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Improving women's accessibility to public transport through participatory street experiments: The case of Maltepe, Istanbul

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ABSTRACT

Building on the literature concerning gender-responsive mobility, this paper aims to explore how street experiments can be used to promote gendered mobilities and create streetscapes in order to prioritise the needs of women in the improvement of access to public transport that grants them access to the many facets of urban life. It argues that by creating more inclusive and accessible streets through participatory planning and design processes, women will have greater opportunities to participate in and benefit from public transport. To that end, a street experiment project, TOPUK, was used as a case study focusing on improving women's access to public transport in Maltepe, Istanbul. The methodology consists of the critical assessment of various participation methods and a detailed narrative of the project process. Accessibility, mobility, and safety were found to be the most important women-centric public transportation issues addressed through participatory pop-up design solutions at the street level, most of which were implemented despite bureaucratic obstacles. The paper concludes with a discussion of the lessons learned from the TOPUK project and how these lessons can be applied to future street experiments to create more gender-responsive and inclusive living environments.

1. Introduction

Inequalities perpetuating from the organisation of transport systems are gender constructed. While women's transport issues have long been a topic of discussion in transport research, mainly due to their socially assigned roles and societal norms (Law, 1999), gender-responsive transport planning is in its infancy not only in the Global South but also in the Global North (Joshi et al., 2022). The aim of this paper is to discuss from a perspective of gender how street experiments can play a role in increasing awareness of gender-responsive transport policies and how streetscapes can be planned and designed to accommodate the different needs women are likely to have in accessing public transport. This paper specifically reports on the findings of a recent project in Istanbul, TOPUK, literally translated as Women Accessing Public Transport, with the acronym "topuk", meaning "heel" in Turkish. We argue that transforming streets may help women not only enjoy a safer living environment but also tackle the male-dominated mobility space by reducing car-dominated areas and increasing the space allocated to active mobility, which women are more likely to perform compared to their male counterparts in Istanbul and elsewhere (Beyazit & Sungur, 2019; Loukaitou-Sideris, 2020).

In addition to the fact that the transport sector is traditionally regarded as 'no place for women' (Turnbull, 2013), the lack of participatory mechanisms in transport policy and decision-making masks the specific needs women are likely to have, albeit for structural reasons (Akyelken, 2020). Testimonies of women gathered through local planning practices could increase their representation in the mobility space. In this sense, street experiments can become important platforms for

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bringing local and variegated knowledge into long-lasting design interventions. Approaching this platform with a gender lens, as an ethical principle (Creutzig et al., 2020), will broaden our perspective on the participatory nature of street experiments.

A recent project on transport poverty in Istanbul demonstrated that similar to previous survey results in the city (IMM, 2012), women tend to walk and use public transport more than men (Beyazıt İnce et al., 2022). However, the project's most striking finding was that the rate of private car use among working men is approximately twice that of working women (ibid). The male dominance in car use also defines how less street space is allocated for non-car users (Creutzig et al., 2020): in our case, for women. Moreover, the latest transport poverty study reported that women are less likely to feel safe around their neighbourhoods than their male counterparts, especially at night. The perception of safety in the district selected for the TOPUK project, Maltepe, also varies for day and night (the district ranks 8th out of the 21 investigated districts in terms of the perception of day-time safety and 15th in terms of night-time safety), with women being more likely than men to feel unsafe. The Maltepe Municipality and the Istanbul Metropolitan Municipality (IMM) have had and continue to have effective collaboration practices, which have been vital to our project, especially in transforming the project area through more permanent traffic management and design. The Maltepe Municipality also has experience in tactical urbanism and is willing to adopt street experiments as part of its institutional culture. These advantages strengthen the selection of Maltepe as an intervention site.

We used street experiments first as a participatory platform to raise awareness of gender-blind transport policy and planning and secondly, as a mechanism to create safer environments for women to increase their participation in daily life and the labour force by facilitating their access to public transport. In this sense, we asked what role street experiments could play in strengthening these connections. This study is, therefore, novel in two ways: in bringing a gender perspective to street experiments and in focusing on the connection between local streets and public transport to achieve a greater impact (Bertolini, 2020). To ensure women's safety and full participation in society, transport planning should consider trips from start to finish; solutions that only target part of the journey are inadequate. Including entire neighbourhoods in planning can decrease crime and improve travel for all. Therefore, a gender perspective is crucial for universal access (Sagaris & Tiznado-Aitken, 2023).

In the remainder of the paper, we draw on academic debates on gender mainstreaming in transport policy and practice before briefly reviewing the gender mainstreaming policies in Turkey and Istanbul and the existing know-how of street experiments in Istanbul and elsewhere. This is followed by the methodological framework of the TOPUK project, which involved a range of participatory methods and spatial interventions. The project results are presented at length in relation to the issues identified by the local community, design decisions and adaptations, and finally, implementation. The paper concludes with a discussion of the lessons learnt for future street experiments.

2. Gender mainstreaming in transport policy

The notion of gender mainstreaming is rooted in the belief that there exist systematic obstacles within society that uphold unequal power dynamics between men and women. In order to dismantle these barriers, gender equality must be incorporated into all aspects of decision-making and practical application. Failure to acknowledge the existence of such barriers, such as those that impede gender equality, simplify its causes to mere statistics, and provide simple equitable treatment to both men and women, may deviate from the strategy of gender mainstreaming (UNSDG, 2019). Originating in the mid-1990s as a global strategy, gender mainstreaming in public policy and practice is still a relatively new concept that requires structural changes at both the programming (analysis, design, resource allocation, implementation, monitoring, and evaluation) and institutional levels (new institutional structures, resource allocation, and accountability mechanisms) (UN Women, 2020).

Drawing on extensive empirical evidence on gendered mobilities, transport research has adopted the concept relatively quickly, as gender distinctions in travel behaviour, safety, security, and violence, while embedded in various societal power dynamics, stem from not only social norms but also gender-blind transport policies (e.g. Loukaitou-Sideris 2020). According to Polk (2008), "mainstreaming gender equality into transport policy should consider if and how transportation affects women and men and their ability to attain the overall political goals of gender equality" (Polk 2008, 229). In this sense, the research design, data collection, and analysis methods are equally important in taking action for gender-responsive transport policies. From the design of the vehicles (Kaygan et al., 2022) and public spaces (including lighting and emergency panic buttons) to the employment of women operators and decision-makers in the transport sector, the training of the personnel in related sectors, collaboration between different institutions, and the use of technology to assess and prevent harassment and violence (UN Habitat/Flone Initiative, 2019; Pereyra et al., 2017), gender-responsive transport policies are variegated. The next section comprises a discussion drawn from the literature on the reasoning behind gender mainstreaming in transport policy and planning.

2.1. Gendered mobilities

Over the last five decades, transport research has successfully demonstrated causal relationships between women's gendered roles within social norms and economic structures and their mobility needs and travel behaviour (Rosenbloom, 1978; Law, 1999; Hanson, 2010). Previous studies have suggested that gender differences in transport are driven by factors that are not easily discernible, such as economic pressures, time use, power relationships, and cultural values (Uteng & Cresswell, 2008; Hanson, 2010). This paper does not intend to give a full account of the literature on gendered mobilities, as the existing literature covers that well. Instead, following a brief review of women's mobility concerns, especially regarding mode choice and safety, the two main parameters framing our street experiment, we focus on gender mainstreaming in transport policy globally and locally.

An extensive amount of research focuses on the gendered patterns of daily mobility (e.g. Kwan 1999; Salon & Gulyani 2010; Elias et al. 2015). Research has shown that women spend more time travelling outside of work for various tasks such as shopping and 'care trips' (de Madariaga, 2016). The resulting daily commuting times can be highly complex (Scheiner, 2014) more often but relatively shorter than those of men (Hanson & Pratt, 1995; Schulz and Schaffer, 2008; McQuaid & Chen, 2012), leading to time poverty based on their disproportionate household duties (Turner & Grieco, 2000). Evidence of time poverty is a concern not only in the Global North but also in the Global South. This issue is particularly associated with the multiple roles that women play in production, reproduction, and community support, doubled by the lack of access to transport opportunities (Porter, 2008). Women often perform unpaid work such as fetching water, taking care of children, shopping, cooking, and cleaning. Consequently, women, even in more affluent countries, need to rely on active modes of transportation and public transit to accommodate their mobility patterns (Ravensbergen et al., 2019; Lira, 2020).

