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Her City Weimar. A Gender-Sensitive, Participatory Study of a Mid-sized German Town

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Abstract

The global Her City initiative provides a framework for gender-sensitive urban planning, which seeks to create inclusive and accessible public spaces that meet the needs of all residents, particularly women and girls, who have often been overlooked in traditional urban design. This paper presents the results of Germany's first Her City initiative in Weimar— a city rich in cultural heritage with a vibrant tourism sector that strongly influences its public spaces. It contributes to existing studies in this field by providing an innovative methodological analysis of Weimar's public spaces through gender-sensitive, data-driven, and participatory processes, with the aim of identifying strategies for improvement. The Her City Toolbox was utilised and extended through a participatory citizen science approach with 18 young women and the collection of gender-sensitive data regarding public space usage. Data collected from two city walks, three workshops, open space assessments as well as measurements of people's movements and stationary activities were triangulated to reveal five thematic fields that highlight how public spaces are failing to meet the needs of women and girls. These include (1) Facilities & Furnishing, (2) Representation & Appreciation, (3) Security & Social Control, (4) Mobility & Accessibility, and (5) Visibility & Appropriation. Collaborations with local stakeholders combined with communication platforms and media contributed significantly to the project's impact. The paper concludes by emphasising the necessity of adopting a gender-sensitive, participatory, and data-driven approach to urban planning to address the diverse needs of all city dwellers.

Keywords: gender-sensitive urban planning, inclusive public spaces, citizen science, participatory urbanism, data-driven design

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I. Introduction

1.1 Context

By 2030, 2.5 billion women will reside and work in cities that were predominantly planned and built by men (Czaja & Schechtner, 2021). This poses a significant problem, as planners frequently design from their own perspective, neglecting the diverse needs and living contexts of different demographic groups, including women, children, non-binary individuals, the elderly, or people with disabilities (Terraza et al., 2020). Consequently, their ability to fully utilise public spaces in its entirety is constrained (Kern, 2021). Global urbanisation (Szmigiera, 2021) exacerbates this, highlighting the crucial importance of creating accessible public spaces for everyone. To date, planning and design decisions have been driven by economic efficiency, often at the expense of social considerations (Labbé, 2023).

Additionally, the growing threat of the climate crisis underscores the need for inclusivity and resilience in addressing emerging challenges (Wuppertal Institute, 2016). However, contemporary planning decisions rarely address these challenges holistically. Many lack comprehensive sustainability measures, well-developed infrastructure for active mobility, integrated public transport, and designs that enhance health, well-being, and quality of life for all residents (Allianz der freien Straße, 2022). This paper emphasises the importance of inclusive urban planning, advocating for a gender-sensitive approach that puts people and their diverse needs at the centre of planning decisions.

The open source Her City Toolbox—designed to facilitate participatory design projects globally (Fabre et al., 2021)—provided the methodological framework (see section 2.1) and was applied as a case study in Weimar, Germany. It draws inspiration from the global Her City initiative, which follows the principle "Plan a city for girls, and it will work for everyone" (Fabre, 2019). Established on International Women's Day in 2021, Her City is a collaboration between United Nations Habitat and the think tank Global Utmaning (Fabre et al., 2021). The initiative aims to foster urban development from the perspective of young women and girls, who constitute the majority of historically marginalised groups (Criado-Perez, 2019).

Weimar is a medium-sized city in the eastern German state of Thuringia with a population of approximately 65,000 inhabitants, 7% being students (Stadtverwaltung Weimar, 2011). Like many European cities, Weimar is experiencing demographic change, with an increasing proportion of elderly residents (Stadtverwaltung Weimar, 2011). The town is renowned for its rich cultural heritage, with large parts of its city centre designated as a UNESCO World Heritage site. The town has played a pivotal role in German history on several occasions, serving as an epicentre of Weimar Classicism with famous representatives such as Anna Amalia, Goethe, and Schiller. In 1919, the first German National Assembly convened in the German National Theatre in Weimar and adopted the constitution of the Weimar Republic. Simultaneously, a group of revolutionary artists founded an art school that became the birthplace of the influential Bauhaus movement. Attracting a considerable number of tourists every year, tourism is one of the city's most significant economic sectors. Despite its compact structure, which amplifies planning and spatial conflicts, residents' interests are often overshadowed by thriving tourism and heritage-related concerns. Other important urban improvements, such as better lighting or the creation of barrier-free paths through the city centre, have been neglected.

1.2 Literature Review

In the 1960s, Jacobs addressed the issue of safety in public spaces. She posited that the lack of human presence and limited opportunities for appropriation and personalization can lead to feelings of exclusion, vandalism, and insecurity (Jacobs, 1961). Considering this, Gehl demonstrates how data-driven analysis and design methods can create people-centred urban spaces that reflect the needs and behaviours of residents. Gehl (2018) developed a set of twelve quality criteria and a methodology for evaluating public spaces based on observations of movement, user groups, and behavioural patterns (Gehl Architects, 2018). Despite the success of their progressive approaches, they did not consider the specific needs of different user groups. In contrast, gender-sensitive urban planning promotes inclusivity and equity, encompassing additional aspects such as safety, accessibility, transport infrastructure, and the distribution of green spaces (Buchmüller, 1993). It integrates elements from various academic disciplines, including urban planning, social sciences, and gender studies, challenging the historically malecentric orientation of urban development (Vu, Niemeyer, and Spitzner, 2019). The United Nations support this notion with their Sustainable Development Goals (SDGs), particularly SDG 5 on Gender Equality and SDG 11 on Sustainable Cities and Communities (United Nations, 2024). Goal 11.7 explicitly promotes "universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities" (United Nations, 2024). As an example, the Crowd4SDG initiative demonstrated how to implement these SDGs in a citizen science project (Crowds4SDG, 2020).

