

RE-SIGNIFYING DOMESTIC SPACE IN TIMES OF CONFINEMENT BASED ON BIOPHILIC DESIGN

Abstract:

The present article refers to a project addressing the challenges of domestic confinement through biophilic design and user experience. It is meant to be a platform for social innovation and learning within the context of domestic spaces while relying on ethnographic mixed method tools, used and gathered by a group of undergraduate and graduate researchers and shown here as a compilation of case studies. The research objective analyses how to rethink the domestic space as an opportunity to design new experiences. It compiles, compares and explains the processes and results around the research as the characterization of domestic space in the search for well-being. In confinement, the user experience is observed regarding biophilia. Thus, it was fundamental to identify the influence of natural elements within the domestic environment. It's worth noting that the research was carried out under confinement conditions, placing the person and the domestic space experience at the center. The paper concludes with a reflection on the user's personal experience and their own relationship with nature as they move towards the construction of domestic and urban resilience scenarios.

KEYWORDS: biophilia, biophilic design, domestic space, housing, pandemic

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1. Introduction

In 2020, the novel coronavirus disease – officially named ‘COVID-19’ by the World Health Organization – reached the level of a pandemic. The pandemic called for a period of social isolation and social distancing during the global contingency. This was an opportunity to question the role of designers and to rethink new alternatives of habitability. Designers seemed to have been absent in the COVID-19 discourses so unable to propose strategies or actions during the first period of the contingency, when the need for creative and relevant design in health sectors was evident (Allam & Jones, 2020). The research project ‘Re-signifying Domestic Space in Times of Confinement Based on Biophilic Design,’ is intended to be a training guide for professionals of the 21st Century. The interdisciplinary project reflects on experimentation for social innovation in order to explore the topic of domestic spaces in times of confinement as a way to re-imagine future-resilient cities.

The environment has a direct impact on human perception. Different authors note the relationship between health, well-being, adaptation and interaction with the built environment, physical space and the pathological consequences that the space can have on a human being (Lotito, 2009; Moser, 2009; Domenech, 2015; Granda, 2016). Between a human being and the environment there will always be an interaction that provides circumstances that influence behavior (Mercado et al., 2016). In the context of confinement during the COVID-19 pandemic, it is necessary to generate environments that promote the well-being of human beings.

For the experiment, biophilia will be an important variable for the context of confinement and the user experience. Biophilia refers to the existence of an innate biological connection between human beings and nature and is the natural and hereditary human inclination to natural processes and systems (Wilson, 1984), promoting the idea that people’s physical well-being depends on contact with nature and its processes (Kellert, 2008). So, Biophilic Design (BD) is promoted to improve built environments, focusing on the connection between human beings and nature itself (Jones, 2013; García, 2015; Magos, 2016), incorporating natural elements that benefit physical and emotional health (Krasny & Delia, 2014; Mangonea et al., 2017; Ling & Chiang, 2017; Yin et al., 2018) in indoor environments (Krasny & Delia, 2014) as well as in public and outdoor spaces (Johnson, 2014). BD can reduce stress, enhance creativity and improve mental clarity if analogous natural associations or nature itself is incorporated within a space (Bright Green, 2014).

Our health seems to be directly related to our proximity to nature. Outdoor views, having access to exterior landscapes (Johnson, 2014; Ebrahimpour, 2020), allowing natural light in (Ortega et al., 2019), nature patterns, biomimicry, space diversity, fractals, native elements, plants, plant patterns, simulation of natural features, or water (Ebrahimpour, 2020) all perform (Mangonea et al., 2017) to constitute restorative healthy environments (Ortega et al., 2018) and restorative functions (Gilchrist et al., 2015) (Ozgen, 2018). BD represents a response to our need for healthy spaces, especially in the context of confinement.

Contact and visualization of natural beauty in an open environment (OE) can develop pro-social behavior and bring benefits such as empathy, generosity, trust and collaboration (Zhang et al., 2014). Relating to nature can improve our physical and mental health (Corraliza et al., 2006; Charles et al., 2008; Howell et al., 2011), (Chawla, 2015; Clayton et al., 2016; Engemann et al., 2019; Preuß et al., 2019) and provide psychological benefits, especially in children and adolescents (White et al., 2019). These benefits are perceived also in urban environments with some limited 'doses' of nature (Cox et al., 2017; Shanahan et al., 2015; White et al., 2019). With the context of the lack of contact with nature in open public spaces during the confinement restrictions of a pandemic, the article analyses the potential BD in indoor domestic spaces, considering that domestic houses are key elements in our cities through which the pandemic is experienced (Garber, 2020).

This paper has the objective to compile, compare and explain the processes and results around the characterization of the domestic space from the point of view of biophilia and the relationship with nature, putting people at the center during the time of confinement through ethnographic methodology. This was achieved through examining the perception of users and their experiences related to their daily life activities as well as exploring the physical characteristics of the domestic spaces and the influence of natural elements.

