

Keywords Zurich, 19th century, urbanization, regulation, collective urban space

Abstract This article explores the emergence of collective roof terraces in Zurich, known as *Dachzinnen*. It delves into the evolution of Zurich's urban landscape during the 19th century, focusing on the development of these collective urban spaces. During the city's period of rapid industrialization, urban space became increasingly scarce, and Zurich was confronted with considerable hygiene and health problems. Therefore, these accessible roof terraces emerged as additional outdoor spaces, i.e. as pragmatic solutions and symbolic responses to pressing urban problems such as cramped living conditions, overcrowding, and inadequate ventilation. This article examines the historical context and regulatory framework to understand how *Dachzinnen* transitioned from ad hoc additions to standardized features integral to Zurich's architectural fabric. Exemplified by Zurich's first municipal-subsidized housing project, *Limmat 1*, it investigates how these roof terraces have become a standard element of collective urban space through stipulation in the building permit process, balancing practical needs with visionary urban planning and design, i.e. the interplay between necessity, regulation, and societal ideologies in shaping collective urban spaces.

Résumé Cet article explore l'émergence des toits-terrasses collectifs à Zurich, connus sous le nom de *Dachzinnen*. L'article se penche sur l'évolution du paysage urbain zurichois au cours du XIX^e siècle, en mettant l'accent sur le développement de ces espaces urbains collectifs. Avec l'industrialisation rapide de la ville, l'espace urbain est devenu de plus en plus rare et Zurich a été confrontée à des problèmes d'hygiène et de santé publique. Ces toits-terrasses accessibles sont donc apparus comme des espaces extérieurs supplémentaires, réponses à la fois pragmatiques et symboliques à des problèmes urbains urgents tels que l'exiguïté des logements, leur surpopulation et leur ventilation inadéquate. Cet article examine le contexte historique et le cadre réglementaire pour comprendre comment les *Dachzinnen* sont passés du statut d'ajouts ponctuels à celui d'éléments standardisés faisant partie intégrante du tissu architectural zurichois. Le premier projet de logement subventionné par la municipalité de Zurich, *Limmat 1*, illustre comment ces toits-terrasses sont devenus un élément courant dans la ville, conciliant besoins pratiques et planification urbaine visionnaire, au croisement entre nécessité, réglementation et idéologies sociales qui façonnent les espaces urbains collectifs.

Collective Urban Space: The Zurich *Dachzinne*

Introduction

Zurich's distinctive roof terraces, or *Dachzinnen*, are a testament to the city's dynamic development amidst the impetuous movements of urbanization and industrialization in the 19th century. In contrast to other Swiss cities, the cityscape of Zurich shows a remarkable concentration of these urban spaces, reflecting both pragmatic responses to socio-economic challenges and deliberate urban planning decisions. The present work examines the development of Zurich's *Dachzinnen* during the 19th century and traces their emergence under the dual pressures of changing land-use patterns and urban expansion. Consequently, the development of roof terraces in Zurich is closely linked to the transformation of public space utilization in the city: economic forces and soaring land values in Zurich have catalysed the gradual displacement of traditional communal spaces such as public wells and unregulated green areas, which once served as common hubs for household tasks such as laundry. As these spaces succumb to urban development pressures, the city's fabric undergoes a transformation, reshaping the dynamics of daily life and community interaction. As a result, rooftop spaces are emerging as new hubs for urban collective use.

In short, the progression can be delineated as follows: until the mid-19th century, most of Zurich's urban public squares were

provided with water fountains and served as venues for washing and drying activities. Subsequently, due to stricter hygiene regulations, washing boats (*Waschschiffe*) replaced the public wells while provisionally constructed roof platforms served as spaces for drying laundry. With the emergence of private water supplies in the last decades of the 19th century and the escalating displacement of communal, public space in the cities, the use-activation of roofs increased significantly, especially through the construction of *Dachzinnen*. Therefore, the following questions guide this research: How did Zurich's 19th-century urban renewal measures affect the use of collective space in the city, and how did the conversion of roofs into *Dachzinnen* compensate for the displacement of public space? How did regulatory frameworks favour the integration of these specific rooftop terraces into the existing urban fabric and emerging neighbourhoods, and finally, what role have they played until today in promoting social engagement and urban sustainability in contemporary Zurich?

