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European Cities and the Refugee Situation

A Laboratory for Affordable Housing and Urban Resilience to Future Crises

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LA FABRIQUE DE LA CITÉ

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Introduction

Facing slow and long-term mutations, as well as sudden, brutal shocks, has always been an integral part of reality for cities. Their history is evidence of their formidable ability to resist, adapt, and be reborn. Such is what defines urban resilience.

La Fabrique de la Cité has been exploring the different facets of urban resilience since 2014. Why such an interest? Firstly, because, under the influence of unwavering urbanization, cities now concentrate ever-growing populations, ever-growing economic and political centers, and therefore ever-growing stakes. Add to this globalization, which reinforces the propagation of shock waves by fostering the networking of cities on a global scale, but also their interdependencies. Finally, as a corollary of the previous factors, cities are, now more than ever, major actors in risk management and foresight, offering a relevant and efficient level for action and governance.

The shocks and long-term disturbances that cities must now contend with are varied in nature, duration, and scale. After focusing its work on industrial and commercial shocks in a project led in partnership with the London School of Economics and concluded in 2016[1], **La Fabrique de la Cité has decided to address urban resilience to demographic shocks, by turning to the current experience of many European cities with the arrival of countless asylum-seekers.** This choice is not only motivated by the topicality, in 2016, of what is commonly called «the refugee crisis». It is, instead, at the crossroads of situational observation and of the **long-term inquiry La Fabrique de la Cité is conducting into the difficulties all growing European cities are experiencing when it comes to building sufficient quantities of affordable housing.**

Such is, indeed, the angle we have opted for in this study on the reception of those asylum-seekers who arrived in European cities beginning in Summer 2015, a significant part of which are now refugees. First of all, because La Fabrique de la Cité is, with the housing question, at the heart of its mission and of the added value it can bring to this complex subject. Secondly, because it is the first question cities ask themselves: how can they provide a roof for the newcomers? Yet this choice does not mean that we have minimized the other topics connected to asylum-seeker reception - social integration, employment, etc. - or that we have failed to investigate these issues. They are, of course, intricately connected to the housing question, and we touch on them through that lens. That is why, for instance, our study broaches the question of housing and social integration through that of the distribution and location of long-term temporary housing.

This first choice - to focus our study of refugee reception on the subject of housing - entailed a second one: the decision to limit our study to those European cities particularly affected by the refugee crisis. That is why our work has naturally concentrated on Swedish and German cities. **With Germany receiving 890,000 asylum-seekers in 2015 and Sweden being the European Union member-state with the highest number of refugees *per capita*,** the cities located in these two countries offer particularly interesting case studies for whomever aspires to investigate the reception of asylum-seekers in the European urban fabric. Consequently, and as tempting as it may be to stigmatize or criticize in times of crisis, our choice was not motivated by the urge to hand out good or bad marks.

Faithful to its DNA, La Fabrique de la Cité offers insight into what cities have done in all their diversity: indeed, just as no city is identical to the next, each European city seems to have implemented unique responses and initiatives in response to the migratory crisis. Ultimately, this diversity of situations raises a significant challenge when it comes to the replicability of the solutions found. Many cities have thus developed hyper-local solutions to the challenge of accommodating large numbers of refugees. Various models exist, including the Kiel, Munich, Hanover, and Bremen models, as well as the Leverkusen and Krefeld models, which demonstrate that smaller towns, too, can bring forth innovative solutions for refugee housing and integration into the labor market. A multiplicity of responses and models that further demonstrates the interest of an urban approach to migratory issues.

At the same time, our study also shows that all cities are faced with the same challenges, the same questions: how to distribute the newcomers, how to identify available housing, etc. Thus, **by cataloguing the diversity of the responses brought to these challenges, our work can serve as a practical guide for cities currently faced with the same situation**, offering them insight into the different solutions applied from one city to the next. Currently faced with, or soon-to-be...

Let there be no mistake: **the odds are high that what is at play today in Germany or Sweden may occur again in the future. To increase their resilience in both the short and long term, cities have much to gain from safeguarding the teachings and knowledge born of the recent migratory crisis.** Many European cities know the latter is in no way an isolated incident, but is instead part of a new paradigm whereby migratory flows will intensify and demographic shocks will increase in frequency, whether they arise out of political unrest or climate change. These migrations are inherently difficult to predict and it is therefore crucial for cities to prepare for them by capitalizing on the solutions they have already developed.

Therein, precisely, lies the interest of a study of European cities' response to the 2015 refugee crisis, which successively examines these cities' experience with the provision of emergency shelter and of a longer-term housing offer, and the potential connections they have perceived between these challenges and their preexisting affordable housing shortage. **The precious lessons drawn from this episode will allow cities to prepare for future crises, just as it may help them solve broader issues, such as the affordable housing challenge, which could well turn out, in the next decades, to be the most critical threat to urban resilience.**

Cécile Maisonneuve
President, *La Fabrique de la Cité*

The arrival of asylum-seekers, an urban resilience stress test?

a. The 2015 European migration crisis: Context and responses

A European Crisis

Whether places of transit or arrival, many European cities and metropolitan areas have shared, since 2015, the experience of intense inflows of individuals fleeing conflict, political unrest or adversity in Syria, Iraq, Afghanistan, and elsewhere in hopes of finding refuge in Europe. At the European Union level, these flows reached a recent apex in mid- and late 2015: while in 2014, 563,000 individuals had lodged a first request for asylum in a European Union member state, by 2015, this figure had risen to 1.2 million[2]. The closure of the Balkan route and the signature of an agreement between the European Union and Turkey have resulted in a considerable decrease in the intensity of this migratory wave. Still, in 2016, European member states granted asylum to over 710,000 individuals, double the number for 2015[3]. By 2017, however, the influx of asylum-seekers into European countries had largely subsided, with 149,000 persons seeking asylum there in the second quarter of 2017, as opposed to 314,000 in the second quarter of 2016[4]. Despite dwindling arrivals, the demographic flows European countries have received in the past two years continue to produce significant consequences on the morphology, resilience, and policies of their cities.

The German response

"Wir schaffen das" [5]– those three words, spoken by German Chancellor Angela Merkel on 31 August 2015, mere days after the federal government opted to suspend the application of the Dublin III Regulation and to take in hundreds of thousands of asylum-seekers, have become symbolic of the German response to the refugee crisis. At times decried nationally, lauded elsewhere, and perhaps signaling a shift in Germany's conception of its position on the global stage, this stance has often been ascribed to Germany's sense of national responsibility or "*Verantwortung*", itself largely a result of its historical experience of migration. In the direct aftermath of the Second World War, the country found itself on the receiving end of migrations of considerable amplitude: "*Between 1945 and 1949, around 12 million displaced persons and refugees entered the territories of East and West Germany*," [6] writes the Institute of International and European Affairs. Germany continued to receive significant migratory flows in the following decades, from the *Gastarbeiter* of the 1960s and the east-to-west migrants of the second half of the 20th century to the refugees from Bosnia-Herzegovina and Kosovo in the 1990s.[7]

This peculiar history sheds light on one striking characteristic of Germany's response to the recent influx of asylum-seekers: the postulate that the newcomers are here to stay. A majority of the German public opinion appears to share this belief: according to a study published by the Tent Foundation, **in 2016/2017, only 37% of Germans believed that the newly-arrived were looking for "***temporary shelter until it's safe to return to their homeland,***"** while a majority of 51% believed that asylum-seekers aspired to *"create a permanent new life in a different country to their homeland."* [8]

The year 2016 seemed to mark a slight evolution in the German stance, with the decision by the government to suspend refugee family reunifications, and Chancellor Merkel's efforts to accelerate the deportation of individuals whose request for asylum has proven unsuccessful and to promote discussion with other European and African stakeholders on ways to reduce the migratory influx to Europe.[9]

Legal framework for the reception of asylum-seekers in Germany

Upon arriving in Germany, the newcomers are accommodated in reception centers and given vouchers intended to cover their essential needs (food, clothing, healthcare, etc.). From the moment they request asylum until a decision is rendered, asylum-seekers remain in Germany under a temporary residence permit and may not leave the reception center without an authorization. Upon receiving asylum, they are given a short-term permit with a validity period of three years, followed by a residence permit, subject to the agreement of the Federal Office for Migration and Refugees (the *Bundesamt für Migration und Flüchtlinge or BAMF*). Conversely, individuals whose request for asylum is turned down are subject to deportation measures, the speed and enforcement of which vary from one state to the next.[10]

Key figures on the reception of asylum-seekers in Germany

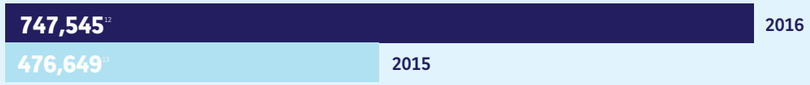
Number of inhabitants in 2016[11]

82.67 million

Average GDP per inhabitant in 2016

€35,432

Number of asylum requests received in



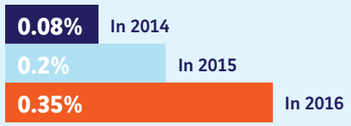
Number of months between request for asylum and permission to work

3[14]

Total amount of public expenses incurred for asylum-seekers and refugees in 2015

€16 billion[15]

Fiscal cost of asylum-seekers, in proportion of gross domestic product (GDP)[16]



The Swedish response

Sweden, too, can avail itself of significant experience in welcoming migratory flows, particularly in recent history: during the Iraq conflict, the small town of Södertälje notably received more refugees than the United States and the United Kingdom combined[17]. In 2015, the Nordic country once again received widespread attention when it welcomed the largest number of asylum-seekers *per capita* in the European Union. The country's attractiveness to migrant populations can be chalked up to its long-standing high protection rates, the unique fact that asylum-seekers may start working as soon as they lodge their asylum request (see inset below), and the country's formerly lenient policy on family reunification.

In contrast with the aforementioned German perspective, in 2016/2017, only 40% of Swedes were of the opinion that the newly-arrived aspired to settle down permanently in their country of arrival[18], with 47% believing instead that the newcomers only "*sought temporary shelter until it's safe to return to their homeland***".**

Legal framework for the reception of asylum-seekers in Sweden

Individuals seeking asylum in Sweden are provided free accommodation and essential healthcare.
All children and youths below the age of 20 are enrolled in school upon arrival.[19]

Of the evolution of the Swedish stance on asylum-seeker reception and the associated legal tools and mechanisms, Bernd Parusel writes:

> **"While in 2014 there had already been serious bottlenecks in the reception and accommodation provision for asylum seekers when asylum seeker numbers climbed to record highs during the late summer and autumn of 2015 Sweden could no longer guarantee new arrivals a roof over their head. Municipalities were unable to provide social services and schooling as required by law, and the processing times for asylum applications stretched longer and longer. In October, the central government suddenly started reacting.**
>
> **A plethora of draconian restrictions was announced to provide 'respite' for the Swedish asylum reception system. The number of asylum-seekers had to be drastically reduced, it was argued. Beneficiaries of protection would in the future only be granted temporary stay, and their right to family reunification would be limited to the minimum required by international and EU law."**[20]

Thus, while Syrian asylum-seekers once used to receive permanent residence systematically, a Swedish specificity, this is now only true of family members seeking to join their relatives in Sweden, and unaccompanied minors.[21]

Key figures on the reception of asylum-seekers in Sweden

Number of inhabitants in 2016[22]

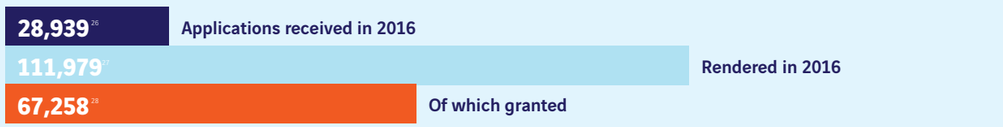
9.9 million

Average GDP per inhabitant in 2016

€43,601

Number of asylum requests in 2015

Number of asylum requests in 2016



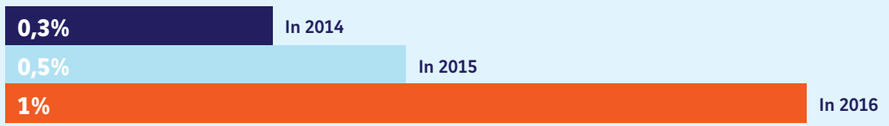
Number of months between request for asylum and permission to work

0 (immediate permission)

Total amount of public expenses incurred for asylum-seekers and refugees in 2015

€6 billion[29]

Fiscal cost of asylum-seekers, in proportion of gross domestic product (GDP) [30]



b. The refugee crisis, a challenge for European cities

From demographic shock to chronic stress

While some European cities, in Greece or Italy for instance, appear to be points of transit rather than final destinations, others, often located in Northern Europe (Germany, Sweden, the Netherlands) have emerged as attractive locations where asylum-seekers aspire to settle down. Asylum-seekers are naturally drawn to these cities, where they expect better chances of accessing employment and hope to avail themselves of the assistance and support of preexisting communities of the same regional or national origin. This has caused many such cities to experience significant inflows of population beginning in 2015. Among them, Hamburg, a city of 1.8 million inhabitants, which, at the height of the influx in summer 2015, received a staggering 400 daily arrivals. The demographic shock has since subsided, transforming into a chronic stress: in 2017, the city still had to house 400 new asylum-seekers monthly, and estimated that 3,000 family members would soon join the newcomers, potentially bringing the total number of arrivals in 2017 up to 7,800. Similarly, Berlin continues to receive 700 to 800 asylum-seekers monthly (a sharp departure from the 4,000 arrivals of January 2017). These and many other cities have undeniably found themselves faced with a demographic shock, the aftermath of which they are still dealing with. However, the newly arrived are not necessarily destined to remain in those cities: an array of national and regional policies determine where they will eventually be allowed to settle.

Distribution or concentration? How to inject a dose of certainty into an inherently uncertain situation

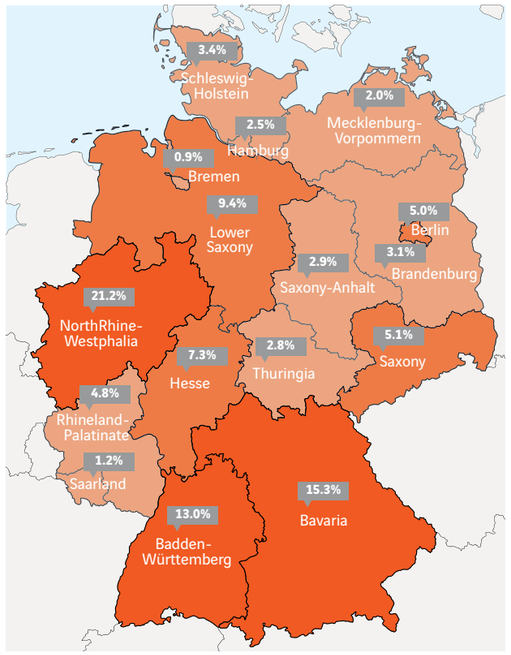
Migration to cities takes place, first and foremost, within the framework of migration to countries. In the European Union, the latter is governed by the Dublin III Regulation, which provides that an individual's request for asylum must be processed in the first member state they entered. This system is widely considered to impose a significant burden on those member states, like Italy and Greece, located on the outskirts of the Union. But the Dublin III Regulation is not systematically followed by European member states: German Chancellor Angela Merkel's 2015 decision to welcome 890,000 migrants directly contradicts its provisions, while Sweden, too, now accepts asylum requests from individuals hailing from other member states.

Once they have entered the country, the number of asylum-seekers received by a city is a matter of national policy. Two approaches exist: a "*laissez-faire*" policy that often leads to the clustering of asylum-seekers in metropolitan areas with sizable minority communities, or the government-orchestrated distribution of refugees. Certain European cities are thus located in states devoid of any distribution policy, and consequently receive inherently unpredictable numbers of newcomers.

Alfonso Lara Montero and Dorothea Baltruks write that:

> **"Dispersal policies are not in place in [a majority of] European countries, which means that refugees are free to go where they see the best opportunities for themselves, but this can also create great disparities between municipalities within countries regarding the number of newcomers they receive and hence the impact on public social services."**[31]

Conversely, other cities are obligated by the state to receive newcomers, but are allowed to conduct negotiations with said state regarding the number of individuals they eventually accept. Sweden previously applied this system, which entailed the calculation of a regional quota and negotiations with municipalities, with some cities historically more inclined to receive large numbers of asylum-seekers. **Yet in January 2016, the Scandinavian country opted for a new system, akin to that of Germany, by enacting a law requiring municipalities to receive a fixed number of individuals, with an aim to impose fair and equal responsibilities on each municipality and to relieve some of them.**[32]



Percentage of asylum-seekers to settle in each German state under the Königstein Key in 2015

The German system relies on a two-fold process. The government first sets a fixed number of asylum-seekers to be received by each state, using the *Königsteiner Schlüssel*, a distribution key governed by fiscal and demographic criteria that hearkens back to 1947 and has since accrued solid popular support. The key allocates asylum-seekers to the sixteen German states following their arrival and registration in a first reception center, or *Erstaufnahmeeinrichtung*. Under this system, the state of Hamburg, for instance, is legally required to receive 2.52% of asylum-seekers. Then, each asylum-seeker is registered in their destination state and redirected to a municipality, based on a discretionary quota system devised by each state.

For German and Swedish cities, this system injects a dose of certainty into an otherwise inherently uncertain situation. In turn, those systems can hope to allow for an efficient preparation to the ensuing demographic shock, with cities armed with accurate information on the number of asylum-seekers they should expect. Conversely, cities with no awareness of how many newcomers they might receive or already have received may struggle with unwanted phenomena, such as the spontaneous occupation of their public space. This system has the advantage of inciting cities to pursue a hands-on, pragmatic approach to housing and welcoming asylum-seekers as quickly, efficiently, and resiliently as their resources allow.

The reception of refugees, a source of short- and long-term pressure on urban resilience

The refugee crisis has produced both short- and long-term pressure on cities; the latter is often overlooked, as attention focuses on the immediate stress caused by the massive arrival of asylum-seekers in cities, and the ensuing priority: the provision of emergency housing, especially as Sweden and Germany have vowed not to let any of the newcomers sleep on the streets. **Yet the long-term stresses are not to be ignored, and warrant a resilience-focused approach with an emphasis on housing: the migration crisis of this decade is, of course, not devoid of repercussions on cities' regular housing market.** Yet challenges abound that surpass the mere arena of housing. These include the challenge of refugee integration, whether into the labor market or into the social fabric, and the preservation of social cohesion in the face of large-scale disruption. In all these issues, cities, a place of both resources and vulnerabilities, come through as the most affected actors, and also, fortunately, the most relevant scale for coordinated and efficient action.

c. As many responses as there are cities

Just as no two cities are alike, each European city has seemingly produced unique reactions and spurred distinctive initiatives in response to the refugee crisis. This diversity stems from the differences in political, social, historical and economic characteristics of these cities. Indeed, asylum-seekers have been allocated to, or have settled in, vastly heterogeneous locations, where the issues of housing and integration are framed differently. These locations include metropolises where the property market is tight, cities with shrinking populations and listless, ageing property markets, multicultural urban centers and suburbs, rural settings with few residents of foreign origin, cities with a longstanding history of openness to the outside world, cities with traditionally strong local anchorage, cities with a diverse and vigorous labor market, and cities with a specialized or slow job market.

