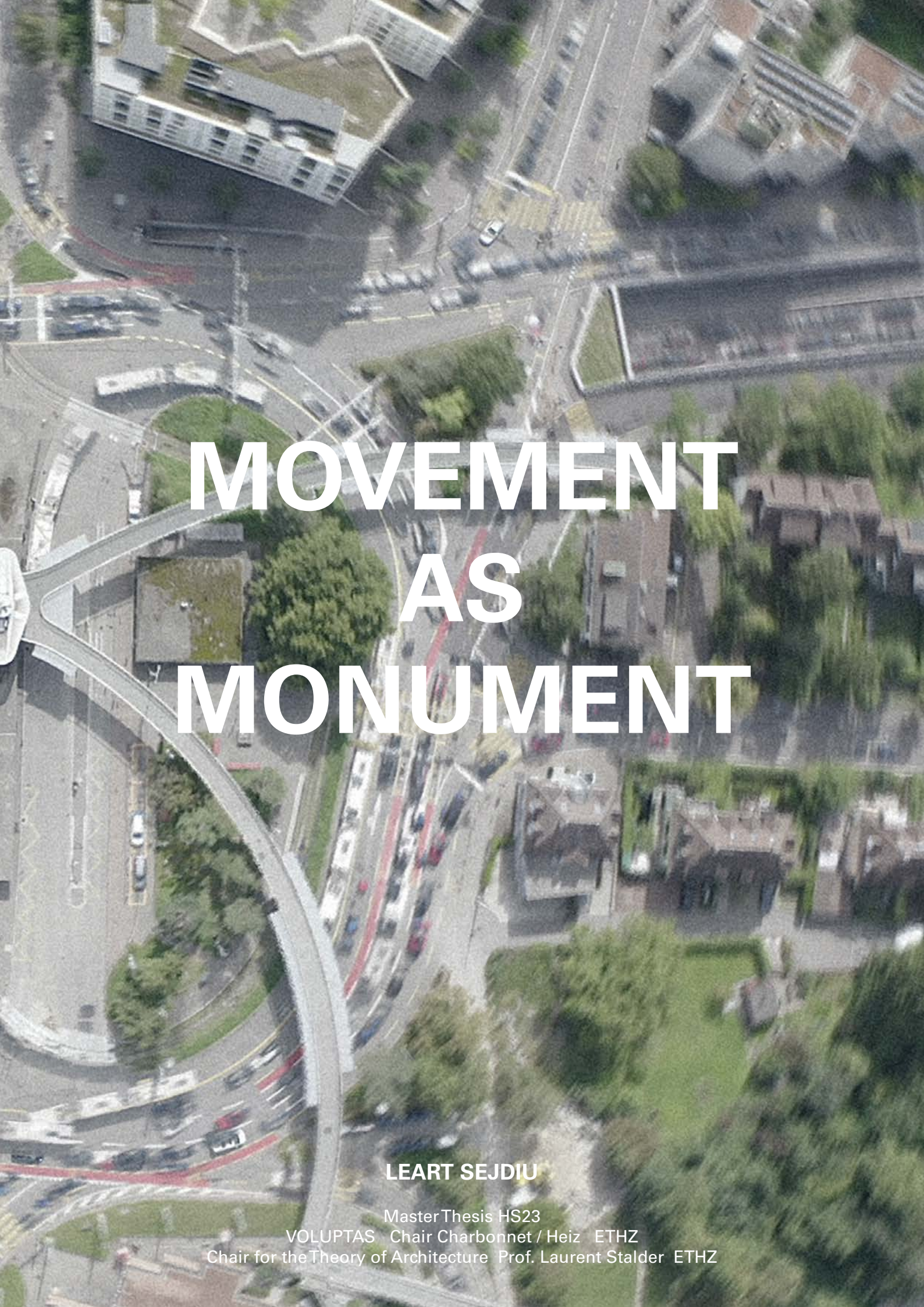


MOVEMENT AS MONUMENT

LEART SEJDIU

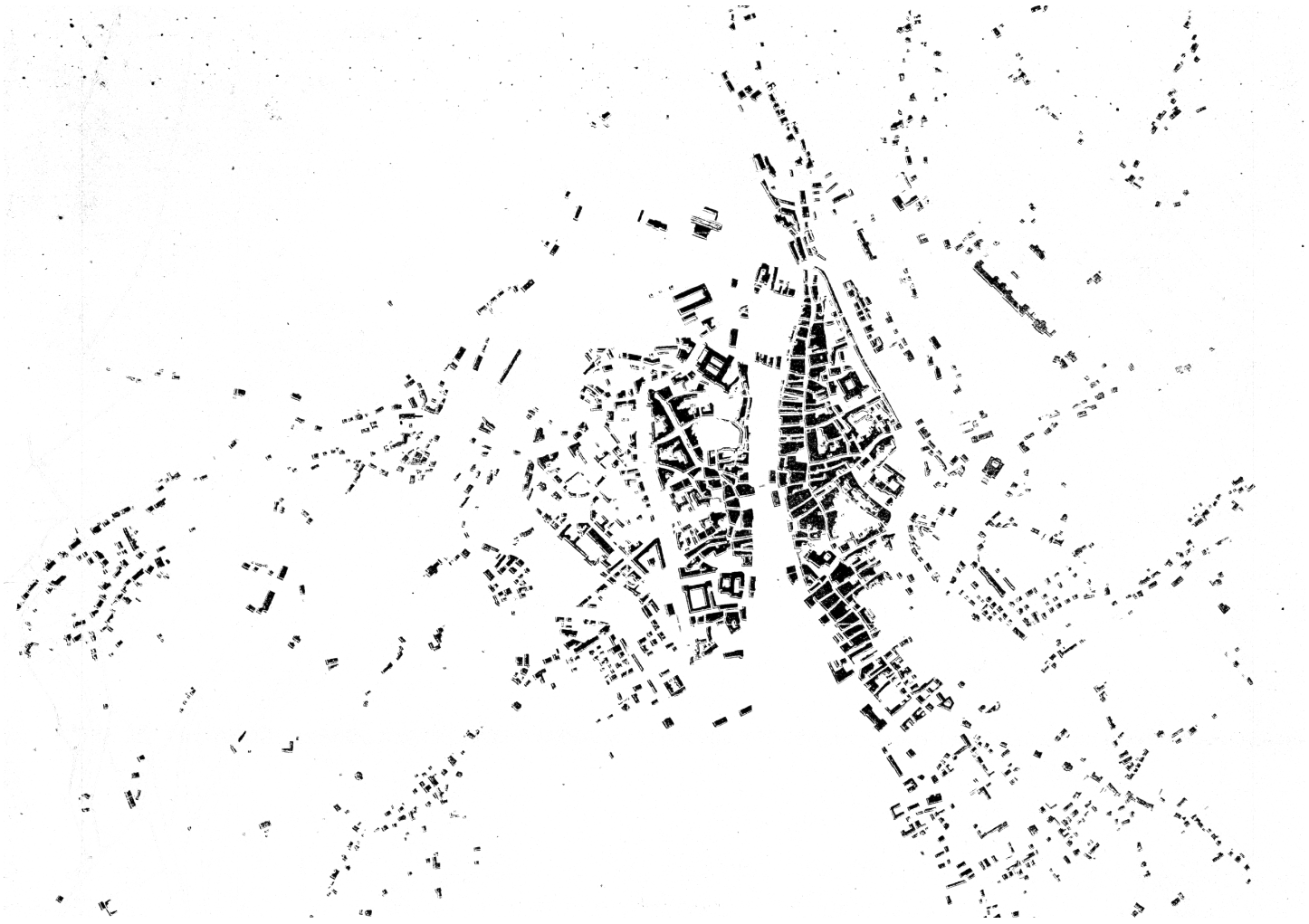
Master Thesis HS23
VOLUPTAS Chair Charbonnet / Heiz ETHZ
Chair for the Theory of Architecture Prof. Laurent Stalder ETHZ

“Die Stadt ist voller Übelstände, und nicht jeder ist Gegenstand unserer planerischen Fürsorge. Überdies sind nicht alle Folgen, welche die Planung mit sich bringt, mitgeplant: Um manche, so hat man beschlossen – beschlossen, indem man es nicht beschloß –, wird man sich nicht kümmern. Heute spricht man viel von Umweltschutz, und man plant die Verbesserung oder Sanierung der Umwelt. Aber die Umwelt-Verschlechterung war auch eine Folge von Planung: Sie ist eben jener Teil der Planung, den ungeplant zu lassen man sich stillschweigend einig war.”

LUCIUS BURCKHARDT, WER PLANT DIE PLANUNG? (1979)