The article is organized into two sections that sequentially delve into different aspects of the topic. The first part examines the historical impacts of industrialization on Zurich's urban fabric, focusing on population growth, hygiene issues, and public health concerns. It explores the changing

patterns of urban space utilization, particularly through the lens of common domestic household chores such as laundry activities and the emergence of *Dachzinnen* as a response to tightening legal requirements on the collective use of public space. Consequently, it investigates the retrofitting of urban structures, i.e. the conversion of rooftops into *Dachzinnen*, as a means to compensate for the loss of collective urban spaces. The second part analyses regulatory frameworks that constituted the integration of *Dachzinnen* into Zurich's urban fabric with a focus on the 1893 Cantonal Building Act and the decisions recorded in city council minutes. It examines the deliberate design integration of roof terraces in Zurich's first municipally subsidized housing project, Limmat 1, built in 1907. This planned integration is contrasted with the more utilitarian role that roof terraces played within speculative housing projects of the 1890s. In other words, how the *Dachzinne* developed as a means to an end due to space constraints and economic pressures in Zurich's expanding working-class neighbourhoods. Over time, these rooftop spaces were intentionally designed into new buildings, serving as communal hubs that fostered collective living. The article concludes by reviewing the contemporary relevance of these rooftop terraces as hubs for social interaction, political discourse, urban sustainability, and their return in new construction and renovation projects in present-day Zurich.

Methodologically, the article draws on historical documents, archival records, and scholarly literature to trace the development of Zurich's specific urban forms and the emergence of *Dachzinnen*. By examining architectural precedents, construction techniques, and visual documentation, the article further investigates the architectural origins and typologies of *Dachzinnen*. This historical research provides the foundation for understanding the socio-economic and legal condition in which *Dachzinnen* developed and their importance within Zurich's urban historiography.

The Development of Zurich's Dachzinne under the Impact of 19th-Century Industrialization

Navigating Challenges of Growth, Hygiene, and Public Health

Zurich's 19th-century industrialization catalysed the transformation of the city's historic old town into a thriving industrial hub, fuelling rapid population growth and urban expansion (Senti, 1939). Soon, cotton, textile, and silk factories arose beside the River Limmat (Felder, 2007). These emerging water-powered mills coupled with the expansion of the city's railway network completely altered the patterns of urban development and usage as the city adapted to a shifting liberal market and incoming capital (Kurz, 2021). Characterized by its maze of narrow alleyways and an already dense yet increasingly densely populated urban fabric, Zurich's historical neighbourhoods faced growing problems of worsening air quality. Overcrowding, lack of open spaces, and the structural density of both the existing fabric and the tenement blocks that sprouted up in working-class neighbourhoods as industrialization progressed gave rise to growing hygiene and public health concerns (Stadtarchiv Zürich, 1808). All of this falls within the context of unregulated and uncoordinated building activities. The existing Building Act of 1863 was primarily aimed at steering large-scale urban development by defining large road networks, building lines, and distances, but without sufficiently addressing the more local urban scale. A report by the municipal water commission revealed that contaminated water sources were the leading cause of typhoid epidemics (Wyss *et al.*, 1885). In addition, between 1890 and 1894, the infectious diseases that caused the most deaths in Switzerland were diphtheria, tuberculosis, and pertussis (Bundesamt für Statistik, 1897). Respiratory diseases were primarily exacerbated by cramped and poorly ventilated living conditions, while diseases such as cholera and typhoid predominantly resulted from unsanitary infrastructure (Bundesamt für Statistik, 1894). The local government thus took significant steps to enhance its water

infrastructure, thereby embarking on the sanitary revitalization of the city (Stadtarchiv Zürich, 1834). As a result, concurrent with the development and expansion of the municipal water supply infrastructure, the patterns of urban space utilization drastically changed.