Among these various characteristics, the economic wealth of a city appears to bear a significant impact on how well it can respond to a sudden and massive influx of population, with lower-GDP cities encountering more difficulties and quickly-depleted resources when it comes to the provision of emergency or temporary shelter, social facilities and services for the newcomers. These discrepancies can be wide within a same country, proving once more the interest of a city- rather than state-centered approach to the subject.

Thus, Bruce Katz and Luise Noring write, of the different economic situations of Eastern and Western German cities:

> **"Eastern German cities like Dresden and Leipzig generate a relatively low share of GDP to their share of population, while Western cities like Hamburg, Cologne, Frankfurt, and Düsseldorf – the recognized powerhouses of the German economy generate a far greater share of GDP relative to their share of population."**[33]

Similarly, certain cities have a particular economic and industrial makeup that arguably allows for faster integration of asylum-seekers and refugees into the labor market, by providing more employment opportunities accessible to the newcomers. Other cities have no such industries to rely on, or less so, and are forced to deploy scarce resources to assist asylum-seekers, in the form of welfare or unemployment benefits. Thus, Stefan Lehmeier, Deputy Country Manager at the International Rescue Committee (IRC), describes the different industries and economic backgrounds of German cities and their consequences on refugee reception:
"Munich and Hamburg are cities that attract very highly-skilled job seekers who are drawn by the very strong industries that are located in those cities: finance, insurance, aviation, etc. We don't have much of that here in Berlin. There is a bit of industry of that sort that would also provide a strong tax base for the city, but it's just not the same. Berlin is more of a cultural, artistic and political hub and none of these are branches that really help with building a strong tax base. Yet, there are a lot of people coming. It is therefore a complicated environment for refugees to settle down in."

Just like economic circumstances, varied political and institutional configurations can produce radically different responses to migratory flows.

Germany's three city-states, Hamburg, Bremen, and Berlin, have for instance found themselves in a particular conundrum due to their particular status, as explained by Monika Hebbinghaus:

> **"Berlin is in a special situation, just like Hamburg and Bremen. These are city-states, so they don't have the communal level: it's just the state level and below that the city borough. In Bavaria or Baden-Württemberg, after arrival, refugees stay in the state-run first-arrival centers only for the first three months, and are then dispatched to the communes. [...] In city-states like Berlin, they stay during the whole time their asylum application is being processed, and after it is decided, they usually don't move anywhere else and simply stay on, and receive their social benefits and housing from the city boroughs. So there is a big influx and almost no onward movement. On top of that, Berlin as a whole is already a growing city – people come here from all over the world to live and work. In a sense, I don't think there are any places that have it as difficult as Berlin."**

History, too, matters once more: while some cities have been on the receiving end of important migratory flows for decades or centuries, others are traditionally more secluded and less accustomed to receiving such flows. With 33% of its inhabitants and 50% of its children from a migration background, is it any wonder Hamburg came across as a destination of choice for asylum-seekers? Would Hamburg's most successful asylum-seeker housing be located in Altona if that district did not have a secular tradition of welcoming individuals banished from their hometown or homeland? Imogen Buchholz, the social welfare, youth, and health representative for the District Authority of Altona, recalls Germany's extensive experience with migratory flows after the Second world war: *"In Germany, many people of the elder generation lived the experience of being a refugee at the end of World War II; many others fled from the East of the territory to the Western areas of Germany, when the Russian army crossed the Eastern border. Those people know how it feels to lose their home, job, security, and much more."* Buchholz credits this historical heritage and Altona's particular history as a destination of migratory flows for the district's willingness to welcome, support, and integrate the asylum-seekers arrived since 2015.

Whether they be historical, political or economic, these parameters shed light on the reasons why some arrival cities appeared to struggle where others did not, and why European cities have structured themselves differently in the face of this challenge; why the transition from emergency shelters to longer-term temporary housing has taken more time in some cities than others; why some cities have chosen to create ad hoc units dedicated solely to responding to the crisis, while others have ultimately not altered their *modus operandi*, and have chosen instead to rely primarily on civil society's self-organization capacities.

Beyond these characteristics, some cities are merely subject to a more intense demographic shock, further straining their resources and directly affecting their response. For some German cities, this may well be due to a dysfunction in the Königstein system that places an unequal burden on city-states.

Thus, Bruce Katz and Luise Noring write:

> **"As the Königstein quota system only takes into account total population, states that are more densely populated receive disproportionally more refugees per square kilometer than states with more distributed populations. [...] The three city-states (Berlin, Bremen, and Hamburg) receive disproportionally more refugees per square kilometer than the other German states and the nation as a whole. The differences are enormous: Berlin, for instance, hosts 64.5 times more refugees per square kilometer than Mecklenburg-Vorpommern. This is in line with the fact that these city-states also host by far the most residents per square kilometer."**[33]

All in all, this diversity of situations poses a significant challenge when it comes to the possibility of replicating potential solutions. **As a result, many cities have developed hyper-local solutions for the challenge of accommodating large numbers of refugees. Various models exist, including the Kiel, Munich, Hanover, and Bremen models, as well as the Leverkusen and Krefeld models, which demonstrate that smaller towns, too, can bring forth innovative solutions for refugee housing and integration into the labor market. A multiplicity of responses and models that further increases the interest of an urban approach.**

Why focus on select German and Swedish cities?

With Germany receiving 890,000 asylum-seekers in 2015 and Sweden being the European state with the largest number of refugees *per capita*, German and Swedish studies offer particularly interesting cases for anyone wishing to study the reception of asylum-seekers in European cities. Our deliberate focus on a handful of German and Swedish cities (see City Cards p.71), with vastly differing social, economic, and political circumstances, has granted us with valuable insight into the challenges of receiving a sudden influx of asylum-seekers in an urban context marked by scarce available land and a pronounced affordable housing shortage. This document investigates these cities' experience with providing emergency and long-term temporary housing, as well as the potential connection cities have made between these issues and their preexisting affordable housing shortage.

The high stakes of the emergency phase

a. Significant involvement of all urban stakeholders

How have municipalities adapted their structure and operations to respond to the crisis?

In the emergency phase, the fast-paced days and weeks of the demographic shock *per se*, **the most critical stake for a city may well be to structure and organize itself administratively to face the crisis as efficiently as possible. In this regard, European cities have chosen vastly differing responses.** Some have handled the crisis in a silo-ed fashion, **preserving their preexisting mode** of functioning and administrative structures, with, for instance, the department for housing responsible for providing shelter and the department for labor taking charge for the longer-term integration of refugees into the labor market. An alternative strategy consists in **creating a dedicated taskforce,** a strategy implemented most notably in Hamburg with the creation of the *Zentraler Koordinierungsstab Flüchtlinge* (Central Coordination Unit for Refugees, see inset), or in Stockholm with Intro Stockholm (see inset below). In Munich, the task of providing emergency shelter to the newcomers was devolved to a newly-formed planning team established at the peak of the crisis, with a mission to seek available land where asylum-seekers may be housed. Members of the team were "*allowed to make 'high speed' decisions or quickly obtained the approval of their superiors. This team also controlled the distribution throughout the city, taking into account similar existing facilities,*" notes Ulrich Benz, of the Department of Planning and Building Regulations at the city of Munich. Similarly, the city of Stuttgart created an "Integration of Refugees" taskforce comprised of six working groups (labor and vocational training; language and cultural values; family, children, and youth; social integration and neighborhood; healthcare; communication and public relations), with an aim to "*ensure a coordinated and uniform procedure within the city administration to clarify responsibilities and to further develop refugee integration measures.*"[35]

The Central Coordination Unit for Refugees (ZKF)

Created in October 2015 to oversee and implement Hamburg's strategy for the reception and integration of refugees, the *Zentraler Koordinierungsstab Flüchtlinge (ZKF)*, a new entity dedicated solely to tackling the diverse array of challenges born of this demographic shock, is the product of a merger between the Unit for the increase of capacities and public shelter (part of the Hamburg Ministry of Labor, Social Affairs, Family and Integration) and the Unit for centralized and initial shelter (part of the Hamburg Ministry of the Interior and Sports). Its missions include building housing for refugees based on existing needs, coordinating the work of volunteers in emergency housing, implementing first integration measures in emergency shelters, fostering citizen participation and hosting information sessions, providing health advice, and ensuring access of asylum-seekers to schools and kindergartens. Anselm Sprandel, formerly an administrative manager in the Ministry of Labor, Social and Family Affairs and Integration, is since October 2015 at the helm of the ZKF, which currently counts 80 employees.

Of the mobilization of civil society in Germany, Serhat Karakayali and J. Olaf Kleist write that:

> **"The engagement of locals with asylum-seekers in their neighbourhoods became a widespread phenomenon across Germany, as increasing numbers of asylum applicants meant that housing had to be found for them in new and sometimes remote locations. Established organisations working with refugees in Germany estimated an average increase of 70% of interest in volunteering for refugees over a period of three years and more than a third of volunteers were active in self-organised groups and initiatives rather than in established NGOs."**[36]

The fast onset of the demographic crisis and its amplitude, and the associated media coverage, triggered strong involvement from countless volunteers in the service of asylum-seeker reception. With the emergency phase now behind them, cities are faced with a new challenge: to promote continued, long-term mobilization of volunteers throughout the marathon phase of integration.

Private actors, too, have played a decisive role in the emergency phase, specifically on the housing front: they were the ones to provide the materials and components required to build and install emergency shelter as fast and cheaply as possible, as was the case in Hamburg. Yet this was not without difficulties: In Munich, Ulrich Benz recalls: "*due to the tense market situation, it was difficult to find construction companies capable of offering reasonable prices and prefabricated modules*".

Intro Stockholm

Intro Stockholm is a public structure for the reception and orientation of asylum-seekers in Stockholm, founded in 2016 at the behest of the Stockholm municipality using funding from the city's social affairs administration. Camilla Ströberg, Intro Stockholm's coordinator for social support to newcomers, remembers the moment she learned that Stockholm was about to take in over 2,000 asylum-seekers under a newly-enacted law by which municipalities must receive a given number of refugees, with no negotiation possible: "*I had nothing, no budget, no team. We arrived in this building in March 2016, at a time when there were only two social secretaries and six orientation counselors. We had no furniture, no Internet access. But we already had 40 families*". Today, 72 municipal employees make up the Intro Stockholm staff. "*They built an administration in a very short period of time and managed to make it work,*" says Ann-Margarethe Livh, Stockholm's Vice-Mayor for housing and democracy. "*Now the asylum-seekers receive the help they need, they receive housing and the children go to school.*" Last year, the city supported 735 refugee households (or 1,500 individuals).

Fryshuset

Johan Oljeqvist, *Fryshuset* – Thon Ullberg via Mynewsdesk

Founded 30 years ago, *Fryshuset* is a Swedish non-governmental organization whose mission is to ensure that all youth receive equal chances to succeed, regardless of their circumstances. Its activities include sports, educational and social programs targeted at young people living in disenfranchised urban areas in Sweden. The association quickly began to work with young asylum-seekers and refugees in 2015, integrating them into its general programs and making sure to abstain from any reference to their refugee or asylum-seeking status.

Johan Oljeqvist, *Fryshuset*'s president, explains that:

"Being able to abandon your refugee identity as fast as possible in order to make yourself a new identity is a very important success factor [...] You need to make friends who speak Swedish, who know how the system works. We see an extreme increase in the speed of integration when newcomers manage to integrate these networks."

Hanseatic Help E.V., a nonprofit organization providing clothing for refugees

Based on the effort of thousands of volunteers, on the donations of tens of thousands of citizens, and on a self-developed IT-warehouse system, this charitable organization based in Hamburg provides supplies for over 150 shelters and organizations for refugees, homeless people, and other neighbors in need.

The purpose of Hanseatic Help is to provide a fair and efficient distribution of donations across the city.

Beyond this goal, the association has also managed to ship over 100 truckloads of clothes to refugee camps in Iraq, Syria, Kenya, and Ukraine. Hanseatic Help works primarily on a voluntary basis. Since September 2016, six young people from Syria and Germany are the association's first employees. In 2017, Hanseatic Help reoriented its action towards the search for ways to provide asylum-seekers with more opportunities for labor market integration. 20 unemployed refugees and Germans between the age of 25 and 35 are currently taking part in a special program for labor market integration.

Hanseatic Help e.v. CC BY-SA 4.0 via Wikimedia Commons

b. The housing challenge: Ensuring no asylum-seeker sleeps on the streets

The first and perhaps most important challenge European cities encountered during the recent migration crisis was that of emergency shelter: how could they figure out ways to house hundreds, thousands of newcomers as quickly as possible, in dense, built environments with few available plots or buildings? How could they ensure no one slept on the streets? European cities have brought a wide array of answers to these questions. Broadly speaking, the emergency solutions they implemented can be broken down into two strategies. The first consists in using existing buildings formerly dedicated to other uses, such as gymnasiums, schools, or administrative buildings, while the second implies building new, ad hoc structures that serve as emergency shelter.

Accommodating asylum-seekers in existing buildings and facilities

Resorting to existing, in-use facilities is **often cheaper, faster and easier than constructing** *ad hoc* **structures,** as it requires only minimal additional installations (beds, modular inner walls, sanitary facilities, etc.). **Yet it is also less appropriate to long-term use,** proof of an inverse relation between availability on the one hand and potential for long-term use on the other.

Definitions: Emergency shelter and temporary housing

Emergency shelter consists in the very short-term accommodation of large numbers of people in precarious conditions, often in premises not originally dedicated to this purpose (halls, schools) or in transportable, ephemeral prefabricated structures (tents, containers). In Germany, emergency shelter is provided in initial reception centers (*"Aufnahmeeinrichtung"*), where asylum-seekers must stay for up to six months after their have lodged their asylum request.

Temporary housing represents a longer-term form of housing for asylum-seekers, either in dedicated buildings constructed for this purpose, with a definite lifespan, or in permanent buildings temporarily dedicated to this specific use. In Germany, temporary housing includes collective accommodation centers, or "*Gemeinschaftsunterkünfte*", where asylum-seekers are intended to remain until they receive the status of refugee. After this, they may begin to look for housing on their own, either on the private market or by availing themselves of access to social housing. In practice, however, the difficulty of accessing the regular housing market that lowincome, newly-recognized refugees often encounter means that many are forced to remain in temporary housing for years.

In the rare cases when they have had to accommodate only small or dwindling numbers of asylum-seekers, rendering the collective accommodation option less logistically and financially relevant, some German cities have have resorted to decentralized accommodation instead, housing the newcomers in apartments.[37]

These definitions are rendered fleeting by the extension of the emergency shelter phase, with asylum-seekers frequently staying in such housing for several months, sometimes up to over a year, a duration that in fact equates that of some stays in temporary housing. The Asylum Information Database (AIDA) thus writes, of the German case, that "*No figures are available on the number of asylum seekers who still had to stay in such shelters in 2016, not least because there is no clear-cut distinction between some temporary accommodation facilities and emergency shelters.*" The main differentiation between the two types of housing, thus, is not duration of the stay as much as it is type and quality of construction on the one hand, and user experience (autonomy, intimacy, ability to customize one's space) on the other.

Chronologically, this strategy was the first Berlin turned to in order to house the newcomers, as Monika Hebbinghaus recalls:

> **"In July 2015 we undertook a frantic search for every possibility: empty schools, empty office buildings, empty barracks, we had event spaces, etc. […] We mostly resorted to unused office and public administration buildings or schools that were not in use at the time due to dwindling pupil numbers. Some time ago, an administrative reform had been adopted in Berlin whereby the boroughs were downsized to twelve, so we were lucky enough to have several empty town halls that could be turned into emergency shelters. We basically took everything that was there."**

At the height of the crisis, Berlin housed 10,000 asylum-seekers in no less than 63 school gymnasiums. Similarly, the Land turned six empty hangars of the former Tempelhof airport, shut down in 2008, into emergency shelter with a total capacity of 2,500.

Countless other cities opted for this strategy: in Dresden, it is in former hotels that asylum-seekers were first housed. In Stockholm, municipal actors turned to unutilized schools.

> **"Very few of the locales we used as shelter in the beginning were previously dedicated to residential use: schools were our primary source of shelter for unaccompanied minors, for example,"**

Johan Klint explains.

Thus, Stockholm put up bunk beds for 350 children in the classrooms of a former school in Södermalm with a 7,300 square meter surface area. "*We had to make do with what was on hand at the time,*" Klint explains. This included former retirement homes unfit for use by the elderly due to recent regulatory changes: "*The city was forced to shut down [such centers] because new rules had been adopted in terms of accessibility, size of the doors, distance between beds and walls, etc., but there was no problem per se with the apartments themselves, so we could still use them for asylum-seekers.*"

In Hamburg, the Central Coordination Unit for Refugees began, shortly after its inception, to seek out empty lots and free spaces where refugees could be sheltered. Yet the initiative was quickly outpaced by the flow of refugees, which increased significantly in the summer of 2015. "*We had Fridays where we would not know where to put the people on Sunday*", recounts State Secretary for Labor, Social and Family Affairs and Integration Jan Pörksen. Three bankrupt department stores therefore served as makeshift shelters for the newly arrived. "*I remember we had one place we obtained the contract for on Wednesday, and Friday afternoon we had the first people coming in and assigned them some army beds – it was a wild situation,*" Pörksen adds. The city had two clear goals in mind: to prevent anyone from sleeping on the streets, and to avoid resorting to empty school gymnasiums, recalls Fouad Hamdan, Officer for Citizen Participation at Hamburg's ZKF. Thus Hamburg resorted to a second strategy: the installation of new, prefabricated structures on available land.

Installing ad hoc structures on available plots

This second typology of emergency housing implies deploying very large units with limited amenities designed to accommodate as many as possible, as quickly as possible, in response to a humanitarian emergency. These structures must fulfill several criteria: *"They need to shelter the bodies of a certain number of individuals in varied weather conditions for a temporary period; they need to be fairly cheap; and they should be easily transportable […] For these reasons these shelters are usually designed as pre-fabricated kits which can be rapidly erected, often by unskilled labour,"* writes Irit Katz. They are often light structures with limited comfort, as, for example, the Munich *Leichtbauhalle*, ephemeral prefabricated housing of which 15 units were installed at the height of the crisis (see inset p.22). Of this type of emergency shelter, Irit Katz writes that "*their methods of construction often resist alteration and appropriation by their users and cannot be easily adjusted to particular human needs and habits; and their deployment on site in large numbers, often in a grid which is easy to create, control and manage, usually produces repetitive and low-quality spaces which serve a particular purpose but are alienating to their inhabitants.*"[39]

The *Leichtbauhalle* of Max-Pröbstl-Strasse, Bogenhausen, Munich

In April 2015, the Munich City Council decided to erect a Leichtbauhalle site comprised of two light structures on Max-Pröbstl-Straße in the area of Bogenhausen, Munich's largest borough, located in the north east of the city. The city had initially planned to install a container site on this location, until the chosen contractor failed to deliver said containers[43]. Construction of the *Leichtbauhalle* site began in October 2015 and was completed by December of that same year, with a lifespan of two years. The light structures are tents with wooden interior (beds, inner walls, insulated floors) used exclusively for asylum-seekers. Architects incorporated high glass doors into the design in order to provide a visual connection to the exterior surroundings, something which proved difficult to coordinate with the manufacturer. "*We do not want to build a good German warehouse in spite of the time limitation for two years, value should be placed on the quality of the space*," architect Jan Schabert told German magazine *Bauwelt*.[44]

Use of the site became unnecessary in 2016, raising acceptability issues in the neighborhood, with many residents wishing the Halle could be dismantled rather than maintained for potential future use, and advocating for the site to be used as a daycare center location instead.

