More than walls: Fear of crime in neighbourhoods bordering gated communities. The Greater Metropolitan Area of Costa Rica.

Abstract

Urbanisation patterns in Central America have rapidly changed from open neighbourhoods to gated communities. Fear of crime is one of the leading motivations for gating; a common assumption is that fearless residents protect themselves from the outside. This research argues that gated communities also affect those living outside their gates in the adjacent neighbourhoods. This qualitative research examines the Greater Metropolitan Area of Costa Rica through eight case studies, open neighbourhoods from extreme to zero poverty located next to gated communities. Data were collected through walks, focus groups, in-depth interviews and observations; a comparative structure of the eight case studies was done through thematic analysis. The findings suggest that physical and symbolic barriers exacerbate fear of crime for those outside the gate; non-permeable edges affect mainly neighbourhoods in serious, moderate and mild poverty; however, effects of intangible boundaries such as exclusion are more substantial in those in extreme, serious and moderate poverty. This work concludes that local planning policies normalise gating, resulting in disparities in infrastructure and fear of others. Furthermore, gated communities help to fuel the feedback loop of fear of crime, as they might intensify fear towards the outside but receive nurture from it simultaneously.

Keywords: gated community, fear of crime, Costa Rica, urban planning, urban segregation, income inequality.

Introduction

A gated community is commonly seen as a 'shelter' against criminality. The typical assumption is that people behind the gate search for protection from the exterior, where the 'direction' of fear of crime is inside-out. However, more research needs to be done to understand how gated communities affect fear of crime

outside their barriers. The definition of a gated community has an acceptable level of consensus in literature; overall, it is described as a walled or fenced residential development with controlled access and security systems (Blakely & Snyder, 1997; Caldeira, 2000; Low, 2003). Gated communities began in the United States in the early 1980s (Blakely & Snyder, 1997); in Latin American cities, they emerged in the late 1990s (Coy, 2006); then, many countries from the region followed the premise of deregulation, diminishing their direct involvement in land management affairs and leaving to developers and investors a remarkable control over urban growth (Coy, 2006). However, they have expanded rapidly in urbanising countries as part of economic and spatial transformations (Webster et al., 2002).

In the Global South, the accelerated spread of gated communities from the 1990s might be interpreted as a marketing mechanism to attract middle-income residents towards the peripheries who cannot afford land prices in urban centres (Libertun de Duren, 2012). Because informal settlements are located in that perimeter, walls and safety devices are the tools for convincing gated residents to live next to marginalised sectors (Caldeira, 1996). However, gated communities are not isolated from their socio-spatial context; in polarised societies such as Turkey, gated residents feel anxiety due to differences with the local towns; fears are not always because of class differences; ethnic and religious fragmentation exacerbate tensions with local communities (Tanulku, 2018). Commonly, studies about gated communities impact focus on spatial segregation, fears of gated residents, socio-economic effects and disruption of the urban fabric. This work explores fear from an overlooked angle by researching how gated communities affect those outside their gates. Eight case studies from severe to zero poverty are analysed through a qualitative approach. In this regard, Costa Rica is an excellent opportunity to understand better the Global South, mainly because belongs to Central America, a region with profound inequalities and high levels of violence.

Objective

This study aims to analyse if physical and symbolic barriers of gated communities affect the fear of crime of people living in surrounding neighbourhoods and if those effects vary depending on poverty levels.

Safety perceptions are analysed from a micro and macro perspective; walks were carried out to understand if fear of crime varies at a micro-scale (physical barriers). The macro level was addressed by exploring feelings of exclusion, residential segregation and perception about gated residents (symbolic barriers). Both perspectives are analysed to understand the possible impacts of gated communities beyond their walls. The building process of gated communities is strongly linked to planning rules; this paper also aims to shed light on some procedures within urban codes that might help to reduce gated communities' externalities in urban contexts.

Literature review

Although the global reasons for choosing gated communities have nuances, fear of crime is a common driver (Breetzke et al., 2014). In the USA, people who live behind walls try to keep their properties' value secure, escape crime and live with neighbours with a similar sense of community (Blakely & Snyder, 1997); during the post-socialist Belgrade, with the transformation of housing production in the 1990s, the tenure conditions also changed; people used to live in massive housing blocks with little privacy; later, single-family homes were allowed, then developers sold both privacy and safety (Hirt & Petrovic, 2011). In South African cities, high crime and fear provoke pressures over urban settlements, aggravating fortification, which, in turn, becomes a new driver by exacerbating social exclusion (Landman, 2012).

Fear of crime and victimisation

Fear of crime differs from victimisation; a reduction of actual crime (victimisation) does not necessarily mean a fall in the sense of insecurity. Ferraro & Grange (1987, p. 72) describes fear of crime as 'a negative emotional reaction to crime or the symbols associated with crime'. Snyders and Landman (2018) found that main crime hotspots in South African neighbourhoods, such as shopping nodes, are not necessarily the most avoided areas; instead, residents abstain from visiting some parks because they believe the risk of victimisation could be higher. In this regard, fear of crime embraces a range of emotions and is influenced

by factors such as gender, income level, ethnicity, age, the education achieved, length of residence or sense of belonging to a place (Gray et al., 2011). The devastating effects of fear on the quality of life affect the dynamic of public spaces; nonetheless, levels of perceived danger are commonly higher than the empirical probability of victimisation (Burgess, 1994; PNUD, 2005). Despite this, some local authorities in Latin America have normalised gating as a precautionary measure to face crime without any awareness of its impact on neighbouring public spaces (Barrantes Chaves, 2021b)

Gated communities and the outside

Once in place, gated communities establish physical and symbolic barriers; residential segregation is a leading social effect (Blakely & Snyder, 1997; Caldeira, 2000; Low, 2003; Roitman, 2010; Sennett, 2018). Blakely and Snyder (1997) argue that gates are more than physical barriers; they manifest tensions between particular aspirations based on fear and the defence of privileges. In South Africa, Lemanski (2006, p. 416) concludes that gated communities' walls and design have replaced 'spatial apartheid with social apartheid' due to spatial proximity but with social spheres working separately. Roitman & Phelps (2011) found high social segregation at the inter-municipal level in Argentina, where the poor and rich are close but divided by a wall. In contrast, Sabatini and Salcedo (2007, p. 596) suggest that gated communities help reduce segregation in marginal areas of Santiago, Chile, as they have changed their segregation patterns from large scale to small scale, a 'kind of micro-segregation', whereby the spatial distance between social groups is shorter because the surroundings are revitalised through new jobs and small businesses. However, despite the closeness between gated and non-gated residents, Sabatini and Salcedo's (2007) results do not show that residential segregation is less deep, although it can be allocated in small portions across poor areas. Contrarily, Caldeira (2000) holds that the closeness between gated communities and disadvantaged neighbourhoods has marked the public space by suspicion.

Although some scholars have addressed the impact of gating on the adjacent communities, there are still limited empirical data on that subject (Le Goix, 2005; Roitman, 2013; Kostenwein, 2021) as well as the

effects of gating on fear of crime (Barrantes Chaves, 2021a). Gating as a strategy 'to shelter' against crime has paradoxically triggered reactions in their peripheries, such as reallocating crime towards the non-gated neighbourhoods (Breetzke et al., 2014; Helsley & Strange, 1999; Low, 2003;). Through a Model of Gating and Criminal Geography, Helsley & Strange (1999) concluded that gating diverts criminality to other neighbourhoods, affecting the efficiency of the land market. Since crime redistribution occurs, fewer people are willing to live in the areas.

Another example is the work of Breetzke et al. (2014, p. 134); they found that areas surrounding gated communities in Tshwane (South Africa) had up to four times more burglary density than the city overall, suggesting that 'gating does not deter criminal activity, but in fact attracts it'. In Tegucigalpa, the program 'Safer Barrios' allows residents to gate their neighbourhoods if they feel unsafe; paradoxically, criminal gangs have taken advantage of this program through fake signs and features from 'Safer Barrios' and have set an illegal mirror practice by gating areas where they want to take control, reinforcing intimidation and power through physical elements of delimitation (Handal & Irazábal, 2022). Furthermore, that model has catalysed socio-spatial segregation, privatisation of open spaces, and abandonment of those outside gated neighbourhoods, inducing actual and perceived insecurity. 'Safer barrios' have been replicated in other countries in Central America, such as Guatemala and El Salvador; consequently, those countries have also increased their spatial segregation (Handal & Irazábal, 2022). According to Landman (2012), the consequence of building gated communities is a negative feedback loop of crime over their surroundings. She claims that ‘the fear, psychological trauma, high stress levels and social exclusion created through urban fortification in turn contribute to a more segregated and aggressive society` (Landman, 2012, p. 253); however, she argues that local governments are under pressure from developers and citizens, stimulating the construction of even more gated developments.

A body of literature highlights the relationship between the built environment and fear of crime (Brunton-Smith & Sturgis, 2011; Ceccato, 2020; Hale, 1996; Loukaitou-Sideris, 2012; Mihinjac & Saville, 2019) and the role of built environment and social disadvantage in the geography of crime (He & Li, 2022). Although

there are overlaps and contradictions in preventing crime through the built environment, some practitioners have focused their views on protecting from the 'inside' through community guardianship and specific elements of urban design, such as the Broken Windows theory (Kelling & Wilson, 1982) Defensible Spaces (Newman, 1973) or Situational Crime Prevention (Clarke, 1983). In contrast, other views highlight the relevance of the 'outside' and visualise safety through encounters with strangers and permeability between borders, such as Eyes on the Street (Jacobs, 1961) or borders as membranes that stimulate the interchange inside-outside (Sennett, 2018). Recent debates highlight the need to address urban porosity in planning regulations (Castel'Branco & Ricardo da Costa, 2024).