2. Methodology

Experimental research was used in qualitative-ethnographic methodology. This type of methodology design provides depth and contextualization as well as bringing out specific details and unique experiences while actively entering social situations, and a constant reflection (Hernández Sampieri, 2006). A micro-ethnography and auto-ethnography were carried out using Ethnographic tools, such as interviews, social cartographies, cognitive body mapping and experience mapping, in order to get a closer relationship with the people and their situations (Wilson, 2015). The close relationship allows for discovering the particular needs of the users (Maya et al., 2019) as they immerse in an individual reality (Emerson et al., 2011) in their daily activities (Majoer, 2015). In particular, the micro-ethnography focuses on particular aspects in a short period of time (Bryman, 2008) to locate the social problem. Additionally, it allows for a spatial dimension to be added in order to discover the particularities within a global pattern, as well as full immersion (Hammersley & Atkinson, 2007), visualizing an added value based on personal motivations (Wilson, 2015). An auto-ethnography allows for the prospect of a qualitative research strategy (Coffey, Holstein & Gubrium, 1995; Marshall & Rossman, 1995; Atkinson, 1996) suitable for confinement. In order to approach the context from the researchers-actors' subjective perspective (Espinosa, 2007), we took advantage of the affective and cognitive "experiences" of the people who developed knowledge based on reality through their direct participation (Scribano & De Sena, 2009). In an auto-ethnography, the researcher has the privilege and responsibility of being the subject and object, s/he is an active participant capable of narrating the scene in which he or she works and has distinguished access to the field of observation, implying the connection between the personal and the social (Scribano & De Sena, 2009). The researcher relates his or her reflection to the unknown as an approach

between the personal and the interpretations, solely based on self-observation (Montero-Sieburth, 2006) and self-evaluation, and focuses on relationships with the others as the processes that involve a personal experience (Scribano & De Sena, 2009).

New avenues of reflection open up from the digital media used to obtain qualitative data in order to establish relationships between the researcher and the researched (Estalella & Ardevol, 2007). Communication plays a key role that demands a series of theoretical and methodological adaptations (Arriazu-Muñoz, 2007). A virtual ethnography was associated with a cultural background reflection of the internet in a dialogue of experiences and social interactions, posing a challenge that opened new fields within qualitative methodologies (Domínguez, 2007). It proposes the translation of the virtual space of interaction that used to be exclusive to the present (Callén et al., 2007). The aforementioned requires the resizing of concepts in the adaptation of its basic principles, mediated by digital technologies, in order to be able to study social relations in this context (Villegas & Andrés, 2008). The specific ethnographic tools used (interview and self-interview, spatial and open social cartographies, and cognitive and experience maps) allowed analyzing the researcher's own experience and their relationship with the immediate domestic context.

2.1. Interview and Self-Interview

The interview and self-interview give way to an open, flexible and intimate conversation to get and exchange information between the interviewer and the interviewee from a semi-structured format, following an open guide (Hernández Sampieri, 2006) that yields quantitative and qualitative evaluation. There is also a 'free first' approach to the problem which deepens with the usage of other auto-ethnographic tools. For the preparation and application of the interview, a documentary analysis was initiated for the construction of a conceptual framework. 128 interviews and self-interviews were obtained. The survey consisted of quantitative comparable questions and qualitative questions, from which it was possible to draw specific conclusions about the analyzed domestic problem. There was a set of general questions to characterize the interviewed or self-interviewed person and their domestic context, another set to identify their experience during confinement and, finally, a series of specific questions related to their experiences of living during confinement regarding biophilic elements such as access to nature.

VARIABLES INCLUDED IN THE SURVEY	
Socio-Demographic Profile	Age, Gender, Occupation.
Context	Urban Environment, Typology, Size, House Occupants.
Biophilic Elements	Natural Light, Natural Ventilation, Natural Views, Indoor Plants, Outdoor Plants, Terraces or Private Patios.
Temporality	Time Spent at Home (Weekly Stay, Weekend Stay).

Personal Perception	Pleasure of Being at Home, Initial Feeling, Current Feeling, Future Feeling.
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Table 1. Variables Included in the Survey.

The instrument designed to identify the aspects of BD that represented the opportunity for users to have new experiences during confinement, consisted of a structured interview based on 42 questions. The survey integrated open, categorical and 5-point Likert scale responses; 9 are directly associated with aspects of BD and biophilic elements.

The qualitative data analysis was developed with the MAXQDA2020 software, applied to the answers of the 16 open questions and considered as an analysis criterion for the association of concepts and experiences during the confinement. The quantitative analysis was developed with the SPSS software from 26 categorical questions, through a correlational descriptive analysis where 26 variables were identified.

2.2. Social Cartographies

Social cartographies, derived from participatory and collaborative methodologies, were used to characterize socio-environmental conflicts that strengthened the link between humans and the physical environment (Vélez-Torres et al., 2012). It is a dialogic technique using shared narratives (Iconoclasistas, 2011), that identifies and analyzes social relations from the temporal and the collective in a specific physical and social space, representing its borders as a material or symbolic division (Vélez-Torres et al., 2012).

In the face of the COVID-19 pandemic, the importance of mapping a spatio-temporal analysis was necessary to integrate the spatial and temporal dimensions (Franch-Pardo et al., 2020), as well as the interaction between biophysical and human factors (Turner, 2002 CR). Social cartographies allow the identification of spaces as social priorities and are sensitive to the context (Samuelsson et al., 2020), with the possibility of measuring, representing and analyzing spatial information from the perception of the inhabitants (Barrera-Lobatón, 2009; Barrera-Lobatón, 2009).

