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Memoryless Design in the Public Areas: The Case of Dementia

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Abstract
Dementia effects our ability to think abstractly and social or daily abilities. It also eliminates similar abstract concepts, such as integration with design and perception of spatial and temporal orientation. The study aims to create a design idea focusing on discovering and improving the relationships that individuals with dementia have with the city. This study was conducted within design urban space through neurobiological and behavioural studies on Dementia. Data was collected via literature review, case studies, observations and interviews and it was evaluated via a design perspective. A relationship was observed between the lives, spatial relationships, commodities, and equipment of individuals with dementia-type diseases at the social and individual scale. It was also discovered that the subject should be handled in terms of the design content along with how it should be handled. As a result, a new design strategy was presented as a design behaviour model without prior knowledge.

Keywords
Design strategy; Memory; Alzheimer's Dementia; Urban area; Environmental design

1. Introduction

Since the day man has existed, he has overcome his deficiencies in meeting his needs and surviving in nature with his mind and production skills-relationships. Man is quite weaker than other mammals and predators due to his physical existence. At this point, humanity has been accompanied by a reality that is natural to produce, to discover and to mould. It is necessary to consider this productive process not only on a product scale such as a hunting tool or a gourd carrying liquid, but also on a spatial scale. When analysed in the most basic sense, the need for shelter emerges as a phenomenon that comes from these deficiencies and is a necessity. At this point, even the hollow of a tree can represent a space for humans. This representation includes both function-derived meaning, token-derived meaning and experience-derived meaning, just like today. While protecting the arbour from wind, rain, sun and some predators, it reveals function value; at the point of the relationship established with the place where it exists and with its defined position-position-volume quality, it carries a token value; with the experiences (experiencing the space-spatialisation of space-volume) that occur while existing in it (sleeping, standing, eating, etc.), it carries experience-based meanings. This example of a tree cave can also represent a rock cavity, a crevice, a cave that exists in nature in the same way. While the cave or the arbour is only a volume expression in accordance with its own essence, it is spatialised by the experience that takes place in it.

The existence of space emerges not only with what is ready in nature, but also with shaping and complete production. With the shaping of what is in nature, spaces have also become entities subject

to production. Although these materials include the intensive use of wood and stone at first, spaces today contain almost all types of materials.

It is seen that humanity has created concepts such as coexistence, private space, boundary and property at the point of creating and experiencing spaces. The difficulty of the maintenance and sustainability of existence as an individual reveals the act of living collectively. Although human beings alone may have the ability to survive at the most basic limits, this act of survival does not occur in an effective context. As one of the principles of being able to exist effectively, human beings are obliged to other people, sociality, cooperation, etc. in short, pluralisation. Plurality leads to more production and more need in spatial terms. The association of spatial elements with plurality reshapes the relationship established with the place where the space is produced and the characteristics of the space. Before pluralisation, space does not contain a fixed context with the place and represents a more mobile relationship. The related pre-multiplexing dominant typology is a nomadic representation. On the other hand, pluralisation has to stabilise the relationship between space and vital parameters such as the right weather, the right prey, proximity to water. In other words, while pluralising human beings made their settlements permanent at the point of becoming a community (e.g. proximity to water), they multiplied in the right regions. As they multiplied, deeper relationships with the place emerged. This pragmatic form of relationship has made the production of space dependent not only on the individual but also on topography. The spaces produced by people living together in pragmatic regions have now entered into a relationship with other spaces. The state of constructing the relations of spaces with each other creates a formation that determines the streets, life, economic and social relations. This situation, which we can call urban design as its reflection today, is a structure that is sometimes quite conscious, sometimes chaotic, sometimes completely formed on its own. Anthony Giddens describes this formation, which can even be described as entropic at some points, with the following sentences of Park: “Once the city is established, it acts like a large mechanism that selects people one by one from the entire population and places them in the most suitable places without making almost any mistakes” (Park, 1952: 79 cited in Giddens, 2008: 945).

These contingencies and patterns reveal the relations that human beings establish with space, the relations established with settlement and shelter, the relations established with streets and undefined areas, the relations established by spaces with spaces, in short, urban existence. Today, we observe these relations as a whole in urban design. When we go back a few hundred years ago, it can be stated that this pattern existed in a rather chaotic and empirical structure, but today it is being tried to be regularised. Although its effectiveness and success are questionable, urban transformation, for example, can be expressed as one of the pillars of this regularisation action.

There are many parameters that constitute this relationship pattern. These parameters are basically; people’s experiences of open and closed spaces, after-work theories, transportation axes, socialisation inputs, economic axes, readings of the city from land and sea, etc. On the other hand, this study focuses on the realities, equipments, designs that exist in the public space and the relationships that these elements establish with people, especially individuals with Alzheimer’s type Dementia, and the urban experiences of these people. The study basically focuses on exploring the relationships that individuals with Dementia establish with the city and creating design thinking that focuses on improving these relationships. In this context, the research has a structure shaped through design and Dementia and includes both research on the scale of urban design, product design, spatial design and neurobiological, medical and behavioural scientific research on Alzeimer type Dementia in order to establish a relationship with design.

2. Method

The study involves the use of different research methods due to its content. Literature was utilised for the creation of the theoretical framework and the creation of the content of subsequent research - understanding - interpretation - knowledge creation and case studies.

Case studies and interviews were conducted in the research. In this context, information was collected

from 6 patients over the age of 80, 5 male and 1 female, using the "on-site observation" method (based on observation). With the sections observed from the lives of the sick individuals, their reactions to events and discourses, situations in moments of crisis, calming processes and the relationships they established with commodities were analysed.

Interviews were conducted to determine the existing situations regarding the behaviour models, problems and experiences of the patients. The information obtained as a result of the interviews with patient relatives, doctors specialised in the relevant field and patient carers was supported by literature information and evaluated in the context of design with the knowledge of experience. The questions used in the interviews are given in Table 1.

QUESTIONS TO PATIENT RELATIVES	QUESTIONS TO DOCTORS WORKING IN THE RELEVANT FIELD	QUESTIONS ADDRESSED TO INDIVIDUALS WORKING AS PATIENT CARERS IN THE RELEVANT FIELD
Your closeness with the sick person?	Can you briefly describe this disease and the experiences of individuals with this disease from your point of view?	Isn't it difficult to provide all kinds of care without knowing the patient concerned?
When and how did you first recognise the disease? What was your reaction?	Do you know of any social rights for individuals with this disease?	How long did you look at the same person?
When were you first diagnosed and do you remember anything that you found difficult before the diagnosis?	Have you ever been subjected to aggressive or dangerous behaviour from any patient?	How would you define this caring relationship?
How long have you been in care?	Are you able to communicate with patients?	How would you describe your relations with patient relatives?
Can you briefly describe the start-up phase?	Although the progression and development of the disease is different in each patient, are you able to relate it to time?	How would you describe the patients' attitudes (if any) towards you and their communication?
Can you briefly describe your communication with your household?	At what point in this time scale do you, as a doctor, recommend care with strict and clear rules?	
Does he/she have a relationship with the guests coming to the house? If yes, can you briefly tell us about it?	Is there a difference in attitude between the patients who come to your practice and the patients (if any) you examine on location?	
Have you encountered a similar situation in which many patients seem to cling to a place, person or object from the past?	Is there a difference between hospital and home treatment?	
Do you have any deficiencies, redundancies, wishes and opinions on treatment and support?	Is it possible for sick individuals to exist in public and private spaces?	
In what situations are there moments of crisis?	Are there specialised places for sick people in our country?	
What kind of situations do you face in times of crisis?	As a physician working in this field, is there anything you would like to add, especially something that should be thought about?	
How do you control moments of crisis?		
Considering all these processes, how are you? How do you feel?		

Table 1 - questions used in the interviews

During the whole study, a total of 27 people, including 8 patient families (19 people), 3 patient carers, 5 doctors, were interviewed (interviews with patient families included 1, 2 and 3-person interviews); 6 patients were directly observed. 5 patient relatives were interviewed remotely. In the cases where remote interviews were conducted, it was not possible to observe the patient's behaviour.

The interviews with the relatives of the patients basically include the determination of the daily needs and necessities of the sick individuals, revealing the existing relations with the sick individuals, and determining the relations of the sick individuals with commodities, equipment and spaces. In addition, some of the questions asked aim to determine the emotional state integrity of the relatives of the patients as a result of the relationships with the patients. This query includes both what the relatives feel at home and what they feel in public spaces. During the interviews with the relatives of the patients, crisis moments were also focussed on, and the techniques and methods used to suppress the crisis were analysed. The opinions of the patients' relatives on the treatment processes, control techniques and spatial relations were taken. Finally, all kinds of negative situations, fatigue and positive situations (if any) in the patient relationship were questioned.

In the interviews with doctors and patient carers working in the relevant field, especially professional knowledge and experience were tried to be obtained. In this context, the basic questioning includes the disease processes of the patients, the stages of the disease progression, their conditions and abilities at these stages, and the relationships established with the patients. In addition, professionals' observations about the reactions, problems and demands of patients' relatives were also questioned.

3. Demans

Humanity has faced many different diseases throughout history. The word "de-mans", which is produced in the form of "de-mans" to express the retrogression and loss of the word "mans", which means mind-brain in Latin, is actually the common name of many symptoms, not a disease. Dementia can be described as a general expression of many symptoms affecting the mind, memory, social skills and communication, abstract thinking and mental crossing. In Mesulam's words, Dementia is the expression of a progressive (which may be chronic) deterioration in the mental capacity and social behaviour of the individual, which affects daily life independently of changes in movement, alertness and various sensory functions, causing gradual limitations in vital activities (Mesulam, 2000: 439-447). In this study, Alzeimer among the types of dementia was studied.

Alzheimer's can be named as a neurodegenerative disease that causes a decrease in cognitive functions, in which the individual experiences inadequacies in terms of self-care and basic needs, expressed as neuropsychiatric and behavioural disorders (Özkay et al., 2011: 35). In the context of this disease, the patient may lose individual orientation in time and space, while there is difficulty in remembering words in the early stages, the ability to speak is interrupted or completely lost over time. (Arıoğlu and Cankurtaran, 2005: 27).

The number of Alzheimer type dementia is increasing day by day both in Turkey and globally. According to the reports of the Alzheimer's Society, this rate shows a rapid increase especially by 2022. Normally, the year-on-year increases show an extra increase of 13-30 per cent as a percentage. According to the data in the same report (for 2022), 27% of people aged 65-74 (1.75 million people), 37.2% of people aged 75-84 (2.4 million), 35.7% of people over 84 (2.3 million) have Alzheimer's disease.

According to studies conducted in Australia, it is predicted that there will be 36 million patients by 2040 (Fleming and Purandare, 2010: 1084). This increase over the years has attracted attention in many fields and literature (especially after 2000).

In accordance with the general structure, Alzheimer's type dementia is divided into 3 stages, and the first stage, mild level patients still have relations with space, city, products and equipment. In this stage, the relationships established with the spaces can be organised. On the other hand, patients with moderate

and severe dementia require continuous care and the human-space relationship does not contain an organisation that can be regulated.

It can be said that the first study in the field of dementia (accepted in the related field) is M. M. Mesulam's 2004 edition of "Principles of Behavioural and Cognitive Neurology". Mesulam states that the limbic system is responsible for memory and emotions, ensures the maintenance of life and reveals the connection between what is perceived and what exists (Mesulam, 2004: 1-120). Within the limbic system, the brain has the ability to revitalise previously experienced memories (Surprenant and Neath, 2005: 228). This dynamic quality reveals the mechanism of abstract thinking and the mechanism of concretisation in the most basic sense. The time-space orientations that exist in daily life and the structure we refer to as practical intelligence in everyday language are made possible by the correct functioning of this memory. Conway et al. evaluate this situation as being healthy, holistic and self-aware by recalling memories from the past with place, time and emotions and associating them with each other in an integrated manner (2001b: 493). This integrated expression, which is present in normal individuals but not in individuals with Alzheimer's type dementia, includes the reproduction of the knowledge of the past and the knowledge of the present and the reshaping of the present. The negative situations that individuals with Alzheimer's disease are in are due to not being subject to this reproduction.

In patients with Alzheimer's type dementia, these systems are interrupted day by day, making even simple functions in daily life impossible. On the other hand, normal individuals can perform these actions without thinking.

Today, there are specially created care homes, living spaces and public spaces for Alzheimer's type dementia patients. Özbabalık and Hussein stated that the main purpose of these spaces is to create the most familiar and close habitat to the individual's own environment that the individual is used to (2017: 55). As a result of the research conducted by Fleming et al. on the design paradigms and spatial elements of these special spaces, special care units are required for individuals with this disease;

- Special care units are required
- That spaces with different functions should be intertwined in order to eliminate orientation-based disorders,
- That any unnecessary stimulation should be removed from the environment,
- The need to create new stimuli for orientations and markers subject to learning,
- Free circulation areas and the necessity to ensure the organisation of these areas,
- Familiarities should be created with equipment and commodities from the distant past,
- The need for other places to meet with family members and acquaintances in order to maintain and reproduce ties with the community,
- Instead of a public and professional ambience, they have demonstrated the necessity of spaces similar to the home environment (Fleming et al., 2016: 3-6).

In addition, it is a common finding in the literature that the concept of "ageing in place", which exists in the relevant literature, has a positive effect not only for patients but also for their families and states (Mc Grawhill, 2016: 6). When the literature is examined, it is seen that beyond the concepts such as ageing in place, age-friendly (especially after 2000), the problems of public space and environmental shaping / design, which are directly related to the care of the sick individual and the risks of dementia diseases are also taken into account (Marquardt and Schmieg, 2009: 333-340; Charras et al., 2016: 182-185; Fleming et al., 2016: 665-669). As one of the facts underlying the increase in these studies, especially after 2000, it can be stated that the health system, pharmaceutical industry and the duration of human life have been prolonged. When demographic data are analysed, the increase in life expectancy on a world scale is clearly seen. Considering the increases and population status, it is understandable that dementia type diseases are observable in the society and therefore the search for forms of living compatible with these diseases is understandable.

4. Urban Life and Alzheimer

Today, cities are home to the majority of the world's population. Tanrıverdi and Kutlu state that the population is concentrated in urban centres due to the advantages offered by the city (2022: 134). This constantly changing and developing relationship mechanism from the industrial revolution to the present day is basically a representation scene of daily life. This scene is open to innovations as a working area for designers. For this scene, Lefebvre says that everyday life itself is a form of balance, but it is also the expression of a place where threatening imbalances exist, and states that old relations are reproduced as long as individuals can live and maintain their daily lives (2007: 44). As we approach the present day, the production of conceptual models in the relevant field continues (Wahl and Oswald, 2010: 113-120). However, there are not many studies on regulating the relationship between space and sick individuals in social life.

The concept of space can be expressed as a concept that is emphasised by many thinkers from Heidegger to Deleuze and can be discussed in every field from the building bench to the examination of experience. On the other hand, especially when urban life and experience are considered, it is necessary to consider the concept of space within a social structure. Cutchin states that the core meaning of the phenomenon of space has expanded and talks about a place belonging that is constantly changing due to sociocultural contexts, temporal patterns and the experiences (and actions) of individuals (2004: 304-306). This belonging appears as a new depiction of the relationship established with the place. In the experience of urban space, the qualities of streets, roads and social spaces form this belonging, and as they are experienced, they are taken for granted and assimilated. The individual integrates with the street and the city through years of experience and action. Benjamin states that sensory perception, as a form of self-organisation, is dependent not only on natural conditions but also on historical conditions (2019: 56). What is perceived and experienced becomes the place in the memory of a part of culture and history. The social spaces we visit become home, neighbourhoods become familiar.

The urban experience becomes a memory, a memory quote in the individual through certain continuities and repetitions. At the same time, what is exposed to in the city is added to this memory. As a sum of many paradigms accumulated consciously or unconsciously, urban memory becomes a quality possessed by the urban individual. In the simplest terms, the state of bewilderment experienced by an individual who has recently migrated from the village to the city in a film is an expression that can be easily given to the audience. This state of bewilderment is not a competence about the urban mechanism, but a reaction to unexperienced, unknown realities. In other words, the bewilderment experienced by the individual comes from not being subject to urban experience and urban memory.

Urban memory, in addition to the learnt things arising from experience, also includes a bodily memory. Reflexive movements that are learnt through continuous repetition without thinking are reflections of this body memory. Just as a professional athlete performs a certain movement over and over again and his/her muscles learn this movement, an individual does not think about the way he/she goes to the grocery store every day, but performs this action reflexively. At this point, it can be stated that the most basic element that constitutes both reflex behaviour, motor movement and urban knowledge and memory is to perceive, interpret and place these data in the mind with abstract thought. The ability to think abstractly reveals the situation of perceiving something and associating it with something else. In its simplest form, this form in which recorded and learned information is interpreted, analysed and evaluated for later use is called cognition. Regardless of the level of cognition, whether it is a high perception mechanism or a low abstraction skill, every normal individual perceives, İnterprets and reacts to urban life, places and the realities shaped around them with this cognition.

On the other hand, the individual with Alzheimer's disease loses this experience and familiarity that lasted for years in very short periods of time (and suddenly during the illness) and becomes alienated from experience, reality and urban space. At this point, it can

be stated that even before Alzheimer's, the relationship with the places and spaces with which one is acquainted is considerably simplified compared to youth. González and Rodríguez (2016: 19) state that with the aging process, the mobility in the urban space decreases, the boundaries narrow, the duration shortens, and this situation recurs even more, especially in elderly individuals living alone. When Alzheimer's disease is added to this situation, it would not be wrong to say that the relationship between the individual and the urban experience is completely destroyed. Although the importance of designing urban environments friendly to elderly individuals has been frequently discussed in the literature (Tutal and Üstün, 2009: 1-5; Fırat, 2009: 57-64; Uslu and Shakouri, 2014: 7-9; Kaypak, 2014: 350; İmamoğlu, 2016: 105-111), there are not many examples where the design relationship has been considered and constructed through individuals with Alzheimer's disease. Only in the workshop conducted in 2017 for the use of elderly individuals, similar researches are observed (Aydıntan et al., 2017: 246-256).

5. Alzheimer and Design

In the simplest terms, in the early stages, memory, abstract thinking and many other cognitive abilities of the individual are sometimes completely, sometimes partially lost and sometimes restored. On the other hand, the early stages are still a period in which the affected individual is still able to participate in social life. Although perception is relatively more permanent, the disappearance of the interpretation and utilisation of what is perceived is a very common situation. A simple empathy will be sufficient to perceive this situation. As normal people, the human feelings of bewilderment and helplessness that exist in a reality that has never been encountered and never experienced before stand before us as a reality that individuals with Alzheimer's disease may encounter every day. When a normal individual wakes up in the morning and goes to work or to a social place, he/she does not leave home with the imagination that he/she may encounter such a situation during the day. On the other hand, the reality that everything is normal when an individual with Alzheimer's disease leaves his/her home can turn into chaos after half an hour for no reason. With this transformation; there is a state of chaos that can go as far as not knowing the paths they walk, why they are there, where they are going, what time and place they are in and even who they are.

Karl Marx defines a commodity as an external object that satisfies human needs with its characteristics (2011: 49). Today, it is seen that it is almost entirely capital economies, monetary policies and profit-oriented commodities that are designed to fulfil human needs. On the other hand, whether it will bring profit or not, individuals with Alzheimer's are also a part of the same society and an input of the same hierarchy of needs. In The Birth of Art and the Way of Thought, Heidegger states that today's works are compatible with the universality of world civilisation (1997: 17). Ignoring the existence of Alzheimer's patients means ignoring this universality. Similarly, Baudrillard states that what is to be consumed and consumption is not only about objects and forms, but also an active type of relationship with the collectivity and the world, in this case an activity of the cultural system of all humanity (2015:11). In other words, like Marx or Heidegger, Baudrillard does not separate sick, elderly (or disabled) individuals from the reality of society. He does not exclude them from what has been designed or will be designed. As Tunalı states, design is basically a mode of communication between people and objects (2020: 22). This communication is a phenomenon that should be valid not only for healthy individuals but also for the whole society. Corbusier, on the other hand, while evaluating design and the act of designing through architecture, expresses the following; it arouses deep effects within the individual in the relationships created, makes the individual intuit that he is in harmony with the world (2015: 43, 49-50).

Regardless of which thinker or way of thinking is analysed; there is no impression of separating sick or disturbed individuals from society. On the other hand, it can be stated that the needs of these individuals have very few equivalents in design.

6. Examples From Around The World

Figure 1. