

FOLLOWING THE SWISS RAILWAY

Politics of Land, Spatial Logics of Capital and
State-driven Financialization Processes

Master Thesis by Aline Suter



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INDEX

Introduction

I. Theoretical Debates on Land, Infrastructures and Spatial Logics of Capital

On Ownership and Use of Land

Infrastructures Shaping Territories

Financialization in Real Estate and its Speculative Urbanisms

II. Following the Rail as a Method of Inquiry

Collecting Documents and Re-Visit Spaces with 'Conceptual Walks'

Deconstructing Spatial Discourses and Mapping Critically

III. The Swiss Railways' Politics of Land – Modes of Financialization

Collecting Land

Shifting Land Use

Developing Land

IV. Demythologizing the Swiss Railway –

Spatial Effects of Building and Financing Infrastructures

Shifting Territories and Imperial Narratives

Following the Money

The SBB as Landowner and City Planner

Alternative Futures – Concluding Remarks

QUESTIONNAIRE 9

1. Can you remember from what age it has seemed natural to you to possess something, alternatively not to possess it?
2. To whom, in your opinion, does (for instance) the air belong?
3. What do you regard as your property:
 - a. something you have bought?
 - b. something you have inherited?
 - c. something you have made yourself?
4. Even when you can replace a stolen object (pen, umbrella, watch, etc.) without difficulty, does the theft of it as such annoy you?
5. Why?
6. Can you feel money by itself to be property, or must you buy something with it before you feel like a property owner? And how do you explain the fact that the more you feel envied for a certain thing, the more you are conscious of being its owner?
7. Do you know what you need?
8. Assume you have bought a plot of land: how long does it take for you to feel that the trees on this plot belong to you, that is, to feel happy or at least confident that you possess the right to have them cut down?
9. Do you regard a dog as property?
10. Do you like fenced enclosures?
11. When you stop on the street to give something to a beggar, why do you always do it as hurriedly and inconspicuously as possible?
12. How do you imagine it feels to be poor?
13. Who taught you the difference between property that loses in value and property that increases in value, or has nobody ever taught you that?
14. Do you also collect art?
15. Can you name a free country in which the rich are not in the minority, and can you explain why in such countries the majority always imagines itself to possess the power?

16. Why do you enjoy giving gifts?
17. How much landed property do you feel you would need in order to have no more fears for the future? (Reply in square yards.) Or do you find your fears mounting in proportion to the size of the property?
18. What risks are you not insured against?
19. If property were confined only to things that you use and not to things that give you power over others, would you want to go on living under such conditions?
20. How many employees do you own?
21. How so?
22. Do you sometimes feel burdened by your responsibilities, which you cannot delegate to others for fear of endangering your property, or is your happiness due to these very responsibilities?
23. What do you like about the New Testament?
24. Since the right to possess undoubtedly exists, though effective only when property is available, would you be able to understand your fellow countrymen if a majority of them – in order to assert their own rights – were one day to dispossess you?
25. And why not?

Max Frisch, *Questionnaire*, vol. No. 1435, Insel-Bücherei (Berlin: Insel Verlag, 2017), 71–74.

INTRODUCTION

In light of the recent Black Lives Matter movements originating in the US and spreading across the globe, Sonya Renee Taylor, a Black activist, author, and poet, posted a video on Instagram with the title 'When Capital is more Valuable than Black Bodies, Capital must be Disrupted'. In it, she argues that *'in a system that values property more than your life, the only way to change that system is to disrupt its relationship to property'*. The system she describes is, in her words, a system of property and capital.

The overall attempt of this thesis is to understand and disrupt processes of spatially constructed identities in relation to land and property. As the main actor through which I analyze this, the infrastructural vision of the Swiss railway relating to land and property is examined both in the past and the present. In Switzerland, the company of the Federal Railway is the second-largest landowner of the country. Through expropriations of private owners and public land granted for free by communal and cantonal governments, the private railway companies received large amounts of land between 1851 and 1902. Subsequently, land plots were expropriated by the nationalized railway company Swiss Federal Railways (SBB) from 1902 onwards. The land was needed to envision an infrastructural network, aiming to connect Switzerland. In 1999, the SBB was restructured and is currently increasingly invested in the financialization of land through real estate developments on unused inner-city land plots. In terms of the interrelation between economics and space, I question the approach of reusing land, expropriated initially for a small amount of money due to a governmental framework supporting the private railway companies, in a way to maximize the profit. Based on a general approach of questioning common discursive logics, I aim to highlight the connection between symbolic and material practices. I ask, whether we can understand the contemporary real estate portfolio of the SBB as a continuum of 150 years of land speculation, or if it has shifted its approach to dealing with land in the recent decades. Further, I aim to understand how the financialization of land in the case of the SBB influences and affects Switzerland's urban space.

To understand how the SBB has collected, managed and developed their land assets today and in the past, I have analyzed both archival and online documents. These documents have been extended by in-depth interviews with the manager of the SBB Real Estate area development team, and members of an association aiming to prevent a development by the aforementioned division. The embodied ethnographic method of 'conceptual walks' has been used to research one specific contemporary development project of the SBB Real Estate. Finally, based on historiographical sources I disrupt the romanticized portrayal of the Swiss Railway and examine the macro-story of how the SBB extended its business to developing real estate. To analyze the collected data, a practical approach to the theory of destructive discourse analysis and critical mapping techniques were applied.

After the French invasion in the late 18th century, the loose cohesion of different unities in the geographical territory representing Switzerland today regained its independence due to political decisions in the Congress of Vienna in 1814-15. Even though the territory was understood as one unity by other European countries, the individual unities, in the Swiss context called cantons, were governed independently. The relationship between the cantons shares a long history of religious and political conflicts, with multiple violent confrontations. This tension led to the Sonderbund War in 1847, where the liberal Protestants fought against the conservative Catholics. The Catholic

cantons were outnumbered, and the last armed conflict on Swiss territory ended.¹ In the aftermath of this conflict, a new constitution was outlined based on a federal governing body, still granting the cantons significant power and independence. This was the birth hour of what we understand as the 'modern' state of Switzerland today; its unique characteristic of a strong and embedded federalism, which derives from a long history of competing cantons with different cultural and linguistic backgrounds, is still today a vital feature of the Swiss state. Both cantons and communes, latter representing the smallest political entity, share individual tasks and operations. While the constitutional law is always located above the cantons' freedom of action and the communes, some responsibilities are individually in the hands of the cantons, which then again have own constitution, acts, parliament, government and courts.² In this work, I will often refer to the state as an institution. However, it is essential to highlight that the state as one entity does not exist in Switzerland. It is rather a complex and diverse arrangement of individual representatives situated in departments with certain areas of responsibility. While this is of course the case for all national institutions, this political situation in Switzerland is particularly pronounced.

As the state of Switzerland was only founded in 1848, the national railway project began rather late, compared to surrounding European countries. Like in other cases, the Swiss railway project needs to be understood as a nation-building process, and as a symbolic and material practice creating cultural nationalism. In this thesis, the historical layer plays a crucial role in understanding contemporary financialization processes on land owned by the SBB. Land, today developed by the SBB to finance the railway infrastructure as a side-business, was appropriated during the historical process of building a railway network in the 19th and 20th centuries. I aim to extend the concept of financialization by researching these processes within the long history of profiting from land. Financialization is mostly understood as a process initiated through neoliberal shifts in the 1970s and 80s. By adding an extended historical layer to this, I demonstrate how certain modes of financialization have been practiced by the SBB before the shift to a neoliberal system. Finally, I argue that adding a historical lens to this work enables me to reveal similar rationales in how the financial logic of building the railway affects the physical urban space both in the past and present and impacts vulnerable citizens negatively.

The broader aim of this project is to disrupt the narrative of the Swiss Federal Railways and to rethink the concept of and relationship between property and land, the state and infrastructure. Further, I attempt to disrupt thinking through North and South categories by analyzing a global phenomenon: The commodification and financialization of land, whereas housing is part of a speculative and profit-oriented market. To shift the hegemonic discourse logic, which is that initially expropriated or appropriated land for a low cost to create a transportation infrastructure can be used as a financial asset, is the principal political claim of this thesis. This rationale ultimately leads to a structure where an essential good that needs to be accessible for everyone follows financialized logics. It shifts the financial and spatial power-dynamics of urban spaces and displaces citizens, through stimulating a speculative housing market.

¹ Schueler, *Materialising Identity: The Co-Construction of the Gotthard Railway and Swiss National Identity*, 15.

² ch.ch (A service of the Confederation, cantons and communes), "Swiss Federalism."

I. THEORETICAL DEBATES ON LAND, INFRASTRUCTURE, AND SPATIAL LOGICS OF CAPITAL

The ways in which the SBB deals with its land reserves and its relation to the history of the rail in Switzerland touches upon a diverse range of debates. The multiple layers of time spheres and geographical locations, the different actors and institutions involved, and the ideological contradictions revealed through the process of following the rail are very much rooted in this chapter on theoretical debates. The novelty of researching the Swiss railway and its land assets, but also the fact that this work engages with a variety of different historical and geographical layers, leads me to review a range of heterogeneous debates; some relations between scholars and discourses might seem to be counterintuitive, others less so. Rethinking common schools of thoughts, be it on a theoretical or empirical level, rearranging them and puzzling them back together in a new form seems to be one way to disrupt ever-repeating discourses when researching the Swiss railway. Using the method of deconstructing common narratives is a key approach for the empirical part of this dissertation; therefore, I am following this line of thought already at this point, aiming to deconstruct grounded knowledge around questions of land, the role of the state in planning, and the Swiss Railway itself.

A non-academic source that is the basis of this thesis, is a questionnaire written by Max Frisch in 1966, a Swiss literary and former architect. In his diaries, a whole range of questionnaires was found focusing on topics such as marriage, women, hope, money, friendship, and death. One of the questionnaires guides the reader through the process of rethinking the notion of ownership.³ As participants of a capitalist world order, we have all been taught a fundamental understanding of land as a resource to produce capital productively and efficiently. Whether this occurs on a conscious or unconscious level, intuitively, we do understand land as a commodity. Exactly because critical research on discourses around land, land use, and expropriation is scarce, I take inspiration from creative works such as Max Frisch, which offers a critical framing of these discourses.⁴ The defamiliarization of discourses that naturally seem to be part of our understanding of the world is a crucial approach. Reading Frisch's questionnaire on ownership has helped me to reflect on my understanding of ownership and allows me to question such familiar concepts. I do wish that this questionnaire serves both as an introduction to this thesis in general, but more precisely to this chapter on theoretical debates, and as a guidance to defamiliarize oneself from hegemonic discourses on land use.

Symbolically speaking, the three main theoretical themes that have emerged during the research of this project, are all engrained in this questionnaire. Max Frisch asks, what possession means for the owner and why certain people do have ownership over a commodity (whether this commodity is human, an animal, an object, tangible or intangible). These questions open up discourses around ownership and the ways in which land can be owned and used. In question 8, Frisch makes the connection between ownership of property and land clear. He questions, whether the duration defines, if the owner considers its land naturally as his or her own; with this, he touches upon the factor of time, theoretically grounded in concepts around idle or empty land considered as wasteland, and settler colonialists' understanding of claiming ownership. Several questions serve as a basis to rethink ownership, dispossession, and the power relations this framework implies. They reveal state power in expropriation processes and challenge such planning tools.

³ The questionnaire can be found in the beginning of this thesis, right before the *Introduction*.

⁴ This approach is inspired by Boehmer and Davies, *Planned Violence: Post/Colonial Urban Infrastructure, Literature and Culture*.

Engendered by this, is both the relation between infrastructures and the public, and the role the SBB plays in owning and using public land. Finally, questions 13 and 19 can be linked directly to debates on financialization processes in real estate and the notion of value.⁵ I similarly interpret question number 19: Frisch refers to the reality that is owning land or property does provide an individual or in this case, an institution with a power position. Additionally, the question reveals how property is increasingly validated financially through an exchange value, rather than a use-value.⁶

ON OWNERSHIP AND USE OF LAND

This project is deeply rooted within the question of authority over land. Thinking through and out of categories of land, property, and ownership builds the foundation of this thesis.

A dictionary on law defines land as the surface of the earth which can be owned. Economists relate land to natural resources and define it as a site of production.⁷ From an agricultural perspective, land is also considered as a source, a space to cultivate. Land is seen as a resource that needs to be used productively. If not, it is wasteland. Through capitalist production, wealth is generated from land. Therefore, at least how land is understood from a contemporary, and one can also say Western perspective, the notion of land is deeply embedded in our economic system and needs to be analyzed through this angle. Land use is highly shaped by our capitalistic way of production and its relation to property and ownership.⁸ In our contemporary understanding, land is not considered a collective resource, but rather a tool to accumulate private wealth. To deepen this notion, Stein argues that '*land is a particularly complicated factor in capitalism, as it is both a precondition for all commodities' production and circulation and a strange sort of commodity in and of itself. Land is not traded like other products.*'⁹ Instead, according to David Harvey, land '*is a fictitious form of capital that derives from expectations of future rents*'.¹⁰ However, this was not always the case: While land used to be measured in yardland, a feudal unit which describes an area large enough to support a family, in 16th century Feudal land laws shifted and an exact measurement was used.¹¹ Until then, communal property was a key aspect under feudalism; its usurpations through the church and landlords in late 15th to 16th century, later through a legal framework in the 18th century is described as part of a process called *primitive accumulation* by Karl Marx, illustrated as the first economic sin, referencing the biblical theme, of capitalism.¹² In the 1660's the economist William Petty introduced a concept, which defined that land needs to be treated as capital, and labor is needed to release its value. Through this, land was ultimately considered as a capital commodity.¹³ Crucial for such an understanding was John Locke's *natural law*, enabling every individual to own personal property,¹⁴ because, as he argues, God has provided men with land.¹⁵ Often neglected by contemporary scholars researching notions of land ownership, is how both Marx' capitalist critique and Locke's vision of a libertarian and individualized state is closely linked to colonial agendas:

⁵ See chapter *Financialization in Real Estate and its Speculative Urbanisms*.

⁶ See page 13.

⁷ Black, Hashimzade, and Myles, "Land."

⁸ Blomley, "Land Use, Planning, and the 'Difficult Character of Property,'" 356.

⁹ Stein, *Capital City: Urban Planners and the Real Estate State*, 29.

¹⁰ Harvey, *The Ways of the World*, 273.

¹¹ Linklater, *Owning the Earth*, 32-33.

¹² Marx, *Capital. A Critical Analysis of Capitalist Production*, 620 and 628-29.

¹³ Linklater, *Owning the Earth: The Transforming History of Land Ownership*, 58-59.

¹⁴ *Ibid.*, 83.

¹⁵ Quabeck, *John Locke's Concept of Natural Law from the Essays on the Law of Nature to the Second Treatise of Government*, 80.

*'Owning the New World's land crosscut social classes and established a socially desirable practice for individuals as well as a worthy public goal.'*¹⁶

Of course, concepts around land, property, and ownership have not solely developed through colonial practices. Its relation cannot be described through a unidirectional cause and effect model. Instead, I argue that discourses around the notion of land use and ownership have been shifted, extended, and stretched through colonial practices. As an example, British settler colonialists in America refined the framework of claiming ownership over land: While in the home country owning and cultivating land was a process which needed to be permissioned by the state or any other official authority, English colonists started to create ownership solely through the entitlement of labor.¹⁷ The concept of establishing legal ownership of terrain through farming and cultivating land was a driving force to frame empty and idle landscapes as wasteland.¹⁸ Colonialist structures shaped both notions on ownership and the deeply capitalist thought of land as a resource and commodity.

Closely connected to the concepts around land, ownership, and property is the state who manages and controls how land is used. Therefore, Land use is a crucial aspect to understand the relationship between land, private owner, and the state. As Blomley argues, it consequentially brings planning and property together.¹⁹ Further, he states that land use itself is a spatialized classification, which favors state authority over the owner:

*'Land use can be thought of as a form of biopolitics, defined as the calculated management of human populations, or the practices deployed to regulate the physical productivity of persons and populations.'*²⁰

Land use does not rethink the notion of property, followed by the exclusion and dispossession; or who owns and how. Instead, it anticipates the socially produced monopoly of property and the distribution of it.²¹ Further, Blomley argues that 'land use' as a concept was generated through different discourses around Utilitarianism and Conservation practices. Utilitarianism was understood as a concept maximizing the social utility of space, which needed to be used productively. Conservation was based on regulating and ordering 'natural resources'. While this approach favors the public use over the private, it is closely aligned with biopolitical processes in capitalism:

*'Land use planning is thus not a tool for collectivism, but a calculus that balances and mobilizes individual interests.'*²²

Blomley then asks how the legacy of land use shapes contemporary planners. Exactly on this question, Samuel Stein recently published the book *Capital City: Urban Planners and the Real Estate State*. He shows how the profession of the planner is directly linked to the history of capitalism, as market economies require planning:

*'[...] if planners help the state establish spatial order over time, and if the state under capitalism is fundamentally "the executive committee of the bourgeoisie", then planners – whatever their intention – are working for the maintenance, defense, and expansion of capitalism.'*²³

¹⁶ Seed, "Owning Land by Labor, Money, and Treaty," 13.

¹⁷ Ibid., 15.

¹⁸ Blomley, "Land Use, Planning, and the 'Difficult Character of Property,'" 357.

¹⁹ Blomley, "Land Use, Planning, and the 'Difficult Character of Property,'" 352.

²⁰ Ibid., 353.

²¹ Ibid., 354.

²² Ibid., 358.

²³ Stein, *Capital City: Urban Planners and the Real Estate State*, 26–27.

Zoning as a specific tool to define land uses changes the economic calculus of present versus future land uses and shifts preconfigured values. Even though zoning itself is not considered as a problematic practice, planners acting based on capitalism do shift power dynamics with this. They can either induce or promote gentrification processes.²⁴ After discussing the present state of the planning practice in a capitalist state, Stein follows up with a chapter of how to undo the *Real Estate State*, a term created by the scholar to describe both the economic and political power real estate and its actors play in contemporary cities.²⁵ To counter this reality, he suggests a de-commodification of land through so-called push policies, allowing cities to transfer private land to the public. Also, he suggests public stewardship, a concept which aims to create more publicly managed infrastructure and, therefore, more public access to urban space. Architect Hans Bernoulli forwarded similar propositions in Switzerland: In the first part of the book, Bernoulli analyzes cities' role in relation to land, and what land means for a city. Then he proposes a solution for a speculative housing market; Bernoulli suggests, to support low-income housing through entitling the local authority to buy land from private investors, ideally for the original selling price.²⁶ Private citizens or institutions should use land that is owned by the city through a construction law.²⁷ Finally, land which is already owned by the city, should not be sold.²⁸ When using Bernoulli's concepts, it is crucial to mention the way German land reforms in late 19th century and Howard's Garden City has influenced his work.²⁹ Nevertheless, his book on how to deal with land resources in cities is crucial for this thesis: Apart from a recently published book on the topic of cities, land and ownership in Switzerland, Swiss scholars and writers have been surprisingly quiet on how the state and local communities should manage land. Even though Bernoulli's argumentation is both profoundly shaped by partially controversial concepts around land reforms and not based on contemporary realities, his book is still influential in the Swiss context and, therefore, a relevant source.

The just mentioned book focusing on how cities and its governments should manage land to prevent speculation in the case of Switzerland, edited by Brigitta Gerber and others, brings further insights into this discourse. The editors push forward the notion of land being in the publics' hand, namely the state, cities and local authorities.³⁰ This shows that the state of research, both locally and globally, finds the solution to increasing rent prices favoring the state domain to own and manage land. Focusing on a railway company managed by the federal government in Switzerland reveals different realities and counters this argumentation line.

When trying to understand the processes through which the Swiss railway has been able to appropriate such a large amount of land in Switzerland and create contemporary development projects, it becomes clear that specific land use policy tools were vital. Concessions were often a prerequisite in the railway construction to expropriate land. While scholars often mention concessions as a main tool to provide railway companies with land resources, critical research rethinking concessions and analyzing how this planning tool shapes urban spaces is nonexistent. Other planning tools, such as zoning, has been mentioned previously in this text. Before diving deeper into the theoretical framing of expropriation, I want to emphasize again the link between land use planning and the capitalist concept of minimizing wasteland, which has been elaborated above.

Expropriation is an action, mostly executed by authorities, withdrawing ownership of tangible or

²⁴ Stein, *Capital City: Urban Planners and the Real Estate State*, 62.

²⁵ *Ibid.*, 32.

²⁶ Bernoulli, *Die Stadt und ihr Boden*, 104.

²⁷ In this thesis, the term *building right* is used to describe this legal form.

²⁸ *Ibid.*, 126.

²⁹ See e.g. Hartmann, *Deutsche Gartenstadtbewegung: Kulturpolitik und Gesellschaftsreform*.

³⁰ Gerber, Kriese, and Prantl, *Boden Behalten – Stadt Gestalten*, 419.

intangible assets, often private property, justified with a public interest. It is a tool of the state and its planning department to realize large-scale infrastructural projects, with the promise to create a space for the public and as a collective good. In most countries, it is embedded in national law, introduced in the late 18th or early 19th century. In some countries it is therefore linked to an imperial, in other countries at least to an expansionary endeavor which was achieved, amongst other things, through infrastructural connection.³¹

Even though expropriation, at least in contemporary debates, is often accompanied by a 'just' compensation, one must ask the question of ownership and value: Who is expropriated? What is 'just compensation' for private property? Can one compensate in money, or would a compensation in the same form (land for land, property for property) be more 'just'? What is the value of a piece of land or property, and who has the authority to define the value? In the same manner as with value, one has to ask similar questions concerning the public interest: Who has the authority to define what the public interest is? Also, when talking of the public, who is the public? Is it defined by citizenship and, therefore, by a legal framework of participating in state practices? Or by people who are effectively using the public good? Who is not part of the public and excluded from such decision-making processes?

Research that deals with the concept of expropriation are mostly grounded in the discipline of law and economics.³² An interest in Urban Studies to analyze the concept of expropriation exists but is scarce. Two articles in the late 90's have dealt with this concept, using a spatial lens: Imrie and Thomas do this by not looking at expropriation directly, but by illustrating the interrelation between law, legal processes, and spatial processes. They argue that such legal discourses always have the power to authorize social spaces, exclude and oppress and not understand such legal actions as neutral.³³ Cavaillé has followed a different approach; she has written an ethnographic paper looking at the impact of expropriation through relocated residents due to the construction of a highway.³⁴ Recent research considering expropriation has been mainly focusing on dispossession in a postcolonial setting. Fraser uses the concept elaborated by Marx of the exploited laborer in class domination's social system and argues that capitalism is '*deeply entangled with racial oppression*'.³⁵ Even though this approach might be counterintuitive in a 'non-colonial setting', according to Stein, '*capitalism is always racial - though the precise meaning and articulation of racial differentiation and domination varies and changes over time and place*'.³⁶

I argue that it is critical to understand historical and contemporary expropriation as a state tool for infrastructural projects, which can be executed based on violent and/or racist practices, depending on the context. Critical research on expropriation as an instrument of land use and its impact is rare; only Antonio Azuela and Carlos Herrera-Martín focus on this topic in their paper *Taking Land Around the World: International Trends in Expropriation for Urban and Infrastructure Projects*. They argue that many citizens around the world have started to articulate their discontent with expropriation in recent years. Depending on the context, expropriation of land is considered socially accepted or not: While expropriation for infrastructure projects is legitimized by allegedly providing a public good, the same tool used for land tenure reforms is not so. Further, the authors criticize the lack of information on expropriation as a land policy tool, which should be produced and published by the governments.³⁷ Prior in this text, I raised questions on ownership and value to emphasize the complicit notion of public interest. In a similar way, Azuela and Herrera-

³¹ "Expropriation Laws and Review Processes - OECD Policy Framework for Investment."

³² Schäfer and Shingh, "Takings of Land by Self-Interested Governments: Economic Analysis of Eminent Domain"; Blanc, *Das öffentliche Interesse als Voraussetzung der Enteignung*; Kirchheimer, *Die Grenzen der Enteignung*.

³³ Imrie and Thomas, "Law, Legal Struggles and Urban Regeneration: Rethinking the Relationships," 311.

³⁴ Cavaillé, *L'expérience de l'expropriation: Appropriation et Expropriation de l'espace*.

³⁵ Fraser, "Expropriation and Exploitation in Racialized Capitalism: A Reply to Michael Dawson," 165.

³⁶ Stein, *Capital City: Urban Planners and the Real Estate State*, 26.

³⁷ Azuela and Herrera-Martín, "Taking Land Around the World: International Trends in Expropriation for Urban and Infrastructure Projects," 337-338 and 348.

Martín understand the factor of public interest and compensation as crucial for understanding expropriation.

Research on expropriation as a tool for land use has mostly been analyzed from a legal or economic perspective.³⁸ In the case of Switzerland and the infrastructural project of the railway, only one author focuses on the legal aspect of the expropriation law concerning the construction of the railway in 19th century in the canton of Zurich. He analyzes how this law was implemented and how it has shifted over time and illustrates the interlinked system between the legal framing of expropriation and the rail building.

Considering this research gap, I locate myself within the debate on understanding the role of land and land use regulations in relation to the railway in Switzerland, aiming to illustrate how this connection has shifted over time. This project is deeply rooted in a critical understanding of ownership and land's historical and contemporary discourses and its spatial implications, situated in the heart of critical geography and critical urban studies.

INFRASTRUCTURES SHAPING TERRITORIES

*'Roads and railways are not just technical objects [...] but also operate on the level of fantasy and desire. They encode the dreams of individuals and societies and are the vehicles whereby those fantasies are transmitted and made emotionally real.'*³⁹

In addition to the imaginative layer of infrastructure projects and their transmitted political promise to a modernized and more efficient world, they reveal a technopolitical sphere and its 'governmentality'.⁴⁰ These two layers are even connected, and influence each other:

*'And it forcibly reminds us that the deeply affectual relation people have to infrastructures – the senses of awe and fascination they stimulate – is an important part of their political effect.'*⁴¹

Aligned to this account is Schueler's book *Materialising Identity: The Co-Construction of the Gotthard Railway and Swiss National Identity*. She analyzes the infrastructure as a deeply material entity, shaped by socially constructed discourses and even as a physical and imaginative object through which the country's identity is grounded. Through the construction of the Swiss Federal Railway, the landscape was shaped tremendously. The material aspect is crucial, as it demonstrates the extraction on one hand, and the building process on the other side. Therefore, understanding the materiality of infrastructures is vital; the sensual or sensorial experience of the material itself and its reflection in the built infrastructure shapes one's perception, and even reveals contradicting and shifting histories reflected in a railway system.⁴²

Scholars such as Deborah Cowen define infrastructures as more than technical, connecting objects; she understands the city itself as an infrastructure, consisting of various other infrastructures, whose materiality is both shaped by and shapes the city space.⁴³ Aligned with this approach, I understand both the railway and the contemporary urban developments constructed by the SBB as infrastructures, shaping and shifting territorial and city spaces.

³⁸ Blanc, *Das öffentliche Interesse als Voraussetzung der Enteignung*; Kirchheimer, *Die Grenzen der Enteignung*.

³⁹ Larkin, "The Politics and Poetics of Infrastructure," 333.

⁴⁰ Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979*, 70.

⁴¹ Larkin, "The Politics and Poetics of Infrastructure," 334.

⁴² Schueler, *Materialising Identity: The Co-Construction of the Gotthard Railway and Swiss National Identity*, 337.

⁴³ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method," 11–12.

When considering the rail as an infrastructure deeply impinged on by social, political and economic factors, a territorial approach illustrates how nation-states are built up and constituted through the rail building, while transforming landscapes. The interrelation between territories and infrastructures and its ramifications on socio-political aspects have been a focus of scholars interested in infrastructure systems. Charles Maier argues, that territoriality is a fluid and flexible construct which alters over time. Territoriality is a precondition for sovereignty, and simultaneously a material condition for the formation of it. Maier writes that while territoriality in European feudalism was not considered a discourse to define nation states' borders,⁴⁴ this shifted in the 17th and 18th century when states were administered as a fiscal resource.⁴⁵ He argues that the infrastructure of railroads helped to constitute national territory and were actively applied so:

*'At one and the same time the railroad was the foundation of economic development, peopling hitherto remote areas, providing the transport infrastructure for commerce, creating a new demand for iron and steel manufacturers and machinists, promising moral and political progress, supplying a tangible image of energy radiating through the national space.'*⁴⁶

Consequently, the construction of the railway was a tool to define and extend national space and constitute nation-states:

*'The railroad and telegraph promised to extend not the connectivity of individuals, but the reach and authority of states and nations.'*⁴⁷

From the beginning, the building of a railway network became a state project.⁴⁸ In the mid 19th century, regimes shifted its absolute focus on frontiers to a process of centralizing and permeating the nation space. Often through violent processes, central government institutions were strengthened. The old elite was replaced by new leaders of finance and industry. Both goods and people could be transported easily long distances, which affected the economical production and the allocation of a labor force.⁴⁹

Fundamental for understanding shifting territories and how the rail constituted nation-states is a focus on finances and shifts in the capitalist systems. Apart from Maier who mentions this aspect briefly, such themes are often discussed by scholars researching infrastructural systems, specifically the rail, in a colonial or postcolonial setting. Cowen argues that the enclosure of lands from indigenous inhabitants to the Canadian Pacific Railway (CPR) *'served as the prime asset through which the CPR was able to raise money in the London financial markets, and it provided the immediate cash influx from land sales.'*⁵⁰ Further, she states that dispossessed indigenous land was sold to speculators by the CPR; the buyers were either local settlers residing in towns along the railway, or large-scale land speculators from New York, Montreal, Toronto, or London.⁵¹ Finally, she mentions the increased alliance between government(s), banks, land surveyors, and speculators. The rail was an asset to accumulate wealth; located on the other side of the coin were the violently dispossessed indigenous population.⁵² Similar observations were made by Davis and Wilburn, who state that railway projects in the colonies were often financed by banks in London, Paris, and Berlin; also, private European lenders were involved in accumulating capital for the

⁴⁴ Maier, "Transformations of Territoriality," 35.

⁴⁵ Maier, "Transformations of Territoriality. 1600-2000," 41.

⁴⁶ Ibid., 46.

⁴⁷ Maier, *Once within Borders*, 189.

⁴⁸ Ibid., 195.

⁴⁹ Maier, "Transformations of Territoriality," 43-44.

⁵⁰ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method," 6.

⁵¹ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method," 7.

⁵² Ibid., 12.

building of the rail.⁵³ Focusing on circuits of finances in relation to the rail is a crucial approach to this project. To understand how the Swiss railway deals with its land assets, I situate this project within a theoretical framing of railway building in colonial spaces, emphasizing the expansionary aspect of the rail in Switzerland and nation state's constituting through this, within an empirical focus on financial circuits. Following Cowen's notion that '*the past and ideas about the past come into and constitute the present*'⁵⁴, I analyze the history of the Swiss railway to understand the contemporary role of the SBB as landowner and city planner.

Inspired by her work on the Canadian Pacific Railway (CPR), I take the rail '*as both an object and method of inquiry*'.⁵⁵ Following the rail through spatial and temporal spheres reveals '*economic geographies, circuits of finance, social worlds, rhythms and temporalities, patterns of property ownership, and morphology*'.⁵⁶ To understand the role of the railway in constituting nation-states, and its effect on both citizens and city spaces, I situate this research in a postcolonial theoretical approach. While Switzerland is traditionally not considered as a colonial power, imperial discourses were vital in constructing Swiss identity; a colonial zeitgeist was present in Switzerland. Research acknowledging the entanglement of Switzerland in colonial endeavors is still underrepresented. Though, in the last decade, an increasing number of scholars have published work illustrating the connection between Swiss banking institutions and colonized spaces, companies' and individuals' involvement in the maintenance of colonial power, and finally, the ramifications these entanglements had on local discourses in Switzerland.⁵⁷ Colonial and imperial discourses were overly present during 19th century Switzerland. Though, scholars do describe them only as mental concepts which are not manifested in a physical form: Schär '*reconsiders*' farmers and shepherds in the Swiss context and argues that Swiss identity was constructed along with the idea, that the Swiss population has emerged from the '*freedom-loving*', '*pious*' and '*modest*' tribe inhabiting the Alps.⁵⁸ While this is common knowledge in research on Swiss identity and its myths, Schär argues that this discourse needs to be refined within the broader colonial discourse of *Othering*. Poems and literature writing about inhabitants of the Swiss alps have described them as people of true nature; at the same time, Swiss farmers and shepherds from the mountain regions are pictured as lacking culture and being captured in a barbaric state of mind. Therefore, the author concludes that debates following concepts of *Othering*, whether located in colonized spaces or in the Swiss mountain area, need to be acknowledged as the same discourse.⁵⁹ This framing was deepened through the institutionalization of the discipline ethnology in Swiss universities in the 19th century, focusing their research on Alpine populations. Rudolf Martin, a professor of Anthropology, published an article in 1897 with the title *Goals and Methods of Categorizing Race in Switzerland*⁶⁰, in which he clearly distinguishes ethnically between the Alpine population and the population of the lowlands.⁶¹ Schär, therefore, derives that Swiss farmers and shepherds' identity has been constituted within an imperial space. He acknowledges a colonial discourse within Switzerland, without a tangible colonized space.⁶² I aim to stretch Schär's understanding of an imperial space in Switzerland in arguing that the Swiss railway project has to be located precisely within the discourse described by Schär. I extend his concept by illustrating how the Swiss rail has

⁵³ Davis and Wilburn, *Railway Imperialism*, 4.