Changing Patterns of Utilization and Displacement of Public Space

In 19th-century Zurich, publicly accessible potable water fountains were essential to public life. Situated in generous public squares, these infrastructures facilitated access to communal water resources in the city. In addition, these squares provided space for community activities or household chores such as washing and hanging laundry. Until the end of the 19th century, these tasks bore profound spatial implications. The historical drawing by Johann Konrad Werdmüller¹ portrays this spatiality of 1871 Zurich (Fig. 1): the image depicts the collective activity of laundry drying in a public area amidst medieval building structures. The changing urban landscape of the growing city marked by closed perimeter block developments and rigid street designs with established pavements, organizes the street view in a hierarchical manner, leaving no room for unstructured green spaces. A tree is visible behind a fence in a confined green space, providing a contrast to the city's newly adopted concept of speed, a result of road expansion and enhancement. This strongly differs from the scene unfolding at the centre of the drawing—following an entirely different understanding of order and pace. It depicts insights into the intricate processes involved in laundering clothes, encompassing various steps such as transporting laundry to and from washhouses using small handcarts. The image also illustrates the gendered division of labour within this complex system, revealing the intricate and time-intensive nature of these tasks during that era, in which both men and women were involved. This example emphasizes the spatial impact and collective nature of these

specific domestic tasks and the crucial role of public urban spaces within the changing urban network of 19th-century Zurich.

As industrialization progressed, new cleanliness laws emerged to prevent public wells from being contaminated by soap or other forms of dirt, including waste resulting from the cleaning of horse-drawn carriages (Stadtrat Winterthur, 1843; Wieser, 1998). However, as most homes at the time were still without a direct running water supply, commercial laundries soon entered the market. Historical records from the city already reveal that, in addition to the public fountains, the River Limmat was also used to launder clothes. As a consequence of advancing industrialization, steam engines, promoted in Zurich by the Swiss mechanical engineering company Escher-Wyss & Cie.,² soon dominated the burgeoning market. Hence, small timber washing boats (*Waschschiffe*) emerged in the city towards the middle of the 19th century, combining waterpower and steam engines to operate washing machines. A prominent example among these new urban elements is the washing boat designed by Gottfried Semper³ between 1857 and 1862 (Fig. 2). Yet, “no laundry was allowed to be hung out to dry on the ship” (Wieser, 1998: 37). The introduction of these washing boats revolutionized the washing aspect of laundry, offering a more efficient and convenient way to clean clothes—while entirely neglecting the most space-consuming part of this process.

At the same time, tightened regulations further limited the use of public roads and squares: the Zurich Private Law of 1854, specifically the Third Book on Property Law, included rules for servitude, footpaths, and carriageway rights (Grosser Rat, 1854); while the Road Act of 1871 introduced additional restrictions by prohibiting the use of airspace (*Luftraum*) or non-built space within the public realm (Regierungsrat, 1871). In 1877, health authority ordinances

² Escher, Wyss & Cie., founded in 1805 by Hans Caspar Escher and Salomon von Wyss.

³ 1803–79, German architect and theorist known for his significant contributions to architectural theory and design in the 19th century.

¹ 1819–92, Swiss copper engraver and painter.



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Fig. 1

Baugarten. Drawing:
J. C. Werdmüller, 1871.
© Baugeschichtliches
Archiv Zürich. Record Name
BAZ_055944.

Fig. 2

Treichler washing boat.
Photo: unknown, circa 1870.
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Archiv Zürich. Record Name
BAZ_098957.

Fig. 3

Zürich Rennweg. Photo:
Landolt-Arbenz, 1959.
© Baugeschichtliches
Archiv Zürich. Record Name
BAZ_057134.

Fig. 4

Canal and Widmann Palazzo
at St. Canciano, photo: Carlo
Naya, 1860–1880. © J. Paul
Getty Museum. Object number
84.XP.677.22.

which emphasized cleanliness, further tightened the restrictions of public space use (Regierungsrat, 1877). As a result, the traditional outdoor activities of drying laundry were pushed into the private realm: specifically, into the attics and onto temporary roof platforms built for this purpose. Although the emergence of commercial laundries facilitated water access, it failed to substitute the essential public space required for line-drying clothes. As a result, urban space was redefined: in response to shifting legal conditions, laundry activities have expanded from public areas to the river through the use of the commercial washing boats (*Waschschiffe*), and rooftops have become places for line-drying clothes.

