zgorzelec\_18.05.2022\_RM1).

If the infrastructure (electricity, water, roads) were restored, there'd definitely be people willing to buy land and settle there. We feel such an impulse and have even thought about buying a plot of land for recreational purposes; unfortunately, none of the owners (the mine, power station, commune) are selling. At least we haven't heard anything about it (KM 14.07.2022 RM3).

I often think about it and reminisce. My house was there, next door was my neighbour Kazimierz, the road was here, the wood there, round the back [the speaker traces directions in the air with his arm – KM]. How often we would meet, talk, do things together. One knew one's neighbours, knew where to go, how to get things done. Everything was known, familiar, recognizable. Then, in the new place, it was nice – everything new, convenient, less work, a doctor to hand, lots of shop, everything. Ultimately, though, this village could have existed, could have stood, that slag heap need not have buried it. Maybe that decision was taken too hastily. One home, the next, and then it was gone (KM\_Zgorzelec\_19-05-2022\_RM3).

In the ghost village, which no longer exists physically yet endures affectively, the category of neighbourhood takes on a new quality that disentangles itself from *topoi* with a view to liberating itself from the practice of habitation as well as settledness and localism. The village community's mode of functioning outside what was once its administrative territory could be described as a ghost neighbourhood, because the example of the former village community of Wigancice Żytawskie's functioning would

be difficult to describe using established categories in the social sciences and humanities. For this is a community whose practices, viewpoints and modes of functioning elude the categories of both community lost and community saved as well as community liberated (Wellman 1979), and not only because those categories were originally proposed as models for the description of various forms of big-city neighbourhood. It would be difficult to claim of the community of the former village of Wigancice Żytawskie that it is abandoning its sense of togetherness and also that the glue that binds it together is the cohabitation of a specific territory. The action strategies of both the old villagers and new generations born outside the village are assuming the form of a peculiarly ritualistic maintenance not only of neighbourly ties and relations, which more often than not acquire a character of familiarity and friendliness, but also of the formal structure of a village. This practice is manifested in the community's annual celebrations at Kołodziej's house in Zgorzelec – the *Umgebindehaus* that was translocated there from Wigancice. And a reunion of people who had once attended the primary school in Wigancice Żytawskie took place at the same venue in 2008. From 2009 onwards, this event took the form of a reunion of former residents of the village of Wigancice and has continued as such every single year since then.



Photo 5. Press materials related to the village from part of an exhibition presented during the Reunion of Former Residents of the Village of Wigancice in May 2022.

The communal celebration is accompanied by the election of a village leader, who holds the post in an unusual form of exile<sup>8</sup> until the next festive get-together, when new elections are held. One of the former villagers describes those practices as follows:

I believe that rebuilding the village is possible and we're trying to make our plans a reality. That's why we set up the village council, which has been organizing the villagers' reunion for 13 years now; during the meetings, the village lives on in our memories. Every year, people bring along photos, from which we organize an exhibition. We meet former residents at community actions aimed at tidying up the [village] grounds; this brings us enormous satisfaction. We participate in public consultations on the Strategy for Development of the Town and Commune of Bogatynia. We have wonderful plans for the rebuilding of the village; we'd like it to be an open-air museum of Umgebindehäuser, the only village of its kind in Poland, which would attract a lot of tourists. We are trying to buy plots of land that have been temporarily taken off the market (KM\_Zgorzelec\_10-05-2021\_RK2).

What really binds the former inhabitants together in spite of the ghost village's topographical annihilation is a culture of co-participation and joint action, which is expressed in the way that they celebrate their roots and the care with which they disseminate knowledge about Wigancice and its people and past. Local cultural animators and conservationists strive to get the public interested in Wigancice's history by spreading knowledge and memory of that place across and beyond the region. The cultural animation and educational activities have evolved into a concrete plan for rebuilding the village that involves attracting cooperation partners, including architects, archaeologists, botanists, engineers and investors, whose combined efforts should lead to the rebuilt village being restored to its former splendour.

<sup>&</sup>lt;sup>8</sup> The notion of 'village-leader-in-exile' was used by one of my interviewees and entered my vocabulary when I needed to emphasize the village's ghostliness, which is also evident in the practice of celebrating the election of a village leader, who operates outside Wigancice, thus symbolically experiencing exile, as he or she is unable to formally exercise his/her function by living in the village. At the same time, it is vital to emphasize the jocular, symbolic nature of the election and the lack of any real involvement in political life by an elected village leader who, incidentally, is also employed at the Turów power plant.

