The Destructive Construction Ecology of the Corridor Vc in Bosnia

by
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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

The Corridor Vc in Bosnia and Herzegovina is a 335-kilometre-long highway that began construction in 2001, yet in 2026 is only about halfway complete. The examination of the nuanced social, economic, and ecological problems that the construction reveals about Bosnia provides insights on how to approach complex architectural sites with contested narratives. A selection of satellite imagery, photographs, and drawings illustrates this complicated entanglement, but when read together offers a deeper understanding of how infrastructural projects can bring both prosperity and ruin. In using a Marxian underpinning to frame the writing with three lenses; borders, capital, and materials, the research portrays the deeply entrenched mentality that centres on difference and worth. The visuals and writing combined demonstrate that ethnic division, financial expropriation, and pollution arise from and guide the Corridor Vc's construction. As a site relatively unknown in the Canadian context, the research approach deepens the architectural discipline's understanding and execution of site analysis.

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Statement of Positionality

My parents were born and raised in Mostar which has been a mixed town for centuries. The Bosnian War shifted the city's dwelling habits of Bosniaks, Serbs and Croats through different campaigns of forced displacement and the establishment of a HVO (*Hrvatsko vijeće obrane*—Croatian Defence Council) detention camp in Rodoč, just south of Mostar's city limits. My parents fled the city at the early outset of the war in 1992 by car, ship, and eventually a plane to Canada. They had spent thirty years of their life in Yugoslavia, gathering memories of a country that had its cultural differences—showcased through architecture from the coast to the mountains, its dialects and languages, its literature and more—yet was unified within one border with physical efforts from all sides to literally build the country. My grandfather, born in 1930, was himself part of a youth group that helped rebuild part of a destroyed railway in Nemila after World War II, in which he enlisted as a young teenager as part of the Yugoslav Partisans. As I am writing this thesis he is still alive and well, and this project has been a way to learn things of his past I would otherwise have not known.

I do not mention all this to romanticize the past—Yugoslavia had its problems. However, these personal tidbits I heard provide insight into how different life becomes when borders are placed along these territories and suddenly movement becomes political. I have heard moments of my parent's frustration with the government and the country, but have also heard their praises and love for things its land and people offer.

I have visited Bosnia several times as an adult, and have seen different parts of the country. Even though the war ended over thirty years ago, there are still divisions in the country demonstrated by a range of things, from the soccer club somebody supports to the flags flown in different neighbourhoods.

As a Bosniak myself, I notice the Bosnian War demonstrates a monumental series of events, whose cause and effects are still alive. However, I took care to remain factual rather than emotional in trying to portray ethnic division as central in Bosnia's socio-politics.

This research explores the troubling contexts of the construction ecology of the Corridor Vc, a pan-European highway through Bosnia and Herzegovina which began construction in 2001. The first portion of the highway that opened was the eleven-kilometre-long section from Sarajevo to Zenica in 2013. The entire Corridor Vc is 700 kilometres long and connects Budapest to Ploče, Croatia, with about 335 kilometres planned to run through Bosnia and Herzegovina. Over half the highway—about fifty-five percent—remains unfinished, while the route through Hungary and Croatia is complete. The state-owned JP Autoceste FBiH (Public Company Motorways of the Federation of Bosnia and Herzegovina) was established in 2010 to oversee the construction of the motorways through the FBiH, and their focus has largely been on this highway. Similarly, RS Autoputevi (Republika Srpska Motorways) was established in 2009 to manage motorways through Republika Srpska, Bosnia's second entity.[1] Less than half of the forty-five kilometre stretch of the Corridor Vc that runs through Republika Srpska's borders is finished. However, they have completed other construction projects, such as connecting Banja Luka, the de-facto centre of RS, to Doboj by a seventy-two-kilometre-long highway in a few years. Once fully complete, the Corridor Vc will alleviate traffic and provide shortened routes between destinations along its route. However, this construction does not come without ecological costs in the form of air quality and pollution. In its efforts, Bosnia has received over two billion euros in loans from EU financial institutions, linking the two geo-political entities in various ways that are nevertheless confined to, and affected by, principles of the border.

This document links borders, capital, and materials together as three main lenses to unpack the inequalities of the highway's construction process. I display how real and imagined borders affect the construction of the Corridor Vc. Furthermore, I highlight how the construction ecology of the Corridor Vc exacerbates the extraction of wealth from both people and the earth. In my approach I consider social, economic, and ecological factors related to the three main lenses.

The fact that Bosnia's highway has not been completed is a major topic of conversation for those living near the route and waiting for its benefits of decreased travel time. Yet, critical engagement with the topic is limited to short journalistic writings in Bosnian rather than extensive academic studies. The Corridor Vc does not have as broad effects that other topics related to Bosnia do, like the Bosnian War and the resulting Bosnian diaspora, for example. As a result, knowledge and discussion about the highway is often confined to those within the country.

The Corridor Vc is a site-specific construction project that can grant insights into the complex and hidden inequalities of the construction industry, which is responsible for a third of carbon emissions globally.[2] With capitalism relying on increasingly so-

1 The Dayton Agreement, officially The General Framework Agreement for Peace in Bosnia and Herzegovina was signed on November 21, 1995 to end the Bosnian War. The Dayton Agreement legally established the two highly autonomous entities, the Federation of Bosnia and Herzegovina and Republika Srpska with vast governing powers.The agreement sanctioned the law on military activities, the inter-entity boundary lines, elections, the constitution, arbitration, human rights, refugees, displaced persons, and more. The FBiH has their House of Representatives and RS has their National Assembly—these parliaments have their own ministries responsible for healthcare, education, agriculture, culture, infrastructure, and more. The Brčko District does not belong to either entity, and residents have to choose between citizenship of FBiH or RS. The agreement was signed by the then presidents of Serbia, Croatia and Bosnia-Herzegovina, with all of them having played different roles in the Bosnian War. I will continue this discussion later on in the thesis, especially in the second section.

2 Chaohui Li et al., "Carbon Footprint of the Construction Sector Is Projected to Double by 2050 Globally," *Communications Earth & Environment* 6, no. 1 (2025): 2, https://doi.org/10.1038/s43247-025-02840-x.

phisticated methods of unequal exchange, the building industry's mechanisms have followed suit. In an era and society dominated by finance capitalism, these mechanisms stretch from the origins of the construction process to post-construction. To understand the construction industry's role in climate change and the inequalities that shape projects, it is important to engage with root issues that allow for harmful relationships to thrive. Kiel Moe's use of the term *construction ecology* is a helpful framework to understand the harmful effects on humans and extra-humans that construction has. In Moe's work, construction ecology refers to a building environment's "bio-geophysical basis and web of flows as well as its social and political organization,".[3] In order to prevent inequalities across the entire construction industry, understanding the qualitative data of harmful networks that shape and produce architecture are just as important as quantitative data. Yet, the latter has taken precedence in the building industry, through things like carbon accounting and "green" certifications that only provide insight into a specific timeline of a project. I would consider photographs within this thesis as qualitative data that much more vividly depicts pollution than numbers could.

3 Kiel Moe, "Introduction: The Terrestrial Life of Large Urban Spaces," in *Unless: The Seagram Building Construction Ecology* (Actar D, 2021), 62.

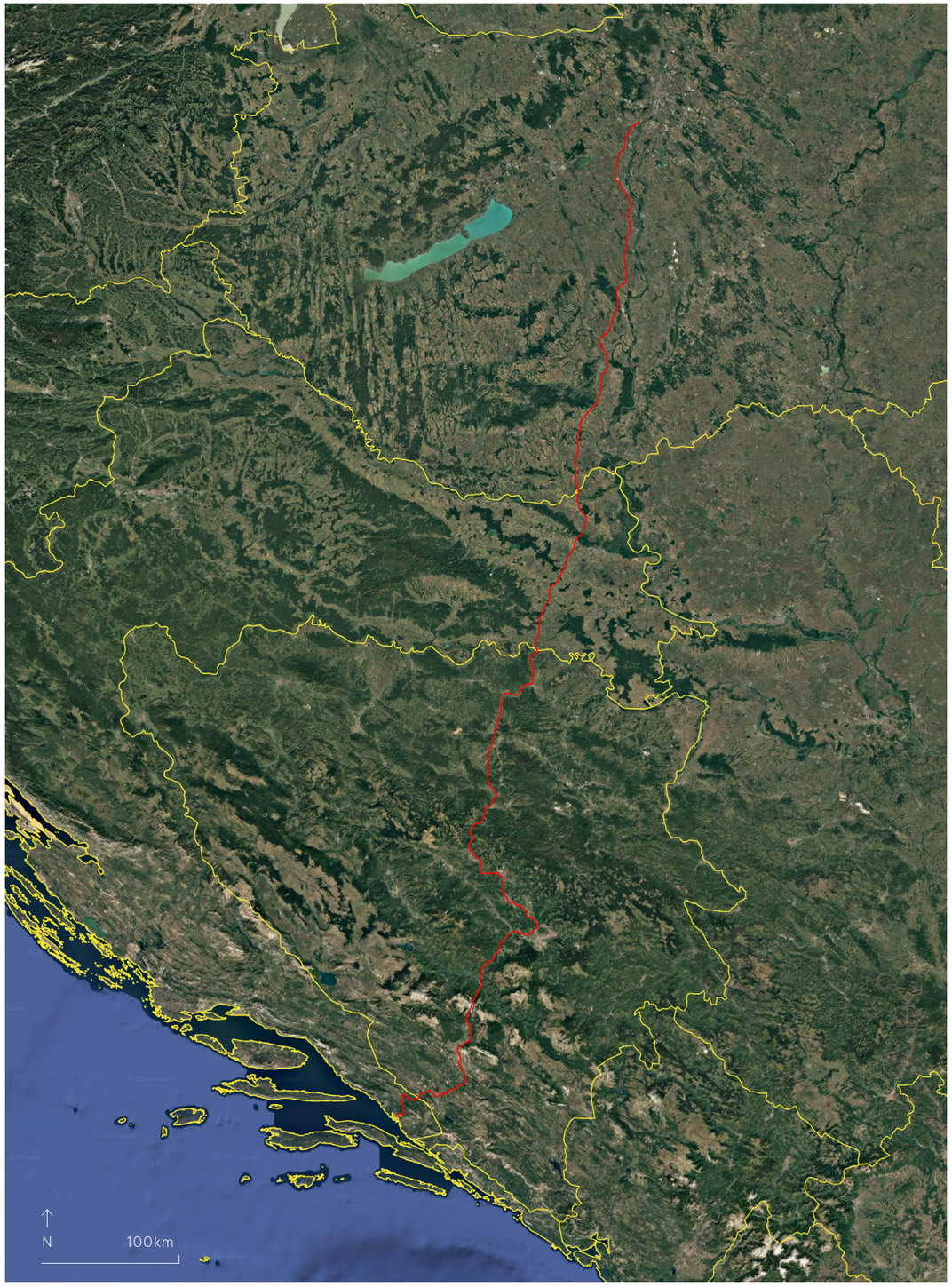
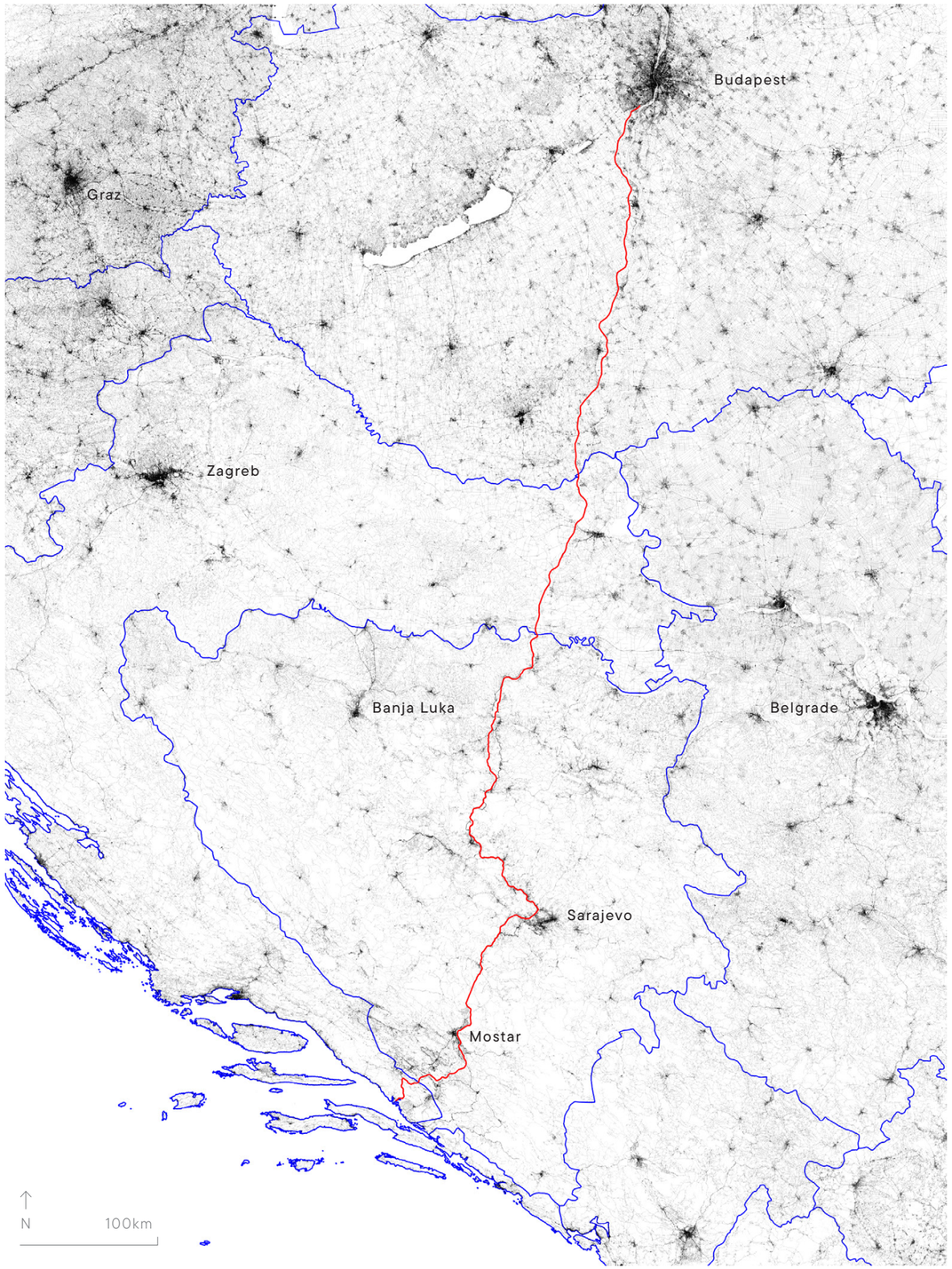


Figure 1. The Corridor Vc, depicted in red, passes through Hungary, Croatia, and Bosnia and Herzegovina. Drawing by author. 2026.

Figure 2. Roads map of Bosnia and eastern Europe. Drawing by author, 2026.



This thesis addresses the power imbalance between the political elite and upper class of Europe and the working poor and blue-collar workers in Bosnia. My scope covers the wide range of problems a construction process governed by finance capitalism creates and worsens—from revealing ethnic division to furthering ecological destruction. My central research question is what social, economic, and ecological effects is the construction of the Corridor Vc revealing or creating in Bosnia? In so doing I bring to light the ideas behind who and what is considered valuable, starting by who is "Othered" in the second section. How do real and imagined borders affect the highway's construction? How do borders in and around Bosnia reinforce and create difference? How do these borders help to extract wealth from people through the highway's construction? How do borders facilitate the extraction of surplus value from the earth for the highway's construction? The need for continuous growth for capitalist economies has affected the construction industry in both ways, and has benefited from borders.

The socio-politics of how the Corridor Vc through Bosnia is being made has been a more pressing issue in my experience than its carbon accounting. Numerous studies have proved that the concrete industry and increasing fossil-fuel traffic is harmful; what I aim to do is focus more on qualitative harms, like ethnic division, exploitation, and disproportionate extractive practices, that relate to construction ecology.

The thesis is laid out in three main sections with text elaborated by maps and photographs. The second section "Borders" contextualizes the social and political alliances, animosities and complicated structures that work for and against Bosnians. I describe how Bosnia's position to its neighbouring countries and the EU exists as an "Otherness," specifically with respect to Bosniaks as Muslims. The third section "Capital" highlights how seemingly benevolent financial loans, from the EU to Bosnia, to build a useful infrastructural project are primarily motivated by profit and the extraction of wealth from another economy. The fourth section "Materials" reveals the negative effects on Bosnia's ecology, specifically in certain industrial areas in this chapter, that the construction of the highway necessitates. While this highway effectively connects two EU destinations with a shorter route than ever before, the material realities of its building necessitate destruction and pollution. While my own bias is bound to come up in any chapter, I aimed to be truthful and tried to avoid presenting a black and white image of Bosnia and Herzegovina.

Beginning to understand how borders work and how they are reproduced throughout the political realm is key to any in-depth conversation surrounding the problems of the Corridor Vc in Bosnia. Bosnia and Herzegovina has experienced significant social, political, and economic changes in the last forty years as a result of border creation. The chapter goes through Étienne Balibar's description of a border being overdetermined, idealized, and polysemic to describe the construction of Bosnia's internal and external borders—physical and non-physical. While the national borders of Bosnia are the same as the Socialist Republic of Bosnia and Herzegovina, the Inter-Entity Boundary Line effectively created two nearly autonomous regions—Republika Srpska and the Federation of Bosnia and Herzegovina—with the signing of the Dayton Agreement.[4]

Bosnia's relationship with the European Union is one filled with longtime hope of becoming a member state, yet still not meeting the requirements. Part of this is due to the levels of division outlined in the Dayton Peace Agreement, from internal borders of the two entities to legislative representation being tied to ethnic identity. This agreement, which was signed by the Serbian, Croatian and Bosnian presidents, was led by two Americans, the chief US peace negotiator Richard Holbrooke and Secretary of State Warren Christopher. Unfortunately, the most aggressive manifestation of ethno-nationalism led to the destructive reorganization of Bosnia's social, political, and economic structures. The fragmentation of these structures along ethnic lines impacts the Corridor Vc's construction progress.

The financial politics of creating the Corridor Vc in Bosnia is a topic I come across often in conversation with other Bosniaks. I consistently hear about how politicians and Denis Lasić, the director of JP Autoceste FBiH, are "taking the money and putting it in their own pockets." The Corridor Vc is mainly funded by international loans, with the largest lenders being the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). Bosnia still owes nearly two billion euros combined to both EU institutions, with significant sections of the highway only in the tender stage. Bosnia's GDP is significantly lower than most EU countries, and the national currency is worth roughly half of the euro. Given these facts, it is relatively expensive for the country to borrow the billions of euros it has from EU institutions. Delayed construction has cost hundreds of millions of euros in the last couple of years alone. The highway will undoubtedly be beneficial for Bosnians travelling along its route, but in favour of a quicker route, it avoids certain communities in Herzegovina which benefit from tourism and offer picturesque views of the country. In order to pave the way for a quicker route, massive infrastructure like tunnels and bridges cutting through mountains and traversing rivers are being built.

The main material used to construct the Corridor Vc is unsurprisingly concrete, supporting the continuous use of its detrimental lifecycle. Every year about thirty billion tonnes of concrete is used around the world.[5] In 2021, seven percent of global greenhouse gas emissions, or 2.5 billion tonnes, were from the cement industry, a crucial material for the manufacturing of concrete.[6] In Bosnia, the construction sector is a significant employer and is seen by the government as an advantageous hub for foreign investment.[7] The main material used within architectural and infrastructural projects in Bosnia is concrete, with 1.2 million tonnes of ready-mix concrete being produced in 2015.[8]

During my visit to Kakanj in September 2025 I experienced the poor air quality that plagues parts of the country, which is where much of my writing began. There is a coal thermal power plant, coal mines, limestone quarries and a cement factory all in Kakanj. The coal plant powers Heidelberg Materials, which is a major cement supplier for the Corridor Vc. In this chapter I use concepts from Peter Sloterdijk, Jason W. Moore, and Kiel Moe to explain how interconnected human and extra-human bodies are to the extractive practices of construction. Unfortunately, Heidelberg Materials is a major polluter and the locals in Kakanj deal with the pollution from all extractive industries in their midst. I have yet to speak to somebody who is critical of the fact a highway is being built, but in keeping with the approach of construction ecology, I explain through photos and text the physical realities of cement manufacturing and the extractive network which is necessary for it.

4 *Republika Srpska* translates to Serb Republic

5 "Concrete Needs to Lose Its Colossal Carbon Footprint," *The International Journal of Science*, nature, vol. 597 (September 2021): 593.

6 *Building Materials And The Climate: Constructing A New Future* (United Nations Environment Programme, 2023), 43.

7 Federalno Ministarstvo Energije, *Rudarstva i Industrije, Strategija Razvoja Industrije Gradevinskog Materijala Federacije Bosne I Hercegovine Za Period 2016-2025* (Privredna/Gospodarska Komora Federacije BiH, 2018), 8.

8 Federalno Ministarstvo Energije, *Rudarstva i Industrije, Strategija Razvoja Industrije Gradevinskog Materijala Federacije Bosne I Hercegovine Za Period 2016-2025*, 9.

After engaging with different theories which critique capitalist systems I ultimately drew from several Marxists and Marxian theories, rather than one unified theory, to address my site. The world-systems theory initially developed by Immanuel Wallerstein, for example, has responded to issues of unequal exchange yet relies on binaries which do not describe the relationship between Bosnia and the EU appropriately. My methodology throughout has been one of grounded theory, where I collected data and analyzed it in several cycles until I was able to draw convincing connections. My qualitative research has aimed to reveal the "what," "why," "when," "where," "who," and "how" behind the construction of the Corridor Vc and its delays. Writing forced me to clarify my complicated opinions, turning them into justifiable claims. At least half of my citations come from Bosnian sources, and working in a second language can be daunting and lengthy. It was important for me to write in a way that did not over-simplify the actors within my research, especially since popular discourse on Bosnia in academia largely focuses on the Bosnian War and ethnic tensions. Furthermore, since it is technically a foreign context, not many people know about the country and its realities.

Drawing and photography have helped to capture the nuanced aspects of the socio-politics of Bosnia I write about. My intention with my drawings is to illustrate the unseen effects of the construction, and associate seemingly unrelated facts of demography to economics and environmental issues. The main drawings of the three research sections are maps, which I believe work with the writing to develop a broader understanding of my research problem. The assets on the drawing derive from the main arguments of my three sections; identity and borders, funding and completion, as well as pollution. The maps help to spatialize and visualize the range of data I use.

Jackie Mulder's multimedia collages of trails and Matthew Rangel's drawings of mountains influenced my research-stage drawings within my sketchbook. During my research phase, the multitude of connections and topics I thought of were hard to write about, so I drew instead, feeling as though my sketchbook was less of an authoritative space than a written document. The maps I include in my document are more direct, while the sketchbook drawings are sometimes more symbolic. As the maps are a culmination of my sketchbook investigations, their information and purpose may be easier to comprehend for a reader. Although my sketchbook drawings mainly show up in the appendix, I feel adding them provides insight into my writing approach. I am interested in the many connections that shape a site. The technique of layering different types of images and historical periods in one drawing corresponds with different types of data and historical context I provide in the writing.

A spatial drawing can be a sort of testimony, in the sense that it is a visual statement based on personal expertise, but also bias. My visual work largely arises from questions I ask myself. I am actively investigating claims I or others make and am trying to see if the visual material confirms or denies the claim. This was most noticeably the case with the maps included in the chapter "Borders". Many of the things I know about with respect to selective development of roads came from conversations with people. Afterwards, the map became evidence of these claims I include in the chapter.

The themes I investigated with some of my sketchbook drawings remained of interest to me throughout my thesis. Material movement, labour, and cultural identity were all topics I researched with respect to other objects of study; like the Old Bridge or the Partisan Memorial Cemetery in Mostar—two objects I feel personally connected to. The methods of investigation I use are more visually present in the sketchbook as a single drawing, whereas the same photographs and maps I use in my text are spread out as separate images most of the time. They are two ways of communicating similar ideas based on the amount of space I have. I liked to keep my sketchbook as a sort of folder for my committee meetings and have all the necessary visual material in that one place rather than making a slideshow that felt like it needed to be definitive. At some point, a drawing became a type of archive, or a place where different archives meet. It is a negotiable space that, I think, allows for more questioning of conventional opinions, deeper reflection, and the acknowledgment of entangled realities. For a while, my research alternated between drawing and writing or reading. By the end of this thesis, I learned to trust drawing and mapping more as a method because of its explanatory abilities.

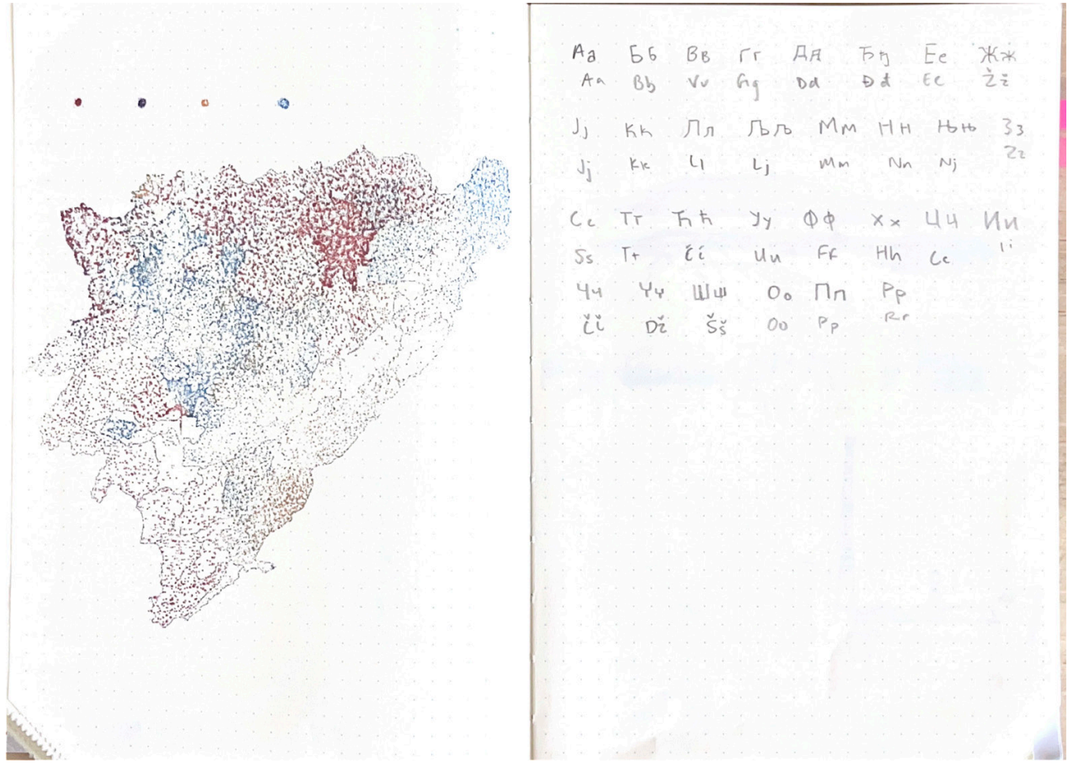


Figure 3. An ink-transfer test and cyrillic script transliterated into latin letters. Drawing by author, 2026.



Figure 4. Driving on a mountain road in Herzegovina, out of the Corridor Vc's path. Photograph by author. 2025.

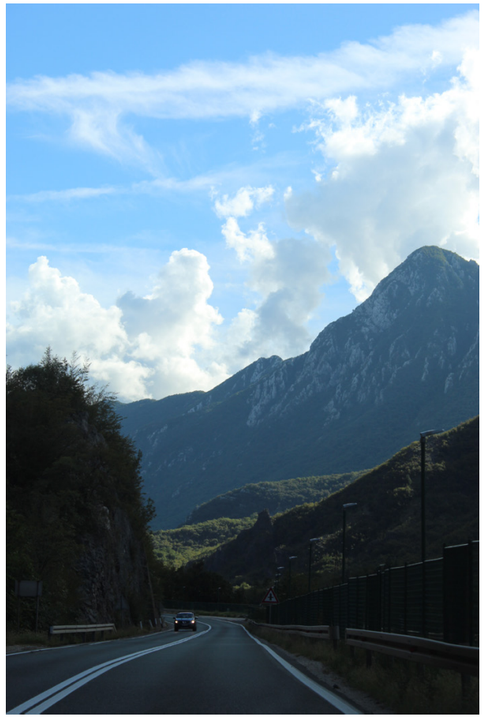


Figure 5. Driving on the E73 highway between Konjic and Jablanica. Photograph by author. 2025.