Study Context

Costa Rica within the Latin American context

Latin America is one of the most unequal regions in the world (Busso & Messina, 2020) and holds the highest rates of homicide worldwide (UNODC, 2023). Costa Rica holds favourable indicators in healthcare, education, poverty and life expectancy at birth in Latin America; it also has one of the most stable democracies within the region, which has lasted more than 100 years. However, its income inequality has been growing and it is above the Latin American average (PEN, 2023); furthermore, the fear of being a victim of a violent crime there is higher than the Latin American average (Corporación Latinbarómetro, 2020) although the homicide rate is around 50% lower than the region (UNODC, 2021).

Costa Rica was affected by the armed conflicts in Central America during the 1980s. Despite not having an army or any wars since 1948, Costa Rica was involved in those disputes mainly because of its strategic location. Armed conflicts have dominated Central America's history; war during the late 1970s and the 1980s was one of the leading causes of death and concern (Sandoval García, 2015). In addition to the fragile political position of the region in the 1980s, drug trafficking began to have more impact. Costa Rica performs as a bridge for cocaine traffic from South America to North America; during this transfer,

quantities of drugs remain in the country as a payment to dealers or for local consumption (Palma Campos, 2018). Those 'small' drug transactions in public spaces are central to describing people's perceptions of the built environment and their fears within the city.

The study area: The Greater Metropolitan Area (GAM)

This research focuses on the Great Metropolitan Area of Costa Rica (GAM). It is a legal region created in 1982 by the National Institute of Housing and Urbanism (INVU) to demarcate urban development; it has an urban belt of 44,200 hectares for intensive urban activity; around that ring, there is an area for agriculture and environmental protection which covers 152,500 hectares (MIVAH-TEC, 2014). The GAM contains the country's main economic activity; it encompasses four of the seven provinces' capitals. This area has around 2,568,462 people; that is 51.3% of the Costa Rican population (Sánchez, 2018) and covers 3.83% of the Costa Rican territory (See Figure 1).

The GAM is a polycentric that has suffered the consequences of becoming a conurbation since the 1980s (Martínez & Ruiz Agüero, 2015). Previous research has found a relationship between metropolisation and some types of crimes due to the income disparities triggered by this process (Sypion-Dutkowska et al., 2021). The GAM's cities are not efficiently connected; they have limitations in urban mobility and public transport; therefore, travelling times are growing longer daily (CNPU, 2018). Traffic issues within the GAM provoked time losses estimated as 1.9% of GDP in 2005, 2.0% in 2009 and 3.8% in 2018 (PEN, 2015, 2018); around 25% of people within the GAM take more than two hours every day to reach their destination (PEN, 2015).

Within the GAM and surroundings, there are 36 local governments; only eight have a completed Regulatory Plan (urban code) and 12 have partial regulations (PEN, 2015); the lack of urban planning has affected the efficiency of the GAM. From the 1990s onwards, the emergence of large gated communities along road axes has increased traffic congestion; this situation is exacerbated by dependency

on private cars and the weakening of public transport (CNPU, 2018). Costa Rican planning policies have acknowledged the issues of gated communities on the road system; nonetheless, they have overlooked the effects of gated communities on fear of crime and residential segregation.

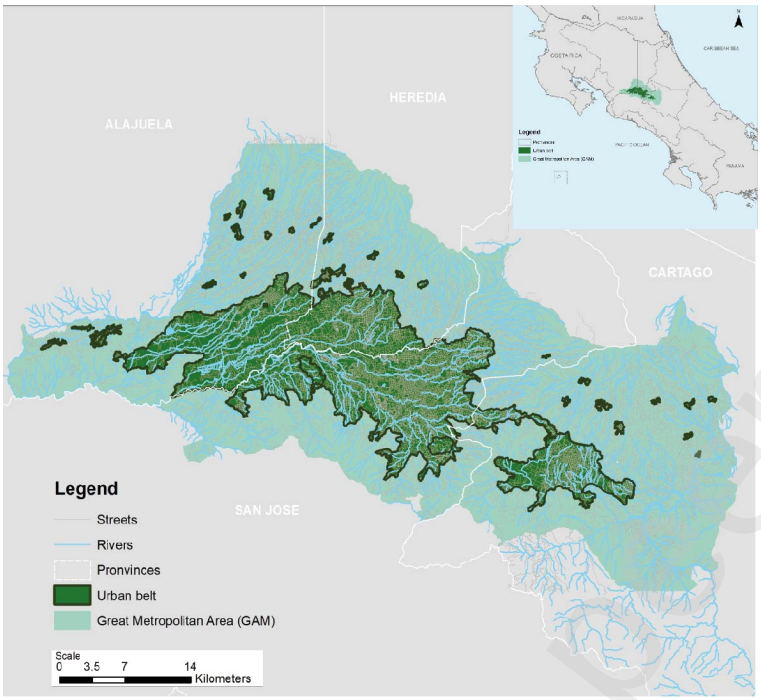

Figure 1. The Greater Metropolitan Area (GAM) of Costa Rica

Note: Adapted from [author]

Gated Communities in Costa Rica

Gated communities in Costa Rica commonly follow the condominium scheme, an ownership system of individual residential units with shared spaces such as streets, parks or gyms. In the GAM, condominiums have steadily increased social segregation (Pujol M et al., 2011) and raised the number of square meters by 600% from 1990 to 2017 (Sánchez, 2018). Figure 2 shows the general planning framework of gated communities in Costa Rica. Two main dimensions are condominium ownership scheme and planning regulations. The first one is focused on management, such as the condominium board or legal duties of

residents; it also issues norms regarding planning, such as building guidelines, but delegates main physical features to regulatory plans (local tools). The second set corresponds to the national, regional and local planning levels; the Urban Planning Law (1968) has not been updated to include gated communities, which makes it difficult for local governments to incorporate stronger controls over gated communities with legal support. It leads to a void in regulation, resulting in the spread of gated communities (Barrantes Chaves, 2021b).

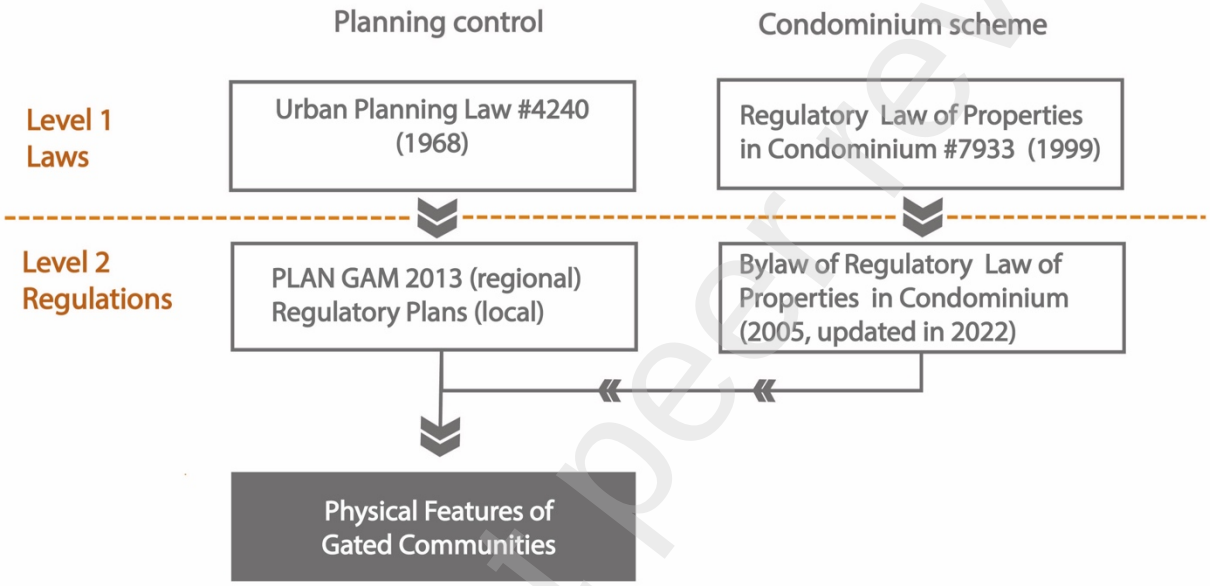

Figure 2. General planning framework for gated communities in Costa Rica.

Note: Adapted from [author]

Methodology

Fear of crime is a complex phenomenon and some quantitative approaches might not explore the variety of subjective and emotional assessments involved in this topic (Ferraro & Grange, 1987; Kim & Kang, 2018). Therefore, the research design of this investigation aims to obtain broad information about fear of crime through a qualitative study with mixed methods; eight case studies were analysed using focus groups,

walking interviews, observations, and in-depth interviews. The core of the empirical data was analysed through thematic analysis by a comparative structure of all case studies.

Selection of case studies

The eight case studies were neighbourhoods adjacent to gated communities; they portray different poverty ranges to understand if inequality might be a factor in safety perception. The NBI indicator (Unfulfilled needs) helped to select the cases; it encompasses access to four basic needs: housing, health, knowledge and access to goods and services; a household with 0 NBI means no poverty, whilst 4 NBI is the highest level of deprivation. The NBI is part of the information available in the census units (UGM); a neighbourhood could contain one or more UGM, the census cartographic units.