In parallel, the rise of industrialization came with challenges of accommodating the rapid surge in population and the escalating demand for housing, commercial, and industrial spaces. Urban land became increasingly scarce and valuable, rendering it an increasingly prized asset. Following the principles of rational urban design, new morphologies surpassed the built structures not only in height and density but also at the expense of public spaces. New street grids divided previously spacious urban squares into plots for dense perimeter block developments for residential and commercial use. Consequently, the pressure on land use on one side and hygienic urban renewal on the other ushered in a wave of massive urban transformation in the dense urban fabric of the historical city.

In the course of the city's intensive efforts to improve the water supply (Stadt Zürich, 1892), an increasing number of households eventually had access to running water and in-house laundry facilities, as documented in the water supply annual report from 1890 (Stadtrat Zürich, 1890). It was now possible to conduct laundry chores at home or at commercial laundries. However, neither provided space to hang up wet clothes. The existing urban fabric, characterized by narrow and deep structures, already lacked adequate fresh air intake and ventilation. With these changing patterns of urban space utilization, this issue was compounded by the limited use of public spaces and the consequential need to dry laundry within

the apartment, which further exacerbated already congested living conditions. Moreover, this deficiency allowed humid air to accelerate the spread of respiratory ailments previously mentioned.

In other words, the measures towards urban renewal caused the displacement of public urban spaces for community activities and household tasks, such as laundry. And as such, these measures resulted in a loss of shared urban spaces. The steps taken to improve hygienic conditions ironically led to a deterioration in living conditions in the densely populated city centre. The introduction of new legal restrictions on public space usage, coupled with the increasing scarcity of such spaces, had profound implications for the urban fabric. It spurred the development and widespread adoption of *Dachzinnen*, leading to the transformation of attics and apartment block roofs into functional outdoor areas. As a practical solution to the changing urban landscape, simple wooden terraces were increasingly installed on the rooftops of the existing fabric (Fig. 3).

These mounted timber platforms were related to a construction method known as *altana*. In visual documentation captured by the Italian photographer Carlo Naya⁴, the *altana* as a simple, multifunctional timber construction is evident both atop modest residential structures and adorning the luxurious palatial residences of Venice's noble class (Schumann and Sonne, 1996) (Fig. 4). The *altana*'s architectural simplicity lay in its four rectangular pillars, adeptly offsetting the roof's slope. This Venetian construction method, in which wooden belvederes, or *altanas*, were placed on top of the existing building, was adopted during Zurich's mid-19th-century era of industrialization and urban restructuring. The transfer and application of this specific building technique enabled easy and direct access to fresh air and open space (Fig. 5). As retrofits to the existing built structure, these emerging roof terraces triggered a change in the reinvention of collective urban space in late

4 1816–82, Italian photographer known for capturing architectural details and urban scenes, including the construction techniques of Venetian buildings.

19th-century Zurich without significantly altering the buildings.

Highlighted in technical manuals from that period, the practicality of *Dachzinnen* for air-drying was emphasized, showcasing advantages such as space efficiency and the promotion of hygiene (Hausbrand, 1898). Therefore, these retrofits were built prototypes for what evolved into the more elaborate urban element known as *Dachzinne*—the upper end of the roof, with all-round railings and usable, pre-installed washing lines (Fig. 6). It is essential to understand that the emergence of *Dachzinnen* was intricately linked to Zurich's changing socio-economic conditions during that period, affecting various societal groups. The city's rapid industrialization, characterized by the proliferation of factories, financial institutions, and commercial sectors, alongside the expansion of transportation and mobility networks and the development of working-class neighbourhoods, significantly shaped the distribution of wealth and resources.