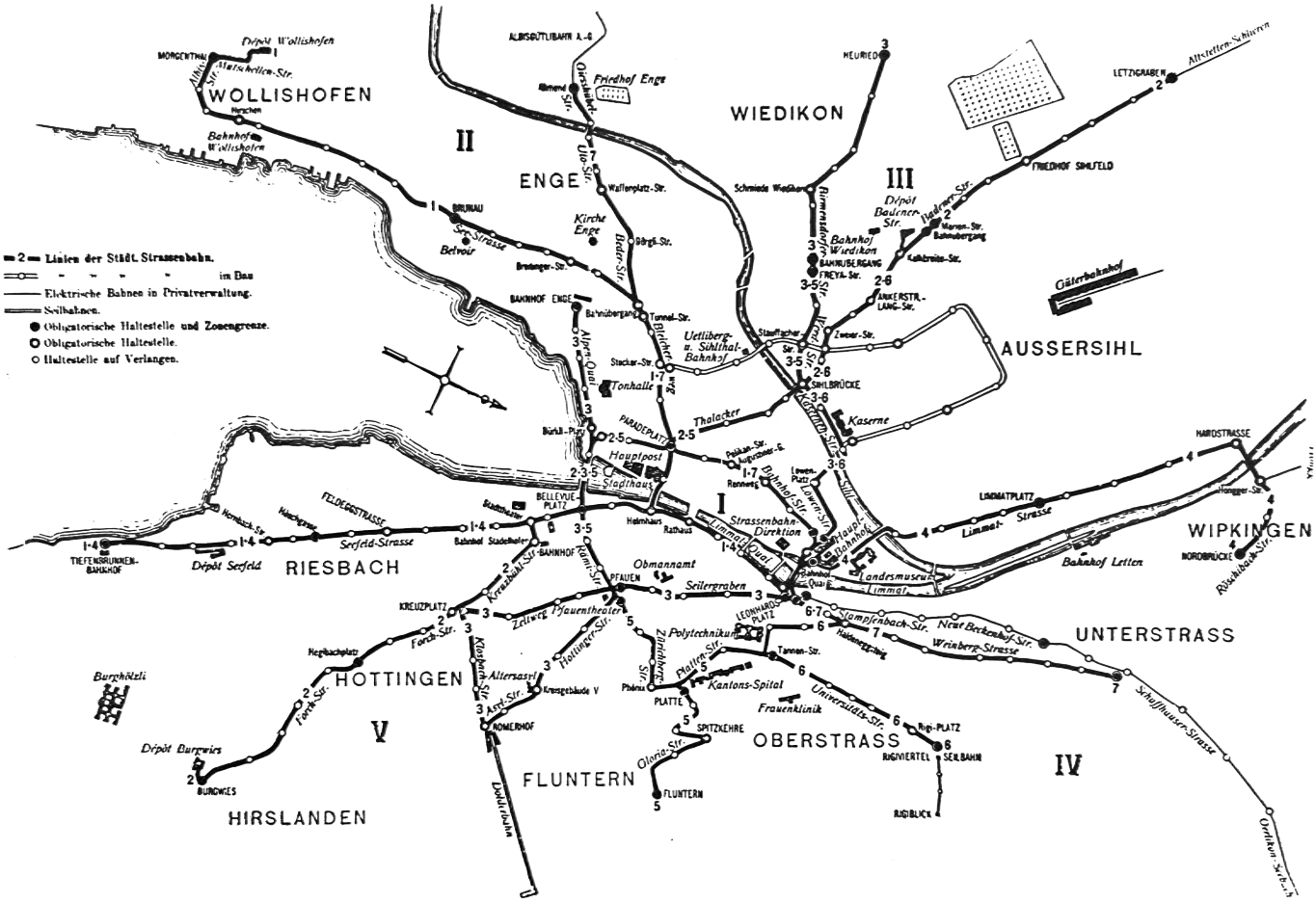
LEART SEJDIU, BUCHEGGPLATZ (2023)

I.
PROLOGUE - CITY AS A TRAFFIC PROBLEM



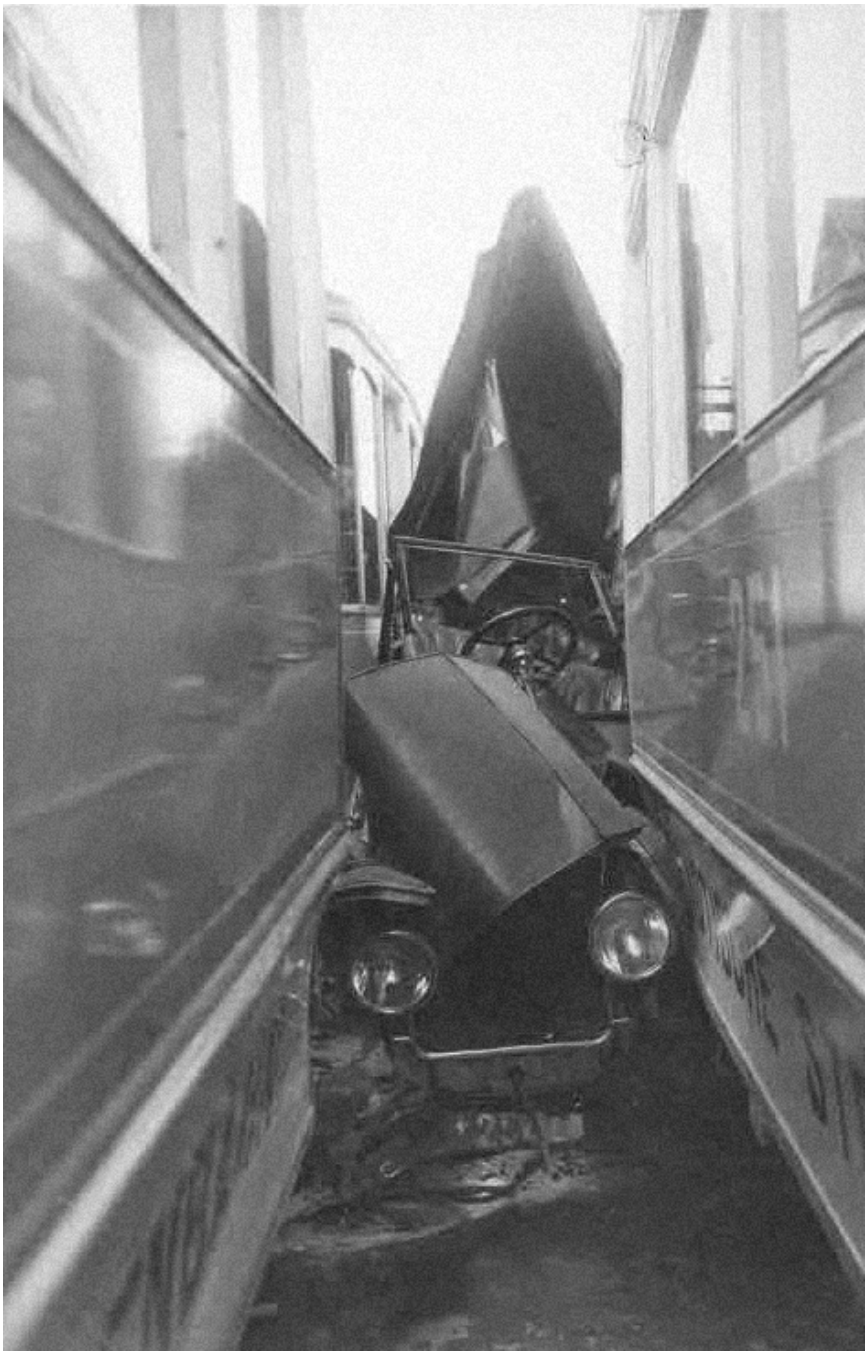
LEART SEJDIU, BLACK FIGURE PLAN OF ZÜRICH 1849 (2023)

In 1850, the degree of urbanization of Zürich was extremely low compared to cities like London, Paris, and New York. Only 6.4% of the population of Switzerland lived in cities. With the introduction of the railway Swiss cities began to grow. By 1880 Zürich had the goal to become a "Grossstadt". During this time, Zürich was still a pedestrian town with a radius of about three to four kilometers. Even though Zürich had started to industrialize, it had neither statistically nor spatially the characteristics of a big city. Julius Weber, city engineer at the time, observed that "Kleinstädte" were characterized exclusively by pedestrian traffic, while "Grossstädte" and "Weltstädte" were marked by the introduction of tramways or inner-city trains.[1] In October 1882 Zürich's first tram was inaugurated.[2]



CITY OF ZÜRICH, RAILWAY NETWORK ZÜRICH (1909)

Railway traffic increased rapidly in the following years. The introduction of the railway introduced a profound acceleration in movement. It was considered so fundamental that urbanization was regarded to be its product.[3] By 1910 the population percentage living in Swiss cities had increased sixfold.[4] The railway created a new urban type: the commuter. The separation of the city in living and working was seen as a natural process. The city's development was in the hands of the free market, while the authorities' involvement was marginal. This resulted in speculative and unplanned building. As a reaction the city organized "Wettbewerb Gross-Zürich" (1915-18) to find solutions for creating optimal economic conditions while preserving neighborhoods and green spaces.[5]



STADTPOLIZEI ZÜRICH, TRAFFIC ACCIDENT AT SEEFELDSTRASSE (1925)

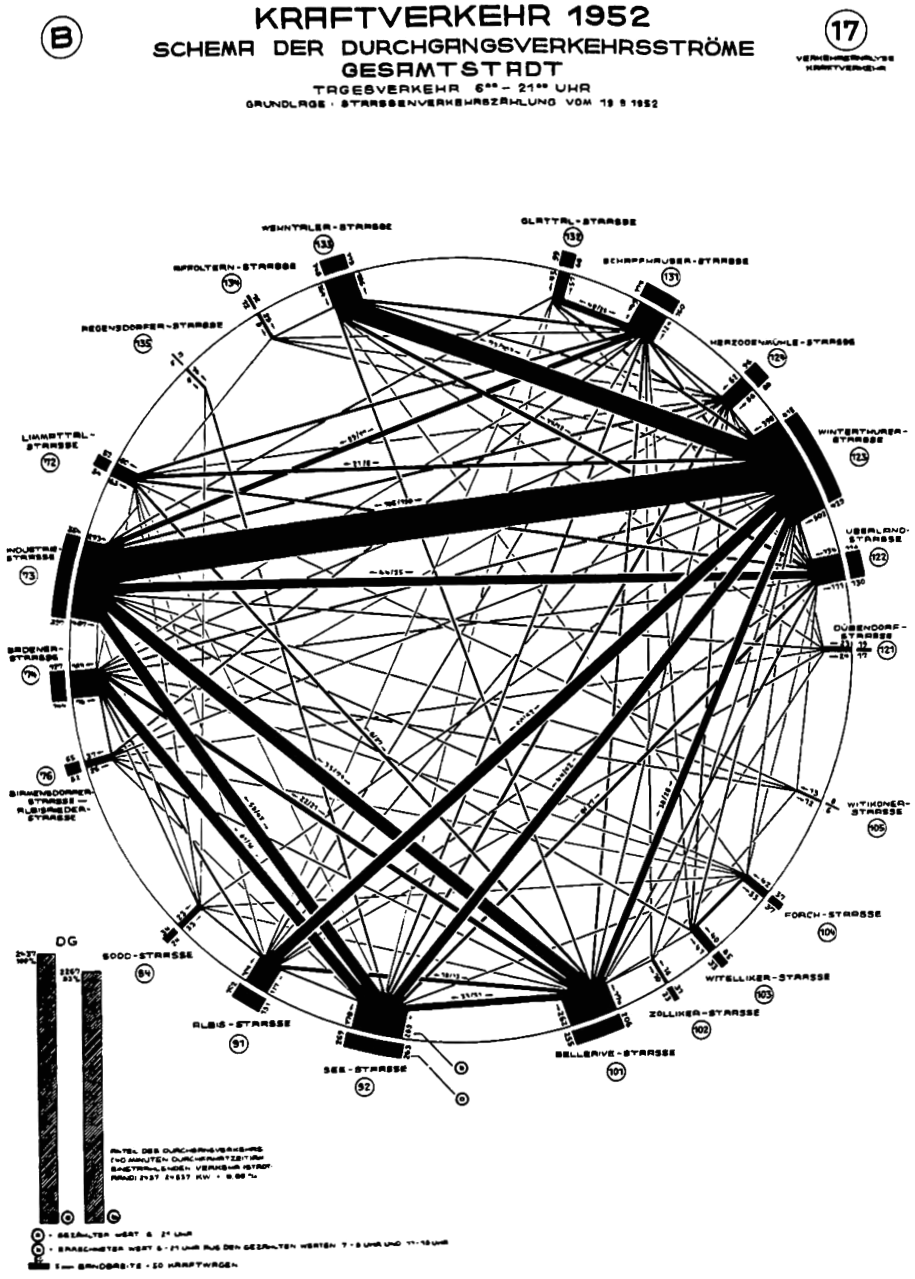
From 1910 to 1924 the number of motor vehicles increased more than tenfold. The automobile, which barely a quarter of a century ago had been a luxury vehicle, became such a general and important means of transport that road traffic could no longer be imagined without it, especially in cities. As a consequence, traffic accidents caused by automobiles had increased fivefold since 1901.[6] Traffic management began to become an issue. While the population initially met the automobile with skepticism, rejection, and hostility, it had become something that was considered desirable. Within a few years, the car went from being a bogeyman to a dream. City planners, authorities, and stakeholders began with preparations for the car-friendly city.[7]