⁵⁴ Jacobs, *Edge of Empire: Postcolonialism and the City*, 5.

⁵⁵ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method," 3.

⁵⁶ *Ibid.*, 12.

⁵⁷ Klebs, "Postkoloniale Verstrickungen der globalen Schweiz"; Purtschert, *Kolonialität und Geschlecht im 20. Jahrhundert: Eine Geschichte der weissen Schweiz*; Purtschert, Lüthi and Falk, *Postkoloniale Schweiz: Formen und Folgen eines Kolonialismus ohne Kolonien*; Van Vuuren, *Apartheid Guns and Money: A Tale of Profit*; Zangger, *Koloniale Schweiz: Ein Stück Globalgeschichte zwischen Europa und Südostasien (1860-1930)*.

⁵⁸ Schär, "Bauern und Hirten *reconsidered*. Umriss der 'Erfundenen Schweiz' im Imperialen Raum," 315.

⁵⁹ *Ibid.*, 318.

⁶⁰ Own translation of: 'Ziele und Methoden einer Rassenkunde in der Schweiz'.

⁶¹ Schär, "Bauern und Hirten *reconsidered*. Umriss der 'Erfundenen Schweiz' im Imperialen Raum," 323-324.

⁶² *Ibid.*, 328.

been used as a project to constitute the Swiss nation-state, and to civilize rural regions.⁶³ Even though Switzerland was neither considered a colonial power, nor a colonized country, I understand the rail as a technology, aiming to expand and connect territories, and enclosing frontiers. The expansionary character, and the violent aspect of building the rail is a vital aspect, often neglected by scholars who focus on European geographies.⁶⁴ Such a perspective is often provided by research focusing on the rail in colonial or postcolonial settings and legitimizes the use of such debates in a country with no colonial past in a traditional sense.⁶⁵ With this perspective, I aim to disrupt divisions in Global North and South and use theoretical and methodological framings elaborated along with research in colonial and postcolonial geographies for this study on the Swiss railway and its relationship to land.

Myths have been used to create a national identity for Switzerland based inhabitants of the Alpine region. Similar structures define the hegemonic narrative of the Swiss railway; it is often described, in a romanticized tone, as the first grand success story of the newly founded Swiss state, connecting national space through a novel technology and finally creating the densest railway network in the world. Next to the Alpine population, the Swiss railway serves as a narrative shaping Swiss identity, mirroring Swiss characteristics such as punctuality and efficiency. The railway served as a tool to connect the country's language regions and create a sense of belonging. Today, the founding father of the Swiss railway, Alfred Escher, is hailed as a hero, welcoming Zurich's visitors from a prominent statue. Such a framing of Swiss railway history is overly present in both historical and contemporary accounts and research. Often, an idealized narrative of the Swiss rail is created, emphasizing the positive impacts the rail had on the population and the economy.⁶⁶ Finding critical literature on the Swiss railway and the company SBB is difficult; still, a handful of authors have focused on the lived experiences of the Swiss railway project and acknowledge the variety of realities the rail building has created.



Figure 1: Alfred Escher statue and fountain. The monument was built in 1889 and manifests the main entrance to the Zurich main station still today.

⁶³ See chapter *Shifting Territories and Imperial Narratives*.

⁶⁴ For example Schipper and Schot, "Infrastructural Europeanism, or the Project of Building Europe on Infrastructures: An Introduction."

⁶⁵ See Cowen "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method"; Davis and Wilburn, *Railway Imperialism*; Jacobs, *Edge of Empire: Postcolonialism and the City*; van der Straeten and Hasenöhl, "Connecting the Empire: New Research Perspectives on Infrastructures and the Environment in the (Post)Colonial World."

⁶⁶ von Arx et al., *Bahnsaga Schweiz: 150 Jahre Schweizer Bahnen*; Max Peter and Quartierverein Aussersihl-Hard. *Die SBB unserer Grosseltern: Eine Spurensuche*.

Hans-Peter Bärtschi analyzed the historical processes of industrialization and urban planning in an industrial and working-class district in Zurich from the 18th century until the 20th century. He shows how the development of the district correlated with the construction of the Swiss railway. 'Eisenbahnschlachten' is the terminology he comes up with to describe the financial speculation initiated by shareholders of the private railway companies and the exploitation of rail workers. Directly translated, the word means railway-battles.⁶⁷ In his second book published in 2019, he draws a comprehensive image of the Swiss rail; he depicts the history of the railway project along its sociological and economic impacts. He also focuses on the Swiss railway's contemporary structures and describes the first railway reform in 1999, which has shifted the companies' brain and led to the foundation of the Real Estate division. Though he does not mention the ramifications these processes have on Swiss cities and keeps a technological lens, focusing on the rail 2000, a new railway tracks development project.⁶⁸ Similar research was published by Andreas Balthasar in 1993, mainly concerned with the history of the Swiss railway's technology, but still using a socio-historical perspective. Like Bärtschi, he highlights the economic realities of the Swiss rail and the impacts these processes had on the rail itself, the population, and the politics in Switzerland.⁶⁹ Heinz Frey and Ernst Glättli have published one of the only accounts of the working conditions of construction workers in the rail sector in 19th century Switzerland. They counter the Swiss rail's romanticized narrative with revealing the precarious working realities of the laborers,⁷⁰ who were often former farmers, hired-out people or prisoners who did not receive any remuneration for their work.⁷¹

Finally, two scholars who have published an article on the relationship between railway construction and economic expansion in the Swiss railway case have to be mentioned. Büchel and Kyburz ask, if transport investments followed demand, or if a regional and global economy has been created through the rail construction. Further, they have examined '*patterns of relocation related to railway infrastructure*'.⁷² They argue that the building of the Swiss railway had a significant effect on population growth, not only in large cities but also in peripheral areas along the train line. Though, at the very local level, railways had a substantial displacement effect and shifted the landscape of Swiss cities and villages substantially. Their research is based on a quantitative and economic framework.

While the landscape of literature on the Swiss railway is large, critical accounts are rare. In an academic context, the division Real Estate of the SBB has not been analyzed yet, nor the impacts their development projects have on Swiss cities. This shows the novelty of my approach, using qualitative methodologies and theories of critical geography and urban studies to understand the construction of the Swiss railway in its relation to land.

FINANCIALIZATION IN REAL ESTATE AND ITS SPECULATIVE URBANISMS

The concept of financialization has received increased interests from urban geographers to understand the interrelation between the built environment and the proliferation of financial institutions and financial activities. While Harvey has set the initial stone of connecting these two bodies of literature, the core understanding of financialization itself has been made separately. Rutland has created an extensive literature review along with the two themes of financialization and the urban and has analyzed four different foci in the separate financialization literature: 1. The shift from productive to financial activities since the early 70's in the US and the UK; 2. The emergence of economy-wide rationality to maximize the shareholder value has led to a 'new, finance-led regime of capital accumulation'⁷³; 3. The shift from long-term capital investments to short-term thinking;⁷⁴ 4. The explosive growth of new financial instruments, and the increase of financial activities of non-financial corporations to deal with risks triggered by the exchange and interest rates, whose fixations have been abolished with the breakdown of the Bretton Woods system.⁷⁵ David Harvey understood that the surplus-value created in the classical production-to-consumption cycle is often invested into the built environment by financial institutions; as one of the first researchers, he has created the link between the built environment in our cities and underlying financialization processes. While each capitalist commodity has a use-value and an exchange value, Harvey argued that land is increasingly bought for its exchange value and not its use-value. This ultimately affects land prices; supply and demand are not crucial factors anymore, and land is handled as an absolute financial asset.⁷⁶ Harvey's research has been crucial in understanding the impacts such financialization processes can have on cities and its residents. Some scholars have criticized Harvey for understanding capital only as a singular, fixed, and unchangeable logic; a focus on the differences between the structure and objectives of real estate finance has, therefore, emerged. These studies have acknowledged the shifts in debt and equity finance through the globalization of commercial banking, new forms of mortgage-backed securities, and the increase of insurance companies and pension funds trading with properties. These shifts have led to an enlarged '[...] pool of capital potentially available for property purchases and developments.'⁷⁷ Apart from this newer focus, scholars have also started to investigate the role of actors involved in moving capital into property. Historically, the developer and the financier performed these processes; today, a wider range of actors play a key role: landowner, construction firm, construction worker, property owners, tenants, municipalities, central banks, etc.⁷⁸ To sum up, real estate economics (role of institutional investors), urban redevelopment projects (role of financial markets in providing capital), and housing (reliance on private investments and securitized mortgages) are deeply shaped by today's financialization processes.⁷⁹ Adding to this, scholars have also examined shifts in urban infrastructure provision from a public good to private property.⁸⁰

In the introduction to a special issue on *Financialization and the Production of Urban Space*, published by the *Urban Studies* journal in 2016, Halbert and Attuyer identified a research gap on the interface of public and private bodies' role in financialization processes. They argue that research needs to go beyond 'simplistic analytical distinctions', such as 'public subsidies versus private investments'. Further, they argue that research so far has been focusing on Anglo-American cities and regions.⁸¹ Exactly within this research gap, I situate this project in analyzing the role that

⁷³ Rutland, "The Financialization of Urban Redevelopment," 1168.

⁷⁴ Ibid., 1169.

⁷⁵ Ibid., 1170.

⁷⁶ See e.g. Harvey, *The Limits to Capital*.

⁷⁷ Rutland, "The Financialization of Urban Redevelopment," 1172.

⁷⁸ Theurillat, Vera-Büchel, and Crevoisier, "Commentary," 1513.

⁷⁹ Halbert and Attuyer, "Introduction," 1348.

⁸⁰ See e.g. Torrance, "Forging Glocal Governance? Urban Infrastructures as Networked Financial Products".

⁸¹ Halbert and Attuyer, "Introduction," 1348.

the SBB plays in their land reserves' financialization processes. I aim to understand the concept of financialization through the lens of a state-owned institution in a country overlooked in research on financialization.⁸² While scholars acknowledge and address the role of governments in facilitating and creating such market situations,⁸³ *'[...] such studies do not tell us whether the state has been a meaningful land "financializer" itself. [...], all that this literature offers us is fleeting glimpses and tantalizing hints; the idea that the state may be treating land as a financial asset is raised (more or less explicitly), but not meaningfully explored.'*⁸⁴ Already David Harvey has described the state's role within the concept of financialization in three ways: 1. That the state produces policies and property rights that allow the financialization of land, meaning the state is acting within a facilitative role;⁸⁵ 2. Modulating the speculation through land use regulation, expropriation, and land use planning;⁸⁶ 3. That the state is contributing actively and directly to financialization processes.⁸⁷ Brett Christophers analyzes the United Kingdom's land reserves to understand if the government itself is financializing its land. His research is crucial for this thesis, as he addresses similar questions. In the case of Christophers, the government has increasingly focused on releasing public surplus land for housing to private investors. Also, surplus sites which are publicly owned often remain vacant until they are marketed for the highest price.⁸⁸ Especially interesting for this research is his insight into the rationality of these state practices: Christopher states, that it derives from private-sector knowledge, and not from the government itself or academia: the state follows private real-estate structures. To answer the question, if the UK is just a feeder of the financialization machine, or a key actor itself, Christophers asks, *'land site x [is] being selected and packaged for disposal as opposed to land site y or z or, indeed no land sites at all?'* He comes to a conclusion, that the state is privileging the exchange value over the use-value only on a subsidiary level, when *'the decision to sell has already been taken'*. Therefore, the state financializes public land only indirectly by providing land to private investors to financialize it; these actions are highly strategic and problematic, but he argues that such processes cannot be called financialization.⁸⁹ Christophers makes a compelling argument regarding the use and exchange value of land. He documents a paradox in how the UK government is dealing with its land reserves:

'If all of a department's land is in use and shown to be in use, none will be sold. And that plainly, is not treating land as a financial asset.'

But through *'ascertaining and declaring that land has no use value to the state, is what ultimately makes it possible for the land's exchange value to be privileged by another actor.'*⁹⁰ Based on this paradox, it becomes clear that similar logics need to be analyzed in the case of the SBB in Switzerland. While in the case of Christophers the state has only sold land, the SBB Real Estate division additionally develops its land assets; analyzing the logics of this institution and understanding the rationality of their real estate portfolio through the lens of financialization enables me to define spatial logics of capital and its ramification on the urban environment in a Swiss context.

Finally, two authors have to be mentioned here who have initiated research on financialization in Switzerland's geographical context, which is up until today scarce. Van Wezemaal observes a shift

⁸² Except Theurillat, Corpataux, and Crevoisier, "Property Sector Financialization: The Case of Swiss Pension Funds (1992–2005)".

⁸³ E.g. Desiree Fields and Sabina Uffer, "The Financialisation of Rental Housing," 1486–1502; Stein, *Capital City: Urban Planners and the Real Estate State*.

⁸⁴ Christophers, "The State and Financialization of Public Land in the United Kingdom," 67.

⁸⁵ Harvey, *The Limits to Capital*, 348.

⁸⁶ *Ibid.*, 370–71.

⁸⁷ *Ibid.*, 346–47.

⁸⁸ Christophers, "The State and Financialization of Public Land in the United Kingdom," 73–74.

⁸⁹ *Ibid.*, 76–78.

⁹⁰ *Ibid.*, 79.

in the Swiss real estate market; the financial sector, such as banks, insurances, and pension funds, is becoming more important for the real estate market. Further, he argues that the real estate market in Switzerland increasingly functions through portfolio management.⁹¹ Theurillat et al. have analyzed similar structures in the Swiss real estate market and argue that, especially in the urban hubs, such as Basel, Geneva, and Zurich, the housing market is in no small scale financialized.⁹² In another article, Theurillat and his colleagues have examined the role of the Swiss pension funds in the real estate market; this aspect will become relevant for the case of the SBB as well.⁹³

⁹¹ Van Wezemael, "Dynamisierung einer binnenorientierten Branche: Die Schweizer Wohnimmobilienwirtschaft im Umbruch," 64–65.

⁹² Theurillat, Rérat, and Crevoisier, "The Real Estate Markets: Players, Institutions, Territories," 1425.

⁹³ Theurillat, Corpataux, and Crevoisier, "Property Sector Financialization: The Case of Swiss Pension Funds (1992-2005)."

II. FOLLOWING THE RAIL AS A METHOD OF INQUIRY

Deborah Cowen follows the rail in both its empirical and methodological sense and analyzes transforming urban spaces, triggered by the birth of railroads:

*'[...] reconfiguring economic geographies, circuits of finance, social worlds, rhythms and temporalities, patterns of property ownership, and morphology.'*⁹⁴

The railway as an object is not only an empirical focus of this work but also a method of inquiry to understand similar transformative processes in the urban environment. Following Cowen's suggested methodology to *follow the infrastructure*⁹⁵ is crucial to understand the economic shift from private railway companies, later the SBB finding its vital business in railroad construction during the 19th and 20th century, to the SBB increasingly focusing on their role as city planner and developer since the 2000s, fostering financialization processes in Swiss cities. The ramifications of the railway, both as an infrastructural object and an institution across time, can be revealed through such a methodology, highlighting nationalist narratives, the reordering of time and space, and the remaking of 'power geometries'.⁹⁶ Following the rail is the main method of inquiry of this thesis and can be seen as an all-encompassing approach to this work. The multilayered perspective of this project is visible in the aligned methodologies. These concepts have influenced the overall structure of this thesis, encouraged me to reflect and rethink the content of this project and my positionality within the process of researching and writing. The methods with which I worked in this project were veracious companions, helping and accompanying me in understanding and describing processes to which a vocabulary was yet missing. Based on the variety of themes addressed in this thesis, the rail serves as the binding link and is, therefore, methodologically speaking, used as a tracable object demonstrating the politics of land across time and space.

COLLECTING DOCUMENTS AND RE-VISIT SPACES WITH 'CONCEPTUAL WALKS'

In the process of collecting data, I have followed three different lines. First, I collected written sources that were connected to the question of land assets and politics of the Swiss railway. I used historiographical documents and books to gain an overview of the historical debates on the building of the rail and how these discourses speak back to questions on land and ownership. The oldest source was written in 1851, before the first tracks were even built in Switzerland, whereas the more novel accounts have been published after the nationalization of the Swiss railway, up until 1949. All collected historiographical sources were written within an academic context, or from writers with an academic education; most of the authors had either an economic or juridical background. This, of course, shapes the discourses the authors touch upon. I have considered authors who wrote about building the railway, the debates on whether it should be state-owned or private, books analyzing expropriations in relation to the rail and finally, building and planning regulations. These themes already illustrate how historical authors in an academic context hardly ever directly addressed discourses on land politics in constructing the Swiss railway.

⁹⁴ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method," 11.

⁹⁵ Ibid., 3.

⁹⁶ Ibid., 12.

Nevertheless, the collected accounts have revealed hegemonic discourses around the economy and profitability of the rail. To complement this material, I have used archival documents collected in three archives: The SBB archive, the federal archive of Switzerland, and Zurich's municipal archive. Because the SBB is directly subordinated by Switzerland's state, the SBB is obliged to maintain a public accessible archive. Apart from archival documents of the SBB itself, the archive further contains crucial documents from the predecessor railway companies. As from 1902, the Swiss railway was nationalized, and the SBB was founded; many state-run archives, whether on municipal, canton, or federal level, contain material related to the Swiss railway. Before the SBB was founded, both local and federal governments were in constant communication with the private railway companies, which has further increased material collections before the nationalization. In all three archives, I have searched documents related to land politics of the Swiss railway. Archival documents on expropriation practices in the case of the Swiss railway are vast; because expropriation has been the prime legal practice to obtain land for the construction of the railway, these procedures are generally well documented and restored, and were used as an entry point. The SBB Archive holds around 280 documents on expropriations or acquiring land, whereas most are focusing on expropriations. This shows the importance of this planning practice, enabling the railway companies to collect land resources. Most of the documents contain several individual expropriation cases, often covering a particular line or part of a railway line. Even though large and crucial pieces of land that the SBB owns today have been expropriated before the nationalization of the rail in 1902, most documents illustrate cases between the 1920s and 1930s. This can be led back to documentation practices, which were not as extensive during the 19th century. Since expropriations are embedded in public law, the documents are written in a legal language, documenting the process bureaucratically. Both the side of the railway companies or later the SBB and the federal court are represented in this. Because the person being expropriated lacks a voice, it is not possible to gain an all-embracing understanding of these cases. This is further not possible due to the vast material available in the documents and the extent-limits of this thesis. Therefore, I decided to analyze documents that are in some way or other out of the ordinary: First, material which documents an objection by the expropriated, mainly stored in the Federal Archive. Second, material illustrating preventive land acquisitions. Third, general accounts on expropriation or land acquisition processes by the Swiss railway, demonstrating the stance of the SBB regarding the collection of land resources. This selection was mainly encouraged by this dissertation's focus, which lies in the management of the land resources of the SBB and the impact these actions have on the urban environment. Left out in this analysis are, therefore, regular expropriation processes, where the owner accepts the legal dispossession and the land allocation takes place without any difficulty. To analyze the contemporary urban developments of the SBB Real Estate division, I have collected media reports, policy papers published by the SBB or the government of Switzerland, statistics published by the state of Switzerland and analyzed both the website of the SBB Real Estate and project-related websites. I have conducted two in-depth interviews which were chosen strategically to complement the material as mentioned earlier; the first interview was held with one of the members of an initiative to counter a development project of the SBB Real Estate division in Zurich. The main interest in this conversation was to understand the logic of SBB developments from the ground, but also to discuss counteractions by the noigass Verein and how this has impacted the project of the SBB. Another in-depth interview was held with the head of the area development team of the SBB Real Estate division, Andreas Steiger. This interview was mainly used to complete the information lacking in the documented material from the SBB Real Estate and clarify unclear data. Finally, I have used an experimental walking method to re-visit the spaces that I have researched through written and spoken sources:

*'Through the act of walking new connections are made and re-made, physically and conceptually over time and through space. Public concerns and private fantasies, past events and future imaginings, are brought into the here and now, into a relationship that is both sequential and simultaneous. Walking is a way of at once discovering and transforming the city.'*⁹⁷

Matos Wunderlich describes walking as a mode of experiencing urban spaces as a *critical spatial practice* which can be translated into different forms of interventions and attaches a temporal and rhythmical attribute to the act of walking.⁹⁸ While walking as a practice is as old as mankind and was always used as a method to move our bodies from A to B and further has helped the human species to understand the depth, size, scale and function of objects (through walking around them),⁹⁹ the *mobility turn* in social sciences have conceptualized and theoreticized modes of walking, both as an empirical focus and as a method.¹⁰⁰ Büscher et al. argue that the term *mobilities* in social sciences does not only describe the reality of people or objects in the move but rather how *'movement, potential movement and blocked movement, as well as voluntary/temporary immobilities, practices of dwelling and 'nomadic' place-making'* are constituting *'economic, social and political relations'*¹⁰¹. To understand the urban through walking derives from the tradition of the *flânerie*, illustrated in Baudelaire's poem depicting the gaze of an individual, affluent male over the realities of the urban poor, revealed through Haussmann's modernization efforts. While this mode of walking claims to produce knowledge, others have understood this movement rather as a political claim to interrupt city spaces: The Situationists used the *dérive* to construct the city's psycho-geography and envisioned to disrupt the rational, ordered and capitalist urban space through their actions.¹⁰² Similar to their vision, I use the method of walking as a mode of practice to complement more traditional methods in this project; walking underpins the complex, sometimes chaotic, other times ordered social and material realities.¹⁰³ With this, I emphasize that the built environment is not a static reality, but rather ever-changing and in the move, how people physically and socially inhabit spaces. I understand walking as a sensorial experience, initiated through a habitual practice, and aiming to capture physical realities, enabling me to question embodiments, emplacements, shifts, and *'reconfigurations of objects, spaces, people, ideas and information'*¹⁰⁴. It further allows me as a researcher to understand the *'atmosphere'* of a space.¹⁰⁵ I follow the approach of *conceptual walking*, a mode of practice whose aim is to gather information and create awareness of urban environments through taking in a reflexive perspective. It reveals things that would stay uncovered in everyday walks; it is, therefore, a focused and attentive walk and needs to be differentiated from the practice of everyday walking.¹⁰⁶ These walks will be taken in the urban developments, built by the SBB Real Estate, trying to understand how these spaces are built, used, and contested in their everyday realities. To use the data for this project, I have documented all the walks through fieldnotes and photography.

The triangulation of methods for collecting the data allows me to understand this project from various angles. The combination of traditional historical and social science methods, with the embodied walking method, supports the overall approach of disrupting hegemonic discourses and creating alternative futures.

⁹⁷ Wunderlich, "Walking and Rhythmicity: Sensing Urban Space," 127.

⁹⁸ Matos Wunderlich, "Walking and Rhythmicity: Sensing Urban Space," 126.

⁹⁹ Ingold, *Ways of Walking : Ethnography and Practice on Foot*, 331.

¹⁰⁰ Middleton, "Walking in the City: The Geographies of Everyday Pedestrian Practices," 97.

¹⁰¹ Büscher, *Mobile Methods*, 3–4.

¹⁰² Middleton, "Sense and the City: Exploring the Embodied Geographies of Urban Walking," 578 and 582.

¹⁰³ Büscher, *Mobile Methods*, 14.

¹⁰⁴ *Ibid.*, 8.

¹⁰⁵ *Ibid.*, 11.

¹⁰⁶ Wunderlich, "Walking and Rhythmicity: Sensing Urban Space," 132.

DECONSTRUCTING SPATIAL DISCOURSES AND MAPPING CRITICALLY

Discourses are common logics of thinking, speaking, acting, and processes in which certain concepts and ideologies are produced. Even though 'traditional' discourse analysis derives from the fields of linguistics, scholars from various disciplines have acknowledged the existence of discourses apart from language, namely in symbolic practices, material conditions, and social institutions. This perspective was initiated by scholars such as Foucault, who further understood the power structures embedded in discourses, through the reality that certain hegemonic discourses are considered as the 'truth', while other discourses are marginalized. It is important to note, that according to Foucault, these power structures are neither executed by certain individual actors nor by a repressive force from above, but rather by an ever-existing power shaping every social relation, either in a repressive or productive form. Discourses are further understood as shifting and changing realities that are never absolute or fixed. Therefore, a hegemony of certain discourses which are considered as the 'truth' everywhere is not possible; in different contexts, different discourses are hegemonial or marginalized. Discourses are always in flux, and new meanings are challenged continuously and newly determined by inconsistencies or contradictions.¹⁰⁷

Further, it is essential to state that discourse analysis itself is not a methodology; rather, it is a theory to understand hegemonic logics in all layers of social interchange. But the theory on discourse has led to a variety of methodologies that can be used to understand the aforementioned structures and processes. I situate my work in between a deconstructive and spatial discourse analysis. Both approaches don't come with one main methodology, but rather with a set of interdisciplinary methods which can be used within these two fields.

Scholars such as Glasze and Mattissek have recognized the linkage between space and discourse. Spaces are constituting itself constantly; at the same time, the constitution of space is crucial and a vital element of the production of social realities. They are closely connected to the hegemonial imposition of particular discourses. Lefebvre understands space as socially constructed; the consequence of this framing is that space in itself is discursive.¹⁰⁸

In 2009, Glasze and Mattissek published an extensive edited guide on discourse and space, focusing on theories and methods for human geography, social sciences, and cultural studies. They have extracted four research fields that open up when connecting discourse and space: 1. Processes of borders and territorialities, and spatially constructed identities, 2. The constitution of relationships between society and environment, such as understanding logics of argumentation concerning climate change, 3. Economics and Space and, 4. Controlling human behavior in space and thus the production of spatial practices, such as security measurements in public space by the state. A focus on economics and space reveals interesting insights in relation to this project. Glasze and Mattissek argue that such a perspective can reveal the necessity of certain economic logics and uncover marginalized ways of thinking and the related balance of power, which is constituted through this. It is critical to understand discourses as constituted material practices of the economy, further closely connected to symbolic and linguistic discourses. This allows researchers to emphasize which actions seem to be 'irrational' or 'unreasonable' in hegemonic logic of discourse; with revealing such constructs, these logics can be rethought and shifted. Research using such an approach is often lead by a political claim.¹⁰⁹

As this thesis deals with urban planning practices, spatial discourses are key to understanding the questions raised in the introduction. Zanotto frames the connection between planning, discourse, and space following:

¹⁰⁷ Glasze and Mattissek, *Handbuch Diskurs und Raum: Theorien und Methoden für die Humangeographie sowie die sozial- und kulturwissenschaftliche Raumforschung*, 11-12.

¹⁰⁸ *Ibid.*, 13.

¹⁰⁹ *Ibid.*, 17-18.

*'In planning, this means that the relationship between discourse and the production of space is mediated by a pre-constituted reality that includes existing institutional, economic, political, and cultural structures. Thus, [...] the role of discourses in shaping the material world depends on how they are produced and interpreted in a given context and how they interact with existing social structures.'*¹¹⁰

Deconstructive discourse analysis is part of a critical approach that was forwarded by scholars such as Van Dijk and Fairclough.¹¹¹ In an article published this year, Juliana M Zanotto expands this notion and uses deconstructive discourse analysis to reveal the ideologies around suburban gated communities in a region in Brazil to understand neoliberal planning practices. She argues that to deconstruct a discourse, one needs to denaturalize ideologies in order to reveal its limits. Therefore, according to Milroy, the deconstructive analysis focuses on the discourses that are marginalized or even left out.¹¹² Zanotto suggests an analytical and methodological tool to deconstruct dominant discourses. She argues that in planning, narratives are always structured around the binary opposition problem/solution. To deconstruct this pattern, Zanotto suggests three steps of analysis:

*'(A) by questioning what is defined as problem and solution, (B) by accounting for what is left out of the dominant discourse, and (C) by challenging the relationship between problem and solution.'*¹¹³

This approach allows me to create alternative narrative patterns and different practices and policy suggestions. Connecting both presented approaches to discourse analysis, namely methodologies shaped by a spatial and deconstructive approach to discourse analysis, I aim to understand the context in which discourses around land politics and the railway have emerged and to disrupt such continuing ideologies. This methodology will be used to analyze the collected data. First, according to the different sources, narrative patterns are to be defined; these narrative patterns will frame the structure and chapters of this work. Second, these narrative patterns are illuminated according to what is left out. Third, these ideologies are then challenged through thinking and creating alternatives.

Finally, Glasze and Mattissek have mentioned in the introduction to their manual the importance of the researchers' positionality in discourse analysis; they state that the aim of research disrupting certain categories or alleged 'truths' directly impacts the positionality of the researcher itself. Because the topic which the researcher chooses, whom he or she thinks is scientifically meaningful and necessary already derives from a certain discursive logic in which the researcher itself is located. Two factors mainly influence the positionality that I take in within the discourse on land politics and financialized developments: First, after living in Cape Town for six months, researching urban processes, I have realized that inequalities are often shaped or initiated through ownership of land and land politics across time. Second, for many years I have lived right next to one of the first and largest development projects of the SBB Real Estate division in Zurich. I have experienced the gentrifying shifts in this district, which was partly provoked by the SBB project. The construction site was nearby my apartment, and I was able to observe the progress and the impacts of the development continuously and firsthand. Though, only my experiences in Cape Town made

¹¹⁰ Zanotto, "The Role of Discourses in Enacting Neoliberal Urbanism: Understanding the Relationship between Ideology and Discourse in Planning," 10.

¹¹¹ Fairclough, "Critical and Descriptive Goals in Discourse Analysis"; van Dijk, "Principles of Critical Discourse Analysis."

¹¹² Milroy, "Constructing and Deconstructing Plausibility."

¹¹³ Zanotto, "The Role of Discourses in Enacting Neoliberal Urbanism: Understanding the Relationship between Ideology and Discourse in Planning," 119.

me rethink these processes and link them to issues around land politics and financialization. My education has given me access and privilege to understand such structures, describe them, and find a vocabulary. Only with the precognition from my studies, which taught me to think critically, I have found this vocabulary and position, which finally leads me to a political claim that I aim to pursue with this project. This means, that the discourse that I aim to disrupt or at least rethink was part of my everyday; before, I have not reconsidered what it means to own land and the power this implies. For a long part of my life, I myself was part of the discourse that I criticize, and I still am – one cannot live in this economic system and not be part of it. Disrupting this discourse also means disrupting certain lines of thoughts that I was programmed to think, which puts me as a researcher in the middle of my project and argumentation. The questionnaire written by Max Frisch has accompanied me closely through this process, helping me to rethink hegemonic discourses and logics on ownership and land.