The second area of research that is critical to our analysis focuses on violence in the public sphere and transport (Ceccato and Loukaitou-Sideris, 2022), supported by growing evidence from the Global South (Quinones, 2020; Hidayati et al., 2020; Loukatiou-Sideris, 2020). A recent study based on Nairobi's minibus network reports that 76% of female operators have either witnessed or experienced sexual harassment, and that it is almost a daily phenomenon (UNHabitat/Flone Initiative, 2019). In addition to the risk of violence and harassment, there is also a lack of proper transport options designed to meet women's

specific needs. For instance, in sub-Saharan Africa, where motorcycles are often the primary mode of transportation for important tasks such as taking women to hospitals for childbirth, poorly designed vehicles may cause significant health problems (Roy, 2009; Green et al., 2013). In more urbanised settings, problems arise from the structuring of transport systems, such as inadequate transport capacity, resulting in increasing acts of harassment, feelings of vulnerability while waiting at bus stops, and paths through dark and deserted streets and underpasses, all physical features that make women insecure (Pereyra et al., 2017). Women face challenges that require both conscious and unconscious strategies, but these methods can be time-consuming and limit personal freedoms, affecting their access to urban opportunities and relationships (ibid.). Because of social structures, deserted and crowded bus stops may lead to different perceptions of safety by women (Hsu, 2010). Women reported feeling unsafe travelling alone or on long journeys at night, reorganising as a result their travel behaviour, clothing, and reactions (Dunckel-Graglia, 2013). Factors such as public transport infrastructure, access to stops, design of stops, and design of vehicles were found to be effective in reducing women's safety concerns. In addition, it has been demonstrated that guaranteeing safety over an entire journey, from waiting for the vehicle to all stages after getting off the vehicle, will benefit women (Tiwari, 2014). In this sense, there is a strong link between the built environment and crime control (Loukaitou-Sideris, 2005), which the street experiment reported here aims to address.

Based on this brief review, one can say that the spatial configuration, integration, accessibility, quality, and comfort of transport systems can have a great effect on the social barriers to women's participation in everyday life. From scholarly work to policies developed in contexts outside research, gender mainstreaming in transport is becoming one of the most significant elements of thought regarding everyday mobilities.

2.2. *Setting the context: gender mainstreaming in Turkey's and Istanbul's transport policy*

Despite being one of the first countries to accept women's right to vote and hold office in the early 1930s, Turkey's gender equality record has not been very bright, especially in recent decades. For instance, initiated by the Council of Europe, the Istanbul Convention guaranteed policies for the prevention of crime and domestic violence. Turkey was the first country to ratify the convention but also the first to withdraw from it due to its uses of the term "gender" and the association of some of the convention articles with LGBTI+ rights, which were considered disruptive to Turkish family values. Even though there are laws in place to protect women against all violence (e.g. Law No. 6284) and guarantee women's representation in different public domains, based on an evaluation of the 11th Development Plan, the Turkish Government seem to have failed to meet its goals regarding gender equality in a number of fields such as education, participation to politics, and employment (Toksöz et al., 2022). Through this brief review of the recent governmental actions, it is possible to spot the mixed discourses in relation to gender mainstreaming in policy fields.

Regarding transport, the Ministry of Transport and Infrastructure published its latest transport strategy titled Accessible Transport Strategy and Action Plan (2021-2025). This strategic plan mainly focuses on improving physical accessibility for individuals living with a disability. Additionally, the Ministry has an action plan for National Smart Transport Systems (2020-2023). However, none of these documents includes either the word woma(e)n or refers to any analysis concerning sex or gender. However, gendered mobilities in Turkey have increasingly been on the agenda of researchers (Akyelken, 2013; Dedeoğlu, 2014; Erman & Kara, 2018; Beyazit & Sungur, 2019; Kaygan et al., 2022), especially in relation to their access to employment. For instance, in Istanbul, women have been found to be considerably immobile compared to their male counterparts, especially if they are unemployed and/or living in peripheral areas of the city (Beyazit & Sungur, 2019). Another study explored the perception of transport poverty in Istanbul (measured by affordability, accessibility, environmental factors, comfort, and safety) and found it to be relatively negative for employed women compared to men, while there was no significant difference between unemployed men and women (Beyazıt İnce et al., 2022). In this sense, the more women experience the transport system, the more their perception tends to worsen.

With particular concerns over the safety of transport systems for women, studies demonstrated that about 3% of the instances of violence that took place in public spaces within a ten-year period (2004–2014) in Turkey was associated with transport space, 80% of which were initiated by strangers (i.e. out of the family/friend circles of women) (Beyazit, Sungur, & Karabatak, 2016a). Following the violent murder of a 20-year-old university student, Özgecan Aslan, as she resisted an attempted rape in a minibus in Mersin (a Southern city in Turkey) in 2015, the State started a campaign of awareness-raising videos with contributions from famous football players and artists to be shown on public transport vehicles. Additionally, bus companies were instructed to stop wherever women wanted to get off after 10 pm. However, these measures have not been successful, as violence against women continues to increase, with one woman being killed by men almost daily on average (Kadincinayetlerinidurduracagiz.Net, 2022). Civil society has been very proactive in this sense, opposing governmental discourses that are unlikely to prevent violence against women. Yet, gender-blind state policies make this harder for women.

Gender mainstreaming in transport policy has been more pronounced at the city level in Turkey, especially in Istanbul. In 2017, signs were installed in all metro cars demonstrating that it is inappropriate for men to sit with their legs spread (Istanbul, 2017), similar to other campaigns around the world (Pereyra et al., 2017). This was followed by an animation in 2019 drawing attention to the same problem (Ray Haber, 2019). However, more structural changes began following the 2019 local elections, as the IMM has made it a top priority to empower women in all sectors, including transport, and encourage their participation in daily life and the economy. This is achieved through the provision of affordable opportunities for mobility and childcare. As a promise of his election campaign, the Istanbul's mayor initiated a free transport pass for mothers with children aged between 0-4. Within three months of its approval by the Municipal Council, free passes were provided to more than 100 thousand women, with an expectation to increase to over 1 million (IMM, 2020). Additionally, the municipal organisation was restructured to include more women managers in transport (the Deputy Secretary General of Transport, the Director of Transport Planning, and two chiefs of newly established offices such as walking and cycling). Finally, Istanbul has welcomed female bus and metro drivers for the first time in its history. However, one should be careful, as such approaches do not often mean that gender is integrated into the overall design of policies but instead viewed as merely one component (Porter, 2008).

In terms of planning strategy, the Istanbul Metropolitan Municipality was the key beneficiary of Turkey's first Sustainable Urban Mobility Plan (SUMP), which had a Gender Equality and Social Inclusion (GESI) module in line with UN Sustainable Development Goals (SDGs) (Arup, 2022). The Istanbul SUMP study was carried out with over 200 stakeholders, including civil society representatives of women and LGBTI+ rights groups, as well as other less-represented communities in transport policy. From a total of 26 projects, five included active travel and micromobility components. Out of those five, the IMM SUMP team rated three walking and cycling projects as having the most GESI benefits for the city in addition to rail transit projects. Therefore, promoting active mobility is a highly regarded strategy for tackling gender inequalities in Istanbul's transport.

The collaboration of Istanbul Metropolitan Municipality, Maltepe Municipality (district level), NGOs (Streets Belong to Us and Accessible City Atelier - EKA) and academia (ITU IstanbulON Urban Mobility Lab) through the TOPUK project has been exemplary in not only carrying out a pilot study to understand the limitations of pedestrian access to public

transport for women but also setting an example of gender mainstreaming in transport and thereby creating institutional awareness. Considering the call for participatory methods in decision-making processes (Loukaitou-Sideris & Fink, 2009; Akyelken, 2020; Sagaris & Tiznado-Aitken, 2023) to avoid relying on assumptions about women's mobility needs that are likely to be grounded in gendered roles in society, we envisage this project as an experiment in how we can plan with women for women.

