

# Mexico City's Quarantine Narratives and Underlying Values for Future Urban and Domestic Design

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#### **ABSTRACT**

This paper explores the construction of quarantine narratives as they relate to the design of everyday public spaces and domestic artifacts in Mexico City. The interdisciplinary research studies the government-led health campaign and exposes pre-existing urban design problems further accentuated by the crisis. In parallel, the paper presents an online survey in which photographs and texts of domestic objects are analyzed alongside artistic exhibitions and events that uncover individual needs and aspirations. Finally, the paper identifies a set of collective and distributed values for Mexico City's New Normal to be materialized locally at the urban and product design scale and discusses the potential of narratives as a design tool.

Keywords: design narratives, quarantine design values, interdisciplinary analysis

#### INTRODUCTION

Mexico City's demographic, social and economic contrasts pose serious challenges for controlling the COVID-19 pandemic, and offer fertile ground for the conception of new narratives. What can design learn from quarantine narratives, and what implied values will influence the design disciplines in the near future?

The research methodology begins with the examination of graphic content used to deliver public health slogans, norms and recommendations. Local news stories, labor and transportation statistics, and mapping techniques were employed to crosscheck the official public messaging against real urban conditions. Photographs of personal domestic objects that gained significance at the onset of quarantine and accompanying texts were collected through an online survey and analyzed through the generation of a word cloud and object categories. The study of performance art, artistic work and exhibitions that specifically spotlight domestic objects in their storytelling further inform the interdisciplinary research. The authors conclude that narratives serve as a valuable research tool for conceptualizing design futures.

### 1. COVID-19 PANDEMIC IN MEXICO CITY

Initial cases of COVID-19 appeared in Mexico towards the end of February 2020 (Gobierno de México, 2020). The Secretary of Health officially decreed quarantine measures a month later closing down all non-essential services (Gobierno de México, 2020). With more than

21,581,000 inhabitants, Mexico City ranks as the fifth most populated city in the world (United Nations, 2019). The city's vulnerability to the pandemic, however, is not only due to its size but a combination of cultural, economic and urban design factors that pose serious challenges for effectively carrying out safety measures.

According to Mexico's National Institute of Geography and Statistics, more than half of workers in Mexico City belong to the informal sector and labor in precarious conditions (INEGI, 2015). Peer-to-peer informal businesses and services include small street shops, street markets and street vendors. In other words, a significant portion of economic activity takes place in public space and hinges on physical contact and proximity. This high-risk sector of the population lives on a day-to-day basis, with no social security or safety net and no option to work from home.

Not only does the public nature of this population's workplace pose a threat, but also the congested mode and long hours spent commuting in public transportation. Mexico City is one of the top most congested cities in the world according to the TomTom Traffic Index. The congestion level for 2019 was calculated at 52%, which translated in 195 extra hours spent in traffic per year (TomTom, 2020). Centrally concentrated places of employment draw workers living in the periphery or in the neighboring state. The periphery-center mobility pattern reflects an uneven distribution of affordable housing near places employment (Fig. 1). Extensive daily commutes to and from the city, translate into an average travel time of 2-6 hours daily in overcrowded subways, buses, and *peseros* (collective taxis).

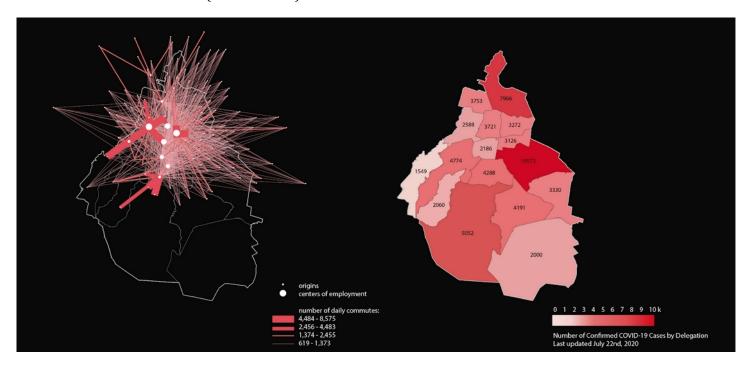


Figure 1. Left: Mexico City workers' daily commute. (González, 2018) Right: Number of Confirmed Covid-19 Cases by District. (Gobierno de la Ciudad de México, 2020)

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The family-oriented and traditional nature that characterizes Mexican culture adds another layer of complexity to managing the pandemic. For example, regardless of the health emergency and strict government issued stay-at-home orders, several Mexico City residents left home to buy flowers and presents on Mother's Day. To avoid the agglomeration of crowds and another peak of infections, authorities shut down one of the largest flower markets, *Mercado de Jamaica*, days leading up to May 10<sup>th</sup>. The strategy notably backfired

given the rush to slash prices to sell all merchandise, which only attracted more crowds in the days leading up to the shutdown (Gómez, L. 2020). When assessing risk and benefit, a pressing need for economic survival as well as social, religious and cultural expectations largely factor in as reasons for interrupting quarantine.

## 2. MEXICO CITY'S NEW NORMAL AND THE QUARANTINE MODULOR

The Mexican government's spokeswoman for social distancing, a female superhero clad in pink spandex with arms stretched out, popularizes safety measures through media outlets. "Susana Distancia," a play on words meaning "your safe distance," combats the invisible enemy by modeling responsible conduct in public spaces. Her super power? When she extends her arms, a 1.5 meter diameter bubble magically appears that keeps coronavirus away, a super power any citizen can tap into.