*'Mapping has become a vital way we think about the world, with cartography used to construct territory, to make visible the important places and patterns of human activity. Mapping is more than just representation, it is also a process to locate and manage resources, a means to navigate across unfamiliar terrain and a method to analyse spatial phenomena and visualise the changing shape of the earth's surface.'*¹¹⁴

As illustrated in this comment, mapping has been used as a technique to convey and visualize information for an extended period. To supplement the methods described above to understand and analyze hegemonic discourses, I will use mapping as an additional technique and method to embed my argumentation and findings. Though, looking at the history of cartography, maps have been a delicate tool to 'scientifically' produce an absolute 'truth' and illustrate a 'reality'. Matthew H. Edney provides us with an exciting example related to land and ownership: He argues that topographic mapping, a mode of early modern cartography, was used to control the lands through emphasizing individual ownership on the visualizations.¹¹⁵ Related approaches to mapping, still executed by individual cartographers today, has been criticized by scholars and artists from the 1970s onwards. In an article published in 1986, Denis Wood and John Fels reveal how nothing about the map is natural and how it is rather a depiction of the many choices that the drawer needs to make in the process of making a map:

*'Every map is at once a synthesis of signs and a sign in itself: an instrument of depiction – of objects, events, places – and an instrument of persuasion – about these, its makers and itself.'*¹¹⁶

Three years later, J.B. Harley has forwarded the notion to deconstruct the map. He proposes an epistemological shift in how we interpret maps; it should be unquestionable, that maps are neither 'scientific' nor 'objective', but instead illustrate the creation of a form of knowledge.¹¹⁷ He uses Foucault's discourse analysis and Derrida's deconstructionist theory to push forward a postmodernist understanding of maps. Harley aims to reveal the power structures that maps have consolidated, such as states or colonizers establishing territories and borderscapes through maps. He states that *'maps are still used to control our lives in innumerable ways'*¹¹⁸ and highlights both

¹¹⁴ Dodge, *Mapping: Critical Concepts in Geography*, 1.

¹¹⁵ Edney, "Cartography without 'Progress': Reinterpreting the Nature and Historical Development of Mapmaking," 257.

¹¹⁶ Wood and Fels, "Designing on Signs / Myth and Meaning in Maps," 107.

¹¹⁷ Harley, "Deconstructing the Map," 158.

¹¹⁸ *Ibid.*, 170.

the political and power structures of maps.¹¹⁹ His primary approach is to dismantle the invisible context of production and perception of maps. Since the 2000s, other authors have criticized Harley for believing that the 'truth' can be exposed through a destructionist method. Rob Kitchin and Martin Dodge, for example, claim that '*Harley's questioning of maps is also ontical [...], as his project sought to highlight the ideology inherent in maps (and thus expose the truth hidden underneath) rather than to question the project of mapping per se; [...]*'.¹²⁰ Therefore, they are pushing forward the notion of maps as ontogenic in nature and that they are constantly remade and reterritorialized while made and used. Kitchin and Dodge aim to understand relational problems through this spatial practice.¹²¹ Following Harley's understanding of deconstructing the discourses of maps and, at the same time, understanding the unsteady and unfixed nature of maps according to Kitchin and Dodge, I will use critical mapping techniques to visualize spatial realities of SBB's land assets. I see the need for this method for two reasons: 1. I ask spatial questions; understanding these questions through a practice that aims to visualize spatial representations/distributions is key to understanding the heart of this project. 2. I use critical mapping and counter mapping methods to visualize what is normally underrepresented and left out;¹²² this approach relates back to using methods of discourse analysis. With each map or visualization, I produce a short text, describing the process of mapping, the decisions that were made, and why and what I aim to argue with this map. I use this technique to counter traditional mapping discourses and reveal what is normally hidden: the context to the production process.

¹¹⁹ Harley, "Deconstructing the Map," 171.

¹²⁰ Kitchin and Dodge, "Rethinking Maps," 394-395.

¹²¹ Kitchin and Dodge, "Rethinking Maps," 397.

¹²² Thomas Coomans, *Mapping Landscapes in Transformation: Multidisciplinary Methods for Historical Analysis*. 46.

III. THE SWISS RAILWAYS' POLITICS OF LAND – MODES OF FINANCIALIZATION

Land becoming a prime asset in economic realities has been described as financialization processes, shifting the real estate market in urban environments. In this work, I aim to go beyond the narrative of deriving the origins of these market tendencies shaping urban space from the neoliberal shift in the 1980s. I do not intend to contradict this theory, but rather stretch and extend contemporary modes of financialization through a historical lens. To financialize land, particular economic, political, and social prerequisites need to be in place. Based on the example of the Swiss Railway's land resources, I argue that such practices need to be understood along an extended period of using land efficiently under capitalist markets. With the institutionalization of land use, the emergence of the planners' profession, and the introduction of master- and regional plans in the political sphere, planning tools are deeply embedded within the politics of land. They have been crucial in managing property institutionally. Under the right circumstances, planning tools can be used to prevent financialization or gentrification processes. Though, the rule of real estate in most cities implies the operation within a system '*guaranteeing that ultimate power resides in the hands of propertied elites*'¹²³.

Following the question how the Swiss Federal Railway has managed its land resources across time undermines three overlapping phases: The spatial act of collecting land to envision the infrastructural dream of a Swiss railway network, preparing the infrastructural railway land to financialize it and shifting its use, and finally developing land through construction projects by the SBB Real Estate. In the first two phases, I argue that modes of financialization have shaped the Swiss Railways' politics of land as a precondition for the third phase of contemporary, apparent financialization processes.

COLLECTING LAND

To envision the large-scale infrastructural projects and connecting the newly founded country Switzerland in the 1850's, the railway companies needed extensive land resources. Collecting land for the rail project has been ongoing since the initiation of the infrastructure in Switzerland. Analyzing key planning tools such as expropriation and preventive land acquisitions, which have helped to realize the construction of the railway, reveals shifting practices of collecting land. I aim to emphasize the contradiction in which the land politics of the Swiss railway is situated: Due to state interests to create a railway network, first the private railway companies, later the SBB required cheap land. At the same time, their actions have resulted in increasing land prices and land speculation. While the state creates new policies to prevent such tendencies, the underlying dilemma of land being treated as an economic commodity remains the same and enables dealing with property along with financialized logic.

Expropriation has been understood as a limitation of property ownership and initially introduced through the French Revolution. It was considered as a legal form to protect owners of arbitrary handling of property by an absolute state power.¹²⁴ Häberlin, a German jurist examining the role of expropriation through a historical lens in 1856 argues that in the mining industry, a forceful

¹²³ Stein, *Capital City: Urban Planners and the Real Estate State*, 32.

¹²⁴ Peter, "Wandlungen der Eigentumsordnung und der Eigentumslehre seit dem 19. Jahrhundert: Ein Beitrag zur neueren Geschichte des Zivilrechts," 73-74.

submission of a piece of land was a widespread action already since the 14th century.¹²⁵ This means that expropriation as a tool to envision infrastructural projects was a renowned practice already before the French Revolution, though the contemporary terminology and the inclusion of this practice in national law were realized subsequent between the late 18th and mid 19th century. This juridical shift correlates with a general integration of land use in law, such as defining land use and building regulations and planning cities along with categories of a master plan and regional planning. Blomley argues that this transition was shaped by the discourse on the economic, productive use of land to maximize the profits of a limited resource, caused by the developing capitalist system.¹²⁶

Apart from expropriations and regular acquisitions of land, another practice to collect land was vital for the construction of railway stations; as city governments had considerable interest in connecting its urban space with the rest of the country, public land plots were handed over to the private railway companies as a gift. This practice enabled the local government to participate in the decision making on the station's geographical location. Many contemporary railway stations in urban hubs were once public land and handed over to private railway companies for free.

The expropriation law was introduced in federal law in 1850, mainly owing to the railway projects in Switzerland. Despite this work's focus on expropriation processes, I do not go into detail with the legal aspect of this. Though, two aspects are essential: First, the railway project was initially a private endeavor, shaped by private market situations. Due to federal interests in the railway project, the expropriation law allowed private companies to expropriate land based on concessions, granted by the cantonal governments. In other European contexts, the legal framing of expropriation often implies a direct state action, and for private companies, obtaining land through this practice is impossible. Second, the law is framed, so that the expropriation needs to be legitimized by the necessity of erecting a *public work*, creating a structure serving the nation. Since 1930, Swiss Federal law uses the terminology of *public interest*. Despite the legitimization through a public interest is an essential part of the expropriation law, the term is neither historically nor contemporary specified or defined. It is, therefore, subject to interpretation, whether an expropriation is lawful or not.

Raster argues that the two points mentioned above contradict each other: When private companies are allowed to expropriate land, they are often not serving a national or public interest.¹²⁷ How this was also the case for the Swiss railway illustrates an example of the *Furkabahn*, a private railway company erecting a railway line in the Alpine region, connecting the cantons Uri and Valais.

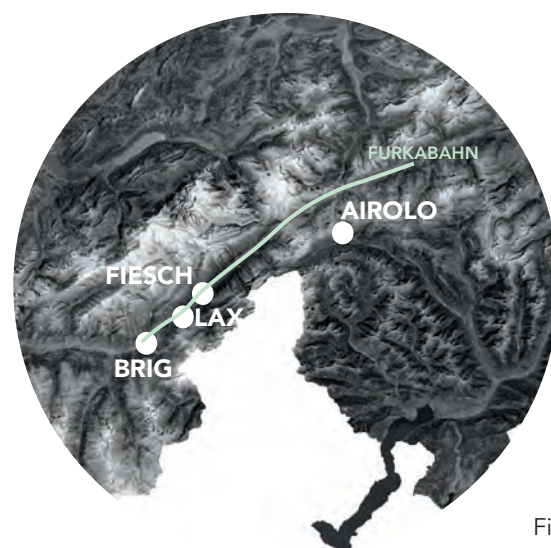


Figure 2: Map of Furkabahn

Despite the nationalization of the railway and the foundation of the SBB in 1902, the *Furkabahn* was still a private company in 1911. During the nationalization process, the state directly adopted all major railway companies in the midlands, whereas the smaller Alpine tracks were incurred at a later stage. To secure the railway line's construction, the *Furkabahn* wanted to expropriate several pieces of land in the mountain-villages Laax, Fiesch, and Brig.¹²⁸ Even though the parcels were in private ownership, the villages appealed the expropriation as a collective through the local government. The appeal was based on the fact that the residents' main occupation is farming; the land claimed by the *Furkabahn* is needed for agricultural cultivation. The archival material portrays the dominance of the private companies, ensured by the state, and overriding local interests. In a letter to the federal railway department related to the appeal of the commune Laax, a representative of the *Furkabahn* states:

*'Since in the given case, we are dealing with a renegade community which systematically opposes our company, we must refrain from giving them direct information. This way we would not reach our goal, because it is surely impossible that this community will listen to us.'*¹²⁹

This statement highlights that the railway companies had major influence, whereas local interests were often ignored. Further, it shows the complicated nature of expropriation based on *public interest*. Clearly, in this case, local realities were secondary, whereas the goal of building railway lines across the Alps was sufficient to justify local and possible devastating impacts of these actions. This is further exemplified in a statement from a letter to the federal railway department, related to the case of the commune Fiesch:

*'Fiesch relies on only one argument in support of his opposition, namely that the goat and sheep trail for the only pasture that can be used in the spring would be intercepted. [...] The objection raised by the municipality does not need to be taken seriously, as it is of no significance from the standpoint of the expropriation law.'*¹³⁰

Local agricultural necessities were not considered as a legitimate argument, opposite the attempt to modernize Switzerland by creating a network across the Alps and the financial aspect of the *Furkabahn*. All appeals to the expropriation failed, and the *Furkabahn* enabled the construction of a railway line along the Rhone valley.

Analyzing the documentation of expropriation appeals shows that unlike the example above, the majority of owners only appeal the financial compensation and not the expropriation itself.¹³¹ It is difficult to draw a conclusion from this observation, as the expropriated perspective is missing. A possible argument is the legal limitation: Due to the practice of expropriating land for the construction of the railway was embedded in federal law, owners had very limited scope of action to appeal the expropriation. It might be because of this that the expropriated often attempted to maximize their profit through requesting the compensation.

¹²⁸ Schweizerisches Bundesarchiv (BAR), E53#1000/893#7190* and BAR, E53#1000/893#7189*.

¹²⁹ Own translation of: *'Da wir es im gegebenen Falle mit einer renitenten Gemeinde, welche unserer Gesellschaft systematisch Opposition macht, zu tun haben, so müssen wir davon abstehe, ihr direkt Auskunft zu geben. So würden wir erst recht nicht zum Ziele gelangen, da sicher ausgeschlossen ist, dass diese Gemeinde uns Gehör schenkt.'* (BAR, E53#1000/893#7190*).

¹³⁰ Own translation of: *'Fiesch n'invoque à l'appui de son opposition qu'un seul argument, à savoir que le sentier des chèvres et des moutons pour le seul pâturage pouvant être utilisé au printemps, serait intercepté. [...] Pas n'est besoin d'ailleurs de s'arrêter sérieusement à l'objection soulevée par la commune, car elle ne signifie rien au point de vue du droit d'expropriation.'* (BAR, E53#1000/893#7189*).

¹³¹ BAR: E53#1000/893#7118*, E53#1000/893#5797*, E53#1000/893#7041*, E53#1000/893#5798*, E53#1000/893#5751*, E53#1000/893#5752*, E53#1000/893#5251*, E53#1000/893#7197*, E4110B#1981/97#24*, E4110B#1981/97#29*, E4110B#1981/97#376*, E4110B#1981/97#241*, E4110B#1981/97#380*.

The first advantage of collecting land through the process of expropriation was cheap land without obstruction. In the early 20th century, with the nationalization of the railway, the SBB realized that expropriated owners claiming higher compensations and appealing the process created a costly and time-consuming situation.

This reality is highlighted through the example of a projected railway in Geneva. Before the SBB expropriated the necessary land resources for a railway connection leading through the commune Praille in 1924, the project was published in a local newspaper. Releasing information on infrastructure projects and planned expropriations through newspapers was standard practice to inform the public and the proposed expropriated owners. Shortly after the publication, one of the owners whose land plot was intended to be expropriated submitted a request to the government to build a villa on his land plot. In a letter to the SBB management, the engineer of the project writes:

*'It may be that the proposed construction project is meant seriously, but we do not really believe it, because the location of the projected building exactly on the ax of the previous route of the connecting railway is rather reminiscent of a bluff. Nevertheless, we would like to recommend not to react to this construction project, because otherwise the withdrawal of the expropriation plan would be made illusory and the whole society of expropriates would have to be satisfied immediately. The fact that the SBB will not allow itself to be influenced by this construction team would probably be the best way to prevent further speculation.'*¹³²

If the prospected land plot needed to be expropriated with housing construction, the compensation would be much higher than predicted. The management of the railway project became nervous that the eventual seized would exploit the situation and initiate land speculation. According to the statement of the engineer, it becomes explicit that the SBB tried to keep the allocated land prices as low as possible, due to the costly construction and maintenance of the railway. In another letter, the engineer then proposes the request of preventive land acquisition for the projected railway construction, which was planned to commence six years later, to prevent further land speculations. Simultaneously, he draws attention to the fact that a preventive land acquisition carries the risk of obtaining land, which will be of no future use, as the plans for the upcoming project were not finalized yet.¹³³ Collecting land through preventive land acquisitions was not yet embedded in the federal expropriation law, but was already occasionally granted by authorities in the 1920's and 1930's. The first expropriation law from 1850 was not elaborated in-depth and only set ground rules for expropriation processes. Therefore, the management of the SBB pushed forward the notion of a legislative change in the federal government. This thrust has mainly been provoked by difficulties in the expropriation process, as shown in the example above. The aim was to accelerate proceedings and to prevent further land speculations.¹³⁴ The principal suggested modifications concerned the process flow: extensive regulations were determined to define at which part of the process public plans need to be publicized, how and when the intended owner of the allocated land plot needs to be informed about the expropriation and that the land valuation needs to be defined at the beginning of this process by a committee formed by the federal government to

¹³² Own translation of: *'Es mag sein, dass das nunmehr vorliegende Baugespann ernst gemeint sei, wir glauben zwar noch nicht recht daran, da die Lage des projektierten Gebäudes genau auf der Axe des bisherigen Trasses der Verbindungsbahn eher an Bluff erinnert. Trotzdem möchten wir empfehlen, auf dieses Baugespann nicht zu reagieren, da sonst der Rückzug des Expropriationsplanes illusorisch gemacht würde und man sofort die ganze Gesellschaft der Expropriaten befriedigen müsste. Dadurch, dass die SBB sich durch dieses Baugespann nicht beeinflussen lassen würde man anderseits weiteren Spekulationen wohl am besten vorbeugen.'* (SBB Archiv, GD_BAU_SBBBAU1_288_05).

¹³³ SBB Archiv, GD_BAU_SBBBAU1_288_05.

¹³⁴ Peter, "Wandlungen der Eigentumsordnung und der Eigentumslehre seit dem 19. Jahrhundert: Ein Beitrag zur neueren Geschichte des Zivilrechts," 76.

bypass speculation.¹³⁵ The SBB management succeeded, and their proposal was implemented in national law in 1930.

This law adjustment intensified preventative land acquisitions: An unsigned letter to the head office of the SBB in 1946 on a proposed preventative land acquisition for the extension of the main station in Zurich documents, why this form of collecting land was beneficial for the railway company:

*'For example, the 1946 general project for the extension of Zurich's railway station facilities would, in our opinion, be a perfectly adequate basis for precautionary expropriation of those points that are particularly critical and subject to speculation, even under current law. The parcels in question would thus become the property of the Federal Railways - at least for the next 25 years at the current estimated value - and we would also receive the proceeds from a lease or other management in the period up to the start of construction'*¹³⁶

This excerpt shows how the SBB used the alterations of the expropriation law to acquire land at a fair price, even though the project itself might not have been planned yet. The author also refers to the possibility to lease the land until it is used to increase the profit.¹³⁷ Already in the 20th century, the SBB followed financialized logic of land use through preventive land acquisitions. This was enabled through a new article added to the federal expropriation law in 1930, enabling expropriations for future projects.¹³⁸ After 1930, the primary tool to collect land shifted from expropriation to preventive land acquisition.

What was the incentive of the SBB, to use this new form of expropriation so excessively? In 1946, the land register surveyor held a presentation in a conference for railway engineers; his lecture is documented in the SBB Archive and provides information on the SBB's land politics. Lattman argues that the economic upturn, which was mainly initiated through the building of the rail has led to increased land prices along traffic routes. Industrialization, rapid population growth, and structural development around the traffic hubs created a market situation with limited land and rising costs. He conveys, that new developments confine railway tracks and stations, and the rail has no space to expand. Therefore, he proposes a preventive land policy:

'For all these reasons, in the vital interest of the railway administration, the Railway Department should be granted the right to lay construction lines for future extensions of the railway infrastructure with the feeder tracks and at the same time the right of expropriation should be extended to the connecting tracks. This could save millions of expropriation costs because buildings that have to be expropriated later on are in the true sense malinvestments caused by a lack of legislation. If one looks back at our land policy of the last decades, it was completely under the influence of the railways' difficult financial situation. [...] From our destructive, we must move on to an active land policy [...]. Based on all these experiences and considerations, we must, in our own interest and even in the interest of a land policy that is in line with the new times and the development of technology, closely follow and participate in all matters concerning land in the

¹³⁵ Hess and Weiber, *Das Bundesgesetz über die Enteignung*, 2.

¹³⁶ Own translation of: 'So wäre z.B. das Generelle Projekt 1946 für den Ausbau der Zürcher Bahnhofanlagen nach unserem Dafürhalten auch nach geltendem Recht eine durchaus genügende Grundlage, um vorsorgliche Enteignungen an den besonders kritischen und der Spekulation ausgesetzten Punkten durchzuführen. Die fraglichen Parzellen würden damit – zumindest für die kommenden 25 Jahren zum heutigen Schätzwert ins Eigentum der Bundesbahnen übergehen und es würden uns damit auch die Erträge aus einer Verpachtung oder sonstigen Bewirtschaftung in der Zeit bis zum Baubeginn zufließen.' (SBB Archiv, GD_BAU_SBB59_0064).

¹³⁷ More on this, see chapter *Using Land*.

¹³⁸ SBB Archiv, GD_BAU_SBB59_0064.

area of railway facilities.¹³⁹

Lattman's call for an active land policy depicts a shift in how the SBB deals with its land assets. He shows that the SBB has realized how their own endeavor, namely creating a railway network in Switzerland, has increased land prices and promoted land speculation. Simultaneously, both before and after the nationalization, the Swiss Railway was followed by continuous struggles of financing the rail. The railway company, therefore, initiates active planning practices for their land. This incentive was further increased through the companies' perception, that not only the surrounding area of the railway has shown an increase in value, but that the very own land resources have experienced an augmentation.

Years later, the SBB is still struggling with rising land prices and their expropriation practices. In the early 1960's, the SBB submitted several thrusts in the federal government to increasingly advantage the institution actively expropriating. This was forwarded based on the argument, that the individuals who were expropriated often profited financially from their status and eventually burdens the public finances: The structure of this practice is 'taken out on the public'.¹⁴⁰ In 1966, the SBB filed a postulate and proposed following adjustments in the federal expropriation law: That the date of the valuation is specified at the beginning of the process, non-taking into account of an increase of value deriving from erecting a public work and that an objection must be raised simultaneously with the estimation procedure. Commented are these propositions in a letter to the Federal Council:

*'Since, as a result of land scarcity, industrialization, population growth, etc., prices will continue to rise far beyond the extent of monetary depreciation in the future, and since the problem by no means affects the Federal Railways alone, we believe that further appropriate measures must be taken immediately, not only in the interest of the increasingly scarce financial resources of the public authorities [...], but also in view of public opinion, which could one day point out, not without good reason, that the present proceedings amount to a squandering of federal funds and favoring the increase in land prices.'*¹⁴¹

The SBB files the following supplement:

'The inflation trend is leading to a flight to material assets. In this context, land as an irreproducible good is in particular demand. The increases in prices in this area in turn affect the prices of other commodities such as housing, consumer goods, etc. Public authorities are faced with major tasks in terms of infrastructure

¹³⁹ Own translation of: 'Aus all diesen Erwägungen sollte im lebenswichtigen Interesse der Bahnverwaltung dem Eisenbahndepartement das Recht eingeräumt werden, Baulinien zu legen für die zukünftigen Erweiterungen der Bahnanlagen mit den Zubringergeleisen und zugleich das Expropriationsrecht auf die Anschlussgeleise ausgedehnt werden. Damit könnten Millionen von Enteignungskosten eingespart werden, denn Bauten, die später expropriert werden müssen, sind im wahren Sinne Fehlinvestitionen, verursacht durch mangelnder Gesetzschriften. Wirft man noch einen Blick zurück auf unsere Bodenpolitik der letzten Jahrzehnte, so stand sie vollständig unter dem Einfluss der schwierigen finanziellen Lage der Bahn. [...] Von unserer destruktiven, müssen wir zu einer aktiven Bodenpolitik übergehen [...]. Aus all diesen Erfahrungen und Ueberlegungen müssen wir alle Fragen, die mit dem Grund und Boden im Bereiche der Bahnanlagen sich abspielen, aufmerksam verfolgen in unserem eigenen Interesse und selbst einer der neuen Zeit und der Entwicklung der Technik entsprechenden Bodenpolitik anschliessen und mitwirken.' (SBB Archiv, GD_BAU_SBB59_0064).

¹⁴⁰ SBB Archiv, GD_GS_SBB40_006_13.

¹⁴¹ Own translation of: 'Da die Preise zufolge Bodenverknappung, Industrialisierung, Bevölkerungsvermehrung usw. auch in Zukunft weit über das Mass der Geldentwertung hinaus steigen werden und das Problem keineswegs nur die Bundesbahnen allein berührt, müssen u.E. sofort weitere zweckdienliche Massnahmen getroffen werden; dies nicht nur im Interesse der immer knapper werdenden Finanzmittel der öffentlichen Hand [...], sondern auch im Hinblick auf die öffentliche Meinung, die eines Tages nicht mit Unrecht darauf hinweisen könnte, dass das jetzige Verfahren auf eine Verschleuderung von Bundesgeldern und eine Begünstigung der Bodenpreissteigerung hinausläuft.' (SBB Archive, GD_GS_SBB40_006_13).

(e.g. land planning, environmental protection, transport facilities). If the goals set are to be achieved without the price structure becoming entirely out of balance, the communities, especially the Confederation, must be able to acquire the necessary land at reasonably affordable prices. However, as numerous examples show, the previous expropriation procedure has now led to a constant increase in the price of the expropriated property.

It is obvious that such excessive prices in turn have an effect on the general price formation in the area concerned, and even encourage speculation. The expropriation procedure thus develops a price-increasing momentum of its own. ...] In recent years, SBB has had to acquire land by expropriation for hundreds of millions of francs in order to fulfil its statutory obligations. There is no doubt that a lot of land will also be needed for future large-scale projects. ...] SBB's bitter experience with price increases during expropriation proceedings is shown in the list enclosed with this letter. The figures speak for themselves. Such horrendous price rises - another wave of price increases for building land is already clearly on the horizon - with their direct and indirect effects (increases in rents and leases, consumer goods prices, etc.) run completely contrary to all efforts to find a reasonable solution to the land price problem, spatial planning and price stabilization. Quite apart from this, it must be made very clear once again that expropriations are not carried out to increase the financial assets of the authorities, but in the public interest [...].'¹⁴²

The postulate of the SBB was successful and has led to a revision of the expropriation law in 1972, which is still active today.¹⁴³ Apart from the shift in expropriation practices, these two comments illustrate the intersectionality of the contradiction; the intrinsic logic of the supposedly 'free' market leads to increasing land prices, also due to the railway. This example shows that state institutions such as the SBB are located within this financial framework, both because they cannot operate outside this discourse and because they sometimes create and, in general, fuel such a rationale. The fear of a future public opinion, which could raise the allegation of mismanaging public funds and increase land prices, seems almost ironic from a contemporary perspective. The vision today supports the counter-logic: To fund the modern railway, the SBB has the order of the Federal Council to financialize its land assets through the SBB Real Estate division, or forthright said to

¹⁴² Own translation of: 'Der Inflationstrend führt zu einer Flucht in die Sachwerte. Dabei ist Grund und Boden als unvermehrbares Gut besonders gefragt. Die Preiserhöhungen auf diesem Gebiet wirken sich ihrerseits wieder auf die Preise anderer Güter wie Wohnungen, Konsumgüter usw. aus. Den öffentlichen Körperschaften stellen sich grosse Aufgaben in Bezug auf die Infrastruktur (z.B: Landesplanung, Umweltschutz, Verkehrsanlagen). Sollen die gesteckten Ziele verwirklicht werden, ohne dass das Preisgefüge gänzlich aus dem Gleichgewicht gerät, müssen die Gemeinwesen, besonders der Bund, den notwendigen Grund und Boden zu einigermaßen tragbaren Preisen erwerben können. Das bisherige Enteignungsverfahren führte nun aber, wie zahlreiche Beispiele zeigen, zu einer steten Preissteigerung der Enteignungsobjekte. Es liegt auf der Hand, dass solche überhöhte Preise sich ihrerseits in der betreffenden Gegend auf die allgemeine Preisbildung auswirken, ja sogar die Spekulation fördern. Das Enteignungsverfahren entwickelt somit gewissermaßen eine preissteigernde Eigendynamik. [...] Die SBB mussten zur Erfüllung der ihnen gesetzlich obliegenden Aufgaben in den vergangenen Jahren für Hunderte von Millionen Franken Land auf dem Enteignungsweg erwerben. Es besteht kein Zweifel daran, dass auch für kommende Grossprojekte viel Land benötigt wird. [...] Die bitteren Erfahrungen der SBB mit Preissteigerungen während Enteignungsverfahren gehen u.a. aus der diesem Schreiben beiliegenden Aufstellung hervor. Die Zahlen sprechen für sich selbst. Derart horrende Preissteigerungen – eine weitere Welle von Preisanstiegen für Bauland zeichnet sich bereits deutlich ab – mit ihren direkten und indirekten Auswirkungen (Erhöhung der Miet- und Pachtzinse, der Konsumgüterpreise usw.) laufen allen Bestrebungen, für das Bodenpreisproblem, die Raumplanung und die Preisstabilisierung eine vernünftige Regelung zu finden, straks zuwider. Ganz abgesehen davon muss nochmals mit aller Deutlichkeit darauf hingewiesen werden, dass Enteignungen nicht zur Mehrung des Finanzvermögens der Gemeinwesen, sondern im öffentlichen Interesse durchgeführt werden [...].'
(SBB Archive, GD_GS_SBB40_006_14).

¹⁴³ Bundesgesetz über die Enteignung, SR 711.

financialize its land assets.

Using Zanotto's approach to destructive discourse analysis in this analysis on the collection of land in the case of the Swiss railway reveals further contradictions of dealing with land as a commodity: Analyzing how the Swiss railway has collected its land resources has shown, that an ongoing problem defined by the SBB was land speculation. This hindered the SBB to acquire land to fair prices and caused financial difficulties. Because the technological part of constructing a railway network is costly, expropriations and preventive land acquisitions were used as a tool to acquire land outside the free market. In this chapter, I have shown that while this was the goal of creating such tools, the reality revealed a different image. Apparently, the expropriations provoked land speculations and the profit of the expropriated. Presented as a solution was the repetitive attempt to shift these procedures in a way that would prevent land speculation. What is left out in this normative reading is why land prices are constantly rising and why free market realities impede public institutions from acquiring land for public infrastructure. To disrupt the notion of tackling land speculation with tightened expropriation regulations, I argue that instead, both from a political and a societal perspective, the ongoing dilemma of increasing land prices needs to be challenged. New mechanisms have to be elaborated to detach land and housing market from a speculative and financialized logic. Using David Harvey's model of capital switching and fixating surplus capital in the built environment further intensifies this standpoint. His model serves as a possible response to why capital is increasingly invested in the built environment, and therefore also in land and reveals the contradictions of our capitalist system.¹⁴⁴ Through analyzing how the SBB has collected its land resources, I have shown how these rationales have been established already in the early 20th century, shaping contemporary logics of financialization in real estate.

SHIFTING LAND USE

The collection of land through expropriations and preventive land acquisitions enabled the Swiss Federal Railway to envision a large-scale infrastructural project; the land use was, therefore, defined as industrial. Though, with the nationalization of the railway, SBB land was also used for housing or other constructions not directly connected to the railway tracks itself. Today and in the past, using land to create financial resources to fund the railway project was a prime incentive of the Swiss Federal Railway. By analyzing how the SBB shifted the use of its land, I illustrate how zoning, building right for third parties, and land sales were and are tools of maximizing the profit of their land assets. Christophers argues, that when the state sells land or leases land to third parties who initiate financialization processes, the state itself is not a financializer and only partly connected to this. In this chapter, I illustrate how this is not the case for the Swiss Federal Railway and its land assets and aim to extend the theoretical understanding of land use. I analyze how rezoning procedures and special use plans can be understood as preparatory processes for financialization in the case of the SBB and criticize the limited scope of action for the public. If the land is not developed by the SBB itself, land sales and handing over land plots through a building right for third parties, allow the company to maximize their possible profit and minimize the risk. Both procedures have been used in the long term to finance the railway.

Special Land Use Plans

In Switzerland, as in most countries, a building law frames how landowners can use their land; while these regulations are complex, one specific tool is crucial for how the SBB shifts the use of their land resources. Zoning is considered as a planning instrument that defines how the land can be used. Three key zones structure Swiss land: building zone, agricultural zone, and protection

¹⁴⁴ Harvey, *The Limits to Capital*.

zone.¹⁴⁵ All zones are again structured in a lower hierarchy; in building zones, the state distinguishes between zones for housing, core zones, zones for industry, and so on. In Switzerland, the federal government defines the fundamentals of spatial planning, but every 26 cantons can formulate a distinguished planning law, based on federal principles. Each of the 2212 communes can create its own use plan, based on the canton's guidelines. This means that depending on the geographical location, the process of shifting land use for the SBB is different.

