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Squatting behavior during the COVID-19 pandemic: The case of the informal settlement “Los Hornos” in Buenos Aires

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ABSTRACT

The COVID-19 outbreak magnified territorial inequalities and increased vulnerability among low-income groups. Inhabitants in informal settlements are structurally disadvantaged in coping with communicative diseases such as the COVID-19 pandemic. Despite that, the pandemic has been accompanied by the proliferation of informal settlements. This study explores how the pandemic caused the squatting on new land with the case of “Los Hornos” in suburban Buenos Aires. We used a random forest algorithm and Google Earth Engine to estimate the rapid growth of a new informal settlement from a series of satellite images from early 2020. We also conducted semi-structured interviews with inhabitants to investigate the link between squatting and COVID-19. The study revealed that squatting on new land during the pandemic was mainly due to economic difficulties, overcrowding in existing informal settlements in the metropolitan center, and speculation in the informal housing market. This case is an example of how the most vulnerable groups bore the brunt of the pandemic, how the households in the existing informal settlement were behaving similar to those in the formal housing market (i.e., away from the urban centers), and how the outbreak had also been an opportunity for collective action of squatting a new land to materialize.

1. Introduction

In the early stages of the COVID-19 pandemic, without a vaccine, governments were forced to implement regulations and public policies to control social behavior and prevent the spread of the virus. The pandemic did not discriminate and has reached almost every corner of the world, affecting all social sectors, showing dramatic evidence of these measures’ social and economic effects and their disparate impact on the most vulnerable communities. Nevertheless, the COVID-19 pandemic has exposed the multidimensional vulnerability of informal settlements (Duque Franco et al., 2020). Inhabitants of these settlements live in precarious housing conditions, without tenure security and with insufficient access to essential services (UN-Habitat, 2016), and are more exposed to infections due to overcrowding. Physical distancing and self-quarantine have been challenging as they are involved in informal, precarious jobs, irregular income, and a lack of savings that allow them to stay home.

In cities like Buenos Aires, more than half of the inhabitants of informal settlements live in crowded conditions (in contrast to 8% in the rest of the city), and 60% live in inadequate housing (Azparren Almeirin, 2021). This overcrowding led to the rapid spread of the disease in informal settlements (von Seidlein et al., 2021). As a strategy to reduce the chance of being affected, some inhabitants in densely-populated areas have decided to move to suburban and peripheral areas with less density (Liu & Su, 2021). However, the formal housing market is not an option for the most vulnerable sectors.

As COVID-19 spread, governments put in place mobility restrictions that resulted in reduced income and job losses (Gil et al., 2021). Inhabitants of informal settlements are more economically vulnerable during COVID-19 because they do not have access to regular income (Corburn, Vlahov, Mberu, et al., 2020), and unemployment and under-employment are substantially higher in informal settlements (GCBA, 2021; Observatorio de la Deuda Social Argentina, 2017). Additionally, reduced income and job losses may have led to more people opting for informal settlements as a housing strategy (Carmona Barrenechea & Messina, 2015). This results in existing informal settlements becoming even more overcrowded or expanding or in the emergence of a new informal settlement.

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1 UN Habitat define overcrowding as when there are more than three people per habitable room (UN Habitat 2008).

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This study aims to document the emergence of a new squatter settlement and explore the causes of squatting in the pandemic context. The preliminary questions guiding this research are: How fast did the new squatter settlement grow during the COVID-19 pandemic? How did mobility restrictions during COVID-19 promote the squatting of new lands? Had there been motivation other than solving housing needs during the COVID-19 pandemic?

This paper begins with a review of the literature on the nature of informal settlements, how inhabitants were affected by COVID-19, and the use of remote sensing in monitoring such settlements. Then, we describe our study area, the informal settlement “Los Hornos” in the city of La Plata in the Buenos Aires Metropolitan Area. This was a new informal settlement during the time of mobility restrictions due to COVID-19. The Methods section describes the method for estimating squatter settlement expansion and conducting a semi-structured interview. The Results section reveals the settlement’s rapid emergence and growth and its inhabitants’ attributes. The Discussion and Conclusion sections explore the causes of squatting on new land.