Kail's work in Vienna integrates gender mainstreaming into urban design, underscoring how urban planning shapes human behaviour and promotes the development of liveable, green, and safe cities (Kail, 2021). In an interview, Kail (2019) posited that "spaces do not exist in isolation; they support particular everyday contexts or create barriers." She emphasises the importance of integrating the perspectives of women and marginalised groups in urban planning processes to ensure the safety, accessibility, and social justice of urban environments and puts forth a participatory methodology that incorporates feminist perspectives into urban planning (Kail, 2019).

Public spaces often fail to meet the diverse day-to-day needs of users, particularly women, children, non-binary people, older adults, and people with disabilities (Terraza et al., 2020). Criado-Perez (2019) illustrates how the gender data gap in urban planning leads to systemic discrimination against women, limiting their safety and mobility. The male as default mindset extends to science, where men's experiences and bodies are frequently regarded as universally valid (Criado-Perez, 2019).

In Weimar, Germany, the initiative Frauen planen Stadt set a precedent for feminist urban planning in 1997. It was formed with the objective of addressing urban development issues relevant to women ('Unsere Stadt - Frauen planen Stadt', 1997). In 2021, Reckewerth (2021) examined the everyday experiences of women with caregiving responsibilities in Weimar's public spaces to highlight the impact of spatial conditions on care work and the link between urban design and women's everyday lives. Although both projects offered valuable insights based on individual experiences, they lacked representative data. This underlines the necessity for comprehensive, gender-specific data collection to better inform and enhance urban planning in Weimar.

1.3 Research question and objectives

The literature review reveals a solid theoretical foundation for gender-sensitive urban planning. Nevertheless, the topic is underrepresented in academic research and the practical work of urban planners in Germany. There is a paucity of relevant gender disaggregated data and case studies particularly those involving marginalised groups like women, to guide decision-making and change. While people-friendly urban design approaches exist in different forms, many lack gender differentiation.

This research sought to address the question: "How can the public space of a medium-sized German city be evaluated through gender-sensitive, data-driven, and participatory processes?" The principal objectives are: first, to enable participation and provide a voice for women in urban planning by adopting a citizen-science approach to the Her City Toolbox; second, to collect gender-sensitive data on public space usage in Weimar; and third, to raise awareness and facilitate a more comprehensive understanding of gender-sensitive urban planning. Although the project explicitly focuses on women, it is anticipated that the findings will resonate with other groups with similar experiences, including men in caregiving roles, as postulated by Buchmüller (1993).

The paper is structured into four sections. Section 2 outlines the methodological framework. Section 3 presents the results of the collected quantitative and qualitative data, the derivation of five thematic fields for gender-sensitive urban planning in Weimar, and the platforms and media utilised for raising awareness. Section 4 sets these results in a broader context, highlighting the project's key findings. Section 5 concludes that combining citizen-science with data-driven methods proves essential for evaluating urban environments from a gender-sensitive perspective.

2. Methodological framework

The research design comprised five complementary methods (see Fig. 1). First, the Her City Toolbox served as the fundamental framework for the project's overall approach. Second, Participation and Citizen Science methods engaged interested individuals, particularly young females, to collaborate in scientific research. Third, Data Collection and Evaluation substantiated findings through quantitative data, surveys, and Public Space Public Life measurements (PSPL). Fourth, Communication and Public Relations raised awareness about gender-sensitive urban planning. Lastly, Networking and Collaborations forged partnerships to expand the project's reach.



Figure 1. The complementary methods of this project. Illustration by the authors, 2021.

While participants of the citizen survey were able to discuss issues considering the entire city, the site assessments were limited to seven selected public spaces within the historic city centre: Frauenplan, Herderplatz, Marktplatz, Platz der Demokratie, Poseckscher Garten, Seifengasse, and Wielandplatz (see Fig. 2). The study was conducted according to the ethical standards and procedures of the author's institution. Informed consent was obtained from all participants, who consented to be photographed and filmed in the framework of this research while contributing with data collection and personal experiences.

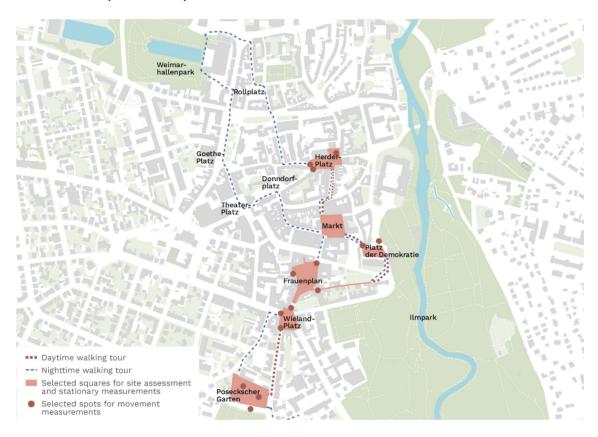


Figure 2: Overview of the project's research area. Illustration by the author, 2024

2.1 Her City Toolbox

The Her City Toolbox emphasises participation, communication, and networking. Following this approach, young women were engaged in city walks to assess public spaces. Their experiences of navigating the city were analysed and recommendations developed during joint workshops. The toolbox's focus on communication and networking facilitated knowledge-sharing (see section 2.4), leading to partnerships with Weimar's civil society and engagement with local stakeholders, including city representatives (see section 2.5). Nevertheless, the toolbox was adapted to align with the specific requirements of this research. The participatory approach was expanded into a citizen-science framework that involved participants in collaborative research endeavour (see section 2.2). To triangulate the findings, quantitative data were gathered through a citizen survey and an app was utilised to collect data on public space usage (see section 2.3).

