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ÁGORA
AGORA

ARQUITETURA HUMANITÁRIA E ACOLHIMENTO NA AMÉRICA LATINA
HUMANITARIAN ARCHITECTURE AND SHELTERING IN LATIN AMERICA
VERA HAZAN

PT | EN

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Abstract

Migrations in the Latin American continent, especially from Venezuela, have changed the region's scenario since 2015. Political, economic, and social divergences, especially with some countries, have deepened, culminating in border closures and changes in trade and diplomatic relations. The expansion of the crisis, the economic embargo, and the tensions in the Latin American continent reflected in unprecedented situations, such as the mass migration of Venezuelans from the most diverse social, economic, and ethnic profiles, in search of humanitarian aid, especially in Spanish-speaking countries bordering Venezuela. In Brazil, Welcome Operation, along the border of the state of Roraima, in North Region Brazil, created support infrastructure and shelters in Pacaraima and Boa Vista, visited by the mission of researchers from the Sérgio Vieira de Mello/UNHCR/PUC-Rio Chair in the second half of 2018. Since then, LabAH (Humanitarian Architecture Laboratory/DAU/PUC-Rio) has been able to follow the work of architects and engineers from UNHCR (United Nations High Commissioner for Refugees), to better understand the challenges of humanitarian architecture in situations of transience and emergency, as well as contributing with some discussions and proposals for improvements in the spaces and structures of reception, in a technical cooperation that resulted in a climate adaptation project of the RHU (Refugee Housing Unit) and in the construction of prototypes for testing in the Rondon complex.

Keywords: Refuge, Humanitarian Architecture, Latin American Borders, Transience, Programmed Precariousness

1 Introduction

The research began in 2018 with the mission to Roraima, where a field study was carried out in the shelters of Pacaraima and Boa Vista, municipalities of Roraima, with photographic records and interviews with sheltered people, professionals and local researchers, as well as data collection concerning Operation Welcome. From this trip, it was possible to update and systematize information about the situation along the Brazil-Venezuela border, based on the analysis of the occupation of the lots, infrastructure, logistics and shelter modules used. As the UNHCR already indicated that the RHU (Refugee Housing Unit), produced by IKEA, would replace most of the old tents, in 2019 the first adaptations of the unit to the climate situation in the region were proposed. In 2020, we participated in the Call For Innovative Concepts For RHU Upgrading Americas, together with the UNHCR team, with the objective of improving the environmental conditions of collective spaces and extending the life span of the RHU's in the face of bad weather. The next step was project development, cost estimation and preparation of a system catalog for the construction of the prototype, virtually accompanied by the UNHCR team working alongside us. This experience allowed the teachers and students involved to better understand the challenges and limitations of emergency architecture, especially in times of Covid-19, as well as the drama of people in forced displacement, who depend on these structures to survive.

The crisis in Venezuela further exposed the physical, political, and cultural borders of the Latin American continent. When visiting Roraima in 2018, it was far fetched to imagine that the migratory wave would last so long and that humanitarian aid would have to be expanded to meet this demand. According to the Global Trends 2019 report, released by UNHCR in June 2020 (United Nations High Commissioner for Refugees, 2020), on the previous year there were more than 79,500,000 people forced to move around the world in search of survival, which is equivalent to about 1% of humanity. Of these, 45.7 million were displaced within their own countries, 4.2 million were awaiting the outcome of requests for recognition of refugee status, while 26 million had already been recognized as refugees and displaced outside their country of origin. Syrians represented the largest number of refugees, followed by Venezuelans in second place. With the worsening of the crisis in the last two years, at the end of 2020, there were 84.2 million displaced people (UNHCR, 2021), and the contingent of refugees from Venezuela exceeded 5.5 million, including 4,6 million stays in Latin America (Stein, 2021, pp.6), with the majority concentrated in Colombia.

Due to the large flow of refugees, in 2016 Colombia created the GIFMM (Inter-Agency Group on Mixed Migration Flows), co-led by UNHCR and the IOM (International Organization for Migration) to act as a space for coordinating the situation of refugees and migrants in the country. With 76 members, including United Nations (UN) agencies, international and local non-governmental organizations (NGOs) and the Red Cross, this group coordinates the response to the needs of refugees, migrants and host population in terms of civil rights, housing, work, education and health. To support this program, as well as others developed in Peru, Ecuador and Brazil, the R4V platform (Response for Venezuelans) was created, which coordinates actions aimed at refugees and migrants from Venezuela in 17 countries in Latin America and the Caribbean, with important data for the organization of humanitarian aid (R4V, 2021).

The difference between reception structures and forms of legal protection for refugees varies in Latin American countries, both in terms of legislation and in terms of reception structures and programs to support in-host country displacements, housing, education, health and social integration. It is necessary to distinguish the humanitarian action along the borders, especially in municipalities with a rural profile, such as Pacaraima, in Roraima, from that found in medium and large-sized capitals and cities. While Bogotá, Medellín, Lima, Quito, Buenos Aires or São Paulo can absorb a large number of refugees, albeit informally, other cities need to create completely new supports, such as the shelters visited in the cities of Roraima, which are very similar to the structures studied in Colombia and Peru.

The visit to shelters in Pacaraima and Boa Vista, capital of the state of Roraima, showed the complexity of humanitarian aid structures and how much architecture, along with other disciplines, can do for those who are in situations of vulnerability and refuge. Unfortunately, the protocols of international agencies and government bodies still reproduce models that are poorly adjusted to the situations encountered, whether in terms of climate or in relation to the social and cultural nature of those served. Furthermore, the organization of spaces follows a military logic of control that hinders social relations and exchanges. Despite the promotion of international competitions for new emergency typologies, what is seen in the fields and catalogs of emergency architectures are very similar proposals, with few exceptions. The logic of shelters follows what we call programmed precariousness, that is, structures created for the specific care of a situation of short duration and low cost. It so happens that, due to the countless current crises, complex issues extend beyond what was imagined, and the fragility of these structures increases, creating greater instability in the lives of those who are welcomed.

Uncertainty about the future, forced idleness, separation from families and dependence on entities to survive become even tougher when space conditions are bad, especially for those who previously had a stable life, a

job, or even a home with some privacy. Even though the entities and professionals responsible for hosting refugees try to create a minimally healthy atmosphere, what is actually seen in the camps and shelters are extreme situations, where hope slips away every day. Most of the units disintegrate over time, forming sets of tarpaulins and panels that are difficult to dispose of. To improve protection from the bad weather, the refugees themselves use materials collected from the garbage, and create an overlay of new layers that result in dramatic scenes.

2 The architecture of the hosting in check

Welcoming people in vulnerable situations, and especially refugees, brings numerous challenges. If, on the one hand, the emergency defines certain practices and protocols, prolonged instability scenarios motivate us to reflect on what has been done and even to rethink the definition of humanitarian architecture and reception. According to Paese (2018, pp.3), "the act of inhabiting is naturally related to the fact of having a specific place, limited by walls, where the subject feels comfortable and sheltered, living there with stability and the predictability". For Pallasmaa (2017, pp.18), "the home is not a simple object or a building, but a complex and diffuse condition, which integrates memories and images, desires and fears, the past and the present." Also according to the author, the word "home" reminds us of the coziness, protection and love of our childhood, being a safe place to rest and dream.

According to UNHCR (2021), reception architectures are intended to accommodate, for a period of 3 to 12 months, on average, people and communities in emergency situations. At first, it is not intended to provide a permanent home for these families, much less in shelters and refugee camps. The reality, however, reveals dramatic situations, where vulnerability deepens due to the long stay in isolated camps, as the standstill of wars and ethnic and religious conflicts continue after decades, and the hosted families have nowhere to go. What can be seen through articles, narratives, photographs and films is that the refugees themselves began to transform these formal structures into precarious informal settlements that grow, horizontally or vertically, with a new, more organic, and a lot of vitality logic, subverting the initial organization imposed by international protocols.

With a close look at these spatialities, Asensio (2013, pp.2) says "a refugee camp is also a city - and not an ephemeral one. It is a spontaneous generation, yes. A city with no natural origin or evolution, but stable nonetheless. It's just not recognized as a city because its citizens are invisible, forgotten". The author also says that a refugee camp needs architects to create a spatial identity (pp.4). If a camp starts to be seen as a city, a living city, with vitality, exchanges of experiences, among others, things can change. This reflection brings up some important questions regarding the decisions taken by the entities responsible for humanitarian aid, resource distribution and the role of architecture in this provisional system. The fact is that several situations have shown that the average stay in the camps is 16 years, and with the increase in emergency situations and crises in the world, it is unlikely that these people in forced displacement will return to their hometowns in the coming years. As a result, many camps have turned into living cities of the most diverse scales and types, with their inhabitants in a situation of great instability, without passports, nor the right to move freely across borders.