2. Literature review

2.1. Informal settlements

Almost 32% of the global urban population is estimated to live in slums (UN-Habitat, 2008). The World Bank/UNCHS (2000) recognizes that “Slums range from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities.” Slums are characterized by wide-ranging terms in the literature that define them as informal settlements, squatter settlements, slum, shanty towns, and self-help settlements (Rodwin, 2022; Ulack, 1978; Ward, 2015). It also has endemic names in different countries, such as villas miserias in Argentina, favelas in Brazil, jhuggis in India, and kampung in Indonesia, among others (Arif et al., 2022). Owing to the comprehensiveness of the definition of the “Slum,” the proper definition in the developing world is controversial (Gilbert, 2007). We consider the definition of informal settlements best suited to our research because (A.) informal settlements are broadly defined as squatter lands without, or in defiance of, government approval and a lack of adequate housing and residential infrastructure. The squatting of land is often thought to occur on vacant public or private land (World Bank, 2007). (B.) as a verb, informal settlement is associated with self-organized modes of production through which the low-income sectors can access housing and urban infrastructure (Dovey et al., 2020).

Diverse approaches exist regarding the nature and genesis of informal settlements. From a traditional perspective, the genesis of informal settlements can be explained by the proliferation of industrial activities. The accelerated industrialization process in developing countries has become an extensive phenomenon in the industrialized world and has been acknowledged as unavoidable. Regardless of the benefits of urban economies for countries, the rapid spread of urbanization results in the unplanned expansion of cities, which leads to other consequences, such as informal settlement. Brunn et al. (2008) linked squatter settlements and urbanization in developing countries with their endemic economic situation. Developing countries have passed through a recognizable gradual pattern of urbanization associated with rural migration.

The second perspective lies in the interaction between the two dimensions within the city: formal and informal. This spatial and social division between different social sectors within cities has been conceptualized with the terms “dual city” (Castells & Mollenkopf, 1991) and “divided city” (Feinstein et al., 1992). According to Eckstein (2000), these settlements result from the deterioration of local economic opportunities, social problems, and increasing demand for low-income housing. Privost-Schapira (2000) argues that fragmentation results from the vanishing of global functioning into small units and the dilution of organic links between the different areas of the city. With the deprivation of the spatial continuum and the repetition of inequalities at different infra-urban scales, the city is represented by islands of poverty adjoining wealth isolated within urban archipelagos. Davis (2006) saw slums as resulting from urban inequalities and the segregation of some peri-urban regions. In this context, a squatter settlement is a new form of urban inequality. The author observed that these settlements are largely cut off from the subsistence solidarities of the traditional city’s life, being a radical new face of inequality. He warns that these “urban badlands are the new territory from which insurgency will spring. In line with this perspective, Verma (2003) claims that the root that causes urban slums in India is not the urban property, but the speculation associated with urban greed.

The third perspective considers the positive characteristics of informal settlements, such as resilience, adaptability, resource efficiency, and sense of community (Neswirth, 2006) or as a solution to the housing problems of low-income populations in developing countries (Turner, 1969; Wekesa et al., 2011). Some researchers see more significant social, political, and economic inequalities that lead to the development of informal settlements (Roy, 2011). In addition, informal settlements are associated with entrepreneurship, which has led some to become highly productive components of the city’s economy (Brand, 2010).

The fourth perspective is associated with housing strategy in the face of a lack of a housing policy. Hardoy et al. (2001) indicated that the rapid physical expansion in most cities in developing countries is not due to land shortages but to the lack of appropriate strategies and policies at different planning levels for new development. Overcrowding occurs in particular areas of the city, and large amounts of land are left vacant or partially developed in other regions (Hardoy et al., 2001). Merklen (1997, 2010) argued that informal settlements result from a defensive strategy from the social sector, which cannot access the formal housing market. Sietching (2005) argues that squatter settlements manifest as failed housing and land access policies. This analysis can explain the proliferation of socio-spatial inequalities in the housing market, the city’s weak housing policy, exclusionary financial and mortgage systems (Solo, 2008), and the poorly regulated real estate market (Marcos & Mera, 2018). Barriers to accessing the formal housing market among low-income and informal immigrants are due to the high cost of formal housing and stringent prerequisites for renting a home. Consequently, these population sectors have created new strategies to solve their housing needs. One such strategy is squatting (Van Gelder et al., 2013).

