CHAPTER 1

Can Snow-Clearing be Sexist?

It all started with a joke. It was 2011 and officials in the town of Karlskoga, in Sweden, were being hit with a gender-equality initiative that meant they had to re-evaluate all their policies through a gendered lens. As one after another of their policies were subjected to this harsh glare, one unfortunate official laughed that at least snow-clearing was something the 'gender people' would keep their noses out of. Unfortunately for him, his comment got the gender people thinking: is snow-clearing sexist?

At the time, in line with most administrations, snow-clearing in Karlskoga began with the major traffic arteries, and ended with pedestrian walkways and bicycle paths. But this was affecting men and women differently because men and women travel differently.

We lack consistent, sex-disaggregated data from every country, but the data we do have makes it clear that women are invariably more likely than men to walk and take public transport.[1] In France, two-thirds of public transport passengers are women; in Philadelphia and Chicago in the US, the figure is 64%[2] and 62%[3] respectively. Meanwhile, men around the world are more likely to drive[4]

and if a household owns a car, it is the men who dominate access to it[5] – even in the feminist utopia that is Sweden.[6]

And the differences don't stop at the mode of transport: it's also about *why* men and women are travelling. Men are most likely to have a fairly simple travel pattern: a twice-daily commute in and out of town. But women's travel patterns tend to be more complicated. Women do 75% of the world's unpaid care work and this affects their travel needs. A typical female travel pattern involves, for example, dropping children off at school before going to work; taking an elderly relative to the doctor and doing the grocery shopping on the way home. This is called 'trip-chaining', a travel pattern of several small interconnected trips that has been observed in women around the world.

In London women are three times more likely than men to take a child to school[7] and 25%[8] more likely to trip-chain; this figure rises to 39% if there is a child older than nine in the household. The disparity in male/female trip-chaining is found across Europe, where women in dual-worker families are twice as likely as men to pick up and drop off children at school during their commute. It is most pronounced in households with young children: a working woman with a child under the age of five will increase her trip-chaining by 54%; a working man in the same position will only increase his by 19%.[9]

What all these differences meant back in Karlskoga was that the apparently gender-neutral snow-clearing schedule was in fact not gender neutral at all, so the town councillors switched the order of snow-clearing to prioritise pedestrians and public-transport users. After all, they reasoned, it wouldn't cost any more money, and driving a car through three inches of snow is easier than pushing a buggy (or a wheelchair, or a bike) through three inches of snow.

What they didn't realise was that it would actually end up saving them money. Since 1985, northern Sweden has been collecting

data on hospital admissions for injuries. Their databases are dominated by pedestrians, who are injured three times more often than motorists in slippery or icy conditions[10] and account for half the hospital time of all traffic-related injuries.[11] And the majority of these pedestrians are women. A study of pedestrian injuries in the Swedish city area of Umeå found that 79% occurred during the winter months, and that women made up 69% of those who had been injured in single-person incidents (that is, those which didn't involve anyone else). Two-thirds of injured pedestrians had slipped and fallen on icy or snowy surfaces, and 48% had moderate to serious injuries, with fractures and dislocations being the most common. Women's injuries also tended to be more severe.

A five-year study in Skåne County uncovered the same trends – and found that the injuries cost money in healthcare and lost productivity.[12] The estimated cost of all these pedestrian falls during just a single winter season was 36 million Kronor (around £3.2 million). (This is likely to be a conservative estimate: many injured pedestrians will visit hospitals that are not contributing to the national traffic accident register; some will visit doctors; and some will simply stay at home. As a result, both the healthcare and productivity costs are likely to be higher.)

But even with this conservative estimate, the cost of pedestrian accidents in icy conditions was about twice the cost of winter road maintenance. In Solna, near Stockholm, it was three times the cost, and some studies reveal it's even higher.[13] Whatever the exact disparity, it is clear that preventing injuries by prioritising pedestrians in the snow-clearing schedule makes economic sense.

A brief snow-clearing coda comes from the alt-right blogosphere,[14] which reacted with glee when Stockholm failed to execute a smooth transfer to gender-equal snow-clearing in 2016: an unusually high snowfall that year left roads and pavements covered in snow and commuters unable to get to work. But in their rush to

celebrate the foundering of a feminist policy what these right-wing commentators failed to note was that this system had already been working successfully in Karlskoga for three years.