There are also cases such as that of Shatila (figures 1 and 3), created in 1949 in Beirut, Lebanon, to house Palestinian refugees. Over these more than 70 years, this camp has become a popular neighborhood, close to the formal areas of the city, with a spatial structure and informal infrastructure networks, which are more similar to some Latin American favelas, such as Rio das Pedras (figure 2), in the west zone of Rio de Janeiro, than traditional horizontal camps. It cannot be said that this solution can be applied in areas farther away from cities, where infrastructure and logistics difficulties maintain the status of refugee camps in traditional models, with greater dependence on organizations and entities responsible for the emergency industry. Shatila is an example of a living city, structured based on the decisions of the refugees themselves, with a dense, verticalized space occupation and with ventilation and lighting problems resulting from the narrow alleys, also seen in a good part of Latin American slums and informal settlements. Although Shatila residents participate in local society mainly through work and education, Lebanese law makes it impossible for them to buy property and change refugee status.



Fig. 1: Shatila Camp, Beirut, Lebanon. Source: Al Jazeera. Available at: <https://www.aljazeera.com/gallery/2014/4/24/in-pictures-clowning-around-in-lebanon-camps>. Accessed on: March 23, 2021.



Fig. 2: Rio das Pedras community, west zone of the city of Rio de Janeiro. Source: IOERJ. Available at: <http://www.ioerj.com.br/portal/modules/news/article.php?storyid=4929> Accessed on: March 23, 2021.

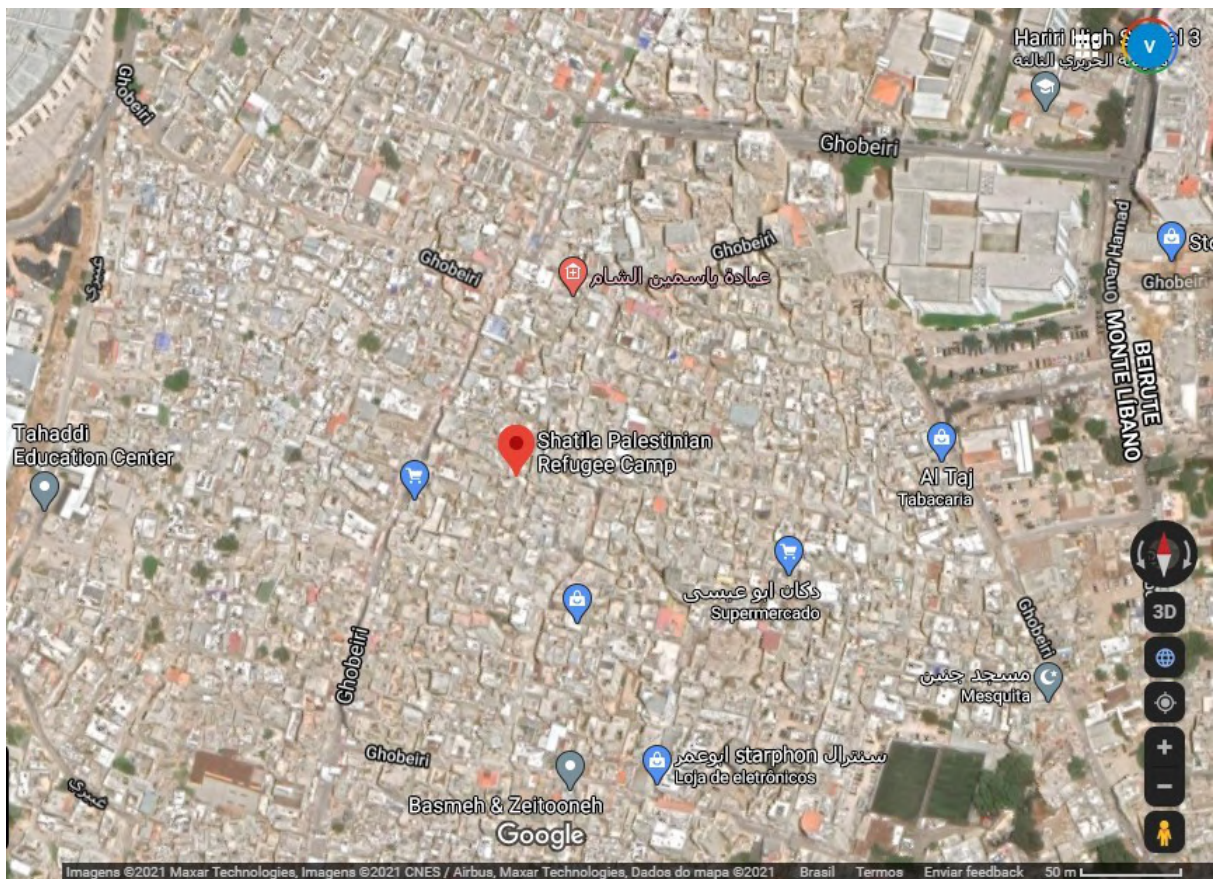


Fig. 3: Aerial view of the Shatila refugee camp, Lebanon. Source: Google Maps, 2021. Available at: <https://bit.ly/3qtumNr>. Accessed on: March 23, 2021.

Just as there are popular urban neighborhoods occupied specifically by migrants and refugees, there are also camps found on the periphery and amidst deserts landscapes, without any infrastructure, connections or mobility, which occupy military areas close to borders or large territories ceded by some countries. Zaatari, Jordan, was created in 2012 to mainly accommodate Syrian refugees. From the images on Google Maps, it is possible to understand the initial layout of the camp, within the traditional regulatory standards, and the changes that have taken place over the years. In the film *Zaatari, Memories of the Labyrinth* (Samora, 2019), the interventions created by the sheltered themselves show how this shelter of around 80,000 people has been transforming and gaining the vitality of an informal city, albeit in an arid and isolated landscape, especially due to commercial and social activities. The logic of improvisation is noticed from the expansion of the tents to the shading of some areas, especially near the small markets and social areas, where children play and the population circulates.

Dadaab (figure 4) in Kenya, Africa, installed in 1991 to house refugees from the civil war in Somalia, was initially created to function with 3 camps for up to 90,000 people in total. As the conflict continued, families were formed, and after almost 30 years of existence, it became the largest of all camps in the world, with approximately 500,000 people, most of them of Somali origin (UNHCR, 2012). Subhuman conditions, especially since the Covid-19 pandemic, have caused more one concern in relation to these large-scale reception areas and structures. According to the organization MSF (Médecins sans Frontières, 2020), the difficulty of controlling the disease increased the risks and made it difficult to access humanitarian aid in these distant sites. The World Food Program has cut supplies by 40%, and other international agencies have drastically reduced their presence in the camps, disrupting basic services and leaving this population in extreme precariousness.