The fifth perspective emphasizes the “squatting organizer role.” Squatter organizers, called punteros in Argentina (fixers or brokers), are social actors associated with clientele relationships with the community, maintain links, and have patronage from local and national political leaders, government officials, and local law enforcement agencies (Lanjouw & Levy, 2002). Although tenure security is a rule in informal settlements, there is no program to improve its conditions, except in some cases through political patronage. The punteros may also benefit politically from their local power, but in exchange, they are often highly receptive to the needs of the communities, building trust over time by developing personal relationships with households (Auyero, 2000). Clientelism locks residents of informal settlements into dependency, as political punteros have little incentive to allow the poor to access land and services independently (Benjamin, 2005).

It is necessary to incorporate the above-mentioned perspectives into the study design, data collection, and analysis of informal settlements. The genesis of the new informal settlement can be explained as a housing strategy for low-income sectors in the city, the product of the lack of a housing policy, motivated by squatter organizers, and the proliferation of an informal housing market that can only occur in a fragmented urban space. In addition, we consider the social stratification within informal settlements created by housing tenure, which makes preferences and interests differ greatly among de facto owners, landlords, and tenants (Ogas-Mendez & Isoda, 2022). The context of COVID-19 makes this case different from that of the previous squatting
process. The pandemic accelerated the process of squatting, settlement of the land, and proliferation of the informal housing market in the context of high social effervescence and the reduction of vigilance from the State.

2.2. Pandemic and the informal settlements

Agglomeration and dispersion continue to influence city structure and population density (Ahfeldt et al., 2015). The COVID-19 pandemic has reduced the desirability of large cities and dense neighborhoods, and the dispersion tendency has risen again since the outbreak of COVID-19. The pandemic has shifted housing demand away from urban areas with a high population density (Delventhal et al., 2022; Liu & Su, 2021; Ramani & Bloom, 2021).

Informal settlements in metropolitan areas have high levels of density and low levels of health infrastructure; social distance is not feasible if such a protocol does not come with concomitant economic support targeted to the vulnerable population in these settlements (Wassan & Prasad, 2020). Prevention measures, such as hand washing or working from home, may not be possible because of limited water supply or informal sector employment (Corburn, Vlahov, Mberu, & et al., 2020). Experts have warned that populations with fewer resources are more vulnerable to the effects of COVID-19, particularly in informal settlements (Corburn, Vlahov, Mberu, & et al., 2020). Von Schedlein et al. (2021) explored how overcrowding in informal settlements facilitates the transmission of COVID-19, underlining the importance of identifying the population and geographic areas most at risk of infection to reduce levels of transmission. Azparren Almeira (2021) analyzed the impact of COVID-19 on the informal settlements in Buenos Aires, as well as the public policies implemented and the role of territorial organizations in reducing the pandemic vulnerability in these settlements. Using a qualitative approach based on semi-structured interviews with key informants and official documents, she revealed how the spread of COVID-19 has a differential impact on informal settlements in relation to the rest of the city, highlighting the existing social and territorial inequalities.

2.3. Research objective

Despite vulnerabilities toward communicative disease in the informal settlement, there had been an accelerated proliferation of the informal settlement and, in its extreme, a rapid formation of a new squatter settlement. This study aims to delve into housing strategies among low-income groups during the pandemic by understanding the squatting process of a newly emerged informal settlement. The COVID-19 pandemic has provided a rare opportunity to document and analyze the emergence of squatter settlements in real-time, and such knowledge is hardly available in the existing literature. Despite the particularities of the pandemic, the extreme economic and social condition during the pandemic elucidates the usual circumstances that squatters and vulnerable social groups face, and the outcome is expected to contribute in a better understanding of the phenomenon of informal settlement.