Parallel to these external pressures on the city, broader societal trends taking hold throughout Western Europe impacted the internal dynamics of urban space use, leading towards a greater emphasis on private living (Ariès and DUBY, 1987). And while social norms shifted towards prioritizing privacy, communal amenities such as public laundry facilities gradually receded from the urban fabric, while densification efforts further displaced public spaces (Meyer *et al.*, 2001). In other words, the transformation of Zurich's urban fabric was not solely a response to external pressures or urban planning decisions but also reflected a fundamental shift in societal preferences. This transition not only altered the utilization of space but also redefined the very essence of urban life from predominantly public to increasingly private-oriented.

Manifestation as Urban Element of Collective Use

As this article's first part revealed, *Dachzinnen* were primarily implemented as practical solutions to the issues arising from the densification of Zurich's old town and the displacement of public space, up

until the mid-19th century. It was only with the emerging 1893 Building Act that *Dachzinnen* became the standard design element for mansard roofs, especially in the economically efficient perimeter block developments. As a result, *Dachzinnen* manifested in Zurich's developing urban fabric as distinct elements of collective urban space. The following section analyses the tensions between regulatory efforts to address pressing urban challenges, such as housing shortages, while also aiming to stand as a corrective to liberal-economic urban development, which had incentivized speculative housing construction for a long time.

Zurich's 1893 Building Code: Pioneering Blueprint

As Zurich's infrastructure expanded, industries moved their operations from the city centre to the surrounding municipalities. This shift spurred urbanization in the rural areas, sparking significant market-driven urban redevelopment measures. Efforts included meticulously designing new road networks and linking the historic centre to the expanding areas beyond. The expansive plains surrounding Zurich, especially the areas of Wiedikon and Aussersihl, provided a quasi-blueprint for the expanding construction endeavours and the transition of agricultural lands into working-class neighbourhoods of large-scale perimeter block developments. Unable to effectively govern the complexities of urban growth, the regulations in place were strained by the rapid expansion of the city's population and infrastructure. As a result, Wiedikon and Aussersihl faced increasing financial challenges due to the enormous number of new housing projects, the associated population growth (Kurz, 2021), and subsequently, the necessary provision of public amenities, infrastructures, and transport.

This condition only changed with the first urban merger (*Eingemeindung*) of Zurich and its nine neighbouring municipalities in 1893. Through popular vote in favour of the urban merger, Zurich became the first city in Switzerland to surpass 100,000 inhabitants. This incorporation, which also expanded the city's administrative borders, simplified



Fig. 5
Uraniastrasse. Altana on rooftop in the centre-right.
Photo: Ernst Linck, 1908.
© Baugeschichtliches Archiv Zürich. Record Name BAZ_101165.

Fig. 6
Oetenbachgasse. Urban redevelopment measures: implementing the new urban element of the *Dachzinnen* in the historical city centre of Zurich. Photo: Adolf Moser, 1912. © Baugeschichtliches Archiv Zürich. Record Name BAZ_055293.

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the distribution and allocation of the public budget for Zurich's growth. Before that, the neighbouring municipalities of Zurich were administratively independent and thus also responsible for governing public budgets individually. The concomitant implementation of the 1893 building code harmonized the new administrative boundaries, laid down the foundation for the city's development trajectory, and provided the framework for shaping Zurich's future urban landscape. As mentioned in the previous section, Zurich's urban expansion and redevelopment largely occurred at the expense of publicly and collectively used open spaces. It was only with the 1893 Building Act that the city established the legal means to strengthen public interests against private landowners by integrating the right of expropriation in connection with specific development plans for the newly emerging neighbourhoods. However, even with the 1893 law, the perimeter block was still the desired urban form due to explicit requirements for "assembly" (Kantonsrath Zürich, 1893: 188), namely the assembling of buildings within the same perimeter block. This is where social conventions and historical testimonies of urban space utilization, such as the washing and drying of laundry in public spaces, intersect with urban architectural developments: with the 1893 Building Act, the *Dachzinne* established itself as the standard element for roof finishes in the emerging perimeter block developments. Thus it became a paramount aspect of the (re)distribution of collective urban spaces in the city. The following section analyses the development of this specific urban design element from a pragmatic retrofit solution to a deliberate, integrated component of the growing city.