3. Street experiments: evidence from Istanbul

Street experiments are effective interventions that transform streets through flexible, easy, inexpensive, temporary, and fast methods to create sustainable, liveable spaces. Bertolini (2020) describes street experiments as purposeful, transient modifications in the use, legislation, and/or form of the street in order to investigate systemic changes in urban mobility. The process of urban experiments involves different stakeholders, organisations and policymakers which aim to achieve an understanding of the concepts of a "city for people" (Bertolini, 2020), the "right to the city" (Fabian & Samson, 2016) and generating awareness through "process learning" (Evans et al., 2021).

Street experiments have the potential to trigger changes in urban mobility through interventions designed to reduce car use on the streets (Marcheschi et al., 2022), create more people-friendly environments (Senger et al., 2021), increase physical activity (D'Haese et al., 2015), and strengthen the sense of community (Mason et al., 2011). They also provide a platform for understanding the spatial and social needs of citizens, as well as alternative practices that, in the long run, result in less air pollution, traffic, and noise. Studies have shown that city street experiments can strongly encourage physical activity (Semenza and March, 2009), make it possible for people to switch from driving to cycling, public transportation, or walking (Holden, Gilpin, & Banister, 2019), foster social interactions and social capital (Semenza, 2003), benefit businesses in the area (Solomonow & Sadik-Khan, 2016), and increase safety (Zieff et al., 2018). As street experiments are a tool aimed at creating socially inclusive urban spaces (Smeds & Papa, 2023) for all user groups, they have the potential to provide a gender-inclusive perspective and promote gender equality in cities.

Street experiments have had various names, including 'Open Streets,' 'Ciclovias' (Sarmiento et al., 2017, Mason et al., 2011), 'Carfree Sundays' (Üstündağ & Erturan Topgül, 2017), 'City repairs,' 'Summer streets,' 'Parklets' (Littke, 2016), 'Park(ing) day,' 'Slow streets,' and 'Reclaiming streets' (Zahra & Herlily, 2018). Whatever they are called, their common goal is the creation of people-oriented, liveable spaces and cities through the method of 'learning by doing'. These experiments allow residents to experience alternative uses and designs of streets through pop-up interventions and show how change can be possible.

Bertolini (2020) categorises such street experiences in four different ways: re-marking streets, repurposing parking spaces, repurposing sections of streets, and repurposing entire streets. These experiments may occur in different forms, including small-scale physical interventions like painting the ground to allocate space for different types of traffic, pedestrian crossings and parking spaces (re-marking streets), to transforming on-street parking spaces into semi-public spaces (e.g. parklets), creating public spaces in street sections (e.g. the pavement to plazas programme in New York City and the squares within Barcelona's superblock system) or closing streets to vehicle traffic to create pedestrian-friendly environments (such as play streets) (Bertolini, 2020). Our experiment falls into the first category of re-marking streets that provided stakeholders and communities with time and resources to think about future needs and more permanent interventions while creating awareness in public and institutions.

Street experiments have become popular again during the Covid-19 pandemic, with several examples emerging around the world aiming to create more spaces for people (de Bruijn & Bertolini, 2020; Smeds & Papa, 2023; Vecchio et al., 2021; Verhulst et al., 2023) through practices prioritising walking and cycling (Glaser et al., 2022) and using simple but effective interventions or street events like Open Streets, Slow Streets, or Sunday Streets to develop alternative solutions for the phenomenon of 'COVID-19 streets' (Combs & Pardo, 2021). Even though our street experiment has been influenced by the popularity of the term during the pandemic, our preparations (workshops, public consultation, design marathon) and the experiment itself took place when the Covid-19 restrictions on public transport were lifted in May 2022. Yet, a key lesson that emerged from this period was related to the institutional awareness of local authorities regarding the importance of enhancing public space and walking practices. Therefore, we can state that our communication with municipalities was on equal grounds regarding the need and willingness to adopt such interventions.

With practices designed to initiate change at the street level becoming widespread globally, it is possible to see their reflection in Istanbul. The first examples of pop-up street events and experiments in Istanbul were the pilot projects of the 7th Towards World Carfree Cities Conference in 2007. These events led to the formation in 2010 of the NGO The Street Belongs to Us Association (Sokak Bizim Derneği), one of the partners of the TOPUK Project, which specifically focuses on the practices involved in creating liveable and pedestrian-oriented streets.

The street experiment series of the NGO, called "The Streets Belongs to Us Once in a Month!", aims to show how to utilise streets as safe, open, and car-free public spaces. In collaboration with different stakeholders such as municipalities, residents, and other NGOs, street experiments are organised in different parts of Istanbul; at each event, a selected residential street was closed to motorised traffic on a Sunday to provide residents with the opportunity to use streets as they wished and allow children to play and cyclists to ride in safe, car-free, open areas that would normally be danger zones. "The Streets Belongs to Us Once in a Month" activities set out good practice principles for social actions to create people-centred streets (Erturan, 2016b). So far, events have been organised on fifteen Istanbul streets, resulting in permanent physical changes to three.

Another illustrative example of street experiments and tactical urbanism was held in the Maltepe district of Istanbul, also the site of this study's TOPUK project. Maltepe has undergone significant instances of experimentation in tactical urbanism, including the Zümrütevler Tactical Urbanism Project and the Tactical Pedestrian Priority Play Street. The Zümrütevler Tactical Urbanism Project aimed to achieve a safe and secure public square that was inclusive, sustainable, and accessible to all. As a result of traffic calming in the area and interventions that have increased the amount of space allocated for pedestrians, the public space now contains a play area, banks, trees, trash bins, and a beautiful landscape for children and their caregivers, the elderly, and other users. The project's design impacts have been measured via surveys, the results of which have been published in the Maltepe Municipality's activity reports. According to these findings, the rate of babies chaperoned in the area has increased 3.5 times, and the number of toddlers and children using the area doubled. People felt 72% safer in the area after the transformation. The number of older adults who spent time in the area increased tenfold after the application of the street experiment.

A second impactful street experiment held by the Maltepe Municipality and its partners was located in the Yalı neighbourhood. The Tactical Pedestrian Priority Play Street project aimed to create Istanbul's first pedestrian priority streets with elements of play, and it was designed to be conducted through public rehearsal (Maltepe Municipality, 2022). The project promoted the idea of shared spaces where motorised vehicles and children's playgrounds can coexist, as the municipality believes the city needs such mutualist approaches to fulfil the need for public spaces (Maltepe Municipality, 2023).

As seen in the examples above, Istanbul has had significant experience, inclusive of local communities, in transforming streets for active and healthy mobility. However, the city is still struggling with the clash between motorised vehicles and pedestrians. Despite relatively low car

ownership (209 automobiles per 1000 inhabitants - TÜİK 2023), cars block local streets, with parked vehicles in narrow alleys in historic neighbourhoods, on pavements, and along scenic routes by the Bosphorus. Moreover, cars not only dominate the city's streetscape but also transport policies, with ever-increasing investment in roads insufficient to cope with escalating congestion (Canitez et al., 2020). In this sense, street experiments are also seen as platforms that can raise awareness of sustainable mobility, as they include innovative and progressive interventions that focus on the human scale (Vecchio et al., 2021) and tools to create inclusive and gender-responsive urban places.

4. Case study process and methodology

The project started in early 2022 with efforts to highlight the inequalities experienced on public transport routes in Istanbul with the partnership of Istanbul Technical University's IstanbulON Urban Mobility Lab. After two public meetings, prepared in collaboration with the Istanbul Metropolitan Municipality's (IMM) Department of Transportation, it was reported that one significant form of inequality in public transport was the lack of safety for women on public transport routes, which affected their daily activities and inclusion in the workforce (Kainak, 2021). It was thus decided that the transformation of the surroundings of a specific public transport stop would serve as the main purpose of the project.