They also, in any case, reported the issue inaccurately. Heat St claimed[15] that the policy was a failure in part because 'injuries requiring a hospital visit reportedly spiked' – neglecting to note that it was pedestrian injuries[16] that had 'spiked', illustrating that the problem was not that pedestrians had been prioritised, but that snow-clearing as a whole had not been conducted effectively. Motorists may not have been travelling well, but neither was anyone else.

The following winter was much more successful: when I spoke to Daniel Helldén, a local councillor in Stockholm's traffic department, he told me that on the 200 km of joint cycle and pedestrian lanes that are now being cleared with special machines ('which make them as clean as in the summer') accidents have gone down by half. 'So it's a really good effect.'

The original snow-clearing schedule in Karlskoga hadn't been deliberately designed to benefit men at the expense of women. Like many of the examples in this book, it came about as a result of a gender data gap – in this instance, a gap in perspective. The men (and it would have been men) who originally devised the schedule knew how they travelled and they designed around their needs. They didn't deliberately set out to exclude women. They just didn't think about them. They didn't think to consider if women's needs might be different. And so this data gap was a result of not involving women in planning.

Inés Sánchez de Madariaga, an urban-planning professor at Madrid's Technical University, tells me that this is a problem in transport planning more generally. Transport as a profession is 'highly male-dominated', she explains. In Spain, 'the Ministry of Transportation has the fewest women of all the ministries both in

political and technical positions. And so they have a bias from their personal experience.'

On the whole, engineers focus mostly on 'mobility related to employment'. Fixed labour times create peak travel hours, and planners need to know the maximum capacity that infrastructure can support. 'So there's a technical reason for planning for peak hours,' Sánchez de Madariaga acknowledges. But needing to plan for peak hours doesn't explain why female travel (which doesn't tend to fit into peak hours, and therefore 'doesn't affect the maximum capacity of systems') gets ignored.

The available research makes bias towards typically male modes of travel clear. The United Nations Commission on the Status of Women found 'a male bias' in transport planning and a failure to address gender 'in system configuration'.[17] A 2014 EU report on Europeans' satisfaction with urban transport describes male travel patterns as 'standard' even as it decries the failure of European public transport systems to adequately serve women.[18] More galling are common planning terms such as 'compulsory mobility', which Sánchez de Madariaga explains is a commonly used umbrella concept for 'all trips made for employment and educational purposes'.[19] As if care trips are not compulsory, but merely expendable 'me time' for dilettantes.

The bias is also clear in government spending priorities. Stephen Bush, the *New Statesman*'s political correspondent, pointed out in a July 2017 article that although the Conservative government has consistently spouted austerity rhetoric, the last two Tory chancellors have made an exception for road-building, on which both have spent lavishly.[20] With living standards falling and Britain already having a fairly serviceable road infrastructure there is a whole host of areas that seem a potentially wiser investment, but somehow, both times, for both men, roads have seemed the obvious choice. Meanwhile, by 2014, 70% of councils had cut bus funding (the

most feminised form of transport), with a £19 million cut in 2013 alone, and bus prices had been rising every year.[21]

British politicians are not alone here. A 2007 World Bank report revealed that 73% of World Bank transport funding is for roads and highways, most of them rural or linking up cities.[22] Even where roads are the right investment choice, where the proposed road leads is not a gender-neutral decision. In an illustration of how important it is that development projects are based on sex-disaggregated data, another World Bank report recounted the disagreement over a proposed road in one village in Lesotho. Women wanted the road to be constructed in one direction to 'facilitate their access to the nearest village with basic services'; men wanted it built in the opposite direction 'to enable them to reach the larger town and market more easily on horseback'.[23]

The gender gap in travel data continues with the intentional omission in many transport surveys of shorter pedestrian and other 'non-motorised' trips.[24] These trips, says Sánchez de Madariaga, are 'not considered to be relevant for infrastructure policymaking'. Given women generally walk further and for longer than men (in part because of their care-giving responsibilities; in part because women tend to be poorer), this marginalisation of non-motorised travel inevitably affects them more. Ignoring shorter walking trips also adds to the gap in trip-chaining data, as this kind of travel usually involves at least one journey on foot. In short, the assumption that shorter walking trips are irrelevant to infrastructure policy is little short of an assumption that women are irrelevant to infrastructure policy.