For this research, architectural representations of domestic spaces were carried out, as well as urban contextualization at the scale of the neighborhood, as a base for social cartographies built by the inhabitants themselves in order to understand the problem of inhabiting a domestic space in the confinement of COVID-19.

2.3. Cognitive - Body Mapping

Cognitive maps are a way of telling stories where events are organized through visual, textual, auditory or other means (McLees, 2013; Hohenthal et al., 2017). This is a powerful way of communicating spatial information (Caquard, 2011). The narrative is fundamental for knowledge about a way of finding the relationships between place and time (Ingold, 2011). Narrated events, expressions and interpretations of maps (Caquard & Cartwright, 2014) are a critical reflection (Cameron, 2012; Molden, 2020). Dissemination of findings, data

visualization, communication of information and the exchange of stories (Antoniou et al., 2018; Berendsen et al., 2018; Egiebor & Foster, 2018) are moments in the construction of a collective knowledge through cognitive mapping.

The elaboration of body mapping, body cartographies or “body-territory-space” maps, derived from a feminist and gender perspective background, is based on the idea that when there is conflict in the lived-in territories or spaces, we feel pain that materializes directly in the body. Understanding bodies is the first frontier between the self and the other(s), as everything we do is spatially located and embodied in different hierarchical ledgers (Cruz et al., 2017).

2.4. Experience Mapping

Finally, the creation of experience maps is an effective method to understand and improve the user experience. This technique facilitates collaboration between stakeholders and designers, giving way to co-creation processes (Samson et al., 2017). In the present project, experience maps were used as a research technique that incorporated multiple methods and data sources in order to build visual narratives of individual and collective experiences, aiming for collection, analysis and representation of spatial information, as well as visual and textual information (Drysdale et al., 2020).

The tools described above were applied within two months, with two working groups of student-researchers, and with a total number of 17 people. The group was made up of undergraduate students (industrial design and architecture undergraduates at Tec de Monterrey) and graduate students of architecture at the Autonomous University of Querétaro. The group was composed of 10 women (5 undergraduates and 5 graduates) and 6 men (all of them graduates). Most of them belonged to a medium-high socioeconomic group and they lived in medium to large sized houses which allowed for open spaces, such as patios or terraces. Five of the women and two of the men lived by themselves, and the rest shared the inhabited space with their family, therefore having different relational dynamics within the group.

3. Results

This section presents the mixed methods results of the interviews and self-interviews, as well as the examples and graphic results of the ethnographic tools presented above. Only the most significant are shown, as well as a synthesis of the results and conclusions, regarding the conclusions obtained from this part of the research.

3.1. Interview and Self-interview: Qualitative and Quantitative Data Analysis

The level of response associated with the typology of housing was concentrated on terraced houses with a terrace, patio or private garden at 54.7% (Figure 1).

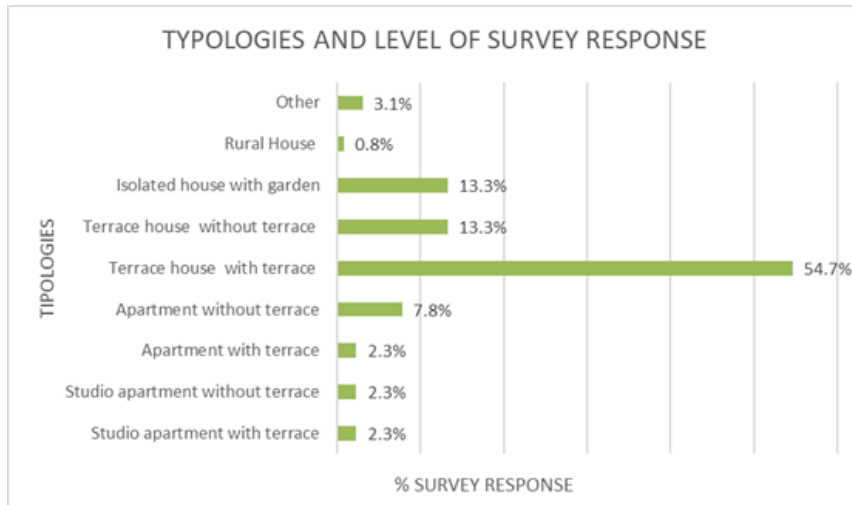


Figure 1. Typologies and Level of Survey Response.

Eight main variables associated with the BD were identified where, from the results of the survey, a weighting was made between the total responses and the correlation of the variables identified, with the perception of well-being, structuring the results on an evaluation scale from 1 to 10 to identify the importance of each variable and its impact during the period of confinement.

In relation to the qualitative analysis, the people surveyed mentioned experiences during confinement associated with new activities and their domestic environment. The responses were categorized regarding their association with the BD variables and wellbeing, either by the possibility that they were part of their environment, the possibility of making adjustments, or the desire to integrate new elements to their home to improve their level of well-being (Figure 2).