Specifications[45]

Capacity

230 asylum-seekers

2 residential *Leichtbauhalle*
containing 116 beds and a catering hall

15 sanitary containers

Surface area per inhabitant

9 square meters

Office and warehouse hosted in containers on-site

Building method: lightweight construction, wooden interior work

Stakeholders[46]

Commissioned by the City of Munich,
Municipal Department, Building Department Structural Engineering

Architect: günther & schabert Architekten, Munich

Construction firm: Eschenbach Zeltbay (hall), Zimmerei Höfle, Die Huber-Schreiner

Tempohome site of Tempelhofer Feld, Berlin

Since the eponymous airport closed down in 2008, Berlin's Tempelhofer Feld has become a public space prized of all. Today, the former airfield is the city's largest public park, a factor that explains why efforts to build on the site were shut down after a referendum in 2014. A law ensued, effectively prohibiting any further construction on the site, and widely considered a victory by the Berliners. Yet the legislation was reversed the following year to allow for temporary accommodation, and in 2017 the site was chosen for the installation of four "*Tempohome villages*" hosting upwards of a thousand inhabitants, making it the largest *Tempohome* site in Berlin. Construction has not yet begun, for lack of an operator.[47]

These Tempohomes offer better living standards than emergency shelter, thanks to kitchens, common rooms, and individual dwellings for couples or families. However, they remain significantly less comfortable than the "*Modularen Flüchtlingsunterkünfte*" (MUF), modular housing for refugees offered in several districts of the German capital, that offers temporary housing within permanent buildings. With the edification of the Tempelhofer Feld Tempohome site, the Land of Berlin hoped to be able to move the refugees still living in the hangars of the airport into more adequate housing.

Specifications

Approximately

1,120 residents

Due to be decommissioned by 31 December 2019

Required time for assembly:

2 to 3 months

Average surface area per resident:

13 square meters

Total cost:

€17 million
including €7.2 million for purchase of 976 containers and €9 million for equipping the containers, developing the site, and designing the outdoor facilities[48]

Financed by the State of Berlin

Stakeholders

To be set up by the *Berliner Immobilienmanagement GmbH* (Berlin Real Estate Management company, or BIM) on behalf of the *Landesamt für Flüchtlingsangelegenheiten* (Berlin State Office for Refugee Affairs, or LAF)

View of the Berlin Tempohomes, Courtesy of the State Office for Refugee Affairs, Berlin.

… Other examples of *ad hoc* emergency shelters include the *Tempohomes*[40] deployed in Berlin starting in mid-2016 (see inset p.23), container villages with a lifespan of three years built for the Land by the Berlin Real Estate Company. While operated by a provider selected through a tender process, the Tempohomes have the advantage of being the property of the Land. "*This accommodation represents a next step in accommodation until sufficient space is available in rehabilitated shelter accommodation and new dormitories* (Modularen Flüchtlingsunterkünfte or MUF) *or sufficiently affordable rentals,*" writes the State Authority for Refugee Affairs[41]. Thirty of these one-story container complexes were installed in Berlin, housing over 15,000 individuals, with each site counting eight buildings, or 64 residential units with an individual capacity of four to eight persons. According to the German press, the total cost of the operation amounted to 110 million euros[42], as opposed to the 78 million euros originally budgeted for. Operators were selected by the Land through a tendering procedure.

These two strategies are not exclusive, and cities often pursue a mix of both, as did Munich: the use of vacant facilities and the installation of containers or prefabricated housing

" were both permitted and have been used by the city,"

reports Ulrich Benz.

In this emergency housing stage, the individual safety of asylum-seekers and the provision of adequate sanitation facilities represent critical concerns. Longer-term issues such as social integration do not yet come into play, or only faintly. Instead, integration can be said to coincide with the later stay of asylum-seekers in temporary housing, where they receive education, vocational training, and language classes and wait to receive a decision on their request for asylum. Additionally, most countries impose a waiting time of several months before asylum-seekers can begin to work (with the exception of Sweden): thus, integration into the labor market happens at the very earliest not at the emergency shelter stage, but at the temporary housing stage.

For cities, the particular challenge associated with emergency shelter resides in figuring out how to mobilize the required land immediately. As a result, emergency housing facilities often tend to be built on the outskirts of the city or on decommissioned buildings and lots, most often on municipally-owned plots. Consequently, **the distribution of emergency housing is not dictated by considerations based on maximizing chances for integration;** here again, the urgency of the situation restrains cities' course of action, and localization of housing is founded mainly on what is on hand, rather than on a deliberate policy.

" Sometimes there is reflection on whether the connections between housing and public space are appropriate but most of the time they have to put the housing wherever there are public-owned spots,"

says Sophie Wolfrum, professor of architecture at the Technical University of Munich.

c. Handling an unwanted extension of the emergency phase

Although asylum-seekers in Germany are required by law to remain in emergency shelter no longer than six months at most, the transition from emergency shelter into medium-term temporary housing has, in actuality, often been considerably delayed. Hamburg's 19 emergency housing locations (with a total capacity of 8,082) are currently home to 3,500 so-called *Überresidente*, asylum-seekers who have spent over six months in emergency shelters. This is due to the insufficient availability of longer-term temporary housing. While these numbers seem significant, it is worth noting that in Summer 2016 Hamburg counted no less than 10,000 *Überresidente*. The city is currently working to reduce this number to zero by Spring 2018. Berlin, too, has experienced long delays, with asylum-seekers struggling to move into temporary housing. Monika Hebbinghaus explains that "*some of the people lived in the school gyms for 18 months. The last gyms were closed in late March 2017, and some of them had been there since October 2015, which is a long time to be sleeping in a gym.*" The clogging of the temporary housing system and the difficulties encountered by the city in moving asylum-seekers from emergency shelters into permanent buildings provisionally dedicated to housing asylum-seekers have prevented Berlin from returning some of the facilities to their previous users, as noted by Monika Hebbinghaus:

" While there was a discussion on whether there should be an upper limit on asylum, and politically it was said that 'no, you cannot put an upper limit on asylum', we have to face the fact that there is definitely an upper limit to resources. That is what we experienced: Giving those gyms back was a huge feat. And now we're having other buildings, like one town hall in the neighboring district, that still houses 1,000 refugees. The building is supposed to go to the finance department; they are waiting to move into it. And we have a rising number of students as well, so districts need their schools back. Those empty schools are needed now."

For Stefan Lehmeier, Berlin's situation stands out:

" All of Germany struggled but no part struggled as much as Berlin. Berlin was probably among the last cities to still have emergency shelters in gyms, airport hangars, in former centers that would have been used for exhibitions or fairs. These are all pieces of infrastructure that were never designed for human housing. Whereas other cities advanced much quicker in re-accommodating refugees, in Berlin it has taken forever."

These observations offer evidence of significant delays in the provision of temporary housing, often due to delays in construction. In August 2017, Hamburg's emergency shelters still housed 5,405 individuals.

d. Fostering urban resilience: Ex-post assessment of emergency housing strategies and preparation for future crises

Urban resilience is commonly defined as "*the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience*"[49]. The sudden influx of asylum-seekers in European cities in the summer and fall of 2015 no doubt constituted one such acute shock, causing these cities to struggle with housing hundreds or thousands of newcomers in a matter of days or weeks. Yet such demographic shocks are not limited to influxes of asylum-seekers motivated by political factors; in the future, cities may experience such shocks as a result, for instance, of climate disasters (storms, floods, etc.). Because countless factors can produce a sudden migratory wave or the need to urgently provide temporary shelter to a large number of persons, it is all the more necessary for cities to safeguard their experience of the recent migratory shock, in order to better prepare for future ones and increase their resilience.

Are cities evaluating the emergency solutions put in place beginning in 2015?

> **"Many cities had no specific accommodation strategy for asylum seekers before the sharp increase in refugee immigration in 2015"[50],**

writes Karin Lorenz-Hennig.

Has the demographic shock of the mass arrival of refugees changed this? Are European cities capitalizing on their experience in preparation for future crises? What of the material used for the reception and accommodation of refugees, and of the lessons learned from orchestrating cooperation between various types of urban stakeholders?

Munich-based architect Julia Hinderink has brought up the possibility of "*involving migrants in the planning and building process*" in the course of her work curating the *Flucht nach Vorne* exhibition, and has stressed the need to ask refugees to evaluate the housing projects one or two years later, with a view to use this feedback for future emergency housing projects. "*With such a feedback loop*," says Hinderink, "*you could create a constant adaptation of design.*"

Yet little information appears to be available on whether cities are conducting or have conducted assessments of their emergency shelter strategies and policies, and what the teachings born of those evaluations may be. Our conversations with urban stakeholders in German and Swedish cities indicate that such assessment is, at the very least, not widespread.

Are cities sharing knowledge and experience regarding emergency accommodation?

On the sharing of experience by networks of cities or urban stakeholders, Sophie Wolfrum notes the trans-border cooperation between architects working on temporary housing:

> **"In all of Germany there is a national discussion about best practices. The *Deutsches Architekturmuseum* in Frankfurt is focusing on this topic. Vienna is quite near so we know what happens there, we have relations there. We sometimes share projects. I don't know whether there is an official contact between the cities."**

Making Heimat - German Pavillion at the 2016 Venice Architecture Biennale

Julia Hinderink deplores the fact that cities only rarely share information or best practices regarding the reception of refugees among themselves: "*The one mayor in one city here and the other mayor in the other city there both complain, yet if you tell them, 'look, it's working, you can use this model', they say 'oh this has nothing to do with our situation, it's a completely different model, and we don't have enough money, space or civil society support to implement it*'". Concerns of this type no doubt arise from the aforementioned decentralization of refugee housing models in Germany, which leads many cities to build their own models and strategies for the accommodation of asylum-seekers, based on their distinct characteristics, constraints, and resources. This tension between particular situations and models on the one hand, and cities' ability to share experience, lessons, and solutions on the other, may explain what appears to be a paucity of dialogue between cities on these issues. Yet such experience-sharing between cities would consist not in transposing particular models to various situations, but in sharing work methods; such an exchange would, on the contrary, show cities that each of them can come up with a model and a strategy of its own, using its own resources. In the absence of this type of networking, other stakeholders have stepped in and proposed knowledge-sharing platforms of their own: the "*Making Heimat*" project offers a prime example of this, with its "Atlas of refugee housing" providing precious information on temporary housing projects all across Germany, and facilitating the identification of local stakeholders, thus opening up the possibility of increased networking. The question thus remains open of whether cities will capitalize on the fact that they have experienced similar situations and share their responses, failures, challenges and successes with one another, an approach that may benefit their respective resilience strategies.

What can the cities do with unused supplies and shelters?

This question appears especially relevant as some cities find themselves with a considerable stock on their hands. In Dresden, for example, local activist Maxie Fischer believes the number of asylum-seekers for whom housing would be needed was largely overestimated, leading the city to favor emergency shelter over longer-term convertible housing: "*The city built a lot of shelters because they thought refugees would keep coming but those facilities are empty now. So the city built them but no longer uses them. Meanwhile, it is not building enough temporary constructions that could be used to house other populations later and help solve the affordable housing issue.*" What are cities doing with this sometimes plethoric leftover stock? Hamburg, for one, has opted to keep its emergency housing stock for later use, taking good note of the passage of 181,000 individuals through Italy in 2016, and of unstable situations in Turkey, Iran, Afghanistan, the Middle East and North Africa that might lead to future migratory influxes.

A longer-term challenge:

The provision of temporary housing for asylum-seekers

a. The decision to regard temporary housing as a stepping stone for integration and its implications

Many German and Swedish cities have opted to consider temporary housing as a stepping stone for integration, a postulate with several implications on the distribution, construction, and operation of these provisional accommodations.

Distributing temporary housing across the urban or metropolitan area

Cities that regard temporary housing as a stepping stone to integration often pay special attention to the distribution of temporary housing across the urban territory, a mechanism regarded as an efficient way to increase acceptability and asylum-seeker integration. On the metropolitan scale, the choice between spontaneous concentration and balanced distribution is particularly complex, as pointed out by Doug Saunders, author of *Arrival City: The Final Migration and Our Next World*:

> **"While newcomers use residential concentration as a way to insert themselves into their new society and its institutions, observers may see it as the formation of an ethnic ghetto, slum, or 'parallel society' - especially if obstacles to integration have already created marginalization, deprivation, and intergenerational disadvantage in the neighborhood concerned.**

But the choice to form ethnically concentrated settlements is not just a side-effect of immigration; rather it is a key decision in the integration process. The presence of concentrations of immigrants from the same origin living in close proximity can appear worrisome to the host city, but is often the most effective instrument for both institutional integration and the cultural and linguistic integration that usually follow from it [...] Networks of mutual assistance abet migrants' integration process, and these networks usually rely on residential proximity and concentrated migrant population. A considerable volume of research shows that the formation of ethnically concentrated settlement neighborhoods generally aids and accelerates, rather than hinders, the process of integration."[51]

Recently arrived refugees and asylum-seekers often seek to settle in neighborhoods that are already home to a community of similar regional or national origin, where they can receive information and assistance from people with whom they share cultural and linguistic traits. According to Saunders, these mutual-aid networks, which are based on residential proximity, facilitate migrants' integration process: "*Migrants' ascendance up the urban ladder often depends on financial, employment, and small-business assistance from other migrants of similar background.*"[52] Numerical evidence seems to support this claim, as Bruce Katz and Luise Noring report that *"42 percent of those refugees who had succeeded in finding a job in Germany found employment through personal contacts, such as friends and family."*[53]

But while clustering along nationality lines may help refugees settle in a new city and provide them with opportunities in the short term, the disadvantages of this approach ultimately outweigh its merits. The concentration of refugees within urban enclaves may increase the likelihood that established local populations will greet them with negative reactions, thereby impeding their integration. A similar fear may account for the proliferation of not-in-my-backyard reactions to municipal housing projects for refugees – a sentiment that does not necessarily go hand in hand with a refusal to accommodate refugees within the city but only with the refusal to welcome them in a neighborhood or, more precisely, one's own neighborhood. In addition to these negative reactions, some may perceive refugees as competitors for municipal or public resources, reallocated from regular housing-development to special housing for refugees. Refugees are aware of this and may experience considerable tension between the need to find comfort in a familiar setting and the need to integrate within the local social fabric as promptly as possible by engaging with local residents.

A uniform distribution of newly-arrived refugees across cities may help to diffuse such prejudice and improve the newcomers' integration prospects. Doug Saunders explains[54] that while "*immigration takes places, first and foremost, at the neighbourhood level*", so does integration, while Jürgen Friedrichs notes that "*empirical studies clearly show that interethnic contact evokes sympathy towards the minority and reduces discrimination.*"

Thus, countless cities have implemented deliberate strategies aimed at a balanced distribution of temporary housing on their territory. In Stuttgart, for example, "*housing is really spread out throughout the whole city, because we say if you want to integrate people, they have to be really close to the infrastructure, to the schools, the kindergarten, the supermarkets, social services,*" notes Ayse Özbabacan, a project manager in the City's Integration Department. This last consideration is at the heart of temporary housing strategies that incorporate an integration objective.

Granting access to the city: Providing asylum-seekers with proximity to social infrastructure and public-transport connection to the city

Metro station in Berlin

Where must refugees live within cities if they hope to gain access to the labor market, vocational training, and social support they need? Many cities seem to have considered this question in the process of setting up temporary housing. Consequently, cities have attempted to ensure that the accommodation they offer to asylum-seekers is both close to social infrastructure and well-connected to zones of economic opportunities by way of public transport.

Hamburg, for instance, has conducted a careful examination of the quality of existing connections to employment opportunities and social infrastructure. This partly explains the success achieved by the Notkestraße 2 residential complex, located in Hamburg's district of Altona: "*We have many collective facilities in this neighborhood,*" states Imogen Buchholz, social welfare, youth, and health representative for the district. "*These are very important as they enable refugees to get the help they need.*" Munich, too, has paid attention to this factor: *"the proximity to social facilities, especially kindergartens, was included in the site selection*" process, notes Ulrich Benz.

While the proximity of temporary housing to social infrastructure appears to be a requirement if such housing is also to foster integration, the question of its connection to job opportunities is somewhat more nuanced: no need to live in areas where job opportunities are concentrated, as long as these areas are easily and inexpensively accessible through efficient public transport systems, especially as many refugees do not possess a car and are not used to commuting by bicycle. This is particularly true of Germany, where "*large companies [...] are often located in suburban and rural municipalities*"[55] and "*jobs are far from concentrated in large cities and suburbs, as large industrial companies are often located in rural municipalities.*"[56] Within the country, however, the location of employment nodes differs: "While Berlin and Hamburg accumulate both service sector and industrial firms within city borders, Munich's industrial facilities and warehouses are mostly located in surrounding municipalities."[57]

In this regard, Stefan Lehmeier explains that

> **"the city is an organism that breathes: the fact that you live in a neighborhood doesn't mean that you can only look for a job there. The public transport system is relatively decent [in Berlin], you can still have a job a half-an-hour train ride from where you live, and the economy there might be much stronger. So in principle there are still ways to chart your own way."**

Consequently, access to employment is strongly dependent on public transport. According to the Migration Policy Institute, "*It is difficult to overestimate the value of public transportation investments in facilitating social inclusion and access to opportunities in cities where employment is scattered in nodes throughout the metropolitan area,*" to which Doug Saunders adds that: "*A targeted transportation intervention to increase migrants' access to urban centers can remove long-term barriers to social mobility.*"[58]

In addition to access to employment, an efficient public transport system may also allow asylum-seekers to avail themselves of the resources offered by the city and its ecosystem (integration courses, events organized by civil society) but also to feel more at home in their new environment. Some cities take further steps to improve mobility for asylum-seekers and refugees, by providing discounts on regular fares. In Dresden, for instance, asylum-seekers can procure the Dresden pass previously reserved to unemployed or underprivileged inhabitants.

Limiting the size and capacity of temporary housing units

Imposing a cap on the maximum number of residents per asylum-seeker housing unit may help increase the acceptability of these projects among the local community, while augmenting chances for one-on-one interactions between the newcomers and their neighbors, a scale known to be more conducive to the social integration of refugees. Many cities have adopted these policies: in Stuttgart, each temporary accommodation unit houses no more than 150 to 200 asylum-seekers. Similarly, no single temporary housing location may host more than 250 individuals in Munich. Sophie Wolfrum explains:

> **"The policy of the city is to have quite small amounts of people (though 250 is not nothing), as small as possible, per place, and distributed all across the city. This is the social policy of the city in general, not to concentrate social groups or people on the borders of the city but to work as much as possible towards the distribution of social and economic characters."**

This policy aims to increase acceptability of temporary housing by locals and to avoid potential ghettoization. Intro Stockholm's Johan Klint adds, of the reasons that led the Swedish capital to adopt a similar policy:

> **"We try not to put too many people in any given location because we want to spread responsibility among the different districts."**

Ensuring the personal safety of asylum-seekers in temporary housing

Using temporary housing as a stepping stone for integration requires providing the inhabitants of said housing with effective and perceived security. This involves both setting aside specific rooms or parts of residential buildings for certain types of asylum-seeker populations, and purposely separating certain types of population from others.