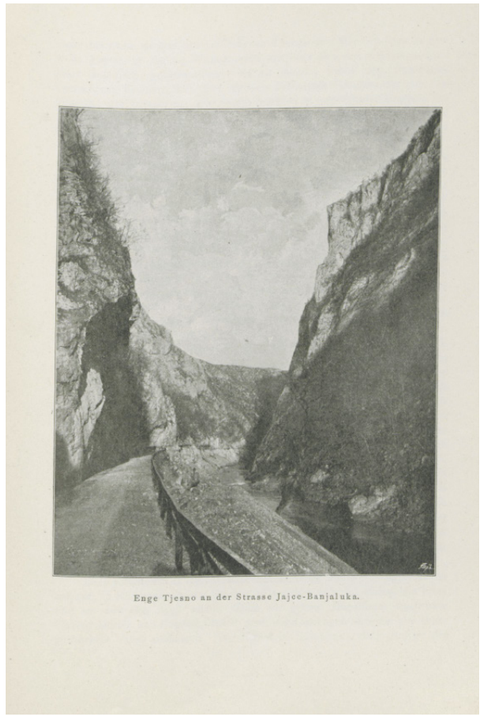


Figure 6. The Tjenso canyon from a road in northern Bosnia. Photograph by Heinrich Renner, 1897. Library Catalog of the University of Regensburg.

Photographs are taken as truthful. Although they have biases attached to their selection and composition, they are often captures of the world showcasing it for what it is. While drawings can display separate pieces of information together, a single photograph provides tidbits of information. Read in sequence, though, they can explain more and more of the material reality of their objects and subjects. In my photographs I try to frame objects to show their scale, rather than isolate them to show details. This is most prevalent with the photographs from Kakanj in the fourth chapter. At different points in this project I have laid out printed images, enabling me to draw connections between one image and another. The photos that I can relate intuitively are a result of not only the last year of research, but of my own perceptions I have gained throughout my life. Thus, making these accessible to another reader is an important task that I think requires a lot of consideration. Including numerous photos in each section helps to build a narrative that compliments my writing. With each new photograph, more information is given to the reader in a way that crafts both their understanding of my topics and their views of my claims. Working with both satellite and on-the-ground photography displays the physical geography the highway must confront, as well as the socio-political realities the highway is subject to.

This methodological approach is the result of my architectural education which often encouraged a holistic approach to a site. Although it is not uncommon or contradictory to the discipline of architecture, which has expanded greatly over the years, the document may read as having little to do with architecture. However, borders, capital, and materials are unavoidable components of architecture. The concepts I write about and my drawings are simply offering a new combination of ways to think about them to help push the discipline further in a rapidly changing world.

In November 1990, general elections were held in the Socialist Republic of Bosnia and Herzegovina that brought nationalist parties to prominence. The Party of Democratic Action (SDA), the Serbian Democratic Party (SDS), and the HDZ were all elected to federal leadership roles.[9] A couple of years later, an independence referendum was held in the republic between February 29th and March 1st, 1992, ultimately enacting Bosnia's independence from Yugoslavia in April. This was part of a string of votes that were held in Slovenia, Croatia, and Macedonia successively, beginning in 1990. There was high turnout and overwhelming support for independence in every region except for Bosnia, where only about two-thirds of the population participated. The majority of Serbs boycotted the vote, supported by the SDS. Those who did vote were in favour of independence, but for different reasons. While the Serbs mainly wanted to stay in Yugoslavia, which was centered around Belgrade, the Croats wanted to join the newly independent Croatia, and Bosniaks wanted a centralized independent Bosnia. Between April 1992 and November 1995 during the Bosnian War over 100,000 people were killed and over two million people were displaced. Based on a 2010 death record investigation, seventy percent of civilians killed were Muslim, targeted by the Army of Republika Srpska (VRS) and the HVO.[10] Genocide and sexual violence were used as tools to reorder the habitation of the country. Sentiments of hate feed the logic of national allegiance and are still visibly seen throughout Bosnia, most noticeably with Serbian and Croatian flags. The Dayton Agreement which officially ended the war created two entities in Bosnia, the Federation of Bosnia and Herzegovina, and Republika Srpska. Through nationalist parties, different interests are played out, affecting the progress of projects like the Corridor Vc.

Although any map is a simplified and abstract representation of a place, I felt the dot density map would be more truthful than a shaded map showing ethnic groups in percentages of majorities. For mine, I used 1991 census data, and then the most recent census data for each country.[11, 12] Given that the last census in Bosnia was taken in 2013, a map updated to today's figures likely looks very different—with more hollowed out pockets in certain regions and a smaller national population generally. The 2013 census was taken by surveyors who conducted in-person questionnaires. The results were published three years after the census was initially taken due to disputes over methodology. The results were highly anticipated and also highly contested, with people saying that if the ethnic make-up of the entities shifted, the legislative representation quotas had to follow suit.

The officially listed identities changed between different government censuses—the Ottoman Empire, the Austro-Hungarian Empire, the Kingdom of Yugoslavia, the Socialist Federal Republic of Yugoslavia (SFRY), and Bosnia and Herzegovina.[13] "Bosniak" was not a listed ethnic category in Croatia or Serbia until their first post-war censuses, in 2001 and 2002 respectively. During the Austro-Hungarian censuses of the region, identity categories were only based on faith. In 1948, the year of the first census of the Socialist Federal Republic of Yugoslavia, the identity categories were based on so-called nationalities with Serbs and Croats having distinction and "ethnically undeclared muslims" having their own. Both Bosniak and Muslim were finally used in the 1991 SFRY Bosnia census, the final census before Bosnia's independence. Labels legitimize and delegitimize identities and from them understandings of ownership arise. This is both produced by and results in ethnic divisions, which is something I write about in this section.

Both old census data and old digitized spatial data can be hard to find, and they need to correspond to each other's level of distinction. For the shapefiles, I used Andreas Beger's data of 1991 Bosnia municipalities from his blog, adding in the 109 municipality names myself.[14] For the Serbian and Croatian dot density map, I used municipality shapefiles from Josip Glaurdić.[15] I retrieved all census data for both maps from government reports and government websites.[16, 17, 18, 19, 20, 21]

The stark contrast between the two ethnic dot density maps itself provides useful insight into the violence of the war, which was fuelled by hateful rhetoric and continues to divide people today, from the most mundane of social interactions to the highest levels of government. Most of the popular political parties in Bosnia are ethnically divided between Bosniaks, Croats, and Serbs. The directorship of the public company which manages highways through FBiH, JP Autoceste FBiH, is closely tied to political party favouritism. The current director, Denis Lasić, has been a member of the Croatian Democratic Union of BiH (HDZ), a Croat nationalist party, since its inception in 1990 and has held several political leadership roles within the party since 2005.[22] The Federal Minister of Transport in FBiH, Andrijana Katić, is also a HDZ member. This then affects decision-making on highway projects like the Corridor Vc, like which sections are given construction priority, who the decision-makers are, and who ultimately benefits from its profits. The conflicting interests of each nationalist party has delayed the construction of the Corridor Vc. For instance, the Spatial Plan of 2008-2028 for the FBiH, which was crucial for a number of sections of the highway under construction, was only adopted in 2017 as a result of disagreements in the federal parliament.[23] This uneven development has been the reality for two decades and has exasperated Bosnians who ultimately deal with the financial penalties.

9 Within the seven-member presidium, the SDA won two of the Bosniak seats, the SDS won two of the Serb seats, the HDZ won two of the Croat seats, and another SDA member named Ejup Ganić, who ran as Yugoslav, won the "Other" seat.
10 Jan Zwierzchowski and Ewa Tabeau, "The 1992-95 War in Bosnia and Herzegovina: Census-Based Multiple System Estimation of Casualties' Undercount," paper presented at The Global Costs of Conflict, February 1, 2010, 17.
11 1991 data is from the final census of the Socialist Federal Republic of Yugoslavia.
12 The most recent census data is 2022 for Serbia, 2021 for Croatia, and 2013 for Bosnia.
13 The Kingdom of Yugoslavia was officially named the Kingdom of Serbs, Croats, and Slovenes, from 1918 to 1929, and the Kingdom of Yugoslavia from 1929 to 1941.
14 Andreas Beger, "Bosnia 1991 Municipalities," *Andreas Beger*, January 18, 2011, https://www.andybeger.com/blog/2011-01-18-bosnia-1991-municipalities/.
15 Josip Glaurdić, "Spatial Data of Municipalities in Yugoslavia and Its Successor States, 1970-2020," GESIS Leibniz Institute for the Social Sciences, 2021.
16 *Stanovništvo Prema Narodnosti Po Gradovima/Općinama*, Popis 2021., Census (Državni zavod za satistiku Republika Hrvatska, 2021), https://dzs.gov.hr/u-fokusu/popis-2021/88.
17 Dr. Hasan Zolić, ed., *Etnička Obilježja Stanovništva: Rezultati Za Republiku i Po Opštinama 1991*, Popis Stanovništa, Domaćinstava, Stanova i Poljoprivrednih Gazdinstava 1991 (Sarajevo, 1993).
18 Ivan Rusan, ed., *Stanovništvo Prema Narodnosti Po Gradovima/Općinama*, Popis 2021., Census (Državni zavod za satistiku Republike Hrvatske, 1998), https://dzs.gov.hr/u-fokusu/popis-2021/88.
19 *Stanovništvo Prema Etničkom/Nacionalnom Izjašnjavanju i Spolu* (Popis stanovništva, domaćinstva/kućanstava i stanova u BiH, 2013), https://www.popis.gov.ba/popis2013/knjige.php?id=2.
20 *Stanovništvo Prema Nacionalnoj Pripadnosti i Polu*, Po Opštinama i Gradovima, Census (Republički zavod za statistiku, n.d.), https://popis2022.stat.gov.rs/sr-Latn/popisni-podaci-eksel-tabele/.
21 *Stanovništvo Prema Nacionalnoj Pripadnosti*, Census (Republički zavod za statistiku, 1991), https://stat.gov.rs/sr-latn/oblasti/popis/prethodni-popisi/popisni-podaci-eksel-tabele/.
22 Adem Dedić, "Denis Lasić, ključni čovjek HDZ-ove decenijske cestovne hegemonije," Odgovor.ba, Sarajevo, November 28, 2025, https://odgovor.ba/article/5566.
23 Amil Dučić, "Koridor Vc Izmedu Kredita i Istraga: Zašto BiH Kasni Za Srbijom i Hrvatskom," Fokus.Ba, April 22, 2026, https://www.fokus.ba/vijesti/bih/koridor-Vc-izmedju-kredita-i-istraga-zasto-bih-kasni-za-srbijom-i-hrvatskom/3543176/.

Figure 7. Yugoslavia and post-war ethnic dot density maps. Drawings by author, 2026.

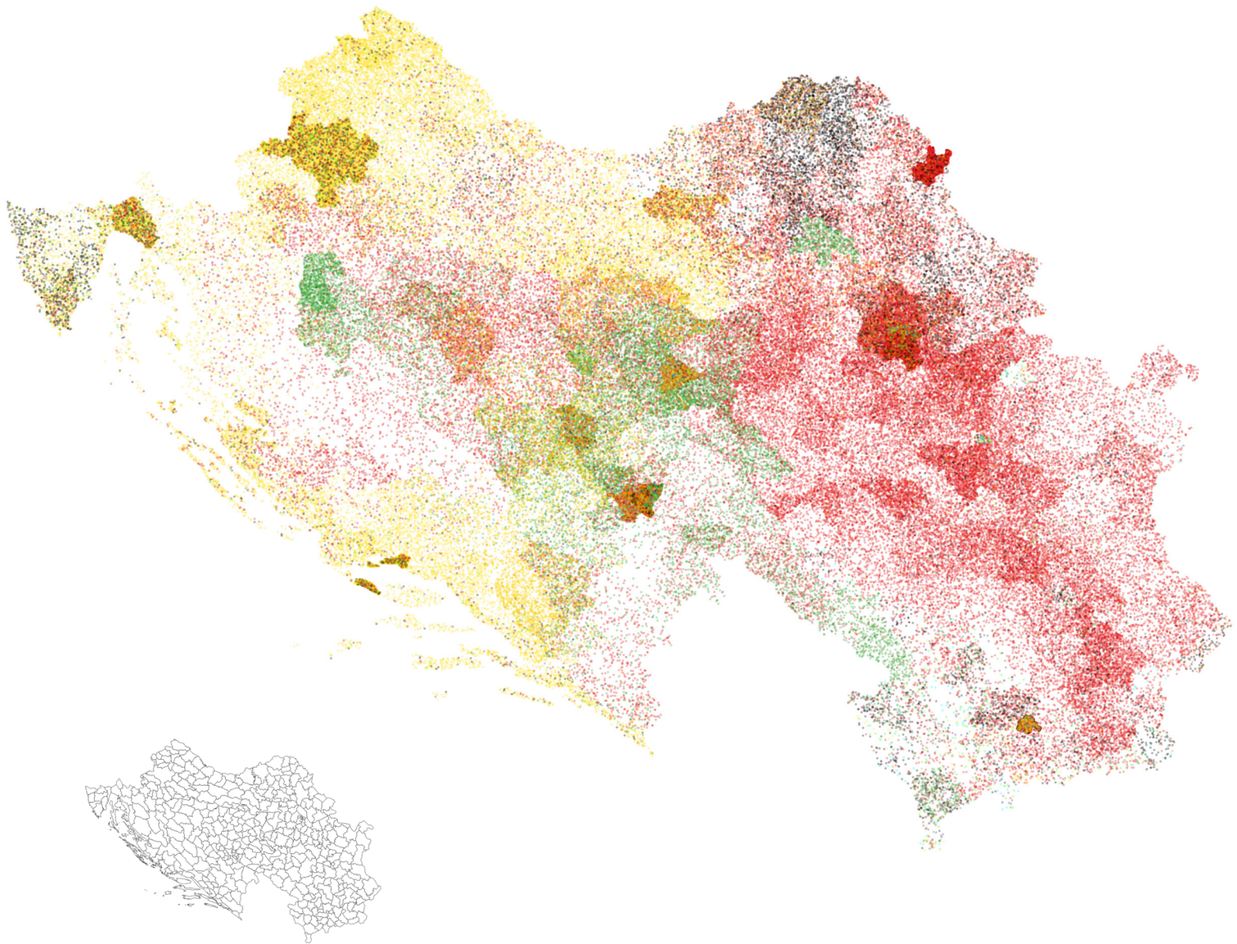


Figure 8. 1992 municipalities. Drawing by author, 2026.

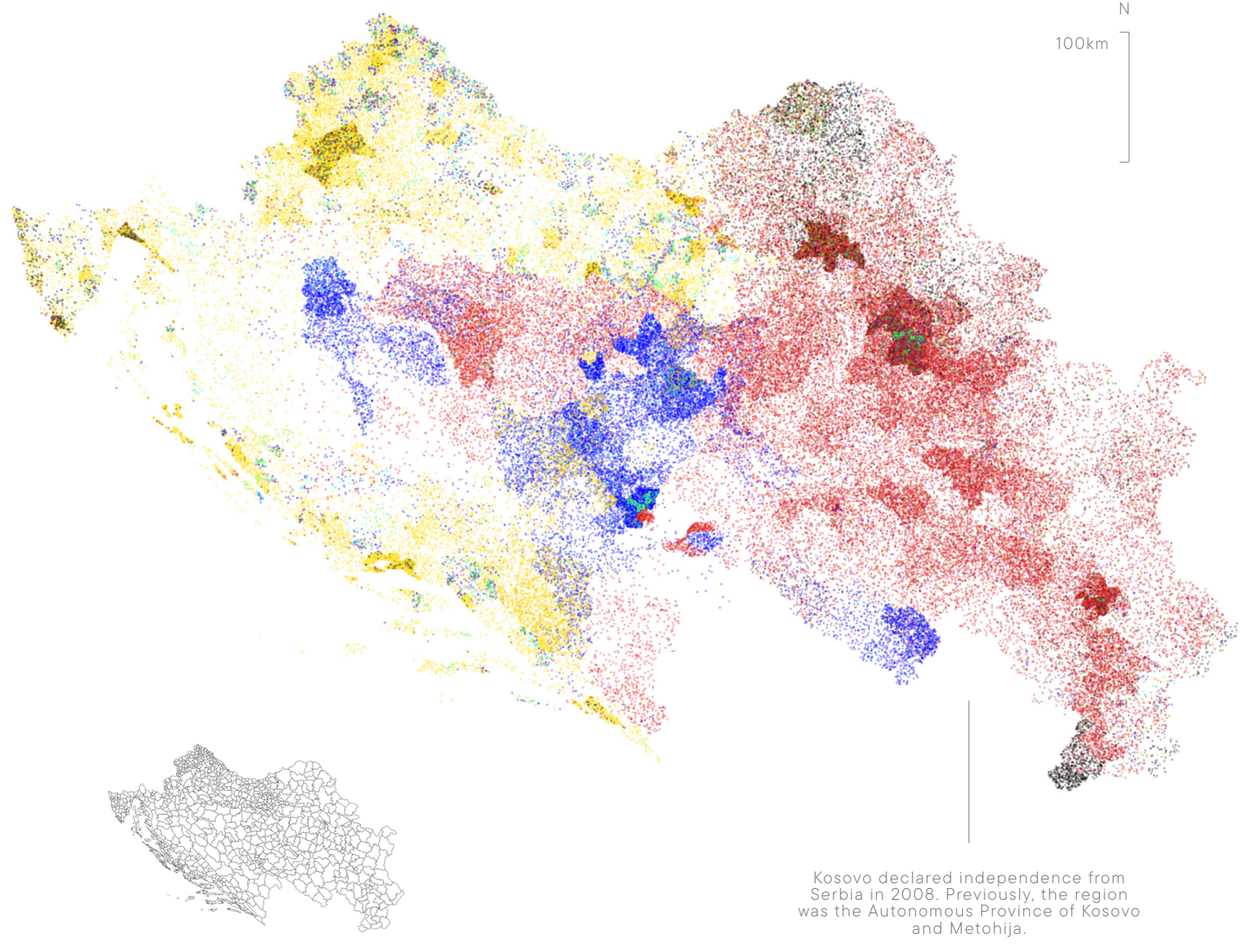


Figure 9. 2021 and 2013 (BiH) municipalities. Drawing by author, 2026.

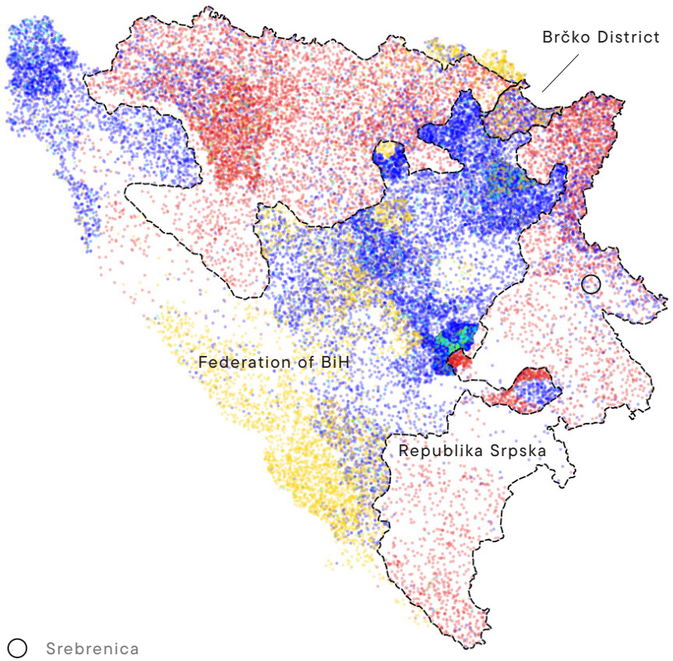


Figure 10. A 2013 ethnic dot density map of Bosnia and Herzegovina with entity lines. Drawing by author, 2026.



Figure 11. A motorist taking part in the international memorial ride which finishes in Potočari, in RS, BiH at the Srebrenica Genocide Memorial. Photograph by Midheta Hadžić, 2026.



Figure 12. A Herzeg-Bosnia flag at a Croat cemetery south of Mostar. Photograph by author, 2025.

While Bosnians have been able to return to living relatively normal lives after the Bosnian War, ethnic tensions and physical separation exist based on apprehension and feelings of difference. Although, over a million people born in Bosnia are living outside of the country due to the war and subsequent economic challenges. Countries in Europe were, and remain, popular destinations for Bosnian migrants due to their proximity, and thus ability to travel to by car. Economic migration is still on the rise. Austria hosts the fourth-highest Bosnian emigrant population, after Croatia, Serbia, and Germany, with around 120,000 people.[24] The Corridor Vc provides the quickest route to reach Austria and can accelerate the transport of people and commodities, such as labour-power across borders. Ethno-nationalists' politics of differentiation helped to establish internal borders—like that of the FBiH and RS—and national borders surrounding Bosnia which complicate movement by institutionalizing identities. Those who fall within the majority identity are normalized, and those who are part of a minority within those boundaries feel insecure, economically or socially. The creation of two entities in Bosnia and Herzegovina institutionalized the major ethnic groups which would reside in both. The FBiH would mainly be home to Bosniaks and Croats, and RS would become home to Serbs, most of which was a result of the reorganization of demographics through either forced displacement, the movement out of multi-ethnic communities, or massacre.[25] As a result of the collective memory and lived experience of violence during the war and its spatial effects, many people still have fears of travelling between the two entities, or to places with an ethnic majority other than their own.

The institutionalization of identity is further exemplified by the Dayton Agreement which stated that "[t]he Presidency of Bosnia and Herzegovina shall consist of three Members: one Bosniac [sic] and one Croat, each directly elected from the territory of the Federation, and one Serb directly elected from the territory of the Republika Srpska,".[26] The same territorial rules were established for the Parliamentary Assembly and the Central Bank.[30] This undoubtedly also aided in people's movement across borders after the war. *Are my interests going to be better addressed if I live in Republika Srpska, or the Federation?*

I consider the border as a method for differentiating the social identity of people, and take an epistemic angle as Sandro Mezzadra and Brett Neilson do.[27] I use Étienne Balibar's definitions of a border being overdetermined, idealized, and polysemic to explain the nuanced classification of Bosnians within the country and Europe at large. The borders in and around Bosnia are overdetermined in the sense that they are a result of a network of historical connections and encounters. Within the following subsections, I give examples of physical places and events in history that were used as sorts of evidence to proclaim the land as rightfully for Serbs and therefore to ultimately assign the border of RS. While overdetermination relates to the method of border-drawing, idealization refers to the attitudes that perceive a disconnect between one group of people and another—creating a rationale for both the method and result of border-drawing. Borders are idealized because they are the product of an image or a fantasy of a nation.[28] At the Dayton Peace Agreement signing, Franjo Tudman stated that Bosnia was "divided for the most part by a conflict of civilization,".[29, 30] The border was then their ultimate mechanism to separate three "civilizations," but Bosniaks, Croats, and Serbs lived intertwined lives in Yugoslavia, through work, family, and friendships.[31] So, this division is with respect to religious differences that were, in many cases, overstated, yet provide us a glimpse into the real practice of Othering by Serb and Croat ethno-nationalists that dehumanizes Bosniaks. The polysemic nature of borders in this chapter mainly addresses the national border of Bosnia and the categorization of different Bosnians, through residency statuses and religions, at its limits. Their corresponding institutions and meanings exist differently for different people.



Figure 13. A map showing controlled areas of the three armies operating within Bosnia and United Nations Protection Force bases in October 1995. Image by Wikimedia Commons user Balkans Battlegrounds.



Figure 14. A vandalized welcome sign at the border between Republika Srpska and the FBiH. Photograph by Wikimedia Commons user Buiobuione, 2018.

24 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy: Bosnia and Herzegovina Country Report* (World Bank, 2024), 17, https://doi.org/10.1596/41925.

25 Generally, Bosniaks are considered Bosnian Muslims, Croats are considered Roman Catholic, and Serbs are considered Orthodox Christian. These three make up the three major ethnic/religious/cultural groups in Bosnia and Herzegovina. It is perhaps more appropriate to say that these three identities come from families who follow traditions of these religions to varying degrees. For instance, many Bosniaks drink which is forbidden according to the Qur'an.

26 Richard Holbrooke, "The General Framework Agreement for Peace in Bosnia and Herzegovina," Dayton, Ohio, 1995, 23, https://cdn.osce.org/sites/default/files/f/documents/e/0/126173.pdf.

27 Sandro Mezzadra and Brett Neilson, *Border as Method, or, The Multiplication of Labor*, Social Text Books (Duke University Press, 2013), viii.

28 Étienne Balibar, *Politics and the Other Scene*, trans. Christine Jones et al. (Verso, 2002), 99.

29 Tudman was the president of the republic of Croatia, and independent Croatia's first president. The đ is pronounced as a j.

30 Rusmir Mahmutćehajić, *The Denial of Bosnia*, trans. Francis R. Jones (Pennsylvania University Press, 2000), 79.

31 Although, it is important to mention that there were countless instances of Bosniaks being tortured or killed by their own Croat and Serb neighbours once the Bosnian War started.

National borders are not merely boundary lines on a map, or physical limits between one state and another. They are complex social and geopolitical institutions which determine how easily people and commodities move across them. This is what theorists such as Mezzadra, Neilson and Balibar have argued in response to popular discourse arising in the 1990s, surrounding the apparent trend toward the elimination of borders as a result of increased globalization. In contrast to that, the 1990s was a period of extreme aggression in Yugoslavia—particularly in the Republic of Bosnia and Herzegovina—for the very purpose of establishing borders with the hopes of creating ethno-states from its six republics.[32, 33] The borders surrounding Bosnia are the outcome of malicious efforts to separate those who are Christian and Muslim, or those who fit within Europe and those who do not. Franjo Tuđman privately met with Slobodan Milošević in 1991 to agree on the annexation of Bosnia and Herzegovina to Croatia and Serbia.[34, 35] A similar meeting was held between the SDS Bosnain-Serb president Radovan Karadžić and Bosnian-Croat HDZ vice-president Mate Boban in May 1992.[36] The campaigns of ethnic cleansing carried out by both Bosnian-Serb and Bosnian-Croat forces in Bosnia were planned by the Serbian and Croatian governments, who were directly involved in providing military power to support the VRS and HVO.[37]

Étienne Balibar describes national borders as overdetermined, meaning they are "sanctioned, reduplicated and relativized by other geopolitical divisions,". They are the result of a complex web of historical encounters which engender a perception of incongruous social, religious, and cultural existences requiring separation. This is especially important to consider with respect to Bosnia and its surrounding countries. During the era of the Ottoman Empire's widest territorial control, the area of Bosnia saw the most people out of what became ex-Yugoslavia convert to Islam. To many, this period was seen as an occupation, and especially to Serb ethno-nationalists, this occupation still continues today with the existence of Bosnian Muslims. During the war, there were concerted efforts to create a border which bounded and constricted the physical limits of that history.

In the 1990s, ethno-nationalist Croat and Serb politicians stated openly that one group could not live with the other, nor live with Muslims despite the fact the opposite had been true for centuries. Within the context of Bosnia, the following examples of rhetoric used by politicians leading up to the Bosnian War and during it can illustrate how borders are overdetermined. Television broadcasts had great influence in creating a stage for politicians' propaganda. Due to changes in the constitution from 1974, the media in Yugoslavia was becoming increasingly decentralized and increasingly secluded in the republics.[38] At the outset of the war, Sarajevo was considered the last capital of the republics where multi-ethnic groups worked together on stories from across

32 The Republic of Bosnia and Herzegovina was the official name of the country from 1992 to 1995 after declaring independence.

33 The six Socialist Republics of Yugoslavia were Bosnia and Herzegovina, Slovenia, Croatia, Macedonia, Montenegro, and Serbia which included the autonomous provinces of Vojvodina, and Kosovo which has since declared independence.

34 Milošević was the president of the Socialist Republic of Serbia, and the Federal Republic of Yugoslavia (now Serbia and Montenegro) from 1989 to 2000. The š is pronounced like a sh and the ć is pronounced like a ch.

35 Rusmir Mahmutćehajić, *The Denial of Bosnia*, 46.

36 Karadžić was a founding member of the SDS on 12 July 1990, and until his resignation on 19 July 1996 he was president of the party. The letters dž are pronounced like a j.

37 Kate Ferguson, *Architectures of Violence: The Command Structures of Modern Mass Atrocities, from Yugoslavia to Syria* (Hurst & Company, 2020).

38 Milan Milošević, "The Media Wars: 1987-1997," in *Burn This House: The Making and Unmaking of Yugoslavia* (Duke University Press, 2000), 110, https://doi-org.proxy.lib.uwaterloo.ca/10.2307/j.ctv1220j0w.

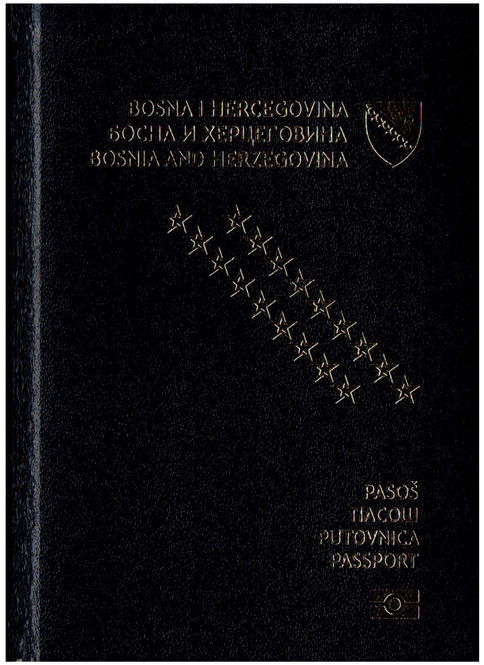


Figure 15. A valid Bosnian passport. Photograph by author, 2026.