2.2 Participation and Citizen Science

The participation process was divided into two distinct parts. The first part involved the public, with engagement primarily occurring through a citizen survey (see Section 2.3). The second part adopted a citizen science approach, involving young female participants in walks, workshops, public space assessments, and PSPL measurements (see Section 2.3), where they had two different roles: research subjects and collaborators. To reach as many young women as possible, an Instagram channel was launched as an essential component of the one-month long recruitment process. Moreover, a considerable number of flyers were distributed throughout Weimar's city centre and educational establishments, e.g., schools and sports clubs, and the university's communication platforms were utilised. Participation in the local International Women's Evening proved to be a suitable strategy for reaching non-German-speaking women. 18 women out of originally 31, aged between 17 and 31, with different life situations and backgrounds finally actively participated in the workshops (see Fig. 3). They were comprised of two pupils, two English-speaking migrants, and two mothers, with the rest being university students. The primary language of communication was German, with English translations provided.



Figure 3. Voluntary participants at the walking tour in September 2021. Photo by Sophia Fahl, 2021.

At the beginning two walking tours were conducted: one during daytime and another at night (see Fig. 2). The daytime walk involved evaluating selected urban spaces using Gehl's 12 Quality Criteria (Gehl 2018), focusing on protection, comfort, and social aspects. The evaluation form is straightforward to use and requires no prior knowledge

of public space assessment. At request of the participants, an additional night walk was organised to explore questions such as: How does peoples' behaviour in the city change at night? What causes these changes, and how can conditions be improved? Is the issue of unsafe spaces and insecurity still relevant in Weimar?

The collected data was thoroughly discussed in workshops, prioritising an environment where participants openly shared their opinions and experiences. In the initial workshop, the findings from the public space assessments were analysed. The second workshop focused on exploring participants' needs and privileges in public spaces using the Method Kit (2021). In the third workshop, ideas for implementing solutions and raising awareness about gender-sensitive urban planning were developed. Across these sessions, five thematic fields emerged that highlight significant shortcomings in local urban planning from a gender-sensitive perspective (see section 3.2). Subsequently, two discussion rounds were conducted with representatives of the city of

Weimar. The initial round involved the officers for Building and Urban Development, Equal Opportunities, and Children and Youth. This session included the presentation of the research results, followed by a debate on the issues of urban design and policy changes. The relevance of gender-sensitive planning was demonstrated by illustrating the potential for Weimar. In the second discussion round, possible implementation options were explored with the representative for Building and Urban Development, the Equal Opportunity's Officer, the Cultural Director, and the Head of the Urban Development.

2.3 Data Collection and Evaluation

In accordance with the Her City methodology, existing and openly accessible spatial and statistical data pertaining to Weimar was gathered and analysed. Given the city's status as a non-metropolitan area with limited urbanistic studies, this data was supplemented through a citizen survey and PSPL measurements.

The citizen survey was initiated to assess participants' diverse needs and their utilisation of Weimar's public spaces. Intending to generate data and facilitate a comparability based on various demographic specifications, including age and gender, the survey was open to everyone. The survey, available in both German and English, was administered via the online platform SoSci Survey (SoSci Survey GmbH, 2021). It was widely publicised through the project's Instagram account, the local newspaper Thüringer Allgemeine, local Facebook groups, the university's communication platforms, as well as through the distribution of flyers. The survey comprised 27 questions addressing residents' requirements regarding public spaces, including furnishings, stationary quality, and specific preferred or disliked locations.

Gehl's PSPL app ('Public Life App', 2021) was utilised together with the participants to gather data on the movements and stationary activities of individuals in the selected locations. The data collection period spanned a total of five time points, distributed across two days: one weekday and one weekend day. The data collection was conducted at the following times: 9:00, 12:00, 15:00, 18:00, and 21:00. In the analysis of movements patterns, individuals were classified according to their mode of transportation, i.e., pedestrians, cyclists, users of micro-mobility devices (e.g., e-Scooters or skateboards), motorised vehicles (cars or buses), and those requiring the use of a mobility aid (e.g., strollers or wheelchairs). In addition, a detailed stationary assessment was conducted, including the observation of age, gender, body position, and dwelling activities, e.g., conversing, eating/drinking, and playing in public spaces. The

gender of everyone was estimated as either female, male, or unknown. The age groups were categorised as follows: younger than 4 years, 5-14 years, 15-24 years, 25-64 years, and older than 65 years. During the observations five distinct body postures were classified: standing, sitting on a public bench, commercial sitting, informal sitting, e.g., on a stair or on the ground, and laying down.

The substantial dataset derived from the citizen survey and the PSPL measurements was subsequently analysed by using Tableau software. A specific evaluation was conducted to examine gender specifications, focusing on the differences between the participating and observed women and men.