GLOOR GOTTFRIED, BAHNHOFQUAI (1939)

For pedestrians, the street became a life-threatening area and the playground of chaotic scenes. The word "traffic emergency" appeared more frequently. The creation of clear intersections and roads was requested. The generous rehabilitation of traffic junctions indicated the importance of the unimpeded flow of traffic, optimized by the installation of roundabouts. The form of public spaces resulted from spatial modeling of flows in form of road crossings. The road construction projects hardly provoked opposition. They were regularly accepted with more than 90% of the votes. The street, previously a public space used by all road users in its entire width, was transformed into a roadway.[9]

II.

YPSILON - MONUMENT TO RESISTANCE



PIRATH AND FEUTCHINGER, TRAFFIC VOLUME ZÜRICH (1952)

When the war ended, Zürich saw an unprecedented boom instead of the dreaded unemployment: full employment and rapid expansion in building, traffic, and income. As a result of excess births and immigration of foreign workers, the population grew rapidly. The increasing spatial and social mobility within the country led to an enormous demand for new housing. Around the large and medium-sized cities, one suburban belt after the other was built out of the ground. In just a few years the Mittelland was covered with a carpet of agglomerations.[10] As early as 1950, the number of cars in the city of Zurich had doubled compared to the pre-war level.[11] Construction activity ensured that Switzerland proudly held the European record for cement consumption.[12]

WOLF-BENDER'S ERBEN, PHOTOGRAPH OF MODEL EXPRESSSTRASSEN - YPSILON (1959)

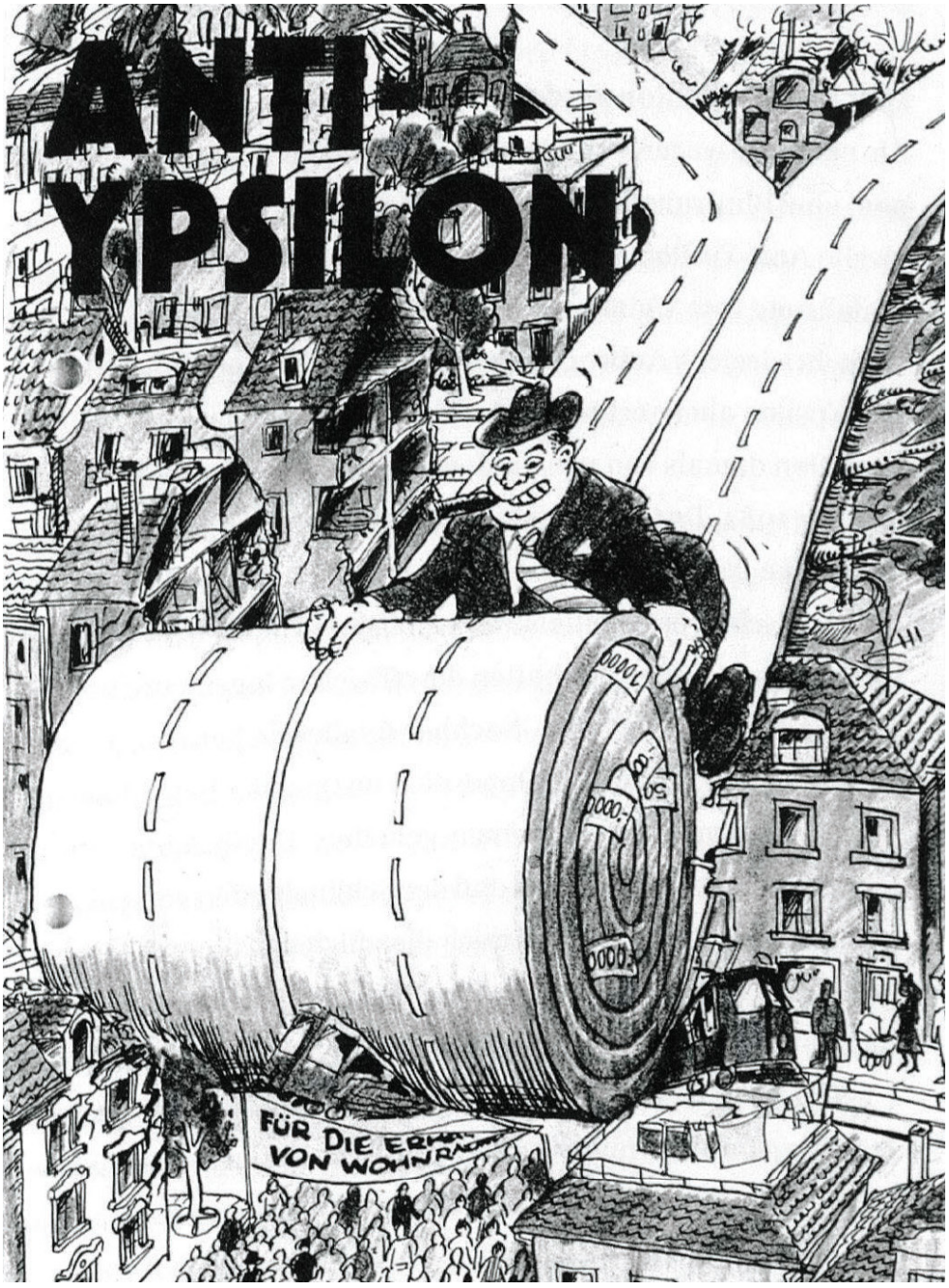
Urban planners realised that if the car was to have freedom of movement, it needed more space.[13] With the "Generalvekehrsplan" (1955), Zürich thought it had found a solution to carry out a "traffic rehabilitation".[14] The solution "Ypsilon" could be seen for the first time as a model in the exhibition "Urban Roads of the Future"(1959). A highway system not built as bypasses built as close as possible to the city center, connecting three highways at one point at Platzspitz. The existing city appears to have been considered to be of little value, not standing in the way of the new. Sigfried Giedion played a key role with his book "Space, Time and Architecture" (1941). He advocated loosening up dense cities and separating them into distinct functioning zones in accordance with CIAM's theories.[15]

MICHAEL WOLGENSINGER, SIHLHOCHSTRASSE DURING CONSTRUCTION (1969-73)

Although the general planning of expressways on city territory had already been completed and the route had been approved by the Federal Council in 1962, the concept of Ypsilon was questioned and delayed. The cause of the unexpected delay was a group of young architects known as "Zürcher Arbeitsgruppe für Städtebau" (ZAS). They warned that a six-lane elevated motorway in the Sihl area and along the course of the Limmat would be an unacceptable intervention concerning urban development. They hit a sensitive point of the expressway planning but this argument has not been considered persuasive enough on its own. The Sihlhochstrasse was intended to direct traffic into the city center rather than to beautify the city.[16]