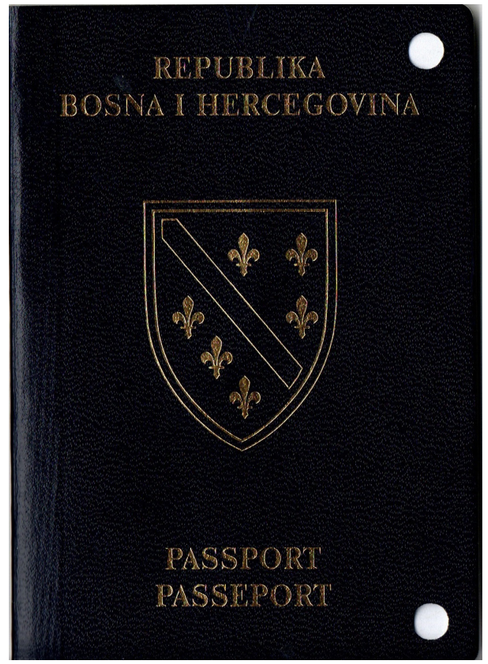


Figure 16. An invalid Republic of Bosnia and Herzegovina passport. Photograph by author, 2026.

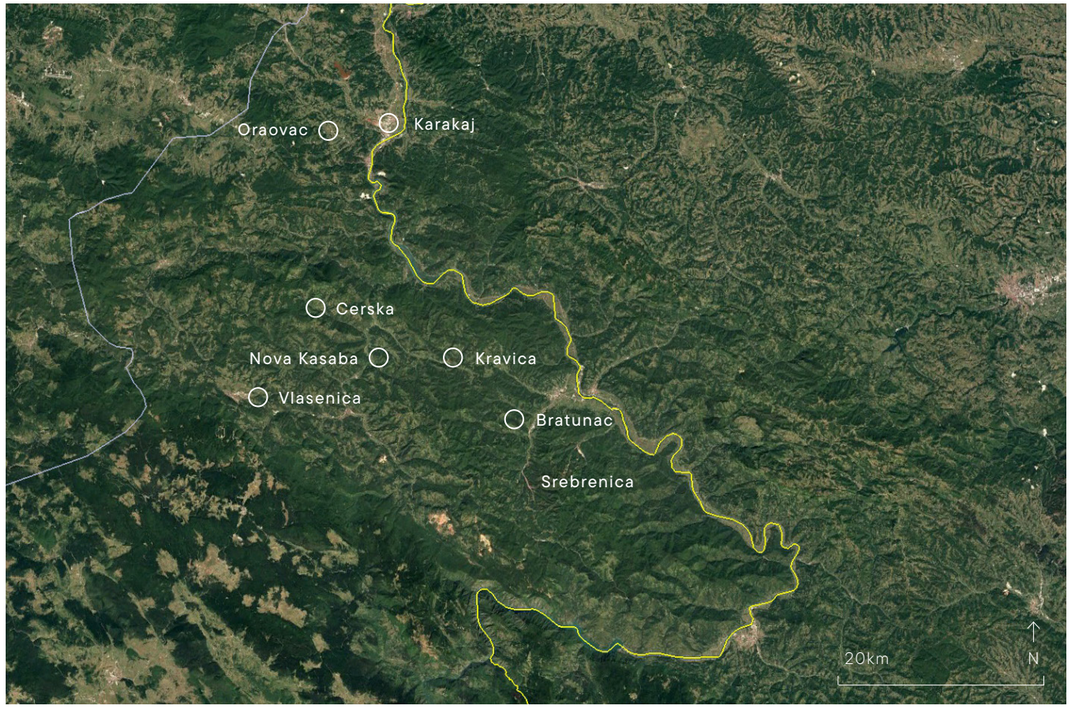


Figure 17. Identified mass grave sites from the Srebrenica massacre during July 1995. Drawing by author, 2025.

the country, while Serbia and Croatia aired news from within their borders alone.[39] In 1989, Slobodan Milošević engaged in nationalist storytelling when he was filmed on the 600th anniversary of the Battle of Kosovo of 1389, where the Ottoman army defeated the Serbian prince's forces, turning the Serbs into Ottoman vassals.[40] This broadcast took place on the historic site of the battle, and was part of a series of media spectacles in which he participated. The purpose of these spectacles was to rouse feelings of victimization and propagandize the idea of returning the land back to its rightful owners, those who had stayed true to Christian Orthodoxy. Ratko Mladić, while standing in a deserted Srebrenica after his forces expelled Bosniaks and burned their homes, stated that "the time has come to take revenge on the Turks in this region,".[41, 4243] He declared the town a "gift to the Serb people" and ordered his forces to take down signage indicating Bosniak presence.[44] The subsequent systematic killing of over 8,700 Bosniak men and boys took place starting on July twelfth for at least four days when they were taken from Srebrenica to a range of nearby places and executed. This and other instances of violence artificially remade demographics in the area now within Republika Srpska, providing a basis for its creation as a Serb republic.

39 Milan Milošević, "The Media Wars: 1987-1997," 115.
40 Anja Zalta, "Expulsion of the 'Turk' - Contextualising Islamophobia in the Balkans: The Case of Bosnia and Herzegovina," *Intellectual Discourse* 33, no. 1 (2025): 125, https://doi.org/10.31436/id.v33i1.2298.
41 Regardless of the fact Bosniaks are not ethnically Turks, the statement is unacceptable and skewed. I include it to provide insight.
42 Mladić was a Bosnian-Serb General who led the Army of Republika Srpska during the Bosnian War.
43 ushmmfellows, *The Mladic Files: Mladic Entering Srebrenica - July 11, 1995*, 2011, at 2:04, YouTube video, https://www.youtube.com/watch?v=QfInjlNoT4Q.
44 ushmmfellows, *The Mladic Files: Mladic Entering Srebrenica - July 11, 1995*, at 1:21-1:57.



Figure 18. A woman stands by the grave of a person whose remains were finally buried at the Srebrenica-Potočari Memorial Center & Cemetery. Photograph by Bieke Depoorter, August 2017. Magnum Photos collection, JSTOR.



Figure 19. A woman prays at a grave at the Srebrenica-Potočari Memorial Center & Cemetery. She lost her husband and all four of her sons. Photograph by Paul Lowe, 2005. Panos Pictures collection, JSTOR.

Wartime ethno-state plans were an effort to continue two unbroken Christian traditions, while denying the right of Bosnia to continue existing as a multi-ethnic region. This sentiment echoes grander narratives around Europeanness. Sociologist Tomaž Mastnak argues that western Latin Christians' hostility towards Muslims was key in the formation of Europe as a political community.[45] As the Ottoman Empire began conquesting lands in geographical Europe, Latin Christians became a community "fighting to cleanse its territory of the Turks,".[46] Recall that similar rhetoric was used by Milošević and Mladić, indicating that Bosniaks are Othered as having somehow stolen land on which their ancestors lived. Balibar suggests that national borders are idealized because they are imagined.[47] As a result, they are conceived as thresholds where different "world-views" and identities are at stake—marking a boundary at which people are willing to kill or be killed.[48] Tuđman expressed his concerns of Croats falling into the hands of a Muslim state to Warren Zimmerman, the last US ambassador to Yugoslavia:

> The Muslims want to establish an Islamic fundamentalist state. They plan to do this by flooding Bosnia with 500,000 Turks. Izetbegović has also launched a demographic threat. He has a secret policy to reward large families so that in a few years the Muslims will be a majority in Bosnia...The influence of an Islamic Bosnia will then spread through the Sandžak and Kosovo [Muslim areas of Serbia] to Turkey and to Libya...if we abandon the Croats in Bosnia to such a fate, they will turn on us. Some will become terrorists, and they won't spare Zagreb in their acts of revenge.[49]

What the social reality of a so-called Islamic fundamentalist state would become worried Tuđman. Nothing near this extent was the case in Yugoslavia, and the actual number of people who agreed with formally establishing a state governed by religion were few. These types of statements were doctored threats used to warn Croats and Serbs that their everyday life would drastically change for the worse if they did not take action to partition the country.

The ethnic make-up of Bosnia's population has not changed drastically between the 1991 and 2013 censuses, however an internal reorganization of habitation has. Areas in the east where Bosniaks were once significantly present in what became Republika Srpska have since become Serb-majority places. Prior to the war, only thirty percent of municipalities in Bosnia were ethnically homogenous.[50] The creation of a border, separating land between the FBiH and RS, changed this. Based on the 2013 census, now two-thirds of municipalities are considered seventy to ninety-nine percent ethnically homogenous.[51] Largely through the manipulation of media, the construction of the Other on religious and ethnic grounds occurred in Yugoslavia. Borders are produced by both opposing and overlapping histories which are most often felt through collective memory and ideas of an imagined community. These can be used to construct the Other. This practice leads to spatialized Othering, where "they" belong "there" and "we" belong "here."[52]

45 Tomaž Mastnak, "Europe and the Muslims: The Permanent Crusade?," in *The New Crusades: Constructing the Muslim Enemy* (Columbia University Press, 2003), 205.
46 Tomaž Mastnak, "Europe and the Muslims: The Permanent Crusade?," 208.
47 Étienne Balibar, *Politics and the Other Scene*, 94.
48 Étienne Balibar, *Politics and the Other Scene*, 94.
49 Warren Zimmerman, *Origins of a Catastrophe: Yugoslavia and Its Destroyers - America's Last Ambassador Tells What Happened and Why* (Random House, 1996), 181–82, https://archive.org/details/originsofcatastr00zimm/page/n7/mode/2up.
50 Jasminka Udovički and Ejub Štitkovac, "Bosnia and Hercegovina: The Second War," in *Burn This House: The Making and Unmaking of Yugoslavia* (Duke University Press, 2000), 177, https://doi-org.proxy.lib.uwaterloo.ca/10.1215/9780822380917-009.
51 Mirko Pejanović, *Ethnic Structure Changes in B-H Municipalities According to the Census of 2013*, no. 1 (2017): 2.
52 Reza Shaker et al., ""Just as Much as There Is Islamophobia, There Is Racism:' Corporeal Encounters with the Muslim Other in Amsterdam," *Urban Geography* 44, no. 4 (2023): 573, https://doi.org/10.1080/02723638.2021.2007663.
53 Massimo Moratti, "30 Years after: Serbia in Denial about Genocide," JusticeInfo.Net, July 10, 2025, https://www.justiceinfo.net/en/147684-30-years-after-serbia-denial-genocide.html.
54 *Stanovništvo Prema Etničkom/Nacionalnom Izjašnjavanju i Spolu.*
55 *Stanovništvo Prema Etničkom/Nacionalnom Izjašnjavanju i Spolu.*
56 *Theirs* in this context is in reference to the term "ours" or *naši* in Bosnian. This is a common word that is used when talking about a person or group of people that share your identity.

This notion justified forced displacement, concentration camps, murder, and rape carried out by the HVO and the VRS and still prompts people to celebrate convicted war criminals.[53]

The areas of completion along the highway can hint at ethnic divisions and ideas of belonging within Bosnia. Unsurprisingly, the majority of the three largest ethnic groups in Bosnia feel differently about the country and its borders. The majority of Serbs live in Republika Srpska, or have the choice to live there, which can act as its own state in many ways, and does. The majority of Croats in Bosnia have been identifying with the illegitimate geo-political entity Herzeg-Bosnia officially since its establishment in 1991. Yet, the entity was never recognized, leaving Croatia as the only legitimate ethno-state with which to have ties. Since the Corridor Vc runs north-south and ends at the port town Ploče, it runs through Croatia on either side of Bosnia's border. At each end of the highway through Bosnia exists Croat-majority towns, through which the highway has been completed. The highway through Republika Srpska has not been able to complete its forty-five kilometre section in two decades, yet completed a seventy-two kilometre-long highway within RS from Doboj to Banja Luka in eight. This highway was completed in 2022 and grants insight into what routes are seen as priorities, exactly because of what they connect. Since the Corridor Vc through RS connects the FBiH on one end to the FBiH on the other end, it is not travelling to a crucial destination in the RS National Assembly's eyes, and perhaps to most Serbs living in RS. On the other hand, the Croats need the Corridor Vc and prioritized its construction through HDZ members involved with transportation decision-making.

The border is reduplicated with the decisions around the highway's construction. Where the highway is complete, and where it has not begun are all a sort of stage displaying who is valued most. The Bosniak-majority municipalities of Konjic, and Jablanica, and the mixed municipality of Mostar have a total of 154,000 residents, yet no section of the highway has finished construction, and one kilometre has only begun.[54] On the other hand, the Croat-majority municipalities of Odžak, Ljubuški, Čitluk, and Stolac with a total of 78,800 residents have completed and connected highway sections.[55] The ethnic make-up of the municipalities cannot simply be blamed, yet it is tied to the inaction of JP Autoceste FBiH. All four of the municipalities are on the Corridor Vc route located near the two border crossings between Bosnia and Croatia. The highway is important in that it provides another path for Bosnian-Croats to enter Croatia, a country they see as truly *theirs*.[56]

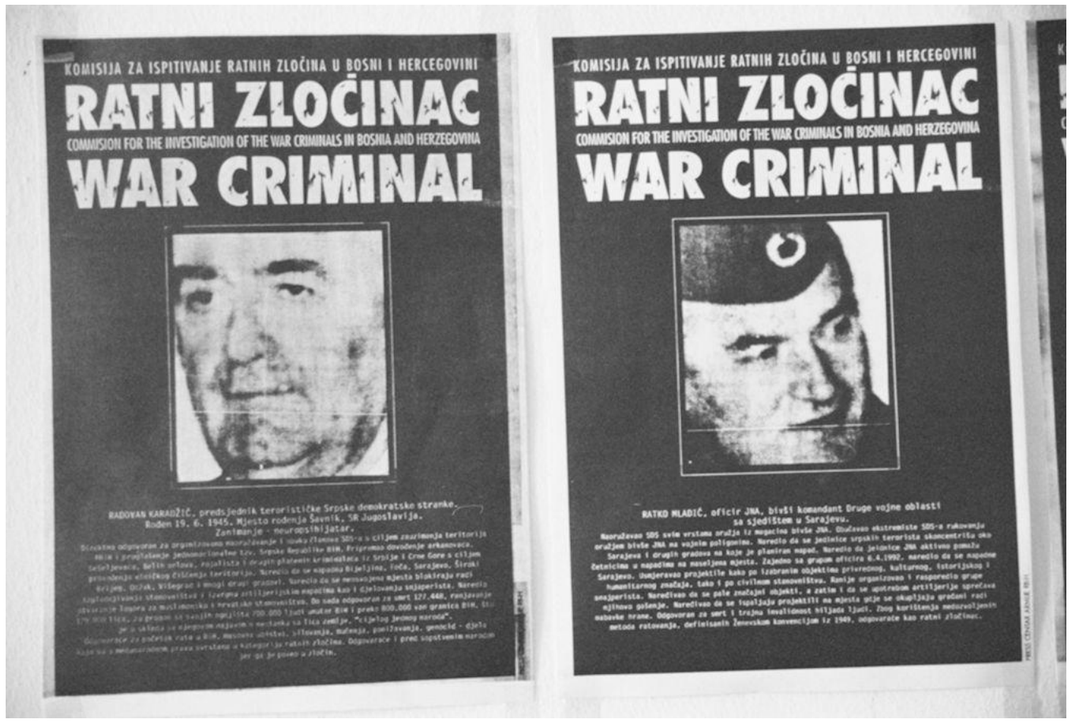


Figure 20. Posters of Radovan Karadžić and Ratko Mladić found in Sarajevo during the 1,425-day-long siege by VRS. Photograph by A. Abbas, 1993. Magnum Photos collection, JSTOR.



Figure 21. Supporters of Ratko Mladić gather in Belgrade to protest his arrest. A poster with Karadžić is also present in the foreground. Photograph by Andrew Testa, May 29, 2011. Panos Pictures collection, JSTOR.

Mladić faced 11 charges at the Yugoslav war crimes tribunal in The Hague. He was convicted in 2017 on 10 charges on counts of genocide, crimes against humanity, and war crimes. Mladić was sentenced to life in prison and died there in 2026.

National borders are polysemic, existing differently for different people.[57] This includes classifications that differentiate *migrant workers* from *working professionals*, *threatening* or *easily integrated*, *educated* or *uneducated*, *able* or *unable* and much more. People and things are organized into a hierarchy, corresponding to the border's shifting permeability. They create different economic, social, and political realities for each nation and reinforce social classifications on a global scale. Boundaries within a country are also polysemic. The border between FBiH and RS means different things to different people. While ethno-nationalist Serbs may see the separation of RS as triumphant, others see it as a type of theft, won through violent campaigns that either forcefully displaced or killed the majority of other identities during the Bosnian War. On the west side of the country, the border between Croatia and Bosnia has its own polysemy. While some may be happy that Bosnia and Herzegovina kept its former republic's land area, ethno-nationalist Bosnian-Croats feel as though they should be within Croatia's boundaries. However, the ability of Bosnian-Croats to hold Croatian passports eliminates some of the time-consuming bureaucratic processes when at the physical border crossing, which I will briefly cover in the following paragraph.

As a result of the polysemic nature of borders, they have different temporal realities. Although the highway provides a quicker route from cities within its vicinity to the Adriatic sea, the border remains an obstacle before reaching it. Many Bosnians are not just travelling to Neum, a beach town in Bosnia which exists on its twenty-kilometre-long coastline, but, rather are crossing the border into Croatia to reach the coast.[58] The Corridor Vc avoids Neum, and its border crossing in Bijača is larger than others in the area, providing a useful infrastructural addition. Although the highway is used by vehicles which together allow for time-space compression, the border has its own way of operating within its own timeframe. People are in negotiation with the border control officer who effectively decides how long their journey takes. I have been at the border in Bosnia crossing into southwest Croatia during the summer, the busiest time of the year. In 2023, I remember passing through Metković, a border town, and it took us a couple of hours from the moment our car stopped in traffic to the moment we passed the first border. The Bosnian-mandated border has one till. The Croatian-mandated border crossing has two tills. Part of the wait was due to the lack of infrastructure, and part was due to increased questioning for people with Bosnian passports, I imagine, as we got through very quickly with our Canadian passports. The new Croatian border crossing through Bijača, near the end of the Corridor Vc has eleven tills at full capacity, however, most are never in use and certain lanes are reserved for EU passport holders only, excluding most Bosnians.[59] The need to wait in a queue to pass a border crossing presents itself as an absurdity in the context of Yugoslavia, as people were once able to travel to the sea without being stopped for hours.

The Corridor Vc effectively completes a ring road from eastern Croatia to Zagreb, and south to Ploče before travelling through Croat-majority towns in Bosnia. The highway sections running through these towns have been completed, meaning the journey allowing Bosnian-Croats to enter Croatia, and the EU, has become easier. It is estimated that 1.1 million Bosnians hold Croatian passports.[60] This is double the amount of Croats who reside in Bosnia based on the 2013 census, indicating that some of this number includes Bosniaks and Serbs who received passports as refugees or post-war, or diasporic people who have dual citizenship. Owning a Croatian passport is more convenient because it grants more freedom of movement for its traveller. Croatian passport holders can travel to 118 countries visa-free, while Bosnian passport holders can only travel to seventy-six. If travelling to Canada or the US, a Croatian passport holder must obtain an Electronic Travel Authorization if planning to stay for longer than six or three months, while Bosnians must obtain visas. Furthermore, recent Entry/Exit System biometric protocols in the EU have been reported to delay travel times for those not carrying EU passports. The increasing surveillance of people crossing Europe's borders reduces to *who can we trust to behave like us?*

57 Étienne Balibar, *Politics and the Other Scene*, 79.

58 Neum regularly gets crowded as it is a popular destination for people without valid passports, or those who do not want to cross the border.

59 Croats born and living in Bosnia can apply for Croatian passports.

60 "Zovko Claims That 1.1 Million BiH Citizens Have Croatian Passports, Including the Izetbegovic Family," Sarajevo Times, December 15, 2024, https://sarajevotimes.com/zovko-claims-that-1-1-million-bih-citizens-have-croatian-passports-including-the-izetbegovic-family/.

Figure 22. Satellite image depicting my experience of a long wait time at the Metković border crossing. Drawing by author, 2025.

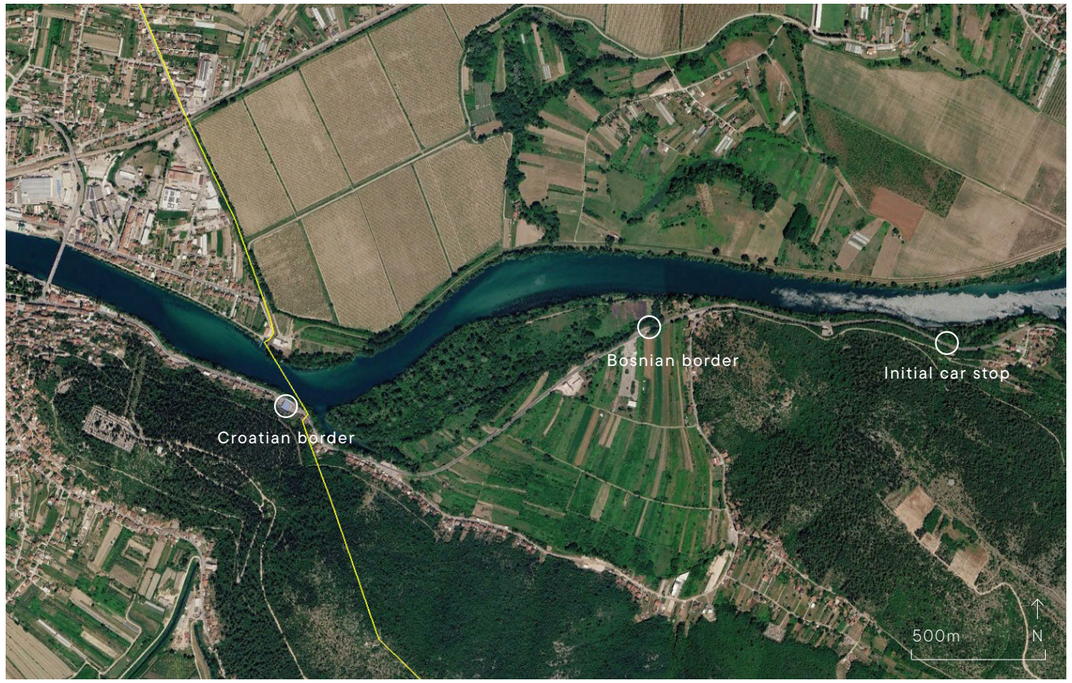




Figure 23. The EU passport holders line at the Bijača Croatian border crossing on the Corridor Vc at 7:00pm. Photograph by author, August 2026.

In the last three decades, the Bosnian War and the subsequent economic challenges led to a major wave of Bosnians emigrating to other countries.[61] The World Bank reported in 2019 that 1.7 million people born in Bosnia were living abroad.[62] This wave has not come to a close, with the population still declining based on 2013 statistics. Since 2001, net migration outflows from Bosnia have reduced the country's population by twenty-one percent.[63] In 1992, the year the Bosnian War broke out, the population was about 4.2 million people. By 2013, the year of the last official census, the population was just over 3.5 million people. The war reorganized demographics based on ethnic lines and the subsequent need for a sense of security. Permeability into the European Union—through employment opportunities—has been transforming it in other ways. While many Bosniaks do not avidly follow religious regulations, their Othering still differentiates them from most Europeans. However, their whiteness and relative proximity—both geographic and social by way of the Austro-Hungarian Empire—makes them socially malleable to EU host countries.

The instability which followed the break-up of Yugoslavia, owing to ethno-nationalistic rhetoric and the transition to a market economy, had people hoping that life elsewhere would provide better conditions. This sentiment is still held amongst Bosnians of working age; ethnic divisions exist and people feel the effects of favouritism and nepotism in the workforce. Employed workers in Bosnia receive significant lower salaries than workers in European Union destination countries.[64] Bosnian-born migrants are largely concentrated in a handful of other EU countries where wages are generally significantly higher. Yet, forty-four percent of men and thirty-six percent of women who emigrate from Bosnia are over-qualified for their jobs, predominantly employed in heavy manual labour and carework respectively.[65] Borders formalize criteria—like those who are racialized and those who come from heavily exploited spaces—from which cheap labour comes. Foreign educational qualifications often have less validity in the migrant's destination country's workforce. Those who engage in the same work in different states receive different wages, but also different residency statuses reinforce this practice within the same state. Capitalism needs this differentiation that the border facilitates in order to continuously exploit workers for the benefit of those existing on the more secure, wealthier levels of class.

Austria hosts the fourth-highest Bosnian emigrant population, after Croatia, Serbia, and Germany, with around 120,000 people.[66, 67] The employment rate of Bosnian migrants is higher than Austrian-born citizens, and holds the highest average between men and women in all national groups.[68] These emigrants are possibly receiving higher salaries than their counterparts in Bosnia, where average wages are less than one-third of those given in Austria.[69] However, considering the border gives rise to the ability to purchase labour-power at a different value, Bosnian migrants are most likely not receiving as high of a salary as their Austrian national counterparts. I was unable to find statistics on salaries for ethnic or national groups in the Austrian census, but figures on housing are provided and may be indicative of wealth. Migrants from ex-Yugoslavia, not including Croatia, were living in homes that were on average twenty-nine square metres, or about sixty percent of the average living space per capita in Austria. While factors such as household size and location help reveal true disparities, the Austrian census states that "[t]he housing situation improved the longer [the migrants] resided in the country,".[70] The more integrated in Austrian society they were, the migrant gained proximity from the border and its mechanisms of value categorization. Similarly, we can begin to presume how migrants in Europe at large become more valuable when they steadily perform the respected duties of maintaining employment and, if applicable, learning a new language.

61 Much of the migration consisted of Bosnians moving to neighbouring Croatia and Serbia. There were 810,000 Bosnian-born migrants in Croatia and Serbia at the end of the 1990s, which decreased to 720,000 in 2020.

62 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 54.

63 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 8.

64 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 23.

65 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 25.

66 Austria was chosen as a case study because it exists outside of conversations of direct ethnic migration to an ethno-state and it has more detailed census data than Germany does.

67 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 17.

68 Statistics Austria, *Census Austria* (Statistics Austria, 2021), 38, https://www.statistik.at/fileadmin/user_upload/CensusAustria2021.pdf.

69 Ioanna Pantelaiou et al., *International Mobility as a Development Strategy*, 23.

70 Statistics Austria, *Migration & Integration*, 10.

The movement of people and commodities are both key in the Corridor Vc's position. The highway aids in journeys of economic migration, and smoothens the space that separates families because of it. As it passes through the country's ethnic majority stronghold regions, discussion about the Corridor Vc can reveal the important link of this highway to the border. The borders in and around Bosnia are overdetermined; relying on more distinctions than necessary. This creates the basis of an ethno-nationalist mindset which is rooted in believing misrepresented differences and pursuing exclusive achievements. Bosnian-Serbs and Bosnian-Croats have differing agendas with respect to road infrastructure, evidenced by the levels of completion in each ethnic group's stronghold regions. Serbs are more concerned with connecting regions of RS, while Croats are focused on connecting a road network to Croatia which involves the Corridor Vc. Croat-majority municipalities in Bosnia are mainly situated in the southwest and most Croats live within the highway's thirty-kilometer buffer zone, infusing the highway with geopolitical importance for Croatia.[71] The Corridor Vc connects the most distant locations of Croatia, the northeast to the southwest, and thus widens potential for its economic growth and social connectivity. In doing this, the highway creates a ring road connecting the two areas, practically transforming the boundaries of Croatia into a loop. The highway provides Bosnian-Croats with a path for "returning" to a perceived homeland in Croatia, where they can cross the border with their EU passport.

By categorizing Bosnians of different faiths into three different civilizations, ethno-nationalists immediately create a basis of the idealized border that cannot be mended. This plays out in many ways, including the development of infrastructure such as roads. Which routes are chosen, and which sections are prioritized all demonstrate the importance of each "civilization" to the decision-maker's community. The accessibility of the Corridor Vc is rooted in socio-political divisions and allegiances which trickle down from politicians at the entity level to citizens in small towns. Whether through a violent conclusion of ethnic cleansing or a seemingly benign bureaucratic processes that greet travellers, borders make both history and the conditions of everyday life in Bosnia today.

71 Petar Kurečić, "Geopolitics and the Development of Transport Corridors: A Comparative Analysis of the Western Balkans and Croatia," *Hrvatski Geografski Glasnik/Croatian Geographical Bulletin* 87 (July 2025): 64, https://doi.org/10.21861/HGG.2024.87.01.03.