Critical analyses of global strategies for the management of energyscapes show that acquiring collective support for energy practices and discourses is a matter of engaging with an imagined future just as much as with the present reality. Such categories are equally applicable to the efforts being made by an unusual coalition to revitalize Wigancice9 by rebuilding the Umgebindehäuser that are such an important component of the cultural heritage, not only of Bogatynia, but also of the Tripoint – the borderlands between Poland, Czechia and Germany. Moreover, the PGE GiEK Group, which is working with the Turów mine to support Wigancice Żytawkie's revitalization, is doing what it can to avoid being only associated with "the ongoing reclamation of post-mining areas and the restoration of their nature-based potential, but also with the reanimation of such exceptional sites, which have made a permanent contribution to the region's history" (PGE GiEK wraz z Kopalnia Turów wspiera rewitalizacje Wigancic Żytawskich). As early as the 1960s, plans for the rehabilitation of the mining landscape incorporated a conception for the external dump to be managed as forestland, which was viewed at the time as "a pioneering and experimental activity" (Szwarnowski 1996: 9). Currently, the external dump that became the impetus for the spatial cleansing of its neighbouring villages co-constitutes the reclaimed post-coal mining area as a green, wooded, vegetation-covered hill that blends into the region's natural landscape, problematizing stable dichotomies between the environment and industry, and ecological and economic concerns 10. The afforestation of post-industrial areas was

<sup>&</sup>lt;sup>9</sup> The coalition comprises: PGE Mining and Conventional Power Generation (PGE GiEK) Group, whose members include the Turów mine, PGE Foundation and Kołodziej's House Association, and also scientists and engineers from the Poznań University of Technology, Wrocław University of Technology, Gliwice University of Technology and the University of Wrocław.

<sup>&</sup>lt;sup>10</sup> The area is currently managed by the Directorate of State Forests, which has modelled afforestation since the 1980s in such a manner as to avoid monoculture planting and adapt forests to their surrounding habitats. According to the website of the Turów Lignite Mine Branch of the PGE GiEK partnership: "The reclamation that is being gradually carried out is producing the desired outcomes in the form of increasingly rich ecosystems and an improved forest cover ratio. Thanks to the plantings carried out to date in the Bogatynia commune, that has increased from a level of 27 per cent to almost 30 per cent." (Over 640 trees on the Turów mine site).

initially inspired by the notion of a 'second life for post-industrial areas'. In the case of rehabilitated post-coal mining areas like the site of the Turów lignite mine, there is a further need to restore the degraded ecosystems they contain. That region's energyscape is undergoing yet another transformation largely orchestrated by decisions taken by management at a lignite mine that provides the necessary capital as well as being the source of the exploitation and devastation of the local environment. Paradoxically, the project to revitalize the post-mining landscape also contributes to the supposed rehabilitation of the image of a company committed to the development of a coal-based energy industry, thereby contributing to devastating climate and health outcomes, while at the same time flaunting its pro-environmental, land reclamation activities, which in turn are financed by the environmentally destructive extraction of lignite deposits. The capitalist logic of the cost-effective exploitation of the environment is seemingly shaken in the process, mining capital takes on 'shades of green' and the overall image of the company managing the mining complex becomes greener. Taken as a whole, the actions pursued by the management of the mine company could be described as a concerted commitment to the implementation of community projects in such a manner as to cause mining communities' past, cultural heritage and identity to be linked to mining capital (Mayes, McDonald, Pini 2014: 408)11.

The villagers of Wigancice also participate in the aforementioned process, not only through joining in with the activities of that wide-ranging project, but also through gradually buying back their former land holdings from the mine's management – PGE. Years later, when it became clear, as mentioned, that the village had probably been demolished too

<sup>&</sup>lt;sup>11</sup> The phenomenon of transitioning towards a green economy while continuing to follow the capitalist playbook is not unique. Stakeholders – companies, firms and corporations in possession of powerful capital – compete with each other to showcase their respective roles in the transformation process. Actors who continue to reap the benefits of continued dependence on a fossil-fuel economy following a century in which they played such a decisive role in the development of capitalism will not give up their position without a fight (Newell 2015: 78). As Carlota Perez, for example, argues, the capital accumulated in the process of coal extraction can be deployed in transformative processes, thereby accelerating the process of decarbonization (Perez 2002).