In its Notkestraße housing complex, for instance, the city of Hamburg has opted to purposely separate, in some rare cases, ethnic or religious communities with special enmities. This thoughtfulness runs through the entire organization of the center: families are placed in ground-floor apartments so that they can look over their children as they play on the facility's two playgrounds, a room is specifically reserved for LGBT women.

In Berlin, Elena, a social worker at the Paul-Schwenk-Straße temporary housing complex in the district of Marzahn-Hellersdorf, tells a similar story:

> **"The center is organized so that single men traveling alone stay mostly on one side, and families with kids stay mostly in another house […] Of course we have a lot of people who would like to be alone, but we also have people who need to be alone in their room for psychological reasons. So we are constantly trying to match the rooms with the people based on preferences."**

Yet such precautions are not always feasible. In Stockholm, Johan Klint notes: "*We don't have the capacity to pay attention to this. There are very few available spaces for us to house asylum-seekers. There are two months between the moment the Migration Agency tells us the person is arriving and the moment when the person actually does arrive. This is a small time window so we can't individually choose where to put each person or family. We ensure that disabled individuals receive larger apartments they can access in a wheelchair, and that they can use an elevator if they don't live on the ground floor.*"

While tailoring temporary housing to the individual needs of its various types of population is at odds with the imperative of quick and cheap provision of housing, many cities appear to make personal safety in temporary accommodation a priority, often through the inclusion of on-site security staff, or the setting aside of specific spaces for vulnerable asylum-seekers.

Normalizing temporary housing through careful design of exterior spaces

Ensuring quality of life in temporary housing implies a broader reflection on the direct environment of said housing, whether it be courtyard space within a complex, or the juncture with the street and surrounding neighborhood. Many European cities boast longer-term temporary accommodation where careful thought has been given to the arrangement and design of those spaces, especially as some may be used again in the long haul as social or regular housing. In Stuttgart, asylum-seekers grow plants placed in crates throughout the alley that separates the two residential buildings of the Breitscheidstraße temporary housing complex. In Berlin, the Paul-Schwenk-Straße temporary accommodation center offers outdoor ping pong tables and a plaza designed to encourage discussions and interactions among residents. Similarly, Hamburg's Notkestraße complex is composed of several buildings arranged around a playground for small children.

Playground in a center square at the Notkestrasse housing complex for asylum-seekers in Hamburg

The question of the connection of asylum-seeker housing to the surrounding community is complex: it involves addressing security concerns (protecting the residents from potential malevolent action targeting the accommodation) and reflecting on ways to promote the occurrence of interactions between asylum-seekers and their neighbors. Many architects have pored over these questions and emitted recommendations on how to elicit community interest in visiting asylum-seekers, and thus normalize their status within their new neighborhood.

Munich-based architect Julia Hinderink thus suggests setting up businesses on the ground floors of asylum-seeker housing:

> **"For any migrant housing project, you should have that communicational bit integrated in the building, by installing shops in the basement."**

In Hamburg, the district of Altona has taken the logic further by creating events in the public space that spark encounters and interactions between asylum-seekers and other inhabitants, such as district-sponsored neighborhood parties and festivals or concerts showcasing asylum-seeker bands or orchestras during official events. By promoting personal interactions between asylum-seekers and local populations, such initiatives may prove helpful in decreasing the risk for harmful situations born of fear or rejection on the community's part. In this regard, micro-actions promoting meetings between individuals (mentorships, neighborhood events, family sponsorships) might prove particularly effective.

Entrance to the social worker office building of the Notkestraße housing center in Hamburg

Providing on-site social services and assistance

Providing temporary housing liable to host asylum-seekers for over 18 months requires offering the social services this specific type of population requires during the early phases of integration and adaptation to their new environment, as well as security services destined to ensure residents are safe from potential aggression. Berlin's Paul-Schwenk-Straße boasts a team of social workers present on-site every day from 7:00am to 5:00pm. At the Notkestraße housing complex in Altona, Hamburg, a social facility building hosts a team of eight social workers, who, along with three technicians, make up the staff of the center. Each social worker is specialized in a given field, whether schooling and education, integration and access to language, psychological assistance, or access to the labor market. To promote engagement in the operation of the houses and a sense of community, the staff organizes house meetings dedicated to safety measures and potential problems encountered by the residents.

"Some houses had a lot of people coming, in some others there was a representative of the family or the floor. This had a very positive effect, the environment is being watched over, they have learned they have to protect it, to keep it clean. It is a culture of good practices that they are exchanging about and adapting to",

says Athanasia Ziagaki, team leader at the refugee accommodation center.

Temporary housing and the first steps to integration: Language-training, labor, recognition of qualifications

Temporary housing can be the launching pad for asylum-seekers' integration into their city of arrival, as the stay in such housing often coincides with the extended period of time over which they receive vocational and linguistic training. In Hamburg, for example, a strong emphasis is placed, during this stage, on the early education of children, a lesson the city learned from its experience welcoming significant numbers of Yugoslavian refugees in the 1990s and put to use in its management of the 2015 crisis. "*All shelters from the very first day have child-care facilities*", notes Secretary Jan Pörksen. Accordingly, Hamburg is investing substantial financial means into early education. "*50% of children who only go to kindergarten for one year before going to school and have another native language than German end up needing language support when they get to school. If the children go to nursing school or kindergarten for three years before going to school, this number decreases to 10% even in neighborhoods with 80% of people with a migrant background*," says Jan Pörksen.

Additionally, Hamburg inserts asylum-seekers into an apprenticeship system through vocational schools, which offer language training and are mandatory for all individuals aged 16 and over. The German apprenticeship system offers schemes whereby refugees attend classes three days each week and spend the two remaining days interning in a corporate environment.

A prerequisite to integration into the local labor market and long-term social integration, language proficiency, too, is a fundamental component of Hamburg's integration policy. A one-year German language track is available at all levels of schooling (secondary school, gymnasium, etc.), after which students are redirected to the regular track in an effort not to separate them from other students. This focus on language learning explains the fact that the number of refugees integrated into the Hamburg labor market remains small, as many of them are currently still enrolled in language courses. Finally, the city makes special efforts towards ensuring that refugee women enroll in these language courses.

Because asylum-seekers' stay in temporary housing coincides with these efforts to train and prepare them for employment, many cities have taken into account connection to social infrastructure and areas of economic activity when considering locations for temporary housing (see above). But many stakeholders are also examining the potential of housing itself for promoting integration, spearheading housing projects that foster proximity between asylum-seekers and their new neighbors.

Offering proximity with other types of population by promoting mixed housing projects

Many pilot projects were initiated following the onset of the migratory crisis in 2015, mixing asylum-seekers with other types of local populations in order to increase acceptability of asylum-seeker housing and promote integration. In Stockholm, for instance, a building will soon house a blend of young students and asylum-seekers, while some of the retirement homes used as temporary shelter for asylum-seekers retain their original inhabitants, allowing for a mix of populations. In Berlin, a group of LGBT asylum-seekers and refugees will share a building with LGBT students and elderly in the neighborhood of Friedrichshain starting in 2018. Similar projects promote proximity between asylum-seekers and locals at the block scale: such is the case with Stuttgart's Pallotti House, due to be delivered in 2020, and which will comprise eight buildings for asylum-seekers and refugees, surrounded by student residences and social housing. Of this project, *Making Heimat* writes:

"In Stuttgart-Birkach, where the disused church of St Vinzenz Pallotti from the 1960s is located, a mixed residential neighbourhood is planned with living space for asylum seekers and refugees with the right of abode. In all eight buildings are to be erected on a 8,500 m² site: six with a total of 64 condominiums, a three-storey structure for an extended day-care centre and the so-called Pallotti House with accommodation for 60 asylum seekers, refugees and students. [...] The purpose of the Pallotti House is to promote or assume the social function in the neighbourhood."[59]

b. A sizeable conundrum: The identification of available, suitable plots and facilities for temporary housing

Finding available plots and buildings…

Identification of available, usable space is one of the prime constraints bearing down on cities wishing to provide temporary housing, especially as they have to operate in a short timescale. "*Despite the excellent work of the planning team, it was not easy finding suitable plots*" for the temporary housing of asylum-seekers, notes Ulrich Benz, of the Department of Planning and Building Regulations in Munich. Indeed, cities famously suffer from an incomplete vision of the assets they own as well as the characteristics of these assets: "*most cities have poor knowledge of what assets they own,*" writes Dag Detter.

Some cities must contend with further challenges in this area: the Land of Berlin, responsible for the purchase, construction, operation and shutting down of asylum-seeker and refugee housing, must subject itself to long negotiations with the city's twelve districts to obtain constructible plots. "*It is tough negotiating with the boroughs because they fight teeth and claw not to give us the good sites. It's a 'not in my backyard situation',*" says Claudia Langeheine, president of the Berlin State Office for Refugee Affairs (LAF).

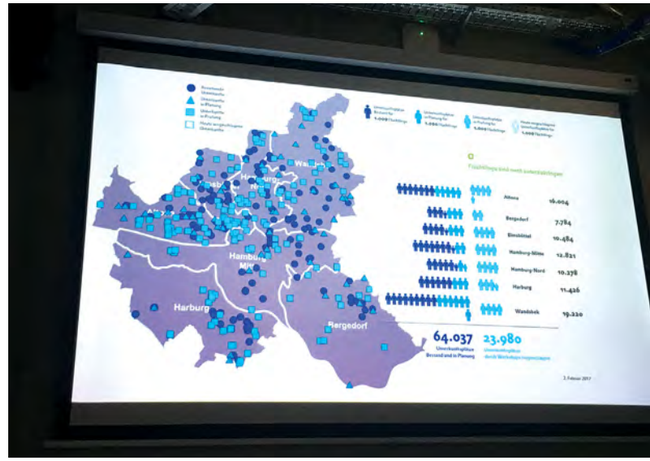
Monika Hebbinghaus, the spokesperson for the LAF, recounts the first round of negotiations with the districts aimed at identifying spaces to construct or install temporary accommodation:

"They wanted to seem cooperative but in the end a lot of what they offered were buildings that couldn't be used without a year of renovation, or sites that were dubious. Some offer looked good in the beginning, but then people would start checking it out and cross it off. […] The districts have a pretty good knowledge of their assets, but there is no real transparency, they are holding their cards really tight to themselves. And certainly the city's districts have to shoulder their own responsibilities. As the population of Berlin grows, they desperately need the few existing municipal land plots to build new schools. So in theory, the housing of refugees should be a city-wide joint effort – in practice it often turns into a field of conflicting priorities."

The challenge of accruing information on usable plots in order to be able to start building medium-term accommodation quickly makes a convincing claim for increased information-sharing, through perhaps contributive databases that could list all available land owned by municipalities. Such databases could include actionable information regarding accessibility, commercial appeal, and proximity to public transit and teaching and training institutions.

An experiment conducted in Hamburg by HafenCity University and the municipality provides one such solution to this challenge. The Hanseatic city used a 3D-visualization tool to consult inhabitants, through a series of civic workshops, on potential sites in their neighborhoods that could be used as temporary housing locations.
The experiment (described below, see inset) led the city to single out 161 locations, of which three are now complete.
These results highlight that identification of land itself does not suffice: regulatory requirements considerably constrained the city's ability to use the plots brought forth by its inhabitants.

Hamburg's "Finding Places" project



Map of existing and planned asylum-seeker housing in Hamburg, "Finding Places" project

Located in HafenCity Hamburg, a massive urban regeneration project on the Hamburg waterfront, HafenCity Universität is a young university dedicated to urban planning, civil engineering, and architecture. The University is home to the CityScienceLab, an initiative launched in June 2015 by Olaf Scholz, Mayor of Hamburg, in cooperation with the Massachusetts Institute of Technology Media Lab's Changing Places Group, with a view to make the city "a living laboratory for digital urbanization". Shortly after its inception, the Lab began to experiment with CityScope, a new technology developed by Changing Places with an aim to solve complex urban planning problems.
An interactive city model combining digital (data-visualization and algorithms) and physical elements (Lego bricks), CityScope is a versatile, open-source tool for 3D-visualization of urban territories. While the CityScienceLab originally intended to use the tool to plan for the reconversion of Hamburg's 2024 Olympic Village into an urban innovation district, those plans were cut short when a popular referendum put an end to Hamburg's planned bid to host the Olympics.

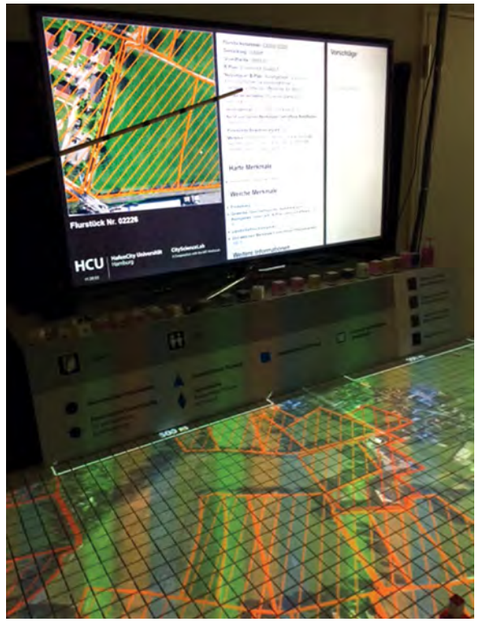
From May to July 2016, over 500 citizens flocked to the University to submit ideas for city-owned, public plots where local authorities may want to consider developing temporary, modular housing for refugees. Walking into the CityScienceLab, participants were greeted by a map displaying existing and planned refugee accommodation in each of the city's seven districts, and projected housing needs. With these figures in mind, participants were then led to two interactive, digital models of the city. As each workshop focused on a specific district, the first of these models allowed for a global vision of the district geography, with aerial views and marks for existing housing offering visitors a primary understanding of the possibilities of the area.

A representative of the district municipality and a member of Hamburg's ZKF attended each of the workshops, allowing citizens to engage directly with the City, exchange perspectives, and, at times, address preexisting biases. After selecting an area of interest within the district at hand, participants were invited to move on to a second model at a smaller, neighborhood scale.

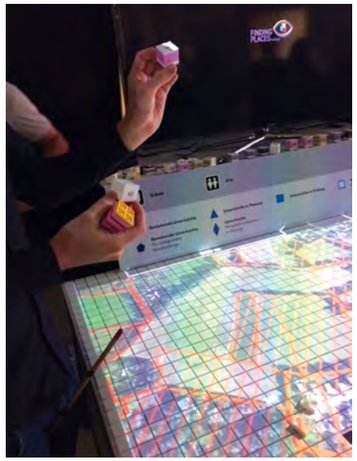
Covered in removable bricks, this second model showed an aerial view of the neighborhood superimposed by projectors. Citizens could suggest a particular location by removing the corresponding brick and replacing it with a Lego brick. Different Legos symbolized different capacities (40, 80, or 1,000 refugees), and, upon being placed on the model, allowed participants to see the number of needed housing decrease in real time. Placing Lego bricks onto the model had the effect of displaying, on a screen, the characteristics of the specific plot of land: size, location potential, applicable laws and restrictions, etc.

Participants also had the opportunity to write down comments explaining why they regarded a given location as worth considering. These comments were especially precious to the City, which vowed to examine each suggestion within an extremely short timeframe of two weeks, as they drew on inhabitants' ultra-local knowledge of available spaces and their proximity to amenities and social infrastructure.

This unique participatory approach relied on non-moderated comments delivered directly by the citizens in writing, with no prior reinterpretation before transmission to the local authorities for examination. The comments were publicized on the "Finding Places" website, as were the city's responses, in a transparent process that allowed the initiative to include all citizens, regardless of whether they attended a workshop. This approach, added to the extremely fast reaction time guaranteed and delivered by the city, worked to increase dialogue and confidence between the city and its inhabitants.



Characteristics of a designated plot are shown to participants on a screen at the "Finding Places" project



Mobile bricks of the "Finding Places" urban visualization tool

Far from a gimmicky game of Legos, "Finding Places" also highlighted the inextricability of housing and integration, and encouraged participants to consider aspects such as equal and fair distribution, as some districts are accommodating a significantly higher number of refugees than others. Participants further took into account the extent to which the selected location would facilitate the integration of the newcomers into the existing community by checking for the presence nearby of organizations and civic initiatives working towards integration. Potential locations were eventually divided into three categories based on accessibility and potential construction restrictions.

Ultimately, the answers offered by the Hamburg administration on the feasibility of each location were made public and posted on the project's website, where visitors could click on each plot and access detailed information on the reasons behind the city's choice to pursue or abandon a given lead.

All in all, 161 locations were suggested, potentially providing housing for 24,000 refugees. Of these 161 locations, 40 were selected for review by the city, three are now complete and currently house 624 refugees, five are kept on the side for now and could potentially house 688 refugees.

… that fulfill existing regulatory criteria

Yet finding available, useable space is only the first of several steps: cities must then ensure that the selected plot or building checks off the criteria set forth by local and national regulation. As evidenced by the low conversion rate of the "Finding Places" project, which saw hundreds of available lots rejected on legal or regulatory grounds, the mere availability of constructible land does not suffice to solve cities' temporary housing challenge. The demographic shock caused by the arrival of hundreds of thousands of refugees in European cities starting in 2015 has shown that the existing regulatory framework (environmental- or fire-protection rules, etc.) is ill-suited to the urgent need for temporary housing construction, leading for calls to ease these regulations.[60] Germany pursued this course at the federal level by suspending, for a given period and for the exclusive purpose of accommodating asylum-seekers, the application of certain provisions contained in the Federal Building Code, Renewable Energy Heating Act, and Energy Saving Ordinance. Jan Pörksen, Hamburg's Secretary of State for Employment, Social Affairs, and Integration, credits Germany's willingness to soften applicable regulations for the success of the city-state's emergency housing plan, operating in a dense urban territory and under tight time constraints.

"We informed federal elected officials that we needed more flexible construction laws to build lodgings for refugees. Then we had to prove to a judge that we needed new public shelters. As a result, we were able to build apartments in non-residential areas."

Not one to abandon quickly, the city opted to "*break some rules and just go around and do things,*" Jan Pörksen recounts. Taking full responsibility, public leaders asked the federal leadership to ease construction laws in order to facilitate the construction of refugee accommodation, a choice that ultimately allowed the city to build in areas not normally intended for residential construction.

In Berlin, Monika Hebbinghaus makes a similar observation:

"The slackening of regulations at the federal level certainly helped, reducing the time between the application and the final decision. One could go ahead before having an actual development plan for a plot, whereas one would normally need a construction or development plan for a certain area before starting to build non-industrial or non-economic projects there. Without this change, it wouldn't have worked. I think it was a good idea to bring down regulation a bit, but at the same time, of course, there are areas where you cannot compromise. You cannot build on contaminated ground, and naturally the environmental protection rules were not put on hold, so when a certain bird is nesting you have to wait…There are other rules that you cannot relax, fire protection for instance. Fire hazards are a huge threat to every accommodation, so you have to really uphold the security standards there."

c. The construction challenge: Building quickly and cheaply

Typologies of medium- and long-term temporary housing

A prominent strategy for the provision of long-term temporary housing consists in constructing buildings with a short lifespan of 15 to 20 years, intended only for temporary housing, and not designed to be kept or repurposed in the future. Such housing, which can be built very quickly, often consists of highly-standardized configurations that cannot be customized according to evolving individual needs.