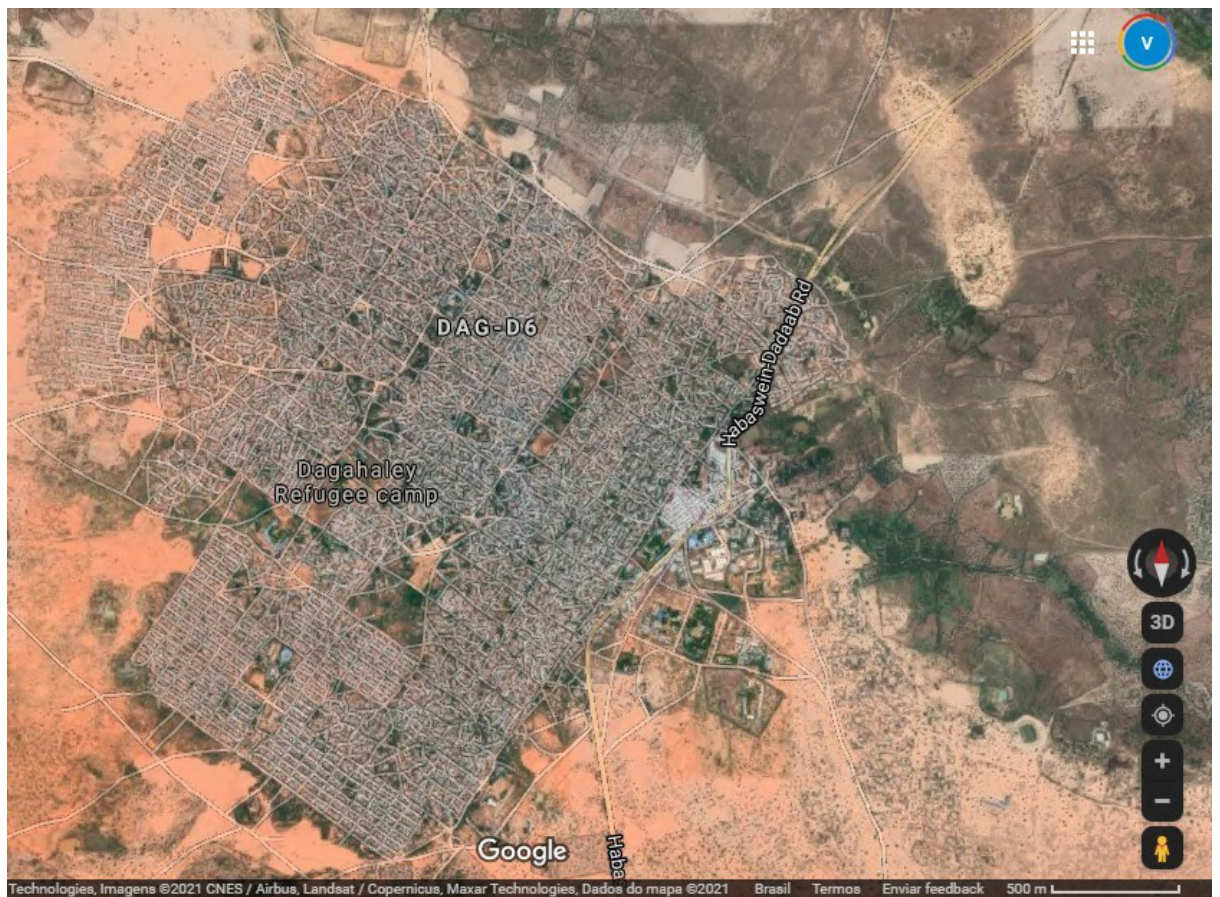


Fig. 4: Aerial view of the Dadaab refugee camp in Kenya, Africa. Source: Google Maps, 2021. Available at: <https://bit.ly/3qfAPv0>. Accessed on: March 23, 2021.

The precarious conditions of the aforementioned camps are recurrent on all continents, including Europe, where recent reports show the problems of reception in Lesbos and the challenges that Turkey has been facing with more than 4 million refugees in its territory. The fact is that around 80% of the world's displaced people are in countries or territories affected by severe food insecurity and malnutrition. Other than that, many face risks related to climate and natural disasters. With the pandemic, the scenario worsened, mainly due to the closing of borders and the lack or insufficiency of basic infrastructure for hygiene and health care. Latin America has suffered from similar problems, and refugees who cannot find places in traditional reception structures live on the streets or in informal occupations, in equally inhuman conditions. Precariousness and improvisation are not exclusive to camps on other continents. Overcrowding and poor conditions in a large part of Latin American shelters make refugees and migrants themselves seek other alternatives for housing and survival outside welcoming spaces, such as the shared occupation by indigenous and non-indigenous refugees in an old club in Boa Vista, whose rules of coexistence are explicit in Figure 5, which according to Araújo Castro (2021, pp.171), "unlike the shelter where people keep their lives suspended, in Ka Ubanoko they weave their own story, with all the challenges and contradictions that a process like this entails."

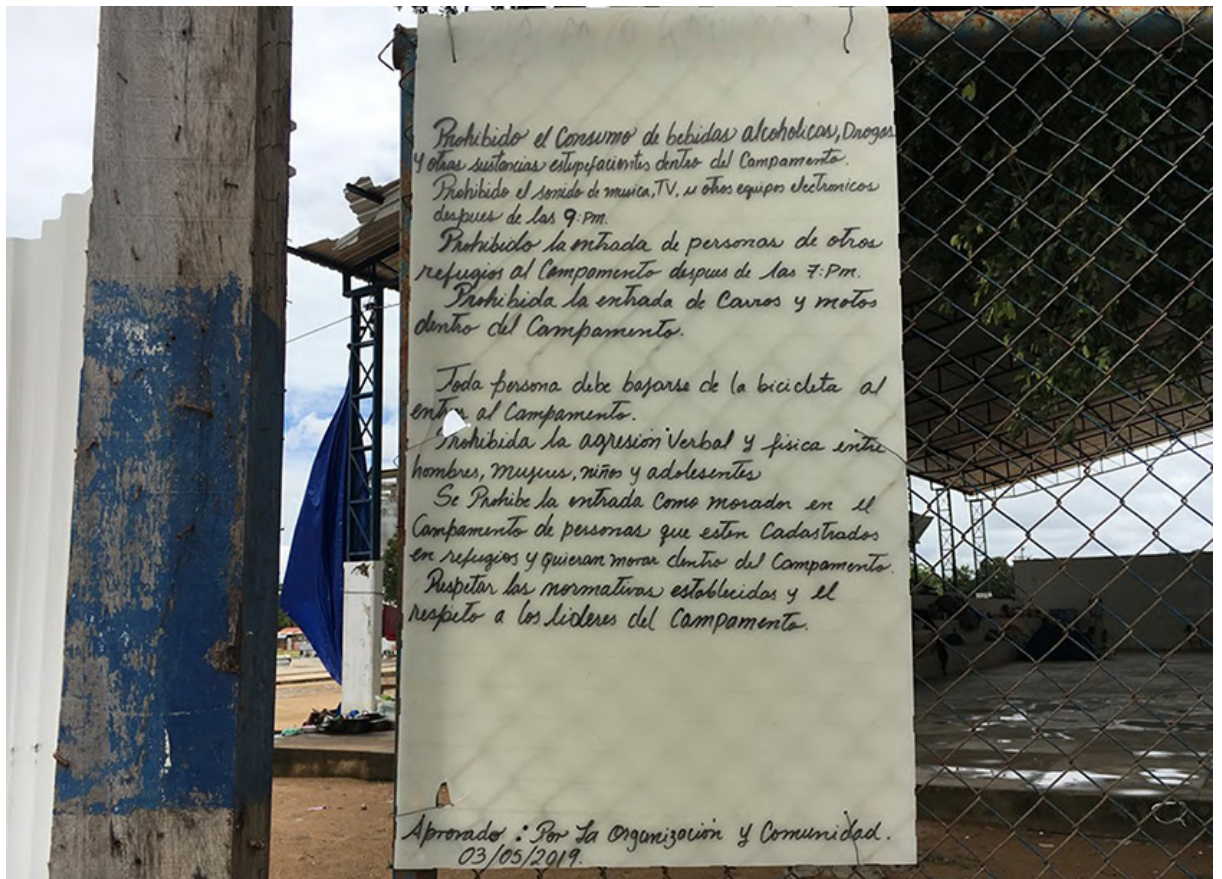


Fig. 5: Rules for coexistence between Indigenous and non-Indigenous at the entrance of the occupation. Available at: <https://correiodecarajas.com.br/com-abrigos-lotados-venezuelanos-Ocupam-predios-em-roraima/>Source: G1 RR; Photo: Emily Costa, 2019. Accessed on: May 25, 2021

3 The sheltering in Latin America, and more specifically on the border with Brazil²

According to UNHCR (2021), in Latin America there are more than 5 million Venezuelans outside their country, constituting the largest exodus in the region's recent history, with more than 895,000 being officially asylum seekers, and the rest consider themselves migrants. For CONARE (National Committee for Refugees), a collegiate body, linked to the Ministry of Justice and Public Security, which deliberates on requests for recognition of refugee status in Brazil, a refugee is any individual who: I. due to well-founded fears of persecution for reasons of religion, race, nationality, social group or political opinion, is outside his country of nationality and is unable or unwilling to accept the protection of such country; II. having no nationality and being outside the country where he previously had his habitual residence, he cannot or does not want to return to it, due to the circumstances described in the previous item; III. due to the serious and widespread violation of human rights, he is forced to leave his country of nationality to seek refuge in another country.

By the end of 2019, there were 1,771,237 Venezuelan refugees in Colombia, 452,712 in Chile, 377,864 in Peru, 374,045 in Ecuador and 123,507 in Brazil as shown in Figure 6. Operation Welcome, coordinated by the Ministry of Defence, together with other ministries, UNHCR and more than 100 civil society organizations, offer emergency assistance to refugees more receptive than other Latin American countries. Thus, the demand for Brazil has tripled in the last two years, reaching 379,236 Venezuelan refugees in the country in 2021. With the purpose of working in three instances – reception, sheltering and internalization (process organized by the Brazilian government in order to relocate refugees in other parts of the country, with more infrastructure and opportunities than offered in Roraima), the Operation follows a similar line to the Colombian one, which foresees the future integration of those who wish to remain in the country, but the waiting time for regularization is longer. Based on the information collected in the latest publications by R4V, OPA and UNHCR of May 2021, a map was created that illustrates the current situation on the continent, including land and air routes. Therefore, one can observe an increase in migrations on the continent, even during the pandemic.