There are 15172 UGM within the study area (GAM); the following filters were implemented to select the case studies; the first filter targeted neighbourhoods with dwellings up to 4 NBI, 3 NBI, 2 NBI, 1 NBI and 0 NBI located next to gated communities larger than 3 ha, using Geographic Information Systems (GIS); a second filter selected those neighbourhoods with public spaces and topographical continuity between them and the gated community; the third filter was a verification in the field after randomly select cases from the second filter (using Excel random selection). The final choices were made once community leaders from each neighbourhood agreed to participate and contribute to the recruitment process. Finally, a case number was assigned to each neighbourhood (see Figure 3); it goes according to poverty levels from the highest deprivation (Case 1) to the wealthiest community (Case 8). Those poverty ranges with more UGMs have more than one case study. The gated communities adjacent to these eight case studies belonged to 'poverty free' and 'mild poverty' ranges.

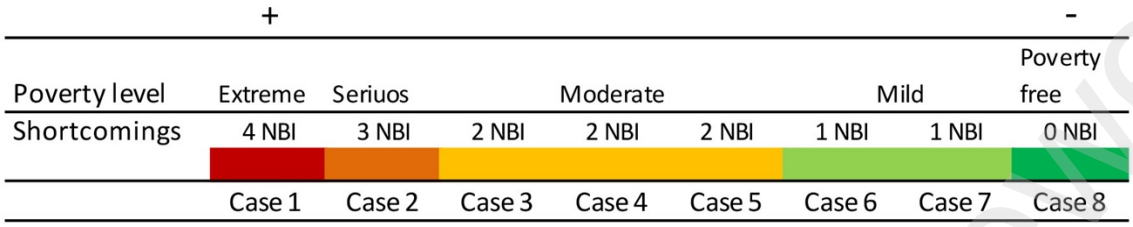

Figure 3. Case studies' ranges according to poverty levels

Data collection

A protocol was designed, tested and improved through a pilot case before the data collection process started, according to (Yin, 2014) case study suggestions. The primary data collection methods were:

- Walking interviews: they are qualitative interviews where the researcher walks along with participants in their familiar environment (Carpiano, 2009); Evans and Jones (2011) suggest technologies such as GIS to capture people's comments. For this research, GPS and audio recorder were synchronised; also, participants had individual maps and could put stickers symbolising different intensities of fear on them.
- Focus groups: Through this technique, it was possible to understand the dynamics of community ties, residential segregation, communal events and routines.
- In-depth interviews were mainly used to understand local government views and to triangulate data alongside observations.

A total of 128 people participated between June 2018 and January 2019: 43 in walking interviews, 59 in focus groups, 14 in-depth interviews and 12 people took part in the pilot; the information obtained from the pilot was not part of the empirical data, it was used only to calibrate the research tools. The fieldwork's ethical approval was granted from June 2018 to June 2019.

The process was designed to address fear of crime from a micro and macro perspective. The walking interviews helped to understand the micro level associated with the built environment; they were initially conducted inside their neighbourhood, on streets without contact with gated communities; this performed as a 'control area' that helped to understand participants' overall perceptions and pre-existent fears. Then, the walk was guided along the neighbourhood's roads adjacent to gated communities; it enabled contrasting emotional responses in both sectors. Focus groups contributed to exploring the macro dimension as residential segregation, fear of others or exclusion feelings are not always spatially located.

Data Analysis

The walking interviews and focus groups were analysed through thematic analysis (Braun & Clarke, 2006). A starting point was the work of (Evans & Jones, 2011) who suggest pairing timestamped interview transcripts and GPS tracks; however, in this research, after transcribing the qualitative data, patterns were identified and coding through the software NVivo. The codes from walking interviews were georeferenced in GIS using the GPS track timestamp as a reference, given that this work produced two types of maps:

- Intensity of fear maps: Maps where participants could put stickers symbolising different intensities of fear. The total stickers allocated were 792.
- Talk's track maps: They are maps of perceptions made from georeferenced codes; there were 1319 codes in total, 470 next to the gated community, and 849 in places inside the neighbourhood without contact with the gated wall/edge. Examples of these maps are in Appendix A.1 and A.2.

The purpose of 'Intensity of fear maps' was to explore fear's magnitude, whilst 'Talk's track maps' show the diversity of those perceptions; the spatial information is intertwined with people's narratives to explore the reasons behind different perceptions.

Results

Perceptions about gated communities and their residents

Who lives behind the gate?

Residents from neighbourhoods next to gated communities have built their notions about who lives behind the gate. Table 1 shows participants' comments about gated communities and their residents; the colour pattern shows those cells with more mentions in dark grey. It is essential to highlight that community ties between participants and gated residents are almost nonexistent; despite the lack of ties, they have met people from gated communities, primarily administrative staff. One of the most common perceptions is that gated residents belong to the upper class; for that reason, participants mainly from the moderate-poverty range believe that gated residents 'do not care about them'; for instance, a female participant from Case 4 mentions:

> 'We like strolling Friday night, but when walking close to [Gated community name] and cars approaching its entrance, the drivers always rush and honk! They did not respect that you are walking with a child; why? Because we are hindering the condominium entrance, we believe they do not care about our lives; they could wait a little bit.'

Participants from Case 3 (moderate poverty) shared the same thoughts; a male participant said, 'When condominiums are built, their residents do not care, they only care from inside, the outside does not matter, for them our neighbourhood is a leading zero'. Those perceptions change in neighbourhoods from mild poverty onwards; participants believe that gated residents were just 'working people'; in fact, they acknowledged that they would move to a condominium if they could afford it.

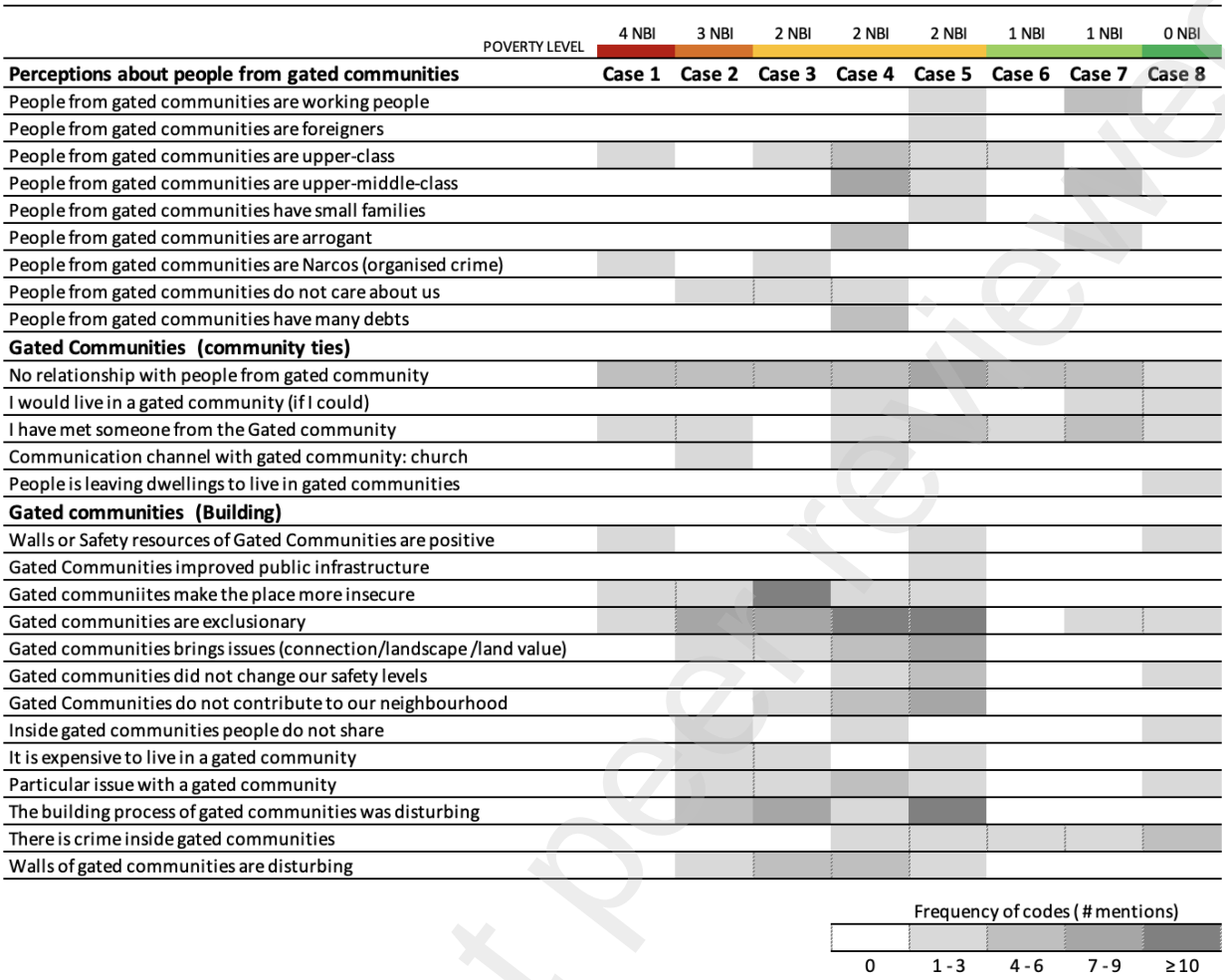

Table 1. Participants' comments about gated residents and gated communities (walks and focus groups).