The Implications of Dachzinnen for Social Equity and Inclusion

By the turn of the century, Zurich city council had proposed a series of measures to address the pressing housing shortages (Stadtrat Zürich, 1907b). Consequently, aligned with the economic-liberal ideologies prevalent during this period, a concerted effort was made to optimize the utilization

and development of plots and facilitate the establishment of rationalized building configurations. The systematic subdivision of building land and straight road networks and delineating public space into streets, pavements, or public squares was pivotal in (re)shaping Zurich's envisioned urban landscape. Instructions such as paragraph 63 of the 1893 Building Act stipulated that "no building shall protrude beyond a line extending backward at a 45-degree angle from the cornice edge located at the maximum height" (Kantonsrath Zürich, 1893: 190), already indicating the hypothetical use of attic spaces. Furthermore, the 1893 law specified that dwellings could only be constructed "within the first attic room and not above the valley beam" (*ibid.*: 192). This demonstrates that the typically two-storey mansard roof would be the intended urban configuration for Zurich's urban development. Consequently, mansard roofs allowed for the conversion of attics into additional living areas, turning them into the defining feature of housing speculation and economic exploitation in Zurich by the late 19th century.

Implementing perimeter block developments and strictly gridded street layouts limited the utilization of public space to specific functions, mainly focusing on transportation and movement. Any alternative uses of public space, especially for private purposes, were categorically excluded by law (*ibid.*: 182). Based on these assumptions, it can be argued that due to the city's endeavours to reorder, restructure, and govern urban development, the *remaining space* above the 45-degree angle of the mansard roofs manifested as *Dachzinne* in the developing urban fabric. Thus this urban element emerged as a product of the deficits of the 1893 Building Act. The *Dachzinne* compensated the tensions between regulatory efforts to address urban challenges and their impacts on social inclusion, social networks, and neighbourhood interactions.

Limmat 1

The development of the 1907 Limmat 1 housing project highlights a shift towards Zurich's social reformation and municipal intervention policies. The city's first housing estate was subject to this new order, built based on municipal support: "The city subsidizes the establishment of healthy and affordable housing" (Stadtrat Zürich, 1907a: 181). This project, which was put forth for a public referendum by Zurich's city council, underscored the aforementioned initiatives to foster a more socially inclusive built environment. The subsequent extract from the referendum proposal clearly delineates the implementation strategy by emphasizing that "fundamental principles are to be applied: avoidance of luxury and the greatest possible consideration for solidity and collectiveness" (Stadtrat Zürich, 1907b: 9).

The buildings are duplex houses with a shared staircase, consisting of a ground floor, three storeys and a partially finished attic. All houses have full basements, and the basement level contains storage rooms for each apartment. The unfinished part of the attic [i.e. the first attic level underneath the valley beam] contains laundry rooms and storage compartments for the apartments and the flats, whereas the second attic space above the valley beam provides a large room for drying laundry, which extends over the entire house. A spacious Dachzinne stretches across all the houses in a perimeter block. (ibid.: 8) (Fig. 7)

In that same report, the city council also indicated that the city could either financially subsidize existing housing cooperatives to provide affordable housing or directly engage in providing affordable housing (ibid.: 7). Thus the Limmat 1 project represented Zurich's initial foray into addressing housing needs through policy intervention. As a result, the *Dachzinnen*, which manifested as urban elements in the perimeter block developments of Zurich's working-class neighbourhoods through the 1893 Building Act, evolved into urban spaces for social interaction and collective use by the early 20th century. Consequently, they became deliberate tools for fostering

social encounters and facilitating community engagement within the growing city.