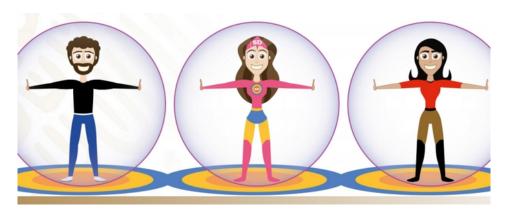


Figure 2. Susana Distancia. (Gobierno de México, Secretaría de Salud,2020)

Susana Distancia, however, is more than an effective communication tool, she is the new measure of all things. Leonardo da Vinci's Vitruvian Man transmitted the principles of order and proportion, values that strongly shaped Renaissance design and its materialization. Centuries later, Le Corbusier's Modulor, a man with an arm raised to measure 2.20m, reconciled standardized dimensions and a bold modernist vision. In the history of design, the reinvention of the "ideal body" has played a fundamental role in imagining new models of living that are submitted to material constraints (Picon, 2020). In the age of coronavirus, health constraints are reshaping our interaction with our material world and our design values.

On June 1st Mexico City's government devised a gradual plan towards a *nueva normalidad* (new normal) following its own "traffic light" system in which red signals maximum quarantine measures. As a part of this strategy a graphic campaign was designed with guidelines for different public spaces, such as the *tianguis*, an open street market where vendors sell produce, grains, clothing and other items. Immediately following the reopening of the city center's shops and tianguis, an overflow of visitors poured onto the streets with a large disregard for safety measures prompting new closures (González, 2020). In the photographs capturing a day in Mercado de Jamaica, the new normal looks quite similar to the old: the eerie affinities disrupted by a cloud of face masks. A closer analysis of existing architectural typologies and urban design reveals stark contradictions between what officials decree as safe and what is physically possible.





Figure 3. Left: typical day in Mercado Jamaica (IMER Noticias,2020). Right: a Sunday in nueva normalidad in Mercado Jamaica (Severiano, 2020).

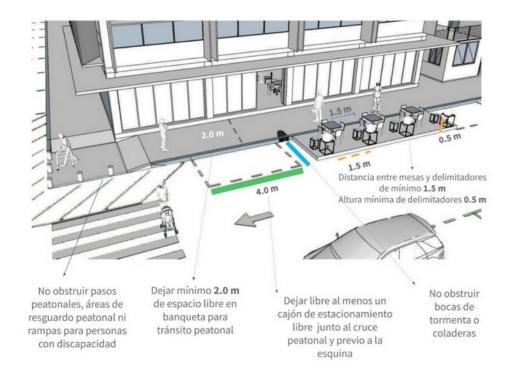


Figure 4. Street corner illustration for restaurant social distancing guidelines. (Gobierno de México, Secretaría de Movilidad, 2020)

As part of the strategy for reopening restaurants, local government issued a set of guidelines permitting restaurants to operate in public sidewalks and parks in order to increase capacity from 30% to 40% (Secretaría de Movilidad, 2020). The illustration used to outline the rules for safely spacing furniture outside depicts a bird's eye view of a fully accessible street corner, complete with a 2m wide sidewalk and a clearly marked crosswalk (see Fig. 4). This game board only exists in a few major avenues of the richest neighborhoods of Mexico City, excluding the majority of restaurant owners from playing by the rules. Furthermore, to officially condone the invasion of public space is ironic given that the regular informal occupation of streets, sidewalks and parks for private economic gain is already standard practice in Mexico City.

For example, streets leading up to the largest wholesale market for produce in Mexico and in the world, *Central de Abastos* (CEDA), either do not have an accessible width to maintain social distancing or are intermittently interrupted by physical barriers ranging in their degree of permanence including construction, light posts, trees, planters, tarps, parked cars or even arcade machines (see Fig. 5). Located in the delegation of Iztapalapa, one of the poorest delegations in Mexico City (CONEVAL, 2015), CEDA already has reported more than

500 COVID-19 cases (Argüelles, 2020). Considering the lack of accessible urban design and basic services such as running water for carrying out the simple task of washing one's hands, it is no surprise that Iztapalapa is a hotbed among delegations for coronavirus, leading the charts with more than 25,952 confirmed coronavirus cases and 2,255 deaths as of November 2020 (UNAM, 2020) (Fig. 1).

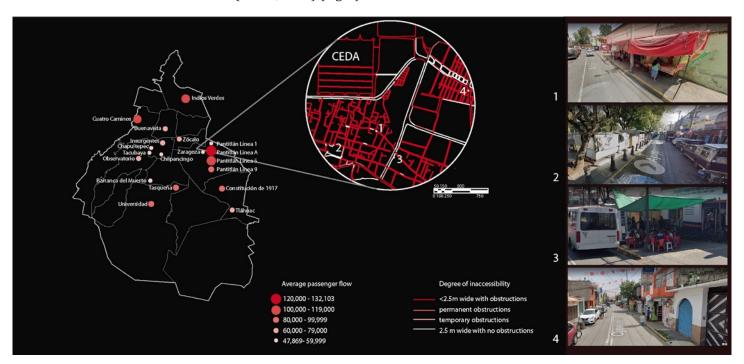


Figure 5. Left: Quarterly average passenger influx April-July 2019 in the busiest Mexico City metro stations. (Gobierno de la Ciudad de México Metro, 2019) Right: The obstruction of public sidewalks leading to the Central de Abastos. (Google Earth Images, 2020)

The inaccessibility of the streetscape is an extension of the high-contact and hostile nature of the public transportation system. As part of the new safety measures in the metro systems, authorities demand users to use facemasks, keep safe distancing, and refrain from talking (Ramírez, 2020). The compressed spaces and excessive amount of users generate crowded funnels that forcefully interrupt safe distancing. Furthermore, the most frequented metro stations in Mexico City physically coincide in most cases with the most marginalized delegations (Fig. 5). Similar to the informal commerce variable, delegations whose higher dependence on public transportation and time spent in these modes of transport present higher contagion rates (Merodio and Ramírez, 2020).