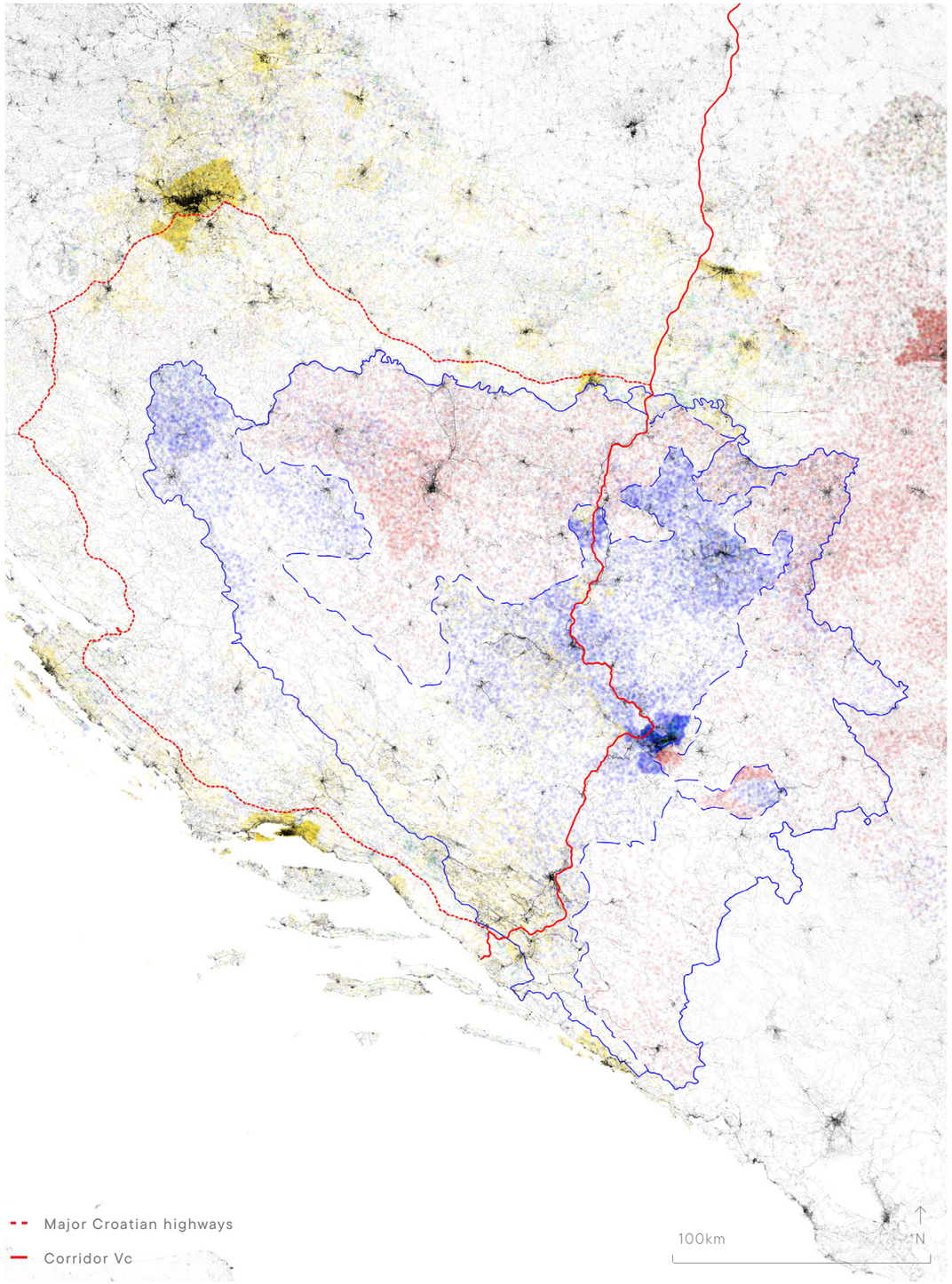


Figure 24. Map depicting the Corridor Vc's connection to Croatian highways, with an ethnic dot density map overlay. Drawing by author, 2026.

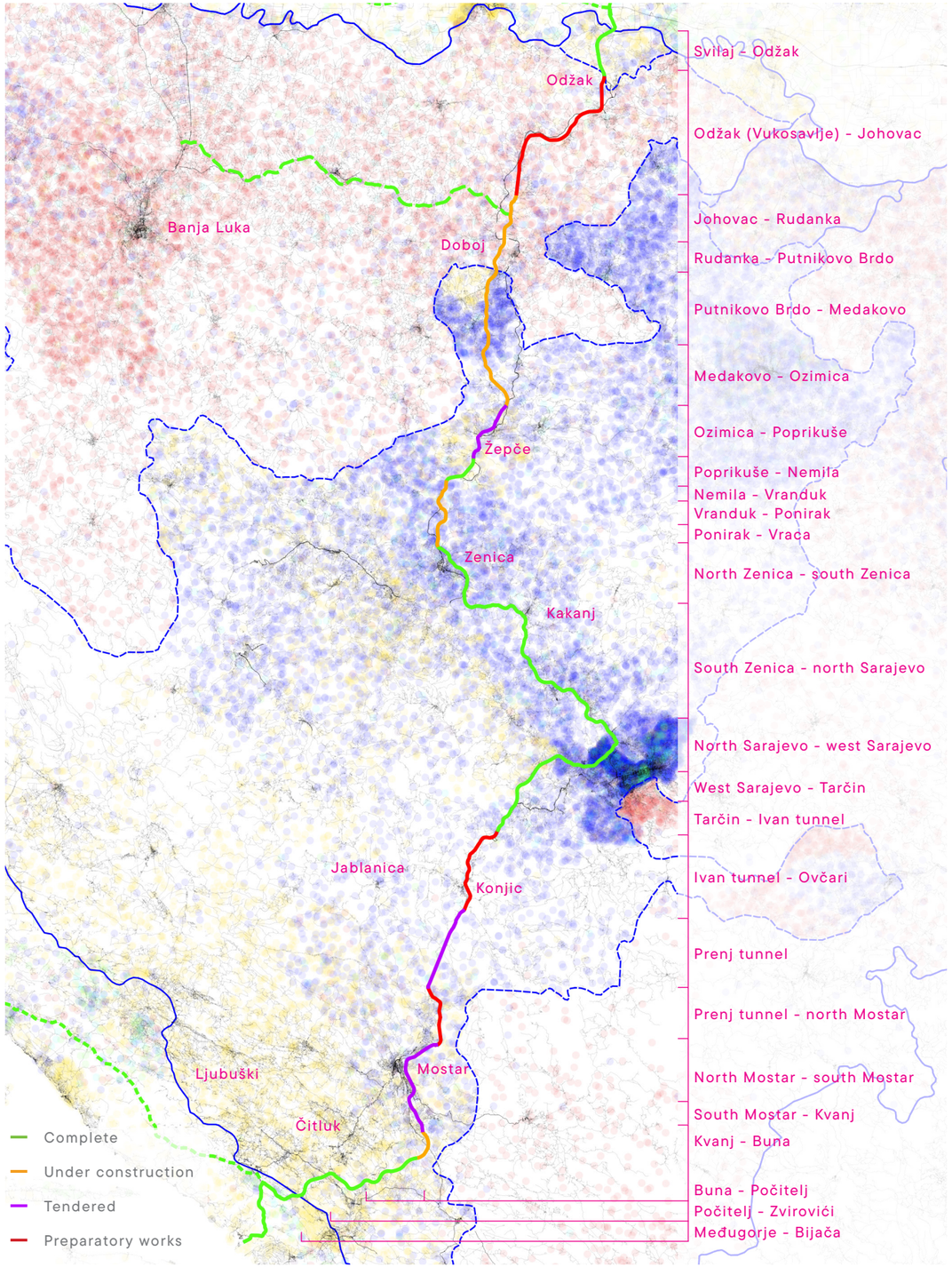


Figure 25. Map and table of highway levels of completion in Bosnia. Drawing by author, 2026.

Sub-section:	Construction timeline:	Total or current delays*:
Svilaj - Odžak (10.7km)	September 2013 - September 2021	7 years + 2 months
Odžak (Vukosavlje) - Johovac (35km)	November 2021 - now	3 years + 10 months
Johovac - Rudanka (5.7km)	March 2019 - September 2022	unknown
Rudanka - Putnikovo Brdo (5.6km)	November 2022 - now	unknown
Putnikovo Brdo - Medakovo (8.5km)	November 2022 - now	1 year + 4 months
Medakovo - Ozimica (21.5km)	March 2023 - now	5 months
Ozimica - Poprikuše (12.8km)	November 2025 - November 2027	N/A
Poprikuše - Nemila (5.5km)	December 2020 - December 2025	1 year
Nemila - Vranduk (5.7km)	February 2022 - now	7 months
Vranduk - Ponirak (5.3km)	May 2019 - now	6 months
Ponirak - Vraca (3.5km)	August 2019 - now	4 years + 6 months
North Zenica - south Zenica (11km)	September 2014 - December 2020	unknown
South Zenica - north Sarajevo (51.5km)	October 2001 - August 2014	unknown
North Sarajevo - west Sarajevo (9km)	June 2001 - June 2014	unknown
West Sarajevo - Tarčin (20km)	2012 - September 2014	unknown
Tarčin - Ivan tunnel (6.9km)	October 2019 - October 2022	5 months
Ivan tunnel - Ovčari (10.3km)	not started	N/A
Prenj tunnel (12.4km)	not started	N/A
Prenj tunnel - north Mostar (12.3km)	not started	N/A
North Mostar - south Mostar (14km)	not started	N/A
South Mostar - Kvanj (9.2km)	not started	N/A
Kvanj - Buna (5.3km)	October 2024 - May 2027	N/A
Buna - Počitelj (7.2km)	May 2018 - September 2025	5 years + 10 months
Počitelj - Zvirovići (11.1km)	June 2019 - September 2024	3 years + 3 months
Međugorje - Bijača (10km)	June 2012 - September 2014	unknown

*As of August 2026

Capitalism's generative rhythms are characterized by heterogeneous forms of pacing, duration, waiting, pause, and delay.[72] This foundation of uneven development has been a hallmark of the Corridor Vc's construction through Bosnia. Construction began in 2001, yet in 2026, only 150 out of 335 kilometres of Bosnia's highway has been completed. This would average out to six kilometres built per year, but the pace of construction has consistently been in flux. Where others, like the Government of Ontario for instance, pay for highway construction through taxes, Bosnia is largely relying on foreign investment. Bosnia's two entities combined have paid about 380 million euros, or only 7.6 percent of the entire cost of construction so far.[73] The remaining 92.4 percent of funding for the country has come from a mix of loans and grants from four institutions; the EIB, EBRD, OPEC Fund for International Development, and the Kuwait Fund for Arab Economic Development. Together, the EIB and the EBRD have committed more than three billion euros in loans to Bosnia for the construction of the Corridor Vc—the clients being either JP Autoceste FBiH, wholly owned by the entity of the FBiH, or Autoputevi RS, wholly owned by the entity of Republika Srpska. In order to continue the discussion on the relationship between Bosnia and the EU, I will focus on the leading EU financial institution—the EIB. The loans are interest-bearing capital, used to extract wealth from Bosnia through Corridor Vc toll-payers and Bosnian taxpayers.

The financial impact of the construction has highlighted numerous problems within JP Autoceste FBiH's management. Since 2013—the year when the first sub-section of the Bosnian highway was finished—there have been suspicions of embezzlement and preferential treatment within the management of JP Autoceste.[74] Several insiders, including the current and previous director, have been put under investigation by both Bosnian and European authorities with respect to suspicions of crime within JP Autoceste business deals. Continuously increasing cost of construction led to an audit of JP Autoceste FBiH in 2024. The audit reveals the notably increased value of expropriated land within a single year, showcasing how speculative value disproportionately benefits JP Autoceste. As a result of these connections and other examples in Bosnia throughout the years, people believe that unfair and ultimately damaging relationships rule what should be democratic and public projects.

While unjust conditions exist within the company itself, the international loans are designed to practically rob people of their wealth. Based on a federal financial review in 2025, external debt in Bosnia amounts to about nine billion convertible marks (KM), or 4.5 billion euros.[75] Over a third of this debt is owed to the EIB and the EBRD.[76] The KM is worth half the value of a euro in the market, inherently making these debts more expensive. Bosnia's external debt to GDP ratio is about twenty-five percent, which is low in comparison to other countries like Canada for example, whose ratio in 2025 was 144 percent.[77,78] Regardless of how large the debt of an economy is, debt is central to capitalism and produces imbalanced political and financial relationships.

The completion of the highway opens physical sites of economic potential and connections to wider markets. It does this by smoothing the space between networks and decreasing travel times. These advantageous characteristics ultimately build economies and render the highway as highly profitable starting with their inception to their use.

3.2 Smoothing Space with the Corridor Vc

Infrastructure has profound socio-economic impacts through decisions on where it is built and who it serves. The latter's answer is complex, often serving several different interests at once. Different perspectives see different benefits of the highway; a family may see it as a way to more easily visit their loved ones or go on road trips. However, the ultimate decisionmakers in our case are those who view the highway as having great economic potential. As a result of this, highway construction is a stage for playing out major political moves that promise the ensuing job opportunities, market access, and circulation. Nevertheless, the exclusivity of the highway's route promises these benefits to only a certain part of the population. It becomes even more confined when the highway's construction progress is highly fragmented, like the Corridor Vc's.

As a result of its age, the old highway route from Sarajevo to Mostar displays the reality of traversing mountains and rivers with roads. Without long tunnels along its route, the highway is a more honest depiction of what it means to work with the landscape and its shape. On the other hand, the Corridor Vc seeks to be a more frictionless route, using several tunnels, one of which will be ten kilometres long, to avoid navigating around mountains and provide quicker travel times. DiCarlo and Bachrach highlight that "[t]he economic potential of development corridors...relies on rendering corridors "marketable" by "smoothing" space—reducing the friction or barriers to flows of capital, people, and goods,".[79] This endeavour for time-space compression is essential to facilitate movement of people and commodities in an abstract and legible space.[80]

The highway's destination of Ploče, Croatia was carefully chosen for its position and capacity. The port is the youngest in the country, built after World War II near rocky and swampy terrain, but has become home to the country's second largest port in terms of annual cargo volume.[81] It is now transitioning into an important hub for fossil fuel imports in the country, having received nearly 150 million euros of investments to build new infrastructures for the movement of petroleum. This includes over 300,000 cubic metres of storage, making it one of one two ports in Croatia with the capability to handle such cargo. Unsurprisingly, these investments started in 2006 after the construction of the Corridor Vc began.[82] Ploče is the second most southern port town, behind Dubrovnik, of all six ports in Croatia giving it a strategic position on the Adriatic coast to carry

72 Laura Bear et al., "Gens: A Feminist Manifesto for the Study of Capitalism," Society for Cultural Anthropology, March 30, 2015, https://www.culanth.org/fieldsights/gens-a-feminist-manifesto-for-the-study-of-capitalism.
73 "Corridor Vc Motorway in Bosnia and Herzegovina," Western Balkans Investment Framework, accessed July 17, 2026, https://www.wbif.eu/project-detail/PRJ-BIH-TRA-002.
74 Amil Dučić, "Koridor 5C Između Kredita i Istraga: Zašto BiH Kasni Za Srbijom i Hrvatskom," *Fokus.Ba*, April 22, 2026, https://www.fokus.ba/vijesti/bih/koridor-5c-izmedju-kredita-i-istraga-zasto-bih-kasni-za-srbijom-i-hrvatskom/3543176/.
75 Bosnia and Herzegovina Ministry of Finance and Treasury, *QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025* (Sarajevo, 2025), 7, https://www.mft.gov.ba/Content/OpenAttachment?id=24cc154d-fe7d-4269-bb4e-b0198ed2bab4&lang=en.
76 Bosnia and Herzegovina Ministry of Finance and Treasury, *QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025*, 7.
77 Bosnia's GDP is an estimated $36 billion according to the International Monetary Fund.
78 Statistics Canada, "Canada's Gross External Debt as a Percentage of Gross Domestic Product," Chart, Government Of Canada, September 10, 2025, https://www150.statcan.gc.ca/n1/daily-quotidien/250910/cg-a005-eng.htm.
79 Jessica DiCarlo and David Fernando Bachrach, "The Corridor as Commodity: Enclosure, Legibility, and Uneven Development in Southeast Asian Railway Projects," *Antipode* 57, no. 3 (2025): 935, https://doi.org/10.1111/anti.70014.
80 DiCarlo and Bachrach, "The Corridor as Commodity," 943.
81 Ministries of the Sea, Transport and Infrastructure, "Ports," (Republic of Croatia, n.d.), https://mmpi.gov.hr/sea/ports/8460.
82 Ministries of the Sea, Transport and Infrastructure, "Ports,".

commodities between it and eastern Europe. Here, the highway has made way for other types of imposing infrastructure to expand, highlighting the Corridor's impact on economic growth.

The highway's infrastructure literally reduces barriers to flows of capital, people, and commodities. This enables the growth of already existing industries but also creates access to commodity frontiers through untouched sites of potential extraction and exploitation. For example, the southern half of the Corridor Vc in Bosnia cuts through regions that are less densely populated in comparison to the northern half. Herzegovina, thanks to its climate and soil, has recently experienced an increase in olive cultivation. The total cultivated area is eight times as large as it was in 2010, and the resulting olive oil won significant awards at the 2025 World Olive Oil Competition.[83] The highway has great potential to direct the growth of certain economies in Bosnia by uplifting some and leaving others out of its path behind.

Infrastructures introduce new temporalities in the worlds of finance, commodities, and labour, which changes the nature and experience of social time and social space.[84] This is perhaps most noticeable with the section of the highway from Ovčari to north Mostar. It is the most technically challenging section, but also the most rewarding in terms of its shrinking of perceived space, likely not without a cost though. It includes the 10.9-kilometre-long Prenj tunnel, through one of the tallest mountains in Bosnia. The mountain is largely untouched and has endemic species of the Dinaric alps like the *Oxytropis prenja* living on its surface. Beyond the physical destruction needed to blast the rock of the mountain for the tunnel, the Prenj tunnel could provide further opportunities for increased human interference. Aside from this ecological cost, there also exists a social cost that is hard to predict without having experienced the highway route which travels from Konjic through Jablanica to Mostar. This specific section of the highway runs right by the Neretva river, offering stunning views of the canyon and several restaurants along the river's edge famous for spit-roasted lamb. This space offers an opportunity for both locals and tourists to pause their drive to encounter local culture and socialize. The towns along this route benefit from tourism in the area, and the Corridor Vc takes these chances away in favour of smoothing space. Ultimately, these instances show us how the highway itself is polysemic; its route creates the conditions for some to benefit over others, not unlike its expropriation process.



Figure 26. Oxytropis prenja, or Prenjska osivnica/Prenjska oštrica in Bosnian, which grows in the highest elevations of the Dinaric mountains in Herzegovina—Prenj, Čvrsnica, and Vran. Photograph by Wikimedia Commons user Echinops, 2013.

83 "Bosnian-Herzegovinian Oils Gain International Recognition," *Sarajevo Times*, September 6, 2025, https://sarajevotimes.com/bosnian-herzegovinian-oils-gain-international-recognition/.

84 Hannah Appel et al., "Introduction: Temporality, Politics, and the Promise of Infrastructure," in *The Promise of Infrastructure* (Duke University Press, 2018), 16.



Figure 27. Fortica hill from a neighbourhood near the Neretva. The planned Corridor Vc route is in red. Photograph by author, 2025.

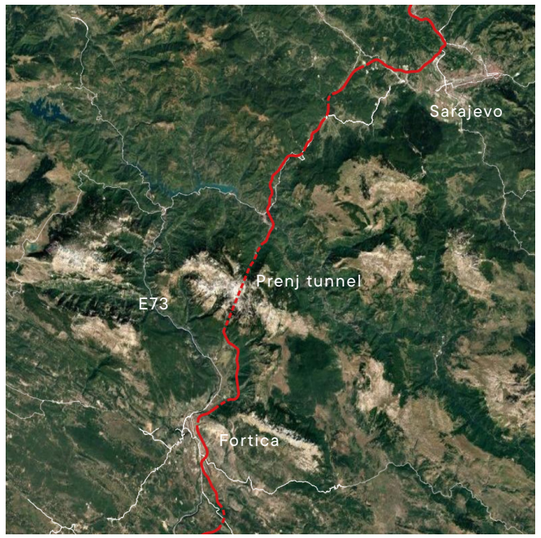


Figure 28. Map depicting the Corridor Vc planned route in red and other highways in white between Sarajevo and Mostar. Drawing by author, 2026.



Figure 29. A produce stall along the E73 highway in Herzegovina. Several of these stalls exist along this highway and are easy to stop at due to the lower speed and design of the highway. Photograph by author, 2025.



Figure 30. A view of the Neretva from Restoran Kovačević on the E73 highway in Jablanica. Photograph by author, 2026.

The land expropriated by JP Autoceste went up in value by twenty-five million KM, or 12.8 million euros between 2023 and 2024.[85] In a fourteen kilometre subsection that includes a municipality named Žepče, land value increased by nearly three million euros.[86] A plot of land in this subsection which measures about 17,500 square meters was purchased by a person tipped off by JP Autoceste for 35,000 KM—two KM per square meter, and then sold to JP Autoceste for twenty-five KM per square meter.[87] Further, in 2022 another parcel of land in Žepče was bought by JP for 61,000 KM and resold for 851,000 KM.[88] These instances are part of a criminal case in Bosnia which involved the previous and current director of JP Autoceste, among others, who were charged with at least four offences, including the disclosure and unauthorized acquisition of trade secrets. The sales in Žepče are examples of buying cheap and selling dear, a pillar of profit upon expropriation, which in turn is key for capitalism as a system.[89] These intermediate sales increase the overall cost of construction for the highway, needlessly raising the amount of ultimately public money which will be used to repay loans.

Central to the process of expropriating land and opening it up to speculation and capital accumulation is abstraction.[90] Those who sell their land for average market value in Bosnia are unknowingly part of a speculation scheme, surging prices of previously unfavourable land due to location. The increase in value is tied to its potential through its use for the highway, not because it was altered in any way materially. The benefit and the costs of constructing this highway and its capital is thus distributed unevenly through these sales. The land that people called their home and connected them to their neighbours and community has been taken in this manner for the construction of the highway. It simply becomes a physical underpinning to uphold the commodity that is the corridor. The highway obscures not only the previous relationships that tended to the land but also the violence of highway construction.

85 *Izvještaj O Finansijskoj Reviziji Javnog Preduzeća „Autoceste Fbih" d.o.o. Mostar Za 2024. Godinu*, 59.
86 *Izvještaj O Finansijskoj Reviziji Javnog Preduzeća „Autoceste Fbih" d.o.o. Mostar Za 2024. Godinu*, 23.
87 Mirela Mahmutović, "POSKOK Istražuje Autoceste: Kako Je Parcela Od 35.000 Skočila Na 440.000 KM," *Federalna*, December 3, 2025, https://federalna.ba/korupcija-usporava-evropski-put-na-cekanju-brojne-dionice-i-nikada-izgradeni-kilometri-autoputa-d5ees.
88 "Istraživanje Otkrilo Brojne Prevare: Kako Se Gradiautoput u FBiH i Kako Kilometar Košta 13 Miliona?," Radio Sarajevo, November 18, 2025, https://radiosarajevo.ba/vijesti/bosna-i-hercegovina/istrazivanje-otkrilo-brojne-prevare-kako-se-gradi-autoput-u-fbih-i-kako-kilometar-kosta-13-miliona/614511.
89 John Bellamy Foster and Brett Clark, "The Expropriation of Nature," REVIEW OF THE MONTH, *Monthly Review* (New York, United States), March 2018, 5, https://doi.org/10.14452/MR-069-10-2018-03_1.
90 DiCarlo and Bachrach, "The Corridor as Commodity," 930.



Figure 31. Satellite image of Žepče, Zenica, and Kakanj in central Bosnia. Image from Google Earth Pro, 2026.









Figure 32. Satellite images of Jablanica that has no Corridor Vc entrance/exit. Images from Google Earth Pro, 2011-2026.

Figure 33. Satellite images of a town in central Bosnia before and after the construction of the nearby Corridor Vc. Images from Google Earth Pro, 2008-2025.



Figure 34. Satellite images of Stolac in southern Bosnia that has no Corridor Vc entrace/exit. Images from Google Earth Pro, 2004-2026.

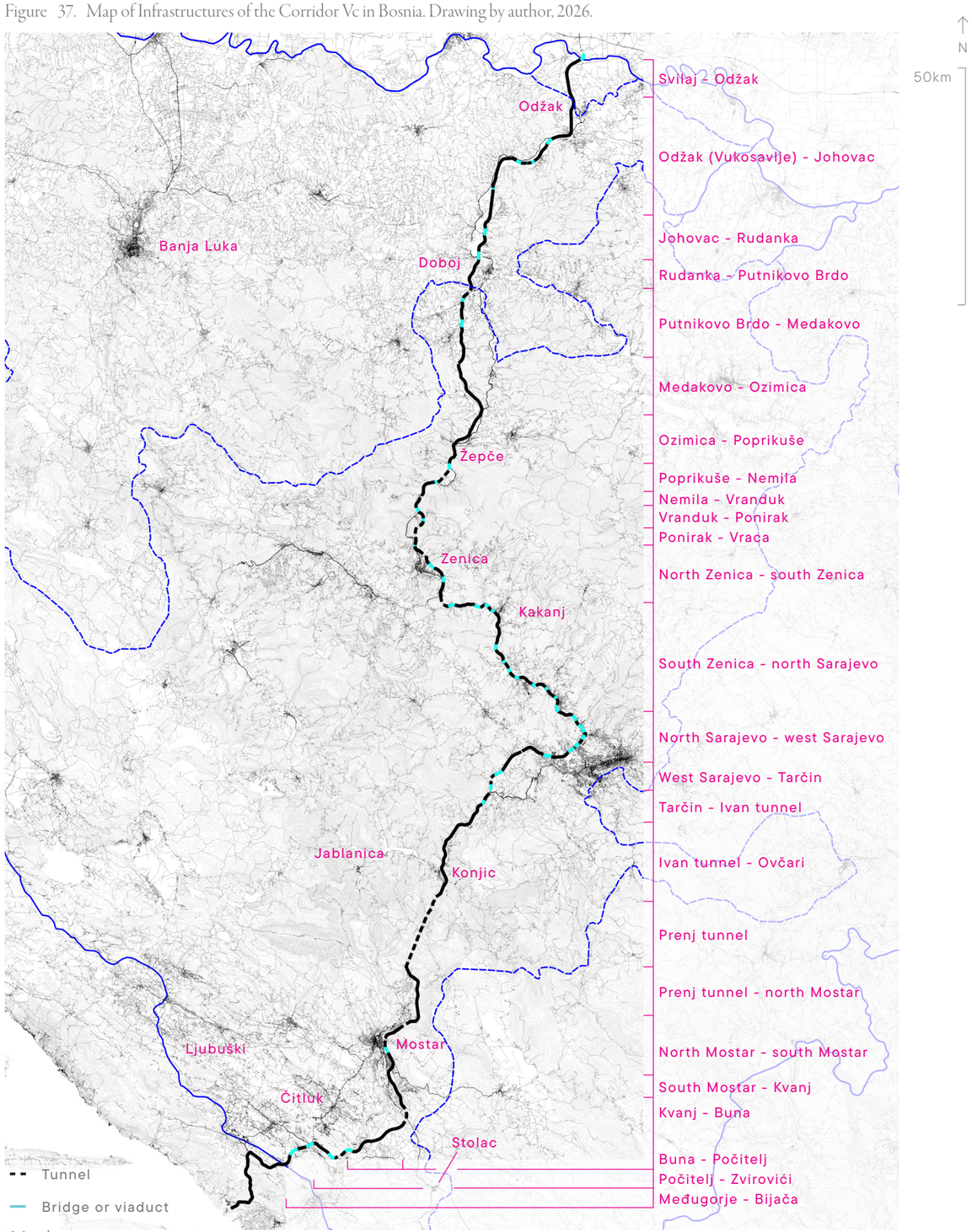


Figure 35. Satellite images of a town between Sarajevo and Tarčin before and after the construction of the nearby Corridor Vc. Images from Google Earth Pro, 2008-2025.



Figure 36. Satellite images of a town near Ivan tunnel before and after the construction of the nearby Corridor Vc. Images from Google Earth Pro, 2008-2025.

Figure 37. Map of Infrastructures of the Corridor Vc in Bosnia. Drawing by author, 2026.



Map lines are approximate

Figure 38. EIB loans given to Bosnia for the construction of the Corridor Vc. Table by author, 2026.