2.4 Communication and Public Relations

Open and transparent communication with the local community was crucial for Her City Weimar. To facilitate this, various communication platforms and media were utilised to reach a wide segment of Weimar's citizens as well as a broader audience. The project employed accessible language and visually appealing graphics with the objective of engaging a wider public effectively, beyond experts in the field. Initially, an Instagram channel was established, serving as a platform for engaging with interested individuals, facilitating discourse on local urban planning issues, disseminating feminist perspectives, and documenting the project's progress. To facilitate further dialogue with Weimar's residents, additional media such as podcasts and an interview with a local radio station have been employed.

In the run-up of International Women's Day 2022, a series of events was organised to further engage with Weimar's citizens. These included a feminist city walk and a poster campaign, both of which were organised in collaboration with local partners (see section 2.5). To extend the project's reach beyond Weimar's citizenry and to ensure accessibility to all, the bilingual website www.hercityweimar.eu was published in the end (see Fig. 4). The website presents the collected research findings and their process in both German and English.



Figure 4. Project page of the Her City Weimar initiative, showing the participants advocating for a gender-sensitive city. Screenshot of project page by the authors, 2024.

2.5 Networking and Collaborations

Establishing an extensive network and collaboration with local and municipal stakeholders was imperative for the project's success. At its inception, a collaboration was initiated with the global Her City initiative and several departments of the Bauhaus-Universität, including the offices for Equal Opportunity and University's Communication. The collaboration with the UN's Her City initiative enabled it to expand the project's scope beyond German-speaking countries. This entailed disseminating its progress on the global initiative's Instagram channel and incorporating it into the organisation's annual Her City report.

Furthermore, a partnership was established with the city's Equal Opportunity Office and a local women's organisation. In collaboration, events were organised, and advocacy was undertaken for the appropriate recognition of women in public spaces. Furthermore, collaborations were forged with the regional association of the political Green Party and with local shops and restaurants to present the poster campaign.

3. Results

This chapter presents the results of the gender-sensitive study of Weimar's public spaces, divided into four subsections: 3.1 disaggregates survey data by quantitative gender differences; 3.2 outlines thematic fields identified in site assessment; 3.3 details these thematic fields; 3.4 focuses on raising awareness about gender-sensitive urban planning.

3.1 Disaggregating Survey Data by Quantitative Gender Differences
246 people filled out the citizen survey, two-thirds being women and one-third men.
Due to the small number of non-binary participants (5), their data was not analysed in detail. The age average of the participants was 37 years, ranging from 13 to 82 years, with around 90% being German citizens. The survey analysis focused primarily on gender differences, but also considered age, highlighting derivations of over 10% between women's and men's responses. Overall, the gender-disaggregated survey data revealed fewer gender disparities in the needs and utilisation of Weimar's public realm than anticipated. More female participants preferred taking the bus, whereas male participants preferred the car. Furthermore, location-specific factors offered reasons to avoid specific public spaces, evidenced by 60% of participants noting that the noise level is a decisive reason for avoiding a location. Moreover, 56% indicated an uncomfortable atmosphere as another concern for avoidance, with two-thirds of women and one-third of men indicating this.

Approximately one-third of female participants compared to only 12% of males, reported actively avoiding specific locations in Weimar such as Goetheplatz, the area around the central bus station, and Wielandplatz, depending on the time of the day. Additionally, 42% of women stated that they avoid these locations because they lack adequate lighting, while only 23% of men expressed this concern (see Fig. 5).

What improvements would you like to see in these places? Multiple choices allowed.

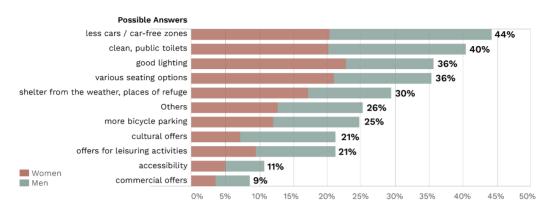


Figure 5. Citizen survey: Places that people avoid. What improvements would you like to see in these places? Illustrations by the authors, 2024.

3.2 Identification of Thematic Fields from the Data Collected at Site Assessments
The utilisation of Gehl's 12 Quality Criteria for assessing selected public spaces
heightened participants' awareness of Weimar's public realm and informed the
development of thematic fields. The seven public space site assessments and city walks
clarified perceptions and highlighted well-functioning and appreciated public squares
such as Frauenplan, Herderplatz, and Marktplatz, influencing the development of the
thematic field Facilities & Furnishing.

Additionally, the assessment revealed issues like inadequate lighting at Seidengasse and the intimidating, seigneurial statue causing discomfort at Platz der Demokratie. Prompted by this patriarchal statue, an analysis of female statues and an investigation into street names were conducted. In particular, the proportion of streets named after male and female personalities was quantified. This investigation built the basis for the thematic field Representation & Appreciation.

The night walk provided an opportunity for the participants to share their experiences and perspectives in public spaces after dawn. Besides discussing the lack of lighting in parks and public spaces, the participants revealed that they typically walk faster at night and frequently prefer using their bikes to move more quickly and independently without relying on public transport. All participants employed strategies to enhance their sense of security, regardless of their overall feeling of safety in Weimar. The night walk laid the groundwork for the thematic field Security & Social Control.