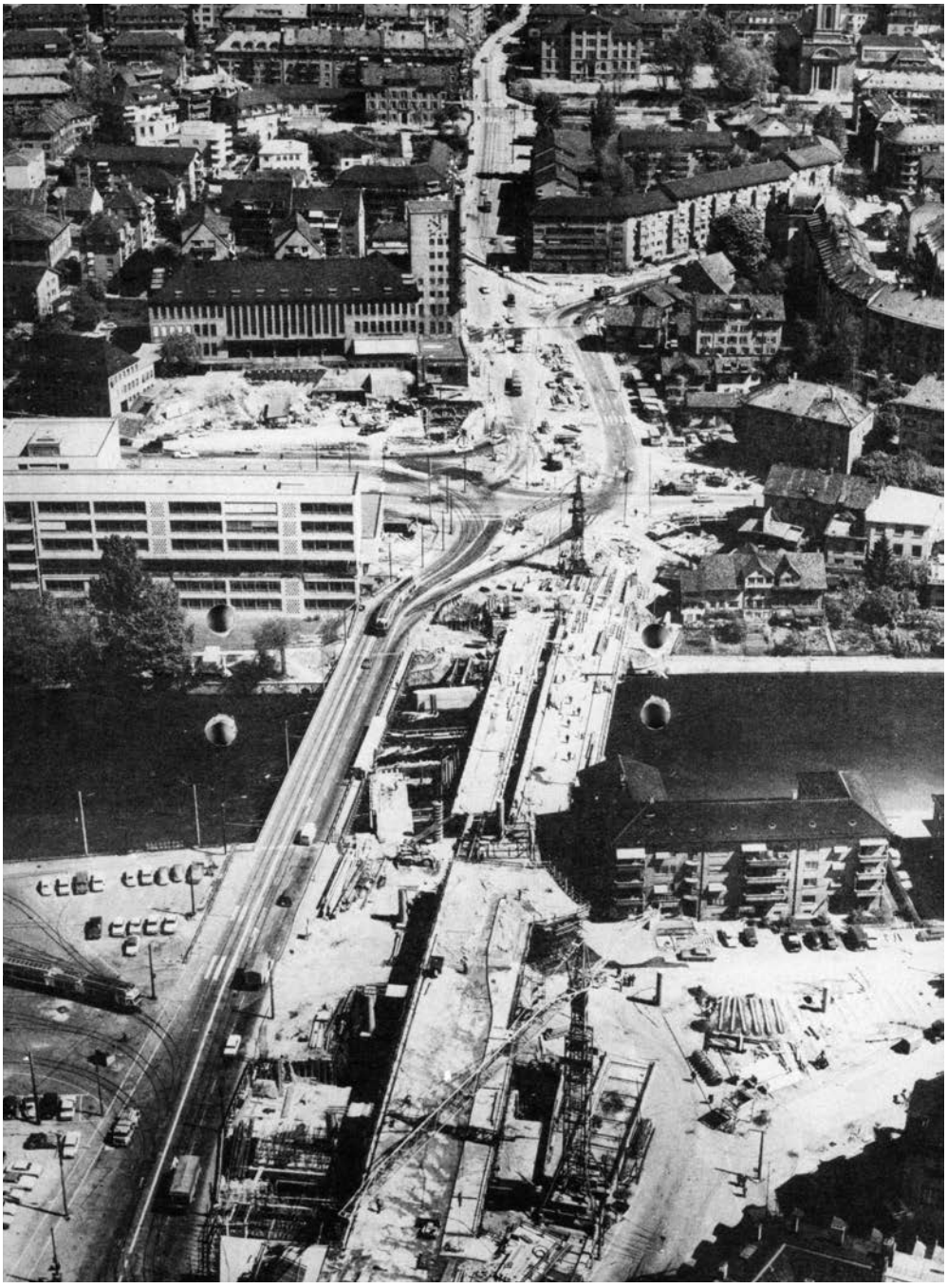
UNKNOWN, CAR-FREE SUNDAY DURING OIL CRISIS (1973)

In addition to harsher criticism of the negative effects of economic expansion, the necessity of growth has also been questioned. It was not until the Club of Rome's "Limits to Growth" (1972) that this criticism became a topic of broad public concern. The oil crisis of the fall of 1973 confirmed the pessimistic mood. The depletion of natural resources and raw materials appeared to become a serious issue unexpectedly quickly. The critique of economic growth was only the rational formulation of a much deeper spirit that was directed against any innovation. The recession was interpreted not as a cyclical economic slump but as the end of the period of economic unconcern and welfare.[17]



SOCIAL DEMOCRATIC PARTY ZÜRICH, ANTI-YPSILON CAMPAIGN (1974)

The discussion around Ypsilon became a battlefield for socio-political ideologies, becoming increasingly dependent on party-political power relations. The right saw the Ypsilon conflict as the start of a revolutionary uprising, while the left criticized the city roadways as a scheme of big business to destroy the city.[18] The Ypsilon project could no longer be justified with the previous objectives. The opposition could no longer be denied. After urban planning had long remained the domain of experts, the initiative for this fundamental process of rethinking came from outside the circle of experts and established political organizations. The situation in the fierce battle around the Ypsilon turned out to be an epochal turning point.[19]



UNKNOWN, WESTTANGENTE DURING CONSTRUCTION (CA. 1969)

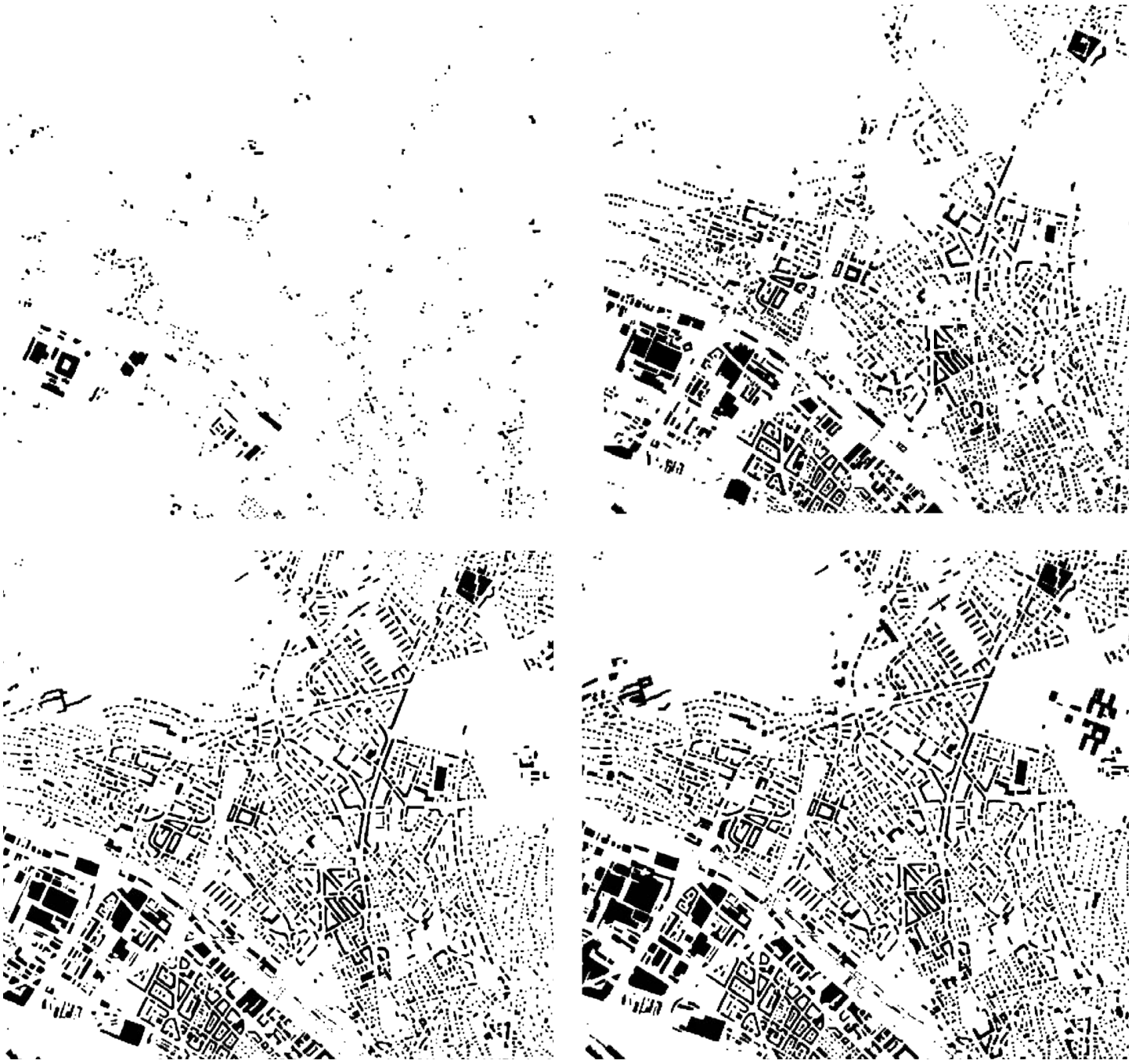
The delay in the construction of the expressways resulted in an acute need for traffic policy action. The freeways were threatening the city from three sides and the idea of a provisional traffic system was taken up. The "Westtangente", initially planned as a provisional, grew into a gigantic project. It was decided that the Seebahn- and Weststrasse should be converted into high-capacity one-way streets. Because of the low cost of the organizational measure required for this, it was not even necessary to hold a referendum. The need for a new road was not disputed and it had to be done somewhere. Rossengartenstrasse could simply be widened since it had already been built in the 1930s as a bypass road with wide building line distances. It was welcomed as a savior from a long-lasting traffic emergency.[20]

III.

WESTTANGENTE - ETERNAL PROVISIONAL

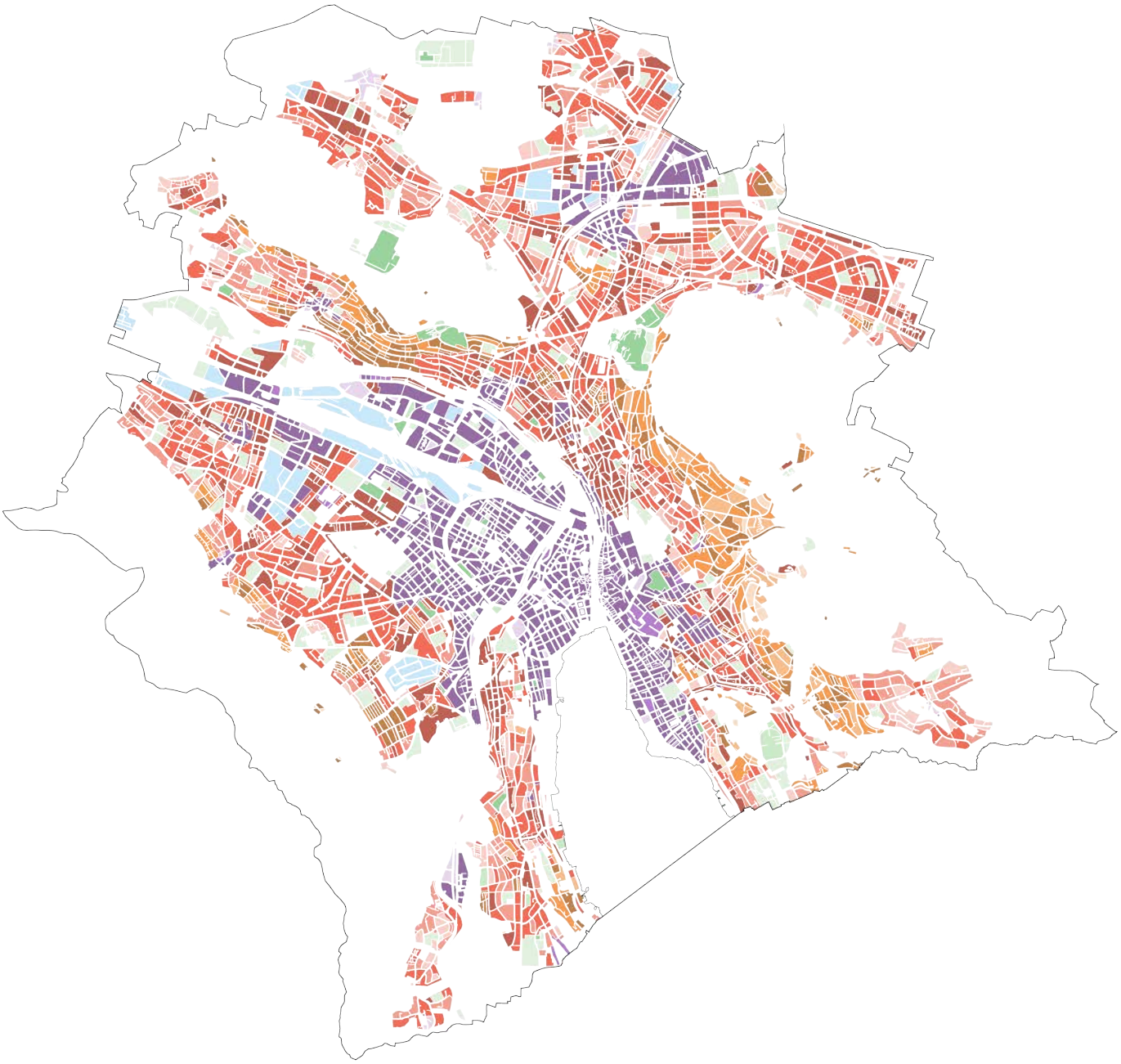
COMET PHOTO AG, CONSTRUCTION OF HARDBRÜCKE (1970)