Figure 6. Users of the metro system in Mexico City on June 1st 2020 (Castillo, 2020). Right: Sign instructing passengers to avoid talking (García, 2020).

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The grave disconnect between what health authorities demand of the public and what is spatially possible in places of work, leisure and transportation in the public sphere

underscore the fragility and overwhelming deficiencies of existing urban and architectural design models in Mexico City. Prevalent inaccessibility, inequitable distributions of services, and the ambiguous definition of public space in spite of the overwhelming reliance on it for economic survival, reflect design structures on the brink of collapse. The same design principles that historically participated in the marginalization of populations, now present life-threatening health hazards to the most vulnerable.

In early July, the Secretary of Health introduced Susana Distancia's "health squad," one for each traffic-light phase of the pandemic modeled after women minorities: an elderly woman, a woman with a disability, an indigenous woman, a queer woman (Proceso, 2020). The superheroes sport their own color costumes and accessories and each one informs the public of the strategies for fighting off the specific perils associated with their phase. Susana Distancia and her allies reflect a clear push towards social inclusion, accessibility and tolerance and a much needed change in the cultural understanding of what strength and courage look like in a country deeply plagued by femicides and machismo. In response to such an ambitious agenda, resilient design typologies must materialize at every scale to support and reflect shifting cultural values.

#### 3. ESSENTIAL DOMESTIC OBJECTS AND DISTRIBUTED VALUES

Home, a place where one can comfortably leave the superhero costume and face mask at the door, has become the designated "safe haven" by the government stay-at-home order *quédate en casa*, (Fig. 7) first instituted on March 23<sup>rd</sup>. According to a national newspaper survey, the number of people staying at home dropped from 71 to 64% between April and June (Moreno, 2020). For those who can afford to stay at home, the long ongoing quarantine has created opportunities for creative interactions with domestic spaces and objects.



Figure 7. Stay at home government ad. (Gobierno de México, Secretaría de Salud, 2020)

In the Mikhailovsky Theatre dancers video (Hosie, 2020) gone viral at the onset of worldwide quarantine, a ballerina floats across the room in arabesque, gracefully stirring her cooking pot before gently placing it on the dining table; another dancer playfully bourres around a cutting knife, fanning herself with a large dinner plate. The body's masterful engagement with kitchen utensils beautifully captures the underlying paradox of quarantine: a surprising newfound imaginative freedom afforded by a state of confinement. In Mexico City, ingenuity extends to the spatial dimension, and no domestic territory is left unexplored. In *sueños de azotea* (rooftop dreams), an artistic performance created by Tránsito Cinco Artes Escénicas, artists defy gravity with circus acts while performing quotidian activities such as hanging laundry out to dry: "In that (rooftop) ambiance of ropes, knots, bed sheets,

pipes, antennas and wash basins, different actors escape confinement with their creativity" (Palapa, 2020). The theatrical narratives invite an audience to view these domestic objects and spaces with fresh eyes.

Perhaps less elegantly yet in an equally inventive way, common people are heroically engaging with the material and spatial limitations of quarantine. The home doubling as office, daycare, gym, and classroom breeds uncomfortable overlaps and frictions that lead to a redefinition of our relationship with our domestic universe. These intense juggling acts strip away preconceived affordances and reveal the essential qualities that have us clinging to certain objects.



Figure 8. Left: Pandemic Lotería submitted for Design in Quarantine. (Gonzales, 2020)

According to Mexico City residents, which key artifacts are essential in quarantine? To gather insights the authors launched an online survey during the last week of June and first two weeks of July 2020, in which Mexico City transitioned from a "red phase" of maximum alert, to an "orange phase." The survey asked Mexico City residents to upload a picture of an object that had become significant to them during quarantine and include a small text explaining their meaning. The survey collected 119 replies from respondents ranging from 19-78 years of age.

Results are analyzed by generating a word cloud in which words are scaled depending on its rate of recurrence. *Trabajar* (work) is the word used most often, followed by *me\_ayuda* (helps me), *familia* (family), *tiempo* (time), *contacto* (contact), *día* (day) and *nuevo* (new), among others. The word *trabajar* is employed for reporting the usefulness of an object in relation to maintaining a job and an income. The word *me\_ayuda* describes objects seen as helpers, as comforting elements, or as a way to help achieve something. The words *tiempo* and *día* signal a heightened sensitivity towards the passing of time, and the construction of a habit or ritual. *Contacto* is used for objects that permit communication with loved ones, that draw one closer to nature or to note prolonged physical contact with the object itself. The word *nuevo* describes new pastimes, carving out new spaces for productivity, new modes of working or staying in touch. Descriptions range from objectively stating needs the chosen object satisfies to thoughtfully sharing a discovered appreciation or affection for the object.



Figure 9. Word cloud generated with texts of the respondents

Domestic objects or artifacts have been studied and categorized before, a methodology that leads to understanding the affective properties of objects. In "the power of things" (1990) and "Fieldwork in the living room: an autoethnographic essay" (1994), Riggins classified domestic artifacts based on the categories of symbols in Goffman's theory (1959). Some categories Riggins proposed were esteem objects, occupational objects, alien use objects, social facilitators and time indicators. Another example of categorization used was that of agency and mode, to distinguish between an active and passive use of objects: objects to be handled or objects to be contemplated. In design, the topic has been studied by product semantics (Krippendorff and Butter, 1984; Krippendorf, 2006), emotional design, (Norman, 2004) design for positive emotions (Desmet, 2012), design for pleasant experiences with products (Ortíz Nicolás, 2014), positive design (Desmet and Pohlmeyer, 2013), product attachment (Mugge, 2007) and slow design (Strauss and Fuad-Luke, 2008; Grosse-Hering et al, 2013). Desmet (2012) used a survey where product images were included to categorize products based on the emotions they evoke. The categories he proposed were the following: object-focus (emotion provoked by a product's appearance, including taste, tactile quality, sound, and fragrance), meaning-focus (association of a product with a person, event, or a product symbolizing values or beliefs), interaction-focus (products to fulfill a need or achieve a goal), activity-focus (products that enable or facilitate an activity), self-focus (products used as a social identity, self-identity) and other-focus (interactions facilitated or influenced with other people by products). Whereas previous authors have created their own classification of domestic products to guide designers in identifying target emotions in their design process, local context must be considered.