The PSPL measurements resulted in a comprehensive quantitative database of people's movement patterns and dwelling activities (see Fig. 6). Over two days with mild and sunny weather conditions, approximately 9,500 movement patterns and 1,200 stationary activities were recorded. In contrast to initial expectations, fewer people, bicycles, and cars were counted on Saturday compared to Thursday. In Weimar's historic centre, walking is the preferred movement mode, with approximately 65% of observed individuals walking, 25% utilising motorised traffic, and 8% cycling. The low percentage of bicycle usage may be attributed to a lack of dedicated bike lanes, the presence of cobblestone pavement, and restrictions on cycling in some areas of the

inner city, e.g., Frauenplan. For similar reasons, there were only few people with mobility disabilities, as supported by the citizen survey. The movement observations constituted the foundation for the thematic field Mobility & Accessibility.

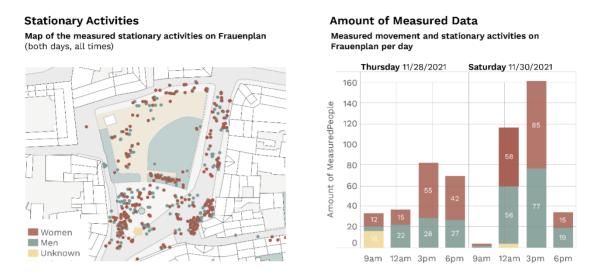


Figure 6. Measured stationary activities (map) and amount of movement and stationary activities at Frauenplan (diagram). Illustrations by the authors, 2024.

The observation of the stationary activities revealed that most individuals, with more women than men, were either standing and conversing or sitting commercially. The abundance of restaurants and cafes contributed to a significant amount of commercial sitting, with 50% of individuals observed sitting in this manner on Frauenplan. A high percentage of individuals was standing due to a lack of seating opportunities, particularly at Platz der Demokratie (96%) and Seifengasse (84%). All observed locations exhibited similar patterns of sitting or standing behaviour among women and men of all age groups. A notable presence of teenagers was observed at Wielandplatz and Poseckscher Garten. In the latter, one-quarter of the observed individuals were playing, most of them children. Here, over two-thirds were females, given the prevalence of care work among women and the presence of a playground. This tendency of more women engaged in care work towards children, or the elderly was observed across all locations. This gender-specific data and its findings were not only discussed in workshops but also with city officials. It quickly became clear that further investigations were necessary. The city officials appeared to have limited knowledge of gender-sensitive urban planning but showed openness to how such approaches could enhance public spaces for women, benefiting all citizens. These sessions highlighted the scarcity of women in decisionmaking positions and underscored the importance of public relations and awarenessraising for gender-sensitive urban planning. This gave rise to the thematic field Visibility & Appropriation.

3.3 Thematic Fields for Gender-Sensitive Urban Planning in Weimar
The analysis identified five essential thematic fields for gender-sensitive urban planning (see Fig. 7) that indicate shortcomings in Weimar's public spaces: (a) Facilities &

Furnishing; (b) Representation & Appreciation; (c) Security & Social Control; (d) Mobility & Accessibility; (e) Visibility & Appropriation. Their development was shaped by a strong interplay between the findings from the collected data, the participatory processes, and the discussions with city officials.



Figure 7. Overview of the thematic fields. Illustration by the authors, 2024.

a. Facilities & Furnishing: The Basic Needs of Women in Public Spaces
In Weimar, the diverse requirements of all groups of people are not adequately addressed. The citizen survey revealed that 97% of female and 95% of male respondents encountered obstacles when attempting to utilise public spaces. A notable absence of public, non-commercial seating that encourages social interaction and is constructed from appealing materials like wood is evident. 67% of female respondents expressed a clear need for comfortable seating and shelter from inclement weather, particularly in winter. Without this, the full utilisation of public spaces is impeded for several months of the year

Additional deficiencies in public facilities include the lack of public toilets (see Fig. 8), access to free drinking water, and opportunities to care for young children. Almost one-quarter of the surveyed women aged 25 to 40 highlighted the absence of facilities for changing diapers, feeding, or breastfeeding children in public spaces. In this age group, the need for clean public toilets was above average, with 86% of respondents indicating this as a priority. Therefore, caregivers are often compelled to rely on commercial, private offerings, making it more challenging to perform care work in public spaces. The drugstore chain dm, for instance, provides essential amenities for free, including changing tables with diapers and care wipes, as well as breastfeeding corners (Reckewerth, 2021). In contrast, most public restrooms are currently fee-based, poorly maintained, and not barrier-free. As a result, most people utilise the sanitary facilities of public institutions and restaurants. This situation leads to stress in the everyday lives of Weimar's residents.

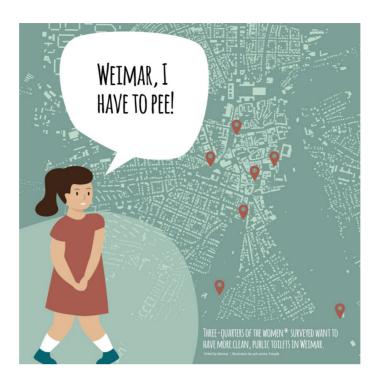


Figure 8. Facilities and Furnishing: Three-quarters of the female respondents of the citizen survey wish for more clean, public toilets in Weimar. Illustration by the authors, 2021.

b. Representation & Appreciation: The Importance of Recognizing Women's Contributions in Public Spaces

Weimar's public spaces reflect an imbalance in the culture of remembrance, conveying an outdated image of society. The equestrian statue on Platz der Demokratie, for example, stands in stark contrast to the nameless sculpture of a mother in Donndorfplatz, a symbol of the historically idealised distribution of roles that no longer reflects today's societal values.