The replication of simple and light prefabricated modules, however, allows for great flexibility in the choice of location. As a result, units of varying sizes can be built on lots of varying sizes, thereby making the most of available lots within cities. European cities have used this strategy extensively, whether it be Hamburg with its Notkestraße housing complex (seven-year lifespan, see inset), or Stockholm, which opted to transform a parking lot into a plot due to become a 22-apartment complex for asylum-seekers. This latter project was designed with a short lifespan of 15 years, requiring that the construction costs be recovered before the end of the period, automatically drawing rents upwards.

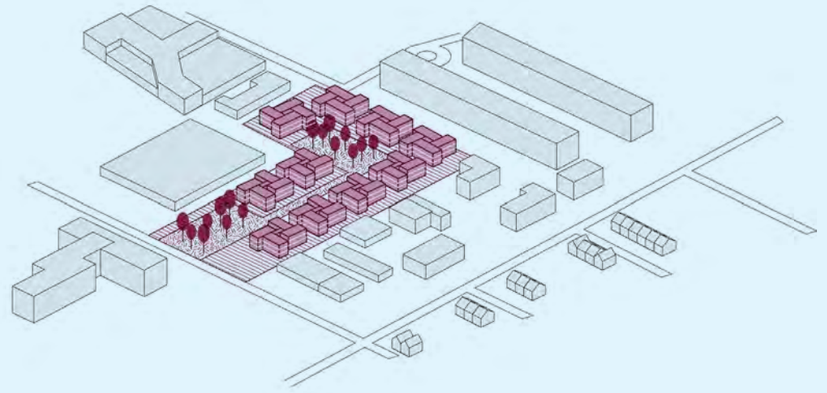
A second medium-term housing strategy consists in providing asylum-seekers with temporary accommodation inside otherwise permanent buildings. The buildings used to this end are intended to eventually return to the regular housing market, and thus to house other types of populations. This solution is the one pursued by the Kiel Model, which aims to minimize the construction of light, prefabricated, container-like structures and favor instead the temporary use of permanent structures. Once these structures have served this first purpose, they can be turned over to students, families, and retirees. This is the founding principle behind the Startblok Riekerhaven complex in Amsterdam, where young refugees and young Dutch nationals live together. This solution offers potentially increased acceptability, in comparison with the choice to construct new housing with a limited lifespan, and provides lodgings similar to the existing housing stock, benefiting the population as a whole. The lots made available for such projects are plentiful and diverse; however, constraints in terms of standards are more onerous, thereby potentially increasing construction time and immediate costs.

Examples of this strategy abound, whether in Bremen (see inset p.42), or in Berlin, which built modular housing with a life span of 50 years in ten of its twelve districts. Placed under the authority of the Land, this housing is located on plots of which 51% belong to the Land, and 49% to Berlin real estate service provider Berlinovo. Hamburg, too, has pursued this course of action with the Hohensasel project, a new housing project with a capacity of 300, reserved to asylum-seekers for the next fifteen years (see inset p.43). After this period has elapsed, the complex will serve as social housing for 30 years, after which the investor will be free to either rent out or sell its apartments. Public dialogue about the project lasted 18 months, providing yet another example of the Hanseatic City's dedication to citizen consultation.

Other cities have, for now, chosen not to pursue this strategy: in Munich for example, when asked about the city's potential plans to transform medium-term temporary housing into social housing, Ulrich Benz, of the city's Department of Planning and Building Regulations, notes that "*at the moment there is no such strategy.*"

Startblok Riekerhaven, Amsterdam. Courtesy of Startblok Riekerhaven

The Notkestraße 2 Housing Complex, Altona, Hamburg



Hamburg's district of Altona is home to a large modular complex, located at Notkestraße 2, and currently home to 648 asylum-seekers, a majority of which hail from Afghanistan, Syria, Iraq, and Eritrea. Built on land belonging to the federal government, the complex was constructed in eight months (November 2015-July 2016). The result is a group of nine buildings of several floors, each divided into four apartments outfitted with three bedrooms, two bathrooms, and a kitchen. A social facility building hosts a team of eight social workers, who, along with three technicians, make up the staff of the center. Each new resident receives instructions upon their arrival. To promote engagement in the operation of the houses and a sense of community, the staff organizes house meetings dedicated to safety measures and potential problems encountered by the residents. Built specifically for the needs of asylum-seekers, the complex is due to be demolished after seven years of usage.

Specifications

Lifespan

7 years,
starting 21 June 2015

Total cost:

€25 million
or approximately €35,000 per resident.

Stakeholders

Built on land belonging to the federal government and managed by the *Bundesanstalt für Immobilienaufgaben* (BIMA)
Construction work carried out by company Ungrund
Architect: G2R Architekten, Hamburg

Refugee housing project with alternate longer-term use in Bremen[61]

Currently still in its planning phase, this project aims to construct permanent housing to be used as refugee accommodation for five years. *Making Heimat* notes that "*The facility is conceived as a structured site, integrated into the environment via a carefully designed outdoor area. [...] The two individual buildings are each conceived as courtyard buildings with interior circulation.*" The project is representative of a mode of asylum-seeker accommodation that kills two birds with one stone, providing both short-term housing for these populations and the assurance of an addition to the city's affordable housing stock in the longer term.

Stakeholders

Architects: Feldschnieders + Kister Architekten BDA

Commissioned by the Bremen Senate for Social Affairs, Children, Adolescents, and Women

Construction: Ed. Züblin AG

Specifications

344 residents
Reserved for asylum-seekers for five years

2 buildings comprised of modular units

Construction costs:
€1,400 per square meter

Average surface area per inhabitant:
10 square meters

Hohensasel housing project: temporary accommodation for asylum-seekers, due to be turned into social housing

Currently in planning, with construction predicted to begin in 2019, the Hohensasel project combines short-term temporary housing for asylum-seekers with an attempt to develop the general housing stock. Set to continuously house 150 refugees throughout its first 15 years of existence, the high-quality units will then become social housing for 30 years, after which the private investor will be able to rent out or sell the individual units. Funding for this project is private. Its short-term objective is to achieve a more equal distribution of asylum-seekers through Hamburg's seven districts; as asylum-seeker housing, it will be outfitted with communal rooms and offices for a team of social workers.

Stakeholders

Architect: G2R Architekten

Commissioned by *Fördern und Wohnen*

Specifications

12 single-story houses

Residents at onset of project:
150 asylum-seekers

Apartments outfitted with private kitchen and bathroom

Kindergarten and social workers on-site

Inventing new construction methods

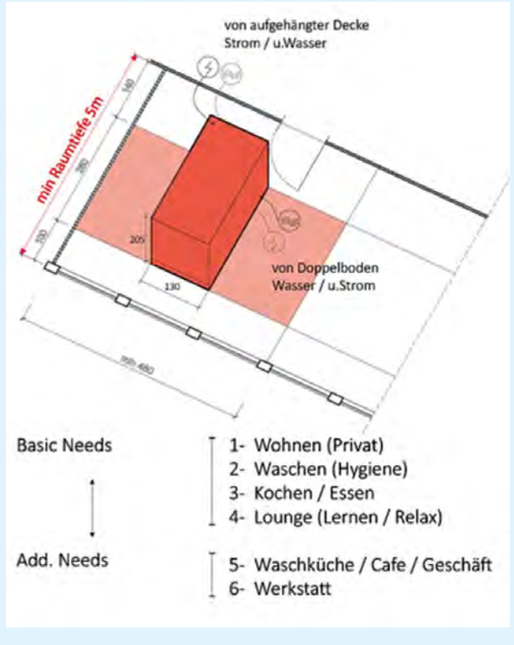
The combined objectives of building quickly and cheaply on the one hand, and providing temporary housing with a long-term view on the other, have moved urban stakeholders to consider new potential construction methods. For now, however, it appears that this reflection is only just taking hold and that innovations, as of yet, have more to do with design, especially with a view to promote future uses by other types of population. In other words, the refugee situation and the ensuing temporary housing challenge have often inspired new design methods or ideas for intelligent use of existing assets not traditionally used for housing (office buildings, or even cargo barges, an idea Jörg Friedrich shared with DW), rather than new construction methods *per se*. One housing project in Bremen offers an example of this type of innovation, which saw container houses for asylum-seekers "*supplemented structurally by a secondary roof as protection against bad weather and the sun and with walkways on the first floor to provide access*", using "*a sort of mixed principle comprising ready and custom-made, standardized container modules, and individualized building configurations*".[62] Elsewhere, in Ostfildern, a mixed housing project hosting both formerly homeless individuals and newcomers who have received asylum is outfitted with solar panels.[63] The spike in creativity and innovation spurred by the recent temporary housing challenge is reflected in the sheer number of projects exploring the residential potential of spaces traditionally devolved to other uses: think only of Dantebad's use of the available space above public-owned parking spaces in Munich (see inset p.60). Representative of this trend, Jörg Friedrich notes that «*Many German cities feature buildings from the 1950s and 60s with flat roofs. They're often used for trendy bars, so why not use them as innovative living spaces*»[64] Austrian architecture firm the next ENTERprise's innovative wooden modules, installed in a former office building, provide yet another example of an ingenious, innovative solution aimed at drawing on existing resources to provide quickly-assembled, low-cost housing, incidentally incorporating a social innovation component by mixing students with asylum-seekers (see inset).

"Un/common space, un/defined living", Vienna

In 2016, Elke Delugan-Meissl, the curator of "Places for People," the Austrian pavilion at the Venice Biennale of Architecture, invited contributions from three Austrian architecture firms, tasking them with transforming vacant buildings into asylum-seeker housing while cooperating with non-governmental organizations. One of these firms was Viennese architecture firm the next ENTERprise, and the pavilion's request eventually led to the advent of "Un/common space, Un/defined living", a project which turned Siemens's former Viennese headquarters into temporary housing for asylum-seekers and students. This project drew on the possibilities opened up by the enactment by Vienna's municipal council of regulatory exceptions aimed at facilitating the creation of temporary accommodation in the wake of the 2015 migration crisis. The city proved proactive in encouraging the use of the 10% of its office spaces currently unoccupied.

Thus, the next ENTERprise set to work on the 3,480-sqm office surface, spread over two stories. The site was devoid of kitchens and bathrooms and did not lend itself to residential purposes easily; in light of this observation, the firm chose to outfit the space with 2.6x1.4m mobile modular units, each outfitted with a folding bed and table, and doors which users may close to isolate themselves. These units are self-sufficient and can be dismantled by their users or adapted to the size of the room they are set up in. Twelve such units were installed, while the original topography of the office space was retained. The firm partnered with non-governmental organization Caritas Vienna to launch the HAWI "Room-in-room Project", whereby the modules became home to 45 unaccompanied minors or young refugees and 95 Austrian students aged 18 to 24.

The architects paid special attention to the connection between the site and the surrounding public space, creating an opening to facilitate access to the site and foster interaction without prescribing specific uses, and installing a timber walkway acting as a liaison between the former Siemens park and the surrounding public space. The project sought to "*avoid the vicious trap of the widely held, yet false opposition between aesthetic achievements and social, needs-based buildings,*" says next ENTERprise founder and partner Marie-Therese Harnoncourt Fuchs. But the architects took the reasoning one step further, using the project to rethink temporary housing for all: "*The use of such a space is a way of creating relatively economical accommodation not just for refugees but also for a wider spectrum of people who would also be able to live there relatively cheaply,*" says Harnoncourt-Fuchs.[65] The gist of the project can therefore be described as "*hybrid urban building with extensive scope for action for users internally and externally,* ***low-cost long-term living***".[66]



Specifications[67]

Duration of the project:

2016-2019

Cost of project, brought down to individual user:

€50

Average surface area per resident:

12 square meters

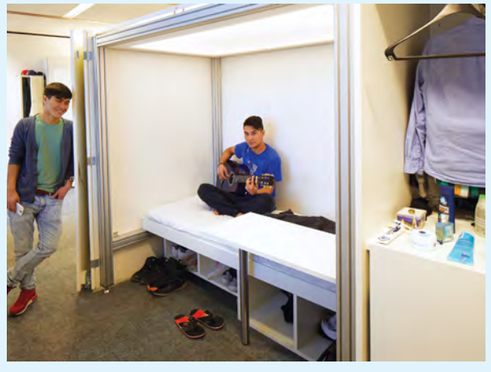
140 inhabitants

Stakeholders

Architects: tnE (the next ENTERprise), Vienna

Commissioned by: "Places for People", Austrian Pavilion at the 2016 Venice Biennale of Architecture, curated by Elke Delugan-Meissl

Construction: Siemens Building management & services GmbH; General contractor Liebbau Weiz GmbH & Co. KG.



Reiter Architekten's « *Selbstbauprojekt* » (self-construction project) in Dresden – courtesy of Reiter Architekten.

Engaging with a variety of stakeholders

The necessity to provide newly-arrived asylum-seekers with accommodation and to work concurrently on solving the affordable housing issue has incited cities to enter into partnerships or work hand in hand with other local stakeholders of varying natures. Hamburg, for instance, has worked with private investors towards the provision of lasting housing used, for now, to accommodate refugees and due to later revert back into the private housing market. A similar dynamic is at work in the world of architecture, with practitioners reaching out to sociologists or psychologists to formulate better temporary housing propositions, and stressing the need to collect the input and feedback of the users themselves: "*There needs to be psychologists talking to refugees, saying 'under which circumstances do you think this would have been better for you? Was there something lacking? What was especially good?'*", proposes Munich-based architect Julia Hinderink.

Innovation in the interior design of temporary housing

Collective thought on the provision of temporary housing has focused on ways to promote flexible uses of its interior space, with a view to adapt said housing to different typologies of asylum-seekers (single men, women with children, large families, unaccompanied minors) and to ensure the possibility of later use by other types of population. **Thus the migration crisis European cities experienced beginning in 2015 can be viewed, if not as a seminal event behind a renewed interest in modular or reversible design, at least as a widely-recognized occasion to test out innovative interior design solutions.**

In Helsinki, architect Marco Steinberg talks of a design concept which "*would create flexible space within standard apartments. Most of the time, the added space would just be an extra room. But when a surge of new people arrives, the idea is that the government could ask the occupants to use pre-installed partitions to temporarily divide their apartment in two. In exchange for living in one of these "donor apartments," the tenant would get a 25% discount in rent.*"[68] In Dresden, architect Olaf Reiter, of Reiter Architekten, and his partner Markus Weber, have imagined a building in which architects merely provide a platform (concrete structure of the building, central staircase, elevator, connection to electricity and water networks) and where each housing unit itself is built by its inhabitants through self-construction. The project specifically targets refugees and other low-income populations and aims to house 100 persons, half of which could be refugees: "*It could be 50% refugees, 30% social housing residents, people on welfare, or unemployed individuals, and 20% others. The idea is that it's not a refugee project but that it's a part of society. This means it's not a project that people can reject,*" says Olaf Reiter. After several years, the permanent building would become part of the city's social housing stock. The project-bearers have already received a concession of 99 years, granted to them for free by the municipality, over a plot situated in the residential neighborhood of Löbtau in Dresden.

Many projects thus use modularity in long-term temporary housing to act on the size of housing units; others inject an integration objective into their technical specs, launching self-construction projects that are regarded as a facilitator for refugee integration and a boost in user appropriation of their surroundings.

d. How to make temporary housing acceptable

How can temporary, collective housing ever feel like a home of one's own?

The question of quality of life is less relevant to emergency shelter than it is to longer-term temporary housing, where asylum-seekers may spend up to several years. Irit Katz describes the necessity for displaced populations to feel a sense of belonging and make their mark on their new accommodation, and the structural incapacity of emergency shelter to offer that sense of home:

> **"The human need to dwell involves a form of feeling 'at home' in inhabiting, even for a short time, a place which we feel belongs to us and in which we belong. This feeling is fractured by displacement. First it is fractured by the urgent necessity to leave home and homeland, accompanied by the fear that what is left behind will be changed forever. It is then damaged again by the uncertainty of the temporary shelters along the way. In this troubled situation the meaning of shelter is often stripped down to its basic function of physical protection while its more complex roles in security and belonging are suspended. [...] While these shelters are helpful in protecting displaced people from the sun and rain and provide minimal privacy, they often form impersonal spaces which are easily created, managed and later erased but cannot be easily adapted to provide a sense of belonging."**[69]

The same cannot be said of temporary housing, where many asylum-seekers will live upwards of 18 months and sometimes up to four or five years; thus, temporary accommodation can stretch out for as long as a rental apartment stay might, for a non-refugee living in a large European city. While asylum-seekers are entitled and supposed to leave temporary housing as soon as they receive the refugee status, the situation in reality is much different: many remain stuck in temporary housing even after obtaining asylum, due to the congestion of the affordable housing market and to the lack of available options in the cities where they have chosen to settle down. Of this bottleneck in the housing system and the specific example of German cities, Karin Lorenz-Hennig writes:

> **"All municipalities mentioned problems with the housing of those permitted to stay. Often times, there were not enough apartments that met the requirements for subsidized housing of unemployment benefits recipients. Especially municipalities with strained housing markets had difficulties to accommodate the refugees. Therefore, "misplaced" persons (ones who should have been moved to private, subsidized housing) were accepted into communal accommodations because persons with asylum or right of residence had trouble finding apartments on the housing market. At the time of the study, the transition to the regular housing market was, to a large extent, still yet to come."**[70]

The temporary qualifier becomes disputable in such cases, and the issue of quality of life is consequently raised: when there is a possibility that a person might spend half a decade in a given apartment or room, can cities still provide housing fit only for a six-month stay? How can cities provide temporary housing that is sufficiently comfortable, dignified, and offers perspectives for integration within the neighborhood it is in? How can those who design, build, and operate temporary housing adopt a more user-centric approach?

Before all else, the need for intimacy, a prime concern for newly-arrived asylum-seekers and their physical and psychological well-being, should inform the design of temporary housing solutions. Home is the smallest possible space where an individual can be alone and enjoy the benefit of privacy, and while certain types of spaces can easily be communal, such as kitchens, others, such as bedrooms, living rooms, and bathrooms, are by necessity intimate spaces that cannot be shared.

Julia Hinderink, architect and curator of the exhibition *Flucht nach Vorne*, insists on the importance of intimacy for psychological health and calls for the preservation of asylum-seekers' intimacy through architectural solutions:

> **"Just think about yourself. If you go somewhere where you don't know anybody or anything, and you don't speak the language, you might be quite excited because you can walk through the city, go through the bazars, but then you really need some rest in order to process your experience. So this hotel room, even if it's tiny, is something important in order to process what you saw and to actually really be able to work with your experiences and to trust your feelings, have strength again, recover. It can be tiny. It needs to be a space where you feel safe, and if this space has only windows and you're a woman from Afghanistan you probably don't feel safe."**

Characteristics of a designated plot are shown to participants on a screen at the "Finding Places" project

Intimacy appears all the more crucial as these accommodations compel different types of population to live together, an unchosen cohabitation that can create significant risks whether for women housed in primarily male environments or for LGBT asylum-seekers. The mechanisms that create intimacy, such as individual rooms, door locks, etc., are often also vectors for personal safety. Yet the need for intimacy does not prescribe a given form of housing, nor does it preclude innovative solutions, as shown by the project spearheaded by Austrian architecture firm the next ENTERprise in Vienna in cooperation with Caritas, "HAWI – Experimental Living" (see inset p. 44), where young refugees and students were given the components required to create individual "room-within-a-room" modules using screens.