In a worldwide pandemic, it is easy to generalize the stay-at-home experience; affective relationships with objects, however, are nuanced and specific to urban settings, individuals and their personal narratives. These relationships are especially fluid in these unstable times as new routines emerge and our use of domestic objects intensify. The analysis of the uploaded images, therefore, beseech a categorization based on the descriptions to understand new patterns. Some categories are based on exact words used by respondents, while other categories are created by deduction from the comments. Many objects fit in two or more categories depending on the text submitted.

The chosen categories are: contact (mostly laptops, tablets and phones to stay in touch with others, the outside world and for working); escape (natural objects such as a hanging plantframe or potted plants, comfortable objects such as a lounge chair or recliner and artifacts used for distraction such as a video game console); comfort (objects that appeal to the senses like a scented candle, a wine glass, coffee or tea cup; remembrance (items like a cross or baby footprint); (re)commence (objects associated with starting a new activity or taking up an old pastime, such as a crochet needle and ball of yarn, a cooking stove, a telescope, an easel for painting, a guitar or a pencil and paper); perform (objects connected to work and productivity such as a blackboard for planning, post-its, headphones to concentrate); ritualize (objects that are mentioned in connection with a time of day and a ritual, like a coffee cup that ensures a "happy morning" or a metal cone for pour over coffee in which time is dedicated to its preparation) and aid (helpful objects that accompany the person every day, like sandals or books, and objects that assist in staying healthy like a face mask or a bike to move around without risking contagion).

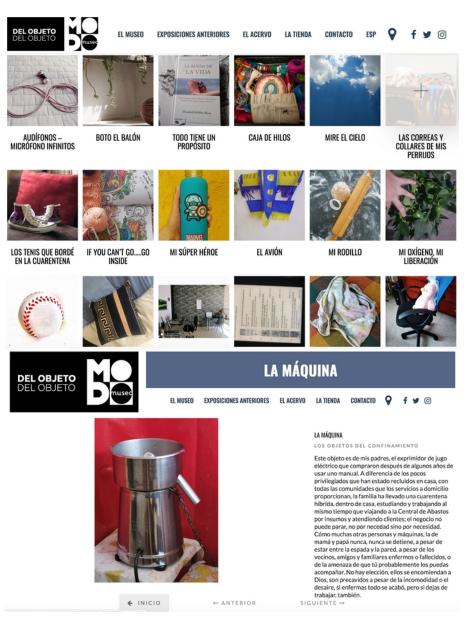


Figure 10. Object images uploaded by respondents and corresponding categories.

The findings and object categorization can contribute to previously mentioned design research on affective properties of objects and product attachment in connection with the "domestic new normal". Studying the characteristics of the objects chosen can be helpful to understand the essential characteristics for coping and thriving. For the participants of our study, these objects have gained new emotional meaning and value, and the analysis of the

responses offer weak signals of changes in home living that will have to be considered by the design disciplines.

In parallel to the research presented here, an initiative by the *Museo del Objeto del Objeto* (MODO) in Mexico City, called *Los Objetos del Confinamiento* (Objects of Confinement), asked the public to upload objects to their webpage with a story. The personal reflections offer perspectives into the dreams, joys and challenges of individual households and reveal how old objects are imbued with rich new meaning. A *papalote* (traditional Mexican kite) transports one author back to a sunny day in her childhood hometown and fills her with hope of one day flying the kite again with family. An electric juicer is a symbol of the family's business and the pressing need to leave home daily to keep the family business afloat: "There is no choice...if you get sick, it's over, but if you stop working, it's also over." For another author, a pair of slippers acts as two trusted companions, faithfully present while he eats, does house chores, kills insects, assists video conferences, drinks whiskey, dances and goes to bed. Finally, a woman describes her ritual of making lemonade and being deeply moved by the news of rising cases of domestic violence on the radio; the lemon squeezer serves as a reminder that home is not a "safe haven" for everyone<sup>1</sup>.



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Figure 11. Above: Online exhibition curated by the *Museo del Objeto del Objeto* (MODO) entitled *Los Objetos del Confinamiento*. Below: Example of object and story exhibited (MODO, 2020).

#### 4. CONTEXTUALIZING DESIGN VALUES

Through the study of COVID-19 narratives generated in Mexico City a new set of instrumental values surface for driving future design in the public and private domains. In relation to public space, the authors identify an overarching narrative crafted by the government that tasks individuals to act "heroically" by practicing safe distancing and staying at home. Existing urban design coupled with the economic and cultural context, however, render this new normal a fantasy at best for the most vulnerable populations. The narrative's incompatibility with reality underscores a dire need for new design values to be implemented at the urban scale. The collection of personal narratives reflect a transformation and/or intensification of use and meaning assigned to ordinary domestic objects. They also uncover parallel realities, some of which contradict the government's vision or instructions: home is not safe for everyone, and not everyone can work from home. Nuanced perceptions, needs, worries, and struggles reveal personal conflicts that can signal the emergence of new design values.

The following table summarizes the design values identified in the research of the top-down and bottom-up narratives. Each row represents a category or type of value instrumental in the present and near future: the left column lists design values relating to urban space and the right column proposes principles relating to a domestic context within that specific category.