hastily, the mine, which owned much of the land in that area, created the possibility of purchasing plots of land in the Wigancice area. Currently, most of the land belongs to the KWB Turów Branch of the PGE Group, while some of what remains is owned by the residents of neighbouring Wyszków. A few plots of land are now owned by private individuals who have purchased them on occasion from the commune of Bogatynia, with the intention of building houses and making long-range plans to return to their family home. For some of my interviewees, the affectionately named 'Wigany' is a space for peace and quiet and weekend recreation. As they live in Bogatynia or Zgorzelec, they are not considering making a permanent return to the countryside. They view it as a green space for relaxation far away from the crowds and the urban hustle and bustle. Some people speak directly about the economic dimension of their investments, stressing that this is an area whose location, at the Tripoint, with mountains and lakes nearby, makes it extremely attractive as a tourist destination.

Its remoteness from the main traffic arteries makes it a quiet and peaceful place with the most beautiful scenery. Under Wigancice, there are thermal waters located just below the ground, which makes the area even more attractive. Wigancice could become a spark which, for the reasons I've just mentioned, would contribute to the transformation of the Turoszów Sack area (KM\_Zgorzelec\_14.07.2022\_RK1).

This is a very interesting topic; I think the village of Wigancice, like a phoenix from the ashes, will be reborn very quickly. Out of 200 plots, 50% are already sold. The only barrier standing in the way of the village's development is the commune of Bogatynia, which is blocking the further sale of plots, reasoning that the infrastructure needed for the village to exist needs to be created first (KM\_Bogatynia\_20-07-2022\_RK7).

Some of Wigancice's residents want to buy a plot in Wigancice, either for recreational purposes or for building on. The place where Wigancice is located is in the Sudeten foothills really close to one of the Czech Republic's largest cities, Liberec, which is easy to reach

from both the Czech and Polish sides. Its closeness to the mountains makes it a great base in the Jizera Mountains for hiking trips, cycling and skiing (KM Bogatynia 218-07-2022 RM8).

However, that enthusiasm is not shared by all the original villagers and the generations that have followed, as they believe that it is no longer possible to restore the place's past. This was expressed in the statements of several of my interviewees. One of them stressed:

Personally, I don't believe that will happen. The areas devastated by KWB Turów have, at least for the time being, been lost once and for all. The rebuilding of Wigancice will amount to little more than the construction of new houses in a different form. It will be a new place, without the soul we remember from our childhoods. (KM Zgorzelec 18.05.2022 RM1).

### Moving towards a transformational future and critical hope

The history of Wigancice Żytawskie – a ghost village – acts like a lens, concentrating global processes associated with the extraction of fossil fuels and then attesting on a microscale to potential courses these processes could take and their socioenvironmental consequences. As people live in the landscape, they became part of it and the landscape is internalized by them at the same time, as it is part of them (Ingold 1993: 153–156).

The emergence of an external dump in the mining landscape around the Turów complex has caused gradual transformations in that landscape that were not foreseen by the assumptions of decisionmakers. Adopting the category of assemblage can prompt the researcher to examine newly formed relations as well as the changes occurring in specific configurations of the elements co-constituting that system. The dump grew so large that it began to threaten the very existence of the village. This unanticipated environmental change produced the unexpected effect of reorganizing the ties and relationships between the local residents, the pit, the slag

heap, nature and the village, as well as its buildings and infrastructure. As a consequence of previously unplanned actions, Wigancice underwent spatial cleansing. After decades of functioning in close proximity to an expanding mining industry, the villagers were forced by transformations in the natural environment, or eventually decided themselves, to leave what functioned in their memories as 'their own', 'lost' or 'family' homes, even though, rather than being built by their ancestors, they had actually been erected by people displaced from that area immediately after the war. From the perspective of transformations in the energy scape, that place has become the site of an environmental, architectural and sociocultural experiment. The renaissance planned for the village offers the local community hope that they may one day return to a lost cultural landscape that will never lose its status as a mining landscape, or post-coal landscape, while at the same time being a space undergoing transformations that is vital to the sense of identity of both the dispossessed and displaced community and their succeeding generations.