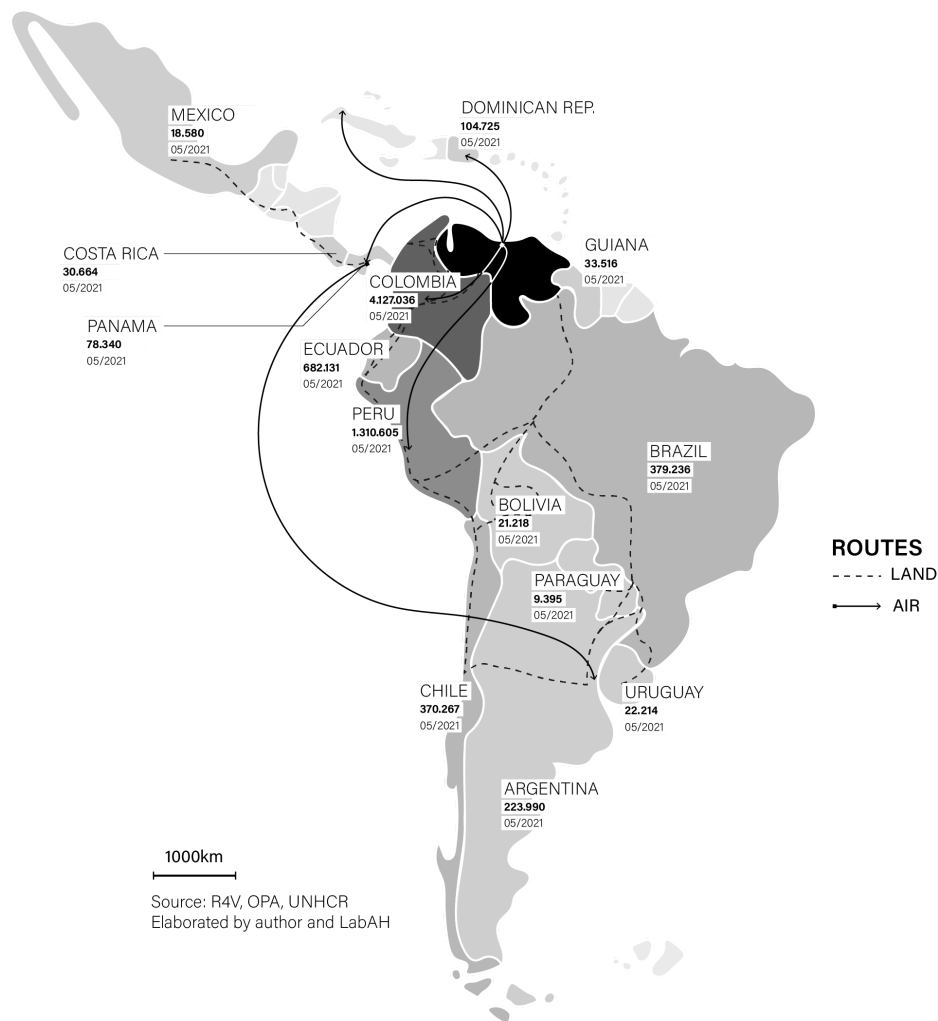


Fig. 6: Map of Venezuelan migration routes in the Latin American continent. Source: LabAH, Júlia de Queiroz, 2021.

From 2018 to 2020, when the pandemic began, around 500 people were entering Pacaraima per day, municipality of Roraima on the border with Santa Elena de Uairén in Venezuela. Before the crisis, the two cities had simplified passage control and intense commercial and social cooperation. Brazilians fueled their cars in the neighboring country, Venezuelans consumed and worked in the markets of Pacaraima, and according to local reports, there was a very positive coexistence between neighbors. (Pêgo, 2021, pp.40) With migrations, Pacaraima, which had a population of less than 10,000 in 2018, gained an increase of 11.7% of inhabitants, impacting its economy and infrastructure. This growth changed the local dynamic, and for a time the old friendship gave way to xenophobia and dispute between the peoples of the two countries. Pacaraima offers only two shelters – Janokoida, for indigenous people who intend to remain close to the border, and BV-8, a screening structure designed to support those who would be in transit, awaiting the interiorization program proposed by the federal government. According to UNHCR (2021), the city already has a population of 18,913 inhabitants in May 2021, almost half of which are Venezuelans. The map below (figure 7) shows the main stopping points of the 213 km route between Pacaraima and Boa Vista, which is taken by many families on foot.