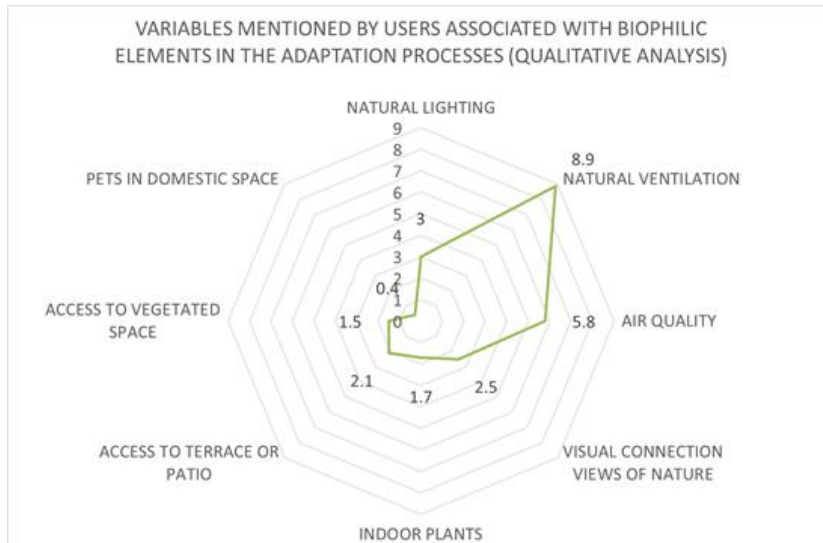


Figure 2. Variables Mentioned by Users Associated with Biophilic Elements in the Adaptation Processes (Qualitative Analysis).

As a result, on a scale of 1 to 10, where 10 represents all aspects related to the habitability of the dwellings, aspects related to natural ventilation were mentioned 8.9 times, emphasizing the possibility of having large windows with fresh air circulation, or having very small windows that limited the comfort conditions inside the house. This aligned with the first aspect of air quality, mentioned 5.8 times on a scale of 1 to 10. It's important to mention that 54.7 % of all respondents lived in houses with a terrace, and sometimes the only possibility of interaction is on a terrace or patio, with or without vegetation. The third variable is natural lighting. The recurrent aspects are associated with problems derived from new uses or limitations in the adaptation of existing spaces, looking for alternatives that improve the living conditions in the face of new needs.

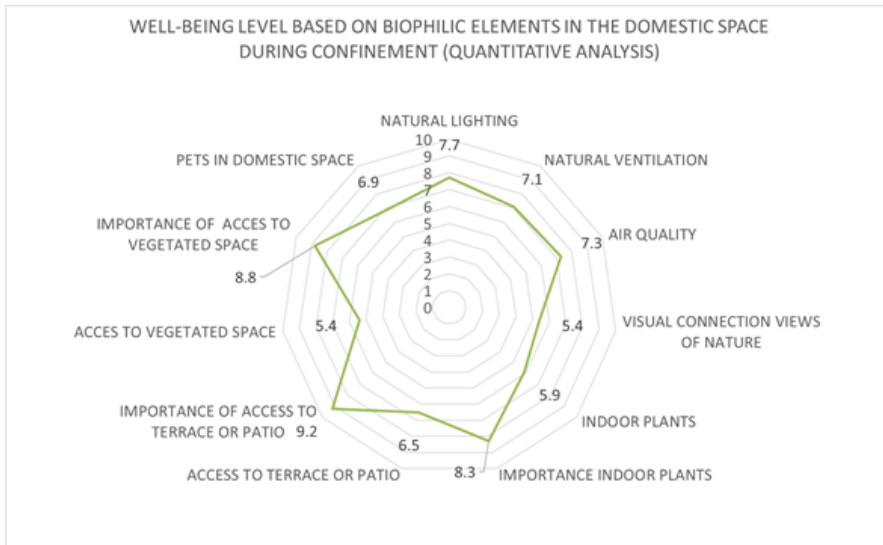


Figure 3. Well-Being Level Based on Biophilic Elements in the Domestic Space During Confinement (Quantitative Analysis).

In the quantitative analysis, on an evaluation scale of 1 to 10, with respect to the level of well-being from the perception of the users, it appears to be a priority to have spaces with natural light (7.7), followed by good air quality (7.3) and natural ventilation (7.1), which coincides with the results of the qualitative analysis. It is relevant that the importance of having access to a private patio or terrace (9.2), or having plants inside (8.3), especially if there is no possibility of having a garden or terrace as part of the house, as well as how important it is to have access to a vegetated space, is mentioned 8.8 times (Figure 3). The importance of having a terrace or vegetated space is mentioned the most, mainly by those who do not have that possibility.

3.2. Social Cartographies

Architectural plans were developed to identify open/exterior domestic spaces and their characteristic elements (vegetation, animals, natural light, natural ventilation, views of natural exteriors in the interior space, and its relationship with the direct exterior space). These were based on the social cartographies, personal, graphic and photographic representations, exposing the emotional visuals as the experience of the domestic space and its transformations during confinement. Figure 4 shows an example of an architectural representation based on the social cartography of domestic spaces from one of the case studies.