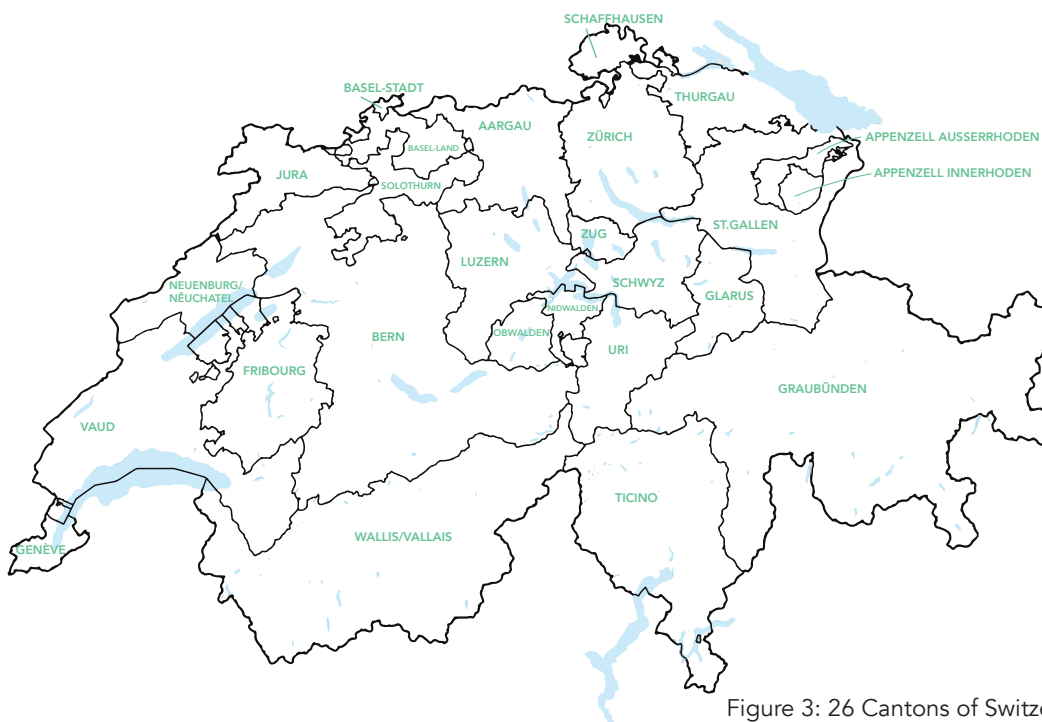


Figure 3: 26 Cantons of Switzerland

In this chapter, I will use the city of Zurich as an illustrative example for zoning, to avoid confusion. In Switzerland, land uses have been defined in distinct areas under feudal practices.¹⁴⁶ Though, these structures have neither been nationally implemented nor legally institutionalized until 1969. The collected land resources were obtained before governmental planning institutions defined its land use. Therefore, the majority of the areas owned by the SBB are either not at all or not correctly zoned. Andreas Steiger states that the basis for developing land is, in general, a special land use plan, sometimes also rezoning.¹⁴⁷ Both processes share that these adjustments are closely accompanied and need to be granted by the government, either on communal or cantonal level. When an owner rezones his land plot, he has to pay a submission based on the overvalue. That is if agricultural land is rezoned to building land, the value rises. Cantons and communes can rate charges up to 60% of the overvalue; mostly, the percentage is defined by a governmental building commission. Despite this, most cantons have fixed a rate of 20 or 30%. Interestingly, only two cantons, Appenzell-Ausserrhoden and Glarus, apply the same system for a special land use plan. All other cantons do not charge landowners if a special land use is requested, even if the shift increases the land value.¹⁴⁸ It seems as if it is a factor of why the SBB Real Estate prefers to follow the process of applying for a special land use plan. Another advantage is that a special land use plan allows the developer to define the use in detail and project-based. It is especially beneficial when developing a mixed-use construction.¹⁴⁹

Interesting in the case of the SBB is how citizens and governments can participate in the process of shifting land use. This enables an understanding of the limited scope of action for the public in

¹⁴⁵ Schürmann, *Bau- und Planungsrecht*, 157, 166 and 171.

¹⁴⁶ Mathieu, *Geschichte der Landschaft in der Schweiz: Von der Eiszeit bis zur Gegenwart*, 78.

¹⁴⁷ Andreas Steiger, Interview.

¹⁴⁸ Espace Suisse, "Mehrwertabgabe: Vergleich der Kantonalen Bestimmungen."

¹⁴⁹ Amt für Raumentwicklung, Baudirektion Kanton Zürich, "Merkblatt Gestaltungsplan."

the case of contemporary real estate developments for the SBB. Usually, a special use plan is set together by a committee of the builder, defining the zoning criteria. This blueprint is published for public engagement for 60 days. Every citizen entitled to vote is allowed to examine the plan in the city's urban planning department and can object to the project. In the next part of the process, both the city council and the municipal council have to accept the special use plan.¹⁵⁰ Regular citizens have three options to engage with shifting zoning laws: First, the 60 days mentioned above of public engagement and possibility to object. Second, citizens can oppose in a municipal assembly. Though in larger communes such as the city of Zurich, these municipal assemblies no longer exist, and the voters are represented through a commune parliament.¹⁵¹ Third, when the project is of local relevance, the special use plan needs to be approved by the Swiss electorate. To object through option number one and two presupposes the knowledge of such processes, which are highly complex and not commonly known. Also, it requires public engagement and the ability to take part in time-consuming processes. However, a special use plan only defines how the individual plots on a piece of land can be used, based on zoning categories. Detailed construction plans, in general, do not exist at this stage, and the outcome of projects is still unclear.

Additionally, all three options prerequisite the eligibility to voting; the possession of a Swiss passport is a requirement. Despite the variety of options, the scope of actions for individual citizens is minimal. Meanwhile, local governments have an expanded scope of action; if the municipal council objects, negotiations between the builder and the government begins. Two main points can be examined: First, the negotiations are not held transparent for the outside. Second, the SBB has enjoyed great popularity; to object to a project implemented by a parastatal company is seldom. Also, the local governments are often in a dilemma; if a special use plan is objected in the case of the SBB Real Estate, the consequences would often be that central land would lay fallow, which is never of interest for a city or communal government.

Weber states, that *'through zoning, permitting, and subsidies, local governments facilitated capital switching into commercial real estate and created the conditions under which this property could be financialized.'*¹⁵² I argue that zoning, in general, does not lead to financialized land directly. Like Stein, I claim that under certain circumstances, zoning can even be used as a tool to prevent spatial inequality.¹⁵³ Nevertheless, in the case of the SBB, I aim to show that zoning, in this case a special use plan, can be used as a preparing measurement to financialize land. Further, I argue that the limited scope of action, both by citizens and governments in the case of the SBB Real Estate, prevents the public from shifting such processes.

Building Right for Third Parties

During the 20th century, the Swiss Railway granted building rights for railway cooperatives, to provide housing for their workforces. A building right is defined as enabling someone without land to build on a plot belonging to someone else. A building right is a contract between two parties, dividing property ownership into land and building for a limited period of time. In doing so, the landowner grants the building lease holder the right to construct or maintain a structure on or under the ground. This special form of ownership is rare in Switzerland; only 5% of all properties are leased through a building right. Usually, the contract is limited to a maximum of 100 years. During this period, the landowner charges the building leaseholder with a building lease interest rate.¹⁵⁴ The rate is defined by the value of the land and by the current mortgage rate: If a premise has a value of 5 million and the mortgage rate is 3%, the yearly building lease interest rate would

¹⁵⁰ Hochbaudepartement Stadt Zürich, "Gestaltungsplan & Sonderbauvorschriften."

¹⁵¹ Kanton Zürich, Direktion der Justiz und des Inneren Gemeindeamt, "Gemeindeparlament."

¹⁵² Weber, "Selling City Futures: The Financialization of Urban Redevelopment Policy," 257.

¹⁵³ Stein, *Capital City: Urban Planners and the Real Estate State*, 62.

¹⁵⁴ Chaney (Wüest Partner AG), "Baurecht unter der Lupe. Schlussbericht."

be 150'000.¹⁵⁵ With the contract's termination, the construction by the building leaseholder is transferred to the landowner with a fair compensation. The degree of compensation depends on the contract and can be between 50%-90% of the original building costs.¹⁵⁶ The landowner and the building lease holder share the risks; the latter has to bear the risk of price fluctuations, for example, rent development and the cost risks for the construction, whereas the owner bears the risk of negative land development. The landowner can shape a project socio-politically, or its design, without any economic engagement. These key incentives, such as safe yields, control of settlement development, and the fact that granting a building right is politically better accepted than land sales are crucial aspects for the SBB Real Estate to provide their land for third parties.¹⁵⁷ The building right enabled railway cooperatives to build on land plots by the SBB. The cooperatives were independent groups, not directly subordinated to the management of the SBB.¹⁵⁸ In an archival document signed with 1967, the SBB defined guidelines to grant building rights for their land plots. Due to a shortage of land reserves, the management decided to abandon land sales when possible, except for occasional commercial sales. If land plots are unused, the management proposed to use building rights. The paragraph focusing on the lease termination and the ceding of the construction is particularly interesting: With the transfer of the property, the SBB pays up to 50% of the former construction costs.¹⁵⁹ Typically in building right contracts, the renter receives between 80% and 90%.¹⁶⁰

Another example shows how the SBB has used the building right to increase its profit through land. A hotel located at the central station in St.Gallen burned down in 1955. This incident was used as an incentive to develop the train station and its surroundings newly. The SBB, the owner of the land, has commissioned an architecture competition. The winner project suggested a 13-story high-rise building. Due to financial issues of the SBB, the construction was delayed and, after a couple of years, deferred indefinitely.



Figure 4: Location St.Gallen

¹⁵⁵ Chaney (Wüest Partner AG), "Baurecht unter der Lupe. Schlussbericht."

¹⁵⁶ Ibid., 14.

¹⁵⁷ If the land is owned by a public entity.

¹⁵⁸ Scherr, "Die Unbekannte Gigantin"; Andreas Steiger, Interview.

¹⁵⁹ SBB Archive, GD_GS_SBB40_006_15.

¹⁶⁰ Chaney (Wüest Partner AG), "Baurecht Unter Der Lupe. Schlussbericht," 14.

Ten years later, in 1967, the city council was in need of a new town hall. The SBB started to negotiate with the city government of St.Gallen, to grant the city a building right on the land plot where the high-rise building was supposed to be built. The railway company refused a building lease interest rate, as long as they were allowed to use the space on the ground and first floor for their use. While the city had to finance the building itself, the SBB profited from rent yields emerged through rentals to shops. The city council writes:

*'However, it would be wrong to believe that the provision of the building plot near the old railway station will cost the city nothing. It was possible to agree with the SBB that the city would not have to pay any building lease interest; however, the proceeds from the renting of the shops will go to the SBB, although the city will have to build the shops and the associated storage rooms on the ground floor and first basement at its own expense.'*¹⁶¹

Nevertheless, the city decided to make a deal with the SBB. In the final report, the city council stated:

*'With this solution, however, the city partially relieves SBB of the task of taking over the long overdue structural design of its facilities at Bahnhofplatz itself, thereby saving the federal government considerable expenses.'*¹⁶²

With delaying the initial development due to financial reasons, the SBB took the chance to hand over the financial responsibility to the city government, after the land laid fallow for ten years. Despite this being only one example, the strategic dealing with land from a financial perspective, evaluating the exchange value clearly over the use value, manifests that land is considered as an asset for the company, instead of a social good. Already before the shareholder company was founded in 1999, the SBB followed a rationale for profiting from land resources.

Still today, it is a key strategy of the SBB to grant third parties the right to construct properties on their land. Before the division develops unused land, an economic feasibility study is executed. If the return is insufficient, the alternative is renting out the land plot through a building right.¹⁶³ In recent years, the SBB Real Estate has granted more building rights; this is closely connected to their new strategy, claiming to create 1/3 affordable housing of their real estate assets in the following decades.¹⁶⁴ The chapter on developing land will show how this needs to be understood as a marketing strategy. I want to emphasize at this point that the SBB still profits from such building right contracts, also when they are granted to cooperatives, without any economic risks. This becomes even clearer when understanding the composition of the building lease interest rate: the value of the land defines it. As the SBB has received land plots at central locations for fair prices, rating land according to its contemporary value enables the company to profit immensely from these building rights. It highlights the fact again, that both historically and contemporary, the SBB considers land as a financial asset and treats them economically in the most favorable way.

Land Sales

As with building rights, the SBB has used land sales as an ongoing financial strategy to fund the railway. Though both historical and contemporary documents on land sales are hard to find: The first written source connected to sales of land owned by the SBB is dated 1967. Since land was collected and used long before this date, it can be assumed that land sales were carried out before this. Several records are documenting sales of land that were collected through preventative land acquisitions. Such procedures have been performed for buyers of private companies or public institutions. The selling of preventive acquired land shows how certain collected land was never used for railway purposes and only sold to third parties. For several years, these land plots were owned by the SBB, in the cases analyzed between 8 and 25 years.¹⁶⁵ During this period, the land was lying idle. It is another example of strategically dealing with land and needs to be understood as a form of financializing, before the shifting company structure in 1999. Further, it is a misuse of preventative land acquisitions through expropriation.

Also, in circumstances where regular land plots were not used for the infrastructure of the railway anymore, land sales were used to finance the rail. Several archival documents depict how the management has sold the land for commercial reasons.¹⁶⁶ Since 1999, the SBB has intensified land sales, up until recently. It was initiated through the federal council's order, that the SBB is obliged to assist the SBB pension fund in renovating their cover ratio.¹⁶⁷ During this time, the SBB was not yet in possession of sufficient yielding developments on their land. To increase financial liquidity, the management decided to use land sales to achieve the provision by the federal council, enabling the SBB to transfer 150 million Swiss Francs per year to the SBB pension fund. Between 2004 and 2019, the yield of the SBB was boosted by almost 2 billion Swiss Francs through sales of land plots.¹⁶⁸ Though, the process of selling land is entirely inaccessible and non-transparent. The only source of information is seldom media reports. The lack of transparency needs to be understood as an investment logic. It enables the SBB Real Estate with unlimited entrepreneurial scope, without needing to publicly justify any actions.

One case of land sale, which will be mentioned again in the next chapter, was when the SBB has sold 7'403 m² of building land at central location right next to Zurich's main station to the Swiss bank UBS for 26'931 Swiss Francs per m².¹⁶⁹ The motives behind this transaction, apart from the apparent profit, are unclear. Initially, the land was sold by the city of Zurich to the NOB in 1858 and 1861 for land prices between 4 and 12 Swiss Francs per m².¹⁷⁰ Despite the lacking information regarding land sales in the last two decades, the numbers of the annual reports and the example of the UBS shows the importance of land sales for the SBB and emphasizes the fact that both historically and contemporary, land is considered as a central asset to finance the railway infrastructure.

In the case of the British state, Brett Christophers argues that public land is only financialized indirectly, as the government sells the land with no use value to private investors. While he considers this logic as highly problematic, it should not be categorized as financialization. By analyzing the case of the SBB, I contradict this argument. The previous chapter has shown how extracting the maximum yield from land has been an ongoing strategy of the SBB since the second half of the 20th century. This particular logic of dealing with land assets implies a financialized logic. I want to question Christopher's statement, who claims that if all land resources are in use by the state, none will be sold. Therefore, he argues, the state only sells land with no use, which prevents dealing along with a rationale of exchange value. To rethink this notion, one must ask who has the authority to define when land is used or not used. The next chapter will illustrate how the SBB

¹⁶⁵ SBB Archive, GD_GS_SBB40_006_10.

¹⁶⁶ Ibid.

¹⁶⁷ See p. 79-80.

¹⁶⁸ This amount was calculated with the published annual reports of the SBB between 2004 and 2019.

¹⁶⁹ Recher, "Gestaltungsplan auf dem Areal Zollstrasse, Einflussnahme auf das entstehende Wohnangebot."

¹⁷⁰ Scherr, "Die unbekannteste Gigantin."

has deliberately shifted logistical constructions from inner-city to agglomeration, to create unused land plots, 'in need' to be developed. If the use value is only determined within a capitalized logic, financialization is a corollary. When land use is defined by those aiming to profit from real estate, it contradicts the framing of understanding land use as a neutral category. I want to emphasize how a logic of maximizing profit deeply shapes land use according to the current capitalistic rationale.

DEVELOPING LAND

Today, the SBB Real Estate is developing and administering 800 rail stations, 3'500 buildings, and 3'600 properties.¹⁷¹ Through the railway system, the SBB owns land plots of 93.3 million m², the size of the city of Zurich; the SBB Real Estate manages properties on 13.1 million m², the size of the city of Geneva. In 2018, the SBB Real Estate was the second-largest real estate company when comparing the rental income.¹⁷² In recent years, the SBB Real Estate's performance is increasing year to year, resulting in 339 million Swiss Francs in 2018.¹⁷³ The Real Estate division distinguishes between three portfolios: Railway production (SBB offices, service facilities, commercial premises), railway stations, and investment properties. Primarily the latter is discussed in this thesis and is the prime focus of this chapter.

The SBB Real Estate follows traditional market principles in developing their land assets: Andreas Steiger, head of area development SBB Real Estate, states that their projects aim to maximize the yield and are not assigned to a social mandate. The procedure to envision such development projects are very similar to contracting building rights: either communes or cantonal governments have certain scope for action, which can be executed in voting and through negotiations.¹⁷⁴ Again, the possibilities for local governments are limited: The SBB is backed up by the federal council, who predefine the economic goals of these developments. Also, the land projected to be developed is owned by the SBB. Therefore, city governments cannot prevent such developments completely. They can only shape the project in their most favorable way. These political processes are very complex and, again depend significantly on the physical location. They should not be a prime focus of this thesis. Still, I want to emphasize that while local governments can shift such projected constructions slightly, they cannot impede the development. A city government wants to see inner-city spaces developed, primarily due to housing shortages and increased attractiveness of its city spaces. The justification of SBB Real Estate developments is made by the triennial guidelines and goals, articulated by the federal council, the highest political instance in Switzerland.

If land plots are unused by the railway infrastructure, they are transferred to the real estate division and can be developed. However, why does the land use suddenly shift? Steiger mentions that land plots often become free due to more efficient and concentrated use. Further, he mentions that maintenance depots that need renovation work within the next 10 years are preferably developed by SBB Real Estate for commercial businesses.¹⁷⁵ This statement reveals the logic of financialization in the case of internal development projects: If land plots can be used more efficiently, the maintenance infrastructure is concentrated and geographically shifted, so that developments in inner-city spaces are made possible. While this process is always correlated with technological progression, to conglomerate the railway maintenance, service structures are often relocated to the agglomeration or rural areas, so that inner-city plots lie 'idle'.¹⁷⁶ Such actions are justified with the argument that land should be used most effectively. Nevertheless, effectiveness is only related

¹⁷¹ SBB Immobilien, „Über Uns.“

¹⁷² Scherr, „Die unbekannte Gigantin“.

¹⁷³ SBB AG, „SBB Geschäftsbericht 2019,“ 43.

¹⁷⁴ Andreas Steiger, Interview.

¹⁷⁵ Ibid.

¹⁷⁶ This can be observed in several cases around Switzerland; see e.g. Werkstadt and Neugasse (Zurich), Areal Officine (Bellinzona).

to economic realities. The adverse effects such developments have on aspects other than finances are vast. It dramatically increases land prices on which the development itself was built, and also powers gentrification processes within a whole district. It intensifies the exclusion of lower-income citizens from inner-city spaces, and only attracts them to inner-city spaces through the provision of consumption spaces. These processes are not only fueled by the SBB Real Estate in the case of Switzerland. A multitude of institutional investors practices the financialization of properties with all its effects. In the case of the SBB, these development processes are following economic principles which are directly linked and supported by the Federal government.

This chapter is used to analyze the individual projects of the SBB Real Estate more in-depth; during my research, I have analyzed the contemporary development projects and categorized repeatedly emerging narrative patterns. Four of them touch upon discourses defined and used by the SBB Real Estate: Smart city and participation processes, affordable housing, and sustainability. These themes are key pillars, emphasized on the website of SBB Real Estate, for their city development projects. These four aspects will be discussed based on different case studies, aiming to both analyze a close-up of the projected constructions and simultaneously the overall logic of SBB Real Estate developments. The first discourse discussed in this chapter is one that has emerged through the method of conceptual walks: Many contemporary development projects are producing economized and securitized spaces; this is discussed based on one case study.

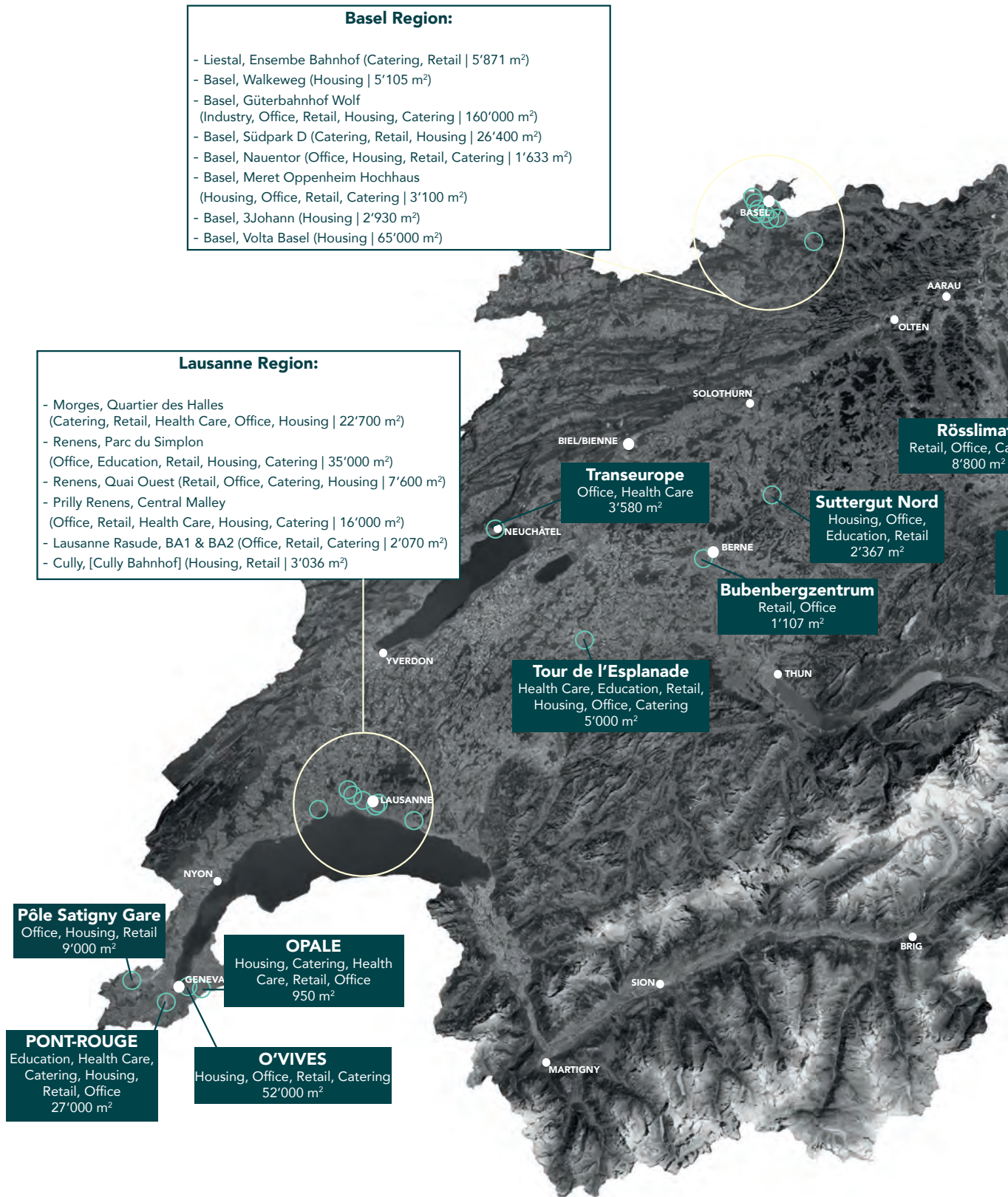
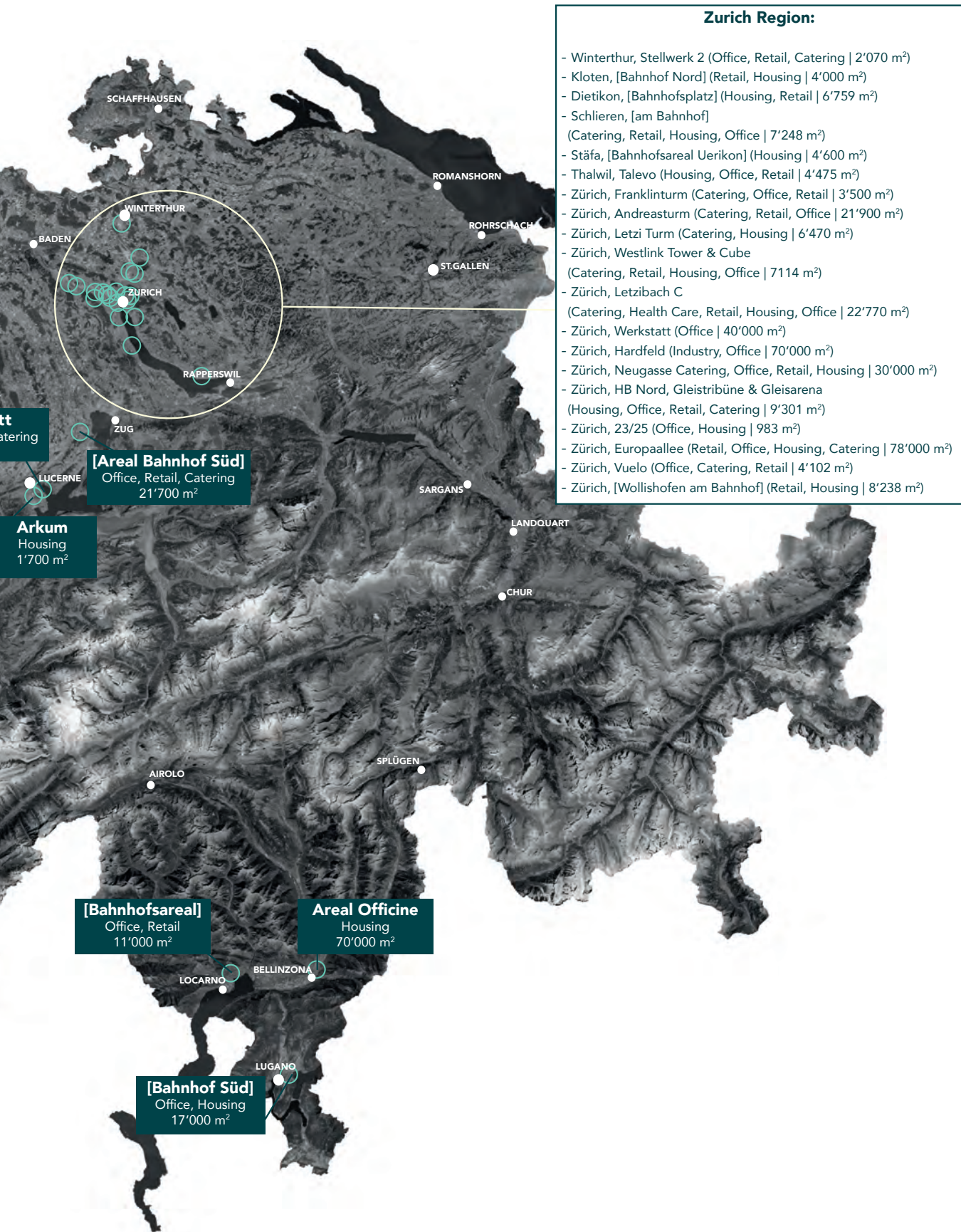


Figure 5: This map illustrates all current and future publicized development projects of the SBB Real Estate. All projects have their construction start between 2015 and 2023 and the first-time occupancy between 2018 and 2028. The three significant hubs, Zurich, Basel, and Lausanne, where the SBB Real Estate is currently planning most of their projects, are highlighted with circles. The description of the individual projects mentions the location, the name of the project, its primary use defined by the SBB Real estate, and the size of the to-be-developed land plots. More than 300'000 m² will be developed in Zurich during the next decade, in Basel nearly 300'000 m², and in Lausanne almost



90'000 m². The SBB Real Estate will build on land plots of around 230'000 m² in the rest of Switzerland. Altogether, the company plans to design constructions for offices, retail spaces, and housing on approximately 100 hectares. The majority of the projects will maximize the usable area by building upward to enlarge the floor area. The total functional area is, therefore, generally more than three times the land plot. All information for this map have been collected on the website of the SBB Real Estate division and the respective project-based websites.



Figure 6-9: With the visualizations publicly available on the SBB Real Estate website, where all current and future projects are portrayed, I have created a collage. After downloading all images, I have categorized them along with four emerging themes, which were predominant in the visualizations: 1. The architecture of the developments, 2. Office spaces, 3. Apartment designs, and 4. Spaces of consumption. I then grouped the images to form a collage for



each theme. All collages show the hetero-normativity (such as Whiteness, nuclear families, conservative role models, etc.) and confined design of the SBB Real Estate development projects. With this illustration, I have tried to conduct an 'iconographic' analysis of the envisioned projects and visualize Switzerland's future vision for SBB Real Estate development projects.

Securitized and Economized Spaces

Based on the regular practice of walking in contemporary developments by the SBB Real Estate, the theme of securitized and economized spaces has emerged. To understand this aspect, I use the Europaallee in Zurich as an example – one of the first, largest, and at the same time, most contentious projects of the SBB Real Estate. It is located in the heart of Zurich, connecting the central station with a former working-class district. The current project was initiated in 2003, and the constructions should be finalized by this year. While the SBB Real Estate leads it, the Europaallee is a co-project between the SBB, the city of Zurich, and the Swiss Post, envisioning a mixed-use development through service offerings, office, and residential spaces, senior housing, hotels, gastronomy, retail business, leisure and education. Four hundred apartments for 1'200 residents were planned, creating a resident share of 40%, as well as 6'000 working places.¹⁷⁷

I argue that the securitization and economization of space deeply shapes the development of the Europaallee in itself. One can even say that the Europaallee is the most accurate embodiment of a financialized inner-city development in the case of the SBB. The accessibility and inaccessibility of space show how this development reinforces inequality and the hegemony of Western capitalism.



Figure 10-15: Europaallee Zürich

In 1846, the city of Zurich transferred land to the NOB, the Swiss Federal Railway's predecessor, right next to the main station in Zurich, across the river Sihl where today's Europaallee is under construction. The land was overwritten to the railway company free of charge, but the attached conditions obliged the NOB to use it as a railway station. The government had its main interests in connecting the city of Zurich to the developing railway network. When the Swiss Federal Railways was founded in 1902, the land was transferred to the SBB. Today, they are still the legal owners of the land. Other parts of today's Europaallee were sold to the NOB in 1858. In total, 10'169.91m² of land was transferred to the railway company for a price of Fr. 1.33/m².¹⁷⁸ Today, the value of one square meter building-land at such a prime location can be estimated to a price between Fr. 30'000 and Fr. 58'000, depending on the extrapolation.¹⁷⁹ For more than a century, the land was used as repair shops for the railway and to a part as the Zurich railway station. During the 80s, commercial uses of inner-city spaces became increasingly interesting for the SBB, and together with the bank UBS as the main investor, the preceding project Eurogate was born. The first construction was planned to be built on a platform above the railway tracks, added by a housing development at Lagerstrasse. Due to several reasons, the project Eurogate was never implemented; mainly, it was unable to obtain enough investments due to the questionable profitability of the project.



Figure 16: Project Eurogate

In the early 2000's, the project shifted, and the construction was planned next to the train tracks. The project was renamed to *Stadttraum HB* and newly designed from the ground.¹⁸⁰ Before the design plan was subject to vote for the residents of Zurich in 2006, archival documents reveal that the former mayor Elmar Ledergerber checked with his lawyer, whether the development project of the SBB could be prevented due to the legal contract between the city of Zurich and the NOB in 1858, which defines that the land granted by the city of Zurich can only be used for a railway station. As this contract was not durable anymore, Ledergerber was forced to grant the project. This shows that the local government was not in favor of the planned development.

The voting in 2006 enabled citizens to agree or disagree with the special use plan. The city council demanded following points from the SBB, then reflected in the voting:

- *'The houses may not, in general, be higher than 25 meters. Houses with heights up to 40 meters are possible. On a few building plots, it is allowed to build even higher but only with extraordinary urban development measures and quality.'*
- *'A new, attractive pedestrian area crosses the future urban space. Places are created. A passerelle over the tracks into district 5 for Pedestrians and bicycles are allowed to be built.'*

¹⁷⁸ Stadtarchiv Zürich, V.G.c.59.:8.1.

¹⁷⁹ Stadt Zürich, "Grundstückpreise der im Freihandkauf umgesetzten Grundstücke, seit 2018."

¹⁸⁰ Stadtarchiv Zürich, V.G.c.59.:8.1. and "Europaallee (Sonderbeilage)."