Table 1: Mexico City design values for quarantine and the new normal

	URBAN	DOMESTIC
Accesibility	Physically accessible	Digitally accessible
Interaction	Inclusive	Mediating
Centralization	Decentralized	Centralized
Productivity	Productive in the exchange of goods a services	and Productive in the exchange of information
Perception	Visual and low-contact	Highly sensorial
Circulation	Highly choreographed	Spatially overlapped
Rituals	Conducive to safe health rituals	Conducive to meaningful personal rituals
Collective vs. individual	Supportive of collective cooperation	Supportive of individual expression

Urban space must be physically accessible, inclusive, decentralized, productive in the exchange of goods and services, visual, low-contact, highly choreographed, conducive to safe health rituals and supportive of collective cooperation. Designing with these principles in mind can help ensure a better environment for controlling the pandemic while allowing the informal sector to generate an income. The authors believe that the design of public spaces in Mexico City that properly safeguard the health of a growing informal sector while securing their productivity is paramount.

On the other hand, the domestic realm has acquired new meaning for those who can work from home. The home doubling as office, school, gym, etc., depends on efficient communication with the outside world and an intense interaction between household members. Therefore, domestic environments should be digitally accessible, mediating, centralized, productive in the exchange of information, highly sensorial, spatially overlapped, conducive to meaningful personal rituals and supportive of individual expression. For

architects, product and service designers, this means a new way of conceptualizing the home in order to diffuse tensions and compromise between so many conflicting needs.

Furthermore, if new design models emerge in the domestic space and prove resilient postquarantine, they can have positive repercussions in the urban sphere and vice versa. For example, the home office and the decentralization of urban activities could help mitigate some of the major traffic problems and long commutes that Mexico City has faced during the last decades as discussed in the first section of this article. Less time spent in traffic translates to more time spent on meaningful personal activities at home. The shift in the strong emphasis on mobility towards recreational uses of public space could lead to more investment in public parks, bike routes and pedestrian friendly projects.

Although this research was carried out at the macro and micro scales, the conclusions highlight the strong interdependence between both worlds. The neat separation between spatially distributed functions has collapsed, and design disciplines can no longer afford to work in isolation. Spaces and products must inform and complement one another to bring about coherent design strategies that negotiate the collective and individual in a post COVID world. The role of the designer is to imagine future worlds, a process that necessitates the use of new analysis tools that lead to a holistic understanding of how our urban and domestic worlds are intimately intertwined.

Given that the aim of this paper is to create a highly contextualized framework for informing future design in Mexico City, the design values that were identified cannot be generalized and applied to other cities. Following steps for this research should consider expanding the range of design disciplines and applying the methodology to other metropolises. Follow-up research should study whether the proposed values persist even after quarantine measures are lifted. This paper contributes to ongoing research on how design can learn from the construction of narratives during crises in urban settings.

#### **ENDNOTES**

<sup>1</sup> The number of calls reporting domestic violence during the month of March 2020 increased 70% in comparison with March 2019 (Consejo Ciudadano para la Seguridad y Justicia de la Ciudad de México, 2020).

## **REFERENCES**

Alvarado, Rocío (2020, May 31). La Ceda será desinfectada todos los días. (The Ceda will be disinfected every day) *La Jornada*. Retrieved July 1, 2020 from <a href="https://www.jornada.com.mx/2020/05/31/capital/029n2cap">https://www.jornada.com.mx/2020/05/31/capital/029n2cap</a>

Argüelles, Efrén (2020, June 6). Central de Abasto suma medio millar de contagios por Covid-19 (Central de Abasto adds half a thousand infections by Covid-19). *Excelsior*. Retrieved July 1, 2020 from <a href="https://www.excelsior.com.mx/comunidad/central-de-abasto-suma-medio-millar-de-contagios-por-covid-19/1388560">https://www.excelsior.com.mx/comunidad/central-de-abasto-suma-medio-millar-de-contagios-por-covid-19/1388560</a>

Castillo, L. (2020). Afluencia de usuarios del metro de la Ciudad de México durante la emergencia sanitaria por Covid-19, el 1 de junio de 2020. (flow of users of the Mexico City metro during the Covid-19 health emergency, on June 1, 2020) [Photograph]. La Jornada. <a href="https://www.jornada.com.mx/ultimas/capital/2020/06/01/olvidan-usuarios-del-metro-y-metrobus-aplicar-medidas-sanitarias-5103.html">https://www.jornada.com.mx/ultimas/capital/2020/06/01/olvidan-usuarios-del-metro-y-metrobus-aplicar-medidas-sanitarias-5103.html</a>

CDMX en transición a la "nueva normalidad" (CDMX in transition to the "new normal"). La Jornada. (2020, june 14). .Retrieved july 10, 2020, from <a href="https://www.jornada.com.mx/ultimas/2020/06/14/cdmx-en-transicion-a-la-201cnueva-normalidad201d">https://www.jornada.com.mx/ultimas/2020/06/14/cdmx-en-transicion-a-la-201cnueva-normalidad201d</a>

- Entidades federativas. POBREZA A NIVEL MUNICIPIO 2015: Ciudad de México. (Federal entities. POVERTY AT THE MUNICIPAL LEVEL 2015: Mexico City.). CONEVAL (2015). Retrieved July 1, 2020, from <a href="https://www.coneval.org.mx/coordinacion/entidades/DistritoFederal/Paginas/pobreza\_municipal2015.aspx">https://www.coneval.org.mx/coordinacion/entidades/DistritoFederal/Paginas/pobreza\_municipal2015.aspx</a>
- Con más de 32 mil muertes en México, presentan al Escuadrón de la Salud. Proceso. (With more than 32 thousand deaths in Mexico, they present the Health Squad. Process.) (2020, June 7). Retrieved July 1, 2020 from <a href="https://www.proceso.com.mx/637342/con-mas-de-32-mil-muertes-en-mexico-presentan-al-escuadron-de-la-salud">https://www.proceso.com.mx/637342/con-mas-de-32-mil-muertes-en-mexico-presentan-al-escuadron-de-la-salud</a>
- Consejo Ciudadano para la Seguridad Ciudadana y Procuración de Justicia de la Ciudad de México (Citizen Council for Citizen Security and Law Enforcement of Mexico City)(2020) Violencia Familiar.