During the construction, a huge flow of traffic was drawn through the residential district of Wipkingen. Entire streets were made almost uninhabitable by noise, and settlements were separated from each other. To protect potentially valuable central areas from the consequences of traffic development, people were prepared to dig deep into their pockets. On the other hand, the interests of the residential population carried little weight and were not even considered. Although the neighborhood was divided into two pieces by the road, there was virtually no opposition. Initially, the project was approved by a large majority, even by the neighborhood. The euphoria had faded by the time the first stage was completed in 1972. Traffic volume quickly increased to 70,000 cars per day.[21]



BENEDIKT LODERER, STRUCTURAL DEVELOPEMENT WIPKINGEN 1890, 1930, 1960, 1990 (2016)

Wipkingen became a residential area at the end of the 19th century, as a result of its proximity to the former industrial district. The plans for Westtangente did not take the surrounding neighborhood into account. Since the city was viewed primarily as a business location, the preservation of residential neighborhoods close to the city center was not considered. The atmosphere of the existing neighborhood on Rosengartenstrasse changed completely. Westtangente has become a permanent topic since its completion. Protests flared up frequently. Again and again, projects were devised to solve the problem of fragmentation and emissions.[22]



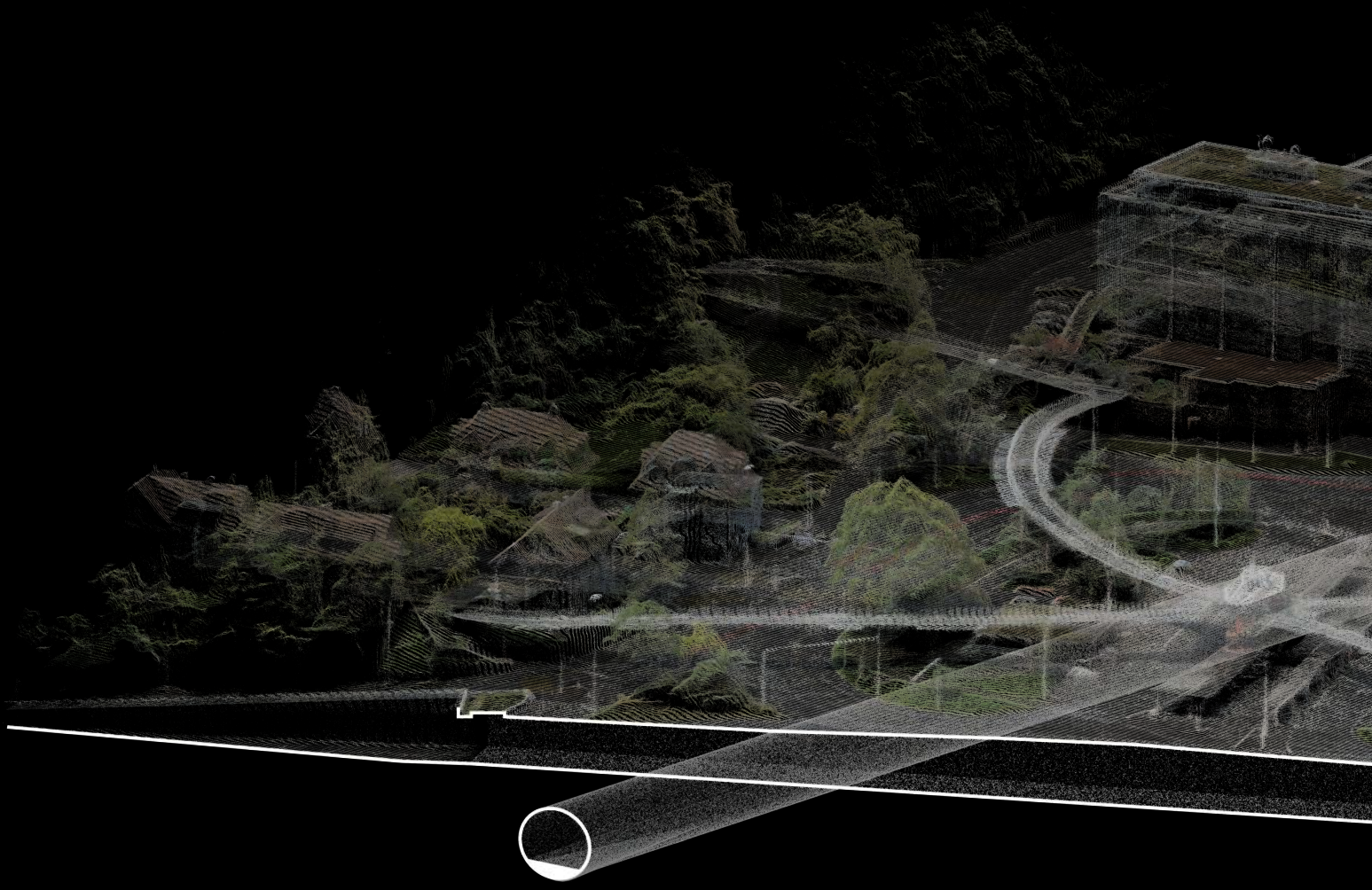
LEART SEJDIU, WORK AND LIVING ZONE MANAGEMENT (2023)

During the transformation of the former industrial areas into the inner-city expansion of Zurich West from the end of the 1990s, Hardbrücke underwent a reevaluation. Instead of being perceived as an eyesore, it was increasingly seen as an urban enrichment. The Rosengarten axis, one of the last sections of the west tangent, is currently moving into the focus of attention.[23] Today, the neighborhood is predominantly residential. While the constant flow of traffic might offer connectivity advantages, it poses challenges: noise pollution, safety hazards, and reduced air quality. To deal with this, the buildings are designed with a repellent facade facing the street. However, there will be no chance for adequate ground-floor use, even if the street can be traffic-calmed.[24]

LEART SEJDIU, TRAFFIC VOLUME (2023)

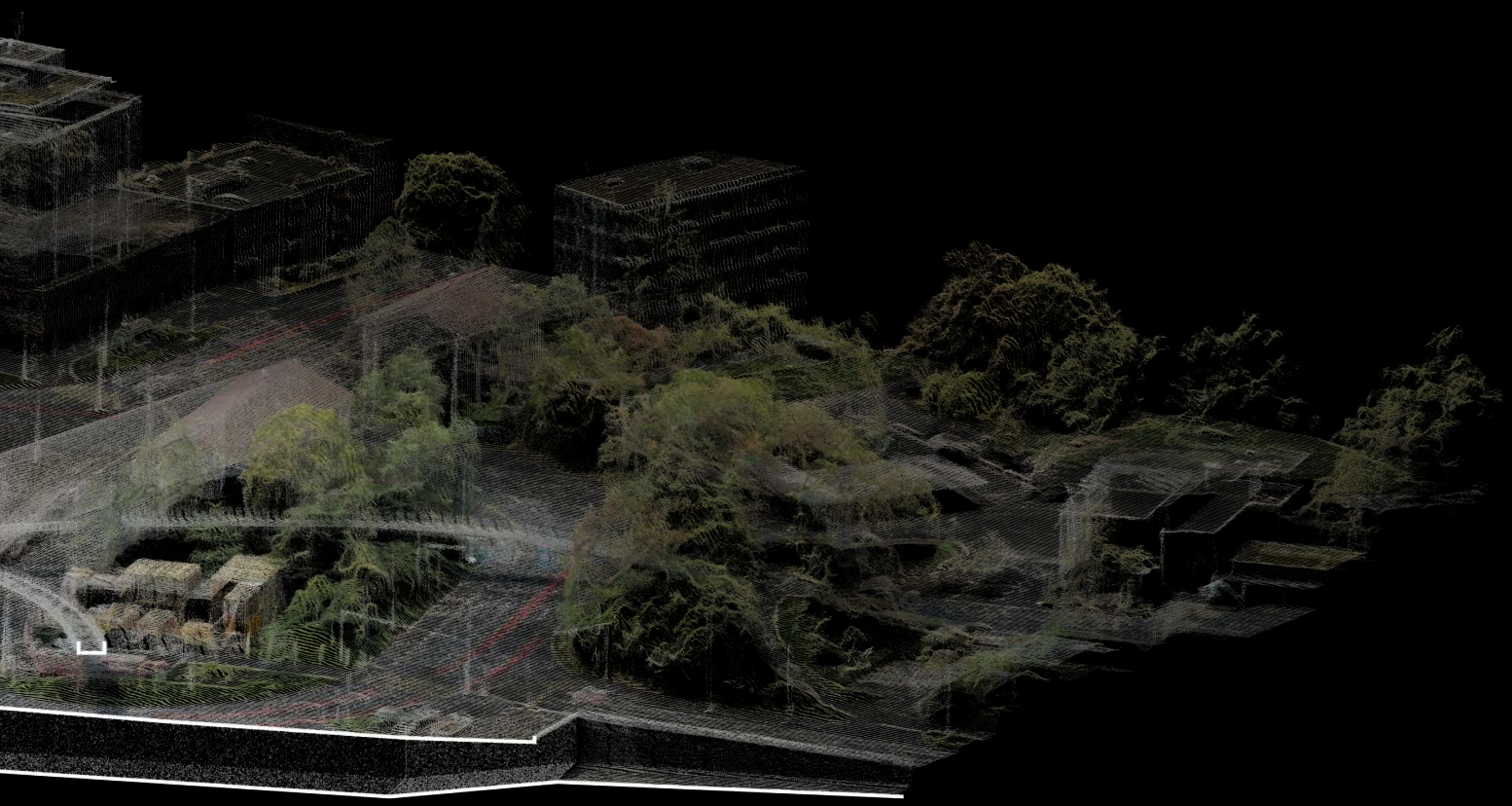
Rosengartenstrasse is still the only connection between Zurich North and Zurich West. Between 1975 and 1983, numerous projects were proposed but never carried out. In 2009, the construction of the Uetliberg tunnel offered some relief. However, this is particularly apparent in the city districts 3 and 4, where Sihlfeld- and Weststrasse were converted to neighborhood streets, relieving them from major traffic. Despite several initiatives implemented in 2015, the volume of traffic on Buchegg- and Rosengartenstrasse only fell from 70,000 to roughly 54,000 vehicles per day.[25] In 2020, Zürich rejected the project for a car tunnel between Wipkingerplatz and Milchbuck. 50 years after the inauguration of Westtangente, uncertainty still prevails.[26]