VENEZUELA

● STOP/RESTING POINTS

PACARAIMA

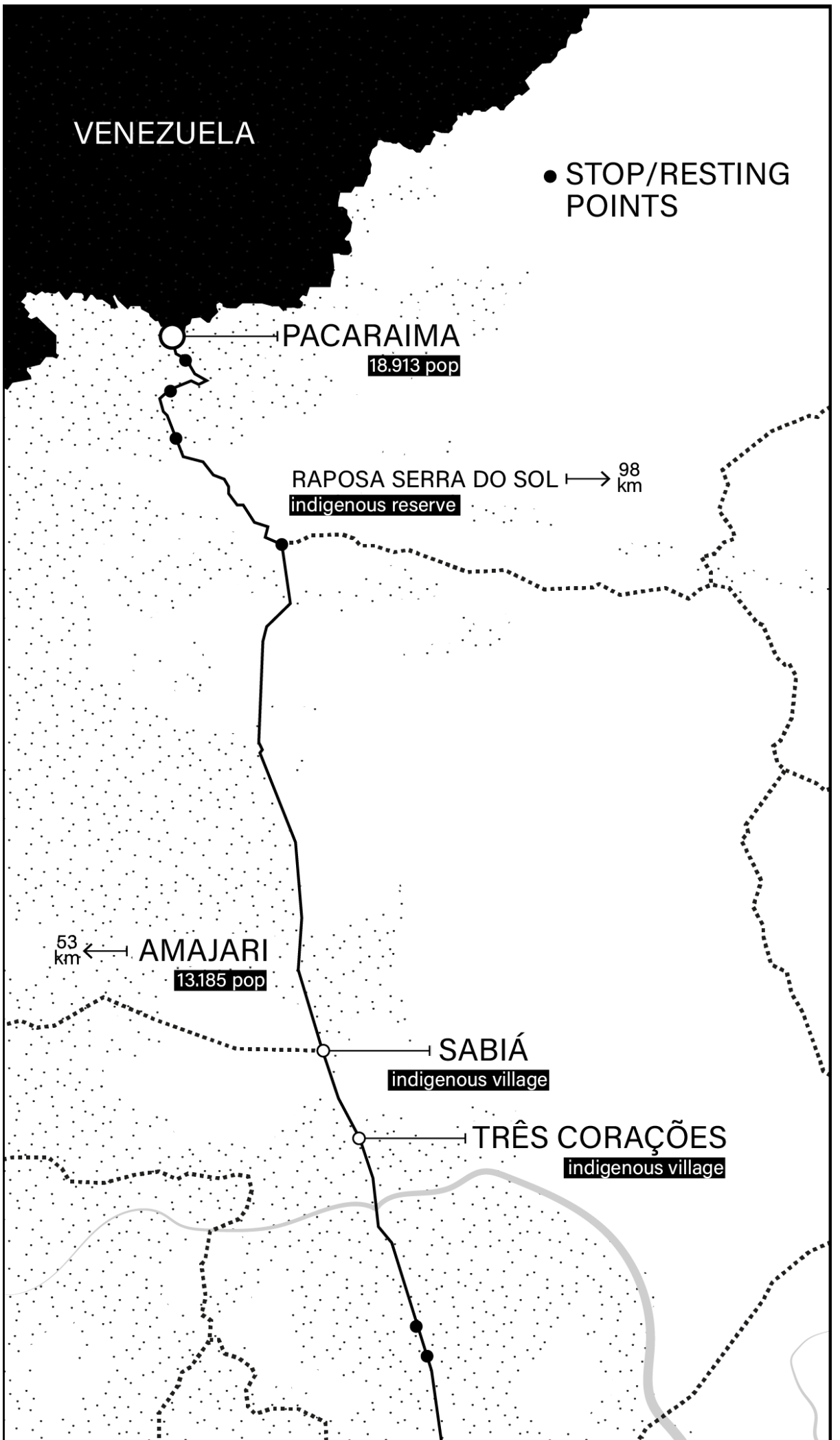
18.913 pop

RAPOSA SERRA DO SOL → 98 km
indigenous reserve

← 53 km
AMAJARI
13.185 pop

SABIÁ
indigenous village

TRÊS CORAÇÕES
indigenous village



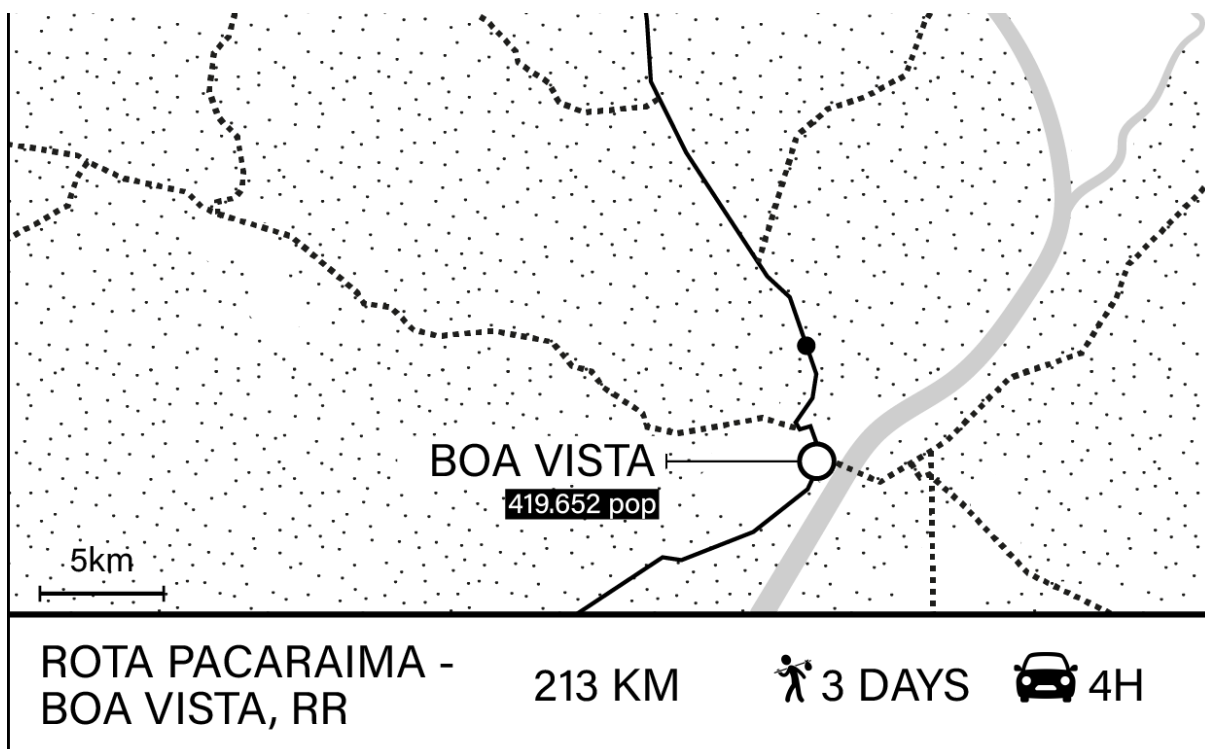


Fig. 7: Map with the route Pacaraima-Boa Vista. Source: LabAH, Júlia de Queiroz, 2021.

Boa Vista, capital of the state of Roraima, was a city planned by engineer and urban planner Darcy Aleixo Derenusson in 1946, with a radial layout and organization of much of the equipment and infrastructure throughout the state (Trevisan et al, 2018). Because of this, a good part of the humanitarian actions were concentrated in the capital, including 11 shelters, managed by various entities since 2018. Despite efforts in relation to the program for the interiorization of migrants and refugees, many decided to continue in Roraima due to the proximity from Venezuela, and future return to their country of origin. Given this, only in 2019 the city received an increase of 6.4% of its population, distributed between the shelters and 38 spaces of irregular occupation, such as the "Happy Child Occupation", "Ka-ubanoko" etc. (Pêgo, 2021, pp.36). Initially, almost all reception structures in the capital were located in urbanized areas, with a certain infrastructure and proximity to commercial and social activities. The construction of the Rondon complex, with three shelters, side by side, changed the dynamics of the interventions and the scale of the shelters. According to recent data from UNHCR (2021), the population of Boa Vista currently has 419,652 inhabitants, with a large part made up of migrants and refugees. On the other hand, the Covid-19 pandemic caused the return of part of Venezuelans to their country, especially in 2020, as can be seen in the graph in figure 8, produced by UNHCR, IOM and R4V.



Fig. 8: Returns chart for Venezuelans between January and July 2020. Sources: UNHCR, IOM and R4V. Available at: <https://bit.ly/3j7JEpc>. Accessed on: May 31, 2021.

Due to the Covid-19 pandemic, Operation Welcome and UNHCR needed to restructure their units in order to have greater control of the pandemic and to organize the reception system in Roraima in a more secure manner. According to data published on May 25, 2021 by UNHCR, there are currently 7,274 people sheltered in the state, with 2,336 family groups, 1,686 female heads of households, 133 elderly heads of households and 1,779 indigenous people, distributed in 13 shelters, 2 in Pacaraima (BV-8 and Janokoida) and 11 in Boa Vista (Jardim Floresta, Nova Canaã, Pintolândia, Tancredo Neves, 13 de Setembro, Pricuma, Rondon 1, Rondon 2, Rondon 3, São Vicente and São Vicente 2). A peculiarity of the refuge along the Brazilian border was the growth of the migration of the indigenous population, which made it more difficult to participate in the interiorization, training and income generation program, which resulted in the adaptation of the Jardim

Floresta, Nova Canaã and Tancredo Neves shelters in 2020 to shelter of this segment of the refugee population. Figure 9 shows the occupancy capacity of people sheltered in each shelter.

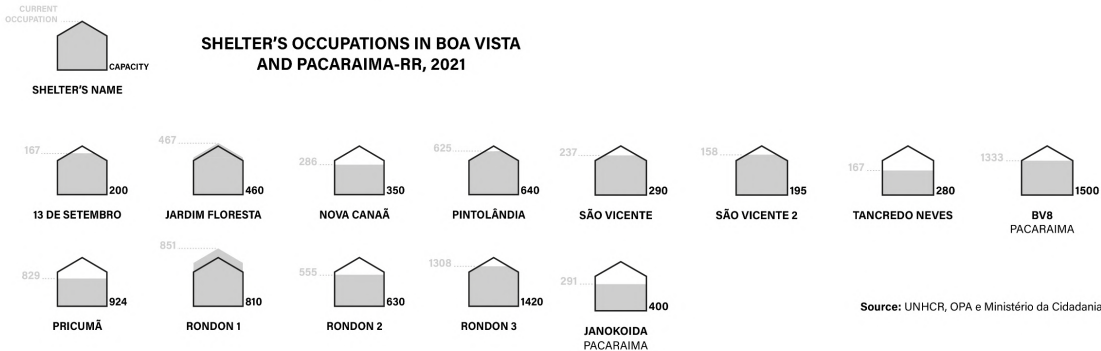


Fig. 9: Diagram showing the occupation of shelters in Roraima in 2021, based on data from UNHCR, IOM and Ministry of Citizenship. Source: LabAH, Júlia de Queiroz, 2021.

According to Villen (2020, pp.49), "the arrival of Venezuelans generated a social panic in the countries to which they went, but also countless demonstrations of solidarity. Many of the Venezuelans arrived hungry and wandered the city streets looking for help." Since they arrived in Roraima, several reactions from the local population have been noticed, not only through the attacks of xenophobia, but also through the investment in heritage protection systems, observed in the construction of high walls, cameras, wires, electric fences and glass shreds, including in more popular neighborhoods. Fear of the unknown increased the climate of insecurity on the streets, and the lack of interaction between buildings and public space created a sense of lack of urbanity, felt mainly by the absence of "eyes on the street" (Jacobs, 2011, pp.34), so important for pedestrians and cyclists. The location of some shelters in valued areas and middle-class neighborhoods of Boa Vista is believed to have created some friction and accelerated the construction of the Rondon 1, 2 and 3 complex. Located on the banks of Av. General Sampaio on adjoining land, the set resembles, for its scale, refugee camps found in other countries, with a grid occupation, support structures on the edges and a greater distance from the public road. Unlike other smaller-scale shelters, located in areas closer to commerce and public spaces for sports and leisure, the complex concentrates a greater number of sheltered people and has space for future expansion. Figures 10 and 11 shows the location of these shelters in the state capital.