Of the over 200 streets named after public figures in Weimar, only 20 honour significant women, representing less than 10% of the total (see Fig. 9). Furthermore, the nomenclature of the streets often leads to confusion regarding the individuals they commemorate. For instance, Schopenhauerstrasse is named after the writer Johanna Schopenhauer but is commonly mistaken as being dedicated to her son. The current list of new and renamed streets in Weimar is dominated by proposals bearing male names, with only one woman represented among the 21 entries, indicating no forthcoming improvement (Stadt Weimar, 2021).

Moreover, Weimar has only one monument dedicated to a female public figure: the Käthe Kollwitz statue in a residential neighbourhood. Notably, this statue has a flat base, placing the viewer at eye level with Kollwitz, in contrast to the elevated male statues on Theaterplatz and Platz der Demokratie. In the city walks, the participants noted the absence of a monument on the pedestal on Goetheplatz, leading to the conception of a temporary monument to honour Weimar's female residents on International Women's Day 2022 (see section 3.3).



Figure 9. Representation and Appreciation: Of more than 200 streets in Weimar less than 10% honour significant women. Illustration by the authors, 2021.

c. Security & Social Control: Women's Perception of Safety in Public Spaces

In Weimar, a significant proportion of the population faces restrictions on the safe and self-determined utilisation of public spaces. The citizen survey revealed that over 90% of women do not feel comfortable in certain public spaces at specific times, with approximately 91% avoiding these areas after dawn. Around 50% of the surveyed women deliberately took detours to avoid parks like Ilmpark or Weimarhallenpark, squares like Wielandplatz or Goetheplatz, and busy, unlit streets like Schubertstrasse (see. Fig. 10). Notably, 40% of female residents reported inadequate lighting as a reason to avoid public parks, compared to only 20% of males. Inadequate lighting and poor visibility present significant risks of accidents and influence perceptions of safety. Because of this, women develop strategies such as taking alternative routes, using faster modes of transportation, e.g., bicycles, sharing locations with friends, or carrying keys as a defensive measure. One participant observed that individuals must choose between traversing a poorly lit, secluded bicycle path in the park, or sharing the road with speeding vehicles. Moreover, the street lighting in Weimar is designed primarily for cars, with pedestrians and cyclists being the secondary consideration. Positioning the street lighting centrally above the street leaves pedestrian and bicycle paths in darkness.

In the end, 20% of the surveyed people reported that their need for safety and protection in public spaces is not being met, nine women and one man have expressed a desire for enhanced security. The online platform Catcalls of Weimar collates reports, predominantly from women, of microaggressions and derogatory remarks. These, though not legally punishable, significantly impact their sense of security. A quarter of the residents have either witnessed or been victims of violence in Weimar's public spaces.

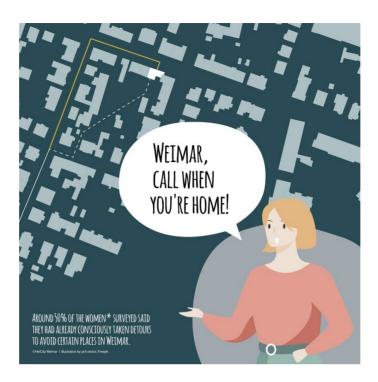


Figure 10. Security and Social Control: Approximately 50% of the female respondents reported to consciously taking detours to avoid certain locations in Weimar. Illustration by the authors, 2021.

d. Mobility & Accessibility: Enhancing Self-Determined Mobility and Barrier-Free Design in Public Spaces

In Weimar, there is a significant lack of accessible transportation options and a disregard for the diverse needs of all community members. Nearly half of the respondents advocated for reduced traffic and the expansion of car-free zones (see Fig. I I). However, current traffic planning predominantly prioritises automobiles over cyclists and pedestrians. The redesign of Sophie Stiftsplatz in 2022 exemplifies the omission of bicycle lanes from urban planning. Similarly, the redesign of Wielandplatz prioritised vehicular traffic flow, adding a turning lane for cars at the expense of a planted green strip. Both decisions highlight the city's focus on vehicular mobility over other modes of transportation.

Furthermore, Weimar has only five marked cycle paths, each approximately one metre wide and constructed with a white strip on the right streetside. They indicate a clear deficiency in the provision of safe and accessible cycling routes. A survey conducted by the city of Weimar in 2015 revealed that over 50% of respondents felt unsafe while biking, with approximately 11% reporting a complete lack of safety (Dunkel, Bellmann and Harder, 2017).

Pedestrians also face challenges due to the existing mobility infrastructure, such as inadequate traffic light timing. For example, the traffic light at Wielandplatz is green for eleven seconds only, insufficient for children, senior citizens, and pedestrians with limited mobility. The primary benefit of such short traffic light phases is the increased traffic flow for cars. Weimar's public transportation system fails to meet the needs of such groups and individuals with multi-stop-routes, as the routes, ticket options, and schedules are not tailored to their requirements. From 11 p.m. onwards, the public transportation system effectively shuts down (StadtWirtschaft Weimar, 2024), impeding

independent and individual evening planning. The presence of cobblestones hinders the accessibility of the city centre, creating a barrier for individuals with limited mobility, cyclists, and families with strollers. According to 80% of the survey respondents' people with disabilities are less visible in Weimar's public spaces.