Over the years when the village no longer physically existed, the place it had once occupied underwent successive transformations, with vegetation proliferating and the foundations of buildings being engulfed by woodland. The village's remoteness from traffic routes, exacerbated by the lack of an access road, made the area more susceptible to the feral effects of the transformation in the local energyscape. The devastation that coal extraction caused to the landscape, which was depopulated, and the erasure from the village space of all architectural and infrastructural elements connected with human habitation had the effect of returning that land, paradoxically perhaps, to nature, which, released from human control, began revitalizing the place, a process that entangled the landscape's industrial transformation with environmental history. The new environmental phenomenon occurring in that area attests to the expansiveness of nature, which is also transforming that place in its own way, all the while erasing its anthropogenic contours. However, adopting anthropocentric optics need not be the only way of perceiving the transformation of the energyscape, and the process of returning the land once occupied by Wigancice to nature is open to post-anthropocentric and relational

interpretations. For this is a landscape without people, ambiguous and uprooted from its previously anthropogenic form, yet well-aligned with instigated cultural practices and actions directed at the reclamation of post-coal mining areas. This land colonized by vegetation is not only realizing its potential as an experiment existing on both identity and emotional-affective levels, but also as a land reclamation project to be completed in the not-too-distant future based on the transformative, equitable restoration of the cultural heritage of both the Tripoint and Upper Lusatia as a whole. The process transforming an energyscape and a space without people remains as incomplete and open as the horizons of thought into which it could be integrated in a transformational future.



Photo 6. The name of the village recreated from tree branches during the reunion that took place in May 2022.

tłum. Philip Palmer

### **Bibliography**

- Adam, A.B., Owen J.R., Kemp D. (2015). Households, Livelihoods and Mining-Induced Displacement and Resettlement. The Extractive Industries and Society, 2, (3), 581–589.
- Addison, T., Roe, A. (2018). Extractive Industries: The Management of Resources as a Driver of Sustainable Development. Oxford: Oxford University Press.
- Appadurai A. (2013). The Future as Cultural Fact: Essays on The Global Condition. London-New York: Verso.
- Ballard, C., Banks, G. (2003). Resource Wars: The Anthropology of Mining. Annual Review Anthropology, 32, 287–313.
- Bennett J. (2010). Vibrant Matter: A Political Ecology of Things. Durham, N.C.: Duke University Press.
- Bloch, N. (2016). Evicting Heritage. Spatial Cleansing Cultural Legacy at the Hampi UNESCO Site in India. Critical Asian Studies, 48 (8), 556–578.
- Boyer D., Howe, C. (2019). Joint Conclusion to Wind and Power in the Anthropocene. W: D. Boyer, Energopolitics. Wind and Power in the Anthropocene (s. x-xvii). Durham and London: Duke University Press.
- Boyer, D. (2014. Energopower: An Introduction. Anthropological Quarterly, 87, 309–334.
- Brown, B., Spiegel, S.J. (2017). Resisting Coal: Hydrocarbon Politics and Assemblages of Protest in The UK and Indonesia. Geoforum 85, 101–111.
- Cosgrove, D., Daniels, S. (1988). Introduction. Iconography and Landscape. W: D. Cosgrove, S. Daniels (red.), The Iconography of Landscape. Essays on The Symbolic Representation, Design and Use of Past Environments (s. 1–10). Cambridge: Cambridge University Press.
- DeLanda M. (2006). A New Philosophy of Society: Assemblage Theory and Social Complexity. London: New York: Continuum.
- DeLanda M. (2016). Assemblage Theory, Edinburgh: University Press.
- Deleuze G., Guattari F.(1980). Thousand Plateaus. London: Continuum.