But they aren't. Men tend to travel on their own, but women travel encumbered – by shopping, by buggies, by children or elderly relatives they are caring for.[25] A 2015 survey on travel in London found that women are 'significantly less likely than men to be satisfied with the streets and pavements after their last journey by

foot', perhaps reflecting the reality that not only are women more likely to walk than men but also that women are more likely to be pushing prams and therefore be more affected by inadequate walkways.[26] Rough, narrow and cracked pavements littered with ill-placed street furniture combine with narrow and steep steps at numerous transit locations to make travelling around a city with a buggy 'extremely difficult', says Sánchez de Madariaga, who estimates that it can take up to four times as long. 'So what do young women with small kids do?'

Valuing cars over pedestrians is not inevitable. In Vienna 60% of all journeys are made on foot, in no small part because the city takes gender planning seriously. Since the 1990s Vienna's head of gender planning, Eva Kail, has been collecting data on pedestrian travel and has installed the following improvements: improved and signed crossing locations (plus forty additional crossings); retrofitted steps with ramps for prams and bikes; widened 1,000 metres of pavement; and increased pedestrian street lighting.[27]

The mayor of Barcelona, Ada Callou, has shown similar determination to give her city back to pedestrians, creating what are called *superilles* or 'superblocks' – squared-off sections of the city with low speed limits open only to local traffic, with roads where pedestrians have equal priority with cars. Another example of easy changes that can be implemented to accommodate female travel patterns comes via London, where in 2016 the 'hopper fare' was introduced to the bus network.[28] Previously, every time a user boarded a bus they were charged for a new journey, but under the new system users can now make two trips in one hour for the price of one. This change is particularly helpful for women because they were disproportionately penalised by the old charging system. This is not only because of women being more likely to trip-chain, but also because women make up the majority (57%) of London's bus

users (partly because it's cheaper, partly because the bus is perceived as more child-friendly), and are more likely to have to transfer (which under the old system counted as a new trip).

The reason women are more likely to have to transfer is because, like most cities around the world, London's public transport system is radial.[29] What this means is that a single 'downtown' area has been identified and the majority of routes lead there. There will be some circular routes, concentrated in the centre. The whole thing looks rather like a spider's web, and it is incredibly useful for commuters, who just want to get in and out of the centre of town. It is, however, less useful for everything else. And this useful/not so useful binary falls rather neatly onto the male/female binary.

But while solutions like London's hopper fare are an improvement, they are by no means standard practice worldwide. In the US, while some cities have abandoned charging for transfers (LA stopped doing this in 2014), others are sticking with it.[30] Chicago for example, still charges for public transport connections.[31] These charges seem particularly egregious in light of a 2016 study which revealed quite how much Chicago's transport system is biased against typical female travel patterns.[32] The study, which compared Uberpool (the car-sharing version of the popular taxi app) with public transport in Chicago, revealed that for trips downtown, the difference in time between Uberpool and public transport was negligible – around six minutes on average. But for trips between neighbourhoods, i.e. the type of travel women are likely to be making for informal work or care-giving responsibilities, Uberpool took twenty-eight minutes to make a trip that took forty-seven minutes on public transport.

Given women's time poverty (women's paid and unpaid work combines into a longer working day than men's), Uberpool might seem attractive.[33] Except it costs around three times more than public transport and women are also cash poor compared to men:

around the world women have less access to household finances than men, while the global gender pay gap currently stands at 37.8% (it varies hugely from country to country, being 18.1% in the UK; 23% in Australia; and 59.6% in Angola).[34]

There is, of course, an issue of resources here, but the problem is, to a certain extent, one of attitude and priorities. Although McKinsey estimates that women's unpaid care work contributes $10 trillion to annual global GDP,[35] trips made for paid work are still valued more than trips made for unpaid care work.[36] But when I ask Sánchez de Madariaga if, in a city like London or Madrid, there is an economic argument for providing transport that caters for women's care responsibilities she replied immediately. 'Absolutely. Women's employment is a really important input to GDP. For every percentage increase in women's employment there is a greater increase in GDP. But for women to work, the city has to support this work.' And one of the key ways to do this is to design transport systems that enable women to do their unpaid work and still get to the office on time.