  Retrieved November 20th, 2020 from <a href="https://www.consejociudadanomx.org/media/attachments/2020/04/08/violencia-familiar abril.pdf">https://www.consejociudadanomx.org/media/attachments/2020/04/08/violencia-familiar abril.pdf</a>
- Corona, S. (2020, may 11), Cierran 38 mercados públicos ante Covid en la CDMX. El Universal.(38 public markets close to Covid in CDMX. The universal.) Retrieved may 10,2020, from <a href="https://www.eluniversal.com.mx/metropoli/cdmx/coronavirus-cierran-38-mercados-publicos-ante-covid-19-en-la-cdmx">https://www.eluniversal.com.mx/metropoli/cdmx/coronavirus-cierran-38-mercados-publicos-ante-covid-19-en-la-cdmx</a>
- Desmet, P. M. A. (2012). Faces of product pleasure: 25 positive emotions in human-product interactions. *International Journal of Design*, 6(2), 1-29. Available at: <a href="http://www.ijdesign.org/index.php/IJDesign/article/view/1190">http://www.ijdesign.org/index.php/IJDesign/article/view/1190</a>
- Desmet, P. M. A., and Pohlmeyer, A. E. (2013). Positive design: An introduction to design for subjective well-being. *International Journal of Design* 7, 5–19. Available at:

  <a href="https://repository.tudelft.nl/islandora/object/uuid%3A06ec60ac-0363-43ea-9ccd-8426ef0d6b64">https://repository.tudelft.nl/islandora/object/uuid%3A06ec60ac-0363-43ea-9ccd-8426ef0d6b64</a>
- García, C. (2020). En casi un mes, hubo mil 604 casos de covid-19 en Central de Abasto de CdMx (In almost a month, there were 1,604 cases of covid-19 in Central de Abasto de CdMx.). Retrieved November 20, 2020 from <a href="https://www.milenio.com/politica/comunidad/coronavirus-cdmx-central-abasto-mil-064-casos-mes">https://www.milenio.com/politica/comunidad/coronavirus-cdmx-central-abasto-mil-064-casos-mes</a>
- García, R. (2020). Ciudad de México. Un trabajador del Sistema de Transporte Colectivo del Metro muestra un cartel de la nueva campaña llamada "Callados prevenimos el contagio", como parte de las actividades de concientización sobre Covid-19 durante la primera semana de la "nueva normalidad", en la estación Hidalgo de la Línea 2 (Mexico City. A worker from the Metro Collective Transportation System shows a poster of the new campaign called "Quiet we prevent contagion", as part of the awareness activities about Covid-19 during the first week of the "new normal", at the Hidalgo station of Line 2). [Photograph]. La Jornada. <a href="https://www.jornada.com.mx/ultimas/2020/06/03/el-dia-en-imagenes-2">https://www.jornada.com.mx/ultimas/2020/06/03/el-dia-en-imagenes-2</a>
- Gibson, J. (1966). The Senses Considered as Perceptual Systems. London: Allen and Unwin
- Gobierno de la Ciudad de México (2019). Estaciones de mayor afluencia 2019, Abril a Junio (Busiest stations 2019, April to June). Retrieved July 15, 2020 from <a href="https://metro.cdmx.gob.mx/mayor-afluencia-2019">https://metro.cdmx.gob.mx/mayor-afluencia-2019</a>
- Gobierno de la Ciudad de México (2020) *Datos de todos los casos asociados al COVID-19 en Ciudad de México* (Data on all cases associated with COVID-19 in Mexico City.). Retrieved July 10, 2020 from <a href="https://datos.cdmx.gob.mx/pages/covid19/">https://datos.cdmx.gob.mx/pages/covid19/</a>
- Gobierno de México, Secretaría de Salud (2020, March 31). *Medidas de seguridad sanitaria* (Sanitary security measures.). Retrieved May 10, 2020, from <a href="https://www.gob.mx/salud/prensa/098-medidas-de-seguridad-sanitaria?idiom=es">https://www.gob.mx/salud/prensa/098-medidas-de-seguridad-sanitaria?idiom=es</a>
- Gobierno de México, Secretaría de Salud (2020, March 11). Conferencia 11 de marzo. Comunicado Técnico Diario | Información internacional y nacional sobre nuevo coronavirus con corte al 11 de marzo de 2020. (Conference March 11. Daily Technical Release | International and national information on new coronavirus with cut to March 11, 2020) Retreived May 10, 2020, from <a href="https://coronavirus.gob.mx/2020/03/11/conferencia-11-de-marzo/">https://coronavirus.gob.mx/2020/03/11/conferencia-11-de-marzo/</a>
- Gobierno de México, Secretaría de Salud (2020). Quédate en casa. (Stay at home.) [Online image]. https://coronavirus.gob.mx/quedate-en-casa/
- Gobierno de México, Secretaría de Salud (2020). Susana Distancia. (Susana Distance.) [Online image]. <a href="https://politica.expansion.mx/mexico/2020/03/21/susana-distancia-heroina-gobierno-combatir-al-covid-19">https://politica.expansion.mx/mexico/2020/03/21/susana-distancia-heroina-gobierno-combatir-al-covid-19</a>
- Goffman, E. (1959). Presentation of self in everyday life. Garden City, NY: Double Day Anchor Books
- Gomez, L. (2020, May 11) Cientos dejaron la cuarentena para festejar a las madres (Hundreds left the quarantine to celebrate the mothers' day.). *La Jornada*. Retrieved July 10, 2020, from <a href="https://www.jornada.com.mx/ultimas/capital/2020/05/11/cientos-dejaron-la-cuarentena-parafestejar-a-las-madres-6201.html">https://www.jornada.com.mx/ultimas/capital/2020/05/11/cientos-dejaron-la-cuarentena-parafestejar-a-las-madres-6201.html</a>
- González, J. (2018, May 8). Origen y Destino de los trabajadores en la Ciudad de México (Origin and Destination of the workers in Mexico City.). Nexos. Retrieved July 1, 2020, from <a href="https://labrujula.nexos.com.mx/?p=1837">https://labrujula.nexos.com.mx/?p=1837</a>