- 'If necessary, kindergartens, after-school care centers etc. are built. Sex salons in the city area HB Zurich are expressly prohibited.'
- 'SBB is building and paying for the pedestrian area, the spaces, and an additional pedestrian path along the tracks. If the city council and possibly the voters agree, the city will take additional upgrading measures finance.'¹⁸¹

Further, it was already clear that the *Pädagogische Hochschule* (teacher training college) would move into one of the buildings. Additionally, some construction fields need to contain at least 40% residential housing. Finally, the building rights were defined:

*'The SBB intend to sell the land to various buyers or building lease holders who will then build themselves. In this way, various buildings from different owners will be constructed in different stages in the HB Zurich urban area. The money that SBB will earn from the sale will finally benefit the railway, i.e. public transport.'*¹⁸²

The voting of 2006 for the Stadtraum HB is another example of the limited power of citizens in shaping large-scale urban developments in Switzerland. The limited design plan does not allow residents to understand the future development project. Still, it shows the discourse in which both the planners and developers are situated. Even though the design plan, the basis of the voting, is very vague in terms of its design and use, it seems strange that sex salons are 'expressly prohibited'. The district where the Europaallee is located is both the center of prostitution and drogues trading for years. Simultaneously, it is considered as a working-class area. Gentrifying processes have been initiated not only by the Europaallee, but it has undoubtedly fueled such tendencies in this area of the city. Prohibiting sex salons, in general, does refer back to the fact that the district has a long history of public street prostitution. Though, in the imaginary of SBB Real Estate developers, creating a highly profitable inner-city development, prostitution does not fit into this vision. Expressively prohibiting prostitution in this district already implies a form of urban upgrading and demarcates the new project from its surrounding.

In 2006, voters of the city of Zurich had accepted the special use plan, and thus, the detailed design plan was created. The area was divided into eight construction sites and the renovation of the historical Sihlpost building. The developers organized an architectural competition; the individual construction sites were developed by a variety of architectural firms and constructors, defined by the jury consisting of employees of both SBB Real Estate and the city department for urban planning and external experts. In 2009, the realization of the large-scale development was initiated. Shortly before, the SBB sold the construction site C to the former main investor of the Eurogate project, the Swiss bank UBS. It is the only land plot in the Europaallee which was sold. For over a decade, the construction site is ongoing, but the complete development is supposed to be finalized this coming fall 2020. The majority of the construction sites are already in use and rented out. Walking towards the Europaallee from Zurich's central station, the first building that catches the attention is the only historical building in the line, the Sihlpost. The building was

¹⁸¹ Own translation of: 'Die Häuser dürfen im Allgemeinen nicht höher als 25 Meter sein. Häuser mit Höhen bis 40 Meter sind möglich. Auf wenigen Baufeldern darf man noch höher bauen, allerdings nur mit ausserordentlicher städtebaulicher Qualität. Ein neuer, attraktiver Fussgängerbereich durchquert den zukünftigen Stadtraum. Plätze entstehen. Eine Passerelle über die Geleise in den Kreis 5 für FussgängerInnen und Velos kann gebaut werden. Wenn nötig werden Kindergärten, Horte usw. gebaut. Sexsalons im Stadtraum HB Zürich sind ausdrücklich verboten. Die SBB bauen und bezahlen den Fussgängerbereich, die Plätze und einen zusätzlichen Fussgängerweg entlang den Gleisen. Wenn der Gemeinderat und evtl. die Stimmberechtigten zustimmen, wird die Stadt zusätzliche Aufwertungsmassnahmen finanzieren.' (Stadtkanzlei Zürich, „Abstimmungszeitung 24. September 2006.“)

¹⁸² Own translation of: 'Die SBB beabsichtigen, das Land an verschiedene Käufer oder Baurechtnehmer zu vergeben, die dann selber bauen werden. So werden verschiedene Bauten von verschiedenen Eigentümern in verschiedenen Etappen im Stadtraum HB Zürich entstehen. Das Geld, das die SBB mit der Veräusserung verdienen, kommt nicht zuletzt der Bahn, also dem öffentlichen Verkehr, zugute.' (Ibid.)

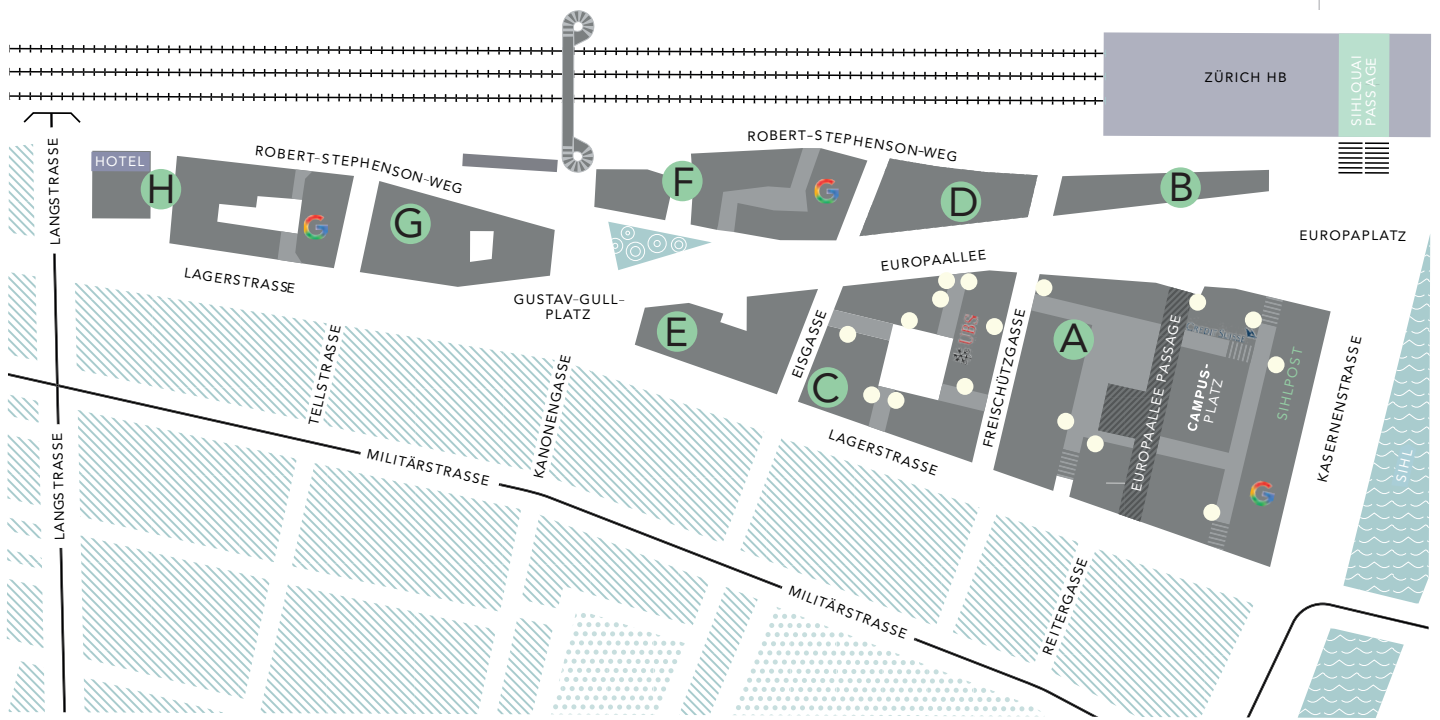


Figure 17: This map visualizes the securitization and economization of space in the development project Europaallee. Even though the map is illustrated in a classical bird's eye view, it entails three layers of information: 1. It provides the reader with an overview of the development project and emphasizes the controlled and securitized architecture in the so-called 'public spaces'. 2. The white surfaces depict the accessible places, whereas the buildings in grey are only partly accessible. The accessibility is granted under the following circumstances: if one seeks to spend money; if one is employed by a company residing in the development project; if one is a renter of an apartment; if one is a student of an educational institution situated in the development project. 3. All security cameras located on the area have been mapped to the corresponding location (white circles) to portray one form of securitization of space.

finalized in 1930 on SBB land and used both by the Swiss Post and the SBB. In the course of the Europaallee project, the Sihlpost was renovated and reused; the post service uses 11% of the effective area. Two restaurants and a retail store have rented ground-floor spaces. A business school uses 37% of the building, and Google created office spaces in more than 40% of the usable space.¹⁸³ Construction field A consists of the main building offering a shopping experience in a mall and office spaces for the Swiss bank Credit Suisse. The teacher training college rents a building that is set on top of the main building in construction field A. The construction on UBS land is used as offices for the international banking institution, providing 32'000 square meters for their business. From construction site E onwards, all buildings offer either rental apartments or condominiums. According to the project website, the Europaallee offers 319 apartments in total and 170 hotel rooms. Based on the voting, the developers were obliged to build 400 apartments; the loophole of creating hotel rooms, instead of apartments, which also counts as housing, has not been calculated by the city government.

Another form of maximizing the profit can be observed on construction site G; in 2013, the SBB auctioned 46 condominiums in favor of the highest bidder. Commonly, the property is sold to a set price to the person expressing binding commitments first. The SBB Real Estate structured the selling of the apartments in a novel way, clearly following financialized logic in the real estate market: Using an auction process reveals how the urban space is increasingly financialized. The selling strategy seems to follow the imposition, that defining an 'objective' price for an apartment is impossible and mainly irrelevant, as they market within the logic of an overheated and illusive real estate market. Also, construction site G offers an exclusive retirement home in 72 apartments. *Residenz Gustav* offers upscale living comfort with a first-class service offer, such as 24-hour

¹⁸³ SBB, "Markantes Baudenkmal mit frischem Innenleben."

emergency call and concierge service, nightly security service, lunch and dinner in the in-house noble restaurant, weekly cleaning services, wellness area and numerous other services. Rental prices shift between 7'000 and 15'000 Swiss Francs per month, depending on the size of the apartment. Though, the concept of the De Gallo Group was not successful: In 2019, the investors have published a media report that the *Residenz Gustav* will close its doors one year later, on September 20, 2020:

*'The demand for apartments with comprehensive services at a central location has turned out to be small. The management of the property will be transferred to its owner, SBB.'*¹⁸⁴



Figure 18-20: Residenz Gustav (Building and Logo)

All construction sites offer shopping experiences for the visitors, creating a temple of consumption. While the SBB Real Estate emphasizes the accessibility of public space, the buildings are generally only accessible based on consuming offered goods. When having either not the possibility or interest to spend money, the Europaallee can instead be defined according to its inaccessibility of space. The global tech-firm Google has opened its new European headquarter in the Europaallee, occupying 50'000 square meters and creating office spaces for 5'000 employees.¹⁸⁵ As the main renters of the office spaces, Google, UBS, and Credit Suisse are creating global economized spaces and encourage the inaccessibility of space in an area that should have been developed for the public.

Apart from being an economized space, the Europaallee is further, again, in connection with its primary renters, a highly securitized space. While the main road, called the Europaallee, is easily accessible, it is mainly used as a space of transition. It does offer a public space at one end of the development, with public benches and a water-installation. Though, compared to the size of the development itself, the offered space to rest and observe is relatively small. It further does not provide any shade or niches, creating an atmosphere of transition. A visitor is guided by the controlled architecture, securitizing the public space through the inability to stand unseen due

¹⁸⁴ Di Gallo, "Communiqué: Residenz Gustav vor der Schliessung."

¹⁸⁵ Wertheimer, „Forschungs- und Wirtschaftsstandort Zürich - Google baut seinen Standort in Zürich aus.“

to the grand pathways, always followed by security cameras. Within the building blocks of the Europaallee, one can either not access or is only allowed to transition: In the area of the teacher training college, it is prohibited for people that are not registered in or work for the college to sit outdoors on the stairs and the benches. This action can be penalized with a fee of Fr. 2'000 and is observed by multiple security cameras. Though, the public space of the teacher training college would be the only open area where visitors can find shade and a calm spot to sit. Office spaces are also non-accessible for regular citizens. The buildings' ground floors are mostly accessible, but with the requirement of consumption. A variety of shops are erected along the Europaallee and within certain building blocks. The space is, therefore, in the case of the teacher's college and office spaces restricted to either a certain elite, as higher education in Switzerland is often attended by a particular part of the society, or in the case of the shopping stores, to citizens with monetary funds. The development excludes non-legal and lower-income citizens and supports the financialization and privatization of space. The Europaallee, aiming to depict Zurich as the gate to Europe, has created a highly economized and securitized space, excluding the same citizens excluded by the imaginative vision of a connected Europe: Migrants and non-legal citizens. It creates an exclusive island in the heart of Zurich, offering only a space of transition and consumption for the majority of citizens and visitors. It also illustrates how financialization processes in urban developments are deeply embedded within neoliberal capitalist logics of securitization and consumption. While the development project was advertised as a new district in Zurich, based on free or cheap central land initially received for the railway infrastructure, it is, in fact, an exclusive island for technological and financing institutions, conveying financialization of land and housing.

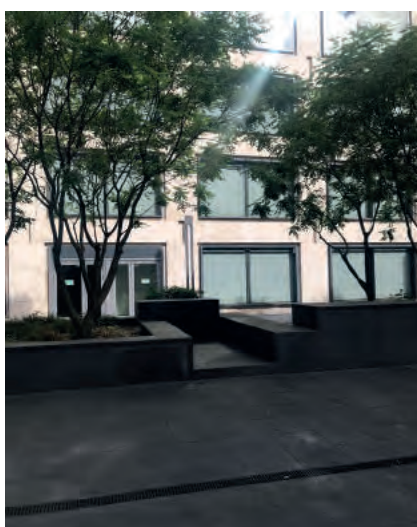
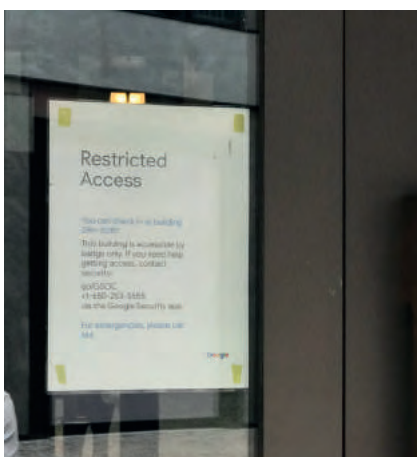


Figure 21-23: Restricted Access and Prohibition Signs (Google, PH, and Parking). Figure 24: Public Space of PH, prohibited for regular visitors. Figure 25: Staircase to PH. Prohibition sign (Figure 22) is located on the right side of the image on the wall.

Smart City and Participation

Smart cities are understood as structures providing efficient, intelligent, and technology-based infrastructures and services, improving the lives of its citizens. Critical scholars understand smart cities as a business-driven development, often resulting in a prime focus on business goals, rather than social ones. Grossi and Pianezzi argue that while private corporations and cities promote smart cities as a revolutionary utopia, it is, in fact, an expression of neoliberal ideology.¹⁸⁶ This means measuring the 'smartness' of cities according to city rankings and creating competition among cities through neoliberal ideologies. Such city governments are understood as bodies who do not govern but control managerial organizations to develop 'good' policies. An increasing call for technological solutions, led along with business and economic logic, should create a smarter and more efficient city, often evaluated according to monetary terms.¹⁸⁷ The authors conclude that *'the smart city utopia serves the interests of big multinational ICT companies, while neglecting the need of political (not only technological) answers to public and common interests. It conveys neoliberal values and shapes urban problems by making visible some aspects while at the same time obscuring others.'*¹⁸⁸ Grossi and Pianezzi describe smart city approaches as *'a sterile and decontextualized narrative that preserves existing relations of power, rather than challenging them'*. Instead of creating such a top-down imposition, the authors push forward the notion of involving 'counterpublics' to *'formulate alternative discourses and norms to reconfigure existing systems of power'* and creating a safe space for a *'multiplicity of public spheres'*.¹⁸⁹

In 2019, the SBB Real Estate opened the Smart City Lab on Basel's the Wolf area. Wolf is a former freight station and logistic center of the SBB. In 2013, in conversation with the cantonal government of Basel city, the SBB decided to shift their international cargo handling to the planned container-terminal Gateway Basel Nord – to be able to develop the Wolf site. Preliminary studies were initiated in 2014 and finalized in 2018 with an indicative project. The construction of the development project is planned to start in 2024; the SBB Real Estate has, therefore, opened the Smart City Lab in 2019 as an intermediate project in collaboration with the canton government of Basel city.¹⁹⁰ SBB Real Estate differentiates between five points in their approach to a smart city. Smart mobility (train stations as mobility hubs), smart building (*'for diverse and flexible forms of use'*, accompanied by a *'participatory process'*), smart public space (multifunctional premises through participative processes), smart energy and smart connectivity (connecting actors with infrastructures through data).¹⁹¹



Figure 26+27: Visualization of SBB Real Estate's Smart City Vision.

To envision such smart cities, SBB Real Estate has integrated the Smart City Lab as a public space for experimentation in Basel. The website describes this lab as follows:

'Innovations are created when different actors come together with their skills and knowledge: The Smart City Lab Basel networks partners from business, science, administration, and the interested public. This community experiments, learns from each other, and develops new ideas and projects for the smart Switzerland of tomorrow. [...]

The Smart City Lab Basel is a test room for ideas, prototypes and services in the fields of logistics, mobility, and more. It makes smart solutions tangible for experts and the interested public and discusses them with a broad audience.

The Lab is an initiative of the SBB and the Canton of Basel-Stadt and is located near the Basel SBB railway station on the Wolf site. Around 160,000 m² are currently available for use as a lab.¹⁹²

Further, the Lab should serve as a basis for the development project starting in 2024, which aims to become the 'smartest site in Switzerland' to envision a space for 'working smart – living urban'. In a public webinar organized by the World Bank on *Smart Technologies as Tools to Support Responsible Recovery After COVID-19*, the head of the smart city project, Anja Rieder, introduced the Smart City Lab to the audience. She argued that the SBB, as real estate developers, aim to make cities more resilient through a smart city approach. Today, the Smart City Lab hosts 25 companies working on mobility and city logistics projects to make cities smarter. The lab should connect private investors with local project developers and public actors, creating a more efficient, greener, resilient, and smarter city. Further, Anja Rieder states that the SBB Real Estate has no commercial interest in the Lab; the companies and start-ups located in the former freight station do not have to pay any ground rent. It is rather seen to serve the vision of smart cities and motivate both public and private actors to create a smarter Switzerland.¹⁹³

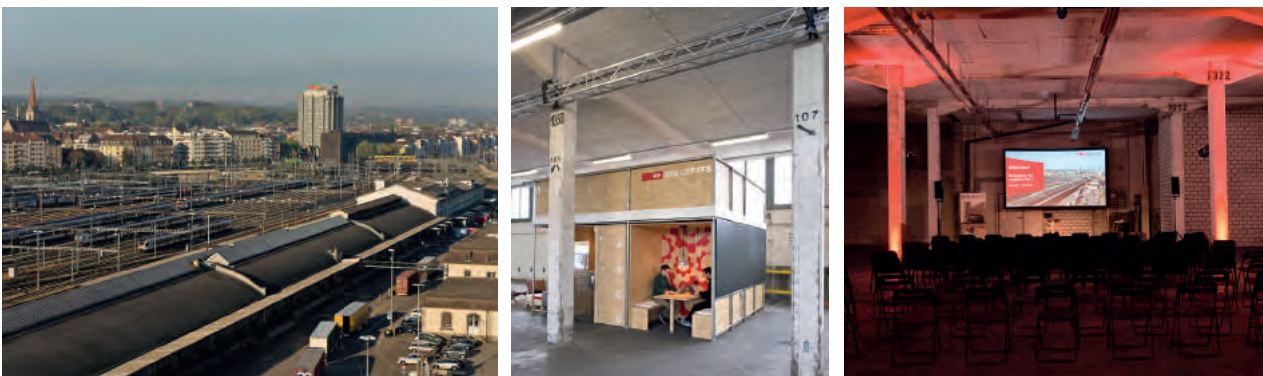


Figure 28-30: Smart City Lab Basel, Wolf Area.

¹⁹² Own translation of: 'Innovationen entstehen, wenn unterschiedliche Akteure mit ihren Fähigkeiten und ihrem Wissen zusammenkommen: Das Smart City Lab Basel vernetzt Partnerinnen und Partner aus Wirtschaft, Wissenschaft, Verwaltung und die interessierte Öffentlichkeit. Diese Community experimentiert, lernt voneinander und entwickelt neue Ideen und Projekte für die smarte Schweiz von morgen. [...] Das Smart City Lab Basel ist ein Testraum für Ideen, Prototypen und Services in den Bereichen Logistik, Mobilität und mehr. Es macht smarte Lösungen für Fachleute und die interessierte Öffentlichkeit erlebbar und diskutiert diese mit einem breiten Publikum. Das Lab ist eine Initiative der SBB und des Kantons Basel-Stadt und befindet sich in der Nähe des Bahnhofs Basel SBB auf dem Areal Wolf. Für die Nutzung als Lab stehen zurzeit rund 160'000 m² zur Verfügung.' („Smart City Lab Basel, Über das Lab.“)

¹⁹³ Rieder, "Smart City Lab Basel."

The fact that the SBB Real Estate uses a smart city approach to realize sustainable urban development highlights the complicity of the company in the financialized logics of real estate. The Lab they created in Basel is yet another body representing a focus on public-private relationships, to create a supposedly better future. Visible from the cited statement above, the SBB Real Estate has created a framework in which a smart city is marketized along neoliberal ideologies to create an allegedly utopian vision. While they claim not to be commercially interested, the concept of the smart city implies the foundation of a financialized system; creating more efficient solutions based on the technology is always market-related. SBB's smart city ideology is based upon market mechanisms and managerialism as solutions to urban problems. The inhabitants of such a smart city are though missing; not once does the Smart City team of the SBB Real Estate mention the citizens for which these smart solutions should be made. The absence of living bodies reveals the abstractness of such a narrative, detaching humans from the urban smart city sphere. In an interview, Anja Rieder reveals that the company understands its approach to smart city as a tool for participation. To implement this in the case of the Wolf site development project, Rieder uses the word 'co-creation'. The fact that participation processes are effectively embedded in their smart city strategy is further highlighted in the section on their website on 'Smart Public Space':

'SBB owns large areas in numerous Swiss cities and municipalities in convenient locations. Together with current and potential users and other stakeholders, SBB has a responsibility to develop these areas into forward-looking, sustainable sites and attractive living spaces. This process is dynamic and requires a participatory approach and appropriate know-how and viable administrative structures.'

*Smart urban development is a continuous, not a linear sequence of phases. If the population is involved, needs can be identified, and any areas of conflict resolved. This results in lively neighbourhoods with a functional, demographic and socio-cultural mix for living, working, consuming, and staying in, which are seamlessly integrated into their surroundings and enjoy a high level of acceptance among the population. Such neighbourhoods support a vital local economy.'*¹⁹⁴

While Grossi and Pianezzi, as well as other critical scholars argue that promoters of smart cities are implementing their utopia from a top-down imposition and create a sphere where an inclusive approach to participation is impossible, the SBB Real Estate claims to embed participation processes in their smart city planning.¹⁹⁵ Two examples of participation processes led by the SBB Real Estate, the Wolf site in Basel and the Neugasse in Zurich, illustrate how the company claims to integrate participation processes in their city developments, but are in fact practicing deceptive and non-democratic participation processes.

Between 2016 and 2019, the SBB Real Estate has conducted two studies with architectural offices and other planning firms to envision the development project Wolf in Basel. The final report published in 2019 sums up these two initial studies and further describes the role of participation so far in the development project:

¹⁹⁴ Own translation of: 'Die SBB besitzt in zahlreichen Schweizer Städten und Gemeinden grossflächige Areale an verkehrsgünstigen Lagen. Gemeinsam mit aktuellen und potenziellen Nutzern sowie weiteren Stakeholdern trägt die SBB die Verantwortung, diese Flächen in zukunftsweisende, nachhaltige Areale und attraktive Lebensräume zu entwickeln. Dieser Prozess ist dynamisch und bedingt ein partizipatives Vorgehen und entsprechendes Know-how sowie entwicklungsfähige Verwaltungsstrukturen. Smarte Stadtentwicklung ist eine kontinuierliche, keine lineare Abfolge von Phasen. Wird die Bevölkerung miteinbezogen, können Bedürfnisse erkannt und allfällige Konfliktbereiche gelöst werden. So entstehen lebendige Quartiere mit funktionaler, demografischer und soziokultureller Durchmischung zum Wohnen, Arbeiten, Konsumieren und Verweilen, die nahtlos ins Umfeld integriert sind und eine hohe Akzeptanz bei der Bevölkerung geniessen. Solche Quartiere unterstützen eine vitale lokale Wirtschaft.' (SBB Immobilien, "Smart Public Space.")

¹⁹⁵ Grossi and Pianezzi, "Smart Cities: Utopia or Neoliberal Ideology?," 84.

*'SBB and the Canton of Basel-Stadt are managing the Wolf Basel site development as a cooperative planning procedure based on the principle of mutual mediation. In the previous planning process, the local public was involved in many ways.'*¹⁹⁶

The authors proceed with listing the relevant intersections between the planning side and the public: In November 2016, the public was informed on the planned development project. An informative event was further carried out for both interest groups and future renters. According to the document, interest groups are neutral neighborhood associations, chamber of commerce Basel-Stadt and Basel-Land, trade association Basel-Stadt and the housing cooperative Nordwestschweiz, amongst others.

*'At the information events, tenants and interest groups were informed about the principles and the general conditions of the area development. Also, the procedure the planning procedure and the mutual mediation possibilities within the framework of the cooperative planning process was presented.'*¹⁹⁷

After these information events, the SBB Real Estate and the canton Basel-Stadt organized two workshops for the interest groups and rental representatives. The first workshop was held in late November 2016, aiming to draw up a common set of rules and regulations, and hold an initial discussion on the development project. Two weeks later, the interest groups had to submit their visions of the site in written form.

*'Between January and March 2017, the SBB and the canton of Basel-Stadt prepared a report on the results of the mutual mediation and the points taken up for the foundations of the urban development study.'*¹⁹⁸

Another workshop was followed after the completion of the initial study in 2018. Topics such as the 'use, mobility, city planning/identity, green areas, and public spaces' were discussed. Once again, written feedbacks had to be submitted by the interest groups three weeks after the workshop; SBB Real Estate and the canton Basel-Stadt reviewed the results and identified relevant points, which were then used as inputs for the second study. The interest groups were informed, how the planning group will integrate their feedback. In early 2019, the planners presented the indicative project to the public. The chapter on 'participation of the public' ends with the following statement:

*'With the completion of the synthesis phase, a central step in the cooperative planning process has been completed. SBB and the Canton of Basel-Stadt intend to continue to keep stakeholders informed on the progress of the procedure.'*¹⁹⁹

¹⁹⁶ Own translation of: 'Die SBB und der Kanton Basel-Stadt führen die Arealentwicklung Wolf Basel als kooperatives Planungsverfahren nach dem Grundsatz der gegenseitigen Vermittlung. Im bisherigen Planungsprozess wurde die lokale Öffentlichkeit auf vielfältige Weise einbezogen.' (SBB Immobilien and Bau- und Verkehrsdepartement des Kantons Basel-Stadt, "Städtebaulicher Studienauftrag und Richtprojekt. Entwicklung Wolf Basel, Schlussbericht.," 16).

¹⁹⁷ Own translation of: 'An den Informationsveranstaltungen wurden die Mieter und die Interessengruppen über die Grundsätze und die Rahmenbedingungen der Arealentwicklung informiert. Zudem wurden der Ablauf des Planungsverfahrens und die gegenseitigen Vermittlungsmöglichkeiten im Rahmen des kooperativen Planungsprozesses vorgestellt.' (Ibid.)

¹⁹⁸ Own translation of: 'Zwischen Januar und März 2017 erstellten die SBB und der Kanton Basel-Stadt einen Bericht über die Resultate der gegenseitigen Vermittlung und die für die Grundlagen des städtebaulichen Studienauftrags aufgenommenen Punkte.' (Ibid.)

¹⁹⁹ Own translation of: 'Mit dem Abschluss der Synthesephase ist ein zentraler Schritt des kooperativen Planungsverfahrens abgeschlossen. Die SBB und der Kanton Basel-Stadt beabsichtigen, die Interessengruppen weiterhin über den Prozessfortschritt zu informieren.' (Ibid., 17)

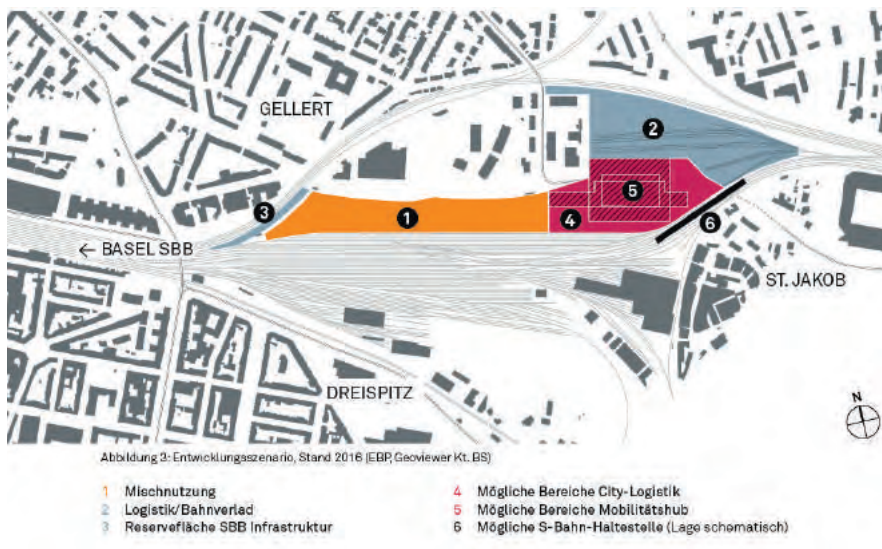


Figure 31: Scenario of development based on the participation process, published in the final report of the indicative project, 2019.

The supposed participation process of the initial use plan for the development project, conducted both by the SBB Real Estate and the canton Basel-Stadt, reveals several aspects: First, the word informative was used several times; approximately half of the so-called participation process was informing the public, sometimes also only the interest groups, on how the planners proceed further. If we understand participation as a real and authentic co-creation, informing the public is not part of such a process. Disseminate information is the prerequisite for democratic participation. The fact that, according to the SBB Real Estate and the canton Basel-Stadt, informing the public is part of the participation process already reveals the complicity in a concealed process and a limited understanding of what meaningful participation means. Second, while the interest groups were able to formulate suggestions for future use, the planners defined which points they considered relevant and necessary to integrate into their following planning process. This further demonstrates how the participation process is feigned. Third, the latter citation shows that defining the use of the development through a participation process was the central step; while the developers aim to inform the interest groups on the further process, it is unclear if participation is further considered as part of the planning project. Only defining the use of the development by interest groups is a very limited approach to participation. Finally, the participation process depicts the lack of transparency; a participation concept would be needed from the beginning to inform all interested groups about the key steps. Such a concept paper needs to be publicly available and understandable for all related individuals. This is not the case in this example; it is entirely obscure how the developers will further use participation to plan the Wolf site and engage with interested citizens.