Sub-section:	**EIB Loan amount:**	Approximate construction cost:
Odžak (Vukosavlje) - Johovac (35km)	**€246 million**	€400 million
Medakovo - Ozimica (21.5km)	**€340 million**	€694 million
Ozimica - Poprikuše (12.8km)		
Poprikuše - Nemila (5.5km)	**€90 million**	€251 million
Ponirak - Vraca (3.5km)	**€50 million**	€74 million
South Zenica - north Sarajevo (51.5km)	**€75 million**	€160 million
North Sarajevo - west Sarajevo (9km)	**€60 million**	€80 million
Svilaj - Odžak (10.7km)	**€166 million**	€69 million
West Sarajevo - Tarčin (20km)		€370 million
Tarčin - Ivan tunnel (6.9km)	**€50 million**	€124 million
Ivan tunnel - Ovčari (10.3km)	**€162 million**	€324 million
Prenj tunnel (12.4km)	**€800 million**	€1.4 billion (projected)
Prenj tunnel - north Mostar (12.3km)		
North Mostar - south Mostar (14km)		
Kvanj - Buna (5.3km)	**€100 million**	€125 million
Počitelj - Zvirovići (11.1km)	**€105 million**	€225 million
Međugorje - Bijača (10km)		

The Corridor Vc funding is a significant investment project for the EU whose member states will benefit from the interest-bearing capital. The EIB is by far the largest creditor in Bosnia and Herzegovina's economy at large, and the largest financier for the Corridor Vc in the country.[91] Without dealing with negative effects of the production process, the EIB reaps the financial rewards of constructing the Corridor Vc with Bosnia's debt payments. On average, forty percent of the total loan repayments from Bosnia and Herzegovina to the EIB is from accrued interest and fees.[92] The EIB has lent 1.88 billion euros to Bosnia for the construction of the Corridor Vc, so far. I could not access precise interest rates for the Corridor Vc loans from the EIB, however, by applying the same metrics to the highway, an additional estimated 752 million euros would accumulate because of interest and fees. This would increase the total loan obligation to over 2.6 billion euros. Interest-bearing capital, even more than real capital, widens the gap between the bourgeoisie and proletariats through a self-ameliorating feedback loop. Since the borrower, Bosnia and Herzegovina, does not have an equal breadth of investment and financial capabilities that the EIB, has the loans create an unbalanced power relationship.

While the loans from the EU are often put on display in press releases to portray the benevolence of their financial institutions, the reliance on borrowing puts the BiH government "both economically and politically in the hands of capitalist finance,".[93] The ability to issue money keeps the EU in a state of economic and political importance.[94] While improved infrastructure undoubtedly makes travel easier for Bosnians, the circulation of capital through loans, debts, and profits reveal a damaging framework of the costs of development. The exorbitant amount of money that needs to be repaid will come from public money and creates an uneven power relationship between the EU and Bosnia. If the money is not withdrawn, issued or repaid in best practice it mars the credibility of the country at large, pushing Bosnia further from the EU membership they wish to obtain.

In addition to loans, the EU has paid over 200 million euros in the form of grants for the construction of the Corridor Vc through Bosnia.[95] The EU broadly describes applicability for grants—the project must serve EU policies and pursue the aim of general European interest.[96] Once finished, the Corridor Vc will open a shorter route to a relatively underused port, in Ploče, Croatia. This offers new possibilities for the transport of commodities in and out of the European Union by way of the highway or sea. This corridor completes a multi-directional highway system in Europe, spreading across the continent and opening new avenues for the transport of people and commodities.

Several different highway sub-sections experienced significantly increased contract costs according to the 2024 JP Autoceste FBiH audit. The value for four sub-sections that are twenty-six kilometres in length increased by 256 million euros due to addendums which extended construction deadlines.[97,98] The total contract value for the sub-section Kvanj tunnel to Buna increased by fifty-five million euros due to delayed construction which lasted for more than six years.[99]

91 Bosnia and Herzegovina Ministry of Finance and Treasury, *QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025* (Sarajevo, 2025), 7, https://www.mft.gov.ba/Content/OpenAttachment?id=24cc154d-fe7d-4269-bb4e-b0198ed2bab4&lang=en.

92 Bosnia and Herzegovina Ministry of Finance and Treasury, *QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025*, 13.

93 Mary Mellor, "The Privatisation of Money," in *The Future of Money: From Financial Crisis to Public Resource,* (Pluto Press, 2010), 35.

94 Mellor, "The Privatisation of Money," 32.

95 West. Balk. Invest. Framew., "Corridor Vc in Bosnia and Herzegovina, the Road of Europe."

96 "Before You Apply: EU Funding for Beginners - European Commission," with Directorate-General for Communication, European Commission, accessed June 19, 2026, https://commission.europa.eu/funding-and-tenders/how-apply/you-apply-eu-funding-beginners_en.

97 Počitelj to Zvirovići lot 1 (increased by 20,826,301 euros), Vranduk to Ponirak (increased by 76,855,379 euros), Poprikuše to Nemila (increased by 85,784,265 euros), and Nemila to Vranduk (increased by 67,198,217 euros).

98 *Izvještaj O Finansijskoj Reviziji Javnog Preduzeća „Autoceste Fbih" d.o.o. Mostar Za 2024. Godinu*, 24.

99 *Izvještaj O Finansijskoj Reviziji Javnog Preduzeća „Autoceste Fbih" d.o.o. Mostar Za 2024. Godinu*, 45.



Figure 39. A sign reads "We are helping BIH with the construction of the Corridor 5c" in southern Bosnia. Photograph by author, 2025.

The Corridor Vc construction is enabling one of the largest concentrated exploitation schemes taking place in Bosnia and Herzegovina, both from within and with external actors. Ultimately, each stage of construction has had fruitful opportunities for different beneficiaries to make a profit. The involvement of the EIB displays how fictitious capital is fundamental to the development of financial institutions. Through banks' influence and power on the global economy, these methods drive our societies to the mercy of finance capitalism—leading to increasing wealth gaps and uneven development. The need for Bosnia to rely on international loans from big banks is one consequence of the growing wealth gap. While this highway benefits those living within the country by providing shorter travel routes, the public financial impact is significant. The mishandling of funds throughout the design process ultimately costs the country more money, with debt to creditors, like the EIB and EBRD, already reaching billions. Being the largest infrastructural project Bosnia and Herzegovina has undertaken, the large amount of funds coincides with the significant amount of material needed to build the 335 kilometres of reinforced concrete road. For those engaged with land speculation, land is simply an object for making a quick profit. As a result, land that people have lived from and consider home gets sold as a backdrop for a highway that is disconnected with the realities of its context.

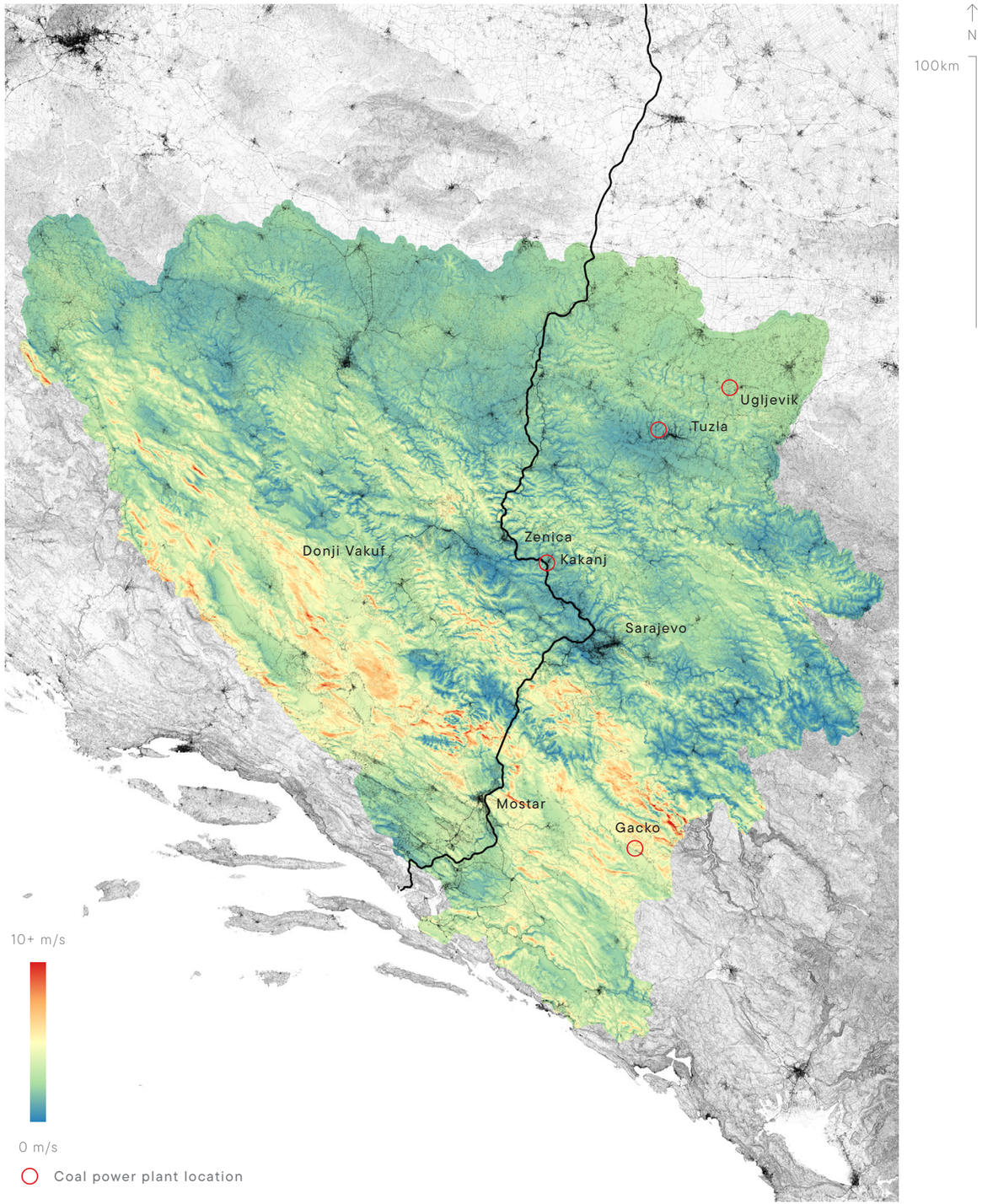
The highway cuts a north-south axis through the country, efficiently being able to carry people and commodities through Bosnia to the EU. The highway reaches parts of the country that have not had previous access to a high-speed road before, opening the potential for resource extraction with the given image of accessibility. DiCarlo and Bachrach highlight that "[b]y enclosing and opening certain geographical limits, corridors direct the movement of these flows, often at the expense of pre-existing social relations, as they, for instance, channel investments in infrastructure,".[100] Beyond just constructing the highway alone, future developments along its route may start prompting more opportunities for exchange and capital accumulation. JP Autoceste FBiH highlights that over half of the population lives within a forty-kilometre radius of the highway, and that they account for more than sixty percent of the country's gross domestic product.[101] By tying the highway's position to its economic potential the owner reiterates the connection between capital and high-speed roads. Those who live within this buffer zone have greater accessibility to travel across Bosnia and to the European Union. They can keep contributing to the economic growth of the country, by travelling for work or by transporting commodities. Major industries, like Heidelberg Materials and the Kakanj Thermal Power Plant as well as ArcelorMittal's steel plant in Zenica—also major polluters—are located in cities with a Corridor Vc exit.

100 DiCarlo and Bachrach, "The Corridor as Commodity," 935.
101 "About Motorways," JP Autoceste FBiH, accessed May 26, 2026, https://www.jpautoceste.ba/en/about-highway/.



Figure 40. Satellite image of the sub-sections north Sarajevo to Nemila. The Corridor Vc is depicted in red. Drawing by author, 2026.

Figure 41. Map of wind speeds and coal power plants in Bosnia. Drawing by author, 2026.



Rather than seeing cement as separate from the bodies who transform and surround it, considering the material in all its forms grants insight into concerns of pollution. This approach extends beyond numerical abstractions of carbon emissions and portrays how cement is embedded in ecology. In this chapter I give an overview of the extractive processes in Kakanj, Bosnia and Herzegovina, which relate to the manufacturing of CEM II/B-W 42,5 N, a cement mix from Heidelberg Materials used for the Corridor Vc. Apart from investigating the motorway itself, I investigate the relationships and tensions that arise as part of its construction and existence. I focus on the web of ecological relationships and tensions in Bosnia that stem from the cement mix, specifically with regards to the atmospheric pollution affecting humans and extra-humans. This arose after my fieldwork in Kakanj during September 2025 and while analyzing photographs I took.

I begin by providing an overview of the reliance on coal in Bosnia and the Kakanj Thermal Power Plant (TPP). I then apply Kiel Moe's argument of cognitive rift when explaining air pollution in Kakanj related to the TPP and Heidelberg Materials. Cognitive rift highlights the lack of contemplation humans give to the networks that sustain their way of life, particularly those who are disentangled from such extractive and laborious processes. I further categorize the air pollution as a type of atmoterror. Peter Sloterdijk's atmoterror identifies when the air surrounding an enemy is used to consequently violate the enemy's body.[102] Although his application of the term relies on instances of active, intentional targeting exemplified in war or punishment, I extend the term to passive, unintentional targeting by way of air pollution. I then focus on particulate matter pollution in Kakanj specifically while using the notion of double internality. Jason W. Moore's double internality argues that humans and extra-human beings, the earth and the atmosphere are deeply intertwined in a web of mutual relationships.[103] In Kakanj, the double internality exists between human and extra-human bodies and the selected materials in whatever form they take—in the earth, extracted, or when released in the atmosphere.

I share insights and photographs from my experience touring Heidelberg Materials' cement factory in Kakanj. I introduce the process of cement manufacturing from raw material acquisition to its application in the concrete for the Hercegovina Bridge in Počitelj, Bosnia and Herzegovina. This chapter argues that the construction of the Corridor Vc project is worsening ecological problems in Kakanj. I start with a major catalyst in these problems: coal.

102 Peter Sloterdijk, *Terror from the Air* (Semiotext(e), 2009).

103 Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (Verso, 2015).

To some, coal may seem like an archaic source of energy production. However, it is still a major fuel in many countries, with global coal production in 2022 reaching 8.4 billion tonnes.[104] In Bosnia and Herzegovina, coal accounts for nearly two thirds of the country's energy supply.[105] As elsewhere, coal mining is a practice that has solidified itself in both social significance and economic importance for Bosnians (fig.41). The mining of coal for energy production began during the nineteenth century, after the Austro-Hungarian Empire completed a geological survey of the region.[106]

The region had been devastated by World War II. Along with the destruction of hundreds of thousands of residential, institutional and cultural buildings, almost half of the railroad lines were damaged.[107] After the war, the extraction of lignite coal increased more than that of black coal.[108] Lignite, also known as brown coal, is located closer to the earth's surface, making it a cheaper but also the lowest energy dense form of coal. Since much of the infrastructure which already existed to mine black coal was destroyed, it is likely that the government focused on lignite production to avoid delays in rebuilding efforts.[109] To this day, lignite is still the most mined type of coal in Bosnia.

Lignite powers eighty percent of the second largest cement factory in Bosnia; Heidelberg Materials Cement BiH d.d. Kakanj (Heidelberg Materials). This factory is also a major cement supplier for the Corridor Vc project. The Kakanj TPP is located about four kilometres south of Heidelberg Materials, adjacent to the Corridor Vc. It is one of four coal power plants in the country, all of which are state-owned. When driving in from the south along the Corridor Vc, it becomes clear that the town is flanked by heavy industry's extractive realities. The 300-metre-tall stack towers over your car as you first enter Kakanj; a hint of what is to be revealed while advancing north. Kakanj is a municipality of about 38,000 inhabitants which has been the site of coal exploitation for almost 130 years. The Kakanj TPP consumes about 1.8 million tonnes of coal annually.[110] All of which is locally exploited from one open-pit mine, Vrtlište, and two underground mines.


БОРБА

У КАКЊУ ПОГИНУЛО 114 РУДАРА

Катастрофу је јуче после 12 часова изазвала експлозија метана. - У тренутку несреће у јами су се налазила 183 рудара, - још није утврђен коначни број погинулих. - Обрушиване земље отежава рад спасилачких екипа. - Дводневна жалост у Босни и Херцеговини

БОРБА ЗА ЖИВОТ ПОВРЕЂЕНИХ РУДАРА

НАЈВЕЋЕ ЈЕ ДОШЛО ДО НЕСРЕЋЕ

Figure 42. A Borba newspaper front page printed in Belgrade on June 8, 1965. The headline reads "114 Miners Killed in Kakanj." Photograph from Istorijske Novine.

People may not actively consider the connection between the Kakanj TPP and the cement factory when a new road is being constructed. Based on my conversations with Bosnians, most people are simply relieved to see progress on the motorway which has been under construction since 2001. Regardless, cognitive rift allows for the complacency of the construction industry in the climate crisis and ecological degradation. This rift is largely due to externalizations—when the wealth of earth's resources are extracted from one place for the benefit of another—and abstractions, like forms of numerical carbon accounting, which conceal material sacrifices necessary for building.[111] When concrete is poured to lay the path for the Corridor Vc, one may not think back to the coal combustion needed to energize the cement manufacturing.

Though, perhaps the people living in Kakanj do. Locals are aware of numerous concerns surrounding the coal power plant. In December of 2025, record air pollution levels in Kakanj led to the mayor requesting a scaling back of energy production to only district heating supply for the municipality.[112] Based on average statistics from meteorological stations in Bosnia, Kakanj has the worst U.S. Air Quality Index (AQI) rating in the country.[113] As heating demands increase in winter months, so does the need for coal burning. The U.S. AQI rating of Kakanj during December 2025 was an average of 159, only worsening the following month with an average rating of 185.[114] Both of these levels are considered "Unhealthy" under U.S. AQI standards. Comparatively, in Cambridge, Ontario, where much of this thesis was written, the U.S. AQI rating never surpassed an average of 15 in 2025. When the AQI rating passes the threshold into "Unhealthy" territory, it becomes increasingly harder for bodies to function properly. The resulting suggestion is to stay indoors and close all windows, revealing an antagonism between our bodies and the atmosphere.

In Kakanj, rather than being able to safely walk on top of the hills, breathe the air and swim in the river, the atmosphere and the earth become a medium for violence, as Kristen Simmons suggests.[115] Where Simmons uses Peter Sloterdijk's term with respect to more direct and visible means of atmoterror harnessed by the American and Israeli government, I believe the notion of atmospheric terror in Kakanj is valid.

Sloterdijk argues that a defining characteristic of the twentieth century is that the targeting of enemies, with the goal of extermination, was done through the targeting of their environment.[116] When technical control is used to attack the air around bodies, those targeted aid in their own demise by way of breathing.[117] Sloterdijk illustrates atmoterror with

104 International Energy Agency, *Coal 2023 - Analysis and Forecast to 2026*, 2023, 130.
105 "Bosnia and Herzegovina," *Powering Transition in Europe*, February 4, 2024, https://euracoal.eu/info/country-profiles/bosnia-and-herzegovina-8/.
106 Hazim Hrvatović, *Geological Guidebook Through Bosnia and Hercegovina* (Geological Survey of Bosnia and Herzegovina, 2005).
107 Central Intelligence Agency, *CONSTRUCTION IN YUGOSLAVIA, 1945-1950* (Central Intelligence Agency, 1952), 4–5.
108 Central Intelligence Agency, *THE YUGOSLAV COAL INDUSTRY*, Information from foreign documents or radio broadcasts (Central Intelligence Agency, 1953), 2.
109 Central Intelligence Agency, *THE YUGOSLAV COAL INDUSTRY*
110 Amer Neimarlija and Emir Đulić, "RESULTS OF THE ENVIRONMENTAL MANAGEMENT POLICY IN TE"KAKANJ"," June 20, 2023, 3.
111 Kiel Moe, "Framework: The Architecture of Unequal Exchange," in *Unless: The Seagram Building Construction Ecology* (Actar D, 2021), 73.
112 Albania Energy Association, "Coal Plant Kakanj in BiH Halts Electricity Production amid Record Air Pollution," Albanian Energy Association, December 7, 2025, https://aea-al.org/coal-plant-kakanj-in-bih-halts-electricity-production-amid-record-air-pollution/.
113 There are multiple stations in listed municipalities. The difference in the AQI of a few different stations can be large within one municipality based on their position. A station in Tuzla, a heavily industrial city northwest of Kakanj, often shows a higher AQI. However, an average was taken from each municipality's stations.
114 "Kakanj Air Quality Index (AQI) and Bosnia Herzegovina Air Pollution | IQAir," IQAir, March 24, 2026, https://www.iqair.com/us/bosnia-herzegovina/federation-of-b-h/kakanj.
115 Kristen Simmons, "Settler Atmospherics," Society for Cultural Anthropology, Society for Cultural Anthropology, November 20, 2017, https://www.culanth.org/fieldsights/settler-atmospherics.
116 Sloterdijk, *Terror from the Air*, 14.
117 Peter Sloterdijk, "Airquakes (Excerpt)," trans. Eduardo



Figure 43. View of Vrtlište coal mine in Kakanj from the Corridor Vc. Photograph by author, 2025.



Figure 44. Two coal smokestacks at the Kakanj Thermal Power Plant from the Corridor Vc. Photograph by author, 2025.



Figure 45. The main facility at the Kakanj Thermal Power Plant. Photograph by author, 2025.

Municipality	AQI	AQI Scale Rating	$PM_{2.5}$	$PM_{2.5}$ Scale Rating
Gacko	N/A	N/A	324	Hazardous
Kakanj	185	Unhealthy	103.7	Unhealthy
Lukavica	164	Unhealthy	73.7	Unhealthy
Banja Luka	159	Unhealthy	66.5	Unhealthy
Sarajevo	157	Unhealthy	63.9	Unhealthy
Jajce	133	Unhealthy FSG	48.5	Unhealthy FSG
Tuzla	111	Unhealthy FSG	39.4	Unhealthy FSG
Zenica	109	Unhealthy FSG	38.6	Unhealthy FSG
Ilidza	82	Moderate	25.9	Moderate
Mostar	62	Moderate	17.7	Moderate
Trebinje	53	Moderate	14.3	Moderate

Figure 46. January air quality index and pollutant levels in Bosnian towns with appropriate stations. Table by author, 2026.

examples such as chlorine gas being used as a weapon by German soldiers during World War I, gas chambers at Nazi concentration camps, as well as "civil" gas chambers in the USA.[118] While atmoterror in these examples is presented as an intentional assault or execution method, I believe that the term can be extrapolated in understanding air pollution.

Unlike the examples given by Sloterdijk, it is not through a direct assault where ongoing air pollution is considered atmoterrorism in Kakanj. It is through the continuing operation of the coal power plant while knowing the harmful effects. Those bodies on the receiving end of this atmoterror is where the breaking of a cognitive rift is replaced with the corporeal principle of the double internality.

Jason W. Moore's concept of the double internality provides a helpful perspective on these sorts of issues, and why considering energy in this thesis is relevant. The theory of double internality argues against the binary of Society and Nature, which has helped to distance humanity from anything which is not human. Moore describes it as "humanity inside nature, [and] nature inside humanity,".[119] In this case, the double internality is literal. The humans begin "inside" the coal while they dig it out of the earth, and then the byproducts of the coal used to energize the cement factory ends up in the water, in the soil, and inside the organs of humans and animals. Soil studies conducted near the TPP in Kakanj indicated high levels of nickel and manganese, which accumulated in potato plants.[120] Through altering the presence of chemicals and particulate matter, the coal mines, the TPP, and Heidelberg Materials are "environment-making processes and projects,".[121]

The particulate matter floating through the air in and around Kakanj is from the TPP as well as Heidelberg Materials. These float through the air, landing on and entering bodies. Particulate matter measurements exist at the scale of fine particles and coarse particles, based on their size.[122] These, along with sulfur dioxide specifically, are tracked in Kakanj.[123] Fine particles in the atmosphere are caused by combustion, smoke, and chemical reactions between gases; all of which relate to the Kakanj TPP. Coarse particles may come from dust and lead to short term effects that include a sore throat and nasal congestion, both of which I felt after my visit to Heidelberg Materials. While my discomfort lasted for a few days, the workers who frequent the material depot on-site are likely developing long term effects such as lung tissue damage, cancer, and asthma.

Whereas the workers develop illnesses for the sake of cement production ultimately fated for the Corridor Vc, those who benefit most monetarily are disconnected from the material reality of its creation. Locals have begun publicly protesting against the management of air quality and the environment. A local named Edina Dogdibegović, member of a citizen group concerned with nature and freshwater protection in and around Kakanj, announced on social media that "[t]his is not a protest against one company, this is a protest against a system which allows for profit to come before health,".[124]

In Bosnia, various illnesses and deaths are related to the coal power plants and their corresponding industries. Between 2021 and 2022, Kakanj's health unit reported an increase of 773 patients in their care with acute respiratory illnesses.[125] The same report shows that nearly six percent of the municipality's population was actively receiving care for these illnesses.[126] In 2019, the World Bank reported that every year an estimated 3,300 people in Bosnia die prematurely due to exposure to air pollution.[127] The reliance on coal is a major factor in this statistic. On the one hand, both the TPP and the cement factory generate thousands of jobs in a country struggling with an unemployment rate of 12.6 percent.[128] On the other hand, the very thing that is providing this economic security to people is also leading to their harm, by way of personal health which is damaged by surrounding pollution.

Mendieta, *Environment and Planning D: Society and Space*, The Worlds of Peter Sloterdijk, vol. 27, no. 1 (2009): 48, https://doi.org/10.1068/dst1.

118 Peter Sloterdijk, *Terror from the Air*.

119 Jason W. Moore, "The Rise of Cheap Nature," in *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism* (PM Press, 2016), 79.

120 Emina Sijahović et al., "The Use of Pyrophyllite for the Purpose of Remediation of Soil Contaminated with Heavy Metals in the Industrials Zone of Kakanj," in 32nd *Scientific-Expert Conference of Agriculture and Food Industry*, ed. Muhamed Brka et al. (Springer Nature Switzerland, 2023), 130, https://doi.org/10.1007/978-3-031-47467-5_13.

121 Jason W. Moore, "Anthropocene or Capitalocence?", 79.

122 Particulate matter is measured as a mass concentration in micrometres, describing how many micrograms of a gas exist in a specified volume of air. This measurement is used rather than parts per million (ppm) due to discrepancies arising from the range of molecular masses of compounds

123 The Kakanj TPP released 64,728,000 kilograms of SO2 in 2016. See: INTEGRISANI REGISTAR ZAGAĐIVAČA," Eko Online: nema okolišanja, accessed March 26, 2026, https://eko.ba/baza-zagadivaca.

124 "Vlasti Kaknja napokon bez ograda uz građane – započinju protesti pred potencijalnim zagadivačima," *Odgovorno*, September 23, 2025, https://odgovorno.ba/vlasti-kaknja-napokon-bez-ograda-uz-gradjane-zapocinju-protesti-pred-potencijalnim-zagadjivacima/.

125 *Informacija o Zdravstvenom Stanju Stanovništva Općine Kakanj i Informacija o Epidemijama u 2022 Godini* (JU Dom zdravlja sa stacionarom kakanj, 2023).

126 *Informacija o Zdravstvenom Stanju Stanovništva Općine Kakanj i Informacija o Epidemijama u 2022 Godini*

127 The World Bank, *AIR POLLUTION MANAGEMENT IN BOSNIA AND HERZEGOVINA* (The World Bank, 2019), 102.

128 "World Economic Outlook (October 2025) - Unemployment Rate," International Monetary Fund, October 2025, https://www.imf.org/external/datamapper/LUR@WEO.



Figure 47. A Muslim and Catholic cemetery in Kakanj. Photograph by Michelle Walz Eriksson, 2006.



Figure 48. Haystack in Kakanj. Photograph by Michelle Walz Eriksson, 2006.

While materials are transformed by humans at the cement factory, humans are also transformed by the materials. Through human and machine labour limestone is separated from its millions-of-years-long home which was once underwater. Limestone is largely composed of shells and skeletons of marine organisms filled with carbon which, once chemically altered through the creation of cement, gets expelled into the atmosphere. These carbon emissions have far-reaching effects, while the coarse particulate matter creates a type of micro-climate for workers in specific areas of the factory.

Heidelberg Materials manufactures ready-mix cement for both architectural and infrastructural concrete. Of interest in this thesis is the portland cement mix with fly ash named CEM II/B-W 42,5 N (CEM II). This was used in the concrete of the Hercegovina Bridge in Počitelj, a 980-metre-long bridge on the Corridor Vc that spans the Neretva river about thirty kilometres south of Mostar. This cement has similar counterparts internationally, but given the proximity of the Kakanj TPP to the factory, this mix has a relatively high percentage of calcium fly ash. This is a byproduct of combusting lower-grade coals, and nearly forty-one percent of Kakanj's lignite results in ash.[129, 130] It is a fine powder which can help fill air pockets, aiding in the strength of the cured concrete. In the case of CEM II, calcium fly ash accounts for twenty-one to thirty-five percent of the mix.[131] Portland cement clinker forms sixty-fix to seventy-nine percent of the mix.[132] This mix has a thirty percent lower CO_2 emission rate than their standard portland cement, due to the lower percentage of clinker.[133] Electrostatic precipitators in coal power plants are able to capture heavy metals along with about ninety-nine percent of the fly ash, stopping them from being released in the atmosphere.[134] However, the risk of inhaling these carcinogens remains for the workers at the TPP and Heidelberg Materials. The microclimates of each factory and excavated pit are concentrated with the harmful particles of matter, tethering the affected labourers to the highway's object forever.

Heidelberg Materials contracts other companies to quarry limestone and ship it to the factory. The two quarries in question are also located in Kakanj. The Greben quarry is owned by Hidrogradnja, a previously state-owned company which thrived in Yugoslavia. It was responsible for the construction of twenty-seven hydroelectric power plants in the former country, as well as seven in the Levant, North Africa and Iraq. As a result of its demand, the quarry takes up a surface area of approximately twenty-eight acres. Heidelberg Materials purchases limestone from Hidrogradnja and contracts external companies to load and transport trucks from Greben to their factory a few kilometres south.