ARCHITECTURAL PLANS

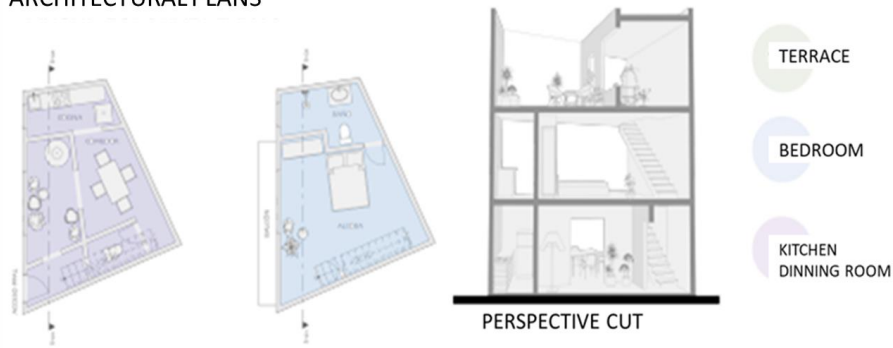


Figure 4. Architectural Representation: Plans and Perspective of a Case Study. *Author: Barranco.*

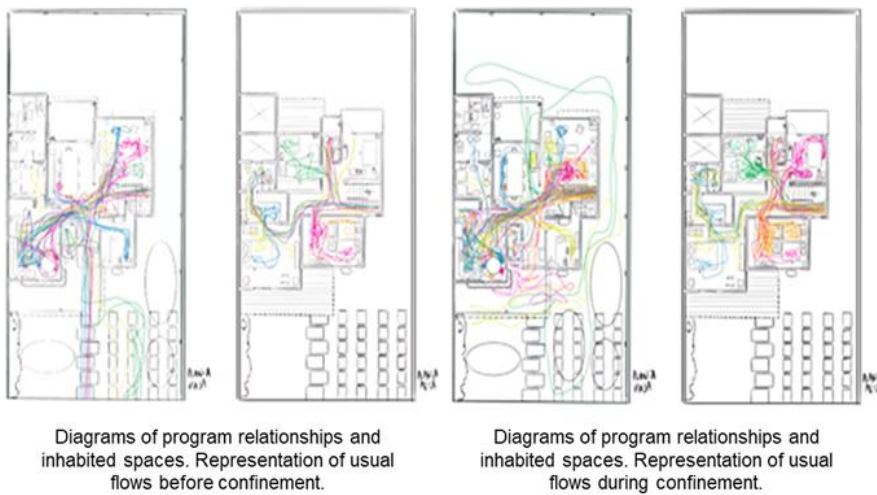


Figure 5. Diagrams of Program Relationships and Inhabited Spaces. Representation of Usual Flows Before and During Confinement. *Author: Sánchez.*

Figure 5 is an example of a social cartography showing the different intensity uses and routes between the different family members. The lines represent the flow of each member according to different colors.

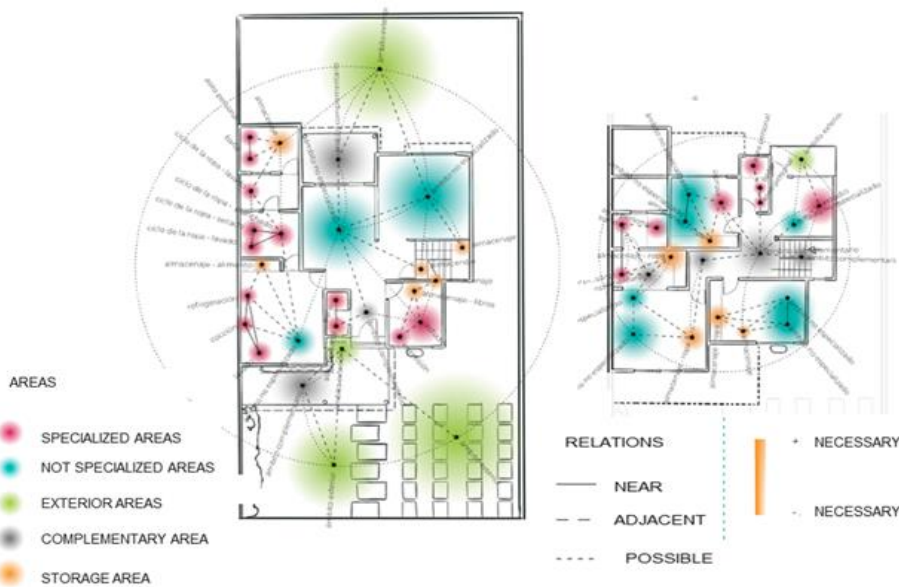


Figure 6. Social Cartographies: Diagrams of New Spatial Relationships by Areas of the Home During Confinement. *Author: Sánchez.*

In Figure 6 you can see another example of social cartographies where new spatial relationships by home areas are under confinement. It can be seen how exterior spaces become fundamental in this period.



Figure 7. Social Cartographies: Representations of Relationships and Uses of Spaces by Users. *Author: Acosta.*

A first finding of social cartographies, repeated in some cases, is that the size of the house becomes somewhat relevant, and these small spaces can provoke depressive feelings and anxiety. These sensations are increased when there is no adequate ventilation and when there is a lack of an outdoor view.

Another finding is that during confinement there was a tendency to use more spaces more often; the kitchen and the living room were commonly visited places within a house, for example.