Additionally, home is one of the few spaces, along with the personal car and in some cases the workspace, that can be modified to reflect the aesthetic preferences of their occupants. Being able to customize the space where one lives in order to derive a feeling of familiarity and safety is instrumental in ensuring a certain quality of life. This consideration represents the starting point for the Bellevue di Monaco project (see inset), where asylum-seekers are involved in the renovation of apartments they will later inhabit.

Yet the inherently extraordinary nature of temporary housing precludes it from ever feeling completely like home. Factors such as the presence of social workers or security staff on-site are, if not necessary, at least largely useful for inhabitants to receive the specific assistance they require. However, even as regards this extraordinary type of housing, innovations in design and low-cost tweaks can increase quality of life by granting residents intimacy, privacy, and the possibility to somewhat tailor their surroundings.

Bellevue di Monaco, a refugee housing project and cultural center in Munich

Bellevue di Monaco is the collective behind a renowned project by which three buildings of municipal property, located in a central Munich, were transformed into housing for refugees and a cultural hub on migration in cities. The buildings, which had been empty for several years, were previously due to be demolished, when a group of activists who received widespread popular support in the city launched an operation to rehabilitate them. In 2016, the Bauhütte initiative was created, which ultimately led to the recruitment of refugees and German craftsmen to renovate apartments within the buildings that could be used to house these same refugees. A call for tenders was issued targeting craftsmen and companies willing to work with refugees, whose participation in the works counted towards their professional qualification as a certified apprenticeship, fulfilling a modest objective of labor market integration.

Walls were torn down and wallpaper and flooring removed to prepare for the renovation, which ended in June 2017.

Each of the six floors of the building located at Müllerstraße 6 counts two apartments, each of which are home to two young male refugees. The Müllerstraße 4 building hosts refugee women with children, while at Müllerstraße 2, a cultural center offers German language classes, debates, concerts, and conferences on the subject of migration and cities.

> **"The use concept for the 'Bellevue di Monaco' is mainly public, as is appropriate to the location. Discussions about migration and integration are supposed to occur here and new ideas tried out on a small scale,"** writes Sophie Wolfrum in *Making Heimat*.[71]

Specifications

Life span of housing units:
40 years

Average surface area per inhabitant:
26 square meters

40 to 45 residents, refugees with recognized status

Total cost of project:
€830 per square meter

Stakeholders

Architecture: Hirner and Riehl Architekten und Stadtplanner BDA, Munich

Commissioned by: Bellevue di Monaco

Construction: Michael Renner, Bauunternehmung GmbH, Rebel & Sohn GmbH Malewerkstätte, Anton Ostler GmbH & Co. KG, Dachs GmbH, Munich

Tempelhofer Feld - by Robert Aehnelt CC BY-SA 3.0 via Wikimedia Commons

How have cities attempted to increase the acceptability of their temporary housing projects?

Acceptability of temporary housing can be a significant hindrance for a city seeking to install asylum-seeker accommodation. Low acceptability may occur whenever other residents feel like they are being made to sacrifice resources they feel entitled or previously had access to for the sake of asylum-seekers, or when inhabitants are in favor of welcoming asylum-seekers but reluctant to see the newcomers settle down in their particular neighborhood. Johan Klint of Intro Stockholm describes these "Not in my Backyard", or NIMBY reactions: "*Everyone sees that there is a need for housing and that we must offer good housing if we want the newcomers to be integrated and to be able to receive training or attend school quickly. All want this to happen, but no one wants it in their backyard.*" Berlin was faced with exactly this type of reaction when it attempted to erect temporary housing on the city's beloved Tempelhofer Feld (see inset p. 23).

Monika Hebbinghaus recalls:

> **"It was a controversy because the Field has pretty much been declared holy by public petition and therefore cannot be touched. It is one of those contradictions you encounter in Berlin sometimes: the people who campaign for cheap housing or against gentrification and completely agree that the city has to provide housing for the newcomers say that you cannot touch the former airfield, because – as one local politician once put it – 'Little Susie must be able to fly her kite there'."**

Researcher Toby Parsloe warns against going through with plans to house asylum-seekers on the landmark field: "*In a city that is gripped by a housing crisis, the need for affordable housing remains a highly contentious issue. The construction of the [Tempelhofer Feld] camp would inevitably implicate the refugee situation in prominent contemporary conflicts over public space and housing. Placing refugees at the heart of these debates makes gaining acceptance by the host population far more difficult and complicated. Sites that are already highly politicised and contentious clearly are not the best candidates for refugee shelter.*"[72]

In Stockholm, Johan Klint, too, chalks up the sometimes lukewarm welcome granted to asylum-seekers to the very tense housing situation. Ann-Margarethe Livh, Stockholm's Vice-Mayor for Housing and Democracy, stresses the fallacy behind this reasoning: asylum-seekers in Stockholm are accommodated in specific, dedicated housing, the result of a conscious decision by the city to keep the newcomers away from the general public housing track in order to avoid a situation which Livh believes could create a risk for increased tensions. Some Stockholm home-owners who are indebted to the tune of millions of Swedish crowns are loathe to accept the risk that asylum-seeker housing, even if temporary, might decrease the value of their investment.

Hamburg, too, had to contend with acceptability difficulties, after it opted to build quarters for 3,000 to 4,000 people in each of its districts. These numbers, while they raised the issue of possible urban segregation or ghettoization, appeared necessary at a time when it was not yet clear that the number of arrivals would soon begin to decrease significantly. Yet the move triggered civil protests in several wealthy neighborhoods, with demonstrators asking the city to limit public shelter capacity to 300, with a minimum distance of one kilometer between each location. A compromise was eventually reached, with the city vowing to construct smaller shelters, while going ahead with its initial plan. Today, Hamburg's shelters can accommodate 300 individuals on average, and its largest shelter, which can house 900, will likely be shut down before the end of the year. Similarly, in order to prevent a referendum on the refugee question, Hamburg entered into an agreement with NGO network "Hamburg for Good Integration" (*Hamburg für Gute Integration*), defining a key for asylum-seeker housing distribution based on demographic criteria, surface area, and the presence of social infrastructure and transportation, to be applied to all future asylum-seeker housing projects. This move is but the logical consequence of Hamburg's long-standing understanding that successful integration requires coordination and cooperation with civic leaders and other urban stakeholders. As early as 2011, the city joined forces with the Hamburg Integration Council, a consortium of migrant organizations, to implement a new policy aimed at nudging its inhabitants away from an antagonistic "us and them" discourse towards increased awareness of their shared identity as Hamburg citizens. In 2015 as in 2016, the acceleration of the influx moved the Hamburg administration to start providing formal support to the small groups of volunteers already actively helping refugees. The help and assistance afforded by volunteers and newly formed organizations proved instrumental in welcoming refugees and providing for their needs. While the brunt of the crisis has now passed, the need for cooperation and coordination remains. "*Now the major challenge is to keep working well*", says Secretary Pörksen.

On a smaller scale, the Hamburg district of Altona has made similar efforts to ensure that its residents were consulted and onboard with its plans. To ensure successful integration of the new residents into their neighborhood, the local administration made sure to inform neighbors whenever new refugee accommodation was in the works, through meetings where plans and images of the upcoming building were shown. Members of the local administration invited representatives of religious communities, schools, and sports associations to join these meetings, providing participants with an opportunity to express their concerns and exchange advice and good practices. The district authority invited interested participants to attend additional roundtable meetings, where they could continue to discuss the actions under consideration. This process spurred the creation of numerous supporter groups. "*A very important thing is to appreciate the work those people do, to thank them and point out that the community will never succeed in the integration of refugees if the citizens don't participate in these efforts*", remarks Imogen Buchholz, before stressing the need for continued cooperation and information-sharing between all local authorities involved in long-term refugee integration and housing: "*It is absolutely necessary to be a team player on this field. The members of my staff for social welfare, youth and health exchange their knowledge, for example, with those who are responsible for town planning*", says Buchholz.

In short, rendering temporary housing tolerable entails making it acceptable not simply to its inhabitants but also to its neighbors, especially as bottlenecked housing systems often cause refugees to delay their arrival on the regular housing market, as do their lack of financial resources and the reluctance of many landlords to grant them a lease. Indeed, many refugee families do not foresee an exit from temporary housing, particularly in those cities ridden with a pronounced affordable housing shortage. Such is the case of one family currently living in the Breitscheidstraße housing complex in Stuttgart. Housed there for the past year, this family of three from India finds itself unable to leave the complex due to insufficient financial resources. The family members inhabit an 11-square-meter room on a floor of fifteen rooms outfitted with a common kitchen and shared bathrooms and toilets.

Longer-term temporary housing complex on Breitscheidstraße, Stuttgart

Ayse Özbabacan, project manager in Stuttgart's integration department, sheds light on the situation:

> **"Currently we have more than 8,000 refugees in Stuttgart. We have a rather dense housing market which means that actually according to the law, people should get their own apartment after 18 months or 2 years but the refugees who have arrived in 2015 are now here for almost 2 years but they will stay the next 2 or 3 years in the camps."**

In this context, intense mediation is required with neighboring inhabitants, who might not take well to the idea that the asylum-seeker housing they believed to be temporary might be around for several years.

January 2018

When the refugee situation sparks new outlooks on housing

a. The refugee crisis has revealed the affordable housing crisis in European cities

When a demographic shock rekindles the discussion on cities' affordable housing shortage

With thousands of refugees due to make their entrance on the regular housing market, European cities are now examining the issue of their enduring affordable housing shortage with renewed attention. **As countless refugees find themselves stuck in a clogged temporary housing system due to the lack of affordable accommodation available to them, the migration crisis of 2015 has undeniably served to bring the affordable housing issue into the limelight again, prompting, perhaps, a new chance to jumpstart the search for fast, actionable solutions.** In Munich, Germany's most expensive city in the realm of real estate, the refugee situation has moved local authorities to reflect more urgently on the affordable housing question: "*There is some movement in the administration, to focus even more on low-cost housing*", Sophie Wolfrum notes. "*This was a problem and everybody knew it, but now it is at the top of the city's policy agenda.*" Julia Hinderink concurs: "*The city [of Munich] thinks about the affordable housing issue. They hold an annual exhibition at City Hall, and the last edition was about social housing. They are very clear about the lack of affordable housing here. That is why we very quickly went from thinking about temporary to permanent housing, and not only for refugees but for all locals. Within weeks, before the first symposium took place, it was clear we couldn't talk about migrant housing alone, because otherwise we're going to run into an explosive trap.*"

The affordable housing shortage is a common experience worldwide- its prime manifestation is the increasing grip of housing[73] **expenses over the average budget of urban households: In 2015, 11.3% of the EU population lived in households that allocated over 40% of their income to housing; In Germany, this ratio amounted to 15.6%.** Yet what the rise of national averages particularly reflects is the sharp deterioration of the affordable housing situation in large cities. In smaller cities, the problem is lesser, as in the countryside, where employment opportunities are scarce and where many homes remain vacant (in eastern Germany, one million housing units are currently empty[74]; In Sweden, while the waiting time for public housing can stretch to an overwhelming fifteen years in Stockholm, it is significantly less dizzying in the small northern municipality of Kiruna.) These dynamics are largely dependent on employment, and just as most Swedes and Germans may prefer a large city with plethoric opportunities for employment over a small town with few perspectives and cheap housing galore, so refugees follow the same pattern, seemingly aspiring to live in larger cities and metropolitan areas.

Thus Sophie Wolfrum notes that:

> **"When they receive asylum, refugees can go wherever they want. They can go to Stuttgart if they have family there, or Hamburg, but a lot might go to Munich because they hope to get a job. They don't go in the poor areas in Germany, with a lot of empty housing, like for example East Germany where there is a lot of empty housing stock."**

The attractiveness of large cities leads to an acceleration in their demographic growth which, in turn, increases the demand for housing in these dense, built cities where the housing supply is often already known to stagnate or dwindle. Evidence of this demographic growth abounds: Munich has added 25,000 individuals per year in recent years and estimates it will have to build 55,000 extra housing units just to absorb the 200,000 individuals arrived between 2011 and 2016, with a current housing vacancy rate hovering close to 0%.[75] Berlin is subject to a similar demographic growth, with 40,000 annual arrivals, excluding refugees, and has consequently experienced a hike in rental prices in the past few years: "*Between 2012 and 2015 alone, the median asking rent per square metre rose by 19.9 per cent. This represented the highest percentage increase across all 29 cities researched for this report, ahead of Augsburg (+17.1 per cent) and Brunswick (+15.5 per cent). Now, Berlin ranks in 10th place among the 29 cities included in the report. The median asking rent in 2015 stood at €8.99 per square metre. The vacancy rate in apartment buildings has also fallen consistently, declining from 3.3 per cent in 2009 to just 1.5 per cent in 2014,*" notes a CBRE report.[76]

To many observers, the prime factors behind the affordable housing shortage in European cities are the absence of sufficient construction and the lag between speed of construction and rate of demographic growth. "*If you compare the current situation with the situation from two years ago, we build two or three times the amount of housing we built then. But we have a strong shortage of housing and apartments, so it takes a lot of time*", says Stockholm's Vice-Mayor for housing and democracy Ann-Margarethe Livh. In Hamburg, where the housing market was already under considerable stress before the 2015 influx of refugees, no new public social housing had been built in years prior to the crisis. In Stockholm, similarly, construction had largely come to a halt two decades prior, due partly to what the Swedish Central Bank describes as "*high land prices and construction costs, demanding processes for land and planning, the municipalities' planning monopoly, a lack of competition in the civil engineering and construction industries, the regulations on the rental market and the current legislation that makes considerable demands regarding the quality of the housing built.*"[77] As a result, Stockholm's housing stock has decreased significantly in the city's most prized neighborhoods, where the waiting time required to obtain an apartment sometimes exceeds a decade. In 1960, 100,000 of the city's 800,000 inhabitants were on the municipality's waiting list, a pillar of Stockholm's public housing system. Today, over half a million of the city's 935,000 residents can be found on the list. Meanwhile, a 60-square-meter apartment in central Stockholm can now set its buyer back 4 to 5 million Swedish crowns (approximately €400,000 to €500,000), while the city's most expensive apartments often cost close to €1 million. The rise of prices, insufficient construction, and ensuing lack of affordable housing are creating strong tension on the housing market, and what Ann-Margarethe Livh fears will turn out to be increased social segregation within the bounds of the Swedish capital.

Similarly, some credit the favor given to the construction of costly, high-end housing over affordable accommodation for the increasing pressure urban housing markets are currently experiencing. Thus if there is a housing shortage in Dresden, notes civil society organizer Maxie Fischer, it does not concern this city's more affluent households: "*The city is building a lot of apartments. They are all apartments that cost a million euros, there's no social housing, which they haven't built enough off. [...] There was too little affordable housing before the refugees came, but now it's terrible. [...] The city is not doing enough temporary construction that can be used to house other populations later and help solve the affordable housing issue.*" Private investors are building housing to respond to the increased local demand born of the city's growth; yet these dwellings are not always within the reach of low-income households and are additionally driving up the average rent in the city. In 2006, in an infamous, controversial move dubbed the "Dresdner Coup", the city of Dresden sold all 48,000 of its municipally-owned housing units (until then owned by WOBA, now GAGFAH) to U.S. pension fund Fortress. The city thus paid off its debt and pocketed a budget surplus it reinvested in the renovation of cultural facilities, the construction of kindergartens and the renovation and construction of schools. This sale, supported by the majority party, the liberal FDP, but enabled by certain voices on the left side of the political spectrum, were made possible by an agreement with Fortress over a "social contract" limiting rent increase for a lengthy period of time and guaranteeing rentals to the elderly and handicapped individuals. However, this sale produced a continuous hike in rents, by signaling that the real estate market was taking off again. The city's loss of ownership of these municipal housing units means it can no longer act on the "low- and medium-income" segments of the housing market and that it is now completely dependent on the private sector, even though the city has maintained the right to allocate 8,000 GEFOGAH apartments, a figure that has since been increased to 10,000 to match needs. The issue is becoming substantial, with a significant lack of housing, notably in the "low-rent" segment of the market, coupled with the continuous destruction of housing units as part of the "*Stadtumbau Ost*" program, and with metropolization. As a result, faced with strong market pressure only increased by the arrival of refugees, Dresden has created the WOBA, which is set to build 800 housing units per year in order to replenish this section of the housing market and potentially house refugees in better conditions than the ones they find in hotels or container housing. Yet experts estimate that Dresden would require 30,000 additional units in order to recover the ability to influence market prices. Dresden thus appears to be buying time. All in all, the Dresden case illustrates the extent to which the refugee crisis has brought the affordable housing issue under the spotlight, in a city that took a strong, defining stance only a decade ago.

Beyond insufficient construction, other, ancillary factors are liable to worsen or perpetuate the affordable housing shortage in cities. In Stockholm, Ann-Margarethe Livh describes a former municipal policy which resulted in the sale of 40,000 small, cheap public housing units to their occupants, a decision which Livh asserts had tremendous impact on the affordable housing situation.

Swedish economist Robert Emanuelsson wrote that

> **"the number of rented properties has only increased marginally between 1990 and 2011, while the number of tenant-owned properties has increased by more than 300 000 during the same period".**[78]

Thus, "*for every rented home built in Stockholm between 1991 and 2010, three disappeared as a result of conversions*".[79] While this policy produced needed revenue for the city, it created instability in the entire residential real estate market, says Carl Dahlström, political advisor to Ann-Margarethe Livh: "*This whole part of the system is destroyed, and now we have to build new apartments because there are not enough left.*"

The resolution by cities of the housing shortage equation is all the more urgent that said shortage negatively affects their labor market and, consequently, their economic health. The ties between employment and housing and the deterioration of the housing situation put many cities in a vulnerable position liable to undermine their economic attractiveness. A survey conducted by *Svenskt Näringsliv*[80], the Confederation of Swedish Companies, on a sample of 1,408 companies with ten or more employees showed that 61% of the polled companies had trouble recruiting; 31% of them credited the housing shortage for these difficulties. *Svenskt Näringsliv* writes that "*The housing shortage in areas where employment opportunities are located may contribute to aggravating the problem of the match between supply and demand on the labor market and constrain companies' growth ambitions [...] The shortage is thus not only a serious crisis for those with an acute need of housing but also for the economic growth overall.*"

What actions are European cities implementing to remediate the affordable housing shortage while maintaining housing quality?

How are European cities working to increase their affordable housing stock and develop or maintain a varied supply of affordable housing destined to house low-income households, offering sustainable, dense, adaptable housing that could help limit social inequalities and increase urban resilience?