Following the initial project, the consortium was enlarged with the participation of the district municipality of Maltepe and the Sokak Bizim (Street Belongs to Us) Association. Consequently, the partnership consisted of five different stakeholders: IstanbulON as a university research centre, EKA Creative as a private firm, the IMM as the metropolitan municipality, the Municipality of Maltepe as the district municipality, and Sokak Bizim as a non-governmental organisation. The EKA, which is a community-oriented design studio that encourages creatives to act together, coordinated the process of the project. The Sokak Bizim Association and IstanbulON, which is a mobility lab with the aim of bringing together companies, industries, universities, and start-ups with communities in order to produce inclusive, sustainable, and innovative mobility solutions, contributed to the design and implementation of the process. Maltepe Municipality, a local district municipality in Istanbul and IMM, as the metropolitan municipality, played a supportive role in obtaining legal permissions and implementing the project.

After discussions with the Maltepe Municipality, the project team decided to concentrate on the Gülsuyu-Gülensu neighbourhoods for the case area selection (Fig. 1). These neighbourhoods were built up through squatter housing back in the 1970s and have become a haven for residents with a particular cultural and political identity. This could be the reason why the neighbourhoods are isolated and lack accessibility (Kurtuluş et al., 2018). Nestled on hilly terrain overlooking the Marmara Sea, the Gülsuyu and Gülensu neighbourhoods caught the eye of developers and local authorities. In the early 2000s, residents from these neighbourhoods led the movement against unjust urban development and displacement projects happening across the city. Having halted demolitions, the two neighbourhoods remained almost as spatial enclaves where accessibility problems persisted. The socioeconomic ramifications of such isolation resulted in lower levels of education, with residents spending only between 7.16 and 7.40 years in school in the two neighbourhoods, compared to the district average of 9 years. Additionally, university graduation rates were low, with only 8 and 9% of residents being graduates compared to 22% in the district. Gülsuyu and Gülensu were also among the three lowest-ranking neighbourhoods in terms of socio-economic development index and socioeconomic status (D and E scales) (Şeker, 2017). In a recent study by the Maltepe Municipality, such vulnerabilities were reported to persist, especially with regard to women's socio-economic status (Maltepe Municipality, 2018). The Gülsuyu subway station, the sole transport connection of these neighbourhoods to the Istanbul transport network, is used intensively by the local public and visitors. There is also a frequently-used bus stop near the station and a minibus stop which has not been formally allocated. Next to the station, the Prof. Dr. Türkan Saylan Cultural Centre

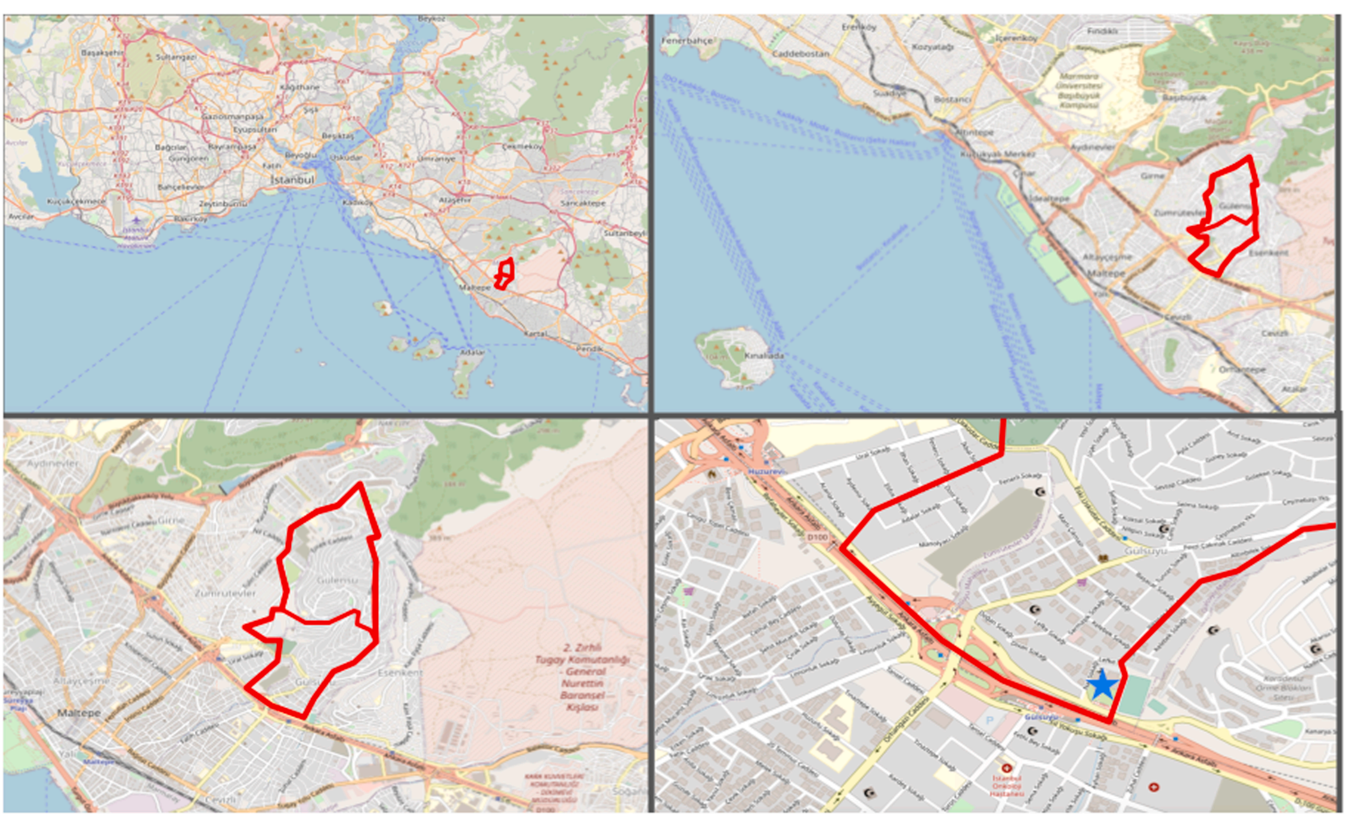

Fig. 1. Project location and Gülsuyu & Gülensu neighbourhood borders, source: OpenStreetMap.

serves as a workspace for the directorates of the Maltepe Municipality and as a local hub for cultural activities. The municipality staff observed that most women using the station walked through the cultural centre's garden rather than using Nar Street, located to the west of the station. This observation was critical in demonstrating women's adaptation to the lack of safety in accessing their streets. The result of these discussions was the selection of the cultural centre and its close vicinity in the Gülsuyu-Gülensu neighbourhoods as the project site.

The project methodology was designed to accommodate participatory methods (Fig. 2). From the determination of the problems to the implementation of the application, the local community, especially women, were involved in the process via different means. One goal in developing the project content was to solicit the opinions of both experts and the local community in different phases of the project. In line with this approach, the project was designed and completed in three phases: analysis, design, and implementation (Fig. 3).

In the analysis phase, a public workshop was held on July 2, 2022, to examine preliminary research results and elicit residents' opinions regarding women's public transport issues in the case area. The project topic and workshop invitations were disseminated to the residents of the case neighbourhoods via posters and the local municipality's SMS tool, which yielded a total of twenty-one participants, fifteen of whom were women. The workshop began with a survey gathering the participants' initial perceptions of everyday public transport problems. Workshop discussions focused on the problems connected to the public transport stations faced by women in the streets, followed by an elaboration on these problems and possible solutions. The participants were also asked to express their views and suggestions on a 1:100-scale site model by using pins, sticky notes, and figurines of trees, people, roads, and pavements. During the week that followed the workshop, the model was openly exhibited at the cultural centre to gain an understanding of its associated problems and acquire suggestions from the visiting community under the moderation of designated municipality experts. The data obtained from the survey, workshop discussions, and model installation were visualised and reported to steer the next phase (Fig. 4). The significant number of women's accessibility issues and corresponding policy and design suggestions collected from the local community led the design phase, which did not additionally involve the community.

The design phase primarily aimed to produce comprehensive and implementable design proposals based on previous findings. An open call for a two-day design marathon targeted undergraduate and graduate students and recent graduates of all universities in Istanbul, focusing on those from planning, design, architecture, urban law, and transport engineering schools. The marathon thus involved young designers who were eager to work on accessible and inclusive urban design in a collaborative setting. Forty-five undergraduates and graduates from fifteen different universities participated in the design marathon held in the cultural centre on 13 and 14 August 2022 and developed projects on-site based on local community opinions. The students, who were divided into eight multidisciplinary groups, developed projects alongside mentors, who supported them for two days. In this sense, the project had a training component. The proposed projects were collectively evaluated by the marathon participants and the designated jury, a method that pinpointed the favoured individual design features of each proposal.