Figure 11. Mobility and Accessibility: Nearly half of the female survey respondents wish for less traffic and more car-free zones in Weimar. Illustration by the authors, 2021.

e. Visibility & Appropriation: The Essential Role of Women's Participation in Shaping Public Spaces

In Weimar, there is a conspicuous absence of societal diversity at all levels, manifested both by the physical homogeneity of public spaces and the lack of diversity in decision-making processes. Figure 12 shows that only 14 out of 43 voting city councillors are women (Stadtrat Weimar, 2022), indicating a clear gender disparity. Despite the city's extensive administrative apparatus, there is only one single official, dedicated to promoting gender equality and handling reports of discrimination (Stadtrat Weimar, 2022). However, this Equal Opportunities Officer holds an advisory role only. Another concern is the homogeneity of individuals in public spaces. In particular, the city centre is primarily designed for tourists, with the key objective of maintaining a tourist-friendly image reminiscent of Weimar's Classic era to boost the local economy. In this context, appropriating public spaces is difficult: A survey response prospectively described the city centre as an "open-air museum", where everything appeared untouched and sterile. The workshop participants echoed this sentiment.



Figure 12. Visibility & Appropriation: Of the 43 city council voting members, only 14 are women. Illustration by the authors, 2021.

3.4 Raising Awareness for Gender-Sensitive Urban Planning

Given the apparent lack of comprehension among municipal representatives, Her City Weimar efforts were deliberately focused on public relations and awareness-raising campaigns. The initiative aimed to ensure that the city's development considers the diverse needs and perspectives of residents through open dialogue and citizen engagement. By leveraging the established network, substantial awareness for gendersensitive urban planning was raised among Weimar's citizens through various platforms and media. Publishing the research findings on a website increased the initiative's reach across Germany and beyond. This included 750 Instagram followers and 1,200 visitors from 49 countries on the Her City Weimar website.

The launch of the @hercityweimar Instagram channel at the outset and the hercityweimar.eu website towards the conclusion were essential in extending the project's reach. To facilitate open access, the entire process, collected data, and findings were disseminated on this website with the intention of raising awareness and inspiring similar projects. Publishing content in both German and English across these platforms ensured broader public access. The website incorporates an animated video published on YouTube that provides an accessible and understandable overview of the entire project.

Moreover, a series of events and activities were organised around International Women's Day 2022 to educate residents about local urban planning challenges from a gender-sensitive perspective. First, a feminist city walk was conducted in collaboration with the local Green Party, presenting the thematic fields and discussing current challenges and opportunities with the participants. Second, in collaboration with a local theatre and the women's organisation an event was organised at Goetheplatz. It drew

attention to the underrepresentation and lack of appreciation for women in Weimar's public spaces and allowed female passers-by to ascend an empty pedestal via a temporarily constructed stage to set themselves as monuments.

Furthermore, a poster campaign was initiated in collaboration with local stores, restaurants, and institutions in the city centre. The posters, also available for download on the project website, pinpointed the local planning issues of the thematic fields. Each poster featured a QR code that directed citizens to the initiative's website. At the events, various materials and brochures promoting significant women of Weimar were distributed.

In collaboration with the local women's organisation and the Officer for Equality, a campaign was initiated to install an additional street sign at SchopenhauerStrasse, honouring Johanna Schopenhauer, an author and renowned Saloner from the Weimar Classic era (see Fig. 13). The sign was unveiled on International Women's Day 2022, alongside city officials and Weimar's mayor, correcting the misconception that the honour was bestowed upon her son. To address the shortage of female street names and lack of public remembrance of women in Weimar, a brochure was published with a local cultural scientist, the women's organisation, and the Officer for Equality. This brochure identified 40 significant women who have received little recognition in public spaces. In addition, a list of notable women and queer personalities from Weimar was compiled, along with a public petition, and submitted to city hall for consideration in future street naming.



Figure 13. The unveiling of the additional street sign for Johanna Schopenhauer. Photo by Sophia Fahl, 2021.

The publication of several articles enhanced the project's visibility. Additionally, the initiative participated in a digital exhibition organised by the university's Equal Opportunity Office and was referenced in numerous articles, including one by University Communications. Since its start, the researchers have continued collaborating with UN-Habitat's global Her City Initiative, contributing to discussions on Her City projects worldwide and sharing insights at various meetings. Her City Weimar was recognised as an exemplary project in the initiative's first-anniversary report, published in 2022 (Fabre, Martinuzzi and Levonen, 2022).

4. Discussion

This project integrated the Her City Toolbox with a citizen science approach and systematic data collection within the participatory process. Although the dataset is specific to Weimar, the thematic fields and methodological approach reveal relevance for other urban contexts. Citizen science projects deepen participants' understanding and foster greater ownership of the research outcomes (Kaptan et al., 2023), as exemplified by the sustained interest in the Her City Weimar project. Combining these qualitative insights with quantitative data mutually validates findings (Kelle, 2006), facilitating the uncovering and identification of the thematic fields.

a. Facilities & Furnishing:

In urban areas, the absence of public seating can result in reduced time spent in public spaces or the utilisation of commercial seating alternatives. This underscores the necessity for a greater quantity of non-commercial seating (Fussverkehr Schweiz 2015) with an adequate design, material, and comfort (Gehl 2018). Therefore, measurements of public space usage are crucial for evidencing the quality and time spent in public spaces.