3. Study area

The case study selected for this research is the new informal settlement called “Los Hornos,” located in the administrative location with the same name in La Plata City (LPC) in the province of Buenos Aires. LPC is the administrative capital of the province of Buenos Aires, located at the southern end of the Buenos Aires Metropolitan Area. The city is separated from the City of Buenos Aires (CBA) by two dense forest reserves: The “Reserva de Punta Lara” and the “Parque Pereyra Iraola.” The distance to the CBA is approximately 50 km, which makes many inhabitants of the city commute to the CBA. The city has 171 informal settlements (RENABAP, 2022) with an estimated population of 85,000 inhabitants. These informal settlements are mostly located on the fringes of the built-up areas of LPC (Fig. 1).

The proliferation of these settlements exposes weak housing policies and spatial fragmentation between informal settlements and the rest of the city (Ogas-Mendez & Isoda, 2021). This segregation, especially in South America, occurs primarily for socioeconomic reasons, with a subsequent concentration of low-income populations (Di Virgilio & Perelman, 2014). As a consequence of the high risk and vulnerability, the inhabitants of informal settlements have experienced disproportionately greater infection than the rest of the city. In the CBA, informal settlements have constituted the urban environment where the virus presented the highest rates of COVID-19 (Table 1). An example of this situation is the case of Villa 31, one of the most emblematic and overcrowded informal settlements in CBA. This informal settlement had more than half of its population affected by the virus (Clarín, 2020).

To limit COVID-19 cases, the national government implemented the measures of compulsory preventive social isolation (ASPO) decreed on March 20, 2020 (Executive Decree 297/2020, 2020). However, pre-existing housing conditions in informal settlements increased their chances of becoming pandemic hotspots. Despite the high risk and vulnerability to COVID-19, the area of squatted land increased (BBC, 2020).

The new informal settlement is situated on a base airfield used by a glider club, a plain of 154 ha of land. With accelerated squatting, the field was almost entirely squatted in one and a half years (Fig. 2).

The squatting process in Los Hornos began on February 16, 2020, with 200 inhabitants building precarious houses made of sheet metal, cardboard, wood pallets, and tarpaulin (Infobae, 2021). Initially, squatting was organized by political punteros (fixers or brokers) (Infobae, 2021; La Nacion, 2022). Over the following months, under strict quarantine during the COVID-19 pandemic, squatting expanded exponentially, and it became the largest squatter settlement in the province of Buenos Aires, reaching 2200 families in January 2022 (La Nacion, 2022).

4. Methods and data

4.1. Method

A mixed-method approach was adopted, including a qualitative approach for identifying informal settlements and their expansion and a qualitative approach to understand squatters’ motivations. Using numerical information to draw broad conclusions and deep descriptive text on contextual issues enables mixed-method research to produce results that are distinct from those of mono-approach research (Sosulski & Lawrence, 2008).

The identification involved using baseline land cover maps of the squatting areas generated in early 2020 and their changes until the beginning of 2022. A series of temporal satellite images were analyzed and mapped to identify new houses in the new informal settlement to compare and identify the changes and derive the growth rates.

The quantitative analysis was complemented by qualitative data collected in the field through semi-structured surveys with inhabitants involved in squatting. The qualitative analysis focused on a continuum of ideas about the reasons and motivations for squatting on new land.

4.2. Identification of the squatter settlement houses

4.2.1. Random forest machine learning algorithm

We use the random forest (RF) algorithm to classify satellite image pixels into land cover categories. The RF algorithm is a supervised classification method that constructs multiple correlated random decision trees that are bootstrapped and aggregated to classify a dataset using the mode of predictions from all decision trees (Breiman, 2001). The RF algorithm is generally more immune to data noise and overfitting and is extremely useful in classifying remote sensing data (Teluguntla et al., 2018). It is considered one of the most widely used and accurate
land-cover classification algorithms (Millard & Richardson, 2015). The RF algorithm identifies squatter housing and the results are combined in ArcGIS 1.5 (ESRI) and the Geographical Information System (GIS). We classified land cover based on the six bands of 10 or 20 m resolution from the Sentinel-2 satellite. Spectral bands in the following domains were used: Bands 2, 3, 4, 8, 8a, and 11 visual (blue, green, red), near-infrared (NIR), narrow NIR, and short-wave infrared (SWIR1) (see Table 2).