Following the design marathon, the development of the implementation project comprised a selection and fine-tuning of the high-ranked design features of the eight marathon proposals through several meetings with relevant stakeholders, i.e. academics, the IMM, the Municipality of Maltepe, relevant NGOs, and the marathon participants. Among the implementation details were floor painting and pavement widening to allow safe and comfortable pedestrian access, sustainable urban furniture design and locations to meet the resting and socialising needs of pedestrians, and mobile green elements to make walking more enjoyable. Suggestions from the Municipality of Maltepe and the IMM's Transportation Department, as approving actors, guided this process, while the design marathon participants voluntarily supported the preparation of the visuals and the drawing of the final project. Meanwhile, communication was established with the IMM's Transport and Traffic Coordination unit in order to facilitate the design approval process. In this phase, the selection of mapped designs to be implemented mostly relied on technical and legal factors and knowledge. Therefore, the local and metropolitan municipality officials steered this phase in cooperation with the other project partners.

The third phase involved planning the logistics of the implementation and making sure that the local community was involved and participated in the project area and its surrounding vicinity. In addition to the actively sought compliance of the local community's suggestions to the selected design decisions in the draft final plan, a three-week open call was made to the users via social media and banners around the cultural centre, and minor revisions were brought to the final design in line with the suggestions of interested community members. Prior to the day of the street experiment, the area was prepared for implementation

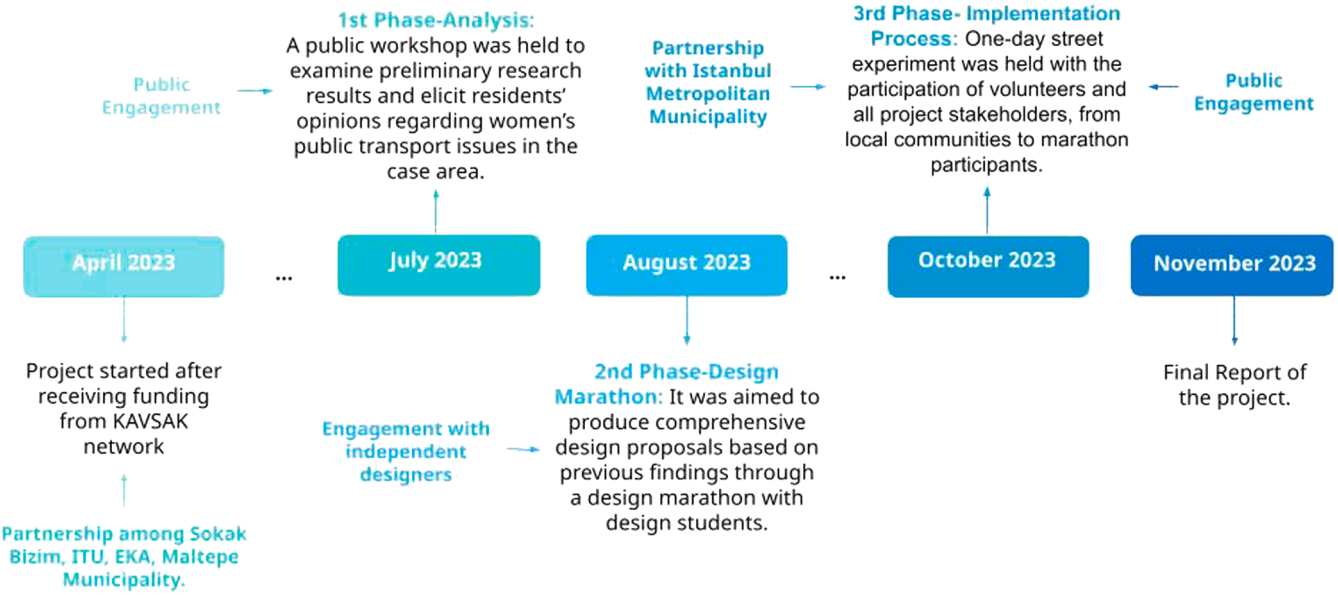

Fig. 2. The project timeline.

Fig. 3. TOPUK's three phases: the participatory workshop and model installation (left), the design marathon (middle), and the street experiment day (right).

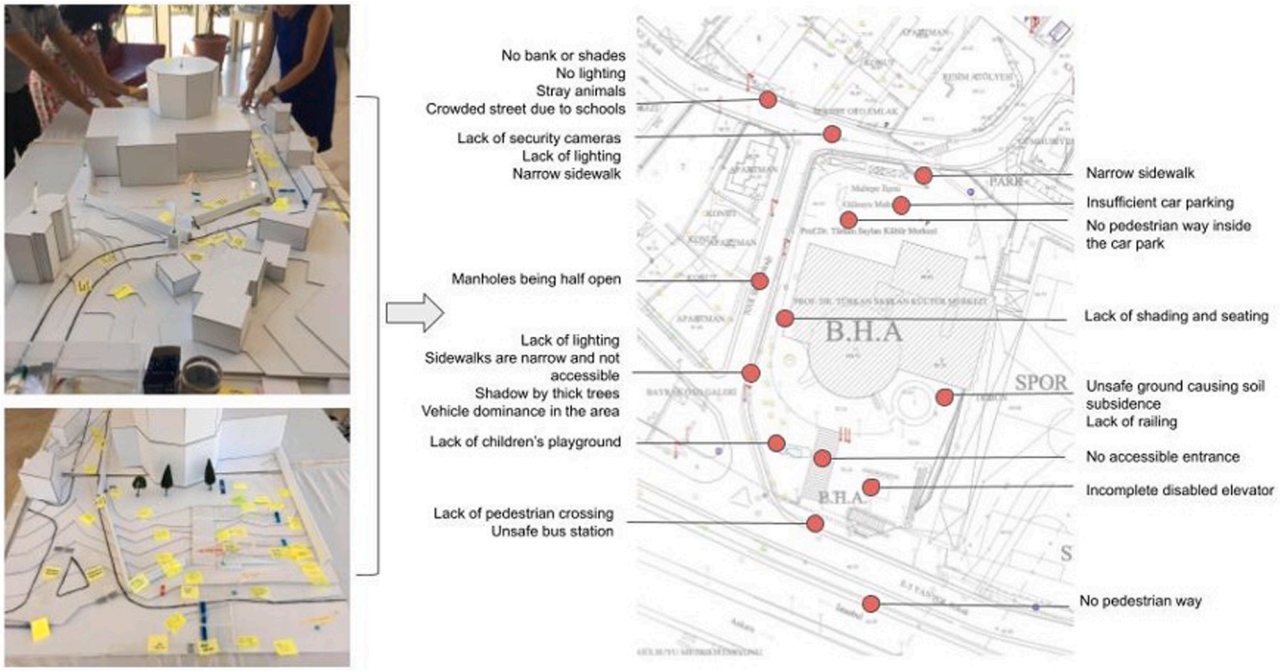

Fig. 4. Project model and the map showing the locations of the problems.

with two days of intensive work, including the removal of parked vehicles, street cleaning, geometry testing, and other measures taken for traffic safety. Volunteers from the partner institutions, design marathon participants, and the local community came together on the morning of Saturday, 22 October 2022, to transform the area. In addition to the implementation activities summarised in the next section, eight of the projects produced during the design marathon were exhibited on-site. These efforts helped to realise an effective implementation with the participation of all stakeholders and the local residents.

One week after the implementation, the project area was monitored by local municipality officials, and physical changes at the street level were photographed in order to reveal any adjustments in the local community's—particularly women's—mobility behaviour, as well as the efficiency of the street-level interventions. The TOPUK project was then finalised with a final project report approved by the funding agency in early November.

5. Results

The results of the project are discussed under three themes: problems and expectations, design decisions and adaptation, and implementation.

5.1. Problems and expectations identified by the local community

In the early stages of the TOPUK project, public engagement through a collaborative workshop and active public consultation on the 3D model helped the project team identify the locations where the problems accumulated before providing the guidelines for the participants of the design marathon (Fig. 4). Throughout the discussions during the workshop, problems shaped around three topics: accessibility, mobility, and safety.

5.1.1. Accessibility

A primary accessibility problem participants mentioned concerned the pavements and the mobility around the cultural centre. The problem elaboration sessions at the workshop and the collective model building revealed that the narrowness of the pavements restricted wheelchair and stroller access and made it difficult for pedestrians to walk. It was reported that vehicle parking on pavements was another factor that hindered their use. Added to these points both in the survey and at the workshop was a lack of ramps, which hindered safe and continuous pedestrian access.

Another focus of the problem elaboration sessions was access to the cultural centre building. A lift project had begun to connect the footpath to the centre's entrance and the metro station, but the construction was unfinished, and only a steel skeleton with no cabin remained. Many participants proposed that the completion of the lift project would improve accessibility to the building and the green space surrounding it. A proposal was also presented to add a ramp around the centre's long entrance stairs as an alternative method of access in the event that the lift could not be completed. Another suggestion from both the workshop and the model building activities was the installation of traffic markings to address the inadequacy of parking lot signs on vehicle routes leading to the parking lot behind the cultural centre.

5.1.2. Mobility

During the workshop and model installation, participants discussed the issues of lack of mobility in and around the study area. Despite the fact that the project prioritised public transport over private car dependence, participants often brought up the low capacity of the cultural centre parking lot, especially during major cultural events. Concerning the model, the participants expressed a desire to use this car parking area as a walking passage by local pedestrians due to the feeling of safety provided by the security guard on the lot. They also specified the need for lighting and urban furniture on Bilginler Street (Fig. 5), the extension of the walking route through the parking lot. Other suggestions concerning the rear end of the cultural centre included providing pavement arrangements on Bilginler Street, increasing the lighting, arranging the ramp at the parking lot-street crossing to be inclusive, and placing a tree-shaded bench allowing users to rest at the same point. Inadequacies on the front side involved the lack of shade-providing planting and seating units in green areas and the need for a socialising and resting area for the youth who use the library inside the cultural centre.

One of the most important causes of the traffic congestion around the centre was the density of shuttles serving the private schools nearby. The tendency of school shuttles to park on street junctions and occupy pavements, which was mentioned in the workshop and also shown on the model, restricted the mobility of both pedestrians and vehicles. It was suggested that increasing the number of delineator posts would prevent some of these vehicles from parking in pedestrian zones. These vehicles also created long queues at peak traffic hours, which was another concern of the community. Local municipality officials stated that a regulation to differentiate the student drop-off and pick-up times of the schools had been passed but did not provide a concrete solution to this problem.

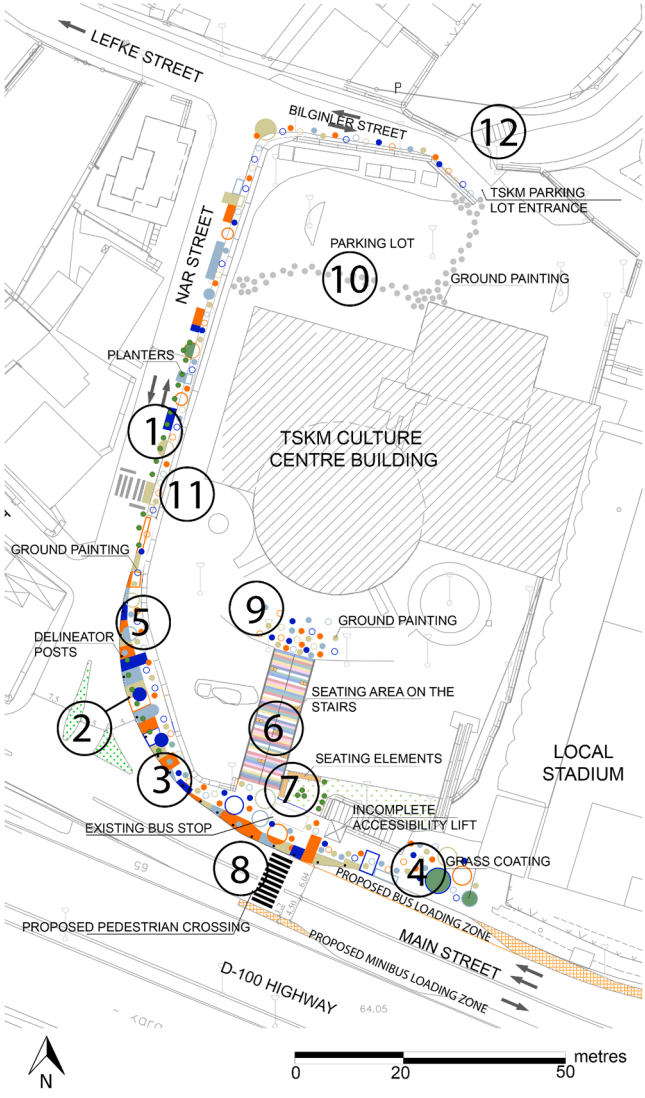

Fig. 5. Street experiment implementation plan (colours represent the pattern implemented on the street).

5.1.3. Safety and security

Participants also discussed the safety issues they observed in and around the project area, in which the garden and surrounding area of the cultural centre are open to public use. They stated that the inadequacy of the railings and barriers on the stadium side of the centre's front garden (east side) created a particularly unsafe environment for families with children, insufficient separation of the pedestrian road passing through the open parking lot to the north of the centre building from the vehicle road heightened accident risk, and the collapse of the filled ground to the east of the culture centre entrance on the stadium side threatened residents' safety when using green areas.

Areas that made the local community feel insecure in the streets around the cultural centre were also examined. According to the results obtained from both the surveys and the model, the lack of lighting on pavements—especially on Nar Street—and trees reducing brightness caused a significant security risk, especially at night. The location selection and placement of the delineator posts along Nar Street created an accident risk for pedestrians, cyclists, the disabled, and strollers. It was stated that cars parking on both sides of Nar Street not only presented a risk to pedestrian safety because of the desolation of the pavements but also increased the risk of accidents for vehicles with restricted vision. The lack of pedestrian crossings and traffic lights at the intersection of the main road and Nar Street also increased the risk of accidents. At the same time, high vehicle speeds on Main Street presented unsafe conditions for pedestrians in front of the cultural centre.

There were also problems regarding the neighbourhood's minibuses, whose routes cross Main Street informally and which used an area on the main road as a stop; these buses' loading and unloading passengers at undesignated zones posed a risk of accidents. Opposite this de facto loading area are metro and bus stops, so the participants discussed a proposal that would regulate both sides of that road section to make both bus and minibus use safer. Also discussed was the lack of pedestrian crossings and seating elements, increasing the risk of accidents in minibuses and bus access points. Participants also brought up the two-way use of Lefke Street, which was originally planned as a one-way road, the queues of school buses located on the street, and the pedestrian safety problems caused by illegal movements. Finally, residents raised the point that neglected stray animals living on Bilginler Street created a safety risk for pedestrians.

5.2. Design decisions and adaptations: The design marathon and the follow-up

The project's design phase involved a design marathon and an assessment of the applicability of the marathon's results. The final design to be implemented consisted of a series of interventions; from the widening of the pavement through ground painting in order to make pedestrian access safe and comfortable to the placement of sustainable urban furniture able to meet the needs of pedestrians and the addition of moving green elements to make walking more enjoyable (Fig. 5).