When it comes to fixed infrastructure like subways and trains, Sánchez de Madariaga explains, there is not much you can easily or cheaply do to address this historical bias. 'You can improve their accessibility,' she says and that's about it. Buses, on the other hand, are flexible and their routes and stops can and should be 'moved and adjusted for need', says Sánchez de Madariaga. This is, in fact, what Ada Callou has done in Barcelona, by introducing a new orthogonal bus route (a grid rather than a spiderweb, which is more useful for trip-chaining). Sánchez de Madariaga also argues that public transport needs to develop 'intermediate services, something between a car and a bus. In Mexico they have something called *terceros*, which are really small, like a mini mini minibus. And they have shared taxis. These have a lot of flexibility, and, I think, could and should be developed to support women's mobility.'

While much of the historical gender data gap in travel planning has arisen simply because the idea that women might have different needs didn't occur to the (mainly) male planners, there is another, less excusable, reason for it, and that is that women are seen as, well, just more *difficult* to measure. 'Women have much more complicated travel patterns,' explains Sánchez de Madariaga, who has designed a survey to measure women's care travel. And on the whole, transport authorities aren't interested in women's 'atypical' travel habits. Anastasia Loukaitou-Sideris, a professor of urban planning at UCLA, tells me that 'oftentimes there is the perception from the part of transit operators that everyone has universal needs. Men, women, everything is the same. And this is completely untrue.' She laughs in exasperation. 'Talking to women riders they bring up a whole slew of different needs that are not being taken care of.'

To make matters worse, transport authorities are compounding the existing gender data gap by failing to separate the data they *do* have by sex. The annual transport statistics report[37] created by the UK government's Department of Transport includes a single statistic (on the gender breakdown of driving-test pass rates – in 2015/16 44% of women passed versus 51% of men), and a link to a page on a government website that hosts a report on gender and walking. The report has nothing to say on the gender breakdown of bus or rail usage, for example, even though this information is vital for planning a transport system that properly serves all its users.

India's public transport agencies also don't separate their data by sex,[38] while a recent EU report bemoaned the paucity of gender-sensitive transport data, explaining that 'this kind of data is not collected on a regular basis in the majority of European countries.'[39] As in the UK, the US's Transport Statistics Annual Report only mentions women twice: once in relation to driving licences and once in

relation to walking.[40] Unlike the UK, however, these references are not even presented as usable statistics, just generalised statements.

A more hidden data gap comes courtesy of the way transport agencies around the world present their data. On the whole, all travel for paid work is grouped together into one single category, but care work is subdivided into smaller categories, some of which, like 'shopping', aren't distinguished from leisure. This is failing to sex-disaggregate by proxy. When Sánchez de Madariaga collected care-related travel data in Madrid, she found that the number of trips made for caring purposes almost equalled those made for employment purposes. And when she further refined the data by sex-disaggregating it, she found that care was 'the single and foremost purpose of travel for women, in much the same way as employment is the main purpose of men's travel'. If all travel surveys were to do this, she argues, planners would be forced to take care travel as seriously as employment travel.

If we really want to start designing transport systems that serve women as well as men, it's no good designing transport infrastructure in isolation, cautions Sánchez de Madariaga, because women's mobility is also an issue of overarching planning policy: specifically, the creation of 'mixed use' areas. And mixed-use areas fly in the face of traditional planning norms that, in many countries, legally divide cities into commercial, residential and industrial single-use areas, a practice that is called zoning.

Zoning dates back to antiquity (what was allowed on either side of the city walls, for example), but it wasn't until the Industrial Revolution that we started to see the kind of explicit division of what could be built where that legally separated where you live from where you might work. And, with its oversimplified categories, this kind of zoning has woven a male bias into the fabric of cities around the world.

Zoning laws are based on, and prioritise the needs of, a bread-winning heterosexual married man who goes off to work in the morning, and comes home to the suburbs to relax at night. This is, explains Sánchez de Madariaga, 'the personal reality of most decision-makers in the field', and the idea that the home is mostly a place for leisure 'continues to underpin planning practices throughout the world.'[41]

But if for these decision-makers the home is 'a respite from paid labour' and 'a place for leisure', that is far from its role in most women's lives. Globally women do three times the amount of unpaid care work men do;[42] according to the IMF, this can be further subdivided into twice as much childcare and four times as much housework.[43] In Katebe, a town in central Uganda, the World Bank found that after spending nearly fifteen hours on a combination of housework, childcare, digging, preparing food, collecting fuel and water, women were unsurprisingly left with only around thirty minutes of leisure time per day.[44] By contrast, men, who spent an hour less than women per day digging, negligible amounts of time on housework and childcare, and no time at all on collecting fuel and water, managed to find about four hours per day to spend on leisure. The home may have been a place of leisure for him – but for her? Not so much.