Fears about 'others' and distrust are common; participants from more deprived neighbourhoods suspect that gated residents are linked to organised crime (drug traffic). They stressed this concern as they believe it harms their neighbourhood and young people, who are vulnerable. A male participant from Case 1 pointed out, 'Unfortunately, the drug dealers are here [his neighbourhood], and people who contact them are there [gated community]'. Neighbours from this community were more concerned about those indirect effects on safety than the physical barriers themselves. As explained earlier, a certain quantity of drugs remains in Costa Rica for local consumption during illegal traffic transactions. As part of this illegal market, organised crime networks recruit people to sell drugs on a small scale (Palma Campos, 2018). People from all eight case studies expressed issues about the use or sale of drugs in their neighbourhood or next to it. However,

residents from most deprived neighbourhoods also expressed issues with drug dealers, such as fights for territories and shootings; as a result, they highlight concerns of being killed accidentally or fear of reprisals if they reveal any information to the police. This situation portrays violent situations experienced in those neighbourhoods; in this regard, they argue that fortifications facilitate illegal businesses and gated residents might be linked to them.

In general, the responses reveal almost no relationship with people from gated communities; except for the wealthiest neighbourhood (Case 8), these participants expressed a good relationship with people from gated communities, mainly because they are involved in the neighbourhood affairs and financially support the community board. Hence, they did not describe any specific or negative perception about gated residents. However, Case 8 is the only one in which people from the neighbourhood are moving to gated communities, leaving big empty houses behind. Those dwellings have been rented or bought by new residents; this situation generates many tensions between original neighbours and the newcomers; a female participant expressed during the focus group:

> The unsafety is not because of people who always have lived here and own their houses. [The issues] are the revolving houses; people who built large dwellings, now they want to move into a condominium, and to rent their current houses; so, they are desperate and …. they rent the properties to that kind of people [organised crime], you know, at this place, they can be disguised because those drug traffickers have luxury cars entering to their garages.

They believe owners are desperate to rent their large houses and the prices are unaffordable. Therefore, they imply that organised crime can easily camouflage into a wealthy neighbourhood, as they do not need to hide expensive belongings. In this case, the indirect effect of gated communities has fragmented the neighbourhood.

What does a gated community mean?

The participants shared their opinions about gated communities as physical and symbolic structures, as shown in Table 1. People from seven of the eight cases believe that gated communities are exclusionary; also, the weight of negative opinions concentrates in the range from Cases 2 to 5, which belongs to the serious and moderate poverty ranges. Neighbours from those places also expressed negative experiences during the building process of those gated communities, such as damage towards community infrastructure; a female participant reported: 'We worked so hard to improve that street, we played Bingos to collect money; but that heavy machinery damaged the road'; in another case, people complained because, during the building process of a gated community, the contractor company took the community park to store construction materials. Those issues have raised spatial tensions from non-gated towards gated residents.

People from cases in moderate poverty (Cases 3, 4 and 5) highlighted that gated communities do not contribute to the neighbourhood as they do not supply public spaces or help to improve the current ones; they complained about the growth of gated communities around their neighbourhoods, which, disrupts their communication with other communities and isolates them from the rest of the city; they also blame their local government and its poor planning policies for controlling those developments. Participants from Cases 2 to 4 recalled how their neighbourhood and surroundings used to be safe (around 30 years ago), but now it has changed. Those people also believe that some safety measures adopted by gated community developers, such as walls and private security, have made their neighbourhood even more unsafe; they criticise the height of walls, isolation nearby or the resulting darkness. Furthermore, participants from Case 3 claimed that gated communities attract criminals because safety measures might discourage them from offending inside the condominium; consequently, the crimes are committed in their neighbourhood instead; one male participant mentioned:

> 'I will tell you the problem, where the condominiums are, the money is, and they [thieves] are just waiting for someone to mug… they are not coming to a poor place to mug, to whom? Here, a girl

who just came out from that gate with her wage in cash, she was mugged, she worked all week there [gated community] and she was finishing her journey, and they [thieves] knew it.'

In contrast, participants from both ends of poverty distribution (Cases 1 and 8) hold a positive opinion about the safety resources of gated communities. People from the most deprived neighbourhood mentioned that the police patrols increased their frequency since the gated community was built; they believe local police have historically neglected their neighbourhood; therefore, a new gated community nearby could improve the surveillance surroundings. On the other hand, in the wealthiest case, gated communities have fences instead of walls, which makes a permeable connection with the public space; non-gated residents believe there is trust in both directions and most participants felt safe walking along their borders. Although gated communities indirectly affected both ends, there were no significant complaints about their physical edges.

Physical features of gated communities

Do barriers matter?

The physical edges of gated communities might exacerbate symbolic barriers such as fears of others and feelings of exclusion; they also impact everyday walks. Figure 4 shows three of the eight 'Intensity of Fear' maps. It illustrates how the gated community's edges from Cases 3 and 4 (moderate poverty) are mostly ranked as 'very unsafe' or 'unsafe'; in both cases, participants identified drug sale points allocated next to the gated community walls, as well as lack of light and isolation. In contrast, as mentioned above, people from Case 1 reported more intense fear inside their neighbourhood as there are constant victims of violent episodes.

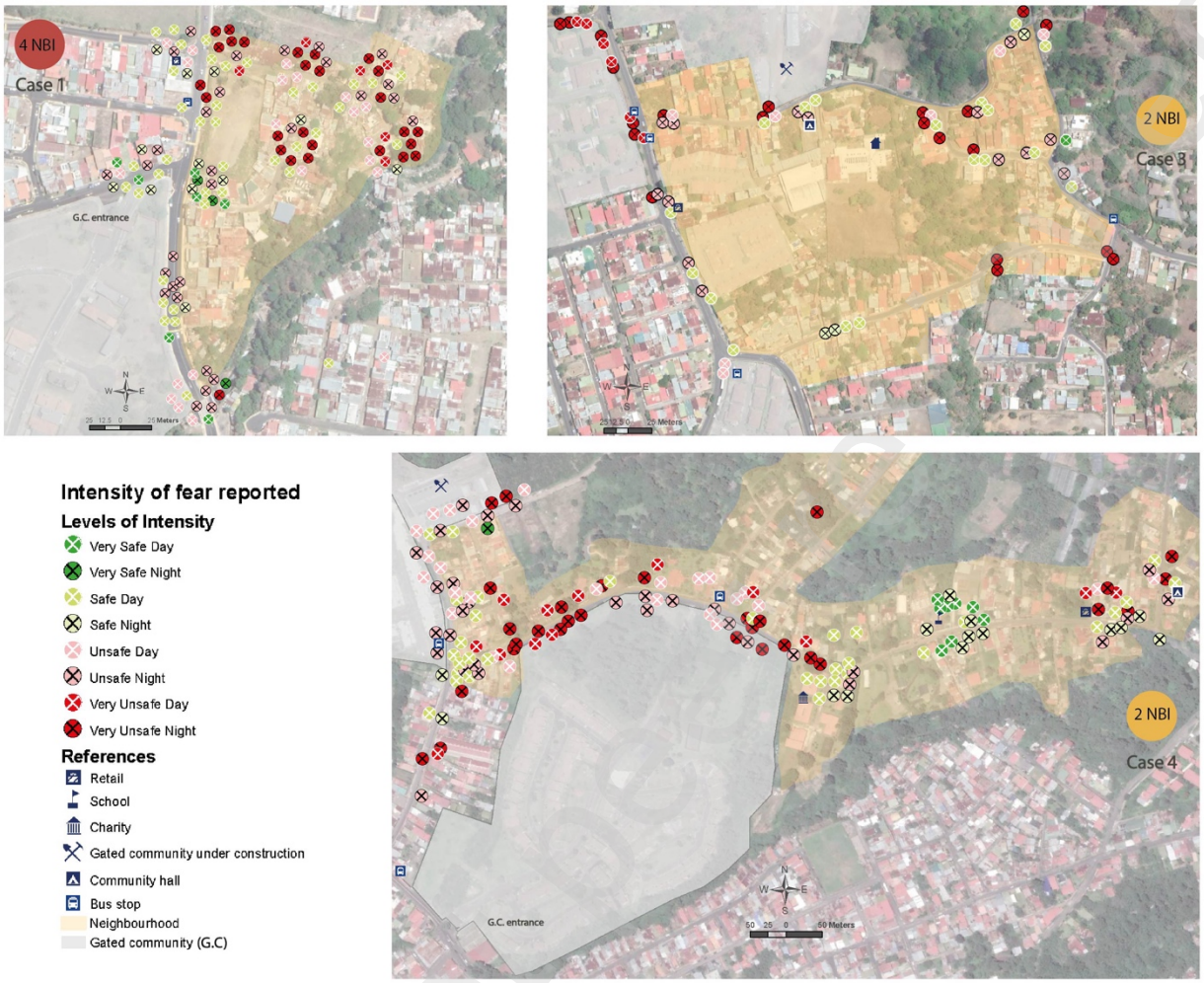

Figure 4. Intensity of fear maps for Cases 1, 3 and 4.