More specifically, the implementation plan involved executing on-site the following 12 design decisions offered by the eight work groups of the design marathon:

1 Traffic calming: Groups 3, 5, and 6 proposed to conduct a traffic calming intervention through the narrowing of the intersection of Nar Street and Main Street in order to reduce the speed of vehicles

in the area. This proposal also eliminated the problem of cars parking on both sides of the street;
2 Material placement for safety: Group 8 proposed the placement of easily applicable and temporary materials (i.e. delineator posts, planters, and barriers) to ensure pedestrian-vehicle safety along the extended pavement afterwards;
3 Pavement widening through ground painting: Group 6 proposed widening the pavement through painting designs with vibrant figures and colours to be applied to the pavement and asphalt surfaces in order to emphasise the expanded pedestrian areas;
4 Continuity of ground painting: Group 8 proposed extending the ground painting to the subway exit to emphasise the public space feature of the pedestrian areas;
5 Seating elements for recreation/socialisation: In addition to narrowing the roads, Group 3 proposed the locating of seating units for pedestrians to spend time in the painted parts;
6 Seating elements for resting: Group 1 proposed the placement of seating units on the stairs in front of the culture centre building;
7 Seating elements for the active use of the green space: Group 4 suggested that seating units should be placed with the aim of revitalising the grass area behind the bus stop located south of the centre;
8 Additional pedestrian crossing: Group 3 proposed a new pedestrian crossing to facilitate access to the illegal minibus stop located on Main Street;
9 Sustainable design for seating units: Group 8 proposed a seating unit design using recycled materials;
10 Additional ground painting for pedestrians: Group 2 proposed that the surface of the pedestrian trail be painted in the parking lot to the North of the cultural centre building in order to ensure pedestrian safety.

The following suggestions by the designers were not applied during the implementation phase but affected the municipal decisions in the longer term:

1 Maintenance of trees to address lighting: Group 2 proposed that the trees in the TSKM green area near Nar Street should be less dense so that the pedestrian path can receive more lighting: This recommendation led the municipality to develop a policy of periodic tree maintenance and trimming to improve the illumination in the street.
2 Building a neighbourhood park: Group 8 proposed to build a neighbourhood park by combining it with the municipal area near the dead-end Bilginler Street north of the cultural centre; this suggestion led to awareness at the municipality of the street's issues, and an application was made after the project process to convert it into a continuous street.

5.3. *Implementation: towards more permanent transformation*

As outlined in the previous section, the implementation of the street experiment required two days of preparation and one day to execute on site. The preparations involved trimming the trees, removing the parked vehicles on the pavement that would be widened, acquiring materials and equipment, obtaining permits and security measures, and organising the volunteering workforce. The before and after images of the street experiment showcase the differences in the area's fundamental spatial outlook resulting from the intervention (Fig. 6). The street experiment did not involve a formal post-implementation assessment by the local community, although it was planned in the project process. The reasons involved project time constraints that pushed the intervention to the very end of the allowed project timeline due to the aforementioned bureaucratic lags. However, based on the non-systematic collection of the community perceptions and observations by the local municipality officials as well as the other project partners during and after the implementation day, the street experiment has demonstrated the possibility of a safer and more vibrant mobility in the case area, where not only women but also the greater community can access public transport and other relevant services safely in everyday mobilities.

Fig. 6. Before and after the street experiment in Maltepe: The main street-Nar street junction.

Although not all planned interventions were executed because of timing and bureaucratic constraints, the majority were realised—enough to transform the case area effectively and extensively in a participatory setting (Table 1; Fig. 7).

Since the project's closing in early November 2022, some of the design decisions that were planned but not implemented have been involved in the local municipality's implementation agenda; some have already been executed, while others are yet to be implemented. The IMM and the Municipality of Maltepe are optimistic that the remaining items will be tested in a street experiment in the near future and are willing to collaborate further with the remaining project partners. Similarly, the two nested municipalities have expressed interest in executing some of the street experiment interventions as permanent changes at the street level.

Nevertheless, the implementation plan and street experiment have paved the way for more recent practices that the Municipality of Maltepe has realised since November 2022:

- Group 8's neighbourhood park proposal for the North of the study area has transformed Bilginler Street from a dead-end into a continuous road.
- Group 8's emphasis on and the local community's recurring reminders of the suspended accessibility lift project have reactivated the process, and the lift is expected to operate soon.
- Group 2's idea to deconcentrate/rarefy the trees blocking the lighting on the Nar Street sidewalk has prompted the municipality to execute regular and frequent trimming and maintenance of the said landscape.

There has been significant progress at the metropolitan level as well. A series of project outcomes are on the agenda for the approval of the TTC, and an implementation plan has been submitted by Maltepe Municipality and IMM (Fig. 8) which includes the permanent implementation of effective traffic-calming design solutions such as lane narrowing and sharper curves. In addition to the interim design ideas, the informal use of Main Street as a stopping area by minibuses is of

Table 1
Implementation status of design proposals in relation to the designated problems.

Problems		Design proposals		
Description	Participation method	Planned item #	Source	Implementation status
Accessibility				
The narrowness of the pavements	W + M	3, 5	D	Implemented
Car parking on the pavements	S	1, 2, 3	P, D	Implemented
Lack of ramps on the cultural centre stairs	M			Not implemented
Lack of ramps for pavements	S + W			Not implemented
Unfinished lift project by the metro exit	W + M		P	To be implemented post-experiment
Lack of vehicle signs to the cultural centre parking lot	W + M		P	Not implemented
Mobility				
Insufficient capacity of the cultural centre parking lot	W + M			Not implemented
Lack of lighting and urban furniture along Bilginler Street	M	9, 12	P, D	9: Implemented 12: To be implemented post-experiment
Lack of social areas for those using the cultural centre library	W	4, 6	P, D	6: Implemented 4: Not implemented
Inadequate trees and urban furniture in the cultural centre's open areas	M	6, 9	P, D	Implemented
School buses parking at street junctions	W + M	2, 3	P, D	Implemented
Density of parents with private vehicles in front of schools	W			Not implemented
Safety				
Lack of lighting on pavements	S + M	11	P, D	To be implemented post-experiment
Location selection and application of loopholes	M			Not implemented
Inadequate handrails in the cultural centre's open areas	M			Not implemented
No separation of pedestrians and vehicles in the parking lot	W + M	10	D	Not implemented
Lack of minibus loading zone	W + M	8	D	Not implemented
Minibuses loading and unloading passengers at dangerous points	M	2, 8	D	Implemented
Lack of pedestrian crossing and seating near the bus stop	W	4, 7, 8, 9	D	4, 7, 8: Not implemented 9: Implemented
High vehicle speed on the main road	S	1, 3, 8	D	1, 3: Implemented 8: Not implemented
Two-way traffic on Lefke Street, which was originally one-way	W			Not implemented
Car parking on both sides of Nar Street	M	1, 2, 5	D	Implemented
Lack of traffic lights at the Yanyol-Nar Street junction	M	1	D	Implemented
Collapses on the filled ground in the cultural centre open area	M			Not implemented
Solutions regarding the neglected stray animals on Bilginler Street	M			Not implemented

Note: Problems in bold text denote those primarily associated with women by the local public;
S: survey; W: public workshop; M: model building; P: local public; D: design marathon participants

Fig. 7. Street experiment day and new uses in the area.

concern to the municipality, and a new stop and pedestrian crossing has been proposed to the TTC to ensure a safer journey for users of this mode of transport. The municipality has already transformed the street in the rear of the cultural centre to organise the traffic flow around the area better and restarted the construction of the lift in front of the building to ensure better access by the end of 2022. A 30 km/h speed limit on Nar Street has been proposed, and a no-parking zone has been created in order to increase safety and the visibility of the pavement near the metro station and the bus stop.