4.2.2. Training and test data

This study used training and test data obtained through visual inspection of high-resolution satellite images from CNES and Maxer Technologies in GEE. Training data were created for each period. We completed 357 training data for 2020, 402 training data for 2021, and 440 training data for 2022. We created 234 testing point data from the polygons of the house, grassland, and bare ground for 2022 only, and we assumed that the identification accuracy across the three periods was similar.

4.3. Semi-structured survey

A semi-structured qualitative survey is conducted to uncover the reasons and motivations behind the phenomenon. We focused on squatters’ previous socioeconomic situations, as well as their current situations and their motivation for squatting in the area during the COVID-19 outbreak. The survey took place at the end of the ASPO, following the necessary measures to prevent the spread of COVID-19 and at participants’ homes in the informal settlement, with each observation representing a household. The households were chosen based on stratified random sampling to obtain spatially even observations that included inhabitants at the edge and high- and low-density areas in the informal settlement. The study area was divided into segments of approximately 7 ha each, and two households from each segment were selected based on a randomly generated number. The total number of observations consisted of 43 households (see Table 3).

The interviews were also open-ended, allowing respondents to ask questions freely or expand the topic (Table 4). Analysis of the qualitative survey results was based on grounded theory. This inductive methodology provides systematic guidelines for gathering, synthesizing, analyzing, and conceptualizing qualitative data for theory construction (Charmaz, 2001). This methodology aims to explain that squatting is a housing strategy by social sectors with fewer resources to reduce their vulnerability in the context of the COVID-19 pandemic.

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Table 1

| City of Buenos Aires | Informal Settlements |
|----------------------|----------------------|
| Population           | 3,075,646 est.       |
| Infected             | 171,097              |
|                      | 5.56%                |
|                      | 17,694               |
|                      | 7.07%                |

Source: CBA Ministry of Health (2022) * Estimated values Source: Instituto Nacional de Estadística y Censos, 2004; Instituto Nacional de Estadística y Censos, 2015; InstitutoGeográfico Nacional (2022)
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5. Results

5.1. Remote sensing result

The procured satellite images revealed that informal settlements did not exist in the study area in August 2019; they first appeared in images available on Google Earth in April 2020, and, since then, the number of households has increased rapidly, a trend that is likely to have lasted until at least January 2022, the date of the latest image available in GEE at the time of writing. The land has changed its use and users, from recreational use by the gliders club to residential use by squatters. The growth continued from 2020 to 2022, becoming more densely populated, as shown in Fig. 3. We found that the main layout of the streets follows the surrendered grid outside the study area; once the houses converge inside, they follow the pre-existing roads used by the gliders club.

Table 5 shows three periods of squatting on the land. The first period

Table 2

| Spectral band | Central wavelength (nm) | Spatial resolution (m) |
|---------------|-------------------------|-----------------------|
| Band 2 blue   | 490                     | 10                    |
| Band 3 green  | 560                     | 10                    |
| Band 4 red    | 665                     | 10                    |
| Band 8 NIR    | 842                     | 10                    |
| Band 8a narrow NIR | 865         | 20                    |
| Band 11 SWIR  | 1610                    | 20                    |

Table 3

| Datasheet | Los Hornos |
|-----------|------------|
| Area of Study | Los Hornos |
| Number of samples | 43 |
| Observation unit | Households |
| Collection date | November 2021 |
| Selection criteria | Two per segment (randomly selected) |
| Number of segments | 21 |