The intensity of fear for the eight case studies is summarised in Table 2; it shows self-reported fear for each case; the values correspond to the percentage of stickers (according to the intensity of fear perceived) allocated in places without contact with the gated community's edge and those next to the gated wall/edge. It displays that the proportion of places ranked as 'very secure', in most cases, was lower in those sections next to gated boundaries than in sections away from them. People from cases 2, 3, 4 and 7 did not indicate any 'very secure' place next to the gated edge, either during the day or at night. Regarding 'very insecure' perceptions, in most cases, they perceived more areas under that classification next to the gated community than out of it. During the night, people from six cases considered those places more insecure than the streets

without gated communities nearby. These data suggest that gated communities' barriers distort the typical perception of safety in someone's neighbourhood and this variation does not necessarily have a direct association with poverty levels. Again, both ends of poverty distribution show exceptional performance.

				Next to gated community's edge				
	Poverty level	4 NBI	3 NBI	2 NBI	2 NBI	2 NBI	1 NBI	1 NBI	0 NBI
Intensity of fear perceived		**Case 1**	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**
Very secure -DAY		10,0%	0,0%	0,0%	0,0%	20,5%	6,5%	0,0%	37,5%
Very secure -NIGHT		2,5%	0,0%	0,0%	0,0%	11,4%	6,5%	0,0%	25,0%
Secure - DAY		27,5%	42,9%	11,5%	11,6%	20,5%	16,1%	32,1%	12,5%
Secure - NIGHT		7,5%	7,1%	0,0%	0,0%	18,2%	0,0%	10,7%	12,5%
Insecure - DAY		15,0%	7,1%	11,5%	27,5%	4,5%	16,1%	10,7%	0,0%
Insecure - NIGHT		35,0%	28,6%	19,2%	26,1%	2,3%	19,4%	21,4%	12,5%
Very insecure - DAY		0,0%	0,0%	23,1%	8,7%	6,8%	9,7%	10,7%	0,0%
Very insecure - NIGHT		2,5%	14,3%	34,6%	26,1%	15,9%	25,8%	14,3%	0,0%
		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Total of stickers n=268		n=40	n=14	n=26	n=69	n=44	n=31	n=28	n=16
				No contact with gated communities' edge				
	Poverty level	4 NBI	3 NBI	2 NBI	2 NBI	2 NBI	1 NBI	1 NBI	0 NBI
Intensity of fear perceived		**Case 1**	**Case 2**	**Case 3**	**Case 4**	**Case 5**	**Case 6**	**Case 7**	**Case 8**
Very secure -DAY		2,9%	21,4%	2,2%	9,5%	17,3%	11,0%	22,2%	30,2%
Very secure -NIGHT		1,9%	7,1%	0,0%	1,2%	11,5%	1,7%	14,3%	4,7%
Secure - DAY		26,7%	14,3%	33,3%	28,6%	28,8%	22,0%	28,6%	20,9%
Secure - NIGHT		8,6%	21,4%	6,7%	16,7%	11,5%	15,3%	19,0%	14,0%
Insecure - DAY		14,3%	7,1%	8,9%	7,1%	5,8%	13,6%	1,6%	2,3%
Insecure - NIGHT		15,2%	14,3%	20,0%	14,3%	13,5%	22,9%	9,5%	11,6%
Very insecure - DAY		5,7%	7,1%	0,0%	8,3%	1,9%	4,2%	1,6%	0,0%
Very insecure - NIGHT		24,8%	7,1%	28,9%	14,3%	9,6%	9,3%	3,2%	16,3%
		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
Total of stickers n=524		n=105	n=14	n=45	n=84	n=52	n=118	n=63	n=43

Table 2. Perceived safety of participants in their neighbourhoods and surroundings.

Figure 5 summarises the most frequent comments about the built environment for all case studies made during the walks; it displays the percentage of comments by places next to the gated community's wall/edge and those without any contact. It noticed that positive comments about physical features of the built environment were more recurrent in those places away from gated communities, as well as perceptions about permeability, familiarity, supply of community parks and current safety. Some general infrastructure issues were more common on the internal roads of the neighbourhood than those next to the closed condominium. Participants linked critical characteristics of the built environment to fear of crime, such as heavy traffic and places perceived as isolated, which were more commonly found next to the gated edge.

During the walks, people expressed concerns about the growth of road traffic in their neighbourhoods, as new residents from gated communities are using public streets for commuting. People also report anxiety

in places with heavy traffic due to the waiting times to cross the street; it was common to find public transport stops alongside the gated community's wall. That situation led to anxiously awaiting the bus in places perceived as isolated; people feel they could be easy targets from criminals when they get on or off the bus. Then, heavy traffic between gated communities and neighbourhood dwellings performs as a 'second wall' by trapping people during their waiting times. Other issues associated with fear of crime were vehicles, both in movement or parked; participants believed people in cars or motorcycles might commit some muggings. Furthermore, dark places and bus stops were also consistently associated with fear of crime.

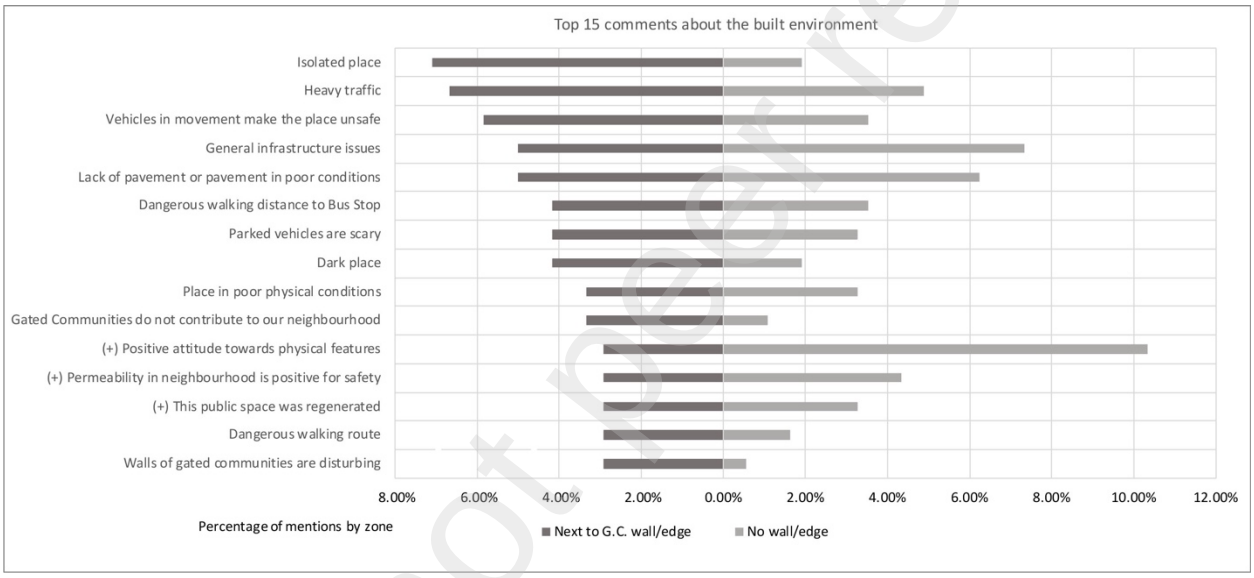

Figure 5. Top 15 comments about the built environment classified by sector: Next to gated community wall/edge and neighbourhood's places without gated developments.

The relationship between poverty levels and the effects of gated communities in fear of crime have nuances. Figure 6 displays the central patterns found among the eight case studies; they are classified by shortcomings and macro and micro effects. It shows how the neighbourhood in extreme poverty is not necessarily the most affected by the construction of physical barriers; in fact, their residents consider them as a positive feature because since then, the police patrol comes more often; however, they still endure the consequences of residential segregation and exclusion. The range of moderate poverty might be the most

affected by the accelerated growth of gated communities, as gated communities in Costa Rica are not necessarily settled in high-income areas (Pujol et al., 2011); however, they create an 'involuntary' enclosure that wraps surrounding neighbourhoods, it increases the navigation times and provokes walks perceived as dangerous. Furthermore, there are profound inequalities in infrastructure between neighbourhoods in extreme, serious and moderate poverty and the gated communities nearby, such as a lack of community parks, deteriorated roads and footways; in this regard, neighbours from cases in serious and moderate poverty believe that gated communities could help to overcome their shortcomings as compensation for the provoked externalities; however, they blame local governments for exempting developers to supply infrastructure and public spaces to adjacent communities.