- González, R. (2020, July 8). Aplazan apertura del Centro Histórico; desacatan medidas sanitarias. (Opening of the Historic Center postponed; they disregard sanitary measures.). *La Jornada* Retrieved July 10, 2020, from <a href="https://www.jornada.com.mx/ultimas/capital/2020/07/03/cerraran-el-centro-historico-pornegocios-que-incumplen-medidas-1736.html">https://www.jornada.com.mx/ultimas/capital/2020/07/03/cerraran-el-centro-historico-pornegocios-que-incumplen-medidas-1736.html</a>
- González, R. (2020) Pandemic Lotería (Pandemic Lottery.). [Online image]Design in Quarantine. https://designinquarantine.com/247-Pandemic-Loteria
- Grosse-Hering, B., Mason, J., Aliakseyeu, D., Bakker, C.A. & Desmet, P. (2013). Slow Design for meaningful interactions. Conference on Human Factors in Computing Systems - Proceedings. 3431-3440. doi: 10.1145/2470654.2466472.
- Hosie, R. (2020, april 9) Russian ballet dancers are posting hilarious videos of themselves dancing with kitchen items at home. Insider. Retrieved july 10, 2020, from <a href="https://www.insider.com/russian-ballet-dancers-post-video-dancing-kitchen-items-2020-4">https://www.insider.com/russian-ballet-dancers-post-video-dancing-kitchen-items-2020-4</a>
- INEGI (2015). Estadísticas a propósito del día internacional del trabajador doméstico (Statistics on the international day of domestic workers) (22 de julio). Retrieved 10 June, 2020 from <a href="https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2015/domestico0.pdf">https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2015/domestico0.pdf</a>
- Krippendorff, K. and Butter, R. (1984) Product Semantics: Exploring the Symbolic Qualities of Form. Innovation 3, 2(1984) 4-9 Retrieved from <a href="http://repository.upenn.edu/asc\_papers/40">http://repository.upenn.edu/asc\_papers/40</a>
- Krippendorff, K. (2006). The Semantic Turn; A New Foundation for Design. London, New York: Taylor & Francis CRC Press.
- Merodio, P., Ramírez. A .(2020, June 20) La vulnerabilidad ante COVID-19 depende de la localización. (Vulnerability to COVID-19 depends on location.) *Nexos.* Retrieved July 1, 2020 from <a href="https://labrujula.nexos.com.mx/?p=2886">https://labrujula.nexos.com.mx/?p=2886</a>
- IMER Noticias. (2020). Mercado de Jamaica, lleno de clientes y ofertas antes del cierre (Jamaica market, full of customers and deals before closing.). [Online image]IMER Noticias. <a href="http://noticias.imer.mx/blog/mercado-de-jamaica-lleno-de-clientes-y-ofertas-antes-del-cierre/">http://noticias.imer.mx/blog/mercado-de-jamaica-lleno-de-clientes-y-ofertas-antes-del-cierre/</a>
- Moreno, A. (2020, June 10). A 'Susana Distancia' no le gusta esto: pasan de 28 a 35% los capitalinos que rompen el aislamiento. ('Susana Distancia' does not like this: from 28% to 35% the capital citizens who break the isolation.) Retrieved July 1, 2020 from <a href="https://www.elfinanciero.com.mx/nacional/a-susana-distancia-no-le-gusta-esto-pasan-de-28-a-35-los-capitalinos-que-rompen-el-aislamiento">https://www.elfinanciero.com.mx/nacional/a-susana-distancia-no-le-gusta-esto-pasan-de-28-a-35-los-capitalinos-que-rompen-el-aislamiento</a>
- Mugge, R. (2007). Product Attachment. PhD Thesis. The Netherlands: Delft University of Technology. Retrieved 10 May, 2020 from <a href="https://repository.tudelft.nl/islandora/object/uuid:0a7cef79-cb04-4344-abb1-cff24e3c3a78?collection=research">https://repository.tudelft.nl/islandora/object/uuid:0a7cef79-cb04-4344-abb1-cff24e3c3a78?collection=research</a>
- MODO Museo del Objeto (2020) Los objetos del confinamiento. (The objects of confinement) Retrieved July 18, 2020, from <a href="https://www.elmodo.mx/los-objetos-del-confinamiento/">https://www.elmodo.mx/los-objetos-del-confinamiento/</a>
- MODO Museo del Objeto (2020) La máquina. (the machine) [Photograph]. https://www.elmodo.mx/portfolios/la-maquina/
- Norman, D., (1988). The Design of Everyday Things. New York: Basic Books
- Norman, D., (2004), Emotional Design. New York: Basic Books
- Ortíz Nicolás, J.C. (2014). *Understanding and designing pleasant experiences with products*. PhD dissertation, Imperial College London. 10 May, 2020 from <a href="https://spiral.imperial.ac.uk/handle/10044/1/24739">https://spiral.imperial.ac.uk/handle/10044/1/24739</a>
- Palapa, F. (2020, July 9) *Tránsito Cinco presenta 'Sueños de azotea', circo para huir del encierro* (Transit Five presents 'Sueños de azotea', a circus to escape the confinement.). La Jornada. Retrieved July 10, 2020, from <a href="https://www.jornada.com.mx/ultimas/cultura/2020/07/09/transito-cinco-presenta-suenos-de-azotea-circo-para-huir-del-encierro-5096.html">https://www.jornada.com.mx/ultimas/cultura/2020/07/09/transito-cinco-presenta-suenos-de-azotea-circo-para-huir-del-encierro-5096.html</a>
- Picon, A. [Digital Futures World]. (2020, July 1). *DigitalFUTURES: Intelligence DAY 05. Design Intelligence and the materiality of architecture* [Video file]. Retreived from <a href="https://youtu.be/LnY3P32sw48">https://youtu.be/LnY3P32sw48</a>
- Ramírez, B. (2020, May 31) *Aplicarán medidas de "nueva normalidad" en restaurantes CDMX* (They will apply "new normal" measures in CDMX restaurants.). Retrieved June 10, 2020 from <a href="https://www.jornada.com.mx/ultimas/capital/2020/05/31/aplican-medidas-de-201cnueva-normalidad201d-en-re">https://www.jornada.com.mx/ultimas/capital/2020/05/31/aplican-medidas-de-201cnueva-normalidad201d-en-re</a>
- Ramírez, B. (2020, June 1). Incumplen usuarios del Metro y Metrobús medidas sanitarias. (Metro and Metrobús users fail to comply with sanitary measures.) *La Jornada*. Retreived June 10, 2020 from <a href="https://www.jornada.com.mx/ultimas/capital/2020/06/01/olvidan-usuarios-del-metro-y-metrobus-aplicar-medidas-sanitarias-5103.html">https://www.jornada.com.mx/ultimas/capital/2020/06/01/olvidan-usuarios-del-metro-y-metrobus-aplicar-medidas-sanitarias-5103.html</a>
- Riggins, S. (1994). Fieldwork in the living room: An autoethnographic essay. In *The Socialness of Things*. Berlin, Boston: De Gruyter Mouton. Doi: 10.1515/9783110882469.101
- Secretaría de Movilidad, Gobierno de la Ciudad de México (2020). *Movilidad durante la emergencia sanitaria COVID-19* (Mobility during the COVID-19 health emergency.). Retrieved July 10, 2020,
- Delgado, M. & Sattele, V. (2020). Mexico City's Quarantine Narratives and Underlying Values for Future Urban and Domestic Design. Strategic Design Research Journal. Volume 13, number 03, September December 2020. 599-613. DOI: 10.4013/sdrj.2020.133.24