A similar narrow understanding of participation can be observed in the unbuilt development project Neugasse in Zurich. The 30'000 square meters of the site is located close to the main station in Zurich on the other side of the tracks than the Europaallee, at a prime spot between train tracks and a public park in a popular and increasingly gentrified district (district 5). Since the early 20th century, the premises are used as a locomotive shed and a repair workshop, which is still used today. The SBB claims that all maintenance work in and around Zurich will be centralized, and therefore the Neugasse area can become unused.²⁰⁰ It can be assumed that the attempts to centralize all maintenance sites and move them from inner-city spaces further to the agglomeration is directly linked to the real estate strategy of the SBB in city spaces. The Neugasse project is the figurehead of SBB Real Estate participation processes. Due to a public uprising against the development project in the first place, the SBB Real Estate was in need to engage more intensely

²⁰⁰ "Projektwebsite Neugasse Zürich."

with the residents. It is also the first project where the SBB integrated participation as a key planning tool. Based on the interview with Andreas Steiger, SBB Real Estate uses participation processes situational, depending on the consternation and the freedom of design.²⁰¹



Figure 32+33: Location of Neugasse and initial plan based on the participation process

In the case of the Neugasse, due to both political and public attempted preventions, the SBB Real Estate tried to calm the public outcry through a participatory approach to the planning aspect. The guiding principle of the participation was *'expanding a piece of the city together'*. The process was launched in March and completed at the end of November 2017. Led by the SBB Real Estate in cooperation with the city of Zurich, a planning workshop was used to create an urban development concept with the interested public. All workshops or public events needed an appointment and followed predefined thematic priorities: Collecting, creating, sharpening, commenting, and discussing. The ideas developed in the *create event*, a design workshop lasting several days, were each taken up by a collective of planners consisting of two urban planning offices, two landscape architects, and a traffic planner and translated into scenarios. These scenarios were then critically discussed and further developed in the *sharpening* and *commenting* sessions. Quality assurance was carried out by a committee of experts, composed of external urban experts. This committee also met between the public participation events. An external office was responsible for the participation process, including moderation and recording of minutes.²⁰² Between 100 and 200 people participated in the workshops and formed groups; all results from the workshop can be viewed on the project website.²⁰³ Initially, this approach seems to be viable and meaningful, engaging with a relatively large community and designing the use of a future project in a co-creation. Though, multiple voices, primarily from politicians and the counter-active group *noigass* have criticized the participation approach. Daniel von Rütli, a member of the *noigass cooperative*, argues that the participation was not more than PR for the SBB: While they highlight the early integration of the public, the project was predefined between the SBB Real Estate and the city council and communicated publicly when the negotiations were fixed. The topics discussed in the workshops were related to *'beautification suggestions'*. The participants were able to define which stores they would like to have in the development, where the school should be located, how the roofs should be used, and so on. Further, according to several accounts, the workshop conductors often interrupted participants, trying to shape the content.²⁰⁴ After analyzing the publicly accessible material on the project website, the criticism of the *noigass cooperative* and other individual accounts can be supported. The SBB Real Estate put all documents together; while one can see which group suggested what in which workshop, there are no transparent procedures in how these

²⁰¹ Steiger, Interview.

²⁰² Stadtentwicklung Zürich, „Bericht ‘Partizipationsprozesse’ Zum Postulat GR Nr. 2017/226.“

²⁰³ „Projektwebsite Neugasse Zürich.“

²⁰⁴ Von Rütli, Interview.

documents were authored. While in the first documents, many groups mentioned the request for affordable housing and non-commercial spaces, these proposals are completely missing in the final report. Although, in this case, the SBB Real Estate effectively conducted participatory measurements, the final product is a top-down decision on how the developed visions from the workshops are integrated into the development project itself. Also, the workshops itself and its structures were excluding non-German speaking citizens. In Zurich, over 32% of the residents are foreigners. The workshops themselves were time-consuming and demanding. While they argued to integrate interested groups, the participants were mostly representing middle-class to elitist white citizens. This highlights the focused renter group that the SBB Real Estate aims to target, despite supposedly advocating affordable housing. These two examples have shown that inclusive planning is non-existent in SBB Real Estate's participatory approach. Engaging with participation through a smart city approach enables the SBB Real Estate to profit economically from their projects, while also claiming to plan according to participatory guidelines. Contrary to this approach, I argue that a grassroots perspective is desirable, aiming to create inclusive, meaningful, and collective housing and developments in inner-city spaces.

Affordable Housing

The SBB Real Estate division has communicated in each business report since 2014, that they are aiming to support the development of affordable housing on their land resources. An individual entry on their website focuses on its low-cost housing strategy. They published the following statement:

'SBB is already very active in low-cost housing construction and will continue to support it in the future. The SBB Real Estate portfolio currently includes around 1,000 low-cost apartments. SBB has also enabled around 36 housing cooperatives to build around 1,600 apartments.'*

In the future, SBB will build at least 10,000 new apartments and continue to be involved in low-cost housing construction. In the long term, SBB will make it possible to build one-third of the apartments at low cost: On the one hand as building lease contracts with housing cooperatives, on the other hand for its own portfolio.²⁰⁵

First of all, the question of what the SBB Real Estate understands as low-cost housing arises. As emphasized in the second paragraph of the citation, their low-cost strategy is not only applied to their own portfolio, but also in their building right contracts. One-third of affordable housing envisioned by the SBB is set together both by their independent development projects and delivering land in building rights for cooperatives to build low-cost housing. In small print on the last entry of their website, the company explains what they understand as low-cost housing:

'SBB Real Estate defines an apartment in its own portfolio as low-priced if the annual rent per square meter is below the 50% quantile according to WüestPartner, or if the land is sold to housing cooperatives.'

²⁰⁵ Own translation of: 'Die SBB ist bereits heute im preisgünstigen Wohnungsbau sehr aktiv und wird diesen auch in Zukunft unterstützen. Zum Portfolio von SBB Immobilien gehören heute rund 1'000 preisgünstige* Wohnungen. Zudem ermöglichte die SBB etwa 36 Wohnbaugenossenschaften rund 1'600 Wohnungen zu errichten. Die SBB baut zukünftig mindestens 10'000 neue Wohnungen und engagiert sich weiterhin im preisgünstigen Wohnungsbau. Langfristig ermöglicht die SBB ein Drittel preisgünstige Wohnungen: Einerseits als Baurechtsverträge mit Wohnbaugenossenschaften, andererseits für das eigene Portfolio.' (SBB Immobilien, "Preisgünstiger Wohnungsbau SBB.")

WüestPartner is a private consultant company focusing on building constructions, the real estate market, and spatial and location development. Since its foundation in 1985, the company offers the most extensive database on the Swiss real estate market and provides its clients with real estate prices, transactions, land prices, building projects, zoning, development areas, and other real estate data. While the federal department of statistics publishes data on housing yearly, the publicly accessible data covers only a fraction of the data available for WüestPartner clients.²⁰⁶ Of course, their data is not publicly available, and clients need to pay for such services.²⁰⁷ WüestPartner is the embodied institution of financialization in Switzerland's housing market. It manifests how property is only seen as an exchange value, as an object with which profit can be increased. Residents and, in general, humans have no *raison d'être* in this discourse. Further, it shows the wide range of actors actively engaging in the real estate market; and how a company as WüestPartner can profit from providing data on the property market. The fact that the SBB Real Estate refers to data published by WüestPartner to define what they understand as low-priced housing, illustrates how deeply intertwined the company division is within logics of the private property market. The interrelation between a public actor, the SBB, and such financialized real estate realities highlights that states and their related institutions cannot be situated outside of our economic system. The hegemony of the discourse of financialized property is deeply embedded within the Swiss state. To understand the role of affordable housing in the marketing strategy of the SBB Real Estate and what they mean with low-cost housing, I will use the example of the Neugasse project in Zurich again. The development was initiated in 2016. Since the land was zoned as industrial land, the SBB Real Estate submitted a request for a special land-use plan to the city council. In 2016, Zurich's city government had already received large criticism from the public due to the luxurious development project Europaallee. In non-transparent negotiations, the city council agreed to the special use plan, provided that the SBB Real Estate hands over one-third of the land to a cooperative in a building right contract. These plans were then published in November 2016. In 2017, both residents of district 5, where the Neugasse area is located, and the local council criticized these negotiations. Independently of one another, they demanded a more substantial amount of low-cost housing. The residents formed an organization called *noigass* to prevent the SBB Real Estate division from yet another high-yield development project and called the SBB to sell their land to the city of Zurich, so that local forces can develop the area.²⁰⁸ The SBB rejected this proposition. But due to a public and political outcry in left-wing circles, they suggested a new allocation: While one-fourth of the area will be used for commerce (15%) and a school (10%), the remaining 75% for housing should be divided in one-third nonprofit housing through cooperatives with a building right, one-third low-cost housing according to SBB standards and developed by the SBB Real Estate and one-third apartments with market rent.²⁰⁹ Because the members of *noigass* were dissatisfied with this adjustment, the organization launched an initiative, demanding 100% non-profit housing on the Neugasse site. The outcome of this initiative is still unclear. In March 2019, the organization submitted its demand to the government. Currently, the local council has accepted the initiative. Though, the city council still needs to sign off the initiative before public voting can happen.²¹⁰ Even though the development is delayed and the use allocation is unclear, the development team is currently still communicating on their website to realize one-third of cooperative housing, one-third low-cost housing, and one-third market rent.²¹¹

²⁰⁶ WüestPartner, "Daten."

²⁰⁷ During my research, it was not possible to find out the exact prices of these services. They are not published on their websites. Clients interested in the services offered by WüestPartner need to contact them directly before receiving a cost proposal.

²⁰⁸ "Verein Noigass."

²⁰⁹ Zemp, "Areal Neugasse: Stadtrat muss mit den SBB neu verhandeln."

²¹⁰ von Rütli, Interview.

²¹¹ "Projektwebsite Neugasse Zürich."

This example reveals several interesting points concerning the marketing strategy of the SBB Real Estate in which they portray themselves as being active advocates of affordable housing in Swiss cities: When the initial results of the negotiations between the SBB and the city council were published in 2016, the left-wing city councilwoman Corinne Mauch stated that it has been a long process of agreeing and that the negotiations between the city and the SBB were by no means easy.²¹² Still, she publicly supported the outcome and showed her satisfaction with the negotiations. At the beginning of this chapter, I have shown that since 2014 the SBB publicly claims to invest in low-cost housing to achieve their goal of one-third of their portfolio as affordable housing. The chapter focusing on using land in the case of the SBB has further highlighted first, the historical investment of the Swiss Railway in releasing land through a building right and second, the financial advantages of such agreements for the company. Having said this, the claim of having had intense negotiations with the SBB is absurd. It is difficult to genuinely speak of a negotiation if the outcome is something that the SBB Real Estate already claims to achieve since 2014: one-third low-cost housing. Despite the rejection of selling the land to the city of Zurich, the company quickly suggested a further one-third of low-cost housing developed by the SBB. We can see here what the SBB Real Estate effectively means with low-cost housing: According to calculations by the SBB with WüestPartner data, the affordable apartments developed by the SBB would cost 295 Fr./m² without additional costs. According to the head of the *noigass cooperation*, the SBB used the district's average rent price and added 10 Fr./m² as a yield. A cooperative, which is building property along with non-profit guidelines, would build for 220 Fr./m². This shows that even their low-cost housing developments leave the SBB with a somewhat significant return. The discrepancy between 'low-cost housing' defined by the SBB and the reality of the Swiss real estate market is further illustrated in a video published by the SBB Real Estate to explain their approach to low-cost housing construction. The off voice says:

*'The situation on the Swiss housing market is agitated. Especially for low-cost rental apartments. The demand for affordable housing is constantly increasing. To meet this need, more new and affordable housing is needed. SBB is part of the solution and is already making its contribution to low-cost housing construction.'*²¹³

A destructive discourse analysis highlights again the problematic of this rationale: The problem depicted in this video is the market situation for low-cost rental apartments because the demand is increasing. The solution for this is that the SBB Real Estate builds more low-cost housing through which the company can position itself as a problem solver for the Swiss real estate market. Though, utterly absent in this discourse is a reality outside of the portrayed financialized logic: The demand for affordable housing is not rising. It has always been there. Only because the price of land and property is constantly rising while the wages level off, people demand affordable housing more vocally. If we had a market situation, where the majority of residents could already reach affordable housing, this demand would not rise.²¹⁴ Also, the SBB Real Estate is actively fueling this reality through building expensive and exclusive apartments in the urban centers. The statement reveals one of many contradictions in our financialized real estate market within a capitalist system. While the SBB claims to be the savior of this issue, this research has instead shown that along with many other institutionalized actors pushing forward financialized property logics, the SBB Real Estate creates the demand for affordable housing by building highly profitable developments. Only

²¹² Ramseier, „'Die SBB hatten ganz andere Ideen' (Videointerview Mit SP-Stadtpäsidentin Corine Mauch).“

²¹³ Own translation of: 'Die Lage auf dem Schweizer Wohnungsmarkt ist angespannt. Vor allem bei preisgünstigen Mietwohnungen. Die Nachfrage nach günstigem Wohnraum steigt stetig an. Um diesen Bedarf zu decken, braucht es mehr neue und erschwingliche Wohnungen. Die SBB ist Teil der Lösung und leistet beim preisgünstigen Wohnungsbau bereits ihren Beitrag.' (SBB Immobilien, "Preisgünstiger Wohnungsbau SBB.")

²¹⁴ Thomas Schürpf, „Die Teuerung frisst die Lohnerhöhung weg“.

reserving parts of the portfolio for low-cost housing is by no means the solution for this housing question.

Finally, when comparing the numbers of housing developments, the SBB Real Estate has built in the last decades with their future strategy, it becomes clear that promoting low-cost housing is not more than a marketing strategy for the company. As mentioned earlier in the chapter on land use, the SBB has granted railway cooperatives building rights in the 20th century to enable its employees an affordable and central housing situation. The constructions were entirely organized by the working force, while the SBB contributed with awarding land plots. By the end of 2014, the SBB Real Estate rented out 200 apartments in market rent, compared to 1'000 low-cost apartments through cooperative housing on SBB land. Only 17% of their portfolio in 2014 was rented out along a market rent, whereas 83% of their offered housing was low-cost.²¹⁵ Due to the non-transparency of SBB Real Estates' portfolio, today's situation is difficult to illustrate; according to published documents, the number of market rent apartments is unclear. On their website in the section on low-cost housing, the SBB Real Estate states that they have 1'600 low-cost apartments in their portfolio.²¹⁶ While the contemporary reality cannot be analyzed due to missing numbers, the future strategy reveals certain contradictions: SBB Real Estate aims to expand the use of their land from 6% for housing to 25%. This means the SBB is planning to build at least 10'000 new apartments within the next two decades. If one-third of their development projects are low-cost housing, this means renting out 33% with affordable rents compared to 67% market rents. While they are advertising their interest in low-cost housing, they effectively reduce the proportion of affordable apartments, namely from 83% to 33%.²¹⁷ Advocating low-cost housing in their real estate strategy and simultaneously reducing the percentage in their total portfolio reveals that this is only a marketing strategy. It is further interesting to observe the simplistic portray of their low-cost housing vision on the website. While they are advocating affordable housing, they are completely opaque in their practical approach. Compared to the section where the SBB Real Estate introduces its dealing with sustainability, low-cost housing is presented in a short and non-telling statement.

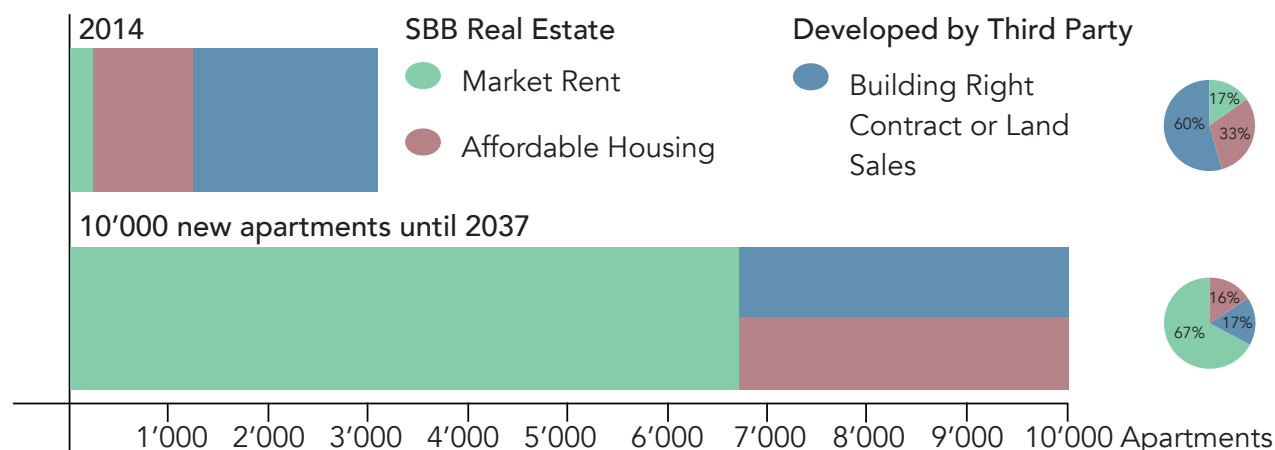


Figure 34: This graph illustrates the different forms of housing SBB Real Estate offers in its portfolio. The first graph shows the situation around 2014, where the division has rented out around 3'000 apartments. Third parties have developed the majority of their apartments through building right contracts, or land sales. In the second graph, the SBB Real Estate's future strategy portrayed, which they are aiming to achieve in 2037: Until then, 10'000 new apartments are planned to be built. The majority of it is based on market rents. 1/3 of their new developments are planned to be rented out either in their affordable housing scheme or by third parties. The allocation of those two forms within this 1/3 is unclear; the pie chart above assumes that this allocation is equivalent.

²¹⁵ Niklaus Scherr, "Die Unbekannte Gigantin," 29.
²¹⁶ SBB Immobilien, "Preisgünstiger Wohnungsbau SBB."
²¹⁷ SBB Immobilien, "Nutzungsarten."

Sustainability

One of the key terminologies used by SBB Real Estate to envision their developments is sustainability. This is not simply used for specific projects, but rather as an overall marketing strategy. The column introducing SBB's sustainability approach states the following:

*'SBB is committed to sustainable corporate management. In all our decisions, we take into account our economic, social, and ecological responsibility towards our customers, employees, and Switzerland. With our range of products and services and our commitment, we enhance the quality of life and competitiveness of our employees and contribute to their sustainable development.'*²¹⁸

The article goes on with SBB's goal of being climate-neutral by 2030 and highlighting its sustainable renovation and construction guidelines.

While these guidelines are undoubtedly justified and essential, the discourse on which the SBB Real Estate touches upon is revealed: Today, large-scale national and international companies are in a certain way obliged by social forces to articulate sustainability charters, claiming their responsibility to counter climate change. While this is certainly an important factor, the SBB, in this case, more specifically the SBB Real Estate, is deeply entangled with a lack of understanding for other responsibilities than ecologic. While the SBB claims to address '*social [...] responsibility towards our customers, employees, and Switzerland*', this aspect is completely missing in their sustainability charter. Owning vast land plots in Switzerland based on expropriated or cheaply sourced land for an infrastructural project, strategically shifting its profit business to real estate, and being structured as a stock company in full ownership of the state, needs to come with other responsibilities than enabling sustainable constructions and aiming to be climate-neutral. Olaf Grawert makes a similar argument in the edited book *Make City. A Compendium of Urban Alternatives*:

*'Who owns the land? – and with it, the city? These questions are fundamental if we want to have an understanding of our built environment. Land ownership and property influence not only our understanding of society but also our relations to one another. Economisation – and with it, the increasing privatization of our cities – increasingly create imbalances in the availability and accessibility of public and shared spaces. A systematic debate around new forms of management and construction models, as well as new architectures, is necessary – a discussion that must move beyond simply describing current circumstances, in order to generate real alternatives to existing norms in society and the built environment.'*²¹⁹

Grawert mentions a narrative, which is one of the main points I would like to argue: While scholars often link economized and financialized processes with privatized land developments, the SBB is an example of a public institution using the highly profitable real estate field to finance their infrastructure. While the company emphasizes its responsibility in ecologic sustainability, a general but crucial understanding of ownership and authority is lacking. A federal-government related company needs to use its land resources to create more just and equal cities. This means expanding the sustainability charter to sincere social responsibilities and developing accountability measures to transparently implement the commitments. Social sustainability should not be used as a marketing strategy, but as an attempt to include marginalized communities in inner-

²¹⁸ Own translation of: *'Die SBB bekennt sich zu einer nachhaltigen Unternehmensführung. Wir berücksichtigen bei allen Entscheiden unsere wirtschaftliche, soziale und ökologische Verantwortung gegenüber unseren Kunden, den Mitarbeitenden und der Schweiz. Mit unserem Angebot und Engagement steigern wir die Lebensqualität und Wettbewerbsfähigkeit und leisten einen Beitrag zu ihrer nachhaltigen Entwicklung.'* (SBB AG, "SBB Nachhaltigkeitsverständnis.")

²¹⁹ Grawert Olaf, "With Ownership Comes Responsibility!", 58.

city developments. Claiming to follow sustainable businesses should always also mean social responsibility towards the most vulnerable in our cities; in an ideal world, this should be the case for private companies as well. However, if public institutions do not follow such ideologies, why should private? Large public companies such as the SBB need to take responsibility as large-scale landowners and city planners and strictly guarantee social sustainability in their developments. The lack of information on their website on this topic is highly revealing; the need to emphasize economic sustainability in their business, while not addressing other positions shows the bare inexistence of a social mandate in their development projects. While this can be traced back to the fact that they are obliged by the Federal Council to create a profit with their real estate business, this still does not justify such actions or rather inactions as an institution supported by public funds and owned by the state.

IV. DEMYTHOLOGIZING THE SWISS RAILWAY – SPATIAL EFFECT OF BUILDING AND FINANCING INFRASTRUCTURES

In contemporary and historical narratives, the building of the Swiss railway is often illustrated as a technological success story, constituting the Swiss state and its citizens, and enabling a modernized way of life. Based on a critical spatial discourse analysis with primary sources, I aim to disrupt this romanticized portrayal and simultaneously analyze the macro-story of how the SBB extended its business from building tracks to developing real estate. Three main themes have emerged while researching the Swiss railway with its land resources: First, how the Swiss railway has shifted territories and shaped landscapes, both in a theoretical and practical sense. Second, the interrelation between the construction of the railway and the founding of Swiss banking institutions. And third, the contemporary investments in the built environment through the foundation of the division Real Estate. I argue that the Swiss railway's underlying historical structures have led to the dominant position of the SBB in the contemporary Swiss real estate market. Therefore, the historical parts in this chapter serve as the basis to frame contemporary logics of the SBB. I analyze the historical and contemporary spatial effects of building and financing the railway along with capitalist market logic. With this, I emphasize the ongoing struggle in financing large-scale infrastructures: The railway wants to bring a significant societal and political shift in mobility and simultaneously be economically profitable. Both today and in the past, capital for large-scale infrastructures is not readily available and needs to be produced for such endeavors. The history of the Swiss railway reveals that this was made possible by creating private stock companies and addressing local and foreign speculators in the early days, later through the foundation of a national credit institution. The reciprocity between financing institutions and the Swiss railway is crucial in understanding Switzerland's contemporary banking hegemony. Today, the SBB faces similar challenges in financing and especially upholding the railway institution. Used as a solution for this, is the financialization of land through developments and land sales, managed by the division Real Estate. Understanding how the railway was funded, and how similar financial logics influence the present dealing with land, reveals the rationality and contradictions of investing capital in infrastructure. This process is described by Harvey as *spatio-temporal fixes*: The concept of *spatio-temporal fixes* presupposes that capitalism has a crucial tendency to the overaccumulation of capital. Harvey argues, that the surplus is invested in '(a) temporal displacement through investment in long-term capital projects (e.g. in the built environment) [...], (b) spatial displacements through opening up new markets, new production, capacities and new resource, social and labour possibilities elsewhere, or (c) some combination of (a) and (b).'²²⁰ During the creation of the Swiss rail network, the surplus capital was reallocated in the infrastructure, while today it is invested in contemporary development structures. Both cases cause substantial spatial effects and uncover ever-repeating logics of capital and its physical materialization. Further, as Harvey argues, such investments play a crucial role in '*stabilising and destabilising capitalism*'.²²¹

²²⁰ Harvey, *They Ways of the World*, 246.

²²¹ *Ibid.*, 247.

SHIFTING TERRITORIES AND IMPERIAL NARRATIVES

Through the construction of the Swiss Railway, the landscape was shaped tremendously. Research has shown the vast economic expansion the Swiss railway has initiated. It even had effects on population growth, especially along the train line.²²² The railway was both a project to modernize and 'civilize' Swiss citizens, and to constitute a just founded nation-state. Territorial aspects were defined through the rail, accompanied by ideological myths.

In 1853, Friedrich Engels published an article in the *New-York Daily Tribune* under the name of Karl Marx, describing the political situation in Switzerland. At this time, the nation-state was founded five years ago, whereas the railway project was still in the launch. He describes Swiss landscapes before the construction of a railway network, inhabited by poor farmers:

*'The mass of the Swiss population follows either pastoral or agricultural pursuits; pastoral, in the high mountains, agricultural wherever the nature of the ground admits of it. The pastoral tribes, for tribes you may call them, rank among the least civilized populations of Europe. If they do not cut off heads and ears like the Turks and Montenegrins, they perform acts of hardly less barbarity by their judicial assemblies; and what cruelty and beastly ferocity they are capable of, the Swiss mercenaries at Naples and elsewhere have proved. The agricultural population is quite as stationary as the pastoral; they have nothing in common with the agricultural population of the American Far West, whose very aliment is change, and who clear every twelvemonth an amount of land far larger than all Switzerland. The Swiss peasant, tills the patch of ground his father and grandfather tilled before him; he tills it in the same slovenly way as they did; he earns about as touch as they did; he lives about as they did, and consequently he thinks very nearly in the same way as they did. Had it not been for feudal burdens and imposts levied upon them, partly by aristocratic families, partly by patrician corporations in the towns, the Swiss peasantry would always have been quite as stationary in their political existence as their neighbors, the cowherds, are up to the present day. The third components of the Swiss people, the industrial population, although necessarily far more advanced in civilization than the two classes mentioned before yet live under circumstances which exclude them in a great degree from the progressive giant impulse which the modern manufacturing system has imparted to Western Europe. Steam is hardly known in Switzerland; large factories exist in a few localities only; the cheapness of labor, the sparseness of the population, the abundance of small mountain-streams fit for mills; all these and many other circumstances tend to produce a petty and sporadic sort of manufactures mixed up with agricultural pursuits, the most eligible industrial system for Switzerland. Thus watchmaking, ribbon-weaving, straw-plaiting, embroidery, etc. are carried on in several cantons, without ever creating or even increasing a town; and Geneva and Basle, the richest, and with Zurich, the most industrial towns, have hardly increased for centuries. If, then, Switzerland carries on her manufacturing production almost exclusively upon the system in practice all over Europe before the invention of steam, how can we expect to find other than corresponding ideas in the minds of the producers; if steam has not revolutionized Swiss production and intercommunication, how could it overthrow the hereditary ways of thinking?'*²²³

²²² Büchel and Kyburz, "Fast Track to Growth? Railway Access, Population Growth and Local Displacement in 19th Century Switzerland," 1.

²²³ Marx, "Political Position of the Swiss Republic."

Engels illustrates the country as a backward nation based on agricultural work in rural areas, and some exceptional cases of industrial cities in the midland. It is supposed to be an untouched and uncivilized space whose only existence is dedicated to serving as a puffer-zone for the neighboring countries.²²⁴ According to Engels, Switzerland has reached the highest political development possible in 1848, with the establishment of the Federal state. He further describes the territory as an isolated space within Europe, with no national interests whatsoever. The supposedly uncivilized reality Engels depicts in Switzerland is one still untouched by a national railway project.

In section on *Infrastructures Shaping Territories*, an article analyzing the constructed image of Switzerland's farmers and shepherds in the 19th century along imperial narratives was mentioned. In it, Schär shows how colonial narratives shaped the grounded imaginary of the Swiss Alpine population both in popular culture and academic discourses. Similar to this, Engel's account on Switzerland needs to be aligned along with a framing of *Othering*; people residing in the alpine region are clearly described as back-warded and even barbaric. During this time, other authors followed similar narratives and even understand the railway project as a way of overcoming such underdeveloped forms of living. In 1851, a Swiss historian and poet, prior working for the first federal president at the Federal Palace in Bern, wrote about the future Swiss railway network and its economic, political, and social impact. Karl Morel describes the advantages that the rail would bring to all professions and Swiss citizens. He argues that the construction of the railway would accelerate both the intellectual and material development of the Swiss nation and join the population of the country in bringing together the 'fragmented powers':²²⁵

*'It is in the nature of things that man, who moves in small circles, remains limited and full of prejudice. He lacks the better example, the stimulus to emulate and the opportunity for extended activity. - All these unfortunate circumstances, which hold back the development of a people, disappear when man's creative power is given free rein, which is so much the case with the railways.'*²²⁶

Morel's account illustrates, how the railway project served both as a basis and a tool to 'civilize' the mountainous Swiss population. The clear distinction between people residing in industrial cities in the midlands and Alpine people and farmers intensifies the existence of internal colonialization and imperial spaces. I do not want to argue that these processes were equally violent and traumatic than those in colonial regimes. Still, I want to emphasize the similarity between the discourses and how certain people were compressed into a narrative of 'wilderness'. It was shown that the railway was used as a project to civilize and modernize the mountainous regions. This can also be observed when analyzing the tunnel-projects of Swiss railway companies, which were executed in close collaboration with the Federal government, aiming to create a transition across the Alps. Since the beginning of a national railway project, erecting trans-alpine networks was discussed. In the early 1850s, two English railway experts were commissioned by the Federal Council to examine the technical and financial possibilities of future railway projects. In their report, Henry Swineburne and Robert Stephenson wrote that both from a technological and financial perspective, a transit through the Alps would pose significant difficulties for the railway companies. Still, they argued that territorial and political reasons could nevertheless justify

²²⁴ Ibid.

²²⁵ Morel, *Das schweizerische Eisenbahnnetz und seine national-ökonomische, politische und sociale Bedeutung*, 24–25.

²²⁶ Own translation of: 'Es liegt in der Natur der Sache, daß der Mensch, der in kleinen Kreisen sich bewegt, beschränkt und von Vorurtheilen erfüllt bleibt. Es fehlt ihm das bessere Beispiel, die Anregung zur Nacheiferung und die Gelegenheit zu erweiterter Thätigkeit. — Alle diese mißlichen, die Entwicklung eines Volkes zurückhaltenden Umstände verschwinden, wenn der schöpferischen Kraft des Menschen freier Spielraum verschafft wird, was durch die Eisenbahnen in so hohem Grade geschieht.' (Morel, 30.)

such a project.²²⁷ An Alpine transition was considered as a crucial aspect of the national railway project. After years of political powerplays between cantonal governments pleading for specific geographical locations for the transition, Alfred Escher founded the Gotthard railway association in 1871 and succeeded in supporting the Gotthard as the projected place of puncturing. Escher was a member of the cantonal government in Zurich, one of seven members of the Federal Council, the highest political position in Switzerland, and one of the key figures in the history of the Swiss rail. That the transition was built through the Gotthard, intensified the dominant position of Zurich and favored international interests.²²⁸ Judith Schueler argues that the Gotthard Railway and the Swiss national identity was co-constructed. She demonstrates how the Gotthard was used as a politicized Alpine myth to construct a sense of belongingness.²²⁹ According to Schueler, the building of the Gotthard transition was used to 'reproduce the late nineteenth-century pride in European 'civilisation', and to have yet 'another proof of European superiority'.²³⁰ As the railway shaped territorial aspects and the first tunnel project through the Gotthard was used as a narrative to construct an interrelation as a nation, Alpine population were again used as a framing myth: In coexistence with imperial narratives, the narrative of mountainous residents was used as a critical element of Swiss characteristics, and with this legitimizing the existence of the federal state, despite the splintering of the country due to language, geographical, and religious barriers.²³¹ The contradictions of such a simultaneous framing seem to be clear from a contemporary perspective; though, the two narratives were both used parallel, categorizing the Alpine population depending on the context either in a dehumanizing way or along a narrative to unite the nation-state. While the railway shaped Swiss territories and landscapes profoundly, fueled industrialization in Swiss cities, and brought wealth to the impoverished country previously dependent on farming, the construction of the railway was also a violent process in terms of migrant labor, unpaid labor, and life-threatening labor. The construction of the Gotthard tunnel was mainly executed by Italian labor forces, who suffered both from poor hygienic conditions and payment. At least 199 workers died during the construction work. An undetermined number died due to the late effects of malnutrition, illness, or injury.²³² The railway was considered an infrastructure that enabled modernization in Switzerland, boosting the economy and a way to escape poverty. Still today, this framing serves as the narrative to form the predominant imaginary of the SBB. With the construction of the Swiss railway, both the embodied and mental territories and landscapes were redefined through creating a romanticized railway myth.

²²⁷ Morel, *Das schweizerische Eisenbahnnetz und seine national-ökonomische, politische und sociale Bedeutung*, 35–36.