However, everyone also used their room or study room much more than before confinement. The aforementioned is represented in Figure 7. We can read from different social cartographies that confinement has given way to the dynamic use of spaces and the disruption of roles and traditional relationships between the space and the person who inhabits it. During confinement, in these case studies, undesigned spaces were revisited as spaces that have to be rethought and re-designed to develop more activities within the same areas.

From the research project samples, issues such as acoustics, furniture or light quality were highly requested. Furthermore, it was noted that the work-leisure balance was broken by spending too much time in the same spaces. The problem becomes more acute if the living spaces are small and uncomfortable. In the same way, cleanliness and hygiene became very relevant. The theme of the colors on the walls of the rooms was reviewed, as it became relevant in order to generate pleasant environments. Even new decorations with motifs inspired by nature were used in some case studies.



Figure 8. *Photographic Documentation of the Search for Plant Decoration in Interior Spaces.* ~~Author:~~ *Corona.*

Something that was recurrent in the cartographies and in the photographic records used in them, was the importance of outer spaces and vegetated spaces.

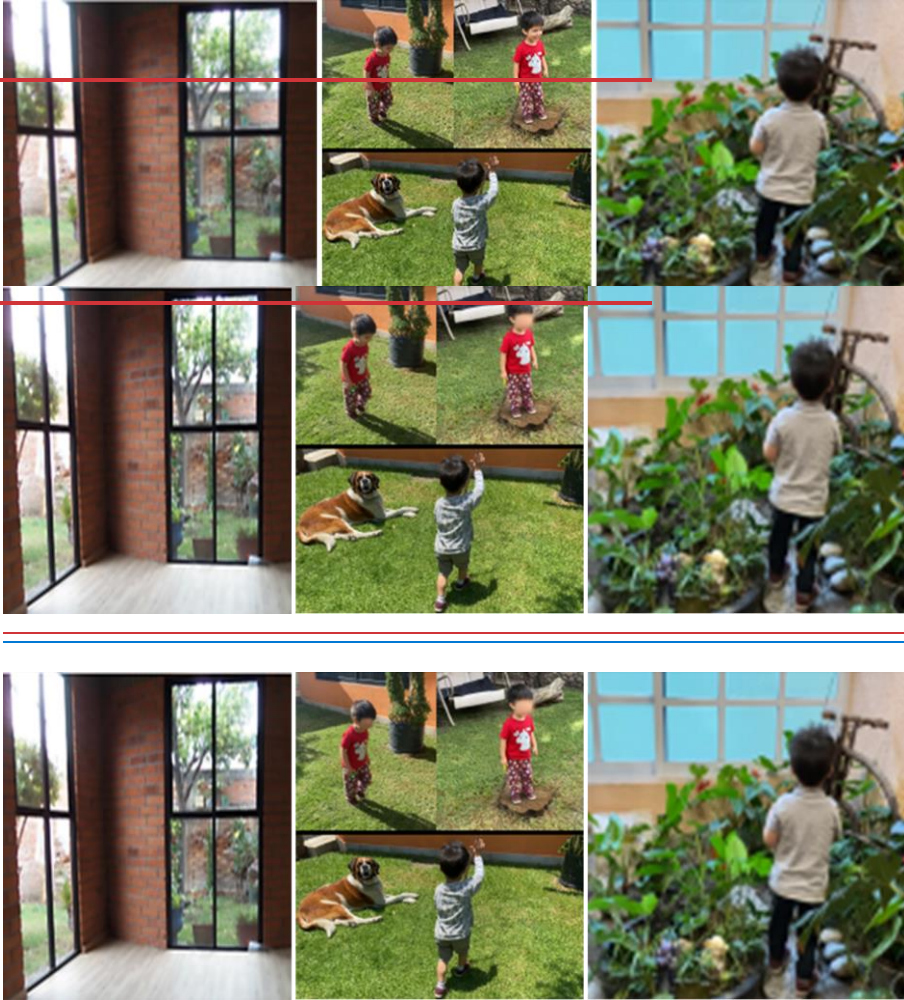


Figure 9. The Image Shows the Relation to Interior and Exterior Spaces as Vegetation Became Important in Confinement, Especially for Children. *Authors: Soto & Suarez.*

Gardens and terraces became a merging and coexisting place. People used the areas to develop activities such as exercising and playing. The spaces became a family gathering place. The use of roofs and terraces was intensified, as observed in different cartographies.

The lack of access to outdoor or green vegetated spaces is something that was assumed as something negative by different actors, as we can see in some cartographies. Views, natural light, and adequate lighting became important during the time of confinement for the researchers and other co-habitants. Gardening, whether indoors or outdoors, had become common and that was felt as something that improved emotional wellbeing. There were other

cases where we saw houses filled with plants. The care for plants was a pattern that actively emerged in confinement.

A greater interaction with pets was detected, as caring for them was an activity that promoted family cohesion.

3.3. Cognitive Mapping - Body Mapping



Figure 10. Examples of Cognitive-Body Mapping. Authors: Kotsarenko (left), Sánchez (right).