IV.
BUCHEGGPLATZ - PRODUCT OF UNCERTAINTY

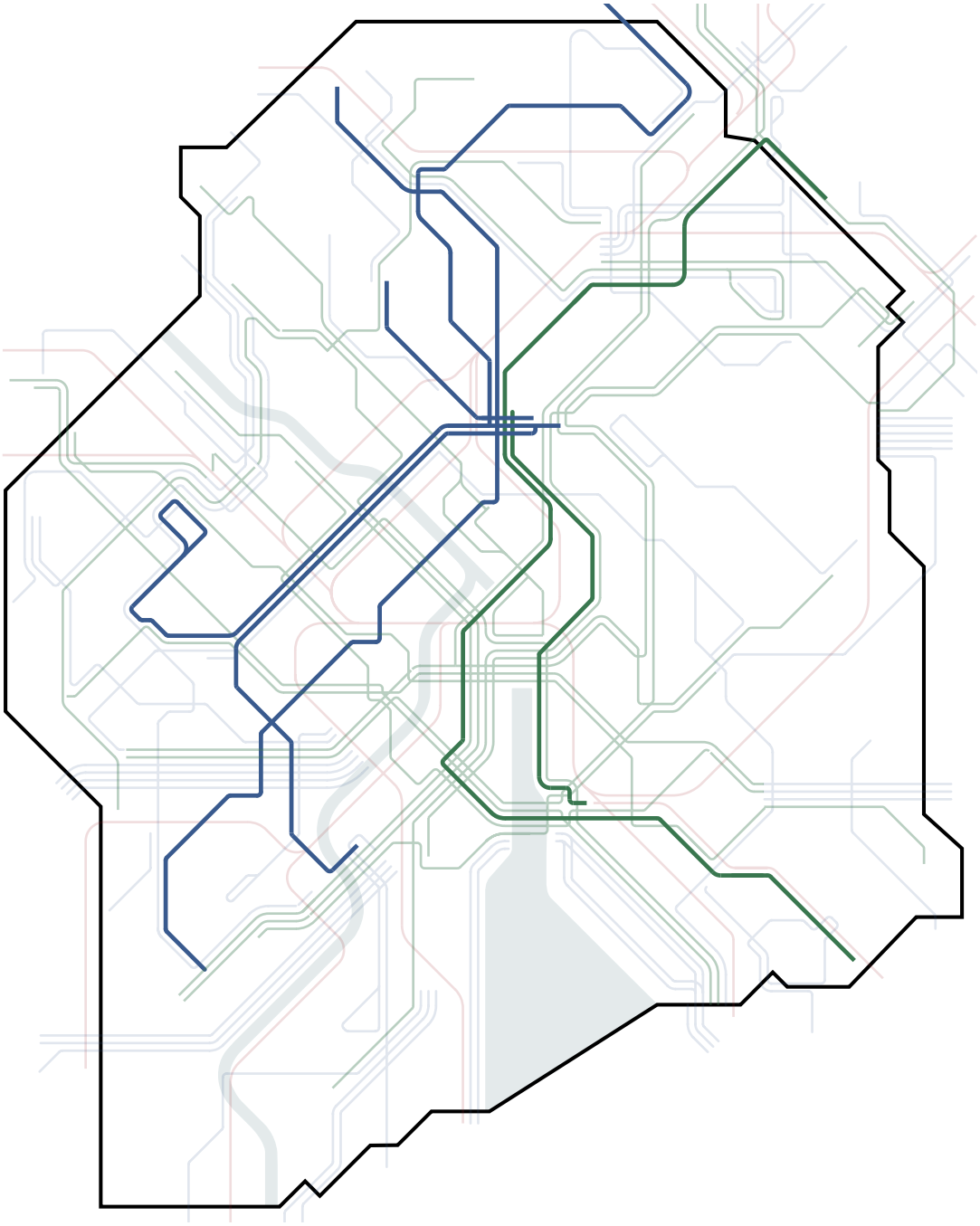


LEART SEJDIU, MULTIDIMENSIONAL TRAFFIC NETWORK (2023)

Bucheggplatz is the only space of the Ypsilon project fully conceptualized with the traffic ideals of the early 20th century. Once a secluded meadow, it became an important node for both public transportation and cars during the 1940s. Thanks to technological advances in mobility, Bucheggplatz was made accessible despite its topography. In its current form, it was built in 1972 for 72 million francs as the northern end of Westtangente.[27] It is laid out in the form of a large roundabout. The buildings around Bucheggplatz are mainly residential, one is even situated in it. A cross-shaped pedestrian bridge, known as the "spider", connects the surrounding area to the center of the square, where the stops for public transport are situated.



The spatial configuration of Bucheggplatz is strongly inspired by Le Corbusier's ideals on the separation of functions and traffic. Each level was mostly designed independently from the other, while an effort to combine the different modes of traffic was never undertaken. Due to its provisional character, the city never developed a holistic strategy for the area. Since 1972, only small changes to improve safety and tackle traffic congestion have been done. Even though it is a large and open area, it is extremely rigid in its current composition. Technical constraints, for example, turning radii of vehicles, as well as building regulations, such as zoning and traffic construction lines, make architectural intervention virtually impossible.

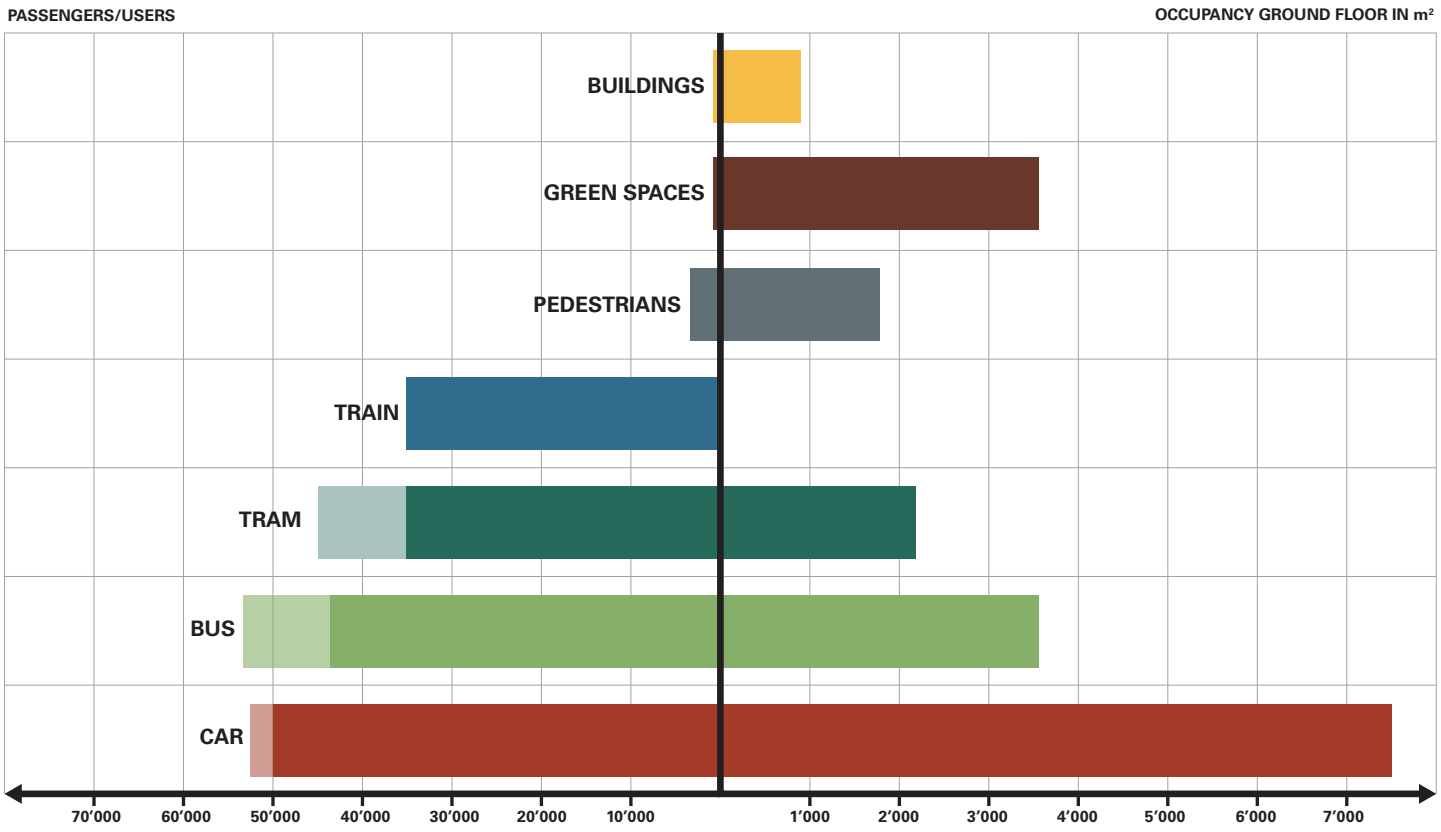


LEART SEJDIU, CONNECTIONS IN AND OUT BUCHEGGPLATZ (2023)