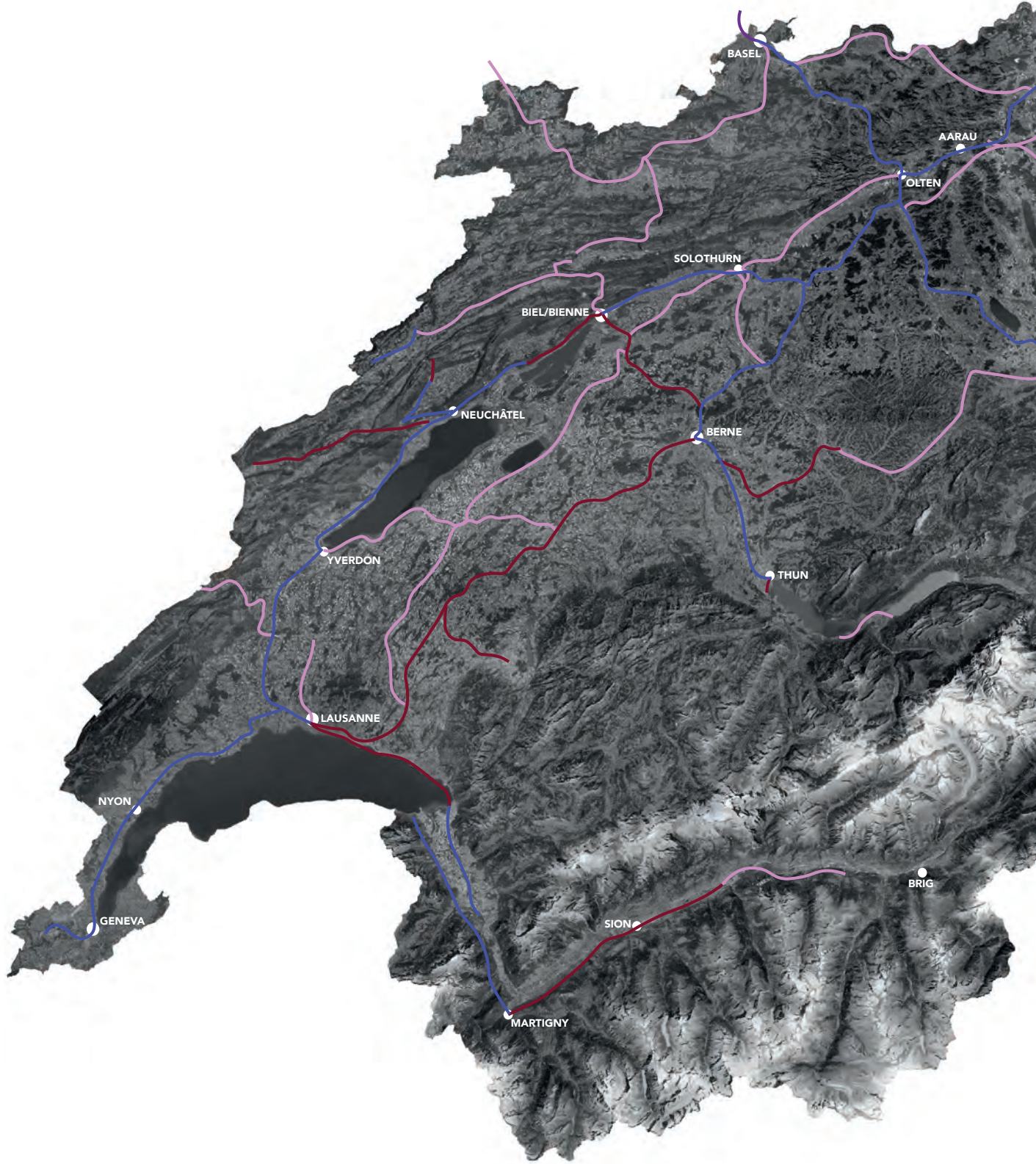
²²⁸ Escher to Blumer, October 11, 1863; Schueler, *Materialising Identity: The Co-Construction of the Gotthard Railway and Swiss National Identity*, 17–18.

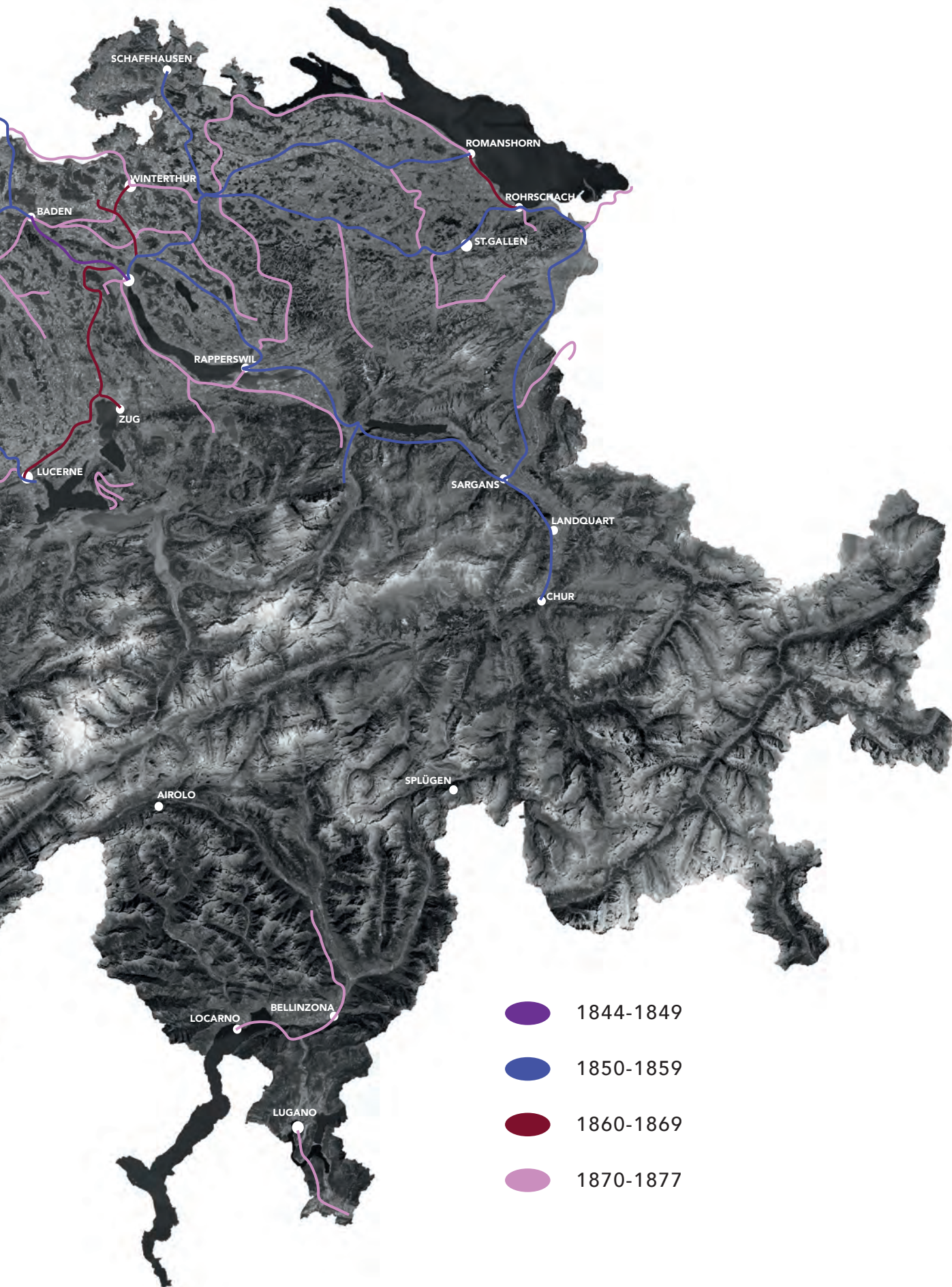
²²⁹ Schueler, *Materialising Identity: The Co-Construction of the Gotthard Railway and Swiss National Identity*, 26.

²³⁰ *Ibid.*, 71.

²³¹ *Ibid.*, 26.

²³² Bärtschi, *Schweizer Bahnen 1844-2024: Myths, Geschichte, Politik*, 84–85.





- 1844-1849
- 1850-1859
- 1860-1869
- 1870-1877

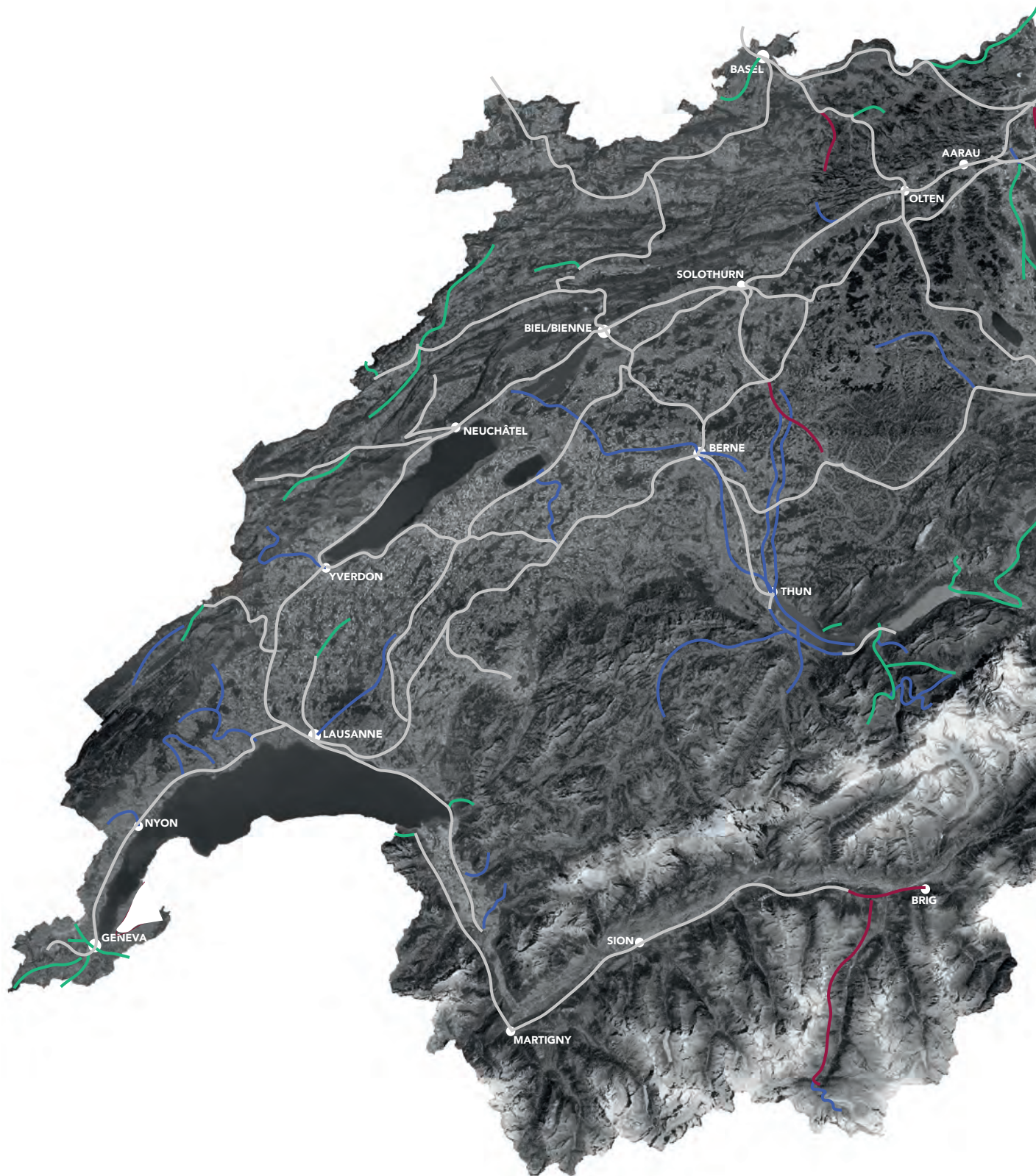
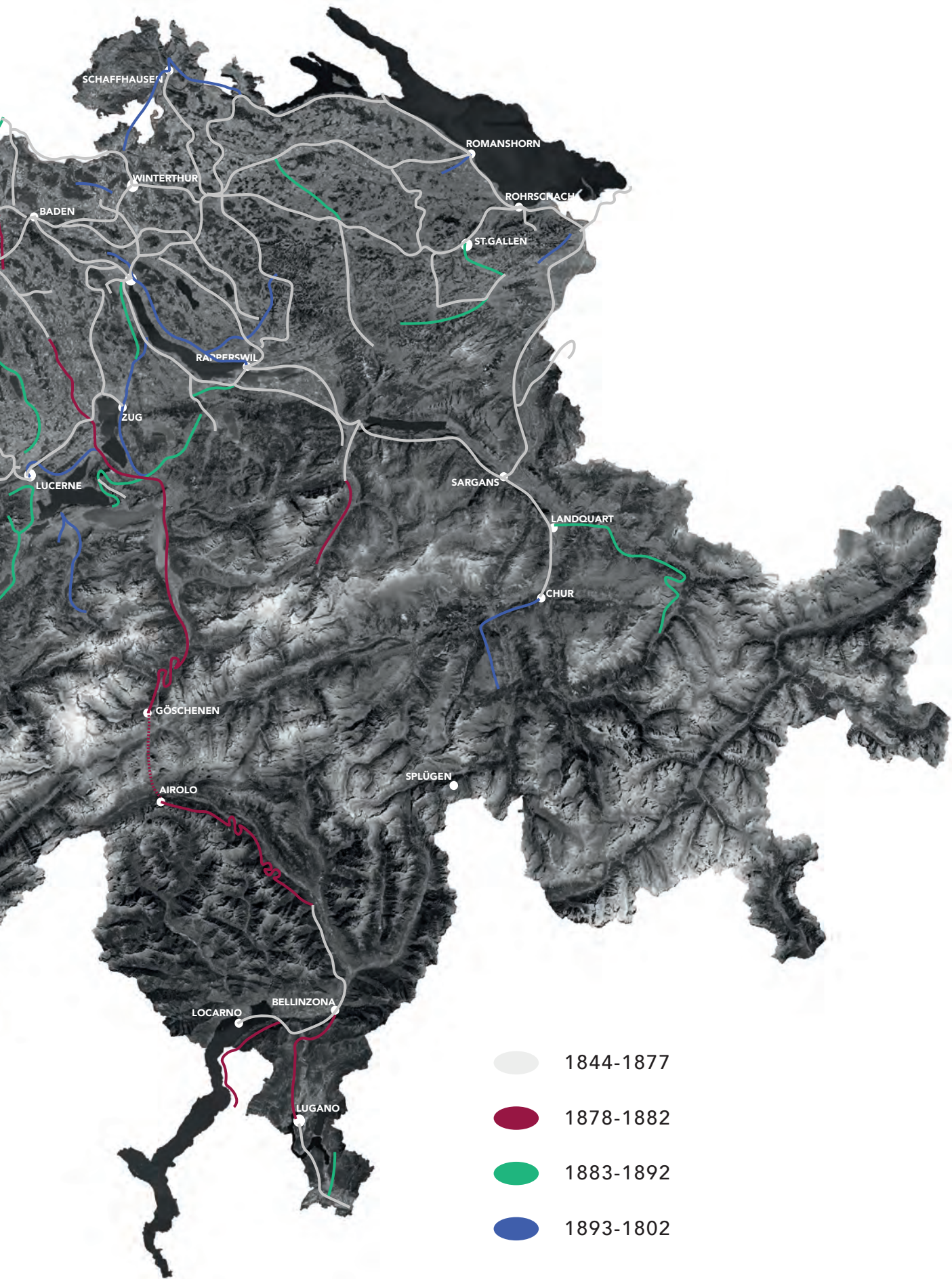


Figure 35+36: The two maps illustrate how the building of a railway network in Switzerland has influenced the landscape in a way that it has shifted territorial aspects. The evolution of the railway network is split up in two parts: Before the railway crisis in 1877 and after. The building of the railway is visualized until 1902, when the private companies were nationalized and the SBB was founded. Based on the focus of this thesis, and the fact that large parts of the contemporary railway network were built before 1902, the expansion of the railway after 1902 was left out. The railway lines are designed in a way that they seem to be the pulsating veins that found, connect and envision the



- 1844-1877
- 1878-1882
- 1883-1892
- 1893-1902

'body' of Switzerland. Based on the written text, the map visualizes how the railway was used as a tool to form the 'modern' nation. Further, the evolution up until the railway crisis can be retraced, as well as the difficult years following 1877. Finally, it can be observed when and where the Alpine regions were included in the national railway project.

FOLLOWING THE MONEY

In 1847, after years of conflict in the two neighboring cantons Zurich and Aargau, technological and financial issues, and political power plays, Switzerland's first railway line was inaugurated. Though the inauguration was a spectacle, the train leading from Zurich to Baden was underused. The significant expenses on all levels (from acquiring trained workers, expropriating 1'090 pieces of land to financing the construction and the maintenance of the railway with public funds by communes and investments by private shareholders) left the railway company with a difficult financial situation, which is exemplary for the first 50 years of the railway project.²³³ Often, the political power structures defined if a railway project was state-supported or not, and the different interests within the federal state of Switzerland, especially between the catholic and protestant cantons, made this endeavor difficult. The Swiss historian Morel wrote:

*'The former railway projects in Switzerland failed miserably due to the ignorant egoism of the cantons, limiting themselves to persistent quiet wishes and the construction of the small line between Zurich and Baden, which disappears on a railway map of the foreign continent, so to speak. If we try to explain this fact, we find no other reason than that the great benefit which the railways have for the material development of a country in all professional classes is unknown, or has been recognized only by a few great industrialists who, in carrying out such a project, had only their own interests in mind and wanted to use the railway to be created only for their own immediate purposes.'*²³⁴

When following the rail in 19th century Switzerland, based on the methodological approach introduced by Deborah Cowen, one also needs to follow the money. The financial aspect of the infrastructural project is overly represented in historical accounts. An ongoing debate, whether the rail should be a national project funded by the state or a private venture, was performed by many authors. For example, Eugène-August Surville, a French engineer, argued that the railway itself is in general not profitable. However, he suggests the management by a private company structured and financed through a stock company. He envisions the stock companies to become *'institutions to house the nest eggs of the poor, as well as the surpluses of the rich; indeed, they would unite all classes of the society in the common contribution of order and welfare.'*²³⁵ On the other hand, authors such as Morel claim that the railways need to be funded and managed by the state and public funds.²³⁶ This debate was mainly fueled by the fact that many authors emphasize the difficulty of creating a profitable railway business. Though, the desire to keep up with the neighboring countries, lower the transport costs for commodities, and in general to generate a more efficient production flow, was sufficient to plan a railway network nevertheless.²³⁷ When one follows the money in the history of the Swiss railway, three themes emerge: First, the close interrelation between the railway, banking and credit institutions, and the government and the

²³³ Frey and Glättli, „Schaufeln, Sprengen, Karren: Arbeits- und Lebensbedingungen der Eisenbahnbauarbeiter in der Schweiz um die Mitte des 19. Jahrhunderts,“ 33-34.

²³⁴ Own translation of: *'Gingen die früheren Eisenbahn-Projekte in der Schweiz an dem unverständigen Egoismus der Kantone jämmerlich zu Grunde, indem sie sich auf fortdauernde stille Wünsche und auf den Bau der kleinen Strecke zwischen Zürich und Baden beschränkten, die auf einer Eisenbahnkarte des auswärtigen Continents so zu sagen verschwindet. Suchen wir diese Thatsache zu erklären, so finden wir keinen anderen Grund, als dass der grossartige Nutzen, den die Eisenbahnen für die materielle Entwicklung eines Landes in allen Berufsklassen hat, unbekannt ist, oder nur von wenigen grossen Industriellen erkannt wurde, die aber bei der Ausführung eines derartigen Projekts nur ihre eigenen Interessen im Auge hatten und die zu schaffende Eisenbahn nur für ihre nächstliegenden Zwecke benutzen wollten.'* (C. Morel, *Das schweizerische Eisenbahnnetz und seine national-ökonomische, politische und sociale Bedeutung*, 12-13)

²³⁵ Surville, *Die Eisenbahnen als finanzielle Spekulationen betrachtet*, 102.

²³⁶ Morel, *Das schweizerische Eisenbahnnetz und seine national-ökonomische, politische und sociale Bedeutung*, 81.

²³⁷ *Ibid.*, 12 and 17.

co-creation of the Swiss railway and Switzerland as an international banking nation. Second, the financial crisis and indebted cantonal and communal governments that are caused by the logic of the private railway companies. And third, how the nationalization of the railway left the state behind with financial struggles to fund the SBB, ultimately effecting the logic of dealing with land in the 20th and 21st centuries.

The history of the railway in Switzerland is a story of technological success, but it also embodies and shapes the history of capitalism simultaneously. The building of the rail in Switzerland visualizes how our hegemonic economic system has and still is creating new institutions and resources for cash flows to envision large-scale projects, which would by themselves not be profitable, but according to the capitalist logic need to be located within a free market situation. Founding such new ways to capitalize money to build the rail certainly had spatial impacts; the focus of this chapter lies on the interface between the spatial logics of capital concerning the historical question of the railway project, aiming to highlight the macro-story of the Swiss railway in relation to its land resources.

Railway King or Dictator?

Similar to Deborah Cowen's research on the Canadian Railway,²³⁸ the Swiss railway and its foundation have fueled the relationship between government and banking institutions. The birth of Swiss railroads was simultaneously the birth of Switzerland as a banking nation, with all its dubious and problematic relations. With an example of the prime figure of the Swiss railway, and simultaneously the Swiss state, I highlight the embeddedness of economic logic within the system of governing in the contemporary case of the Swiss state and the railway, initiated by the aforementioned historical interrelations.

In 1853, Alfred Escher signed a contract merging two Swiss railway companies, the Schweizer Nordbahn, with the Zürich-Bodenseebahn. Escher signed this contract as one of the delegates of the head of the Zürich-Bodenseebahn, as the new director and president of the newly founded Nordostbahn, and at the same time as an active member of the national council and the governing council of canton Zurich. Four years later, Escher was one of the main initiators of the first credit institution in Switzerland – today, the major international bank Credit Suisse. Concurrent, Escher acted as a private investor, a cantonal and federal politician, and a creditor in building a railway connection in Switzerland. He is the most famous actor in the history of the Swiss railway, and his manifold advocacy in shaping the state and its infrastructure has lasting effects on Switzerland up until today. While historical and contemporary accounts predominantly speak of the 'railway king',²³⁹ the critical scholar Bärtschi describes him as the 'railway dictator'.²⁴⁰

Alfred Escher grew up in a powerful and influential family, residing in a famous villa in Zurich. Many of his family members went into politics and occupied influential positions. The family wealth is partly based on land speculations in North America and a Cuban coffee plantation, operated by enslaved people.²⁴¹ Escher grew up in an extremely privileged environment in the city of Zurich, educated by private teachers. Later, he studied law in Germany. He came back to Switzerland in 1843, where he initiated his political career: With only 25 years, Escher was elected into the parliament of the canton Zurich in 1844. Four years later, he represented the canton in the Federal government and simultaneously occupied one of seven seats in the Federal Council, the highest political position in Switzerland. Early on, Escher understood the importance of a railway network in Switzerland and pushed this project forward in the national government. His political actions often also had private intentions: He invested private funds in the Bodenseebahn and

²³⁸ Cowen, "Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method."

²³⁹ Gubler, „Die Schweizerische Nationalbahn," 12.

²⁴⁰ Bärtschi, *Industrialisierung, Eisenbahnschlachten und Städtebau: Die Entwicklung des Zürcher Industrie- und Arbeiterstadtteils Aussersihl: Ein vergleichender Beitrag zur Architektur- und Technikgeschichte*, 125.

²⁴¹ See chapter *Shifting Territories and Imperial Narratives*.

later in the Nordostbahn, one of the leading private railway companies in these years. Despite his position as a politician promoting a federal organization of coin production, mail and telegraph connection, and a customs system, Escher invested his political power in keeping the railway a private endeavor. Local and private interests of continuing the hegemony of Zurich in building the railway and financially profiting from investing in railway companies led Escher to support the position of the private venture.²⁴²

The building of the rail consumed vast amounts of money; in the 1850s, when the railway started to be on the agenda of the Swiss government, capitalizing money for this endeavor within the borders was not possible. The money supply was insufficient for such a costly infrastructure. Therefore, foreign credit institutions were essential boosters of the rail economy in Switzerland until 1856; present-day Rothschild & Co bank supported large parts of the Swiss rail in the 1840s and 1850s, such as the financier family Péreire. Due to this, the Swiss railway market was highly exposed to foreign speculation; this condition led Escher to the foundation of a 'credit engine' for the railway network – the Schweizerische Kreditanstalt (SKA), focused on national interests, contributed its equity capital to rail construction projects. The first extension of the credit went to the NOB, another company founded by Escher. Up and running, the SKA was the primary credit lender for the Swiss railway companies, and Escher succeeded in fixating Swiss investments in the Swiss railway. Later on, when the Swiss railway network was settled, the tide has turned, and the SKA invested in railway projects in Southeastern Europe and Asia, financing imperial infrastructures. The SKA bought stocks from the North American Railway and was one of many European investors in the settler colony.²⁴³

Alfred Escher kept his leading role both on a political and financial level in building the rail. He went down in history as the founder of the railway, the founder of the first credit institution, which was the cornerstone for Switzerland as a banking nation, the founder of Switzerland's renowned building institution ETH, and some even say the founder of 'modern' Switzerland. I aim to show the highly interlinked system of finance, railway, and the Swiss state with this example. The Swiss railway and its foundation have fueled the relationship between government institutions and banks, and the extraordinary power of one singular person within this system reveals the economic logic embedded in the history of the Swiss railway. Based on an interrelated system between the state and investment institutions, Alfred Escher has created a landscape of rail and financing infrastructure Switzerland.

Overproduction, Speculation, and Competition: NOB and Schweizerische Nationalbahn

As the national railway project was put into action by private railway companies, granted by cantonal governments, the constructions were deeply shaped by private market logic; in the case of Switzerland, by speculation through the stock market and overproduction of railway lines based on competition. This form of economizing led to indebted cantonal and communal governments in the late 19th century and provoked a national railway crisis in 1877. This crisis was initiated by many factors, and especially by many different railway companies. To understand the outbreak of the railway crisis, leading to high government debt, I will use the example of two competing railway companies in the canton of Zurich: The NOB, one of the most influential and leading rail companies in Switzerland managed by Alfred Escher and the Schweizerische Nationalbahn, initiated by his political opponent J. J. Sulzer, the democratic mayor of Winterthur, an industrial city close to Zurich.

²⁴² Bärtschi, *Industrialisierung, Eisenbahnschlachten und Städtebau: Die Entwicklung des Zürcher Industrie- und Arbeiterstadtteils Aussersihl: Ein vergleichender Beitrag zur Architektur- und Technikgeschichte*, 126–27; Jung, *From Schweizerische Kreditanstalt to Credit Suisse Group: The History of a Bank*, 46.

²⁴³ Jung, *From Schweizerische Kreditanstalt to Credit Suisse Group: The History of a Bank*, 55.

Due to Alfred Escher's political and economic power play, he lost numerous political supporters. In 1869, a democratic movement arose in Zurich, and the liberal government under Escher was replaced. Nevertheless, he was a valuable political player in the federal government and a supporter of the three largest railway companies in Switzerland.

In democratic circles, the NOB was considered as an elitist railway company, which does not serve the people and advance their form of mobility. J. J. Sulzer had the vision to build a competing railway enterprise, to counter the omnipotence of the private companies, specifically Escher's NOB.²⁴⁴ A local newspaper described the role of the newly founded Schweizerische Nationalbahn as following:

*'The purpose of the Swiss National Railway and the men at its head is to break the actual monopoly of the Nordostbahn [NOB] and Schweizerische Centralbahn [SCB] in the Swiss transport system and to bring about a reform in the Swiss railway system by simplifying the whole administration, combined with an extensive reduction of the fees, which the Northeast and Central Railways will be forced to join, for better or worse. The National Railway has the means to carry out this intention without depriving its shareholders of an appropriate return on their invested capital.'*²⁴⁵

When Sulzer founded the company in 1875, he tried to counter the hegemony of the classicist private railway companies, which were often described as a group of capitalists, who profited excessively and became overly rich from a supposedly federal project.²⁴⁶ Sulzer, driven by his political belief, initiated the first track constructions around Winterthur, also financed through a stock company. Early on, the company failed: The profits were low, and the Schweizerische Nationalbahn entered a state of crisis.²⁴⁷ Several cantons and communes had an interest in the railway lines built by the Schweizer Nationalbahn, and to prevent them from a complete liquidation, the governments took over operating deficits and granted a public loan of 9 million Swiss Francs altogether.²⁴⁸ Though the publicly funded rescue operation did not save the Schweizer Nationalbahn from the forced liquidation in 1878, leading to the sale of the company to the NOB for only 4 million Swiss Francs; compared to the investment of public funds of 9 million, and the overall building cost of 31 million Swiss Francs for the Schweizer Nationalbahn, the selling price was preposterous. Communes, who contributed to the public loan, ran into debt:

*'Their losses ruined the communes for decades – most of them still bear the consequences of the great catastrophe and brought them extremely close to bankruptcy.'*²⁴⁹

A political powerplay and rivalry led to various communes' debt, suffering from this loss still 44 years after the company's liquidation.

The reason for this abrupt liquidation is, apart from Sulzer's vision to compete with the NOB in a

²⁴⁴ Gubler, „Die Schweizerische Nationalbahn,“ 12.

²⁴⁵ Own translation of: 'Der Zweck der schweizerischen Nationalbahn und der Männer, die an ihrer Spitze stehen, ist, das tatsächliche Monopol der Nordostbahn und Centralbahn im schweizerischen Transportwesen zu brechen und durch Vereinfachung der ganzen Administration, verbunden mit einer ausgiebigen Herabsetzung der Taen, eine Reform im schweizerischen Eisenbahnwesen herbeizuführen, welcher sich anzuschliessen die Nordostbahn und Centralbahn wohl oder übel gezwungen sein werden. Die Nationalbahn besitzt die Mittel dazu, diesen Vorsatz durchzuführen, ohne ihren Aktionären eine angemessene Verzinsung des eingesetzten Kapitals dabei vorzuenthalten.' (Der Landbote, 22.-25.11.1872)

²⁴⁶ Gubler, Die Schweizerische Nationalbahn, 15.

²⁴⁷ Ibid., 88.

²⁴⁸ Ibid., 54.

²⁴⁹ Own translation of: 'Ihre Verluste ruinierten die Gemeinwesen auf Jahrzehnte hinaus - die meisten von ihnen tragen heute noch an den Folgen jener grossen Katastrophe, die sie samt und sonders dem Konkurs nahe brachte, [...].' (Gubler, Die Schweizerische Nationalbahn, 8.)

canton with a dense railway network already, strongly shaped by a general economic crisis in the rail industry in Switzerland. This crisis started in 1877 and shifted the role of the railway companies permanently. During the initial starting phase of the Swiss railway project, the Swiss advocate and later secretary for the Swiss Railway, Robert Herold, described the following reality:

*'In their first joy about the new means of transport, the cantons spoke out concessions for everything for which an entrepreneur and capital could be found, granted exclusion and preferential rights without hesitation, thus excluding any possible competition. They granted the companies a monopoly, and the state had to approve.'*²⁵⁰

The defects derived from various sources: A lack of a rational and unified plan led to foreign credit institutions, which in turn introduced foreign investors and speculators in the administration of the rail companies through the stock company.²⁵¹ The weak concession law, or rather the lack of conditions to warrant concessions, which caused a building mania, leading to an overproduction of railway lines. The speculation of railway shares eventually caused a collapse of the rail economy.²⁵² The shares were sold for cash prices to international speculators, and again, the state assumed a responsibility and saved individual railway companies through public funds.²⁵³ In 1875, two years before the railway crisis, investments in the rail exceeded the construction costs for housing, roads, and hydraulic construction together. The massive amount of funds and the logic of raising capital for setting up the railway networks have led to its collapse. Over the decades, needed capital was attracted by the promise of dividends and the increase of the share price. The bonds were consciously offered below the nominal value, meaning the paid in funds were able to enlarge quickly. The profit of the shares was directly paid out to the managers and investors of banks or the venture capitalist. Their power is represented in the company's administration through common stocks; the stakeholder democracy became fragile. The railway company itself lacked profit to cover the rising interest rates. The raising of new capital fixed up the lacking funds momentarily, but only for a limited time. To increase the shareholder value, the railway companies further branched off money from the construction budget, leading to neglected maintenance.²⁵⁴ Public funds and financial institutions 'saved' the railway companies, leading to indebted cantons and communes and pushing the capital system of creditor and borrower to absurdity. The private venture logic fueled overproduction of railway lines, speculation through stockholders, and an enhanced form of competition between the companies.