There was a diversity in emotion detected by cognitive-body mapping, from positive to mixed and negative feelings, related to the spatial characteristics. More interpersonal relationships emerged during confinement, influenced according to who the spaces were shared with and with what intensity, more than due to the direct space. Issues around privacy arose.

Emotions of liberation, tranquility and peace were expressed in relation to open spaces, outdoor activities, rooftops and terraces in general. There was again a clear relationship between positive emotions and the possibility of living in outdoor spaces, the open air and being in contact with naturalized spaces, plants, natural light, animal sounds, and in a natural atmosphere.

3.4. Experience Mapping

The experience maps helped to understand how life had changed on a day-to-day basis in confinement, detecting positive or negative experiences happening within a day (Fig. 12 and 13). There were a variety of results; a common result was positive experiences in vegetated outdoor spaces, or simply outdoors, and those moments in which you have access to natural light and direct sunlight. With experience maps, the overlap of activities in the same spaces is highly marked, particularly regarding how this could reflect on a negative experience. It was

seen that if you shared the same space to sleep, eat and work, your intimacy was violated and mixed, or related to work stress, for example.

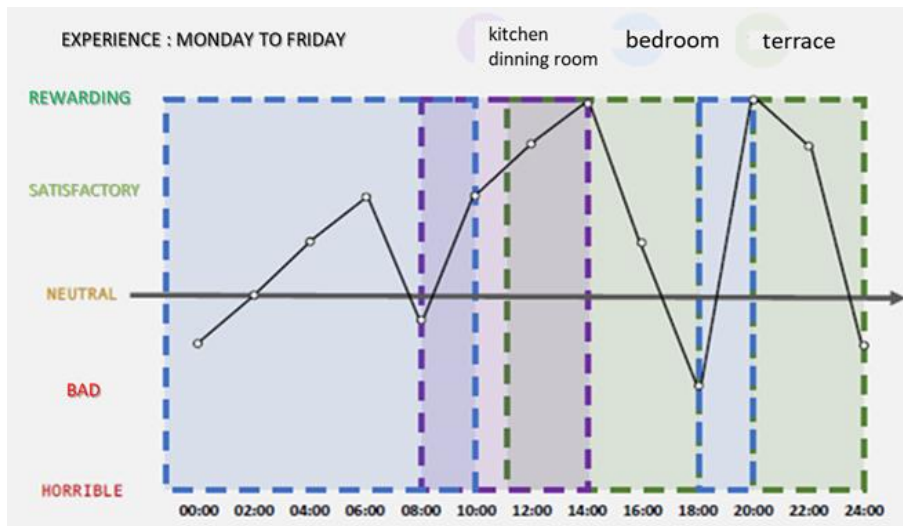


Figure 11. Example of Experience Map. *Author: Barranco.*

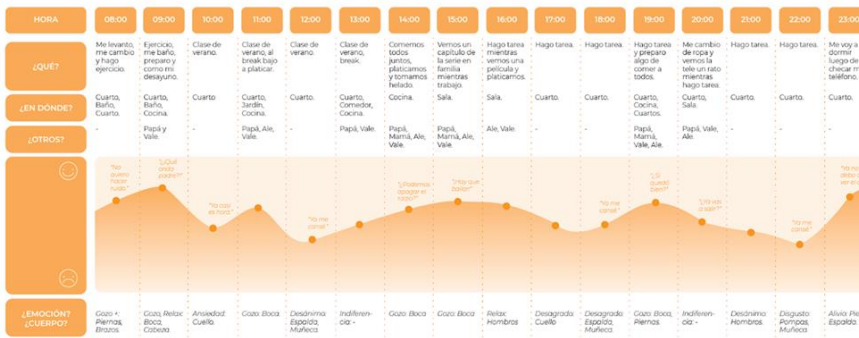
EXPERIENCE MAP OF A COMMON DAY IN CONFINEMENT



XIMENA SÁNCHEZ NAVARRO
EXPERIENCIA DE UN DÍA DE CONFINAMIENTO



Vive el confinamiento en Querétaro, México.
Mi familia está conformada por 5 personas: papá, mamá, mis dos hermanas y yo.
Hermos pasado esta etapa en nuestra casa de aprox. 450m², la cual cuenta con 3 recámaras, 4 baños, estudio, cocina, sala de estar, sala, comedor, cuarto de lavado, cuarto de servicio, terraza trasera y delantera y jardín.



EXPERIENCE MAP OF A COMMON DAY IN CONFINEMENT

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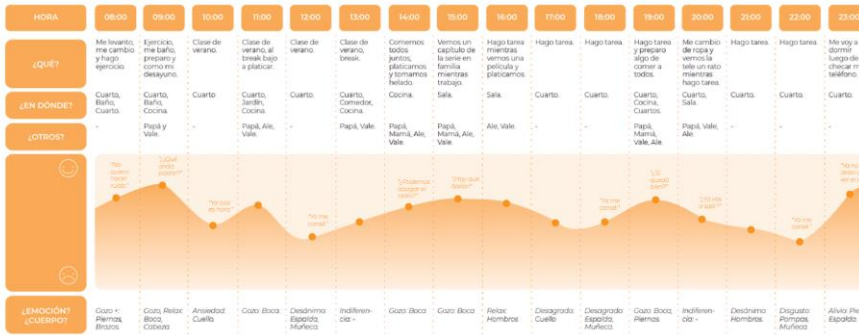


Figure 12. Example of Experience Map. Author: Sánchez.