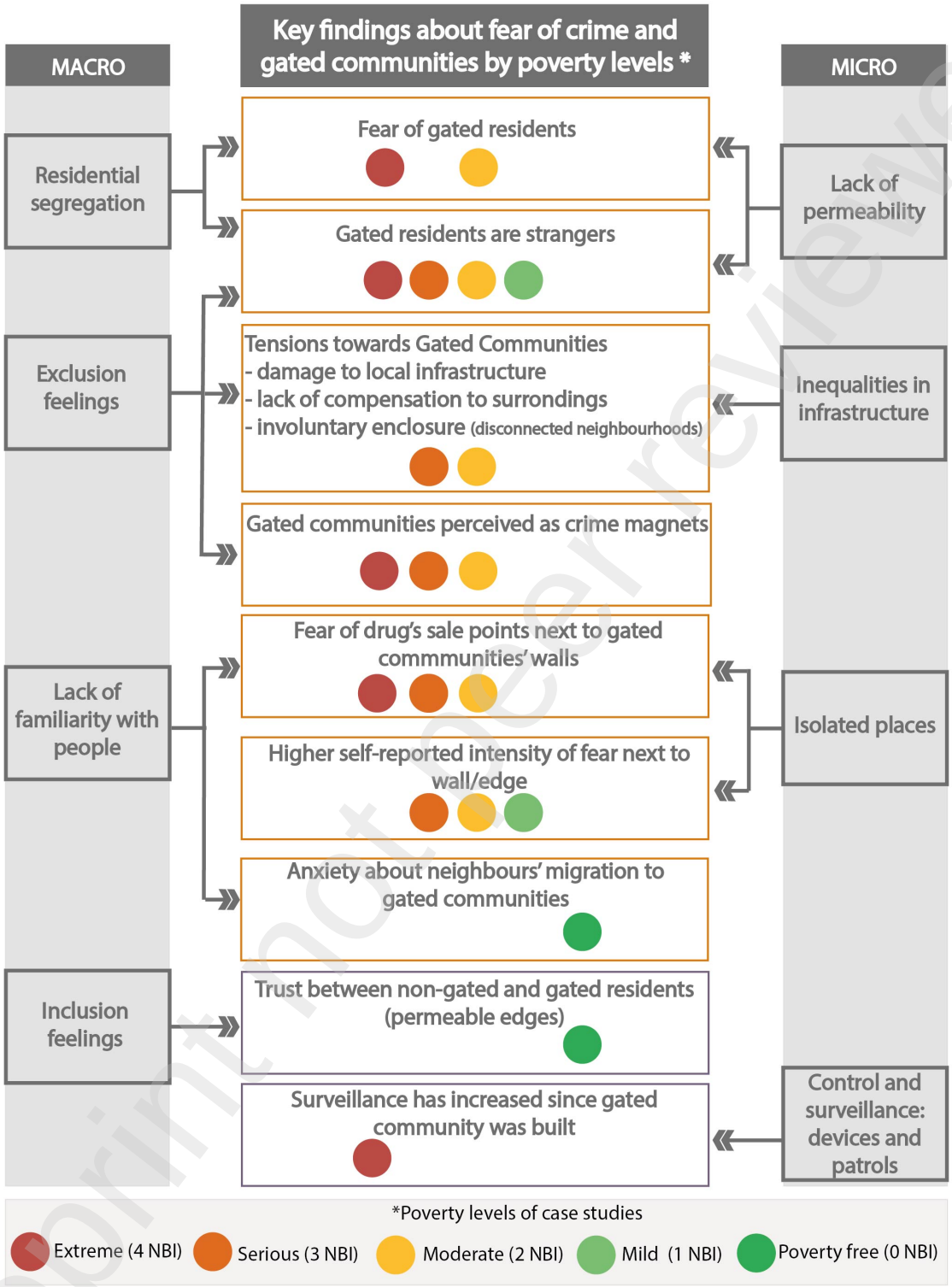

Figure 6. Summary of key patterns related to fear of crime and gated communities among the case studies.

Note: Adapted from [author]

What do local governments think about it?

The eight case studies belong to four local governments; in-depth interviews were undertaken with officers from social departments and municipal police (which belong to local governments). Overall, the perceptions of social staff were very close to the community views:

> 'The first complaint from communities when the condominiums started was the isolation given to the neighbourhood with those gates, not to know the neighbours who live there. Then, suddenly, the myth that a criminal could be living there and they do not know '. (Officer, personal interview, 23 July 2018)

Another officer stressed the lack of interest from people in gated communities to be involved in community affairs and the residential segregation resulted: ‘People who live in condominiums enter and forget the rest of the world’ (Officer, personal interview, 23 August 2018).

Despite the acknowledgement of local communities' discomfort, the officers from the four local governments recognise that gating has become the norm; even community boards from non-gated neighbourhoods ask for fences to enclose their community parks as they believe it is the only way to avoid strangers and drug consumption there. Another common request is lighting and CCTV next to gated communities’ walls, mainly in places with bus stops.

In contrast, the police believed that gated communities might be a partner in crime prevention, as they provide CCTV and lighting. For instance, the police officer from the area where Case 1 (extreme poverty) belongs implies that one of the main reasons for surveillance systems is precisely to persuade and control people living nearby gated communities. He refers to the main street between Case 1 and the gated community:

> 'There is a slum there [Case 1]. So, what does happen? Those people, if they go out to that street, the place is lighted and there are cameras. So, they do not offend there; they go to commit the crime in other places nearby.' (Police officer, personal interview, 23 July 2018)

Paradoxically, participants from Case 1 are pleased because of the increase in police patrols in that street; however, they did not mention that it might be because of a lack of trust towards their community. A similar situation happened in Case 4; people complained about the height of walls and gated communities, giving them the back. However, the police officer called this neighbourhood a safe and quiet place. He mentioned, 'To have this type of condominium behind, I imagine, gives them more security because it is like someone is covering your back' (police officer, personal interview, 24 July 2018).

Despite different opinions between social departments and local police, both areas acknowledge that gating is becoming more common and has been adopted as a safety measure. In this regard, they did not mention any strategy from their municipalities to control or reduce the externalities that gated communities might provoke over their surroundings.

Discussion

Residential segregation, mistrust and fear.

The deep residential segregation finds support in previous statements about how gated communities exacerbate this phenomenon (Blakely & Snyder, 1997; Caldeira, 2000; Roitman & Phelps, 2011). However, debates suggest that public spaces outside gated communities should be further considered in academic discussion(Barrantes Chaves, 2021b; Kostenwein, 2021; Tanulku, 2012). The outcomes from this research suggest that the effects of residential segregation provoked by gated condominiums also have implications for fear of crime on the outside. Previous discussions have focused on how physical and symbolic barriers from closed condominiums have increasingly marked distrust (Caldeira, 2000; Low, 2003) and how residents from gated communities fear those outside the wall (Low, 2003). This work highlights that those

fears also operate in the opposite direction: from non-gated areas to gated developments, wherein anxiety is fuelled by fear of others; therefore, mistrust can also be found from the outside-in. Scholars have pointed out the importance of diversity, mixed neighbourhoods and encounters with strangers for maintaining the city's liveliness and keeping natural surveillance (Jacobs, 1961; Sennett, 2018); those interchanges are strongly limited if there is a wall between the two communities.

Contrarily to the findings from Salcedo and Torres (2004) about positive attitudes among non-gated residents towards gated residents in marginal areas of Chile, in this current research, most participants from moderate to extreme poverty neighbourhoods held negative perceptions about them or even linked them to organised crime. However, positive associations increased as poverty levels diminished. Regarding the micro-segregation patterns (Sabatini & Salcedo, 2007), participants did not mention any advantage for the local economy of having gated communities nearby; in fact, those from the moderate poverty range complained about the lack of contribution of gated communities to their surroundings.

Disparities in infrastructure and fear of crime

Those participants in severe and moderate poverty complain about the lack of contribution of gated communities towards their surroundings, such as the supply of pavements and walkable spaces, streets or community parks. Five of eight case studies reported serious issues in lack of footways (extreme, severe and moderate poverty); Bjornstrom and Ralston (2014) found a positive relationship between the presence of pavements and community cohesion among people from deprived neighbourhoods; they argue that footways facilities informal encounters that help to build a sense of cohesion and safety; nonetheless, that relationship was not robust enough in dangerous neighbourhoods, where it might be possible that people prefer to avoid unplanned interactions. In the current research, the neighbourhood in extreme poverty did not stress the lack of this infrastructure as an issue that gated communities should solve; despite showing the most critical shortcomings in infrastructure, participants indicate that high violence is their primary concern. However, participants in severe and moderate poverty think gated communities should

compensate for infrastructure damage during the building process and help improve the current public spaces. In Costa Rica, since 1982, through the bylaw for Subdivisions and Urbanisation, all residential estates must provide streets, footways and community parks as they are considered urbanisation processes; however, with the Regulatory Law of properties in Condominium, from 1999, gated communities are not forced to supply those public spaces. Therefore, the old neighbourhoods without community parks will not overcome this shortcoming, as new residential developments nearby are gated communities; thus, inequalities in infrastructure would persist, as well as the associated effects.

Heavy traffic is another circumstance sharpened by inadequate infrastructure, such as a lack of pavement or lighting. Common complaints next to gated communities' boundaries were issues with heavy traffic; participants feel it is a 'second wall', making longer the waiting times to cross the street, mainly at bus stops, which commonly are associated with fear of crime (Ceccato, 2016; Loukaitou-Sideris & Fink, 2009). Previous research has linked heavy traffic and fear of crime (Beebeejaun, 2017) and their consequences on community cohesion (Bjornstrom & Ralston, 2014; Marshall, 2005). Participants blame gated communities for the increase in traffic, as more people are using the same public road; this perception is not far from previous statements about the effects of gated communities on traffic and the connection of urban fabric in Costa Rica (CNPU, 2018; Pujol M et al., 2011). Handal and Irazábal (2022) have stressed the effects of gating in the increase of navigation times in Honduras; similar effects can be found in Costa Rica; those in extreme, serious and moderate poverty commonly depend on public transport, they have to face walks perceived as dangerous along walled and isolated properties. The lack of urban porosity cannot foster communities' ties, formal diversity and pleasant walks (Castel'Branco & Ricardo da Costa, 2024).