Bucheggplatz is primarily a public transport transfer point.[28] Daily, approx. 75'000 VBZ[29] passengers pass it. Out of them only approx. 2000 persons frequent Bucheggplatz. 70% of them change public transportation.[30] Already at its limit, the area will need to accommodate heavier passenger loads. Traffic between Zurich North - Zurich West as well as between Zurich North - City show increases of 30-50% until 2030. This reflects the settlement developments in Zürich West, Altstetten on one hand, and Leutschenbach, Neu-Oerlikon, and Affoltern on the other. While the capacity for the light rail (green) connection Zürich Nord - City could be extended, the current offer with only busses (blue) for Zürich West - Zürich Nord does not meet this development in any way.[31]

LEART SEJDIU, LAYERED TRAFFIC FLUXES (2023)

The public transportation system in the corridor Zürich West - Zürich Nord is already at its limit. Due to the rejection of the "Rosengartentunnel" (2020), the area could not be traffic-calmed.[32] This makes a new light rail line in this corridor not possible. Daily, 50'000[33] cars pass Bucheggplatz, mostly through its tunnel. During peak times, there is major traffic congestion. Consequently, this generates delays in the bus schedule, since there are no separate bus lanes to and out of Bucheggplatz. Furthermore, the traffic lights create stop-and-go motion. This leads to the fact that the average speed of motorized vehicles is about 25km/h. In between stops, they accelerate up to 50km/h. This in turn results in more traffic congestion, fuel, and noise emissions and reduced safety for all traffic participants.



LEART SEJDIU, PASSENGER AND AREA COMPARISON INSIDE ROUND-ABOUT (2023)

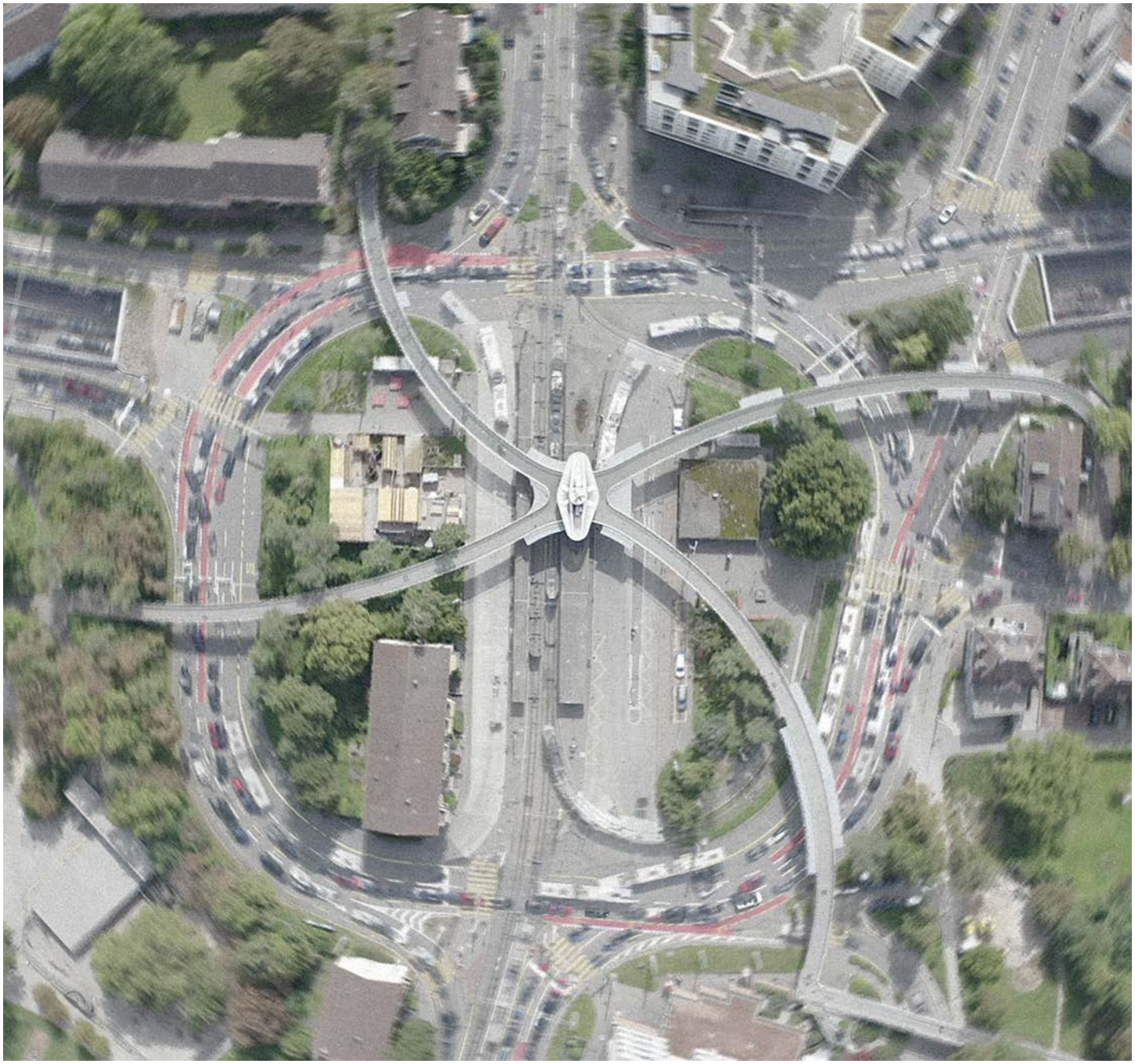
Besides its traffic challenges, the communal "Richtplan" has the goal of transforming the street corridors around Bucheggplatz into an "urban core area". These are areas with a strong mix of uses that form inner-city centers with a concentration of public-oriented uses at ground-floor. Additionally, these areas are characterized by the urban block typology with very high building density.[34] These goals are hardly achievable at Bucheggplatz. Firstly, the buildings around Bucheggplatz are predominantly residential without the possibility of ground-floor use. Secondly, the traffic construction lines do not allow building. Due to its traffic-oriented planning, approx. 4'000 m^2 does not serve any concrete function. These spaces are mostly the remaining spaces of turning radii necessary for roundabouts.

LEART SEJDIU, COMPARISON OF PUBLIC SPACES IN ZÜRICH (2023)

The interlocking of public and private interests became conflict-ridden during the rise of mobility and the expansion of the city. While some terrains were upgraded and made buildable, others remained on the downside of development. Even though Bucheggplatz is deeply rooted in socio-political and architectural developments, it always was a matter of engineering efficiency with no reflection of social and aesthetic considerations. As a result, it misses vital urban qualities. It is evident that Bucheggplatz was not designed within its urban context. Its urban fabric is loosely defined, with fragmented and dispersed buildings around its periphery. Although it is a highly connected place, it does not facilitate easy pedestrian movement due to the high traffic flow around it.

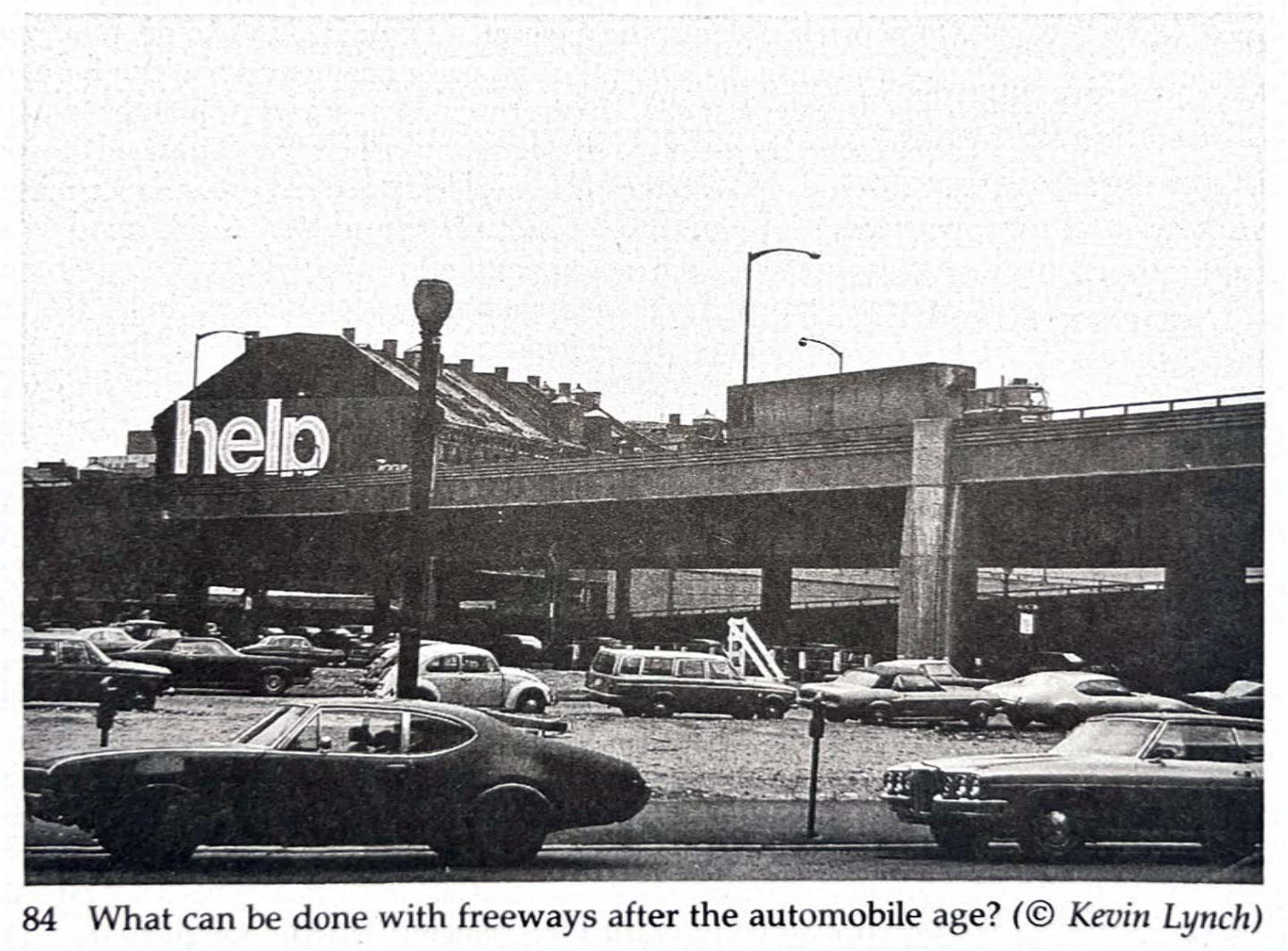
LEART SEJDIU, THREE MINUTES AT BUCHEGGPLATZ (2023)