²⁵⁰ Own translation of: *'In ihrer ersten Freude über das neue Verkehrsmittel konzessionierten, wie erwähnt, die Kantone alles, wofür sich ein Unternehmer und Kapital fand, räumten Ausschluss- und Vorzugsrechte ohne Bedenken ein und schlossen so jede mögliche Konkurrenz aus. Den Unternehmungen gaben sie damit ein Monopol, und der Bund hatte das Zusehen.'* (Herold, *Der schweizerische Bund und die Eisenbahnen bis zur Jahrhundert Wende: Der allmähliche Sieg zentralistischer Tendenzen und die Durchführung der Verstaatlichung*, 43.)

²⁵¹ *Ibid.*, 45 and 191.

²⁵² *Ibid.*, 87.

²⁵³ *Ibid.*, 106.

²⁵⁴ Bärtschi, *Schweizer Bahnen 1844-2024: Mythos, Geschichte, Politik*, 34–35.

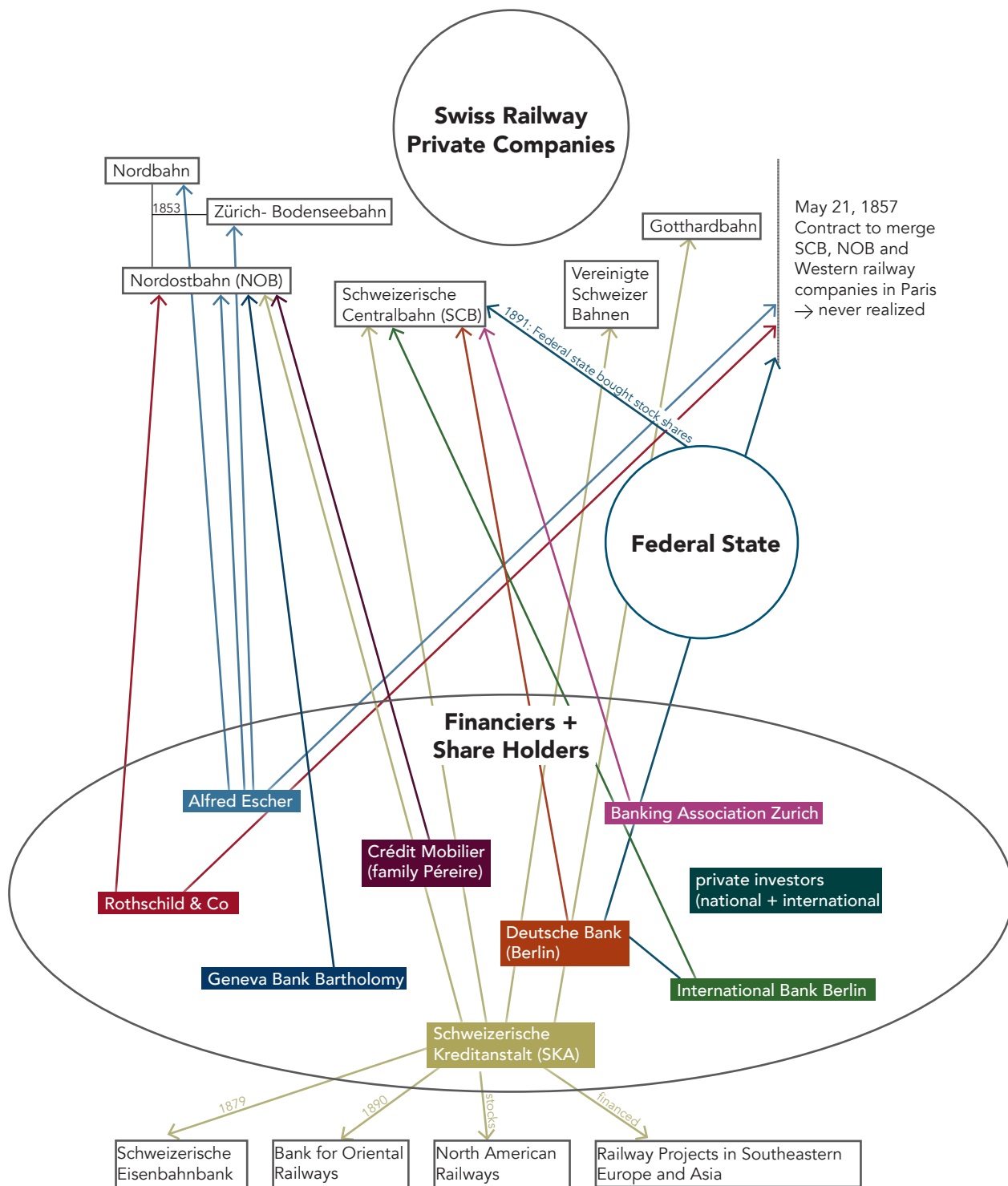


Figure 37: This illustration depicts the complex interrelations between the private Swiss railway companies before the nationalization in 1902, the financiers and shareholders, and the Federal state. Based on the findings of this project, it aims to show the increased alliance between governments, banks, and speculators, and the global entanglements of the Swiss railway project. The portrayed relationships are an incomplete excerpt and are only based on a selection of private railway companies. Not connected to any other actors on the map are the private investors; they were part of every shareholder company in the construction of a Swiss railway network before 1902, and for the readability of this illustration, I have not connected them to every other actor on the visual.

Nationalization or Privatization?

In 1902, most private railway companies were nationalized, and the Swiss Federal Railway was founded. Due to the railway crisis in 1877, and the difficult negotiations with the private companies to define the form of buying back the railway network, led to financial issues to fund the SBB and finally effected the dealing with land resources in the 20th and 21st century.

In 1852, the state of Switzerland had published a national law related to the building of the rail. Since then, a national railway network was a crucial endeavor of the newly founded state. The relation between the rail companies and the state was never fully clear; this is shown in a book published in 1861 by Simon Kaiser, focusing on the state's rights in the construction of the railway in Switzerland. Articulated pointedly, he wrote:

*'[...], today the state wants to intervene in private rights, and tomorrow a railway company wants to claim rights, which only the state can be entitled to.'*²⁵⁵

The discussion, whether the railway should be a nation-wide project funded by the state, or liberally part of the free market of entrepreneurs and private companies, has been an unsolved discussion since the foundation of the Swiss state in 1848. Before the railway project was embedded in national law in 1852, a national council committee was deployed to find a solution for the 'railway question'.²⁵⁶ Despite the majority supporting a national state railway, Escher and his endorsers pushed through the counter idea:

*'Influenced by Smithian ideas [liberal economy], they [minority of the commission with Alfred Escher] stood up against any arbitrary extension of governmental power which did not seem absolutely necessary due to the force of extraordinary circumstances, and they, therefore, proclaimed as the supreme principle of the economy of the state that private activity should be allowed to continue unhindered as long as it did not jeopardize the purpose of the state, and that everything should be removed which disturbs or hinders its [private activity] emergence and free development.'*²⁵⁷

As already before, Escher had both private and political interests in keeping the railway a private mission. He succeeded, and the state set out an ideal framework for private companies: The state granted private railway companies a fixed interest rate.²⁵⁸ Further, the cantons were in charge of arranging the concessions, the basis for the railway companies to expropriate land for the infrastructural endeavor. Meaning, the federal government itself had little competences within this structure.²⁵⁹ In 1868, Herold described the situation as follows:

'1. A powerless federal state, [...]. 2. formally influential cantons, which in fact had little to say due to the small size of their horizon. 3. omnipotent railway companies which, although some of them were granted privileges [by the state], the majority of them did not make profit; [...]. 4. the construction of the railroads

²⁵⁵ Own translation of: '[...] heute gelüftet es den Staat, in Privatrechte einzugreifen, und morgen will eine Bahngesellschaft solche Rechte sich anmassen, welche nur dem Staate zustehen können.' (Kaiser, *Die Rechte des Staates in Eisenbahn-Angelegenheiten der Schweiz. Ein Beitrag zur Lösung bestehender und kommender Eisenbahnkonflikte*, VI.)

²⁵⁶ Herold, *Der Schweizerische Bund und die Eisenbahnen bis zur Jahrhundert Wende: Der allmähliche Sieg zentralistischer Tendenzen und die Durchführung der Verstaatlichung*, 20.

²⁵⁷ Own translation of: 'Von Smithianischen Ideen beeinflusst, erhob sie sich gegen jede willkürliche Ausdehnung der Regierungsgewalt, die nicht durch die Wucht ausserordentlicher Umstände absolut geboten erscheine, und sie proklamierte darum als obersten staatswirtschaftlichen Grundsatz den, die Privattätigkeit ungehemmt gewähren zu lassen, solange sie den Staatszweck nicht gefährdet, und nur alles aus dem Wege zu räumen, was deren Emporkommen und freie Entwicklung stört oder hindert.' (Ibid., 22.)

²⁵⁸ Ibid., 19.

²⁵⁹ Ibid., 25.

*was, compared to later, still within moderate limits, although it was faster than expected in 1852. 5. the public was often dissatisfied.*²⁶⁰

Herold's unpromising description of the Swiss rail's condition in 1868 illustrates how the diverse interests of the different actors clashed, followed by a young and, on a legal basis, weak Swiss state, such as never-ending political discussions concerning the nationalization of the railway. Already before the railway crisis in 1877, the public opinion was that the cantons are unable to push forward national interests. The granting of concessions for private railway companies was shifted to the federal government in 1872. Further, all concessions were structured so that they were limited in time, and preferential rights for individual companies were dismissed. Even though the state further tightened the concession rights in 1874, the concession law was still incredibly supportive of speculation and overproduction, leading to the railway crisis in 1877.²⁶¹ Latest after the railway stock market crash, public discussions regarding the nationalization increased significantly. Two options were considered as viable and respectable: First, direct repurchase through obtaining shares or second, repurchasing the railway concessions.²⁶² In 1883, the first termination date of the concessions came close, but due to the fragile financial system both of the state and the railway companies, the government forfeited the termination date. The repurchasing of the concessions would have costed the state around 687 million Swiss Francs for a railway network that was insufficiently maintained, as the primary income was used for the shareholders.²⁶³ Five years later, two key advances by the federal government initiated further nationalization attempts: The state merged various concession objects to enable unitary conditions for repurchasing the railway network and to lower the administrative workload. Second, the government tried to nationalize the NOB; even though they failed, this was the first serious nationalization attempt. In the following years, the government followed a different approach and started to buy shares of different railway companies. Herold describes the situation based on the SCB:

*'The intention of the Federal Council was by no means to permanently transform the Confederation into a major shareholder of the Centralbahn [SCB]. Rather, the share purchase was only intended to give the Confederation the means to speak a decisive word in the company and, if conditions were particularly favorable, to take immediate action to initiate nationalization as a result of a company resolution.'*²⁶⁴

This costly endeavor was yet again led by financial institutions:

'A consortium of banks, namely the International and the Deutsche Bank in Berlin, as well as the Bankverein in Zurich and the Eidgenössische Bank in Bern, made him [the federal state] offers for the acquisition of Centralbahn [SCB] shares, and

²⁶⁰ Own translation of: '1. Ein machtloser Bund, dessen Ohnmacht sich bei Anlass der Frage der Einführung von Nachtzügen erst wieder glänzend bewährt hatte. 2. Formal einflussreiche Kantone, die aber faktisch infolge der Kleinheit ihres Gesichtskreises wenig genug zu sagen hatten. 3. Allmächtige Eisenbahngesellschaften, die, obwohl zum Teil mit Privilegien ausgestattet, in der Mehrzahl nicht rendierten; [...]. 4. Der Bahnbau hielt sich, im Vergleich zu später, noch in massvollen Grenzen, trotzdem er schneller ging, als man 1852 erwartet hatte. 5. Die öffentliche Meinung war vielfach unzufrieden.' (Ibid., 59.)

²⁶¹ Ibid., 65 and 71.

²⁶² Weissenbach, Rückkauf oder Expropriation? Ein Beitrag zur Verstaatlichung der Schweizerischen Eisenbahnen, 7.

²⁶³ Herold, Der Schweizerische Bund und die Eisenbahnen bis zur Jahrhundert Wende: Der allmähliche Sieg zentralistischer Tendenzen und die Durchführung der Verstaatlichung, 111 and 114.

²⁶⁴ Own translation of: 'Die Absicht des Bundesrates war keineswegs, den Bund dauernd zum Grossaktionär der Centralbahn zu machen. vielmehr sollte ihm der Aktienankauf nur ein Mittel in die Hand geben, um in der Gesellschaft ein massgebendes Wort sprechen und bei einer besonderen Gunst der verhältnisse zur sofortigen Einleitung der Verstaatlichung infolge Gesellschaftsbeschlusses schreiten zu können.' (Ibid., 141.)

on 5 March 1891 a contract was concluded.²⁶⁵

Though the financial funds of the state suffered greatly from these expenses, this process was considered a political necessity to free the state from the predicament in which it was embedded through the hegemony of the private companies.²⁶⁶ However, when the purchasing of shares became part of public discourse, the population considered it as an overpayment.²⁶⁷ The government shifted its focus back on repurchasing the concessions. Finally, in 1897 the Swiss citizens voted for the repurchase law formulated by the Federal Council. The repurchasing was initiated, and in 1902, the Swiss Railway cooperation SBB CFS FFS was founded.²⁶⁸

New forms of financing

This chapter has focused on spatial logics of capital, understanding how capital was fixated in spatial forms such as the railway and all its connected constructions and firsthand the ways in which this capital was generated. Following Zanotto's approach to destructive discourse analysis, I argue that the prevalent problem raised in the historical discourse of a private or nationalized railway network was *speculation*. Speculation hindered a lasting and sustainable construction of the rail. The solution to the speculative railway business was the nationalization of the rail. In this projection of problem and solution, several perspectives are missing: First, the close relationship between the state and financial institutions that were partly initiated and accelerated through the railway. Second, since the Swiss state was just founded when the first railway projects were initiated, the government formulated an insufficient legal framework, leading to speculative businesses. Last, in contemporary accounts on the Swiss railway, the initial financial struggles shaping the Swiss railway construction are very much missing. Although some critical accounts on the history of the Swiss railway exist, many have created a romanticized narrative of the technological hegemony and the efficiency this infrastructure has gifted the Swiss citizens with. Coming back to the problem of speculation and the suggested solution through the nationalization of the railway, I aim to emphasize that this is indeed a short-sighted perspective: The federal government itself has shaped the platform for private railway companies to economize in such an unsustainable and speculative way. Figures such as Alfred Escher show the interconnectedness between the state and the economy. A state does not act outside of the economy it has created. Instead, it is situated within the same logic of private interests. While in all considered historiographical reports, the private companies were regularly accused of being brutal venture capitalists, the state itself is always represented as the opposite. I aim to disrupt this narrative by understanding the spatial consequences such a system can provoke, especially within a governmental cooperation. In Switzerland, the building of the rail has initiated a shift in the logic of banking: First, new financial institutions, focusing on the principle of credit, have enabled the construction of the rail. Second, more and more financial institutions have started to lend the money they own from savers and investors to companies in need of credit. This has caused new speculative investment methods, initiated by the railway project.²⁶⁹ In retro perspective, the railway, a spatial project in its heart with an infrastructural vision, has permanently shifted financial logic in Switzerland and has created the ground stone for the country being internationally leading in banking. Spatially, these financial logics have shaped Switzerland tremendously. The fact that the railway was initially a private venture has created new realities for the Swiss railway's land resources.

²⁶⁵ Own translation of: 'Ein Konsortium von Banken, nämlich der Internationall und der Deutschen Bank in Berlin, sowie dem Bankverein in Zürich und der Eidgenössischen Bank in Bern, machte ihm Offerten für die Beschaffung von Centralbahnaktien, und am 5. März 1891 kam ein Vertrag zu stande.' (Ibid., 140.)

²⁶⁶ Ibid., 139.

²⁶⁷ Ibid., 145.

²⁶⁸ Ibid., 186.

²⁶⁹ Bärtschi, *Schweizer Bahnen 1844-2024: Mythos, Geschichte, Politik*, 126.

THE SBB AS LANDOWNER AND CITY PLANNER

The chapter on land politics of the Swiss railway has shown that the SBB has started to use specific modes of financialization regarding their land assets in the 20th century. This practice was accelerated and intensified in the last 20 years. Since the foundation of the Swiss Federal Railway company, land was considered a resource to create capital for the railway infrastructure whenever necessary. During the 20th century, this was though by no means a prime business for the company. Based on the first significant railway reform executed in 1999, I aim to illustrate the shift from SBB's focus on creating a railway network to its contemporary position as a relevant landowner and city planner in Switzerland.

Due to new provisions from both the EU and federal politics in Switzerland, the Swiss railway's company structure shifted, and several modifications were implemented. This phase was initiated with a new rail concept called BAHN 2000, aiming to densify the routes and the rail schedule. Adopted by voting in 1987, this venture pushed forward debates on a railway reform. In 1993, a commission forwarded a blueprint to the federal transportation department, to renovate the rail into a market-oriented company. Neoliberal policies enabled a revision of the Swiss railway law and led to the first railway reform in 1999.²⁷⁰ Its main aim was to enhance the cost-benefit ratio and efficiency and introduce elements of market competition. In the words of the former SBB CEO: *'Less money for more performance.'*²⁷¹ The structure of the company shifted substantially due to the railway reform. While before the reform, the company was organized as a public institution, the railway reform dissolved the SBB from the state and created a stock company based on a special law provision. By law, the state of Switzerland needs to be the largest shareholder and the singular owner. This means that the Federal Council provides the SBB with a rough framework, without interfering in their business. This policy shift needs to be situated within neoliberal practices, freeing the SBB from confined state practices. Every four years, the Federal Council of Switzerland submits strategic goals that need to be fulfilled by the SBB. The *'entrepreneurial autonomy'* of the company is a crucial factor of the main structure and was emphasized again in the declaration of the strategic goals from 2019-2022.²⁷²

Based on shifting politics in the Swiss state to neoliberal practices, the railway reform in 1999 was introduced as the solution to an inefficient and costly railway company. Questioning this normative problem/solution proposition leads me to disrupt the discourse of infinitive growth with less capital; the railway reform has enabled the foundation of the division SBB Real Estate and has therefore intensified the focus on developing land resources, as a result of a sharper focus on profit. The strategy of *'less money for more performance'* has downsides and fosters financialized logics of the land and housing market in Switzerland.

Already in 1999, when the railway reform has created a stock company under special law provisions, a subgroup of the division infrastructure has been focusing on real estate under the name *Liegenschaftennutzung*, meaning property use. The real estate objects are mainly derived from houses once used for the railway, be it station houses or former workers' houses. The railway reform restructured the infrastructural division of the railway counterintuitively in the division of passenger transports. Andreas Steiger, today head of SBB Real Estate Development and working for the SBB since the 1990s, stated that real estate was a sector that no one was confident to categorize. Finally, in 2003 it was decided to outsource infrastructure from the division passenger transport and create an independent sector for real estate. The SBB initiated the strategic decision

²⁷⁰ Christian Zeller, „Warum die SBB und ÖBB unterschiedlich auf den politisch produzierten Wettbewerbsdruck reagieren,“ 43.

²⁷¹ Own translation for: *'Weniger Geld für mehr Leistung'* (Meyer "20 Jahre Bahnreform. Eine Erfolgsgeschichte mit Klärungsbedarf."

²⁷² Eidgenössisches Departement für Umwelt, Verkehr, Energie und Kommunikation UVEK, „Strategische Ziele des Bundesrates für die SBB AG 2019-2022.“

to manage the objects according to market-driven principles.²⁷³ In 2003, a small group of people was working for real estate objects, functioning more within the logic of a start-up than an allocated state-enterprise:

*'Many things were unclear; we did not yet know how to do this work. For example, we didn't have a development business yet, we simply gave it to external parties, gave the areas to somebody else and they developed. And we practically didn't build anything ourselves.'*²⁷⁴

Building upon these developments, the SBB decided in 2006 to establish an independent division for real estate, shifting from properties being a side-business to a principal business. It is crucial to understand that the properties owned by the SBB were always twofold: The railway stations with all its adjacent retail buildings and the properties rented out for housing. Andreas Steiger states:

*'On one hand, we have understood that many sites owned by the SBB are in central, sensitive and attractive locations. Also, we have seen where the SBB can contribute to the neighborhood. The railway station business also continued to grow; in 2000, for example, the railway station in Bern was rebuilt, [...] before that, you only walked through it, it already had a few shops, but only then [after the rebuilding] it started to grow. And then we realized, that this was a continuous process, that you can really earn money with real estate. In other sectors, you don't really have the opportunity to do that. The SBB can otherwise only earn money in long-distance traffic, [...]. Purely in terms of demand, if one were to think in business terms, [increasing the ticket prices] would be the logical consequence, this would be a highly profitable area [...] but not necessarily economically sensible. This is, of course, the task [of the federal government] who does not act entrepreneurial, [...]. And from this background, the shareholder [federal government] has decided that it absolutely makes sense to earn money with real estate so that we can achieve sufficient financial strength after all.'*²⁷⁵

Several interesting points can be derived from this comment: First, the profitability of the real estate objects was the main incentive to focus on as a primary business for the SBB. Second, the shift to a real estate business was not initiated but supported by the state, to safe public funds. And third, due to the properties the company owned in railway stations, they became aware that they owned land in central and attractive areas, and more importantly that developing these land assets would lead to a larger yield.

²⁷³ Steiger, Interview.

²⁷⁴ Own translation of: 'Es war also vieles unklar, wir wussten noch nicht, wie wir genau diese Arbeit machen sollten, man hatte zum Beispiel noch kein Entwicklungsgeschäft, das hat man einfach an externe abgegeben, diese Areale also einfach irgendjemandem gegeben und der hat dann entwickelt. Und wir haben auch praktisch nicht selber gebaut.' (Ibid.)

²⁷⁵ Own translation of: 'Einerseits hat man gesehen, wie viele Areale an zentralen, empfindlichen und attraktiven Lagen die SBB besitzt, wo sie überall einen Beitrag zur Umgebung leisten kann. Das Bahnhofsgeschäft wuchs auch immer weiter; 2000 hat man zum Beispiel den Bahnhof Bern umgebaut, mit einem grossen Migros, vorher war der Bahnhof Bern Nebensache; man lief vorher nur durch, es hatte schon einige Geschäfte, aber erst dann [nach dem Umbau] kam es zu einem Wachstum. Und dann hat man auch erkannt, also das war ein kontinuierlicher Prozess, dass man mit Immobilien wirklich Geld verdienen kann. In anderen Bereichen hat man dazu nicht wirklich eine Möglichkeit. Die SBB kann sonst nur im Fernverkehr Geld verdienen, oder im Güterverkehr, [...]. [die Ticketpreise] will man ja aus strategischer Sicht nicht künstlich hochtreiben, rein von der Nachfrage her. Wenn man betriebswirtschaftlich Denken würde, wäre das die logische Konsequenz [Erhöhung der Ticketpreise], das wäre ein hochrentabler Bereich, [...], aber nicht unbedingt volkswirtschaftlich sinnvoll. Das ist natürlich der Auftrag [vom Bund], der nicht wirklich ein unternehmerischer ist, weil wir auch einen volkswirtschaftlichen Hintergrund haben. Und aus diesem Hintergrund hat der Aktionär entschlossen, das macht wunderbar Sinn mit Immobilien Geld zu verdienen, damit wir doch ausreichend Finanzkraft erreichen.' (Ibid.)

In 2006, the division started to structure their real estate objects along with geographical guidelines. The geographical structure shifted into one mainly based on portfolio management in 2013.²⁷⁶ Today, SBB Real Estate functions along with five subgroups: *Portfolio Management, Property Rights, Development, Management and Facility Management*. Whereas the first subgroup focuses on the overall strategy and the financial goals, *Development* works project-based with the respective areas, currently running 160 projects. Like the SBB, the division Real Estate needs to follow the strategic goals formulated by the Federal Council:

*'[1.] It [SBB Division Real Estate] makes stations attractive, develops them into mobility hubs, and promotes access to the railway. In doing so, it coordinates with cantonal and municipal authorities. [2.] Through the targeted development of its portfolio and railway properties, it participates in their value enhancement.'*²⁷⁷

Followed with the general financial guidelines:

*'SBB safeguards and increases the value of the company in the long term, achieves a result that is in line with the industry average in all its business areas, and further improves productivity. The Real Estate Division makes compensation payments of CHF 150 million a year to the Infrastructure Division and contributes to the renovation of the pension fund. Real estate, long-distance transport, and freight traffic make a significant contribution to the financially sound basis of the company as a whole.'*²⁷⁸

Primarily important to understand the contemporary role of the SBB as landowner and city planner is the incentive to contribute to the renovation of the pension fund: In Switzerland, pension funds were introduced in the 1980's as the second pillar of the rent system. Theurillat et al. describe how the Swiss pension funds increasingly invest in real estate and how these institutions financialize land and housing assets.²⁷⁹ This is also the case for the SBB pension fund. Apart from investing capital in the built environment, the pension fund further binds money through shares and bonds to secure the pension of its members. Due to wrongful political decisions, namely signing off the SBB pension fund's launch despite the insufficient financial funds, the cover ratio crashed two times. First, in 2001/2002, during the Dotcom crisis and the second time in 2007/2008 due to the global economic crisis. The critical financial situation of the SBB pension fund is crucial to understand the impact this has had on the work of the Real Estate division. The SBB expected the Swiss government to renovate its pension funds, as it did so for other companies' pension funds after major economic crashes. In a press release, the SBB pension fund argued that the institutional framework of the SBB would make it impossible to economize sufficient capital to realign the cover ratio.²⁸⁰ To minimize the public funds deployed to renovate the pension fund, the federal government still obliged the SBB to transfer parts of their profit from the Real Estate Division to the SBB pension fund. For more than ten years, the Real Estate Division is paying approximately

²⁷⁶ Ibid.

²⁷⁷ Own translation of: 'Sie gestaltet die Bahnhöfe attraktiv, entwickelt sie weiter zu Mobilitätsdrehscheiben und fördert den Zugang zur Bahn. Dabei stimmt sie sich mit kantonalen und kommunalen Behörden ab. Sie partizipiert durch die gezielte Entwicklung ihres Portfolios und der Bahnreale an deren Wertsteigerung.' (Eidgenössisches Departement für Umwelt, Verkehr, Energie und Kommunikation UVEK, „Strategische Ziele des Bundesrates für die SBB AG 2019-2022.“)

²⁷⁸ Own translation of: 'Die SBB sichert und steigert langfristig den Unternehmenswert, erzielt in allen Geschäftsfeldern ein branchenübliches Ergebnis und verbessert die Produktivität weiter. Die Division Immobilien leistet pro Jahr 150 Millionen Franken Ausgleichszahlungen an die Division Infrastruktur und trägt zur Sanierung der Pensionskasse bei. Immobilien, Fernverkehr und Güterverkehr tragen massgeblich zu einer finanziell gesunden Basis des Gesamtunternehmens bei.' (Ibid.)

²⁷⁹ Theurillat, Corpataux, and Crevoisier, "Property Sector Financialization: The Case of Swiss Pension Funds (1992-2005)."

²⁸⁰ Medienmitteilung der SBB Pensionskasse, „Die Sanierung der Pensionskasse SBB ist ausserordentlich dringlich.“

150 million Swiss Francs per year to the SBB pension fund, despite it being restored for a couple of years; still both the SBB and the SBB pension fund argue, that the financing is not yet secured sustainably.

Despite the insufficient share capital, the SBB pension fund was established in 1999 as a result of the railway reform. Initially, it was planned to complement the share capital through investments both by the federal state and the SBB. However, because the SBB was already heavily in debt, the railway company was unable to pay its shares; the SBB stands in debt with the SBB pension fund until today. Until 2032, the SBB still needs to pay back 1.3 billion Swiss Francs with a 4% interest rate.²⁸¹ This payment happens parallel to the 150 million Swiss Francs for the restoration of the pension fund. The Real Estate division is the only reasonable way to fulfill these demands and is therefore strengthened and extended year after year. Since 2011, a new strategy was initiated by the management of SBB to intensify the profit through an increased share of self-investment; developing land assets became a prime focus of the division. The principal incentive for the SBB is the financial compensation that is enabled through the Real Estate division and their profitable business: To restore the pension fund of the SBB, to support the division infrastructure to decrease public funds, and finally to stabilize the indebtedness of the SBB.

From a traditional market perspective, this may seem like a legitimate argumentation. Though, this work has shown the adverse effects of this logic from an urbanistic point of view. Through the establishment of SBB Real Estate, the company has become a major actor as landowner and city planner. As long as the company is required to profit from its real estate business, based on the strategy raised by the Federal Council, the massive inner-city land plots owned by the SBB will not be developed in a socially sustainable way. Instead, the SBB creates inaccessible and elitist developments, fueling inequality and the financialization of urban space in Switzerland.

²⁸¹ Normally, the SBB is only indebted to their only shareholder, the Swiss state. In this case, the interest rate is very low. In the case of the SBB pension fund, the SBB needs to pay back the amount at market conditions. (Marcel Sigrist, „SBB-Pensionskasse: Fass Ohne Boden.“)

ALTERNATIVE FUTURES — CONCLUDING REMARKS

This project has been conducted to demonstrate and rethink how land is used as a financialized asset and envision alternative modes of dealing with land. The case study of the Swiss Railway has shown that corporations lead by government institutions can also act as active catalyzers of financialized logics in dealing with land and developments. With the foundation of the Real Estate division within the SBB company, these rationales were further institutionalized and enabled the Federal Railway to operate as a large landowner and even city planner.

Using a historical lens has revealed that such modes of financialization of land have been used before the foundation of the SBB Real Estate already in the 20th century, and second, how the financial funding of the railway has been a main struggle of the company both today and in the past. During the 19th century, this problem was solved through the foundation of national credit institutions, such as the SKA, and paved the path for Switzerland to become internationally leading in banking. Today, the SBB Real Estate and its financialized developments serve as the solution to this. Both the building of the railway and the building of contemporary development structures have deeply shaped the landscape of Switzerland and had spatial effects on the urban landscape. Scholars researching the effects of capitalist market structures on the housing market often suggest the withdrawing of misused private property and the decommodification of land.²⁸² This thesis has shown, that while the argumentation above receives full support in theory, the case of the SBB contradicts it: The SBB is a state-owned stock company and therefore manages land publicly. Though, only considering the factor of public land does not promise the creation of decommodified land and equal access to urban space. Based on a discursive analysis, I have illustrated how the SBB follows common neoliberal and financialization strategies when dealing with land, based on the Federal Council's assignment to maximize the profit of the Real Estate division. To envision alternative futures, one needs to go further than enlarging the pool of public land. As long as government institutions reproduce the financialized logics of private institutional investors in real estate, land cannot be meaningfully decommodified.

Enabling new modes of dealing with state-owned land resources was proposed by a federal initiative called *Mehr bezahlbare Wohnungen*, which came to vote in February 2020. The initiative committee suggested, amongst other policy instruments, to grant the communal and cantonal government a pre-emptive right for federal-owned land. This would mean that the SBB would be obliged to sell its land to interested communes or cantons. Even though the initiative was rejected, and the proposed set of tools would not shift the general dynamic of how the SBB uses and develops their land, it has offered practical ways of creating alternative futures. Also, the case of the *noigass cooperation*, the grassroots collective of residents rising up against the omnipotence of SBB Real Estate in Zurich, illustrates the power of the public in preventing planned financialized developments. While both cases are only scratching on the surface of the larger problem, they do serve as realistic visions of alternative futures: A future where government-owned land plots are used to create meaningfully participatory and inclusive city spaces, addressing the needs of the most vulnerable in the urban, instead of financializing inner-city land plots to finance the SBB institution.

²⁸² Stein, *Capital City: Urban Planners and the Real Estate State*; Gerber, Kriese, and Prantl, *Boden Behalten – Stadt Gestalten*; Bernoulli, *Die Stadt und ihr Boden*.

Supporting research dealing with the financialized real estate market, and the effects it has on citizens is one of many attempts to envision alternative futures. In this work, the urban citizen, or in general, the human aspect was often missing due to the focus on overall structures of financializing land in the case of the Swiss railway. In pursuing this research, it is fundamental to understand the lived realities and effects this economic rationale has on vulnerable citizens to enable new modes of dealing with land for government-related and large-scale landowners.

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- Figure 2-9: Own illustrations
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- Figure 37: Own illustration



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