The experience maps, in some cases, showed how certain daily household activities became more burdensome than normal in confinement, with a possible gender issue behind it that should be analyzed in greater depth.

4. Discussion and Conclusions

It has been possible to validate the preferences to stay in spaces with the presence of natural elements. Many felt the negative impact of confinement on physical and emotional health. The typological characteristics of dwelling, in most of the cases studies, allowed for adaptation possibilities. It could be that the starting point for interventions of readaptation and resignification of the domestic space is directed towards the promotion of healthier and safer environments through BD.

Natural light is presented as being a very important aspect to consider during confinement. For those homes that have a terrace or patio, the possibilities of having natural light increase considerably. A well-designed terrace or patio is something that we have to bring to the domestic space as something basic and necessary.

Ventilation was always a prominent aspect of comfort and health. The confinement has revealed the importance of clean, hygienic and well-ventilated spaces, mainly in those areas where we spend the longest time or where we develop our daily activities. In the case of the presence of spaces such as terraces or patios, it is easier to induce cross-ventilation. It is necessary to rethink important aspects in the conceptualization of housing in this way, as well as prioritize actions to be carried out in houses already built. Regarding pollution, it has been an aspect frequently mentioned, and vegetated areas or spaces have the possibility of filtering the air of pollutants that can affect the lung health of the population. In risky conditions, this aspect requires prioritizing.

Indoor plants represent a simple and inexpensive strategy to modify bad perception in closed environments. Plants can be highly valued when there is no access to urban green areas or when there is no possibility to have a terrace or patio space within the home itself. They also represent easily accessible resources, flexibility in their integration, and a very wide diversity in colors, textures, sizes, or smells, as well as offering the possibility of improving the domestic experience at any time.

The importance of having a private space, such as a terrace, patio, or balcony, represented possibilities for better health conditions. In addition, if it was vegetated, the experience was considerably more positive and healthy. The views and pleasant natural environments within the house through microenvironments, promoted various dynamics of habitability that reduced tensions. It was identified in the survey results, that those people who did not have access to natural elements were considering integrating them soon.

The ethnographic approach to the study of domestic space during a pandemic was ideal because of the isolation circumstances. The micro-ethnography, auto-ethnography and virtual ethnography enriched the process as an innovation tool within the context. Some tools of these sub-disciplines, such as the self-interview and the various forms of cognitive and emotional mapping, had made it possible to obtain the necessary data for ethnographic analysis even in conditions lacking physical approximation. They have also been valuable instruments of self-reflection that, applied to the researcher's own spatial experiences, have allowed both the generation of a greater self-awareness of the body-space relationships and the development of a more acute and empathetic sensitivity towards the experiences of others. The evaluations,

based on the mapping and the experience of the students, coincide with concepts identified in the results of the survey, particularly that the respondents were knowledgeable of Architecture and Design, potentiating the sensitivity and attention span of professionals in construction regarding regenerative strategies based on BD for well-being.

This study is an approach to resilience practices that, based on confinement, provides an opportunity to influence design and architecture as adaptive mechanisms towards healthier and more sustainable urban conditions. The authors hope to contribute to the understanding of urban resilience at a housing scale. The experience of habitability is seen as minimal expression in a process of adaptation. The revaluation of natural environment aspects at the housing and neighborhood scale, provide contact with nature and maintain the promotion of social development and landscape resilience to face climate change situations, natural disasters, and uncertain scenarios, as well as economic failures, including, in its conceptual evolution, more human and welfare aspects (Beatley & Newman, 2013).

Currently, there is little understanding of the minimum required level of nature, or access to it, that is required to have adequate health and well-being, so the study builds an approximation to identify those aspects that demand a greater presence in the domestic environment. In this case, the term "urgent biophilia" is present in the face of processes of revaluation of living spaces (Humboldt Institute and UNDP, 2018). The search for urban resilience has been considered of vital importance in the survival of city structures, both in the short and long-term, as they help vulnerable regions to resist impacts on various spatial scales, such as housing and neighborhood (Allam, Jones and Thondoo, 2020).

We can conclude that by including greener elements and allowing contact with natural environments in the surroundings of domestic space, it undoubtedly reduces the stress on the emotional, mental and physical aspects of the inhabitant, while improving health. It is key to resignify the domestic environment, as the interaction with the outside was considered highly valued. Architectural aspects and spaces related to balconies, gardens, terraces and patios, as well as spaces with ventilation, natural light and pleasant views, represent great possibilities to generate healthier environments. The study represents an approach to understanding the interaction and influential processes of biophilic spaces based on the perception and experience of the user, and even on the researcher.

Hopefully, other studies can be carried out in the future, with the possibility to work with more information to evaluate the different aspects of biophilic design and how it can affect the user in their experience with domestic space. The findings are many and empirical, so we encourage others to venture into ethnographic methods within their own research. However, from the results obtained from this ethnographic approach to the problem, it can be considered that biophilic designers can contribute to the resignification of domestic spaces, making the experience of living a healthier and more rewarding experience, even during times of confinement.

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