In any case, in most families both parents work, and with women in heterosexual couples being the most likely to have primary caring responsibilities over children and elderly relatives, the legal separation of the home from formal workplaces can make life incredibly difficult. Those who have to accompany children and sick relatives around the peripheries of an urban area poorly served by public transport infrastructure are forgotten. The truth is that most zoning ordinances do not reflect women's lives (or even many men's lives).

The impact of the kind of lazy unthinking that positions the home as a place of leisure can be severe. In 2009, Brazil launched

a public housing scheme called Minha Casa, Minha Vida (My House, My Life). The plan was to help those (at the time an estimated 50 million people) living in inadequate housing.[45] It hasn't exactly worked out that way.

The stereotypical image of Brazil's *favelas* is one of substandard slums, of crime-ridden areas of poverty and lawlessness, where cowed residents live in fear of prowling gangs. There is a grain of truth to this stereotype, but for many *favela* residents, the reality is very different, and the homes they live in are simply the community-built social housing the state has failed to provide. They have grown in response to need, and are generally located in convenient locations, for both work and transport.

The same cannot be said for the Minha Casa, Minha Vida (MCMV) complexes, which have mostly been built on the far edges of the West Zone, an area which in 2010 was described by Antônio Augusto Veríssimo, director of Rio's housing ministry, as a '*região dormitório*', a dormant region, because of its lack of jobs.[46] In fact, Veríssimo discouraged the building of public housing in this area, for fear of creating '*mais guetos de pobreza*' – more ghettos of poverty. Research from the London School of Economics has also found that the majority of those who have been resettled have been moved much further from their original homes than the 7 km distance allowed under municipal law.[47]

Luisa, forty-two, used to live in a *favela* in Rio's wealthy South Zone, where, along with the Central and North Zones, the majority of jobs in Rio are to be found. 'I walked out of my door and was practically already at work,' she told a researcher for the Heinrich Böll Foundation.[48] 'There was transportation going everywhere. I didn't have to walk for miles just to get to a bus stop.' She now lives in an MCMV condo in Campo Grande, in Rio's underdeveloped West Zone, more than 50 km away from her old home.

With no jobs in the immediate vicinity, residents must travel up to three hours to the North and Central Zones using a transport infrastructure that can be described as limited at best. Over 60% of the new housing units are a thirty-minute walk from the nearest train or metro.[49] And the failure to provide adequate public transport for those relocated from the centre to the outskirts of Rio impacts on women in particular because Rio follows the global trend of men dominating car ownership: 71% of cars are owned by men, and men are twice as likely as women to travel using individual vehicles.[50]

It also particularly impacts on women because of their unpaid care-work responsibilities. Melissa Fernández Arrigoitia, a researcher at LSE, told me about the panic of a woman she interviewed who had just been told that she was being moved to an MCMV complex. Pregnant and already a mother of two, she was only able to work because she could rely on her mother for childcare. Being moved 70 km away from her mother and her workplace would make keeping her job impossible. And in the new MCMV complexes what little childcare provision exists has 'not been renovated or expanded to attend to the new residents'.[51]

The failure to provide childcare is exacerbated by the design of the government's new complexes. The apartments themselves have been designed for traditional nuclear families – but the nuclear family is by no means the standard family unit in a *favela*. 'It's very rare that you go into a home in a *favela* and there aren't three generations living there,' says Dr Theresa Williamson, a Rio-based urban planning expert, adding that she's 'never seen an elderly person living on their own in a *favela*'. Similarly, the majority of the households Arrigoitia interviewed were single mothers, often with both children and an older parent living with them. But the standardised design of these 'super tiny' housing units 'didn't respond at all to the potential variety of families', and a side effect is that the childcare solution

that intergenerational *favela* living often provides has been excluded from the new complexes by design.

As for public space in the MCMV complexes, this is more or less limited to 'huge car parks', despite the fact that very few people have cars, and 'horribly maintained playgrounds' with equipment that is so cheap it is destroyed within a couple of months (and not replaced). The complexes seem designed with privacy rather than community in mind. For the families used to the intimacy of the *favela* where, explains Williamson, 'your kid doesn't necessarily even need childcare after a certain age, because everybody is always watching them', this often translates into isolation and fear of crime. The upshot is that 'kids aren't outside as much, they stay in their apartments'. And 'suddenly women do need to be watching their kids in a way they didn't used to in the *favela*'. Suddenly they need childcare. And they don't have any.