The lack of urban qualities is strikingly apparent on site. The average time spent is three minutes and it is experienced in continuous movement, disrupted by short stops. While some commuters impatiently stare at their cell phones, others run to catch their connection. There is no reason to stay, the objective is to leave as fast as possible. Additionally, the vehicles circling Bucheggplatz create a hermetic barrier. Although permeable, it shields Bucheggplatz from activities within surrounding buildings. The nature of a public square, bringing people and diverse activities together, seems to be negated by the function of transporting. It seems that everything has been done to isolate Bucheggplatz from its surroundings. It is a vast area of empty space, serving only one function: movement, and nothing more.



LEART SEJDIU, THREE MINUTES ABOVE BUCHEGGPLATZ (2023)

Bucheggplatz vigorously tries to convey the image of movement, to the point that it becomes seemingly purposeless and excessive: The sweeping pedestrian bridge leading to practically nowhere; the omnipresent noise and stench created by the constant stop-and-go motion of the circling traffic; and the over-dimensioned infrastructure fragmenting Bucheggplatz into small and unusable spaces. These issues have become its identity. They are a result of off-the-shelf engineering solutions during the post-war period. It is an expression from a time when the logic of movement, particularly of the automobile, was the driving force shaping the city. Imprinted permanently in the territory, Bucheggplatz stands as a monument to movement.



84 What can be done with freeways after the automobile age? (© *Kevin Lynch*)

KEVIN LYNCH, WHAT CAN BE DONE WITH FREEWAYS AFTER THE AUTOMOBILE AGE? (1990)

Initially conceived with a primary focus on engineering efficiency, the area has become an important yet problematic node in the city's transportation network. The dominance of vehicular traffic, both in terms of physical space and environmental impact, has resulted in an area that lacks the vibrancy and multi-functionality of a well-integrated urban space. The historical and ongoing struggles to reconcile the demands of traffic and urban quality underscore a persistent issue: the need to navigate the balance between urban mobility and creating spaces that enhance urban quality.

It is time to view Bucheggplatz not only as a traffic problem. The issues demand a holistic approach that combines efficient mobility with socially enriching urban development.

NOTES

1. Hans-Rudolf Galliker, Tramstadt (Zürich: Chronos, 1997), 39-41.

2. Galliker, Tramstadt, 21.

3. Galliker, Tramstadt, 90.

4. Galliker, Tramstadt, 41.

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7. Galliker, Tramstadt, 175

8. Galliker, Tramstadt, 184-187

9. Jean-Daniel Blanc, Die Stadt – ein Verkehrshindernis (Zürich: Chronos, 1993), 25.

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11. Blanc, Die Stadt – ein Verkehrshindernis, 25-27.

12. Blanc, Die Stadt – ein Verkehrshindernis, 19.

13. Blanc, Die Stadt – ein Verkehrshindernis, 49.

14. Blanc, Die Stadt – ein Verkehrshindernis, 76-77.

15. Blanc, Die Stadt – ein Verkehrshindernis, 91-92.

16. Blanc, Die Stadt – ein Verkehrshindernis, 38.

17. Blanc, Die Stadt – ein Verkehrshindernis, 180-183.

18. Blanc, Die Stadt – ein Verkehrshindernis, 202-205.

19. Blanc, Die Stadt – ein Verkehrshindernis, 110-11.

20. Blanc, Die Stadt – ein Verkehrshindernis, 124-125.

21. Blanc, Die Stadt – ein Verkehrshindernis, 124-125.

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25. Andreas Horni, David Charypar, Francesco Ciari, Kay W. Axhausen, Konrad Meister and Michael Ballmer, "Wirkungen der Westumfahrung Zürich", Arbeitsberichte Verkehrs- und Raumplanung 550 (February 2009): 78-80. https://doi.org/10.3929/ethz-a-005763454.

26. Florian Schoop and Jan Hudec, "Die grosse Wende am Rosengarten – nach dem Nein zum Milliardenprojekt herrscht Ratlosigkeit," NZZ, February 9, 2020, https://www.nzz.ch/zuerich/rosengarten-zuerich-nach-dem-nein-herrscht-ratlosigkeit-ld.1539505?reduced=true.

27. Martin Bürlimann and Kurt Gammeter, Wipkingen – Vom Dorf zum Quartier (Zürich: Wibichinga, 2006), 130-132.

28. Tiefbauamt der Stadt Zürich, Gewinnung und Analyse von Daten zur Qualität und Nutzung der öffentlichen Räume in der Stadt Zürich (Zürich, 2016), 17, https://www.stadt-zuerich.ch/ted/de/index/taz/publikationen_u_broschueren/bevoelkerungsbefragungen.html.

29. Kanton Zürich, Amt für Raumentwicklung - Abteilung Geoinformation, Gesamtverkehrsmodell Kanton Zürich (2023), https://maps.zh.ch.

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34. Stadt Zürich, Hochbaudepartement, Richtplantext, (Zürich, 10. April 2021), https://www.stadt-zuerich.ch/hbd/de/index/staedtebau/planung/richtplanung/kommunaler-richtplan/richtplantext-und-richtplankarte.html#genehmigte_dokumentekommunalerichtplanung.

FIGURES

Figure 1: Black Figure Plan of Zürich in 1849, drawing, 2023. From: Zürich mit Umgebung 1849, https://images.iiifhosting.com/iiif/bf41a26e2be7e64306538aac9d1234868e4b9e6da3db6aad87498b7ff40e4566/. Adapted.

Figure 2: Railway Network in 1909, (Galliker, 1997, 117). Reprinted.

Figure 3: Stadtpolizei Zürich, Verkehrsunfall in der Seefeldstrasse, 1925, photograph, Stadt Zürich, Präsidialdepartement, https://www.stadt-zuerich.ch/prd/de/index/stadtarchiv/bildergalerie/stadtpolizei--erkennungsdienst.html.

Figure 4: Gloor Gottfried, Bahnhofquai, 1939, photograph, https://www.e-pics.ethz.ch/index/BAZ/BAZ_72200.html.

Figure 5: Karl Pirath and May-Erich Feuchtinger, Kraftverkehr 1952, (Galliker, 1997, 213).

Figure 6: Wolf-Bender's Erben, Expressstrassen Ypsilon, 1959, photograph, https://www.e-pics.ethz.ch/index/BAZ/BAZ_62948.html.

Figure 7: Michael Wolgensinger, Sihlhochstrasse im Bau, 1969-1973, photograph, https://www.e-pics.ethz.ch/index/BAZ/BAZ_448449.html.

Figure 8: On a car-free sunday in 1973, campers use a empty highway in Switzerland, photograph, https://www.nzz.ch/wirtschaft/erdoelpreisschock-schlimmer-als-in-den-1970er-jahren-ld.1681123?reduced=true.

Figure 9: Sozialdemokratische Partei, Title Image for Anti-Ypsilon Campaign, 1974, (Loderer, 2004, 37). Reprinted.

Figure 10: Westtangente im Bau, approx. 1969, https://www.e-pics.ethz.ch/index/BAZ/BAZ_241790.html.

Figure 11: Comet Photo AG, Rosengartenstrasse, 1970, photograph, https://www.e-pics.ethz.ch/index/ETHBIB.Bildarchiv.ID/ETHBIB.Bildarchiv_743412.html.

Figure 12: Benedikt Loderer, Bauliche Entwicklung in Zeitschnitten, 2016, https://ethz.ch/content/dam/ethz/special-interest/arch/department/Studium/PDF/masterarbeit/themen/Masterarbeit_A_Christiaanse_HS16.pdf.

Figure 13: Work Zone Management, 2023, drawing. From: Quartieranalyse, https://maps.zh.ch. Adapted.

Figure 14: Traffic Volume Model, 2023, drawing. From: Gesamtverkehrsmodell, https://maps.zh.ch. Adapted.

Figure 15/16: Multidimensional Traffic Network, 2023, drawing.

Figure 17: Connections in and out of Bucheggplatz, 2023, drawing. From: Liniennetzplan ÖV der Stadt Zürich, https://www.stadt-zuerich.ch/vbz/de/index/fahrplan/liniennetzplaene.html. Adapted.

Figure 18: Logistics of Bucheggplatz, 2023, drawing.

Figure 19: Passenger and Uses compared to Ground Floor m^2, 2023, graph. Data From: Kanton Zürich, Gesamtverkehrsmodell Kanton Zürich (2023) and Verkehrsbetriebe Zürich VBZ, züri-linie 2030 (Zürich, 2013).

Figure 20: Comparison of Places in Zürich, 2023, drawing.

Figure 21: Three Minutes at Bucheggplatz, 2023, stills from video.

Figure 22: Three Minutes above Bucheggplatz, 2023, stills from video.

Figure 23: Kevin Lynch, What can be done with freeways after the automobile age?, 1990, photograph, (Alonzo, 2018, 117). Reprinted.

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