129 Coal ash is generally categorized into two types. Fly ash is lighter and gets caught by electrostatic precipitators within exhaust stacks. Bottom ash is heavier and settles on the ground.
130 Neimarlija and Đulić, "RESULTS OF THE ENVIRONMENTAL MANAGEMENT POLICY IN TE"KAKANJ"," 3.
131 "CEM II/B-W 42,5N," Heidelberg Materials, accessed March 26, 2026, https://www.heidelbergmaterials.ba/bs/CEM_II_B_W_425N.
132 Heidelb. Mater., "CEM II/B-W 42,5N."
133 Heidelb. Mater., "CEM II/B-W 42,5N."
134 Aydan Altıkulaç et al., "Assessment of the Enrichment of Heavy Metals in Coal and Its Combustion Residues," *ACS Omega* 7, no. 24 (2022): 21240, https://doi.org/10.1021/acsomega.2c02308.

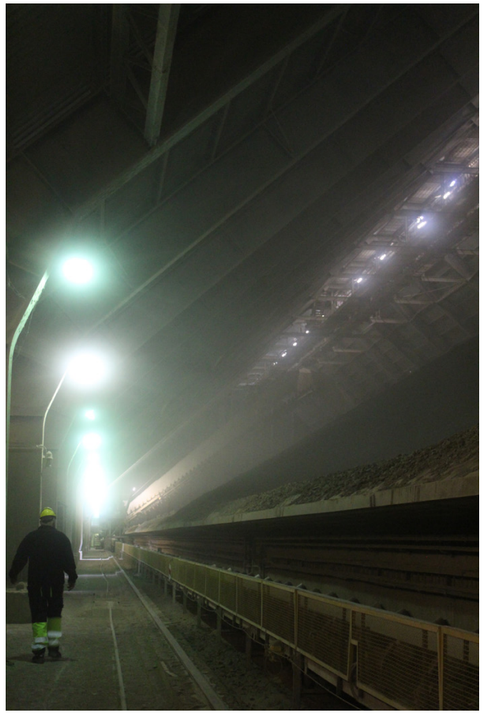


Figure 49. Inside the material depot at Heidelberg Materials in Kakanj. Photograph by author, 2025.



Figure 50. The fly ash silo at Heidelberg Materials in Kakanj. Photograph by author, 2025.

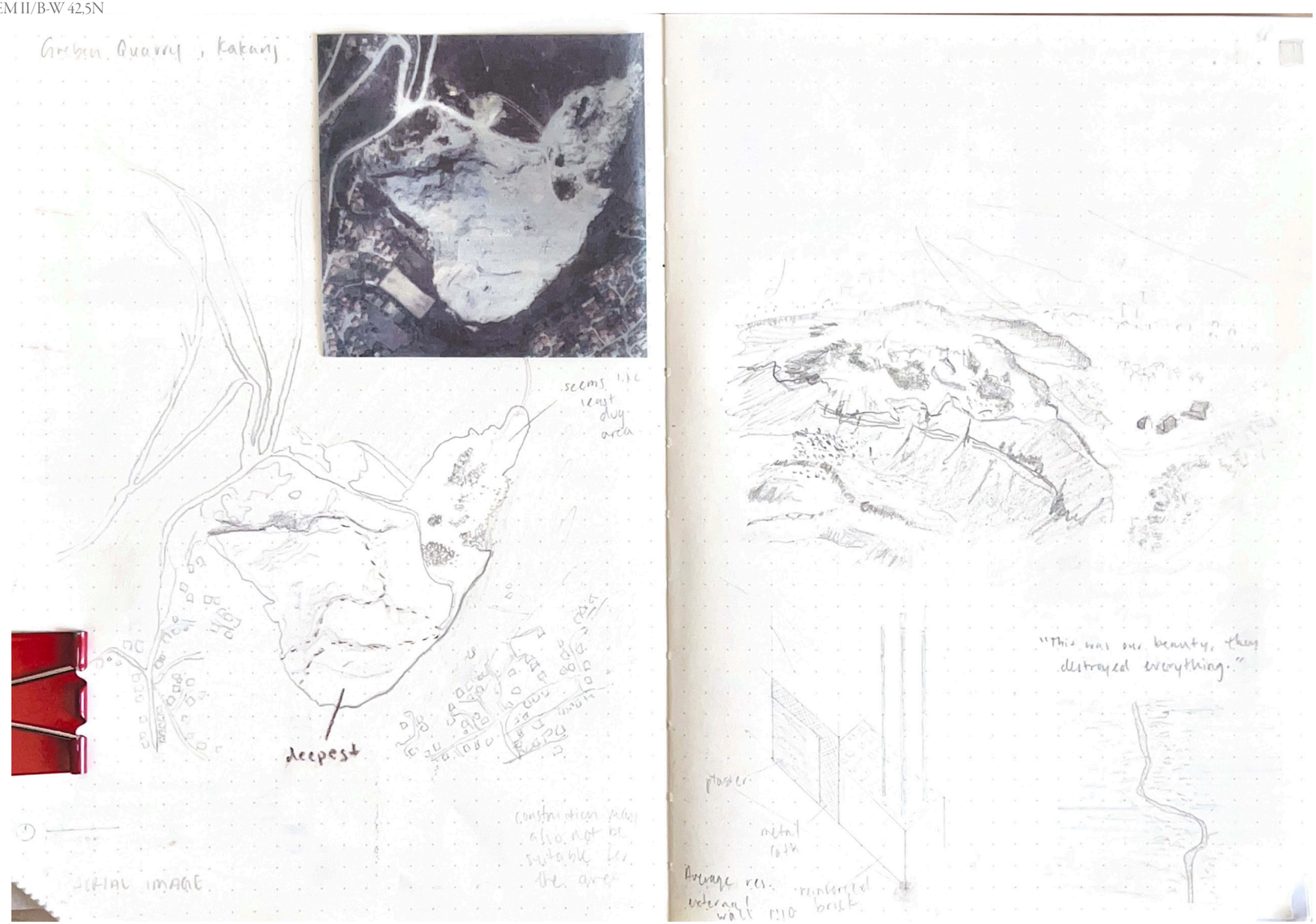


Figure 51. Examining levels of excavation at Greben quarry and potential house construction of damaged homes. Drawing by author, 2025.



1 Raw material deposit

2 Material depot

3 Raw material mill

4 Raw meal silos

5 Rotary kiln

6 Cooler

7 Clinker silos

8 Fly ash silo

9 Cement mill

10 Cement silos

11 Packaging

12 Truck loading

Figure 52. Heidelberg Materials labeled map of cement manufacturing process. Drawing by author, 2026.

Figure 53. Map of extractive industries in Kakanj. Drawing by author, 2026.

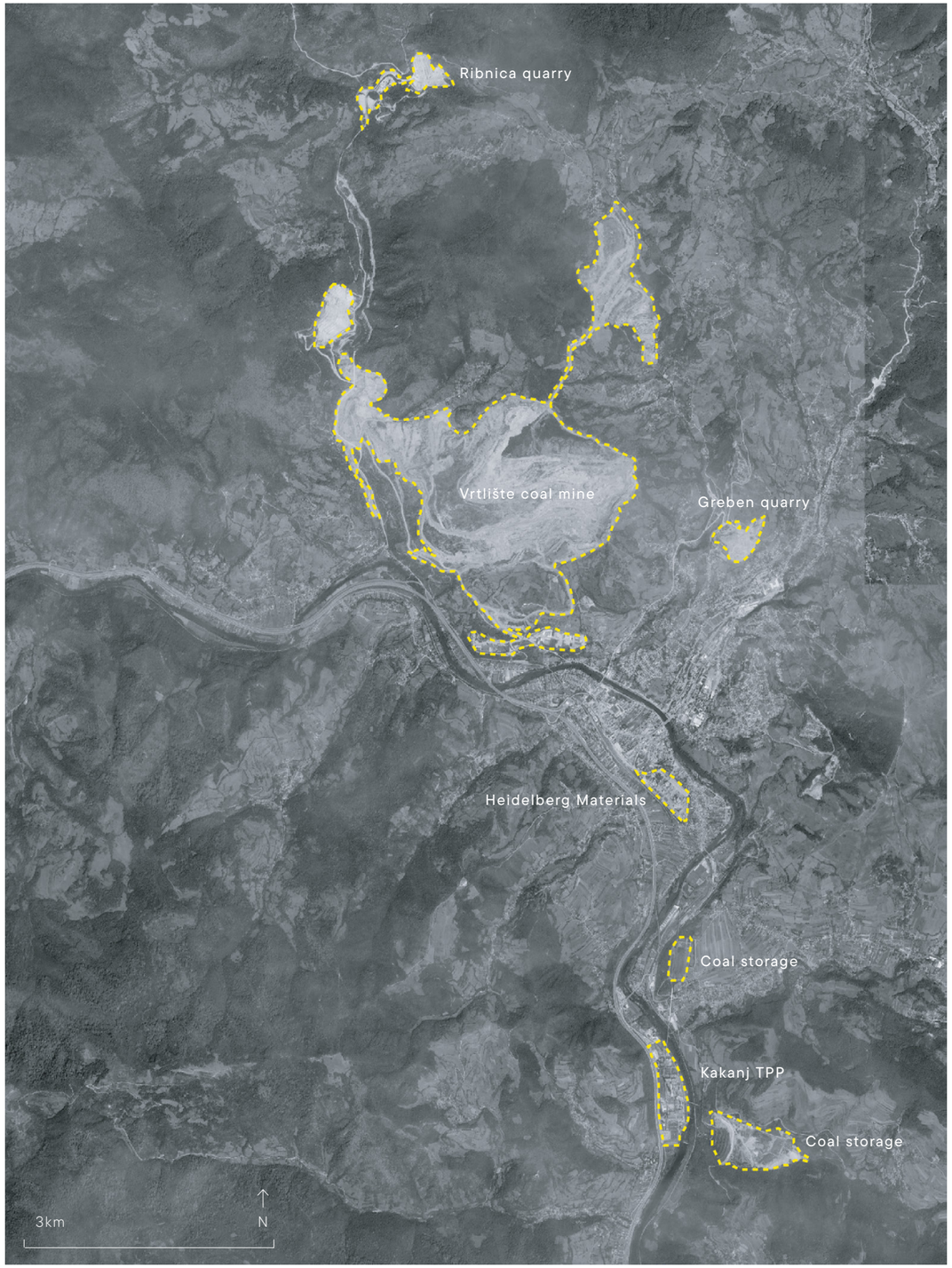
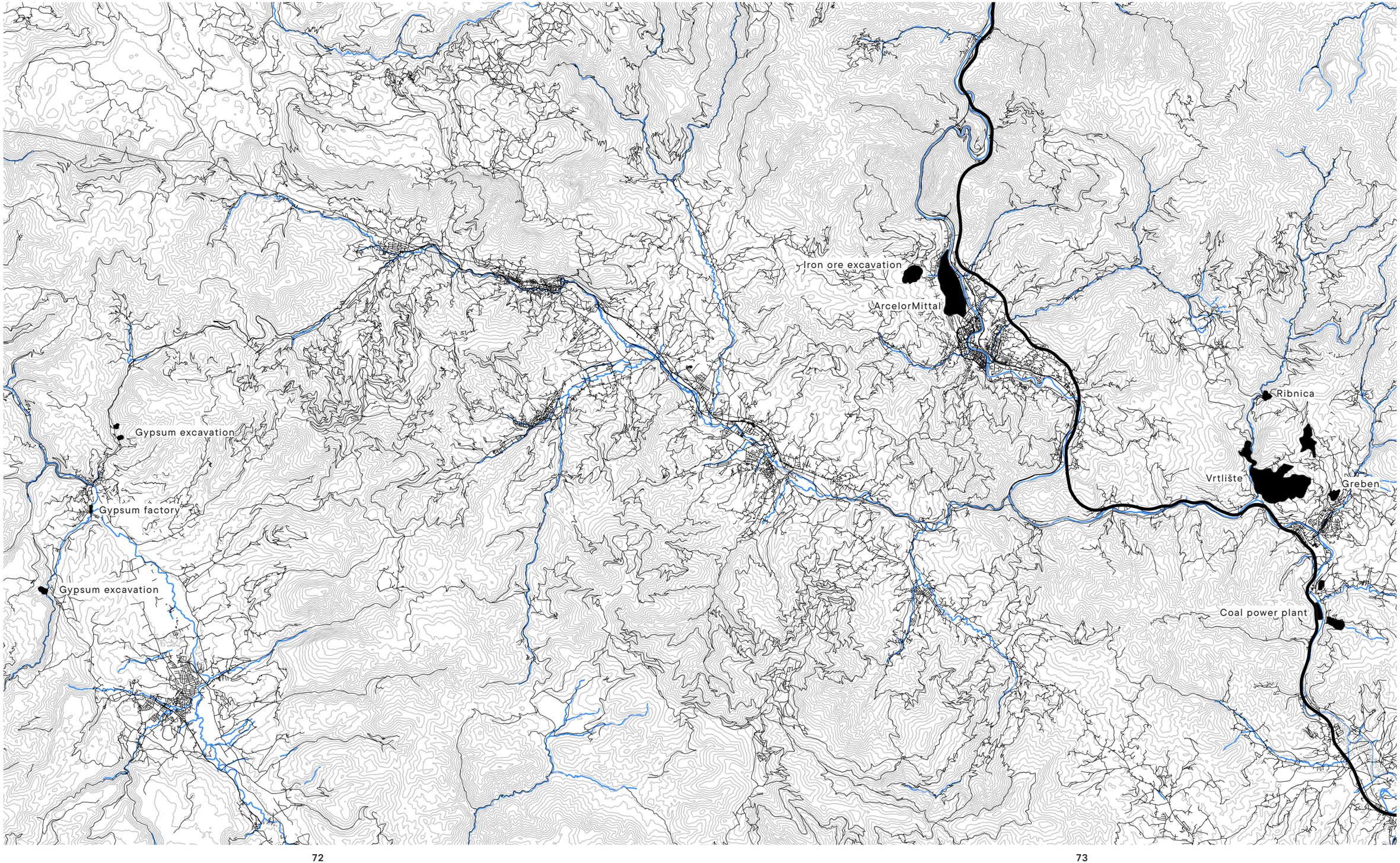


Figure 54. Raw material sites and factories related to Heidelberg Materials. Drawing by author, 2026.



Anxiety and distrust have built between the locals of Kakanj against Hidrogradnja and Heidelberg Materials due to the method of limestone exploitation at Greben. With the closest house being only thirty metres away from the quarry's edge, noise and vibration from the excavation is destructive and annoying. Most worrying is that blasting has been a common method for dislodging the limestone at the quarry. Blasting had been suspended since 2006 due to an order from a federal inspection because of its resulting damage on homes.[135] However, Hidrogradnja was issued a new permit in 2020 for blasting with permitted vibrations of up to four millimetres per second, which is in accordance with legal regulations.[136] Locals from Kakanj, especially those affected by the quarry's operations, have found solidarity in their shared grievances. Video and photographic evidence shows that some homes have been physically damaged with cracks on interior and exterior walls as a result of the blasting. An environmental permit is not mandatory for quarry work, environmental protection measures are only suggested by the given canton's responsible ministry.[137] The Greben quarry's lifespan as a resource for limestone exploitation is coming to an end, prompting Heidelberg Materials to buy their own piece of land to quarry. This limestone quarry, called Ribnica, exists north of the Vrtlište open-pit coal mine. Ribnica is surrounded by trees with a settlement starting 330 metres north of the quarry's edge. In my research I have found no public records regarding plans to remediate the Greben quarry. What was once a popular hilltop location for picnics and picking wild berries now sits as a gaping hole in the earth's surface.[138]

4.5 Six Major Stages of Cement Production

In Heidelberg's massive warehouse, the raw materials gush out of a machine falling into a pile and leaving coarse particulate matter in the air. Along with other raw materials, limestone from the Ribnica and Greben quarries are stored in the warehouse. There was nobody else in this warehouse except two men and me. Here is an example of the double internality. We were in the warehouse while blast furnace slag from the Mittal Steel Factory in Zenica was streaming out of the machine, and I could taste the air. Although I was warned we should not stay in there for long, ten minutes was enough for me to feel the effects. The feeling which came after the taste lingered, settling in my throat and chest for a couple of days. With no respiratory protection measures, I imagined the particles invading my lungs and clinging on to the tissue.

Heidelberg Materials delivered over 20,000 tonnes of cement to construct the Hercegovina Bridge.[139] This means that between 13,000 and 15,800 tonnes of limestone had been quarried in Kakanj, Bosnia.[140] The cognitive rift amongst people would impede one's understanding of this scale of destruction. The limestone needs multiple rounds of grinding at the plant. It is placed into a mill with increasingly smaller metal spheres which help to crush the rocks and make a powder called raw meal. Silicium,

135 Šejla Ibrahimović and Almir Biber, "*Ovo je bila naša ljepota, sve su uništili*": *Život pored kamenoloma u Kaknju, 2025*, at 1:20, https://www.slobodnaevropa.org/a/kamenolom-greben-kakanj-miniranje-hidrogradnja/33317936.html.
136 Ibrahimović and Biber, "*Ovo je bila naša ljepota, sve su uništili*": *Život pored kamenoloma u Kaknju, 2025*, at 2:07.
137 Ibrahimović and Biber, "*Ovo je bila naša ljepota, sve su uništili.*"
138 Mirha Husika, "Greben – Provalija u Kojoj Kapitalizam „rastresa" Imovinu i Sigurnost Mještana," *Kakanjske Novine* (Kakanj), January 15, 2025, 2.
139 @heidelbergmaterials, *Hercegovina Bridge: A Catalyst for Regional Connectivity and Growth.*, Instagram, 2024, https://www.instagram.com/p/C_w6lnyu9tU/?hl=en.
140 Portland cement clinker accounts for sixty-five to seventy-nine percent of the cement mix.



Figure 55. Limestone from Greben with blast furnace slag from the ArcelorMittal steel Factory in Zenica in the background of the material depot. Photograph by author, 2025.



Figure 56. Raw material near the clinker silos at Heidelberg Materials. Photograph by author, 2025.



Figure 57. The Hercegovina Bridge from the E73 highway below it. Photograph by author, 2025.



Figure 58. Approaching the Hercegovina Bridge from the west on the Corridor Vc. Photograph by author, 2026.



Figure 60. The raw material deposit site at Heidelberg Materials in Kakanj. Photograph by author, 2025.



Figure 59. The material depot at Heidelberg Materials in Kakanj. Photograph by author, 2025.

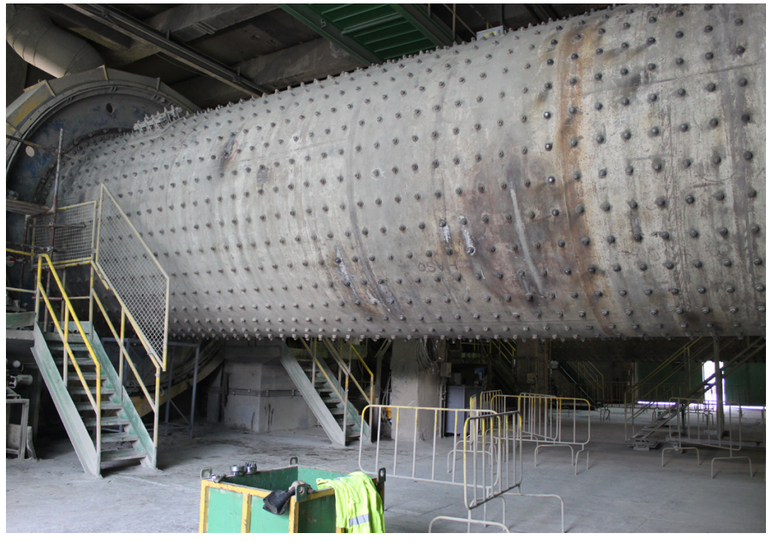


Figure 61. One of two cement mills at the cement factory. Photograph by author, 2025.



Figure 62. Raw meal held by a worker at Heidelberg Materials in Kakanj. Photograph by author, 2025.



Figure 63. The cement kiln at Heidelberg Materials in Kakanj. Photograph by author, 2025.



Figure 64. Cement silos at Heidelberg Materials in Kakanj. Photograph by author, 2025.

aluminium and iron may be added in small quantities. The finished raw meal gets stored in silos before it is put through a burning process which includes calcination. The heat breaks down the limestone's main compound, calcium carbonate ($CaCo_3$) into calcium oxide (CaO) and carbon dioxide (CO_2). This is where about two thirds of the CO_2 emissions come from in the cement making process.

After the raw meal is cooled to about 100 degrees Celsius, it goes through a rotary kiln which is heated up to 1450 degrees Celsius. The raw meal reacts with the chemical additives and forms clumps of clinker. Another mill is used to grind the clinker with calcium fly ash, gypsum—which accounts for five percent of the mix—and other minor additional ingredients, also accounting for five percent. At this point, the cement is ready to be stored in the silo. There are currently five cement mixes being manufactured at the company, with CEM II being in highest demand during this thesis research thanks to the Corridor Vc's construction.

The final product of cement, and especially concrete, effectively conceals the energy intensive process, the materials needed, and the distances travelled to make it. The concrete poured on site has no visual evidence of this, aiding in a cognitive rift. While Heidelberg Materials supplies cement for a range of projects along the Corridor Vc, the Hercegovina Bridge in Počitelj has garnered nationwide attention for its form and size.

While the highway is being added to, the gaping hole of the quarries grows larger and larger. The immediate "goods" are brought to Počitelj, while the insidious "bads" stay in Kakanj. Producing an average tonne of portland cement emits up to 622 kilograms of carbon dioxide.[141] Considering the CEM II mix reduces carbon emissions by thirty percent, I will estimate that number decreases to 435 kilograms. Heidelberg Materials emitted approximately 8,700 tonnes of CO_2 while producing 20,000 tonnes of cement for the Hercegovina Bridge, by September of 2024. More broadly, by December 2024, Heidelberg Materials had produced 780,000 tonnes of cement for the year, meaning between 485,160 and 339,300 tonnes of carbon dioxide was emitted by the factory in 2024.[142] To visualize the magnitude of that number we may compare it to a large animal, like an elephant. Between nearly 81,000 and 57,000 average male African bush elephants would weigh within that range of carbon emissions.[143]

4.6 Conclusion

While the construction of the Corridor Vc is necessary to reduce travel times, the material reality of its inception is a troubling one. Within Kakanj, the manufacturing of cement for the Corridor Vc is connected to different extractive industries. Exact statistics on pollution emissions are not widely published, and therefore I rely on estimations and cross-referencing for my site. Along with this, the physical aftermath and health concerns are telling. The Kakanj TPP emits carbon dioxide, nitrous oxide and sulfur dioxide through its coal combustion. There are plans to implement desulfurization technology, but these have yet to materialize.[144] These chemical elements which are part of the peat transforming into coal over millions of years resurface in the atmosphere in new harmful forms. Humans affect the atmosphere through construction endeavours and the atmosphere returns the favour within the double internality. While Heidelberg Materials has a vacuum on-site to collect dust and pollutants, coarse particulate matter within the material depot and carbon emissions remain a concern. The atmoterror of the TPP and cement factory ultimately binds bodies with the inescapable consequences of supplying cement for the Corridor Vc.

141 Caroline Brogan, "Best Ways to Cut Carbon Emissions from the Cement Industry Explored | Imperial News," Imperial College London, May 20, 2021, https://www.imperial.ac.uk/news/221654/best-ways-carbon-emissions-from-cement/.

142 "Heidelberg Materials Cement BiH Obilježio Godišnjicu Osnivanja - U Tekućoj Godini Oboren Rekord, Proizvedno 780.000 Tona Cementa," eKapija, 2024, https://ba.ekapija.com/news/4991345/heidelberg-materials-cement-bih-obiljezio-godisnjicu-osnivanja-u-tekucoj-godini-oboren-rekord.

143 "African Elephants (Loxodonta Africana and L. Cyclotis) Fact Sheet: Physical Characteristics," San Diego Zoo Wildlife Alliance Library, March 18, 2026, https://ielc.libguides.com/sdzg/factsheets/african_elephant/characteristics.

144 Jelisaveta Perišić, "Desulfurization Project at Kakanj Thermal Power Plant to Cut Emissions by Almost 100%," *Balkan Green Energy News*, October 31, 2025, https://balkangreenenergynews.com/desulfurization-project-at-kakanj-thermal-power-plant-to-cut-emissions-by-almost-100/.



Figure 65. View of the horizon in Počitelj, near the Hercegovina Bridge. Photograph by author, 2025.



Figure 66. View of the mountains from Heidelberg Materials in Kakanj. Photograph by author, 2025.

Since the Corridor Vc will be the longest modern highway in Bosnia, travelling through the majority of the population, its use-value as a stream into and out of the country cannot be overlooked. By both literally and figuratively attempting to "smooth" space, the highway is "contributing towards a faster social and economic integration of the Western Balkans and the European Union," according to the EU.[145] This integration, although not obviously stated, extends to Bosnian economic migrants who will use the highway to travel back and forth between the EU and Bosnia. The social, economic, and ecological problems discussed all add pressure to push young workers out of the country.

Since the two entities of Bosnia and Herzegovina have a high degree of autonomy, this affects the attitude people have on institutions, the future potential for a centralized country, and international allies. Results from a questionnaire offered to residents in urban hubs within RS and FBiH reveal the difference on these matters. Generally, Bosniaks and Croats lacked confidence in the institutions of RS, contrary to the Serbs surveyed.[146] Notably, the proposal of a centralized BiH with the capital, Sarajevo, having greater power over institutions was most negatively looked upon by Croats, followed by Serbs, and Bosniaks who generally viewed the idea as positive.[147]

A major reason that Bosnians migrate to other countries is for job opportunities. Many people find it challenging to find work, and a well-paying job. According to surveys conducted by the United Nations Population Fund in Bosnia, sixty percent of youth expressed desire to leave the country and live in a society that is not "systemically corrupt,".[148] Furthermore, sixty-seven percent believe that unemployment is one of the three greatest problems in BiH, and that better work opportunities can be found abroad.[149] Over sixty-percent of youth believe that proper connections get jobs in BiH. Political analyst Tanja Topić argues that "[t]hey can be excellent students...but literally all doors are closed to [the applicant] unless they carry a membership card of [the boss's] political party,".[150]

5.2 Potential Migration with the Corridor Vc

Over four-fifths of the Bosnians living outside of Bosnia have stayed there for at least 10 years.[151] Until 2016, the majority of permits obtained by Bosnian emigrants in the European Union was for family reunification purposes.[152] Whereas today about half of the permits are given for employment purposes, mainly to men.[153] An almost even amount is given to people within the age range of thirty-six to fifty-nine and eighteen to thirty-five.[154] This creates a new social identity and carves out a specific age range within Bosnia's population. The completion of this Corridor Vc, rather than stabilizing the population, may further encourage people to leave in search of work because of its shortened route to Austria, a major diasporic destination. Austria hosts the fourth-highest Bosnian emigrant population, after Croatia, Serbia, and Germany, with around 120,000 people.[155] The number of registered refugees who remained in Austria by 2005 was 70,900.[156] This indicates a potential combination of refugees starting families there, and post-war migrants arriving.

The economic and ecological issues of the construction of the Corridor Vc as well as the social issues which are a result of the border's reproduction add to people's frustration while living in Bosnia. Life becomes continuously disappointing through ethnic divisions manifesting in physical infrastructure, misuse of funds, and pollution to the point where people find it easier to build a life elsewhere. The act of migration, and the migrant's story, involves multiple overlapping and contradictory relationships.[157] While it may be difficult to be physically separated from family and friends in Bosnia, the benefit of a higher wage and more stable political conditions are evidently more valuable to some. Even though they want to escape the politics, Bosnia is still home in many ways. The cross-border social connection is strong, and is exemplified through its financial relationships. Bosnia receives some of the most remittances in Europe, and in 2025 the number of personal transfers reached 4.46 billion KM, or 2.28 billion euros.[158] This statistic reaffirms the higher wages Bosnian emigrants, or diasporic Bosnians are receiving in the EU or places like America, Canada, and Australia who also host notable Bosnian populations.

The Corridor Vc offers a four-lane separated road between directions, the longest of its kind in Bosnia, which may encourage more people to travel back and forth between Bosnia and Austria. It largely avoids tight curves with its several tunnel constructions, something the current E73 highway running near its footprint cannot do. With smooth pavement and streetlights on certain sections, the Corridor Vc presents itself as the longest reliable route to get into the European Union.

Examining two major highway routes from Sarajevo to Vienna can further highlight how the Corridor Vc might encourage Bosnians to move to Austria. Firstly, the route which includes the Corridor Vc passes through Croatia up to Budapest, Hungary and exits west toward Vienna. This route is 763 kilometres long, takes about eight hours and forty-five minutes on average according to Google Maps, and has three national border crossings. The other suggested route from Google Maps takes the Corridor Vc to Doboj and transitions to the E661 in Bosnia, through Croatia, western Hungary and to Vienna. This route is 708 kilometres long but takes about ten hours and thirty minutes on average according to Google Maps. So, although the Corridor Vc is a longer route, the higher speed limits and wider roads allow for quicker vehicular travel. By decreasing the journey by nearly two hours, the Corridor Vc provides an undeniable pull factor for emigrants who

145 "Corridor Vc in Bosnia and Herzegovina, the Road of Europe," Western Balkans Investment Framework, May 2020, https://www.wbif.eu/corridor-vc-bosnia-and-herzegovina-road-europe.