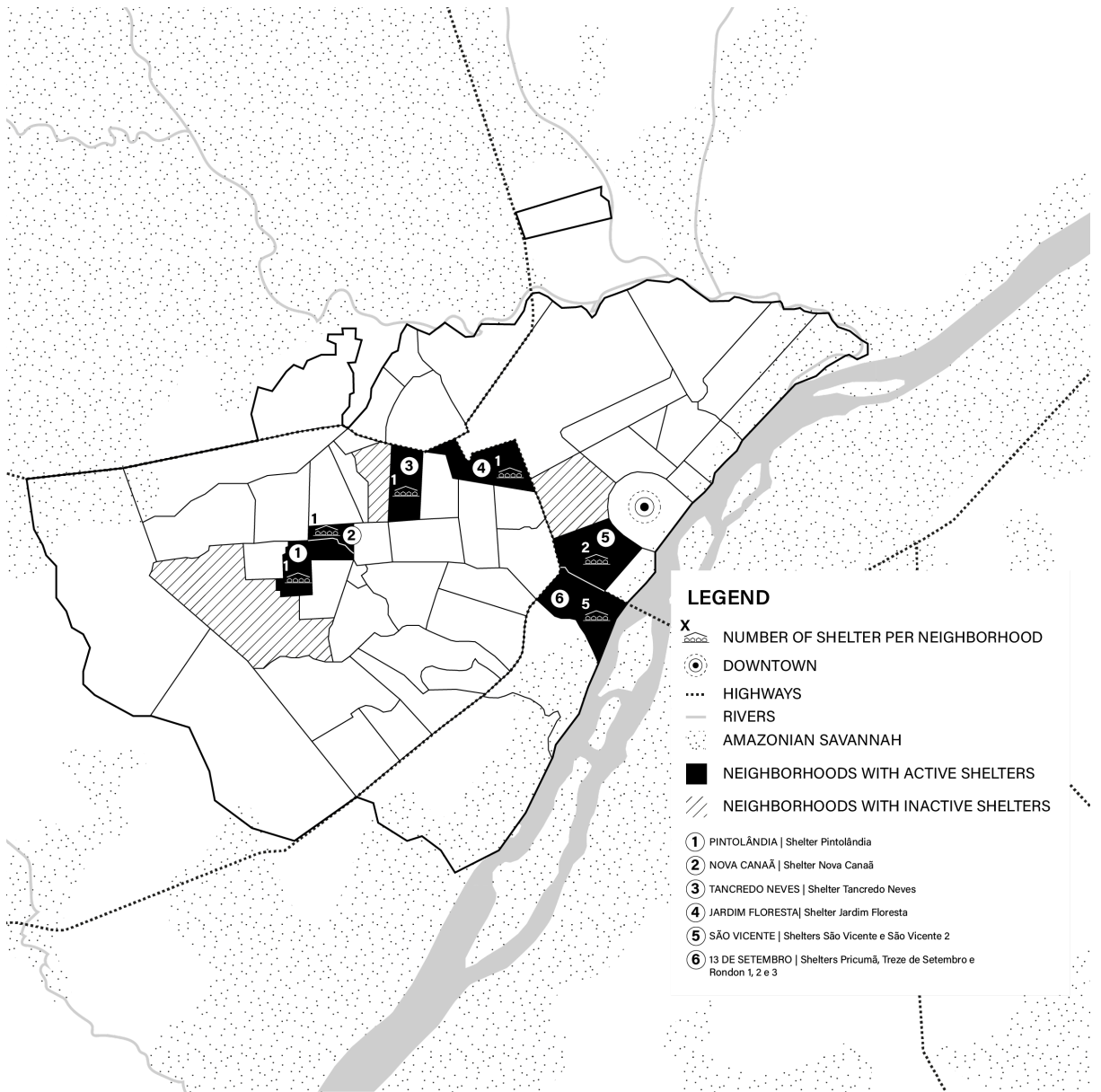


Fig. 10: Map showing the situation of shelters in Roraima in 2021. Source: LabAH, Júlia de Queiroz, 2021.

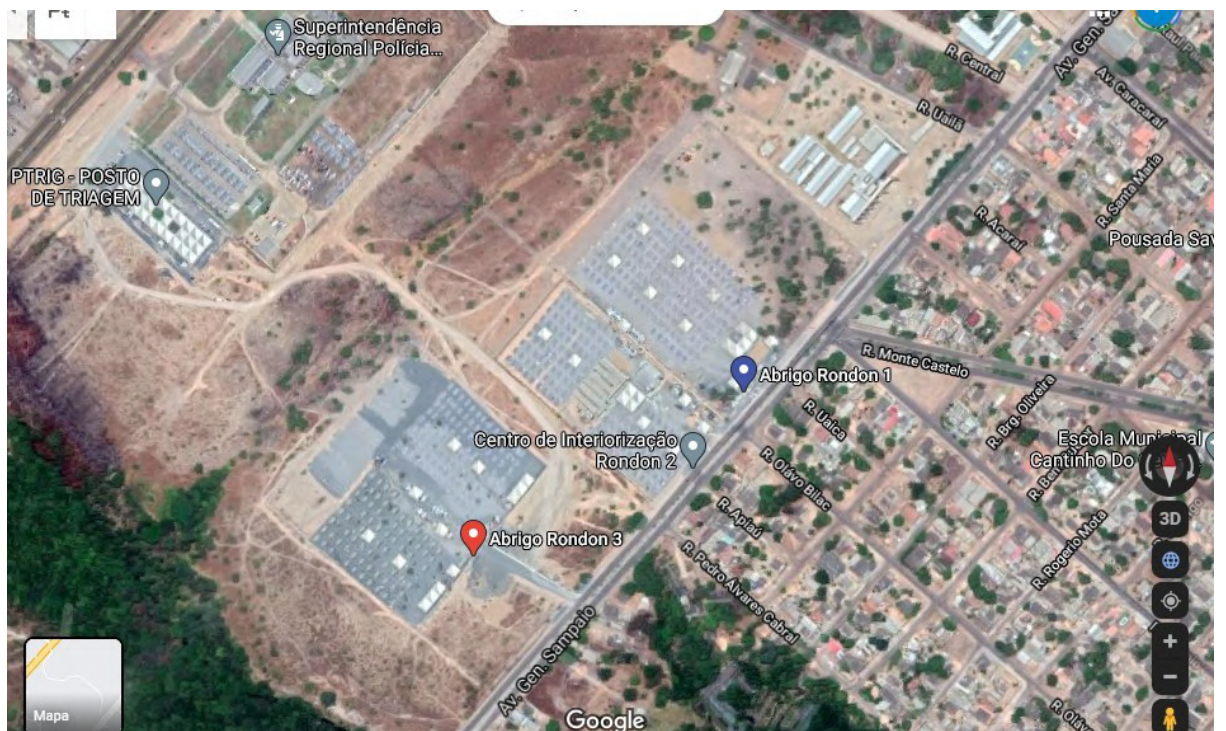


Fig. 11: Aerial view of Rondon shelters 1, 2 and 3. Source: Google Maps, 2021. Available at:

<https://www.google.com/maps/search/abrigos+rondon+1+2+e+3+boa+vista/@2.7984301,-60.6923495,677m/date=!3m1!1e3>

4 The reproduction of the same spatial logic

During the visit to Roraima in 2018, it was possible to visit 11 shelters in all, 9 in Boa Vista and two in Pacaraima – one indigenous and one screening. Depending on the profile of the refugees, differentiated reception structures were created – some for families, others for couples, and even an exclusively male shelter. One can clearly see the reproduction of the same spatial logic, regardless of the terrain on which they were organized. Even inside buildings such as gyms, sheds and event spaces, the grid was present in the organization of tents, bunk beds and even in the hammocks designed for indigenous shelters. The occupation of the lands follows a very close logic (figure 12), with regular meshes, tents placed in an orderly way in parallel lines, opening spaces that resemble streets between them, with distances that vary according to the number of tents and size of the lot. This same logic also occurs in the internal spaces of gyms and sheds, as in the cases of the Latife Salomão and Tancredo Neves shelters (figure 13). According to the responsible architects, this occupation prevents the proliferation of diseases, maintains a certain degree of privacy among those being welcomed and security against fire.