Barriers matter

This research found that the physical features of closed condominiums distorted pre-existent fears from non-gated residents. Previous research suggests how gated communities reallocate crime towards non-gated neighbourhoods (Breetzke et al., 2014; Helsley & Strange, 1999); this work shows how physical barriers

from gated communities produce an emotional response over non-gated residents, which affects most income ranges.

At the beginning of this paper, it was argued that gated communities are commonly seen as 'shelters' against crime; these findings show they are fuelling the feedback loop of fear of crime by intensifying fear in public spaces but receiving nurture from it simultaneously. Therefore, these findings contribute to the discussion about feedback loops of fear, such as those in governmental discourses (Lee, 2001), punitive populism (Huhn, 2018) and those focused on the negative feedback loop of fortified enclaves in crime and segregation (Landman, 2012). In Latin America, many countries reproduce similar patterns to Costa Rican gated communities; this research aims to shed light on the consequences of gating to those living outside.

Conclusions

The impact of gated communities on perceived safety outside their edges has been overlooked in planning policies; Costa Rican local authorities have normalised gating under the rationalisation of fear of crime. At the macro level, many effects of gated communities are exacerbated by structural causes, such as income inequality, which requires profound actions in economic policies from the central government. The consequences of those inequalities reflect spatially; this study found that some tensions had arisen where the disparities in poverty levels are more profound, such as feelings of exclusion, fears of gated residents and their economic activities, gated communities seen as 'crime magnets', fear of 'others' which includes gated residents and resulting newcomers. At the micro level, physical boundaries commonly walled provoke a lack of permeability, resulting in isolated places, many times linked to drug sales and delinquency; furthermore, inequalities in infrastructure between gated and non-gated residents and lack of compensation from gated communities towards their surroundings fuel the discomfort of adjacent neighbours; also, the 'involuntary enclosure' provoked by an increase in navigation times and poor connection with other communities are consequences highlighted by communities in serious and moderate poverty.

The normalisation of gating in Costa Rica will hardly change in the short term; however, planning regulations can help reduce gated communities' externalities. For instance, residential condominiums should contribute to enhancing the public spaces in their surroundings, as they are an active agent of the urbanisation process; therefore, they could supply new streets and community parks (outside their gates) as a compulsory compensation requested in planning laws. Furthermore, through their planning tools, local governments can control the size and shape of gated communities, asking for an adaptation to the municipal projected roads and avoiding large sections of gated areas. Also, municipalities can determine the physical characteristics of their edges (e.g., railings instead of walls) or promote residential condominiums at the centre of blocks. Finally, borders of condominiums in contact with the public space could enable land uses such as cafés, small shops, or other activities compatible with housing; then gated residents could access from the inside and people from neighbouring communities could also use those facilities. Those activities will foster casual encounters between gated and non-gated residents, contributing to reducing preconceptions about each other; these recommendations can be further explored in future research. The inputs of this work aim to better understand this phenomenon in the Global South; although it took place in Costa Rica, the methodological approach, which combines GIS and spatial narratives, can be replicated in other contexts. The effect of gated communities towards the outside needs more attention, mainly regarding how they impact the fear of crime beyond their walls.

References

Barrantes Chaves, K. (2021a). Fear and Segregation: Anxiety Beyond Gated Communities. The Costa Rican Case. In I. Vassallo, M. Cerruti But, G. Setti, & A. Kercuku (Eds.), *Spatial Tensions in Urban Design: Understanding Contemporary Urban Phenomena* (pp. 63–74). Springer International Publishing. https://doi.org/10.1007/978-3-030-84083-9_5

Barrantes Chaves, K. (2021b). *Fear of Crime Beyond the Walls: Effects of Gated Communities in Neighbouring Public Spaces : the Case of the Greater Metropolitan Area of Costa Rica* [PhD thesis, UCL]. https://discovery.ucl.ac.uk/id/eprint/10128120/

Beebeejaun, Y. (2017). Gender, urban space, and the right to everyday life. *Journal of Urban Affairs*, *39*(3), 323–334.

Bjornstrom, E. E. S., & Ralston, M. L. (2014). Neighborhood Built Environment, Perceived Danger, and Perceived Social Cohesion. *Environment and Behavior*, *46*(6), 718–744. https://doi.org/10.1177/0013916513503833

Blakely, E. J., & Snyder, M. G. (1997). *Fortress America: Gated Communities in the United*

States. Brookings Institution Press.
Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
Breetzke, G. D., Landman, K., & Cohn, E. G. (2014). Is it safer behind the gates? Crime and gated communities in South Africa. *Journal of Housing and the Built Environment*, *29*(1), 123–139. https://doi.org/10.1007/s10901-013-9362-5
Brunton-Smith, I., & Sturgis, P. (2011). Do Neighborhoods Generate Fear Of Crime? An Empirical Test Using The British Crime Survey. *Criminology (Beverly Hills)*, *49*(2), 331–369. https://doi.org/10.1111/j.1745-9125.2011.00228.x
Burgess, J. (1994). *The politics of trust: Reducing fear of crime in urban parks / Jacquie Burgess*. Comedia.
Busso, M., & Messina, J. (2020). *The Inequality Crisis: Latin America and the Caribbean at the Crossroads*. Inter-American Development Bank. https://publications.iadb.org/publications/english/document/The-Inequality-Crisis-Latin-America-and-the-Caribbean-at-the-Crossroads.pdf
Caldeira, T. P. (1996). Fortified Enclaves: The New Urban Segregation. *Public Culture*, *8*(2), 303–328. https://doi.org/10.1215/08992363-8-2-303
Caldeira, T. P. do R. (2000). *City of walls: Crime, segregation, and citizenship in São Paulo / Teresa P.R. Caldeira.* University of California Press.
Carpiano, R. M. (2009). Come take a walk with me: The "Go-Along" interview as a novel method for studying the implications of place for health and well-being. *Health & Place*, *15*(1), 263–272. https://doi.org/10.1016/j.healthplace.2008.05.003
Castel'Branco, R., & Ricardo da Costa, A. (2024). From maximum urban porosity to city's disaggregation: Evidence from the Portuguese case. *Cities*, *148*, 104836. https://doi.org/10.1016/j.cities.2024.104836
Ceccato, V. (2016). Public Space and the Situational Conditions of Crime and Fear. *International Criminal Justice Review*, *26*(2), 69–79. https://doi.org/10.1177/1057567716639099
Ceccato, V. (2020). The circumstances of crime and fear in public places: A review of theories. In *Crime and Fear in Public Places* (1st ed., Vol. 1, pp. 16–37). Routledge. https://doi.org/10.4324/9780429352775-3
Clarke, R. V. (1983). Situational Crime Prevention: Its Theoretical Basis and Practical Scope. *Crime and Justice (Chicago, Ill.)*, *4*, 225–256. https://doi.org/10.1086/449090
CNPU. (2018). *Política Nacional de Desarrollo Urbano Plan de Acción 2018–2022*. Consejo Nacional de Planificación Urbana. https://www.mivah.go.cr/Biblioteca_Politicas_Politica_y_Plan_Nacional_Desarrollo_Urbano.shtml
Corporación Latinbarómetro. (2020). *Latinobarómetro Análisis de datos*. https://www.latinobarometro.org/lat.jsp
Coy, M. (2006). Gated communities and urban fragmentation in Latin America: The Brazilian experience: Gated communities : an emerging global urban landscape. *GeoJournal*, *66*(1–2), 121–132.
Evans, J., & Jones, P. (2011). The walking interview: Methodology, mobility and place. *Applied Geography (Sevenoaks)*, *31*(2), 849–858. https://doi.org/10.1016/j.apgeog.2010.09.005
Ferraro, K. F., & Grange, R. L. (1987). The Measurement of Fear of Crime. *Sociological Inquiry*, *57*(1), 70–97. https://doi.org/10.1111/j.1475-682X.1987.tb01181.x

Gray, E., Jackson, J., & Farrall, S. (2011). Feelings and Functions in the Fear of Crime: Applying a New Approach to Victimisation Insecurity. *British Journal of Criminology*, *51*(1), 75–94. https://doi.org/10.1093/bjc/azq066

Hale, C. (1996). Fear of Crime: A Review of the Literature. *International Review of Victimology*, *4*(2), 79–150. https://doi.org/10.1177/026975809600400201

Handal, C., & Irazábal, C. (2022). Gating Tegucigalpa, Honduras: The paradoxical effects of 'Safer Barrios'. *Journal of Urban Affairs*, *44*(1), 57–79. https://doi.org/10.1080/07352166.2019.1654894

He, Q., & Li, J. (2022). The roles of built environment and social disadvantage on the geography of property crime. *Cities*, *121*, 103471. https://doi.org/10.1016/j.cities.2021.103471

Helsley, R. W., & Strange, W. C. (1999). Gated Communities and the Economic Geography of Crime. *Journal of Urban Economics*, *46*(1), 80–105. https://doi.org/10.1006/juec.1998.2114

Hirt, S., & Petrovic, M. (2011). The Belgrade Wall: The Proliferation of Gated Housing in the Serbian Capital after Socialism. *International Journal of Urban and Regional Research*, *35*(4), 753–777. https://doi.org/10.1111/j.1468-2427.2011.01056.x

Huhn, S. (2018). Punitive populism and fear of crime in Central America. In *The Routledge International Handbook on Fear of Crime* (1st ed., pp. 388–402). Routledge. https://doi.org/10.4324/9781315651781-27

Jacobs, J. (1961). *The death and life of great American cities / Jane Jacobs.* (50th anniversary edition, Modern Library edition / with a new introduction by Jason Epstein and a foreword by the author.). Modern Library.