- Dobrzyński Z., Skrzęta A. (1998). Kopalnia Węgla Brunatnego "Turów". Bogatynia: KWB "Turów".
- Downing, T.E. (2002). Avoiding New Poverty: Mining Induced Displacement and Resettlement. International Institute for Environment and Development. Pobrano z: http://commdev.org/files/1376\_file\_Avoiding\_New\_Poverty.pdf (dostęp: 12. 07.2022).
- Dziubacka, K. (2015). Przemysł w krajobrazie kulturowym wsi. Uwarunkowania jakości życia kierunek i dynamika zmian. Wrocław: Oficyna Wydawnicza Atut.
- Elmallach, S., Reames T.G., Spurlock C.A. (2022). Frontlining energy justice: Visioning principles for energy transitions from community-based organizations in the United States. Energy Research & Social Science 94, s. 1–17.
- Engels, B. (2018). Nothing Will Be as Before: Shifting Political Opportunity Structures in Protests Against Gold Mining in Burkina Faso, The Extractive Industries and Society, 5 (2), 354–362.
- Eriksen, T. H., Stensrud, S. B. (red) (2019). Climate, Capitalisme and Communities. An Anthropology of Environmental Overheating. London: Pluto Press.
- Ferguson J., Gupta A. (2002). Spatializing States: Toward an Ethnography of Neoliberal Governmentality. W: J.X. Inda (red.) Anthropologies of Modernity: Foucault, Governmentality, and Life Politics (105–124). Oxford: Blackwell Publishing Ltd.
- Fortun, K. (2015). Figuring Out Theory. Ethnography Scetches. W: D. Boyer, J. D. Faubion, G.E. Marcus (red.) Theory Can Be More than It Used to Be (s.147–167). Ithaca, London: Cornell University Press.
- Fortun K. (2017). Anthropology in farm safety, *Journal of Agromedicine*, s. 1–8. http://dx.doi.org/10.1080/1059924X.2016.1254697.
- Gans, H.J. (1968). People and Plans: Essays on Urban Problems and Solutions., New York: Basic Books.
- Haarstad H., Wanvik T.J. (2017). Carbonscapes and Beyond: Conceptualizing the Instability of Oil Landscapes. Progress in Human Geography, 41(4) 432–450.

- Harvey, D. (2003). The New Imperialism. Oxford: Oxford University Press.
- Hastrup, K., Skrydstrup, M. (2013). The Social Life of Climate Change Models. Anticipating Nature. London: Routledge.
- Herzfeld, M. (2006). Spatial Cleansing. Monumental Vacuity and the Idea of the West "Journal of Material Culture" 11 (1-2), 127–149.
- Herzfeld, M. (2016). Siege of the Spirit. Community and Polity in Bangkok. Chicago: University of Chicago Press.
- Holinka, Z. (2002). Historia węglem pisana. Węgiel Brunatny. Biuletyn Informacyjny Producentów Porozumienia Producentów Węgla Brunatnego. Wydanie Specjalne, 2, 3–4.
- Hornborg, A. (2019). Nature, Society and Justice in the Anthropocene. Unraveling the Money- Energy-Technology Complex. Cambridge: Cambridge University Press.
- Howe, C. (2014). Anthropocenic Ecoauthority: The Winds of Oaxaca. Anthropological Quarterly 87 (2), 381–404.
- Ingold, T. (1993). The Temporality of Landscape. World Archeology 25, (2), 152–174.
- Kapusta, F. (1964). Przemiany struktury agrarnej w rejonie Turoszowa w latach 1957-1963. Warszawa: IRWiR: PAN.
- Kemp, D., Owen, J. (2013). Community Relations and Mining: Core To Business But Not 'Core Business'. Resources Policy 38 (4), 523–531.
- Kirsch, S. (2014). Mining Capitalism. The Relationship between Corporations and Their Critics. Oakland, California: University of California Press.
- Kuchler M., Bridge G. (2018). Down the black hole: Sustaining national socio-technical imaginaries of coal in Poland. Energy Research & Social Science, 41, 136–147.
- Lahiri-Kutt, K., Nesar, A. (2012). Land Acquisition and Dispossession: Private Coal Companies in Jharkhand. Economic & Political Weekly, 47(6), 39–45.
- Li, T.M. (2000). Articulating Indigenous Identity in Indonesia: Resource Politics and The Tribal Slot. Comparative Studies in Society and History, 42, 149–179.