Table 4

| Theme and Questions of the Qualitative Survey |
|---------------------------------------------|
| Topic                        | Question                                                                 |
| Squatting                    | 1. What is your primary motivation for squatting?                        |
|                              | 2. What are the causes to decide to squat?                                |
|                              | 3. Where was your previous residence? (location, type, and tenure)        |
|                              | 4. Do the ASPO and the less vigilance from the State encourage you towards squatting? |
| Employment and housing       | 1. How did the mobility restrictions affect you?                          |
|                              | 2. Are you working? If yes, are you working in the formal work market?    |
|                              | 3. Did you previously live in a squatter settlement? If yes, did you used to be a tenant or DF owner? |
| COVID-19 and squatting       | 1. Does the rise in COVID-19 cases in your neighborhood encourage squatting the land? |
|                              | 2. Do you believe moving to this informal settlement will reduce the risk of COVID-19? |
|                              | 3. After the pandemic ends, are you planning to return to where you used to live? |
| Informal hose market         | 1. Did you squat or buy the land?                                         |
|                              | 2. Did you get the land to live, rent, or sell?                           |
|                              | 3. Was the decision to squat encouraged by an organization or third party (Puntero) |

is the beginning of squatting until October 2020. The second period is until June 2021, when the accelerated squatting process resulted in several dense clusters of houses (Fig. 3). The last stage is until January 2022, characterized by reduced growth.

5.1.1. Growth of squatter settlement

Table 6 lists the accuracy assessment results for the year 2022.

5.1.2. Accuracy assessment and validation

To evaluate the classification accuracy, we used a multi-index test based on a confusion matrix, including producer accuracy (PA), user accuracy (UA), and overall accuracy (OA). Producer accuracy is the omission or inclusion error (from the map maker’s perspective), UA corresponds to the error of commission or exclusion (from the users’ perspective), and OA is the number of correct pixels divided by the total number of pixels (Foody, 2010). We propose a 95% CI to measure the classification accuracy and determine the uncertainty of an estimate.

Source: Google Earth Engine.

Fig. 2. Perimeter selection for the informal settlement “Los Hornos” in August 2019 and February 2022.
5.2. Semi-structured interview results

5.2.1. Respondent profile

Of the 43 households we surveyed, more than 90% of the surveyed inhabitants had migrated from other informal settlements in the metropolitan area, and 65% of them were tenants in an informal settlement (Table 7). Regarding the current employment of the household’s primary breadwinner, 58% were in the informal sector, 23% were in formal employment, and the rest were either unemployed or retired.

5.2.2. Motivations for squatting

The reasons for squatting on new land are summarized in Table 8. We divided the primary motivations for squatting into three groups: Economic, overcrowding, and other. Economic reasons include those who reported reduced income or job loss and were typically employed in the informal sector and/or renting in the informal housing market. Lack of income and the possibility of being evicted were the main reasons for squatting on new land. About half of the surveyed population’s primary motivation for squatting was...
The final reasons given by the five households are related to speculative behavior in the informal housing/land market and are, in fact, a mixture of two groups. One is de facto owner-occupiers in the previous informal settlement who (informally) sold their previous land. The other is those who saw the opportunity to squat as a way to become owners of the land that could be sold later. Many interviewees also highlight how gangs or punteros squat lands to sell it, “At the beginning of the squatting, many families come to become owners of the land or sold it, but now many lands are squatted by the punteros and their people to sell it.”

Approximately 80% (35) of the surveyed population residing in this settlement had no intention of returning to their previous location after the COVID-19 pandemic ends.

6. Discussion & conclusion

Among other squatting cases, the COVID-19 pandemic has accelerated the process of squatting new lands in the context of less monitoring by the State and social effervescence. The late and inadequate response from the State provided an opportunity to squat new lands. The combination of GEE and RF demonstrated an accelerated and continuous process of squatting on new land during the COVID-19 pandemic. In the first stage, the squatting process was mainly concentrated on the northeast edge of the study area by continuing with the existing urban fabric. This concentration was primarily motivated by accessibility to the city center and public transport. As the squatting process continued, the central and southern areas increased their population density until they filled the entire study area.

The survey results showed that 90% of squatters came from other informal settlements, and 65% had been tenants in other informal settlements. The first dominant reason for squatting in Los Hornos was a reduction in income or job loss associated with ASPO implementation. The late and inadequate response from the State provided an opportunity to squat new lands. The combination of GEE and RF demonstrated an accelerated and continuous process of squatting on new land during the COVID-19 pandemic. In the first stage, the squatting process was mainly concentrated on the northeast edge of the study area by continuing with the existing urban fabric. This concentration was primarily motivated by accessibility to the city center and public transport. As the squatting process continued, the central and southern areas increased their population density until they filled the entire study area.