SHELTER FOR SINGLE MEN - TANCREDO NEVES, BOA VISTA

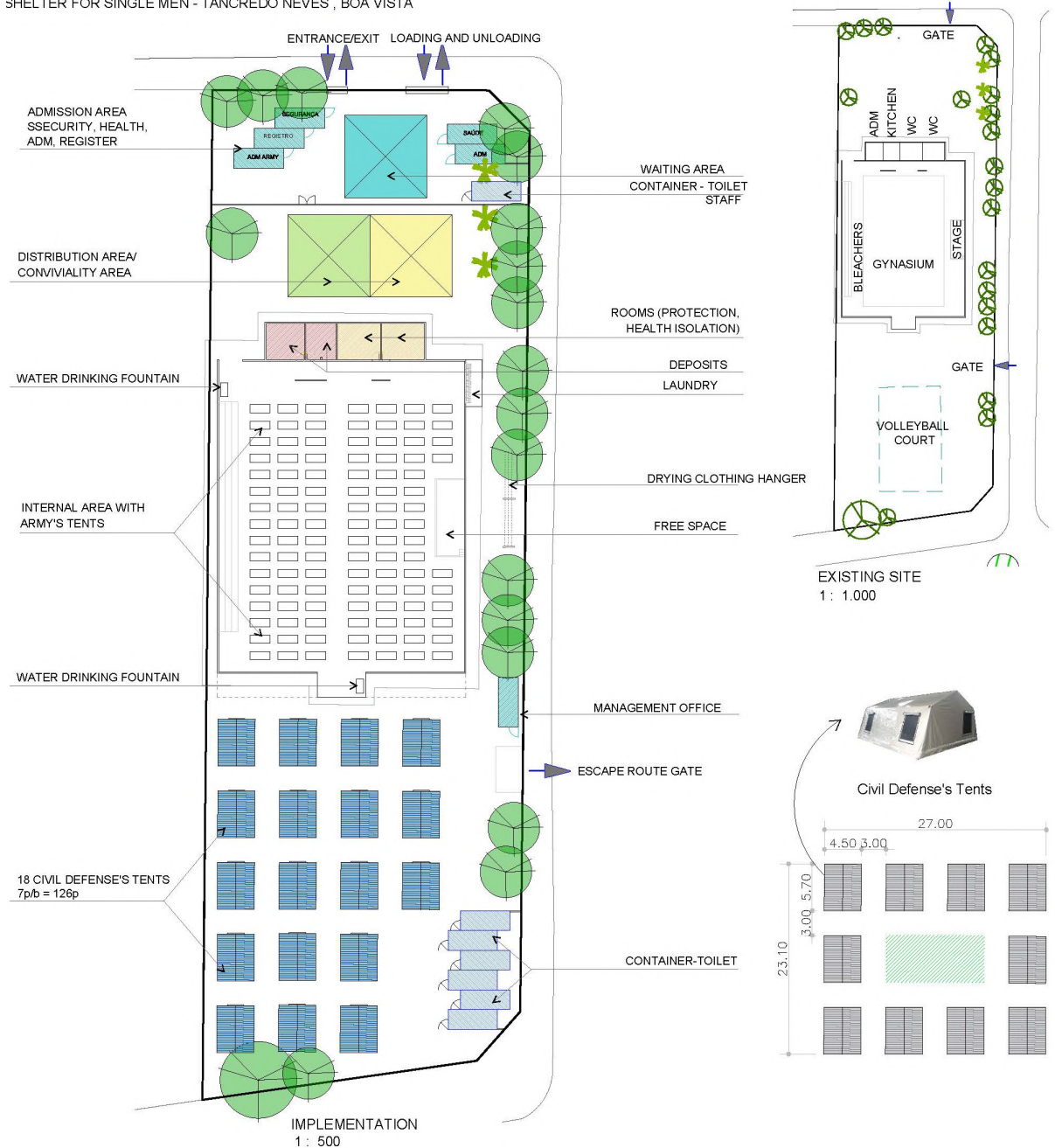


Fig. 12: Occupancy diagrams of the Tancredo Neves shelter, Boa Vista, capital of the state of Roraima. Source: UNHCR, 2018.

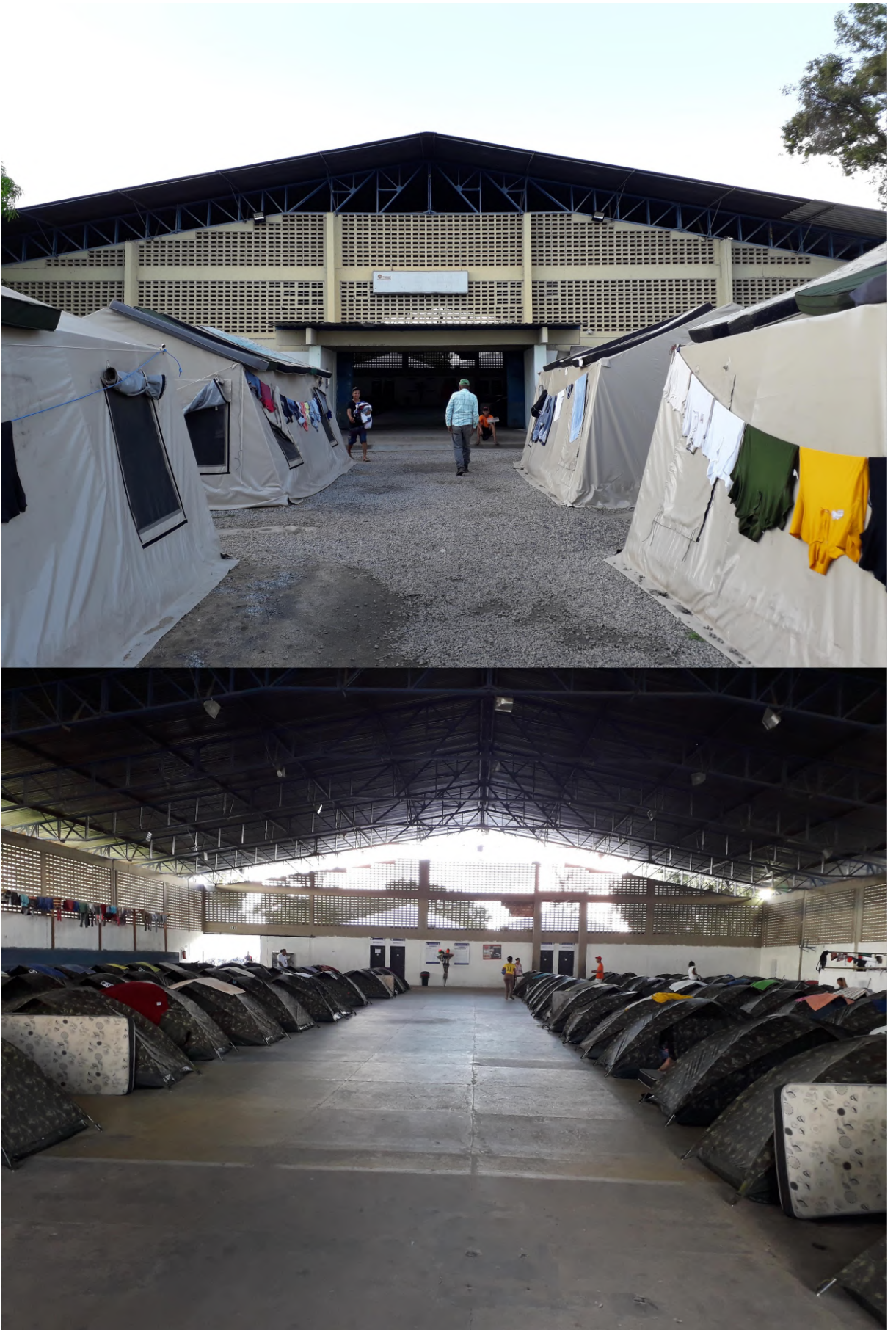


Fig. 13: Outdoor and indoor areas of the Tancredo Neves Shelter in Boa Vista, capital of the state of Roraima. Source: LabAH. Photo: Vera Hazan, 2018.

Attention to the peculiarities of the indigenous population, formed by some ethnic groups, with a predominance of the Warao, was a positive point in this visit. Although in situations that are still very different from those experienced in their villages, it is possible to observe both in the Pintolândia shelter in Boa Vista, and in Janokoida, in Pacaraima, another logic of spatial organization and respect for customs and way of community life. As this ethnic group normally lives in groups of 20 to 30 members, it was noticed that even

inside the sheds where metal structures for hammocks were installed (figure 14), there was a kind of division between the families for the safekeeping of their belongings and artisan production for income generation. In addition, as the production of their own food is critical to maintaining culture and family ties, UNHCR architects built wood burning stoves so that meals could be cooked by the families themselves (figure 15). In the other shelters, however, the dynamic was different. Food was outsourced and provided by the army in lunchboxes that were later discarded. To meet the children's needs, kitchens were installed inside containers provided by UNICEF (United Nations Children's Fund) to reduce child malnutrition in the main family shelters, such as São Vicente.



Fig. 14: Hammock at the Janokoida shelter, in Pacaraima, in the state of Roraima. Source: LabAH, Photo: Vera Hazan, 2018.



Fig. 15: Collective kitchen at the Pintolândia shelter, in Boa Vista, Capital of the state of Roraima. Source: LabAH, Photo: Vera Hazan, 2018.

The production of food in shelters faces various issues, in particular the production of garbage, the difficulty of keeping spaces clean and the risks of contamination. With the extension of the length of stay in shelters, food is a point to be rethought, especially if families manage to organize themselves collectively to share tasks and maintain community spaces, in order to create a more aggregating and positive atmosphere. Recovering the idea of home, presented by Pallasmaa (2017), it is believed that the production of food by the families themselves, even in collective kitchens such as indigenous ones, would help to create a less hostile climate and greater hospitality in shelters. Furthermore, the reorganization of collective spaces could create healthier and more exchange-prone ambiances. The use of large canvas covers to shade common spaces is insufficient for the number of sheltered people, especially on days with a lot of sunstroke. Other than that, people need furniture such as benches and tables, as well as quality spaces that allow them to create relationships, play, study, expand their education and generate income, especially when their stay is prolonged. In this spirit of cooperation, we began collaborating with UNHCR architects in a partnership that has expanded from 2020.