from <a href="https://www.semovi.cdmx.gob.mx/tramites-y-servicios/transparencia/preguntas-frecuentes/preguntas-frecuentes-covid-19/movilidad-durante-la-emergencia-sanitaria-covid-19/movilidad-durante-la-emergen

Secretaría de Movilidad, Gobierno de la Ciudad de México (2020, June). Ciudad al aire libre: lineamientos para protección a la salud que deberán cumplir los establecimientos dedicados a la venta de comida elaborada y/o preparada que operen conforme al color del semáforo epidemiológico. Hacia un regreso seguro a la nueva normalidad en la Ciudad de México (Outdoor city: guidelines for health protection that must be met by establishments dedicated to the sale of processed and / or prepared food that operate according to the color of the epidemiological traffic light. Towards a safe return to the new normal in Mexico City). Retrieved May 10, 2020, from <a href="https://medidassanitarias.covid19.cdmx.gob.mx/dHome/medidas sanitarias/LINEAMIENTOSENSERESCIUDADAIRELIBRE(2).pdf">https://medidassanitarias.covid19.cdmx.gob.mx/dHome/medidas sanitarias/LINEAMIENTOSENSERESCIUDADAIRELIBRE(2).pdf</a>

Secretaría de Movilidad, Gobierno de México (2020). Características técnicas de colocación de enseres en espacios de estacionamiento (Technical characteristics of the placement of belongings in parking spaces). [Online image].

https://medidassanitarias.covid19.cdmx.gob.mx/dHome/medidas\_sanitarias/LINEAMIENTOSENSERESCIUDADAIRELIBRE(2).pdf

Severiano, M.L. (2020) *Un domingo de "nueva normalidad", debido a la pandemia por Covid-19, en el Mercado Jamaica, en la capital del país.* (A "new normal" Sunday, due to the Covid-19 pandemic, in the Jamaica Market, in the country's capital.) [Photograph]. La Jornada.

Strauss, C. F. and Fuad-Luke, A. (2008). 'The slow design principles: A new interrogative and reflexive tool for design research and practice'. *Changing the Change, Design Vision Proposals and Tools*, pp. 114. Available at: <a href="http://www.slowlab.net/CtC">http://www.slowlab.net/CtC</a> SlowDesignPrinciples.pdf

Tomtom (2020) *Mexico City Traffic*. Retreived May 10, 2020 from <a href="https://www.tomtom.com/en-gb/traffic-index/mexico-city-traffic/">https://www.tomtom.com/en-gb/traffic-index/mexico-city-traffic/</a>

UNAM (2020). COVID-19 Monitoreo de Casos en México por Municipios (Monitoring of Cases in Mexico by Municipalities). Retreived November 24, 2020 from <a href="https://www.arcgis.com/apps/opsdashboard/index.html#/f0f10e692a814fd8aa8afc7f8575f5d2">https://www.arcgis.com/apps/opsdashboard/index.html#/f0f10e692a814fd8aa8afc7f8575f5d2</a>

United Nations, Department of Economic and Social Affairs, Population Division (2019). World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420). New York: United Nations