146 Guglielmo Rezza and Djukica Mirkovic, "Divided Society in Bosnia and Herzegovina: A Field Study," *New Balkan Politics*, no. 18 (2019): 9, https://www.newbalkanpolitics.org.mk/item/guglielmo-rezza-djukica-mirkovic-divided-society-in-bosnia-and-herzegovina-a-field-study.

147 Guglielmo Rezza and Djukica Mirkovic, "Divided Society in Bosnia and Herzegovina: A Field Study," 9.

148 *Youth in Bosnia and Herzegovina: Aspirations, Frustrations, and Futures*, with Samid Sarenkapic et al. (United Nations Bosnia and Herzegovina, 2025), 12.

149 *Youth in Bosnia and Herzegovina: Aspirations, Frustrations, and Futures*, 13.

150 "Mladi Sve Manje Vjeruju Političarima, Većina Razmišlja o Odlasku Iz BiH," BHRT - Radiotelevizija Bosne i Hercegovine, September 12, 2026, https://bhrt.ba/mladi-sve-manje-vjeruju-politi%C4%8Darima-vc%C4%87ina-razmi%C5%A1lja-o-odlasku-iz-bih.

151 Ioanna Pantelaiou et al., I*nternational Mobility as a Development Strategy: Bosnia and Herzegovina Country Report* (World Bank, 2024), 19, https://doi.org/10.1596/41925.

152 Ioanna Pantelaiou et al., I*nternational Mobility as a Development Strategy*, 18.

153 Ioanna Pantelaiou et al., I*nternational Mobility as a Development Strategy*, 18, 28.

154 Ioanna Pantelaiou et al., I*nternational Mobility as a Development Strategy*, 28.

155 Ioanna Pantelaiou et al., I*nternational Mobility as a Development Strategy*, 17.

156 Mikkel Barslund et al., *Labour Market Integration of Refugees: A Comparative Survey of Bosnians in Five EU Countries* (Centre for European Policy Studies/Mercator Dialogue on Asylum and Migration, 2016), 4, https://www.kielinstitut.de/fileadmin/Dateiverwaltung/IfW-Publications/fis-import/174c03ba-9126-4cbf-b40d-3aa05294-d47f-Labour-Market-Integration-of-Refugees-A-comparative-survey-of-Bosnian-refugees-in-five-EU-countries.pdf.

157 Sara Ahmed, "Home and Away: Narrative of Migration and Estrangement," *International Journal of Cultural Studies* 2, no. 3 (1999): 342.

158 Centralna banka Bosne i Hercegovine, "Record Inflow of Current Transfers in 2025," Centralna Banka Bosne i Hercegovine, March 24, 2026, https://www.cbbh.ba/press/ShowNews/1771.

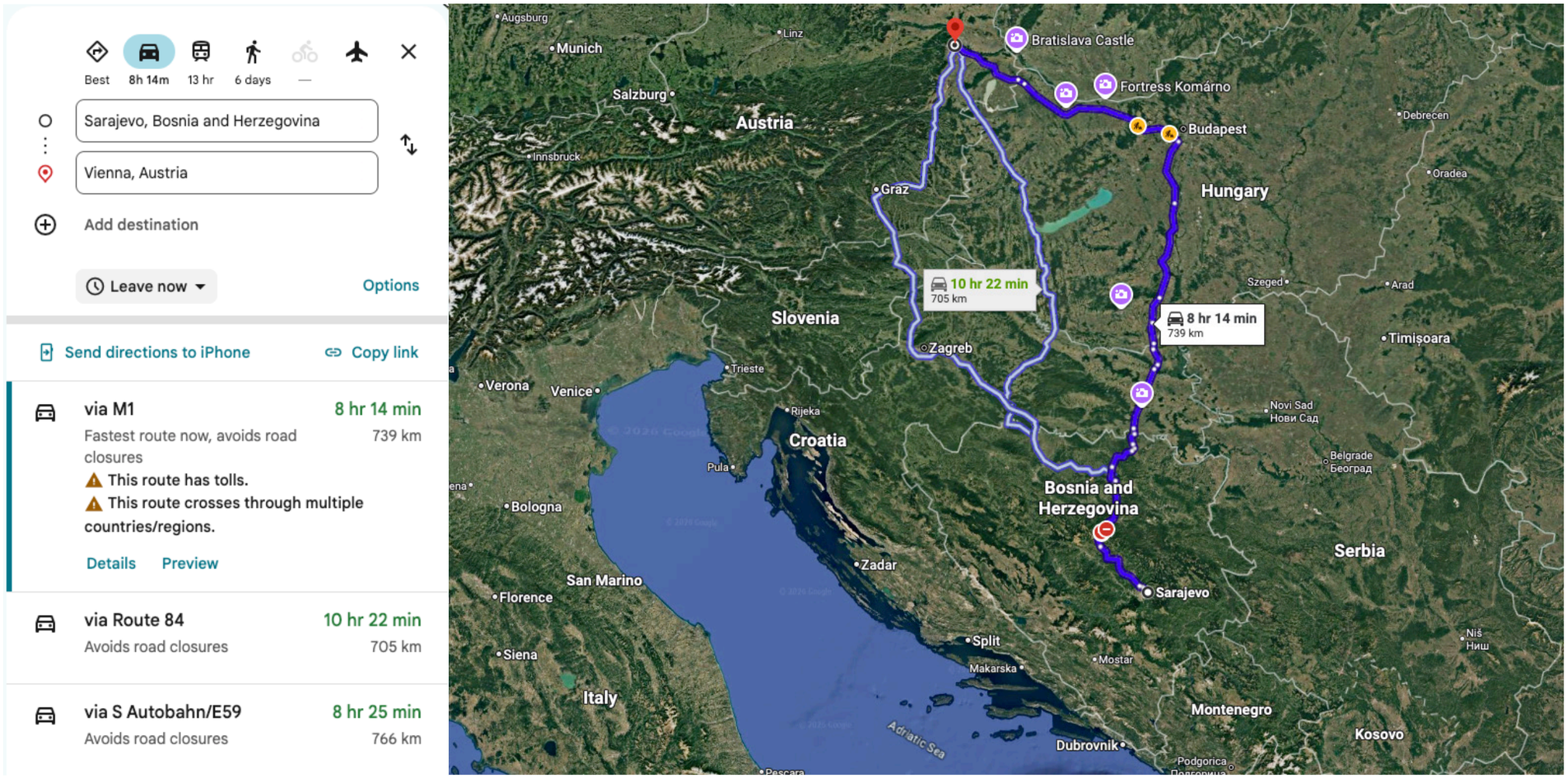


Figure 67. A Google Maps screenshot showing possible routes from Sarajevo to Vienna. 2026.

need to return to Bosnia for any reason, whether that be for emergencies, family occasions, or vacation.

5.3 Borders, Capital, and Materials

At least nine maps were drawn from 1991 to 1995 proposing the new borders of Bosnia and Herzegovina. The production of boundaries between Bosniaks, Croats, and Serbs were the result of overdetermined and idealized efforts to create ethno-states. Historical encounters were used by ethno-nationalist politicians such as Milošević to prompt efforts of reclaiming land. In this way, the borders were overdetermined based on a network of social events that conjure up ideas of incompatibility and theft. Promoting the idealized community as religiously homogenous provided rationale for the borders separating Croatia and Serbia from Bosnia, a multi-ethnic state. The levels of differentiation Bosnians experience either ties them to or distinguishes them from other nations. While ethnic Croats in Bosnia can receive Croatian EU passports, other ethnic groups in Bosnia must go through the process of naturalization, and in some cases dismiss their Bosnian passport. The border's shifting permeability, rules, and wait times add to its polysemic nature. The border sorts people and things into categories of class, value, and dignity. The national border of Bosnia categorizes Bosnians as somehow less refined Europeans, and those categorizations break off into even more within the country depending on somebody's religion and location. Say a town's name to a Bosnian and they can immediately tell you whether it is a majority Muslim, Croat, or Serb town—or more conditionally, whether *ours* live there or not.[159] Political power, which in Bosnia is currently split between ethnic groups, rather than

159 *Naši* in Bosnian translates to ours, and is a common word that is used when talking about a person or group of people that share your identity.

demand "determines when and where which road will be built,".[160] Apart from the Corridor Vc specifically, road projects in the country are all understood by residents as being the product of ethnic division. A Croat-majority town in western Herzegovina named Grude will soon have two bypasses despite only having 5,000 inhabitants, while Mostar, a mixed city of about 100,000, has one.[161] Road construction relies on different levels of government, however both the

160 Sanadin Voloder, "Čovićevi Gospodari Federalnih (Auto) Cesta," Odgovor.Ba, Sarajevo, September 30, 2025, https://odgovor.ba/article/1035.
161 Sanadin Voloder, "Čovićevi Gospodari Federalnih (Auto) Cesta."



Figure 68. One of the many Herzeg-Bosnia flags in Grude. Photograph by author, 2026.

directors of the public companies of motorways and roads of the FBiH, as well as the Federal Minister of Transport are HDZ Croat party members. Every politician who is a member of a nationalist party is ultimately working for the benefit of their so-called nations rather than for the improvement of the entire country.

The financing of the highway and the ebbs of its construction process also sorts the value of land and people for the economy. What parts of the highway get financed first is subject to political decisions that are largely pre-determined by social ties and sorts of ethnic allegiances. Rather than having a consistent route throughout the country, those routes which exit into Croatia have been completed, along with the route stretching around Sarajevo. Looking at the ethnic dot density map in comparison to the map



Figure 69. Traffic at a roundabout in north Mostar. Photograph by author, 2026.

showing the highway's completion shows that the sections that have been completed in the south and north are Croat-majority regions. The route in the south includes the Hercegovina Bridge, a demanding infrastructural project, the description of which has been used as an excuse for lack of work on parts of the highway from Sarajevo through Mostar. The south and the north of the country remain disconnected and lack the modern infrastructure where a considerable amount of the population lives and travels between.

This aforementioned socio-political division in Bosnia preceded the war, although it was more suppressed. So, while the Bosnian War significantly reordered the country, it also simply reignited ethno-nationalists' desire for separation. The complex political nature of Bosnia imposed on it by the US and Europe continues to stand in the country's way of EU membership—something nearly three quarters of citizens want.[162] According to the same survey, forty-five percent of respondents believe that the EU will strengthen internal relations.[163] Unfortunately though, during the Bosnian War the EU, then known as the European Community, failed to act properly to stop war crimes and genocide in Bosnia. However, now the EU is more than willing to financially assist Bosnia to construct this highway for the purpose of "faster social and economic integration of the Western Balkans and the European Union,".[164] The EU will make billions of dollars from debt, increasing their own political and economic influence. Looking at before and after satellite images of the highway's con-

162 "Over 70% of Citizens Support Bosnia and Herzegovina's Accession to the EU," *Sarajevo Times*, July 18, 2025, https://sarajevotimes.com/over-70-of-citizens-support-bosnia-and-herzegovinas-accession-to-the-eu/.
163 "Over 70% of Citizens Support Bosnia and Herzegovina's Accession to the EU."
164 West. Balk. Invest. Framew., "Corridor Vc in Bosnia and Herzegovina, the Road of Europe."

struction can be bleak. Improved infrastructure is undoubtedly needed in today's economy and society, yet the irreversible damage that highway construction creates for the sake of smoothing space and time is devastating to both humans and extra-humans. From the beginning of the project to the end, the process is unfair. From issuing loans to buying people's homes for a pittance, the highway's construction ecology reveals the jarring unevenness of capitalist development.

The ecological effects are even more disproportionate. Certain industrial centres, like Kakanj, work to produce the necessary material for the construction of the Corridor Vc. In return, the people living within proximity to the factories, quarries and coal pits used to progress infrastructure are getting sick. The reliance on coal is a major factor in poor air quality in northern regions of the country. Kakanj is flanked by three major extractive locations all used to manufacture the concrete for the highway. So, while some people can simply admire the highway by using it, people living in Kakanj are quietly bearing the brunt of its production.

The three lenses of my thesis research bring to light how such projects silently entangle our lives and bodies. For the sake of quicker travel, faster profit, and cheaper construction those benefitting most from capitalist production are willing to differentiate the value of people and things ultimately harming those deemed expendable. Border creation in Bosnia, the funding for the Corridor Vc, and a relatively unknown town in Bosnia called Kakanj initially seem quite disconnected. However, uncovering pieces of the construction ecology of the Corridor Vc shows that these social, economic and ecological projects are all interrelated in a complex network of determinations. In order to truly resist the inequalities of capitalist production, including construction, more attention should be given to understanding how lives are made and affected through these determinations, wherever the project may be.

"Bosnia and Herzegovina." Powering Transition in Europe, February 4, 2024. https://euracoal.eu/info/country-profiles/bosnia-and-herzegovina-8/.

"Bosnian-Herzegovinian Oils Gain International Recognition." *Sarajevo Times*, September 6, 2025. https://sarajevotimes.com/bosnian-herzegovinian-oils-gain-international-recognition/.

"Concrete Needs to Lose Its Colossal Carbon Footprint." *The International Journal of Science, nature*, vol. 597 (September 2021).

"Glossary of Technical Terms." *Historical Materialism* 17 (January 2009): 109–13. https://doi.org/10.1163/156920609X443407.

"Vlasti Kaknja napokon bez ograda uz građane – započinju protesti pred potencijalnim zagađivačima." *Odgovorno*, September 23, 2025. https://odgovorno.ba/vlasti-kaknja-napokon-bez-ograda-uz-gradjane-zapocinju-protesti-pred-potencijalnim-zagadjivacima/.

"Zovko Claims That 1.1 Million BiH Citizens Have Croatian Passports, Including the Izetbegovic Family." *Sarajevo Times*, December 15, 2024. https://sarajevotimes.com/zovko-claims-that-1-1-million-bih-citizens-have-croatian-passports-including-the-izetbegovic-family/.

@heidelbergmaterials. Hercegovina Bridge: A Catalyst for Regional Connectivity and Growth. Instagram. 2024. https://www.instagram.com/p/C_w6lnyu9tU/?hl=en.

Adem Dedić. "Denis Lasić, ključni čovjek HDZ-ove decenijske cestovne hegemonije." Odgovor.ba, Sarajevo, November 28, 2025. https://odgovor.ba/article/5566.

Albania Energy Association. "Coal Plant Kakanj in BiH Halts Electricity Production amid Record Air Pollution." Albanian Energy Association, December 7, 2025. https://aea-al.org/coal-plant-kakanj-in-bih-halts-electricity-production-amid-record-air-pollution/.

Altıkulaç, Aydan, Şeref Turhan, Aslı Kurnaz, et al. "Assessment of the Enrichment of Heavy Metals in Coal and Its Combustion Residues." *ACS Omega* 7, no. 24 (2022): 21239–45. https://doi.org/10.1021/acsomega.2c02308.

Andreas Beger. "Bosnia 1991 Municipalities." Andreas Beger, January 18, 2011. https://www.andybeger.com/blog/2011-01-18-bosnia-1991-municipalities/.

Bear, Laura, Karen Ho, Anna Lowenhaupt Tsing, and Sylvia Yanagisako. "Gens: A Feminist Manifesto for the Study of Capitalism." Society for Cultural Anthropology, March 30, 2015. https://www.culanth.org/fieldsights/gens-a-feminist-manifesto-for-the-study-of-capitalism.

Bosnia and Herzegovina Ministry of Finance and Treasury. QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025. Sarajevo, 2025. https://www.mft.gov.ba/Content/OpenAttachment?id=24cc154d-fe7d-4269-bb4e-b0198ed2bab4&lang=en.

Bosnia and Herzegovina Ministry of Finance and Treasury. QUARTERLY REPORT ON EXTERNAL DEBT OF BOSNIA AND HERZEGOVINA First Quarter of 2025. Sarajevo, 2025. https://www.mft.gov.ba/Content/OpenAttachment?id=24cc154d-fe7d-4269-bb4e-b0198ed2bab4&lang=en.

Building Materials And The Climate: Constructing A New Future. United Nations Environment Programme, 2023.

Caroline Brogan. "Best Ways to Cut Carbon Emissions from the Cement Industry Explored | Imperial News." Imperial College London, May 20, 2021. https://www.imperial.ac.uk/news/221654/best-ways-carbon-emissions-from-cement/.

Central Intelligence Agency. CONSTRUCTION IN YUGOSLAVIA, 1945-1950. Central Intelligence Agency, 1952.

Central Intelligence Agency. THE YUGOSLAV COAL INDUSTRY. Information from foreign documents or radio broadcasts. Central Intelligence Agency, 1953.

DiCarlo, Jessica, and David Fernando Bachrach. "The Corridor as Commodity: Enclosure, Legibility, and Uneven De-

velopment in Southeast Asian Railway Projects." *Antipode* 57, no. 3 (2025): 930–52. https://doi.org/10.1111/anti.70014.

Dover, Robert. "The EU and the Bosnian Civil War 1992–95: The Capabilities–Expectations Gap at the Heart of EU Foreign Policy." *European Security* 14, no. 3 (2005): 297–318. https://doi.org/10.1080/09662830500407770.

Dr. Hasan Zolić, ed. Etnička Obilježja Stanovništva: Rezultati Za Republiku i Po Opštinama 1991. Popis Stanovništa, Domaćinstava, Stanova i Poljoprivrednih Gazdinstava 1991. Sarajevo, 1993.

Dučić, Amil. "Koridor 5C Između Kredita i Istraga: Zašto BiH Kasni Za Srbijom i Hrvatskom." *Fokus.Ba*, April 22, 2026. https://www.fokus.ba/vijesti/bih/koridor-5c-izmedju-kredita-i-istraga-zasto-bih-kasni-za-srbijom-i-hrvatskom/3543176/.

Dučić, Amil. "Koridor 5C Između Kredita i Istraga: Zašto BiH Kasni Za Srbijom i Hrvatskom." *Fokus.Ba*, April 22, 2026. https://www.fokus.ba/vijesti/bih/koridor-5c-izmedju-kredita-i-istraga-zasto-bih-kasni-za-srbijom-i-hrvatskom/3543176/.

eKapija. "Heidelberg Materials Cement BiH Obilježio Godišnjicu Osnivanja - U Tekućoj Godini Oboren Rekord, Proizvedno 780.000 Tona Cementa." 2024. https://ba.ekapija.com/news/4991345/heidelberg-materials-cement-bih-obiljezio-godisnjicu-osnivanja-u-tekucoj-godini-oboren-rekord.

Eko Online: nema okolišanja. "INTEGRISANI REGISTAR ZAGAĐIVAČA." Accessed March 26, 2026. https://eko.ba/baza-zagadivaca.

Étienne Balibar. *Politics and the Other Scene*. Translated by Christine Jones, Chris Turner, and James Swenson. Verso, 2002.

European Bank for Reconstruction and Development. "Projects." European Bank for Reconstruction and Development, 2025. https://www.ebrd.com/home/what-we-do/projects.html.

European Commission. "Before You Apply: EU Funding for Beginners - European Commission." With Directorate-General for Communication. Accessed June 18, 2026. https://commission.europa.eu/funding-and-tenders/how-apply/you-apply-eu-funding-beginners_en.

Federalno Ministarstvo Energije, Rudarstva i Industrije. Strategija Razvoja Industrije Građevinskog Materijala Federacije Bosne I Hercegovine Za Period 2016-2025. Privredna/Gospodarska Komora Federacije BiH, 2018.

Foster, John Bellamy, and Brett Clark. "The Expropriation of Nature." REVIEW OF THE MONTH. *Monthly Review* (New York, United States), March 2018. https://doi.org/10.14452/MR-069-10-2018-03_1.

Glaurdić, Josip. "Spatial Data of Municipalities in Yugoslavia and Its Successor States, 1970-2020." GESIS Leibniz Institute for the Social Sciences, 2021.

Hannah Appel, Nikhil Anand, and Akhil Gupta. "Introduction: Temporality, Politics, and the Promise of Infrastructure." In *The Promise of Infrastructure*. Duke University Press, 2018.

Hazim Hrvatović. Geological Guidebook Through Bosnia and Hercegovina. Geological Survey of Bosnia and Herzegovina, 2005.

Heidelberg Materials. "CEM II/B-W 42,5N." Accessed March 26, 2026. https://www.heidelbergmaterials.ba/bs/CEM_II_B_W_425N.

Holbrooke, Richard. "The General Framework Agreement for Peace in Bosnia and Herzegovina." Dayton, Ohio, 1995. https://cdn.osce.org/sites/default/files/f/documents/e/0/126173.pdf.

Ibrahimović, Šejla, and Almir Biber. "Ovo je bila naša ljepota, sve su uništili": Život pored kamenoloma u Kaknju. 2025. https://www.slobodnaevropa.org/a/kamenolom-greben-kakanj-miniranje-hidrogradnja/33317936.html.

Informacija o Zdravstvenom Stanju Stanovništva Općine Kakanj i Informacija o Epidemijama u 2022 Godini. JU Dom zdravlja sa stacionarom kakanj, 2023.

International Energy Agency. Coal 2023 - Analysis and Forecast to 2026. 2023, 130.

International Monetary Fund. "World Economic Outlook (October 2025) - Unemployment Rate." October 2025. https://www.imf.org/external/datamapper/LUR@WEO.

Ioanna Pantelaiou, Julia Kornelia Miskiewicz, Daniel Garrote-Sanchez, and Mauro Testaverde. International Mobility as a Development Strategy: Bosnia and Herzegovina Country Report. World Bank, 2024. https://doi.org/10.1596/41925.

IQAir. "Kakanj Air Quality Index (AQI) and Bosnia Herzegovina Air Pollution | IQAir." March 24, 2026. https://www.iqair.com/us/bosnia-herzegovina/federation-of-b-h/kakanj.

Ivan Rusan, ed. Stanovništvo Prema Narodnosti Po Gradovima/Općinama, Popis 2021. Census. Državni zavod za statistiku Republike Hrvatske, 1998. https://dzs.gov.hr/u-fokusu/popis-2021/88.

Izvještaj O Finansijskoj Reviziji Javnog Preduzeća „Autoceste Fbih" d.o.o. Mostar Za 2024. Godinu. Audit Nos. 01-02-09-11-4-3159-7/24. With Mirza Kudić and Nina Džidić. URED ZA REVIZIJU INS TITUCIJA U FEDERACIJ I BOSNE I HERCEGOVINE, 2025.

JP Autoceste FBiH. "About Motorways." Accessed May 25, 2026. https://www.jpautoceste.ba/en/about-highway/.

Kate Ferguson. *Architectures of Violence: The Command Structures of Modern Mass Atrocities, from Yugoslavia to Syria*. Hurst & Company, 2020.

Kiel Moe. "Framework: The Architecture of Unequal Exchange." In *Unless: The Seagram Building Construction Ecology*. Actar D, 2021.

Kiel Moe. "Introduction: The Terrestrial Life of Large Urban Spaces." In *Unless: The Seagram Building Construction Ecology*. Actar D, 2021.

Kurečić, Petar. "Geopolitics and the Development of Transport Corridors: A Comparative Analysis of the Western Balkans and Croatia." *Hrvatski Geografski Glasnik/Croatian Geographical Bulletin* 87 (July 2025): 59–82. https://doi.org/10.21861/HGG.2024.87.01.03.

Li, Chaohui, Prajal Pradhan, Guoqian Chen, Jürgen P. Kropp, and Hans Joachim Schellnhuber. "Carbon Footprint of the Construction Sector Is Projected to Double by 2050 Globally." *Communications Earth & Environment* 6, no. 1 (2025): 831. https://doi.org/10.1038/s43247-025-02840-x.

Mary Mellor. "The Privatisation of Money." In *The Future of Money: From Financial Crisis to Public Resource*. Pluto Press, 2010. https://www.jstor.org/stable/j.ctt183h0cz.6.

Mezzadra, Sandro, and Brett Neilson. *Border as Method, or, The Multiplication of Labor*. Social Text Books. Duke University Press, 2013.

Milan Milošević. "The Media Wars: 1987-1997." In *Burn This House: The Making and Unmaking of Yugoslavia*. Duke University Press, 2000. https://doi-org.proxy.lib.uwaterloo.ca/10.2307/j.ctv1220j0w.

Ministries of the Sea, Transport and Infrastructure. Ports. Republic of Croatia, n.d. https://mmpi.gov.hr/sea/ports/8460.

Mirela Mahmutović. "POSKOK Istražuje Autoceste: Kako Je Parcela Od 35.000 Skočila Na 440.000 KM." *Federalna*, December 3, 2025. https://federalna.ba/korupcija-usporava-evropski-put-na-cekanju-brojne-dionice-i-nikada-izgradeni-kilometri-autoputa-d5ees.

Mirha Husika. "Greben – Provalija u Kojoj Kapitalizam „rastresa" Imovinu i Sigurnost Mještana." *Kakanjske Novine* (Kakanj), January 15, 2025.

Mirko Pejanović. Ethnic Structure Changes in B-H Municipalities According to the Census of 2013. no. 1 (2017): 26.

Moore, Jason W. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. Verso, 2015.

Moratti, Massimo. "30 Years after: Serbia in Denial about Genocide." JusticeInfo.Net, July 10, 2025. https://www.justiceinfo.net/en/147684-30-years-after-serbia-denial-genocide.html.

Perišić, Jelisaveta. "Desulfurization Project at Kakanj Thermal Power Plant to Cut Emissions by Almost 100%." Balkan Green Energy News, October 31, 2025. https://balkangreenenergynews.com/desulfurization-project-at-kakanj-thermal-power-plant-to-cut-emissions-by-almost-100/.

Peter Sloterdijk. "Airquakes (Excerpt)." Translated by Eduardo Mendieta. *Environment and Planning D: Society and Space, The Worlds of Peter Sloterdijk*, vol. 27, no. 1 (2009): 41–57. https://doi.org/10.1068/dst1.

Peter Sloterdijk. *Terror from the Air*. Semiotext(e), 2009.

Radio Sarajevo. "Istraživanje Otkrilo Brojne Prevare: Kako Se Gradiautoput u FBiH i Kako Kilometar Košta 13 Mil-

iona?" November 18, 2025. https://radiosarajevo.ba/vijesti/bosna-i-hercegovina/istrazivanje-otkrilo-brojne-prevare-kako-se-gradi-autoput-u-fbih-i-kako-kilometar-kosta-13-miliona/614511.

Rusmir Mahmutćehajić. *The Denial of Bosnia*. Translated by Francis R. Jones. Pennsylvania University Press, 2000.

San Diego Zoo Wildlife Alliance Library. "African Elephants (Loxodonta Africana and L. Cyclotis) Fact Sheet: Physical Characteristics." March 18, 2026. https://ielc.libguides.com/sdzg/factsheets/african_elephant/characteristics.

Shaker, Reza, Bettina van Hoven, and Sander van Lanen. "'Just as Much as There Is Islamophobia, There Is Racism:' Corporeal Encounters with the Muslim Other in Amsterdam." *Urban Geography* 44, no. 4 (2023): 570–90. https://doi.org/10.1080/02723638.2021.2007663.

Sijahović, Emina, Hamdija Čivić, Senad Murtić, and Biljana Dojčinović. "The Use of Pyrophyllite for the Purpose of Remediation of Soil Contaminated with Heavy Metals in the Industrials Zone of Kakanj." In 32nd Scientific-Expert Conference of Agriculture and Food Industry, edited by Muhamed Brka, Enisa Omanović-Mikličanin, Jasmin Grahić, et al. *Springer Nature Switzerland*, 2023. https://doi.org/10.1007/978-3-031-47467-5_13.

Simmons, Kristen. "Settler Atmospherics." Society for Cultural Anthropology, Society for Cultural Anthropology, November 20, 2017. https://www.culanth.org/fieldsights/settler-atmospherics.

Stanovništvo Prema Etničkom/Nacionalnom Izjašnjavanju i Spolu. Popis stanovništva, domaćinstva/kućanstava i stanova u BiH, 2013. https://www.popis.gov.ba/popis2013/knjige.php?id=2.

Stanovništvo Prema Nacionalnoj Pripadnosti i Polu, Po Opštinama i Gradovima. Census. Republički zavod za statistiku, 2022. https://popis2022.stat.gov.rs/sr-Latn/popisni-podaci-eksel-tabele/.

Stanovništvo Prema Nacionalnoj Pripadnosti. Census. Republički zavod za statistiku, 1991. https://stat.gov.rs/sr-latn/oblasti/popis/prethodni-popisi/popisni-podaci-eksel-tabele/.

Stanovništvo Prema Narodnosti Po Gradovima/Općinama, Popis 2021. Census. Državni zavod za satistiku Republike Hrvatske, 2021. https://dzs.gov.hr/u-fokusu/popis-2021/88.

Statistics Austria. Census Austria. Statistics Austria, 2021. https://www.statistik.at/fileadmin/user_upload/CensusAustria2021.pdf.

Statistics Austria. Migration & Integration. Statistical Yearbook 2024. Statistics Austria, 2024. https://www.statistik.at/fileadmin/publications/2024_MigInt_EN_WEB.pdf.