- Lis, A. (2020). Climate and Energy Politics in Poland: Debating Carbon Dioxide and Shale Gas. London, New York: Routledge.
- Majbroda, K. (2019). W relacjach, sieciach, splotach asamblaży. Wyobraźnia antropologii społeczno-kulturowej wobec aktualnego. Wrocław: Oficyna Wydawnicza Atut.
- Mayes, R., McDonald, P., Pini, B. (2014). 'Our' Community: Corporate Social Responsibility, Neoliberalisation, and Mining Industry Community Engagement in Rural Australia. Environment and Planning A, 46 (2), 398–413.
- Moore J.W. (ed.) (2016). Anthropocene or Capitalocene?: Nature, History, and The Crisis of Capitalism. Oakland, CA: PM Press.
- Moore, N., Whelan Y. (2007). Heritage, Memory, and The Politic of Identity. New Perspectives on Landscape. Farnham: Ashgate Publishing.
  - Narain, S., Boyce, J.K., Stanton, E.A. (2007). Reclaiming Nature: Environmental Justice and Ecological Restoration, London: Anthem Press.
- Newel, P. (2015). The Politics of Green Transformations. W: I. Scoones,M. Leach, P. Newel (red.) The Politics of Green Transformations (68-85). London, Routledge 2015.
- Owen J.R., Kemp, D. (2015). Mining-Induced Displacement and Resettlement: a Critical Appraisal. Journal of Cleaner Production, 87, 478–488.
- Pels P. (2000). The Trickster's Dillema. Ethics and the Technologies of the Anthropological Self. W: M. Strathern (red.) Audit Cultures. Anthropological Studies in Accountability, Ethics and the Academy (s. 135–172). London: Routledge.
- Perez, C. (2002). Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages. Cheltenham: Edward Elgar.
- PGE GiEK wraz z Kopalnią Turów wspiera rewitalizację Wigancic Żytawskich https://pgegiek.pl/aktualnosci/pge-giek-wraz-z-kopalnia-turow-wspiera-rewitalizacje-wigancic-zytawskich (7.07.2022).
- *Ponad 640 drzew na terenie kopalni Turów.* https://www.bing.com/search?q=Ponad+640+drzew+na+terenie+kopalni+Tur%C3%B3w&form=ANNTH1&refig=6d355f48edfa48e2982fe1106c9acabb#:~:tex-

- t=https%3A//kwbturow.pgegiek.pl%20%E2%80%BA%20aktualnos-ci%20%E2%80%BA%20ponad%2D640. (8.07.2022).
- Rees, C., Davis, R., Kemp, D. (2012). Corporate Culture and Conflict Management in Extractive Industries. Harvard Kennedy School: Harvard University.
- Ross, M. (1999). The Political Economy of the Resource Curse. World Politics, 51 (2), 297–322.
- Stephan, W. (2010). Wigancice. Opowieści graniczne (przeł. Henryk Pietruszczak). Zgorzelec: Wydawnictwo AD REM.
- Strauss S., Rupp S., Love T. (eds.) (2013). Cultures of Energy: Power, Practices, Technologies
- Sze, J. (2018). Sustainability: Approaches to Environmental Justice and Social Power, New York: New York University Press.
- Szpotański. A. (2019). Kotlina Turoszowska. Monografia miasta i gminy Bogatynia w okresie 1945-2010. Legnica: Biblioteka Diecezji Legnickiej.
- Szwarnowski, A. (1996). Działania modernizacyjno-odtworzeniowe i proekologiczne w KWB "Turów" w latach 1991-1995. W: Seminarium. Programy działań technicznych i ekologicznych w Elektrowni i Kopalni Turów oraz odbudowa ekologiczna regionu (s. 4–12). Warszawa: ARW "dima".
- Tsing A.(2015). The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Princeton: Princeton University Press.
- Tsing A., Mathews A., Bubandt N. (2019). Patchy Anthropocene: Landscape Structure, Multispecies History, and the Retooling of Anthropology, Current Anthropology 60, August, Supplement 20, 186–197.
- Tuan Y.-F. (1990). Topophilia: A Study of Environmental Perception, Attitudes, and Values, New York: Columbia University Press.
- Wellman, B. (1979). The Community Question: The Intimate Networks of East Yorkers. American Journal of Sociology, 84 (5), 1201–1231.
- Wieginik, N. (2018). Imagining Booms and Busts: Conflicting Temporalities and The Extraction. Development Nexus in Mozambique. The Extractive Industries and Society, 5 (2), 245–252.

- Winther, T. (2013). Space, Time, and Sociomaterial Relationships: Moral Aspects of The Arrival of Electricity in Rural Zanzibar. W: S. Strauss, S. Rupp, T. Love (red.) Cultures of Energy. Power, Practices, Technology (164–176). Walnut Creek, CA: Left Coast Press.
- Zukin, S. (1991). Landscapes of Power: From Detroit to Disney World. Berkeley, Los Angeles, Oxford: University of California Press.