Community Cohesion, Social Dynamics, and Urban Sustainability

The built heritage of Zurich's roof terraces reveals a dynamic evolution, transitioning from spaces primarily used for household chores in the 19th century to contemporary hubs of diverse activities. Furthermore, in response to climate change and pandemics, *Dachzinnen* and shared roof terraces have transformed into vibrant leisure spaces and hubs for social interaction. Today, these rooftop spaces serve as green oases in Zurich's urban environment, contributing to biodiversity preservation and improved air quality while fostering community engagement. Serving as a platform for advancing political causes and fostering discourse within the community, *Dachzinnen* also played a pivotal role in shaping local politics (Widmer, 2023; 1989) (Fig. 8). In the 1980s, during the Zurich Youth Movement, *Dachzinnen* emerged as significant platforms for activism. They were used to protest against gentrification, highlight the issue of housing shortages, and advocate for more self-governed spaces within the city. A key development during this period was the practice of hanging banners on balconies and *Dachzinnen* railings to broadcast political messages—a tradition that continues to this day. (Fig. 9)

Conclusion

In a critical assessment of Zurich's urban evolution, the proliferation of *Dachzinnen* amidst 19th-century industrialization unveils a complex narrative shaped by socio-economic challenges. While these rooftop terraces symbolize a pragmatic response to pressing urban issues such as deteriorating living conditions and sanitation concerns, their emergence reflects deeper structural problems and ideological underpinnings.

The rapid industrialization of Zurich brought about a surge in population growth and spatial limitations, exacerbating hygiene and public health challenges. Moreover, the 19th-century urban renewal measures had a significant impact on the use of collective space in Zurich, which eventually led to



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Fig. 7

Heinrichstrasse. Courtyard perspective of the Limmat 1 municipal housing development, highlighting clothesline installations on the shared *Dachzinne*. Photo: Hochbauamt der Stadt Zürich, 1909. © Baugeschichtliches Archiv Zürich. Record Name BAZ_092723.

Fig. 8

Activists on the roof of the squatted house with graffiti "alles wird Gut" Wohlgroth-Areal Zurich. Photo: Gertrud Vogler, 1992. © Schweizerisches Sozialarchiv. F 5107-Na-13-140-010.

Fig. 9

Giovanni Blumer on the roof of a squat on Venedigstrasse in Zurich. Political rooftop activism. Photo: Ueli Weiss, 1971. © Schweizerisches Sozialarchiv. F 5063-Fc-011.

deteriorating living conditions. *Dachzinnen*, initially established as a practical solution to cramped living spaces and inadequate access to fresh air, became symbolic of a city grappling with the consequences of unregulated urbanization. The development of *Dachzinnen* emerged in Zurich as a response to compensate for the shortage of public space caused by urban renewal and expansion. In addition, the scarcity of urban space and evolving patterns of urban space utilization intensified the demand for efficient land utilization. Consequently, previously collective urban areas, exemplified by public wells featuring expansive public space for drying laundry, were displaced from the public sphere and transposed into the private realm. And while efficient land utilization did not envision providing ground for open spaces of social interaction, such as hanging laundry, *Dachzinnen* practically emerged as urban elements of housing speculation.

Activating the roof as an accessible semi-public yet collectively used space in the urban fabric and integrating *Dachzinnen* was not solely a product of necessity but also manifested legal frameworks such as the 1893 Building Act. While the regulatory measures ostensibly aimed to address broader socio-economic ideologies then prevalent, they transitioned into a distinct vision of how the city should develop by explicitly promoting social inclusion and community engagement. Projects such as the municipal housing development Limmat 1 exemplify the city's attempts to reconcile these tensions by providing affordable housing, including the deliberate establishment of collective spaces through *Dachzinnen*. These regulatory frameworks, set in the 19th century, favouring the integration of rooftop terraces into the urban fabric, still play an essential role in providing urban outdoor space in contemporary Zurich. They manifested as the standard building elements of the rapidly expanding working-class neighbourhoods, which now characterize entire neighbourhoods in their urban and architectural design. Today, the *Dachzinnen* offer unique opportunities for social interaction and community building in an otherwise densely populated city, while the conversion of roofs into *Dachzinnen*

has also contributed to the reduction of the urban heat island effect, which is a significant challenge in many cities worldwide.

The analysis of the proliferation of *Dachzinnen* offers insights into Zurich's urban history and the complexities of urban development. While they undoubtedly addressed immediate challenges, their legacy prompts a critical examination of the broader implications of urban planning decisions. As Zurich continues to evolve, the story of *Dachzinnen* serves as a reminder of the ongoing quest for balance between pragmatism and vision in urban design.

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