A first course of action consists in increasing the annual housing unit construction targets and the pace of construction. This appears to be the most widely adopted strategy in the cities at hand. Munich has set a goal of 10,000 additional housing units per year. "*The city has two housing companies that are starting to build again, quite ambitiously*," says Sophie Wolfrum. "*Each of the companies has a program to build 1,000 units a year but this requires a full reorganization of both companies, because they were much more focused on maintaining the stock rather than conducting new construction, and now obviously this has to change and they have to increase production.*"

Finally, Stockholm aims to deliver 200,000 new housing units in the capital and its surrounding municipalities before 2030. Simultaneously, the Swedish capital is leading an ambitious transportation development effort: where all roads previously converged towards the downtown area, connections are now appearing between adjacent neighborhoods. These lateral connections may make certain neighborhoods more attractive and create an interest in living in certain areas that were previously too remote, relieving pressure in the housing market.

Meanwhile, Berlin estimates it will need 47,000 additional housing units before the end of 2019. Monika Hebbinghaus explains that: "*After the change in government that we had a year ago, living and city planning were grouped together in one Senate administration and 'living' is all about getting affordable housing off the ground. They are planning, of course,* Sozialwohnungen, *social housing where the rent can be kept down.*" Yet Hebbinghaus doubts this strategy will suffice: *"A lot of jobs that are being created are created in Berlin right now are in fields that aren't exactly famous for paying generous wages, like Internet startups. A lot of people in Berlin won't be able to afford luxury apartments so there is a huge need to create a protected housing market.* Thus, it is not just about building more, but rather about developing a particular segment of the housing market. A second, often related course of action therefore consists in setting aside a portion of all new construction for social housing in order to ensure a measure of housing affordability. One third of the housing units Hamburg plans on constructing will be reserved for social housing. In Denmark, similarly, a national law provides that 25% of all new planning must be devoted to social housing. Hamburg, which has also increased its residential construction goals from 6,000 to 10,000 in the wake of the refugee crisis, is simultaneously home to a prospective housing[81] program whereby new apartments built specifically to accommodate refugees should ultimately be converted into social housing.

Different stakeholders are active on the affordable housing segment: the public actor, which can support the production of social housing without a direct profitability imperative; private actors, compelled by the imperative of financial efficiency and productivity to decrease construction costs, something which may result either in lower-quality construction or in a decrease of construction time. But high speed of construction comes at a cost, too, notably for public actors: in Munich, Ulrich Benz explains that "*as there were few construction companies with sufficient spare capacity to produce prefabricated parts, high prices had to be accepted under time pressure.*

Inner courtyard of the Paul-Schwenk-Strasse housing complex in Berlin

The lesson to be learned from this is to make the schedules so flexible that favorable economic phases can be used. Planning should be coordinated in good time with all administrative departments involved." Yet building more and faster is hard to reconcile with necessary compliance with existing (and often high) standards of construction.
Many urban stakeholders around Europe emphasize the fact that building more should not mean decreasing construction, energy or environmental standards or building lower-quality housing. At the same time, all are aware that it is precisely these regulations that render the provision of affordable housing so complicated: upholding those standards is costly, and those costs are reflected in real estate prices. "*The building standards in Germany are so high that it's driving up the prices of the real estate. On the other hand, you can't really build cheap housing,*" notes Sophie Wolfrum. "*Because of ecology and energy, no one is willing to lower these standards. These goals are conflicting. It's a question for the brain of architects to find a solution.*" **Efforts to find solutions to these antithetic imperatives and combine regulatory compliance with the objectives of fast and cheap construction are ongoing, yet solving this equation will prove critical for cities from a resilience standpoint.One promising innovation consists in constructing social housing to be used first by refugees.** This strategy satisfies both the requirements of temporary housing for asylum-seekers and the need to develop the affordable housing stock. It addresses the short-term housing challenge, guarantees quality of construction, and prevents the multiplication of short-term investments, a potential cause of financial loss for the city. Berlin's current housing strategy for asylum-seekers, which consists in providing good-quality housing in permanent buildings that still allows for fast construction time, exemplifies this approach. One such housing example is the complex located on Paul-Schwenk-Straße, in the Marzahn-Hellersdorf district. Delivered in March 2017, with a capacity of 450 to 500 inhabitants, the complex currently houses 400 asylum-seekers and is built following a "dorm-style" student housing model, with private twin-rooms and shared kitchens, bathrooms, and recreational spaces. In the long term, the location could house vulnerable elderly or previously homeless individuals.

Of this type of housing, Monika Hebbinghaus says:

> **"The permanent buildings that Berlin opted are concrete modules set together in a building block system. It resembles a modernized version of the Plattenbau, prefabricated housing from the 1960s-80s that was very popular in Eastern Germany. This is the modern Plattenbau, with triple-glazing, floor-heating and sculpted grounds. Those modular buildings take 10 to 12 months to complete, which is really fast. The material alone has a guaranteed lifespan of a hundred years, and the interior of 50 years – after that, it needs a spot of renovation but can still be in use. We will not use these buildings exclusively for refugees. We're going to have mixed residents in there in a couple of years' time, when it is legally possible to 'open' the building to other groups."**

b. Temporary housing for asylum-seekers, testing grounds for new ways of providing affordable housing

A shared interest in fast construction with limited costs

Temporary housing offers a possibility to test out an array of ways of cutting down on construction costs using the possibilities afforded by technical innovation. Thus, the refugee crisis seems to have prompted a thinking process that cities may be well-inspired to use again in the future. Many stakeholders are reflecting on this, as evidenced, for instance, by the gradual evolution of the *Making Heimat* project, from a catalogue of temporary housing projects to a broader investigation into ways to increase cities' affordable housing stock and an online database that includes long-term housing for mixed types of populations within permanent buildings. Thus, *Making Heimat* presents the example of a newly-constructed housing project in Ostfildern, the winner of a 2016 Berlin Award *Heimat in der Fremde*, composed of 15 modular units housing 39 homeless individuals and refugees who have received asylum (see inset below).

In Hanover, the database lists a masonry refugee housing project whereby refugee housing units were built in a newly-developed neighborhood, that can be "*transformed into rental apartments without major construction measures.*"[82] The complex is currently home to 59 asylum-seekers; its construction cost €1,450 per square meter, with an average surface per inhabitant of 18 square meters. Of the evolution of the housing project over time, *Making Heimat* writes that "*The building's residential units each house 4 to 5 people, and it also features care facilities and a commercial unit on the ground floor. In the long-term, the units will be converted to rental apartments with 6 apartments on each floor. The external fire escapes that were initially required will be removed. In this way, the structural interferences will be reduced to a minimum.*"[83]

Social housing project,
Ostfildern

In Ostfildern, a project has refugees and formerly homeless populations living under the same roof. The constructed buildings are permanent, and the principle guiding their design is "*a strong identity, compact and economical building structure that responds to the situation,*"[84] writes u3ba, the architecture firm behind the project. The inspiration derived from temporary housing is apparent, with the three buildings arranged around a central courtyard with a view to create "*a private atmosphere, individuality and an identifiable space for the users*" and to promote "*the coexistence of inhabitants and their inter-communication.*" Finally, the project includes a modular component, with all apartments "*designed in such a way that they can be interconnected and split as required.*"

Stakeholders [86]

Commissioned by the municipality of Ostfildern
Construction firm: Weizenegger Objektbau GmbH
Architect: u3ba Camilo Hernandez urba 3 + Harald Baumann baumannarchitects, Stuttgart

Specifications [85]

39 residents

15 modular units

Construction cost:
€1,400 per square meter

Average surface area per person:
21 square meters

Asked about the lessons born of temporary housing that the city of Munich could apply to solving its affordable housing shortage in the future, and the commonalities between two issues, Ulrich Benz (Department of Planning and Building Regulations, City of Munich) notes:

> **"[The refugee influx of 2015] was a period of research and experimentation, exploring the margins of building law and construction technology and triggering a discussion of the necessary or unnecessary standards. The need to build quickly and at the same time cost-efficiently has produced ideas that were previously difficult to realize because they seemed out of the question or outdated.**
>
> **This debate questioned the necessity of underground car parks, complete accessibility of all apartments and brought modular construction back to honor. But you also had to learn that speed has its price:**
>
> **As there were few construction companies with sufficient spare capacity to produce prefabricated parts, high prices had to be accepted under time pressure. The lesson to be learned from this is to make the schedules so flexible that favorable economic phases can be used. Planning should be coordinated in good time with all administrative departments involved. It should be open in such a way that the necessary dimensions can be achieved with all construction methods (wood / concrete, modular construction systems / prefabricated parts / on- site construction, etc.)."**

Reflecting on regulatory requirements and identification of available spaces

Similarly, reflections on the need to adjust regulations and the extent to which such adjustments are beneficial may easily be applied to the field of affordable housing. Thus, in *Making Heimat*, Stefan Rettich writes that:

"The "inflated" energy-saving directive (EnEV) and passive house construction fail to provide the answer to the housing problem. There are other ways of combatting climate change: we can reduce the area we inhabit or build buffer zones that become generous living spaces only when the weather is warm. Besides, not everyone needs the same standards or disabled-accessible apartments. People react differently to noise and have different heating requirements. Many people can forego a basement or expensive flooring, but an increasing number are reliant on cheap accommodation [...] It is beneficial if a certain proportion of buildings in a new neighborhood are built to lower standards and are less well fitted-out, so as to guarantee a range of rents and a mixed miliеu. [...] In re-examining our over-regulated system, we should not be tempted into deregulation or sub-standard codes with the sole aim of putting up housing speedily and on a shoestring." [87]

In addition, cities experimented with innovative uses of available plots that may be used as housing as they looked for ways to deliver temporary accommodation for asylum-seekers; tomorrow, similar innovative uses might allow for the provision of affordable housing. This is what is at stake with the bold idea behind the Dantebad project (see inset p.60), which currently hosts a mix of refugees, social housing beneficiaries, low-income households and unemployed individuals. The municipality built this apartment building above a publicly-owned parking lot, offering a prime example of the city built above the city. The solution may well be replicated on any of countless other public parking lots, offering an example of an imaginative use of existing resources in a constrained urban environment. Thus, Ulrich Benz confirms that the city intends to repeat the experiment, granted comparable conditions are present, and lists the following *prerequisites: "political approval, municipal ownership of the property, sufficient distance from surrounding buildings, and tolerable noise pollution from [and in] the neighborhood".*

Dantebad housing project,
Munich

Nowhere is the innovative force born of the recent refugee crisis and the temporary housing challenge more apparent than in the Dantebad project, a refugee housing complex built on stilts above a public-owned parking lot. Delivered in December 2016, the Dantebad complex is home to a mixed population of recognized refugees, beneficiaries of social housing or unemployed individuals. "*The program is to mix not just refugees, but some students with people on the waiting list for social housing because there are other poor people in the city beyond refugees. Munich is a rich city with a lot of poor people,*" says Sophie Wolfrum, a professor at the Technical University of Munich. "*This is a program that intends to always mix social groups.*" The project provides long-term housing in small and cheap units and offers its residents several communal spaces, including a laundry room, a rooftop terrace with decks and the possibility to grow produce. "*They have a rooftop garden with some common rooms, and communal spaces within the house and on the top floor,*" says Munich-based architect Julia Hinderink. "*The space becomes gradually more intimate. There are different zones, and the whole building works very well.*" The hallways connecting apartments to one another "*broaden into a small niche that can be furnished and used as a meeting point for residents,*" notes the *Making Heimat* catalogue.[88]

Specifications [89]

100 apartments

129 residents with low income

Five-story building made of a timber frame, upon reinforced concrete stilts and slabs

Lifespan of construction: **unlimited**

Cost of construction:
€1,805 per square meter

Average surface area per person:
23 square meters

Stakeholders [90]

Architect: Florian Nagler Architekten GmbH, Munich

Construction firm: B+O Wohnungswirtschaft GmbH Bayern, Bad Aibling, Huber+Sohn, Bachmehring (timber work)

c. The refugee crisis has allowed cities to reflect on new forms and typologies of housing

Building for the non-traditional household

New ways of life require new types of housing. This is true not only of affordable housing but of housing in general, as private developers, too, need to take into consideration the evolution of individual preferences and behaviors if they want to cater to the needs of wealthy households or young first-time buyers.

Among new phenomena giving rise to a change in the way we inhabit housing, the rise of single households in cities: Munich, like Berlin, is home to approximately 54% single-person households.[91] **"*This is a trend in all large cities,*" notes Sophie Wolfrum. In Stockholm, "*30 to 40% of people live alone,*" says Ann-Margarethe Livh.**

Simultaneously, the average size of the family unit is increasing, and the proportion of single households in cities is growing. These factors have created an urgent need to reconsider dated, standardized housing typologies. Thus, while an average family in Stockholm traditionally included four members, the refugees currently living in the Swedish capital and due to enter the regular housing market appear to have larger families of seven or eight members. Often, they tend to use a housing unit not merely for their extended rather than direct family.

This observation has led architects to consider the need to build for more than the small, nuclear family of yore. In Munich, architect Julia Hinderink observes a similar trend:

> **"The family of four (two adults, two children) provided the standard plan for the last fifty years, but now you have single households, families with only one child, or this extended patriarchal family model. Our current housing does not fit these models; it hasn't for a long time, since the 1970s. We have been building the same stupid thing for fifty years and are only now realizing that it is the wrong type of building typology. [...] We are creating the next problem. As building processes take so long, we need to be quicker, we need to think ahead and ask ourselves what the housing models of the future are going to be, how flexible they have to be in order to respond to current social changes."**

"How do these persons want to live? Together, in shared apartments?" Sophie Wolfrum explains that stakeholders in Munich have already begun to reflect on these shifting needs and behaviors, and the city has started to adapt its policies accordingly:

> **"In our profession we are thinking about typologies that work for both needs: larger families with many children, like refugee families, but also for a group of singles wishing to live communally. There are some examples in Munich, but very few. There is quite a strong movement supported by the city, of living together and self-constructing and having a certain legal status that allows for shared property. There are a lot of existing projects and others in the pipeline. Most of these groups are either to have a high diversity of typologies within the single project and always some flats which have more flexibility, a group of friends, a certain privacy for everybody."**

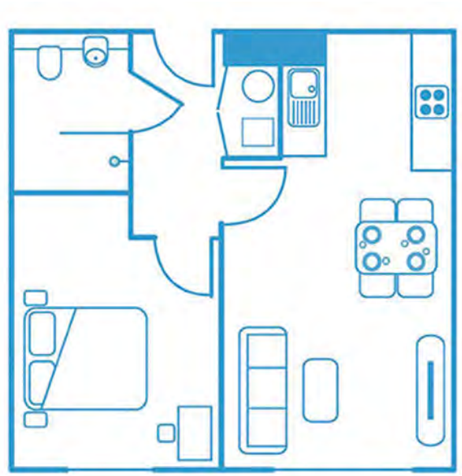
Modularity, mutualized spaces, redensification, and self-construction

The aforementioned trends are moving architects, designers and others in the city to explore concepts such as communal living or increasingly flexible housing arrangements. This can involve offering modular housing, promoting mutualized spaces, exploring redensification strategies that seem especially appropriate in urban environments with rare unused space, or harnessing the potential of self-construction to allow urban-dwellers to build their home based on what resources they may have.

One promising lead may be to mutualize spaces by providing less surface area within the confines of the private housing unit and re-injecting the saved space into common facilities, with the user paying only a fraction of the amount they would have paid, had said space remained within the private unit.

Re-densification, too, provides an interesting course of action, which Germany's Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) is currently pursuing through a research project on the potential of adding building stories and converting lofts as a way to provide additional housing units through re-densification.[92] "*In metropolitan areas with no remaining land potentials, redensifications are one option for the creation of additional housing,*" the BBSR notes.

The challenge, today, consists in introducing increased diversity in housing typologies, while maintaining the long-term attractiveness of real estate products and limiting costs. The traditional production of housing is highly standardized, something which allows for important economies of scale in construction. Ultimately, the question is whether typologies of housing should be diversified to tailor a variety of individual needs and ensure that all find housing fit to their specific needs and characteristics or whether the layout of housing units should be modifiable depending on needs, and thus modular (a choice with significant consequences in terms of construction). Another solution might also be the construction of neutral spaces with homogeneously-sized rooms that allow for flexible uses without the use of modular inner walls.



Pocket Living floor plan - Courtesy of Pocket Living

The International Building Exhibition (IBA) Hamburg, which ran between 2006 and 2013, laid out these different options in its Smart Price Houses and Smart Material Houses projects. The Smart Price Houses, for instance, were self-assembly homes "*based on the principle of do-it-yourself construction and self-assembly*"[93], looking to provide low-income households with an opportunity to build their own accommodation in accordance with their resources. As in Olaf Reiter's aforementioned project, users were provided with a basic building structure ("*structural frame, load-bearing floors/ceilings, outside walls and [...] connection for building services*"[94]) and then built their own housing units based on their needs. The IBA notes that such a configuration allows for great flexibility: "*Changes in the way in which they might need to use the property – for example following a new addition to the family or a change in owner – are built into the concept. This is possible due to the way in which the individual apartments are independent from the supporting structure and the neighbouring storeys.*"[95]

Another IBA project, the "BIQ" houses with algae façades, offers *"flexible layout configurations that are adaptable to the needs of the residents"*[96], with apartments easily dividable depending on needs, with an aim, according to architect Michael Ziller, to "*create flexible building structures that can be used by people of all ages*"[97].

The advantages of modular, reversible housing in dense, cramped cities are self-explanatory, for low-, mid-, and high-income households alike. The variables of continuous demographic growth and limited useable space in cities call for ways to increase the flexibility of the existing housing stock, something perhaps best achieved through modularity. Additionally, work on the quality of prefabricated housing, together with increased familiarity with and popularity of such housing in the aftermath of the crisis, means that "prefab" may well become a prime form of housing tomorrow. For now, prefabricated modules are on demand for office buildings, temporary events or even schools; tomorrow, they could be a regular form of urban housing. Examples abound of architecture firms proposing affordable housing solutions founded on the use of prefabricated modules. In Stockholm, for instance, architecture firm Andreas Martin-Löf Arkitekter delivered, in July 2017, several affordable housing blocks built using prefabricated materials with an aim to provide fast, low-cost housing for Stockholm youth. "*The project offers a timely solution for the growing housing shortage in Stockholm*", the architects told Dezeen.[98] In Berlin, meanwhile, Arup and Berlinovo Immobilien have begun to develop a new concept for micro apartments intended to better meet the high demand for affordable student housing[99], employing a modular concept that "*can be implemented with different building materials including concrete, steel and also timber*" and allows for faster construction. The project, Arup notes, "*allows for flexible alternative use during a life expectancy of 40 years or more*". Similarly, much thought is currently given in London, a city ridden with a particularly acute housing shortage across the board, to the use of these modular solutions, as shown by these observations included in a rapporteur review to the city's planning committee:

> **"Supporters of this type of housing production point to the fact that it has evolved dramatically since the era of post-war prefabs. Today's designs are of exceptional quality, highly sustainable and meet the same (or exceed) standards of traditional housing. Moreover, design is flexible and can complement any housing style, energy costs are low and certification systems exist that guarantee a life of at least 60 years for this type of product. For London, the two most attractive features of modular housing are the speed of construction and the reduced cost of development. Another advantage is the particular suitability of this type of housing for 'infill' sites, of which London has capacity for at least 100,000 units."** [100]

Further evidence of the British capital's interest in exploring these modular solutions came in the form of London Mayor Sadiq Khan's decision, in August 2017, to invest £25 million in a modular construction developer, Pocket Living, tasked with constructing affordable housing. The city notes that a third of these units "*will use innovative modular technology*", aimed at "*local first-time buyers*" and sold "*at least 20 per cent cheaper than the market rate.*"[101]

Similarly, self-construction has emerged during the temporary housing phase as an actionable way of decreasing construction costs while fostering a sense of home for the user. Today, in the wake of the migration crisis, private actors and cities alike are exploring the extent to which self-construction can contribute to solving the urban affordable housing shortage, as evidenced by the aforementioned IBA projects.