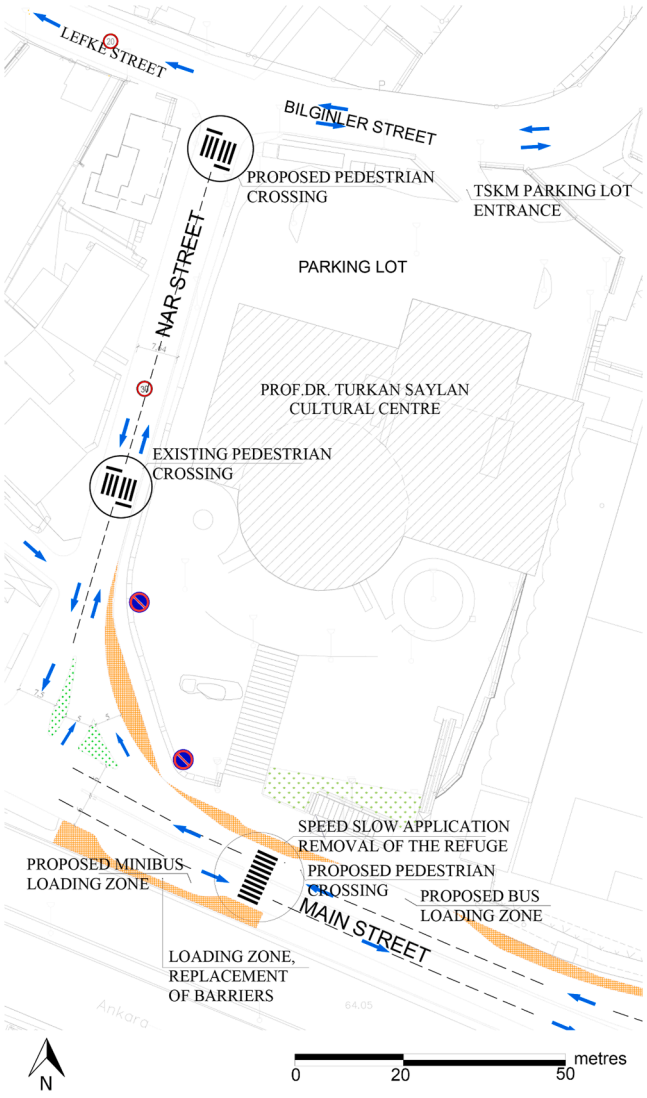

Fig. 8. The formal design implementation plan to be approved by the IMM Transport and Traffic Commission (TTC)

6. Discussion and conclusions

The TOPUK project aimed to integrate community participation into each phase of the street experimentation process. On the community's side, the different participation methods employed in each project phase (i.e. survey, public workshop, collective model building, public consultation, and design marathon) and the collective execution of the on-site experiment have not only improved the capacity of the local public to understand planning processes and develop design ideas but also enhanced their engagement with their community and fostered a sense of identity and belonging regarding their neighbourhood. On the metropolitan and local municipalities' side, the participatory process reinforced the rationalisation of the project decisions and facilitated the rapid implementation of these decisions. The perceived success of the street experiment process has encouraged both municipalities to plan for more permanent transformations on different sites, which is another significant outcome of TOPUK.

The project's intervention into the male-dominated mobility space manifested itself in the prioritisation of pedestrians over cars. By clearing the on-street parking, the project allocated more space for walking and socialising. After the implementation phase, it was observed through the increasing interest and feedback received from people using the street that users, especially women, were positively affected by the project. After the design interventions, the street has become safer for all users. With the seating areas and plants placed in the area, a more comfortable and pleasant walking experience has been achieved for pedestrians. On the one hand, although the project was developed through a participatory process, and the one-day implementation activity was temporary, it outlined the steps to permanently create safe, comfortable, and enjoyable access to public transport, which was the main aim of the project. The potential of the local government's use of these basic outputs to create permanent changes is among the important outputs of the project. On the other hand, had the participatory process been realised more effectively to involve a formal post-implementation evaluation from the local community—particularly women—as was initially planned but not realised due to the bureaucratic constraints that pushed the implementation to the end of the allowed project timeline, the outcomes of the project could have been more reliable. This point is particularly important to increase the validity of future street experiment research in Maltepe and elsewhere.

Even though the case intervention was not 'women-only', the participatory processes successfully incorporated women's insights into the neighbourhood into design and implementation, as the majority of workshop and experiment participants were women. One possible criticism might be the lack of a more women-inclusive participatory process design, in which one or more of the participatory events could have been tailored exclusively to women instead of the general public. However, having acknowledged that "interventions to improve access to city services and amenities for one will likely benefit the other" (Kern 2020, p.89), participants from both the local community and the project actors strove for a street experiment inclusive of all. In this sense, we are inspired by the call for the "feminist reimagining of public spaces as inclusive, caring, comfortable, sociable, and playful" (Kern, 2020). Regarding this point, it might also be worth mentioning that in most cases, as women constitute half of society, their mobility needs address those of society as a whole. Therefore, gender mainstreaming street experiments can be the way forward in creating more inclusive streetscapes.

During the implementation phase, not all proposals could be realised. This is a consequence in part of the lack of time and budget and the scale of proposals, and also of the difficulty in obtaining the permits that needed to be secured from the Transport Coordination Centre (TTC). The project budget was restricted to €3,574, allowing the project team to organise workshops and design marathons (with in-kind contribution from Maltepe Municipality) and buy paint and painting equipment - this pushed the limits to produce urban furniture from unstable materials such as cardboard and recycled cardboard roll. The project's efforts have adequately facilitated the post-implementation process, as most of the proposals have been included in the local municipality's agenda. The various working cultures of institutions posed challenges that affected the quality of participation. The bureaucratic system of government organisations makes coordination harder in smaller municipalities where workers may not feel as invested in a project like TOPUK, which requires more attention and time than regular city construction work.

From a governance point of view, the project experienced bureaucratic barriers to some of the proposed interventions, specifically with regard to the geometric alignment of the street. Prior to implementation, confirmation was required from the IMM's higher transport authority, the TTC, which delayed the street experiment for a while. The TTC can be difficult to communicate with and has a lot of bureaucracy. They recognised the project partners as external partners, even though some units of the IMM, including the Parks and Gardens Directorate's Play and Recreation Department and the Transportation Directorate's Pedestrian and Bicycle Department, were also key partners. Fortunately, these departments helped turn the proposal approval process into an internal communication matter within the IMM, making it easier to get approval. It is predicted that approval will happen in the third quarter of 2023, giving municipalities enough time to implement the permanent design before 2024. Thanks to the project consortium, the institutions took

ownership of the project from the beginning and contributed to solving these bureaucratic problems. The project thus has demonstrated the need for the creation of street experiments as collaborative platforms in order for them to be transformative and long-lasting. This experiment also highlights the need for new regulations that would lessen bureaucratic and political obstacles towards experimenting with new ideas. The current tools used for permanent design are also utilised for tactical urbanism and urban rehearsals. As extensively discussed in the literature, it is crucial to implement gender-responsive transport policies and interventions promptly. The current transportation system has negative impacts on women, including unsafe, insecure, and unhealthy conditions. Delaying action is not an option. Therefore, this experiment created awareness about defining deadlines for the implementation of measures (Pereyra et al., 2017) and the necessity of bringing such interventions to life urgently.

Overall, the paper explored the role of street experiments in improving gendered mobilities from the first step out of the house to the transit stop and promoting more inclusive streetscapes that cater to the needs of women as part of the greater society. While the primary objective of the case study is to improve access to public transport, the underlying understanding that our mobility experiences are holistic and should be handled as such has resulted in design ideas concerning recreation, socialising, general safety, and comfort in street experimentation. In the TOPUK project, these objectives were undertaken through a clear project methodology and process employed by a balanced multi-stakeholder partnership. Participatory planning and design processes are essential in achieving these goals as well, as they ensure that women's voices and experiences are incorporated into the street design process, leading to more inclusive and accessible public spaces for all.

The findings of the case study reveal some points that may be helpful in steering future street experiments work in Maltepe and elsewhere. Among these encouraging target groups for participatory events —women in the case of Maltepe—striving to increase the level of engagement and participation of the local community, particularly women, in all phases of the project, employing team-building activities among project partners and other relevant stakeholders in order to increase the efficiency of the decision-making process, and adopting a more systematic approach to the feasibility of design decisions in the short, medium, and long terms starting from the beginning of the planning phase. This way, the success of street experiments can be further ensured along with a systemic change in urban mobility away from motorised traffic dominance and strategies that prioritise the needs of women in urban transport planning.

CRediT authorship contribution statement

Eda Beyazit: Conceptualization, Methodology, Writing – original draft, Supervision, Funding acquisition. **Imge Akcakaya Waite:** Conceptualization, Methodology, Investigation, Writing – original draft. **Hanna Balik:** Conceptualization, Investigation, Visualization, Project administration, Funding acquisition. **Arzu Erturan:** Conceptualization, Methodology, Investigation, Writing – original draft, Funding acquisition. **Bahadır Keşan:** Conceptualization, Methodology, Project administration.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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