Statistics Canada. "Canada's Gross External Debt as a Percentage of Gross Domestic Product." Chart. Government Of Canada, September 10, 2025. https://www150.statcan.gc.ca/n1/daily-quotidien/250910/cg-a005-eng.htm.

The World Bank. AIR POLLUTION MANAGEMENT IN BOSNIA AND HERZEGOVINA. The World Bank, 2019.

Tomaž Mastnak. "Europe and the Muslims: The Permanent Crusade?" In *The New Crusades: Constructing the Muslim Enemy*. Columbia University Press, 2003.

ushmmfellows. The Mladic Files: Mladic Entering Srebrenica - July 11, 1995. 2011. YouTube video. https://www.youtube.com/watch?v=QfInjlNoT4Q.

Warren Zimmerman. *Origins of a Catastrophe: Yugoslavia and Its Destroyers - America's Last Ambassador Tells What Happened and Why*. Random House, 1996. https://archive.org/details/originsofcatastr00zimm/page/n7/mode/2up.

Western Balkans Investment Framework. "Corridor Vc in Bosnia and Herzegovina, the Road of Europe." May 2020. https://www.wbif.eu/corridor-vc-bosnia-and-herzegovina-road-europe.

Western Balkans Investment Framework. "Corridor Vc Motorway in Bosnia and Herzegovina." Accessed July 17, 2026. https://www.wbif.eu/project-detail/PRJ-BIH-TRA-002.

Zalta, Anja. "Expulsion of the 'Turk' - Contextualising Islamophobia in the Balkans: The Case of Bosnia and Herzegovina." *Intellectual Discourse* 33, no. 1 (2025). https://doi.org/10.31436/id.v33i1.2298.

Appendix

Sketchbook pages



Figure 70. Sketch of Fortica and Velež mountains east of Mostar. Drawing by author, 2025.

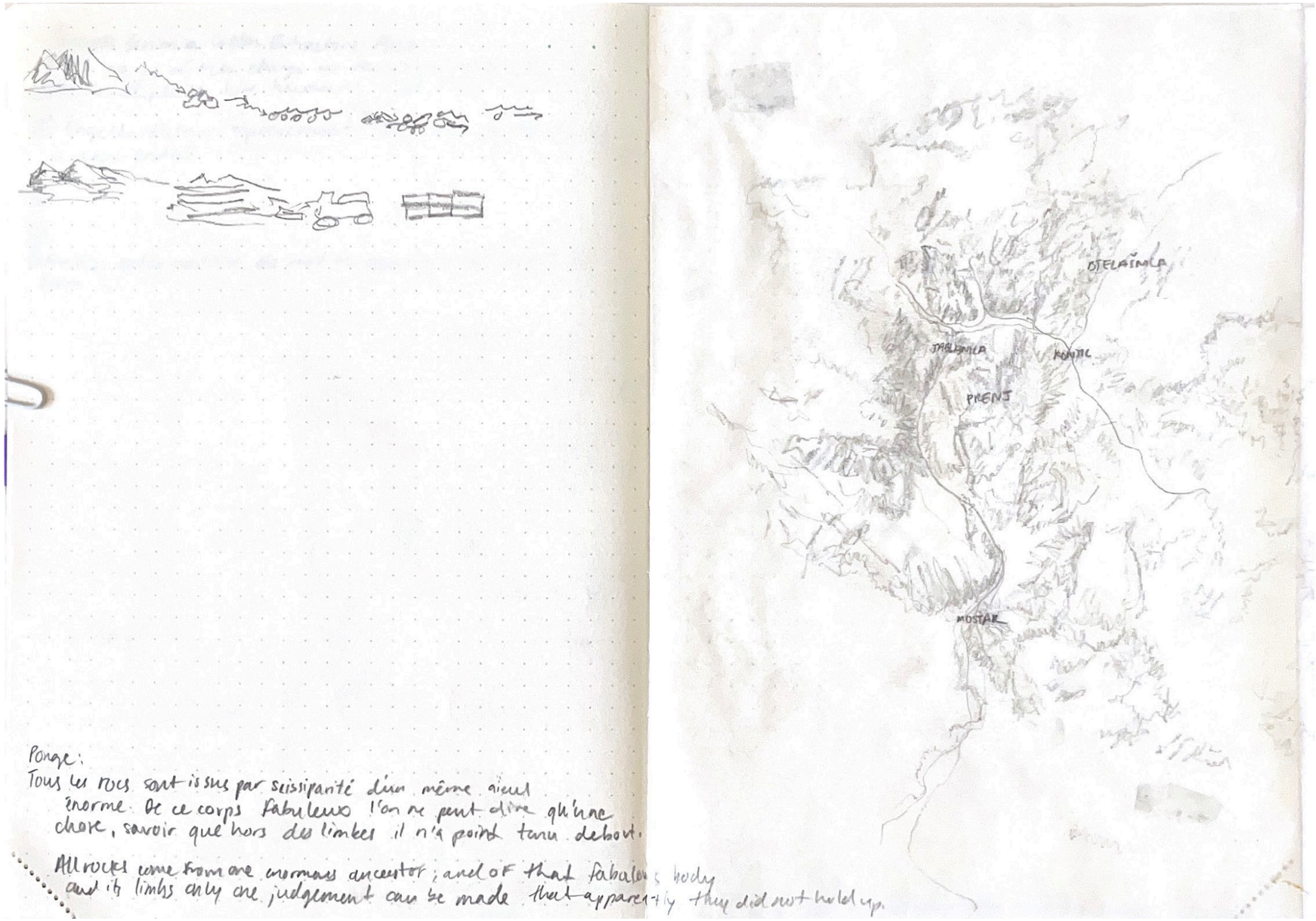


Figure 71. Sketch of the Neretva's flow. Drawing by author, 2025.

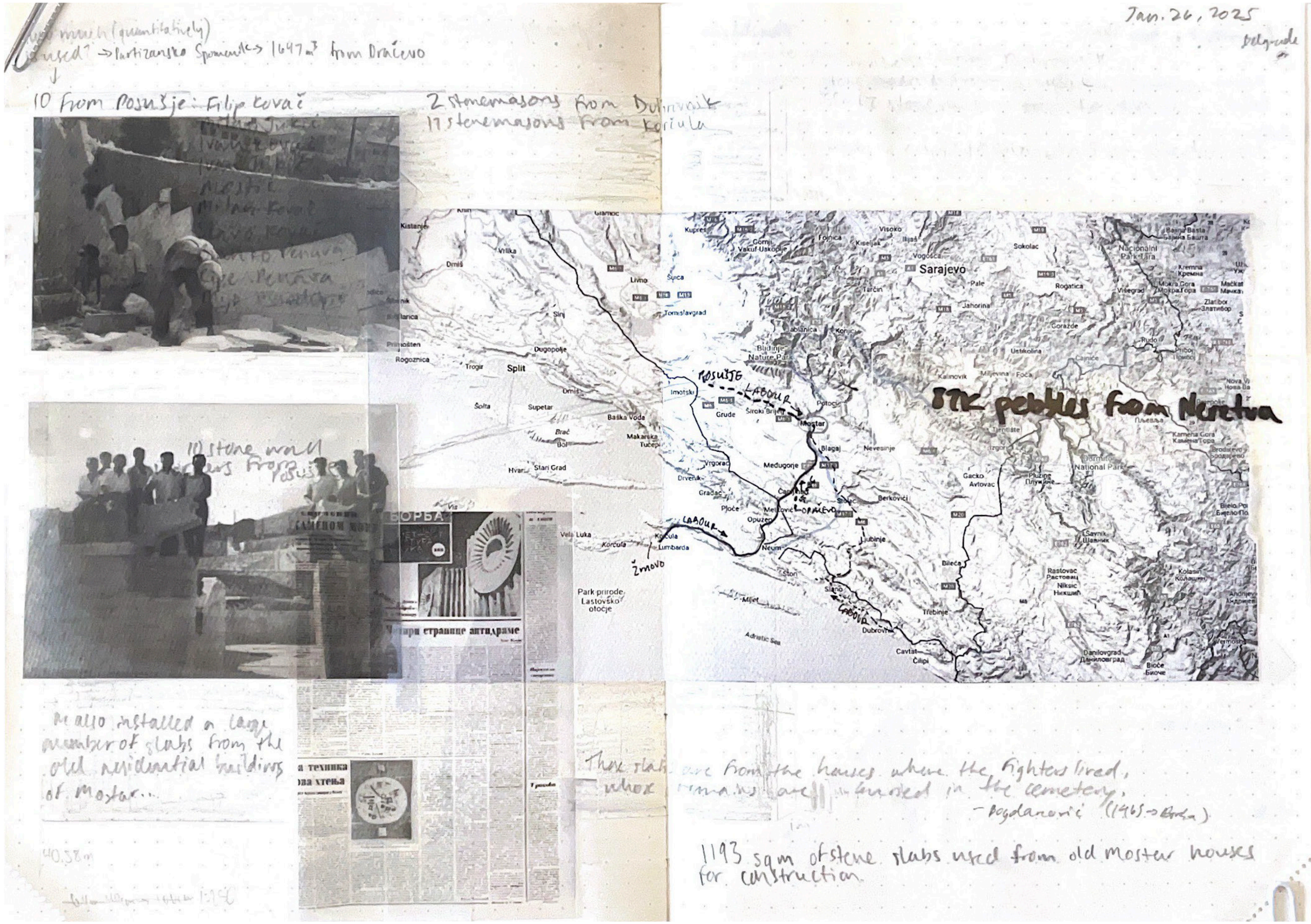


Figure 72. Stonemasons from Herzegovina and Dalmatia working on the Partisan Memorial Cemetery in Mostar, designed by Bogdan Bogdanović for World War II Yugoslav Partisans. Drawing by author, 2025.

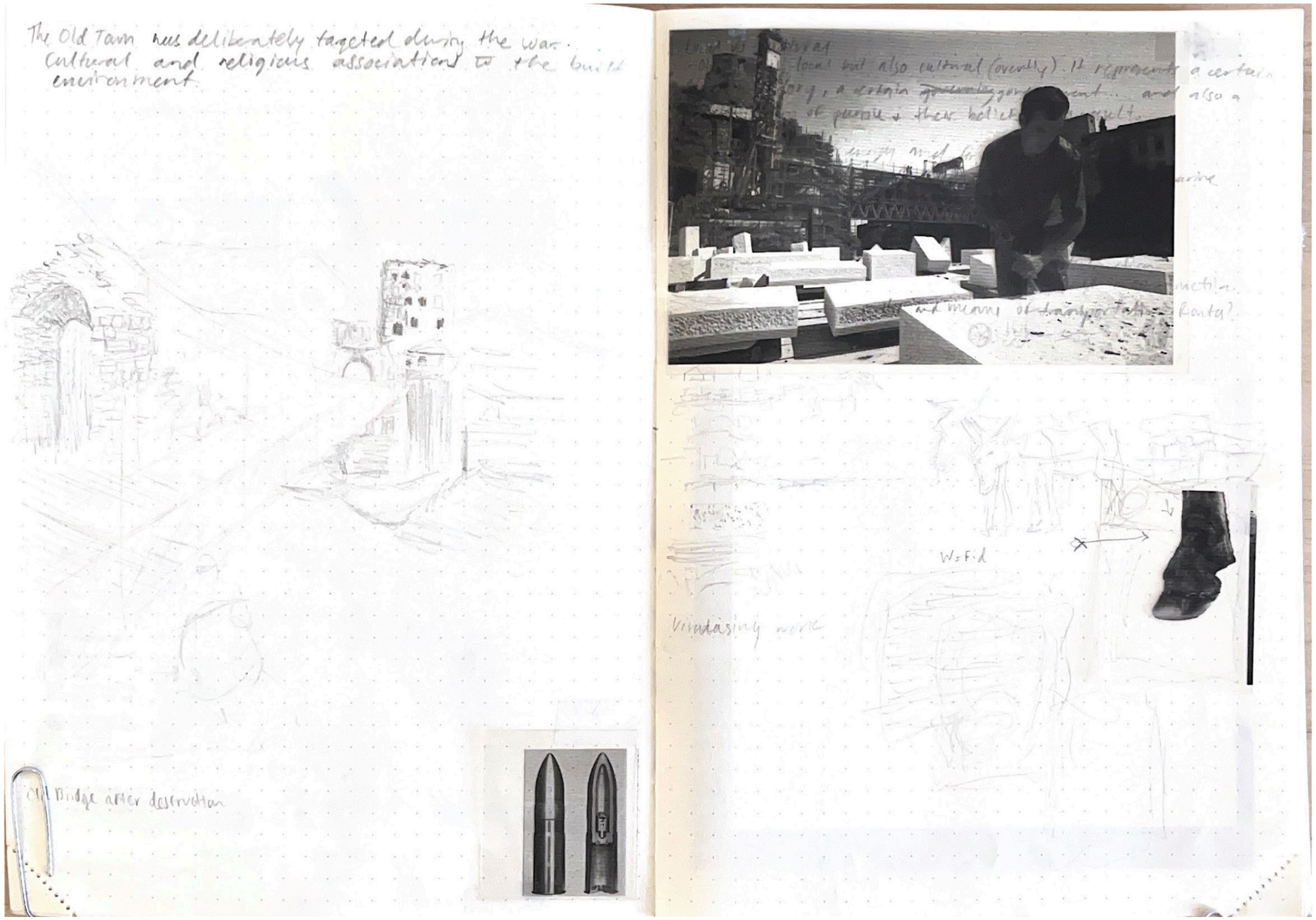


Figure 73. Sketch of the makeshift bridge used to replace the destroyed Old Bridge until its reopening in 2004. Drawing by author, 2025.



Figure 74. Sketch of the view on the Old Bridge. Drawing by author, 2025.

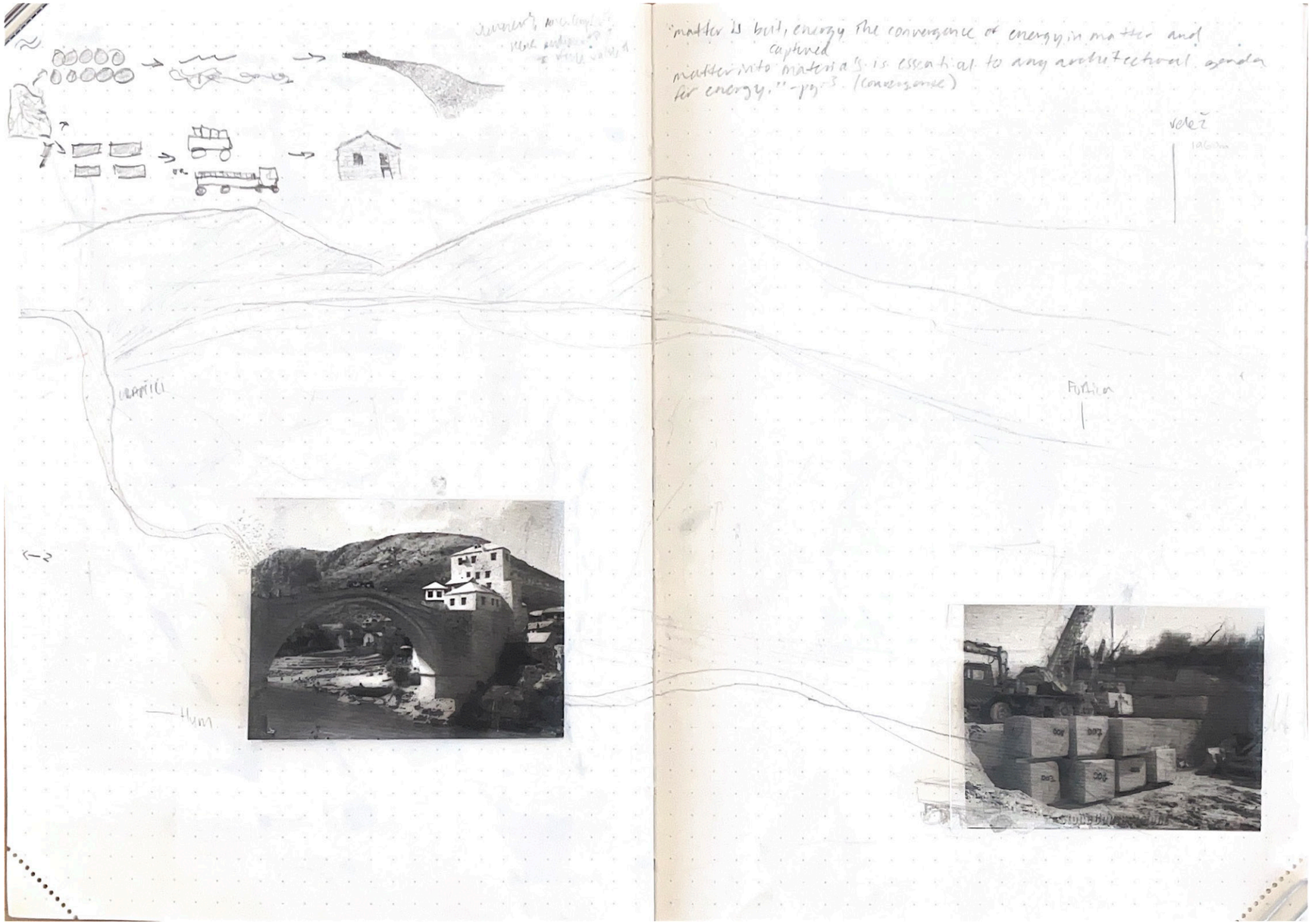


Figure 75. Perspective of Mostar, showing the Revigrad quarry which supplied the stone for the Old Bridge's reconstruction. Drawing by author, 2025.

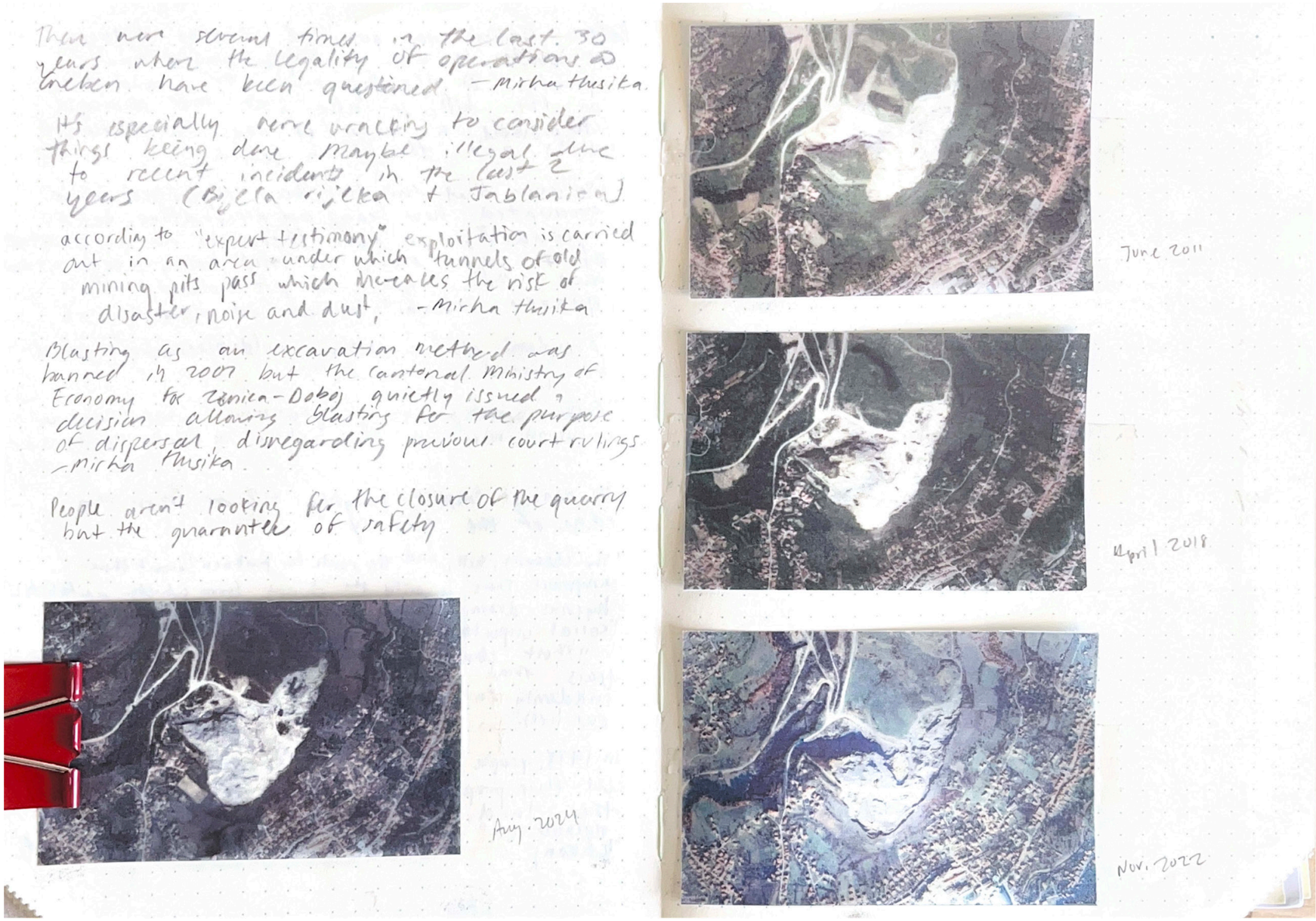


Figure 76. Printed satellite images of the Greben quarry's development. Images from Google EarthPpro, 2011-2024.

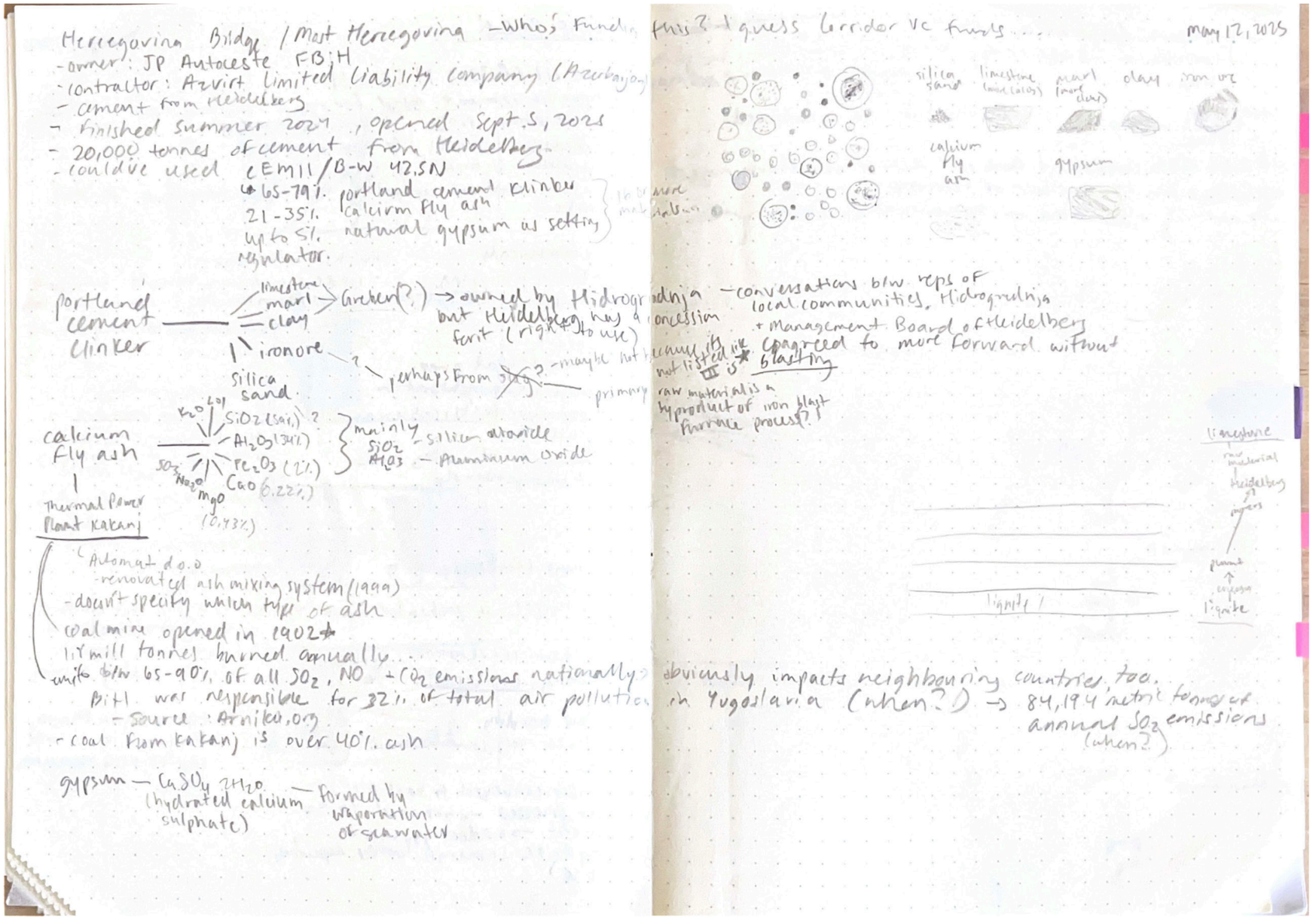


Figure 77. Mind mapping the raw materials and sites for cement manufacturing at Heidelberg Materials in Kakanj. Drawing by author, 2025.

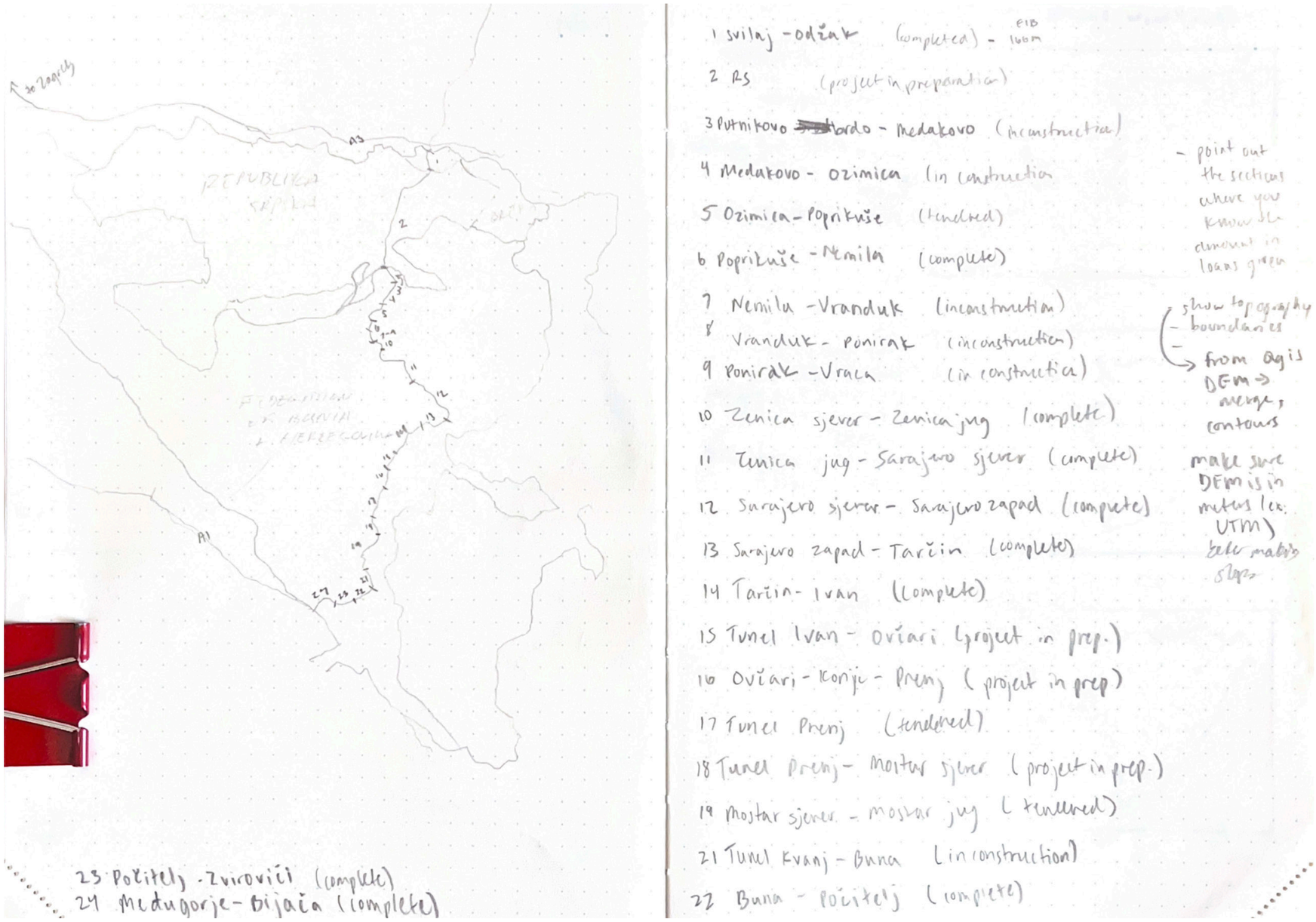


Figure 78. Sketch of the Corridor Vc's sub-sections. Drawing by author, 2026.