Kelling, G., & Wilson, J. (1982, March). *Broken Windows*. https://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465/

Kim, S.-K., & Kang, H.-B. (2018). An analysis of fear of crime using multimodal measurement. *Biomedical Signal Processing and Control*, *41*, 186–197. https://doi.org/10.1016/j.bspc.2017.12.003

Kostenwein, D. (2021). Between walls and fences: How different types of gated communities shape the streets around them. *Urban Studies (Edinburgh, Scotland)*, *58*(16), 3230–3246. https://doi.org/10.1177/0042098020984320

Landman, K. (2012). Reconsidering Crime and Urban Fortification in South Africa. In *The Urban Fabric of Crime and Fear* (pp. 239–264). Springer Netherlands. https://doi.org/10.1007/978-94-007-4210-9_10

Le Goix, R. (2005). Gated Communities: Sprawl and Social Segregation in Southern California. *Housing Studies*, *20*(2), 323–343. https://doi.org/10.1080/02673030342000331808

Lee, M. (2001). The Genesis of `Fear of Crime. *Theoretical Criminology*, *5*(4), 467–485. https://doi.org/10.1177/1362480601005004004

Lemanski, C. (2006). Spaces of Exclusivity or Connection? Linkages between a Gated Community and its Poorer Neighbour in a Cape Town Master Plan Development. *Urban Studies (Edinburgh, Scotland)*, *43*(2), 397–420. https://doi.org/10.1080/00420980500495937

Libertun de Duren, N. (2012). Gated Communities: Global South. In *International Encyclopedia of Housing and Home* (pp. 244–249). Elsevier Ltd. https://doi.org/10.1016/B978-0-08-047163-1.00004-7

Loukaitou-Sideris, A. (2012). Safe on the Move: The Importance of the Built Environment. In *The Urban Fabric of Crime and Fear* (pp. 85–110). Springer Netherlands.

https://doi.org/10.1007/978-94-007-4210-9_4
Loukaitou-Sideris, A., & Fink, C. (2009). Addressing Women's Fear of Victimization in Transportation Settings: A Survey of U.S. Transit Agencies. *Urban Affairs Review (Thousand Oaks, Calif.)*, *44*(4), 554–587. https://doi.org/10.1177/1078087408322874
Low, S. M. (2003). *Behind the gates: Life, security, and the pursuit of happiness in fortress America.* Routledge.
Marshall, S. (2005). *Streets & patterns*. Spon.
Martínez, T., & Ruiz Agüero, K. (2015). *Treinta años de Metamorfosis Urbana Territorial en el Valle Central*. https://repositorio.conare.ac.cr/handle/20.500.12337/618
Mihinjac, M., & Saville, G. (2019). Third-Generation Crime Prevention Through Environmental Design (CPTED). *Social Sciences (Basel)*, *8*(6), 182-. https://doi.org/10.3390/socsci8060182
MIVAH-TEC. (2014). *Plan de la Gran Área Metropolitana Plan GAM 2013-2030.* https://www.mivah.go.cr/Biblioteca_PlanGAM.shtml
Newman, O. (1973). *Defensible space: Crime prevention through urban design / Oscar Newman.* Collier Books.
Palma Campos, C. (2018). *Me puse a jugar de narco: Mujeres, tráfico de drogas y cárcel en Costa Rica*. Editorial UCR.
PEN. (2015). *Informe Estado de la Nación 2015*. Programa Estado Nación. https://estadonacion.or.cr/?informes=informe-2015
PEN. (2018). *Informe Estado de la Nación en desarrollo humano sostenible [2018]*. Programa Estado Nación. https://estadonacion.or.cr/?informes=informe-estado-de-la-nacion-en-desarrollo-humano-sostenible-2018
PEN. (2023). *Informe Estado de la Nación en Desarrollo Humano Sostenible*. Programa Estado de la Nación-CONARE. https://estadonacion.or.cr/informes/
PNUD. (2005). *Venciendo el temor. (In) seguridad ciudadana y desarrollo humano en Costa Rica. Informe Nacional de Desarrollo Humano.* Programa de Naciones Unidas para el Desarrollo. https://www.cr.undp.org/content/costarica/es/home/library/informenacional-desarrollo-humano-2005.html
Pujol M, R., Sanchez H, L., & Perez M, E. (2011). La segregacion social como determinante del desarrollo urbano. Barrios cerrados y autosegregacion en las ciudades de San Jose y Heredia, Costa Rica. *Ciencias económicas (San José)*, *29*(1), 445–477.
Roitman, S. (2010). Gated communities: Definitions, causes and consequences. *Proceedings of the Institution of Civil Engineers. Urban Design and Planning*, *163*(1), 31–38. https://doi.org/10.1680/udap.2010.163.1.31
Roitman, S. (2013). Close but Divided: How Walls, Fences and Barriers Exacerbate Social Differences and Foster Urban Social Group Segregation. *Housing, Theory, and Society*, *30*(2), 156–176. https://doi.org/10.1080/14036096.2012.728150
Roitman, S., & Phelps, N. (2011). Do Gates Negate the City? Gated Communities' Contribution to the Urbanisation of Suburbia in Pilar, Argentina. *Urban Studies (Edinburgh, Scotland)*, *48*(16), 3487–3509. https://doi.org/10.1177/0042098010397395
Sabatini, F., & Salcedo, R. (2007). Gated communities and the poor in Santiago, Chile: Functional and symbolic integration in a context of aggressive capitalist colonization of lower-class areas. *Housing Policy Debate*, *18*(3), 577–606. https://doi.org/10.1080/10511482.2007.9521612
Salcedo, R., & Torres, A. (2004). Gated Communities in Santiago: Wall or Frontier?

International Journal of Urban and Regional Research, *28*(1), 27–44. https://doi.org/10.1111/j.0309-1317.2004.00501.x

Sánchez, L. (2018). *Tendencias y patrones del crecimiento urbano en la GAM, implicaciones sociales, económicas y ambientales y desafíos desde el Ordenamiento territorial*. Estado de La Nación En Desarrollo Humano Sostenible 2018. http://repositorio.conare.ac.cr/handle/20.500.12337/2982

Sandoval García, C. (2015). *No más muros: Exclusión y migración forzada en Centroamérica*. Editorial UCR.

Sennett, R. (2018). *Building and dwelling: Ethics for the city.* Allen Lane.

Snyders, E., & Landman, K. (2018). Perceptions of crime hot-spots and real locations of crime incidents in two South African neighbourhoods. *Security Journal*, *31*(1), 265–284. https://doi.org/10.1057/s41284-017-0099-9

Sypion-Dutkowska, N., Leitner, M., & Dutkowski, M. (2021). Impact of metropolization on the crime structure (case study of provincial capitals in Poland). *Cities*, *119*, 103359. https://doi.org/10.1016/j.cities.2021.103359

Tanulku, B. (2012). Gated communities: From "Self-Sufficient Towns" to "Active Urban Agents". *Geoforum*, *43*(3), 518–528. https://doi.org/10.1016/j.geoforum.2011.11.006

Tanulku, B. (2018). The formation and perception of safety, danger and insecurity inside gated communities: Two cases from Istanbul, Turkey. *Journal of Housing and the Built Environment*, *33*(1), 151–173. https://www.jstor.org.ezproxy.sibdi.ucr.ac.cr:2048/stable/44983705

UNODC. (2021). *Victims of intentional homicide*. United Nations Office on Drugs and Crime. https://dataunodc.un.org/content/data/homicide/homicide-rate

UNODC. (2023). *Global Study on Homicide 2023*. https://www.unodc.org/documents/data-and-analysis/gsh/2023/Global_study_on_homicide_2023_web.pdf

Webster, C., Glasze, G., & Frantz, K. (2002). The Global Spread of Gated Communities. *Environment and Planning. B, Planning & Design.*, *29*(3), 315–320. https://doi.org/10.1068/b12926

Yin, R. K. (2014). *Case study research: Design and methods.* (5th ed.). SAGE.

Title page

Title: More than walls: Fear of crime in neighbourhoods bordering gated communities. The Greater Metropolitan Area of Costa Rica

Author: Karla Barrantes Chaves

Affiliation: Topographical Engineering School, University of Costa Rica.

Postal address: Apartado Postal 11501-2060 San José, Facultad de Ingeniería, Escuela de Ingeniería Topográfica, Universidad de Costa Rica, Montes de Oca, San José, Costa Rica.

Email address:

karla.barrantes@ucr.ac.cr

orcid:

https://orcid.org/0000-0003-1554-6842

Declarations of interest: none

Acknowledges

My sincere thanks to the University of Costa Rica for sponsoring this research, Professor Claudio de Magalhães (UCL) for his feedback on this paper, and Karol Barrantes Chaves for her help with the graphical abstract. My deep gratitude to all participants during the fieldwork and community leaders for their support and commitment.

Funding: This work was supported by the University of Costa Rica.

Grant details: University of Costa Rica's fellowship 'System of benefits for academic improvement abroad for teaching and administrative staff in service'. This award sponsored the author's PhD at University College London (UCL) in the UK, the findings from this paper came from her doctoral thesis.