The lack of public toilets and caregiving facilities in public spaces increases reliance on commercial, private offerings. This highlights the necessity of clean, publicly accessible toilets as a fundamental need for all, particularly vulnerable people such as homeless women (Maroko et al., 2021). Additionally, the absence of caregiving facilities frequently leads parents to retreat to designated areas like playgrounds (Reckewerth, 2021). Designing urban environments that facilitate daily activities and requirements of individuals acknowledges the importance of care work in public spaces.

b. Representation & Appreciation

The underrepresentation of women's contributions in public spaces perpetuates their marginalisation in societal consciousness. Bake (2015, p. 6) confirms this, emphasising that "street names are integral to a city's collective memory", potentially shaping perceptions of gender roles and social inclusion. As such, actively promoting the recognition and commemoration of women's contributions in public spaces through street names, monuments, installations, and exhibitions might promote gender equality.

c. Security & Social Control:

Poor lighting and visibility in urban areas can negatively impact the perception of safety in public spaces for all individuals, especially women. The City of Vienna (2024) concurs with this observation, noting that "a sense of security is an important criterion for

women and girls in particular when using public space". Women are frequently socialised to feel apprehensive in public spaces, particularly at night or around strangers, potentially restricting their use of these places (Kern, 2020). Integrating safety considerations into urban planning and promoting mixed-use neighbourhoods may mitigate security concerns and enhance public space utilisation for affected user groups.

d. Mobility & Accessibility:

The absence of a secure and adequate cycling network fosters insecurity while cycling and hampers independent, self-determined mobility. Macmichael (2021) emphasises the importance of such cycling infrastructure for women, children, and seniors, as safety concerns are their primary barrier, evidenced by the increased proportion of female cyclists after installing additional bike lanes in Paris. Prioritising accessible, affordable, and user-friendly modes of transport like cycling and walking significantly enhances independent movement for women and children (Norcliffe, 2017) while promoting physical activity.

The car-centric transportation system fails to cater the diverse needs of city residents, causing stress for vulnerable groups such as caregivers, individuals with limited mobility, children, and the elderly. Reckewerth (2021) corroborates this, noting that car-centric public spaces and traffic routes complicate caregiving tasks, contributing to stress. Kail (2023) argues that expanding pedestrian, bicycle infrastructure, and public transport, benefits all, particularly the vulnerable and those with limited financial resources. Implementing traffic calming concepts such as the I5-Minutes City or Superblocks potentially reduce vehicular traffic, improve public space ambiance, and enhance perceived safety (urbanista, 2024).

e. Visibility & Appropriation:

The design choices of urban planners are significantly influenced by their personal experiences and circumstances. Consequently, the lack of diversity in planning teams and decision-makers creates obstacles for those whose needs are unmet or overlooked. Kern (2021) posits that urban environments are shaped by decision-makers who frequently overlook the barriers faced by women. Decisions made by predominantly male decision-makers often lack understanding or concern for their impact on women (Kern 2021). Through accessible and inclusive participatory formats that actively engage vulnerable groups, different perspectives are considered in planning. Raising awareness of gender-sensitive urban planning through dissemination The establishment of a campaign to raise awareness of gender-sensitive urban planning successfully stimulated a public discussion on the topic, as evidenced by the high number of followers on social media and project website visitors. The utilisation of social media proved an effective strategy for reaching young people. Moreover, the project's success was facilitated through podcasts, newspapers, and events, as well as the existing networks and collaborations within the context of Weimar. This resulted in city officials and political parties becoming interested in the project. To achieve long lasting change, there is a necessity to further enhance public awareness of this topic through inclusive language and visually appealing graphics.

Nevertheless, the project encountered several challenges, including a tight timeframe and the impact of the COVID-19 pandemic. Limiting participation to young women in Weimar and finding accessible workshop schedules to accommodate participants at

different life stages were particularly challenging, leading to higher student involvement. Greater diversity and intersectionality in terms of age, cultural and socio-economic backgrounds would have enriched the discussions and broadened perspectives.

5. Conclusion

This paper presents the results of the Her City Weimar project. It features a methodology that integrates marginalised groups, such as women, into urban planning by combining a citizen-science approach with the Her City Toolbox. It complements this qualitative approach by collecting gender-sensitive data on public space usage, addressing the lack of relevant gender-disaggregated data. As a result, this paper identifies five thematic fields for gender-sensitive urban planning, namely (I) Facilities & Furnishing, (2) Representation & Appreciation, (3) Security & Social Control, (4) Mobility & Accessibility, and (5) Visibility & Appropriation, providing concepts to examine existing cities and design inclusive urban environments. Disseminating these insights through various communication platforms was essential to raise awareness of gender-sensitive urban planning in Weimar and beyond.

The article has identified a critical need to transform the self-image of urban planners – who presume to be aware of residents' needs – toward participatory processes that actively solicit the real needs of city dwellers. Developing inclusive and resilient cities demands focusing on historically overlooked population groups in planning decisions. This project underscores the necessity of a gender-sensitive and needs-oriented approach to urban planning, addressing the diverse realities of individuals. Grounding planning processes in data and facts is essential. Only through inclusive, data-driven approaches can urban environments be created that truly reflect and serve the needs of all inhabitants (see Fig. 14).



Figure 14. A gender-sensitive urban planning meets the needs of all residents. Illustration by the authors, 2021.

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