This isn't even an issue of resources. It's an issue of priorities. Brazil spent millions on public transport infrastructure in the run-up to the 2014 World Cup and 2016 Olympics. The money was there, it was just being spent elsewhere. LSE Cities research found that the new Bus Rapid Transit corridors tended to privilege areas where Olympic facilities were located, leaving 'the problem of collective transport between the poorer resettlements and downtown [...] unattended'.[52] Furthermore, according to residents, government relocation priorities seemed to be less about helping those who needed better housing and more about making way for the upcoming World Cup and Olympics infrastructure development.

And so the women pay. Cristine Santos lost her job in a market in Nova Iguaçu after she was moved to the Vivenda Das Patativas complex in Campo Grande. 'I had to take three buses,' she explained.[53] Another woman was so exhausted from her daily commute of up to six hours, that she had a near-fatal car

accident.[54] With few other options open to them women have taken to setting up shop in their new homes, selling drinks, preparing lunch plates, cutting people's hair. But they have to do it in the knowledge that it could get them evicted, because in doing so they are flouting zoning regulations. Turning your home into your workplace is an option in *favela* living because there are no zoning regulations in place: the whole area is already technically illegal. This is not the case with the government's public housing, where, being a residential zone, running a business from your home is strictly forbidden.

So, to sum up, the Brazilian government moved women away from the formal workplace (and indeed the informal workplace: women dominate Brazil's 7.2 million domestic workers) and provided them with inadequate public transport and no childcare.[55] In so doing, they practically forced women to turn their homes into their workplace, by making this the one option that is realistically open to them. And they've made it illegal.

Public housing doesn't have to be this way: but the alternative does require thought. When Vienna's public officials decided to build a new housing complex in 1993, they first defined 'the needs of the people using the space' and then looked for technical solutions to meet those needs, explains Eva Kail.[56] What this meant was collecting data, specifically sex-disaggregated data, because the 'people' this housing was intended to serve were women.

Surveys compiled at the time by Austria's national statistics agency revealed that women spent more time per day than men on household chores and childcare.[57] (According to the latest World Economic Forum figures Austrian women spend double the time men spend on unpaid work, and more time overall on paid and unpaid work combined.)[58] And so, explains Kail, officials designed the housing complex Frauen-Werk-Stadt I (Women-Work-City I – there has since been a II and a III) to cater for women's caring needs.

First came the location, which, Kail says, was carefully chosen to make it easier for women to carry out their caring responsibilities. The complex is right next to a tram stop, has a kindergarten on-site and is close to schools, meaning children can travel on their own from an early age (Sánchez de Madariaga tells me that one of the biggest time drains for women is 'escorting kids to school, to doctors, and to extracurricular activities'). A doctor's practice, a pharmacy and commercial space for other shops are all included within the complex, and there is a large supermarket nearby. It is the ultimate in mixed-use design.

The design of FWS I is, in fact, rather like a purpose-built *favela*. It prioritises community and shared space. Interconnected buildings with a maximum of four units per floor stand around a series of shared courtyards (complete with grassy areas and children's play spaces) which are visible from any unit in the project. Meanwhile, transparent stairwells visible to the outdoors, high levels of lighting in public spaces, and well-lit car parking accessible only via flats, were all designed to promote a sense of safety.[59] Another housing complex in Vienna (Autofreie Mustersiedlung) dispensed with parking spaces altogether, bypassing the zoning rule that specifies one car parking space per new apartment.[60] They instead spent the money on communal rooms and additional play areas. The complex was not specifically aimed at women, but given women are less likely to drive and more likely to care for children than men, the outcome is nevertheless one that caters to women's housing and care needs.

Care work is also built into the interior of the open-floor plan FWS I flats. The kitchen is at the heart of each flat, its visible lines of sight to the rest of the home mirroring the outer courtyard design. This not only enables women to keep an eye on children while working in the kitchen, it also places housework at the heart of the house: a subtle challenge to the idea that housework is solely

a woman's responsibility. Compare this to the tendency a local official in Philadelphia revealed she had to repeatedly check in developers of putting kitchens up on a third floor with no elevator: 'Do you want to carry your groceries and strollers up to the third floor?' she points out.[61]

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INVISIBLE WOMEN

Exposing data bias in a world designed for men

Caroline Criado Perez

2019

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