5 Conclusions

Due to the numerous crises and the expansion of forced displacement, the emergency industry only tends to grow. As mentioned above, several types of tents were used to welcome Venezuelans in Brazil, and there are numerous catalogs of units used over the years by UNHCR throughout the world. However, if we ask what defines a house or a home for most refugees, perhaps the answer is not in the typologies, but in what the reception structures can offer at that moment. Security, food, access to water and shelter may be the answers, as the situations of vulnerability they have gone through since leaving their homes are indeed very dramatic. Get a safe heaven, even for a short time, is something extremely important for the well-being and stability of those in transit, because "humanity is in crisis - and there is no other way out for it than the solidarity of beings humans". (Bauman, 2017, pp.24). After miles of crossing, with fear, hunger and thirst, finding a place with a minimum of hospitality is an encouragement, especially for families with children.

The cost of implementing a reception system is extremely high, and as some emergency situations cannot wait, shelter models are reproduced, imagining that in a short time the structures will be dismantled and reassembled in another location. In this case, the grid with streets wide enough for ambulances to pass, the location of the water and sewage supply points at one end and some coverings to provide encounters are essential. Tent types are purchased or donated according to demand and current resources. Therefore, there are a great variety, even in Roraima (figure 16). Currently, most of the tents are formed by RHU's (Refugee Housing Unit), a module conceived from the collaboration between UNHCR, the IKEA Foundation and the social

company Better Shelter, measuring approximately 17.5 square meters and a small solar power panel on the roof to charge the shelters' lamps and cell phones (figure 17). The typology of a house with a gable roof, small windows and a door refers to children's imagination and brings some advances compared to previous units, especially in terms of structure, wall stability and durability of up to 3 years, aside from the fact of being able to stand tall inside it. This model, however, does not adapt to all climates and cultures and, in much of Latin America, it faces thermal problems due to the high internal temperature, infiltration along the edges and the floor system, among other pathologies.

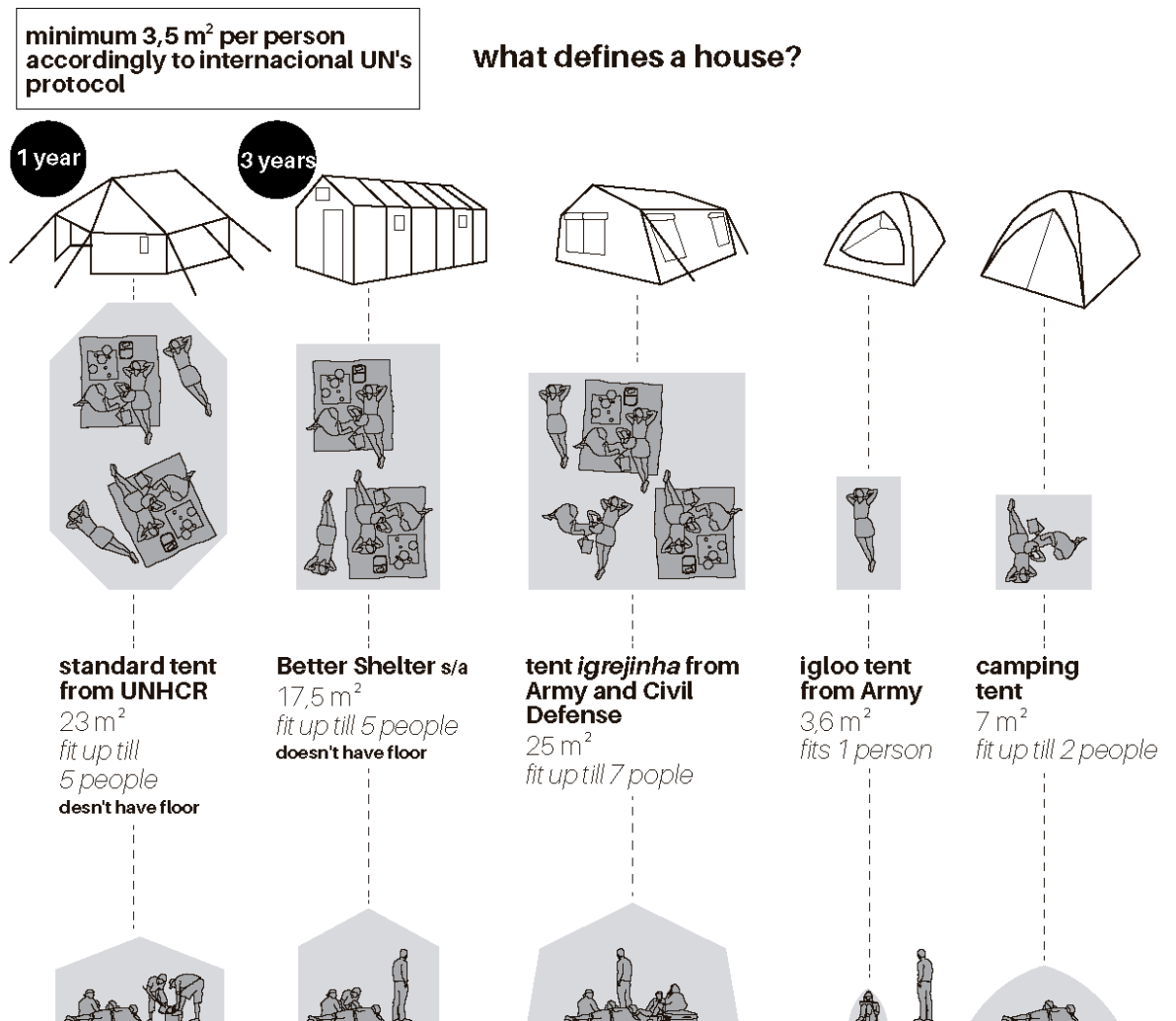


Fig. 16: Diagram of typologies found in shelters in Roraima, a Brazilian state in Northern Brazil. Source: LabAH, Julia de Queiroz, 2021.



Fig. 17: Families under the shadow of the RHU. Mattresses drying on the covers in the Rondon 2 shelter. Source: LabAH, Photos: Vera Hazan, 2018.

Even with all the problems, the image of RHU brings a feeling of hospitality and welcoming to the sheltered families, especially in a moment of extreme fragility, such as the refuge. As the material used in the walls is made up of sandwich panels, it is possible to close the shelter and secure their belongings. Even though it's a makeshift "home," it creates a sense of greater privacy and emotional well-being than other canvas structures. It is believed that this factor was fundamental in choosing this model adopted by UNHCR in Brazil, Colombia and Peru. The thermal issues in its interior, however, constitute a challenge, especially in areas with a humid tropical climate, as in the case of Boa Vista, where it can reach up to 45 degrees internally. For this reason, UNHCR architects in Brazil expanded the side openings, replacing the old hatches with windows with

polycarbonate tilting windows, improving the ventilation of the units. This attitude was positive, but insufficient to resolve the thermal comfort and infiltration of the units on days of heavy rain, which are constant in Northern Brazil and in some countries above the Equator.

As a result, in 2020, UNHCR launched the Call For Innovative Concepts For RHU Upgrading Americas challenge, where we worked in cooperation with UNHCR Brazil architects to rethink a series of aspects of the units produced by IKEA. Despite the many positive points, it was concluded that the RHU is not a suitable model for whichever situation or climate. Its light structure is a great advance, allowing interesting serial assemblies for collective situations, among other positive aspects, but the system's flexibility has limitations, especially in relation to its openings and materiality used in the walls. Adaptation is possible, as long as new parts are added to the catalog. Other than that, not all material is easy to reuse or dispose of. But, as mentioned above, reception is not limited to the housing cell, and it is necessary to pay attention to other spaces as well. Therefore, we have contributed with studies so that the experience in the shelters improves not only through the adaptation of the modules themselves, but also to the improvement of collective areas.

It is necessary to think about other possibilities of reception that are less provisional and of greater spatial quality. Perhaps it is time for architects to get more involved in this theme to imagine new forms of reception that allow refugees to have greater interaction with localities, especially when it is possible to occupy underutilized structures in infra-structured areas. The housing deficit in Latin America is large and the low-income population itself does not have decent housing in most large cities. However, the inclusion of people in transitory situations in social interest housing programs and the offer of social rent are already starting to form part of social policies in some Latin American countries. It remains to be seen what is the interest of those who are in charge of humanitarian organizations and even when the hosted themselves support certain situations. The human being is a restless being, and the need for survival can create other forms of occupation and appropriation of spaces, even in the worst conditions. Architects, however, can participate more actively in this debate and contribute with entities to change the protocols and ways of facing the problem of emergency situations.

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¹From the Portuguese Operação Acolhida.

²An earlier version of the text of items 3 and 4 was published in HAZAN, 2020, p. 1-16.