Interior view of a Pocket Living-designed home in London, courtesy of Pocket Living

Foonotes

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Conclusion

Faced with the mass arrival of individuals fleeing Syria, Iraq, Afghanistan and more starting in 2015, European cities, and specifically German and Swedish cities, have overall managed to provide the required emergency shelter by organizing a structured administrative response, identifying available plots and facilities formerly dedicated to other uses, and advocating in favor of more flexible regulation. Some cities encountered particular challenges: Berlin struggled with an unwanted extension of asylum-seekers' stay in emergency shelters, while Dresden had to contend with acceptability issues and antagonism from parts of its public opinion on the subject of asylum-seeker reception. Hamburg, Munich, and other cities encountered difficulties in identifying available plots and buildings fit for asylum-seeker accommodation, while Stockholm's clogged public housing system produced refugee housing acceptability issues and will be subject to increased pressure as recognized refugees arrive on the regular housing market. Yet most of the studied cities offer one commonality: they appear to have considered temporary housing as a stepping stone for integration, a position that implies the adoption of policies as varied as an even distribution of temporary housing across the city, a dialogue with citizens to foster acceptability, or reflection on the proximity of social infrastructure and on ways to preserve intimacy and autonomy through design interventions.

Yet access to housing alone cannot ensure the integration of refugees. The newcomers must be able to find employment and learn the local language, a long-term challenge cities appear to be acutely aware of, and are striving to address by providing vocational and linguistic training and skill evaluation mechanisms. Long-term integration, specifically into the labor market, is a significant challenge for cities, which stand to lose much from its failure. To increase labor market integration, cities have often mobilized the civil society and private sector, which, in turn, have proven instrumental in taking the steps required to launch the integration process. Indeed, in housing as in employment, the most promising results were often achieved when cities capitalized on their prime strength: the spatial concentration of diverse stakeholders with complementary fields of expertise. By resorting to collective intelligence and drawing on the skills of all urban stakeholders, whether they be members of the public administration, the private sector, academia or civil society, cities have been able to act more quickly and more efficiently, ultimately proving sufficiently resilient in the face of a shock that may well become a chronic stress. Cities must now ensure continued mobilization from civil society if they wish to ensure the uncertain and complicated integration of refugees into the labor market and the local social fabric; this mobilization, it turns out, is arguably harder to secure in the long term than in the emergency phase, where the emotion caused by images of the crisis causes strong, spontaneous engagement.

Yet integration is not the only long-term challenge associated to the arrival of asylum-seekers: the latter has also compounded European cities' preexisting affordable housing shortage problem. Fortunately, many cities appear to have realized that the tools developed to solve the temporary housing challenge may well be used to address the affordable housing issue, or at the very least that the thought processes born of the former may also apply to the latter. Indeed, identifying constructible land, reflecting on reversible uses of existing facilities, or inquiring into ways of building faster and cheaper are essential to the provision of affordable housing, too. These considerations serve to show that while cities may have come out of the emergency phase for now, the resilience stress test born of this migratory wave persists: urban resilience to this shock, indeed, hangs on the articulation of different spatial and time scales, most importantly the emergency scale of the crisis and the longer timeframe of the chronic stress and of refugee integration, a phase during which the urban equilibrium remains fragile.

To increase their resilience, whether in the short or long term, a critical strategy which cities would do well to adopt consists in capitalizing on the knowledge accrued during the recent crisis. Many European cities have realized that the migratory crisis of 2015 was no isolated incident, but rather part of a new paradigm whereby migratory inflows are guaranteed to occur again, and perhaps more frequently, whether due to climate change or political unrest. Indeed, up to 200 million could be displaced by climate events before 2050. These migrations will be inherently difficult to predict, and it is therefore crucial for cities to prepare for them by safeguarding the solutions they have already developed. Therein lies the interest of studying European cities' recent migration crisis: the lessons that have emerged in its wake are precious both for preparing the response to future crises, and to solve of broader issues such as affordable housing, which may well be turn out to be most serious threat to urban resilience in the decades to come.

5

City cards

Stockholm Key Facts

923,000 inhabitants[1]

GDP per inhabitant

€60,000

Main industries

information and communication technologies, machine manufacturing, paper and printing, chemicals[3]

Unemployment rate

6%[2]

Ratio of population born abroad

23.4%

Public entity dedicated to coordinating refugee reception

Intro Stockholm (see inset p.17)

[1] European Commission, Growth, Internal Market, Industry, Entrepreneurship and SMEs. (2017). Stockholm. Retrieved from https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/stockholm

[2] Roden, L. (2017, 13 February). This map shows where you're most likely to be unemployed in Sweden. The Local. Retrieved from https://www.thelocal.se/20170213/this-map-shows-where-youre-most-likely-to-be-unemployed-in-sweden

[3] Stockholm. In Encyclopaedia Britannica online. Retrieved from https://www.britannica.com/place/Stockholm

Statistics on reception of asylum-seekers and refugees

- City was assigned 2,436 asylum-seekers in 2016 and 2,858 in 2017[4]
- More than half of the newcomers in 2017 were families
- Large portion of minors within the newcomers: In 2015, 5,000 children came to Stockholm[5], 2,000 of which were subsequently assigned to the city[6]

Temporary housing for asylum-seekers

- In 2017, the City Planning Committee delivered building permits for modular accommodation for six separate locations.
- The city forecasts that asylum-seeker housing needs will remain stable in 2018, and continues to search for housing for the newcomers[7].
- Representative or significant temporary housing projects include: utilization of former retirement homes as temporary housing centers for refugees; mixed housing projects blending students and asylum-seekers.

City's significant realizations with regards to refugee reception and housing

- Rapid creation of a dedicated unit, Intro Stockholm
- Implementation of mixed housing projects blending asylum-seekers with other types of population, like retirement home residents
- Increase of yearly housing construction goals
- Reception and housing of a large population of unaccompanied minors

City's main challenges with regards to refugee reception and housing

- An acute affordable housing shortage and a clogged public housing system
- Acceptability issues, with some NIMBY reactions and concerns from inhabitants over competition with asylum-seekers or refugees for housing

[4] Stockholms stad. (6 April 2017). Alle anvisade från 2016 har fått boende – fler platser behövs 2017. Retrieved from http://www.stockholm.se/-/Nyheter/Nyanlanda/Alla-anvisade-fran-2016-har-fatt-boende--fler-platser-behovs-2017/

[5] Stockholms stad. (19 September 2016). Stockholms stads ansvar. Retrieved from http://www.stockholm.se/FamiljOmsorg/Socialt-och-ekonomiskt-stod/Flyktingmottagande/Stockholms-stads-ansvar/

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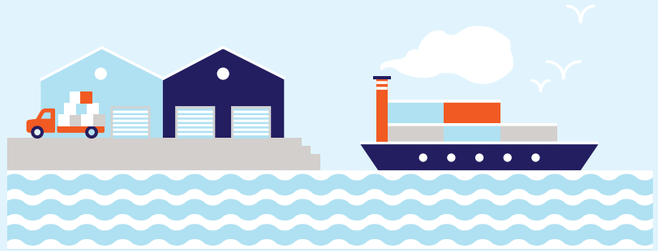
[7] Ibid.

Hamburg[8] Key Facts

1.8 million inhabitants



GDP per inhabitant

€50,000

Main industries

maritime shipping, logistics

Unemployment rate

7.2%[9]

Ratio of population with a migration background

33%

Ratio of minors with a migration background

50%

City State

Public entity dedicated to coordinating refugee reception

The Central Coordination Unit for Refugees (see inset p.16)

Statistics on reception of asylum-seekers and refugees

- Receives 2.52% of Germany's refugees in accordance with the Königstein Key
- Currently home to 57,000 refugees
- Received 511 new asylum-seekers in August 2017
- Current average: 400 asylum-seekers per month
- Number of new asylum-seekers expected to arrive in the city for the whole year 2017: 4,800
- Number of persons expected to join their refugee relatives in Hamburg in 2017: 1,500 to 3,000

Temporary housing for asylum-seekers[10]

- Maximum 300 locations for refugees in all of Hamburg
- A goal of 300 refugees per housing location by the end of 2019
- All new public housing built for a maximum of 300 refugees
- Attempt to eliminate 8,000 places in initial shelters in 2017, to close the last "precarious" initial shelter (90 individuals), and to create 7,000 new places in newly constructed public housing (but will not be achieved before mid-2018)
- Representative or significant temporary housing projects include: The Notkestrasse housing complex in Altona (see inset p.41), the upcoming Hohensasel housing project (see inset p.43).

City's significant realizations with regards to refugee reception and housing

- Fast construction of modular buildings with capped capacity
- Strong involvement of local community through dialogue and participatory initiatives like the "Finding Places" project (see inset p.37)

City's main challenges with regards to refugee reception and housing

- Identification of available land
- Affordable housing shortage

[8] Presentation by Fouad Hamdan at Cerisy International Colloquium, September 2017.

[9] European Commission EURES – The European Job Mobility Portal. (August 2017). Labour market information. Retrieved from https://ec.europa.eu/eures/main.jsp?countryId=DE&acro=lmi&showRegion=true&lang=en&mode=text&regionId=DE0&nuts2Code=%20&nuts3Code=null&catId=360

[10] Ibid.

Berlin Key Facts

3.6 million inhabitants

a growing city, with 40,000 arrivals yearly (refugees excluded)

GDP per inhabitant

€35,600

Main industries

politics, media, culture

Unemployment rate

9.6%[11]

City State

Public entity dedicated to coordinating refugee reception

The Berlin State Authority for Refugee Affairs
(*Landesamt für Flüchtlingsangelegenheiten*)

Challenges

- Acute affordable housing shortage
- Tight budgetary policy at the municipal level, with drastic savings implemented in the past decade, and strong decrease in the size of the public administration workforce between 2002 and 2012 ("save until it hurts" policy)
- Sharp difference between the East and West of Berlin in terms of income level and state of the infrastructure

[11] European Commission EURES – The European Job Mobility Portal. (August 2017). Labour market information. Retrieved from https://ec.europa.eu/eures/main.jsp?countryId=DE&acro=lmi&showRegion=true&lang=en&mode=text&regionId=DE0&nuts2Code=%20&nuts3Code=null&catId=375

Statistics on reception of asylum-seekers and refugees

- Currently home to 65,000 refugees
- Receives 5.04% of Germany's refugees in accordance with the Königstein Key
- Current rate of arrival: 700 to 800 newcomers monthly

Temporary housing for asylum-seekers

- 151 refugee accommodation centers as of 23 February 2016 (including reception facilities, emergency shelter and longer-term, communal housing)
- Representative or significant temporary housing projects include: The Tempohome construction project, multiple modular accommodation housing projects including the Breitscheidstrasse housing complex.

City's significant realizations with regards to refugee reception and housing

- Pursuit of a long-term objective towards a resolution of the affordable housing crisis by constructing permanent buildings intended to accommodate asylum-seekers in the short term and other types of population in the longer term

City's main challenges with regards to refugee reception and housing

- Delayed transition of asylum-seekers from emergency shelter into longer-term housing
- Acceptability of certain temporary or emergency shelter projects
(e.g., Tempelhofer Feld; see p.23)
- Cooperation with boroughs for the identification of available plots and facilities where temporary housing for asylum-seekers may be built or installed
- Acute affordable housing shortage compounded by strong demographic growth

Dresden Key Facts

540,000 inhabitants

Main industries

pharmaceuticals, semiconductors, electrical and mechanical engineering

GDP per inhabitant

€31,100

Unemployment rate

8.6%[12]

[12] Bundesagentur für Arbeit – Statistik. (2017). Dresden, Agentur für Arbeit. Retrieved from https://statistik.arbeitsagentur.de/Navigation/Statistik/Statistik-nach-Regionen/BA-Gebietsstruktur/Sachsen/Dresden-Nav.html

Statistics on reception of asylum-seekers and refugees

- 5.1% of newcomers are assigned to Saxony under the Königstein Key. Of these, 13% are allocated by the state to the city of Dresden.
- 3,427 refugees in June 2017 (down from 5,092 the previous year)
- Main countries of origin: Syria, Afghanistan, Pakistan and Iraq[13]
- In the first semester of 2017, the state government allocated 389 individuals to Dresden; during that same period, 53 individuals returned to their home country (202 in 2016).
- The city estimates its monthly spending per refugee to be 1,000 euros (including a stipend, accommodation, and healthcare[14]), of which €630 are reimbursed by the state.

Temporary housing for asylum-seekers

- As of June 2017, Dresden has accommodated a total of 3,427 persons. Of these, 2,146 people lived in decentralized housing and 1,281 people in large dormitories.
- Asylum-seeker accommodation is spread over the entire urban area, with most individuals housed in the areas of Prohlis (area in the south-east of Dresden often associated with its Plattenbau construction, with a disenfranchised population, over 30% of which voted for the *Alternativ für Deutschland* movement) and Cotta (a mostly residential neighborhood located in the west of the city).
- Representative or significant temporary housing projects include: The Strehlenerstraße temporary housing location (former hotel) hosting over 350 individuals; similar accommodation located at Fritz-Reuter-Straße, with a capacity over 200 persons.[15]

City's significant realizations with regards to refugee reception and housing

- Emergency response involving use of available buildings (hotels)

City's main challenges with regards to refugee reception and housing

- Affordable housing shortage
- Acceptability issues

[13] Dresden. (2017). Zahlen, Fakten, Planung. Retrieved from http://www.dresden.de/de/leben/gesellschaft/migration/asyl/fragen-und-antworten.php

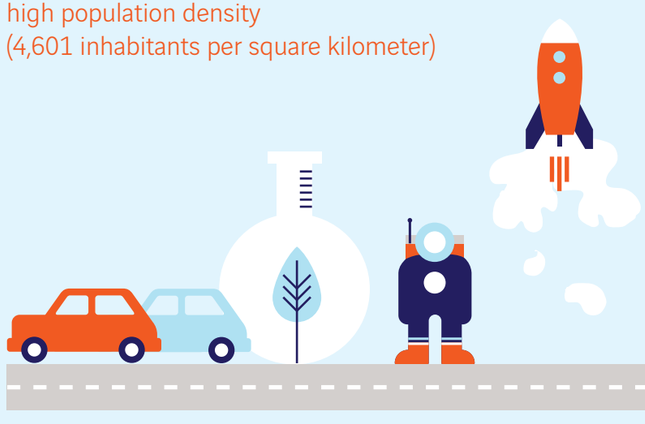
[14] Ibid.

[15] Dresden (2017). Unterbringung. Retrieved from http://www.dresden.de/de/leben/gesellschaft/migration/asyl/unterbringung.php

Munich Key Facts

1.5 million inhabitants

high population density
(4,601 inhabitants per square kilometer)



GDP per inhabitant

€53,000

Main industries

automobile, aerospace, medicine, biotechnologies

Ratio of population with a migration background

40%

Unemployment rate

4.3% [16]

[16] Muenchen.de – Landeshauptstadt München. (2017). Munich economy – key data. Retrieved from https://www.muenchen.de/rathaus/wirtschaft_en/munich-business-location/economic-data.html

Statistics on reception of asylum-seekers and refugees

- Home to 9,352 refugees in late September 2016
- Receives 1.6% of Germany's refugees[17] in accordance with the Königstein Key and state distribution mechanisms[18]
- Important reduction in size of municipal workforce dedicated to the reception of refugees (down from sizeable teams after the arrival of refugees from Kosovo in the 1990s)

Temporary housing of asylum-seekers

- City launched a "light construction hall" (*Leichtbauhalle*) program in response to the spike in emergency shelters needs beginning in summer 2015; by the end of 2016, all halls had been shut down.
- Representative or significant temporary housing projects include: Dantebad mixed housing project (see inset p. 60), Bellevue di Monaco housing project for refugees (see inset p. 49), *Leichtbauhalle* (light construction hall) building program (see inset p. 22).

City's significant realizations with regards to refugee reception and housing

- Strong innovation in utilization of existing assets (e.g., Dantebad project)
- Diversity of the typologies of housing projects targeted at asylum-seekers

City's main challenges with regards to refugee reception and housing

- Affordable housing shortage
- Most expensive city in Germany when it comes to real estate

[17] Muenchen.de. – Landeshauptstadt München. (2017). Daten zu in München untergebrachten Flüchtlingen. Retrieved from https://www.muenchen.de/rathaus/Stadtverwaltung/Sozialreferat/Fluechtlinge/Hintergrund.html

[18] Ibid.

Stuttgart [19] Key Facts

600,000 inhabitants

GDP per inhabitant

€57,100

Main industries

automobile, electrical engineering

Ratio of population with a migration background

45%

Unemployment rate

5.7% [20]

Ratio of minors with a migration background

60%

Ratio of population with foreign citizenship

25%

[19] (G. Pavkovic, A. Özbabacan, interview, June 2017.)

[20] Bundesagentur für Arbeit – Statistik. (2017). Stuttgart, Agentur für Arbeit.
Retrieved from https://statistik.arbeitsagentur.de/Navigation/Statistik/Statistik-nach-Regionen/BA-Gebietsstruktur/Baden-Wuerttemberg/Stuttgart-Nav.html

Statistics on reception of asylum-seekers and refugees

- Currently home to over 8,000 refugees (70% families and 30% single individuals, including 1,000 unaccompanied minors)
- Main countries of origin: Syria, Iraq, Afghanistan, Kosovo, Macedonia, Eritrea, Iran, Pakistan
- "Integration of Refugees" Taskforce created by municipality with six subdivisions (language promotion, community work, vocational qualification and training measures, job search and guidance services)
- Assistance to asylum-seekers with everyday life issues, legal issues, healthcare, family planning, housing
- 41 circles of friends for refugees with more than 3,500 volunteers

Temporary housing of asylum-seekers

- Decentralized accommodation in over 120 collective housing complexes and apartments distributed across the city
- House management and care are all under one roof, staffing ration for social care and educational house management each 1:136
- Representative or significant temporary housing projects include: Pallotti House (see p.35), Feuerbach modular housing complex.

City's significant realizations with regards to refugee reception and housing

- A policy aiming at a balanced distribution of housing across the city
- Fast construction of long-term temporary housing for asylum-seekers

City's main challenges with regards to refugee reception and housing

- Affordable housing shortage

Timeline of our research project

2 February 2017
Working group visit to Hamburg

9 February 2017
Design thinking workshop at the Liberté Living Lab, Paris

10 March 2017
Expert hearing with Luise Noring and Marie-Therese Harnoncourt-Fuchs, Paris

5 May 2017
Working group visit to Stockholm

12 June 2017
Field visit to Munich

14 June 2017
Field visit to Stuttgart

19 June 2017
Field visit to Berlin

21 June 2017
Field visit to Dresden

19 July 2017
Presentation of German field visit results to the working group

23 November 2017
Conference in Munich: "European Cities and the Refugee Situation: A Laboratory for Affordable Housing and Urban Resilience?"

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