The survey results showed that 90% of squatters came from other informal settlements, and 65% had been tenants in other informal settlements. The first dominant reason for squatting in Los Hornos was a reduction in income or job loss associated with ASPO implementation during the COVID-19 pandemic. Tenants in informal settlements were most vulnerable to economic downturns, leading to difficulties in paying the rent of informal housing and facing the chances of being evicted; they see squatting as an alternative. Squatting gives them the chance to
become de facto owners in a new informal settlement and avoid paying rent. These houses acquired the land in Los Hornos by direct squatting or by informally purchasing the land from the initial squatter.

The second cause is the trend of COVID-19 in metropolitan areas. Poor sanitary conditions and overcrowding facilitated the rapid spread of the virus in informal settlements. In the face of reducing vulnerability to the pandemic, inhabitants of high-density informal settlements in metropolitan areas have adopted a strategy of squatting new lands. The response to the COVID-19 trend is similar to that in the formal housing market. Low-income groups that had difficulty accessing the formal housing market took a strategy to squat lands away from the metropolitan center for more spacious housing and environments.

The third reason is speculation in the informal housing market, which we see as a counterpart to the formal housing market. Squatting is not always conducted to solve housing needs, which in many cases is related to the speculation and proliferation of an informal housing market in these settlements (Cravino, 2008). During the mobility restriction, the State’s vigilance and tolerance of specific practices allowed the squatting of new lands. Speculation sectors have also exploited the situation of squatting land to sell it in the informal land market. The context of the COVID pandemic and ASPO implementation brings about a scenario with less vigilance that facilitates the squatting of new lands.

There were individuals squatting on new land, in order to sell or rent out housing on a previous informal settlement. By moving to an informal settlement in a suburb with lower rent or house prices, the squatters could draw housing equity from their previous housing and make a speculative gain by selling the (squatted) land before the price was lowered further by COVID-19. There were also those who found the opportunity to squat as a means of becoming a (de facto) owner of land, by which the land could be sold if the situation changed.

From the testimony of the surveyed population and in the media (Infobae, 2021; La Nacion, 2022), we consider “clientelism” as a crucial factor that materialized the emergence of a new squatter settlement. For these reasons, there has been sudden growth in the demand for cheaper and more spacious housing in the informal housing market. Panteros, perceiving such a surge in demand, used the opportunity to organize the collective squatting action. The existence of an agent who perpetrates collective action is an important determinant of whether squatted lands become squatter settlements with vested interests. From another perspective, the event demonstrates that panteros had been keen on understanding the changing needs of the urban poor.

When we enquired about the possibility of returning to their previous residence before the COVID-19 spread, nearly all the surveyed participants had no wish to return to their previous locations. Squatting new land had been a strategy of those who had been a tenant in an informal settlement. With the squatting of new lands, the tenants became de facto owner-occupiers, which means they no longer have to pay rent in the informal housing market. After seeing the well-advanced squatting of the lands, the Government of the Buenos Aires Province announced that urban redevelopment works involving title transfers would be carried out in Los Hornos (Government of the province of Buenos Aires, 2020a; 2020b), which would encourage households to stay motivated by the opportunity to eventually formalize the tenure of the land. Although title transfers may not occur soon, people might not be able to return to their previous location because of high rent and overcrowding. People also spend money on constructing their houses or purchasing land.

Our documentation of the emergence of an informal settlement indeed reveals that the urban poor have borne the brunt of the economic difficulties associated with COVID-19, resulting in the inhabitants of the existing informal settlement seeking a cheaper alternative. Simultaneously, we see the inhabitants of the informal settlement, in the informal housing market, behaving similarly to how the rest of the citizens behave in the formal housing market, moving away from the city center to more spacious areas. Furthermore, squatters can also be strategic and opportunistic, moving for speculative reasons and becoming de facto owner-occupiers by squatting on new land. By analyzing how the COVID-19 pandemic resulted in the emergence of a new informal settlement, the findings of this study revealed how the informal housing market works, which is very similar to its formal counterpart.
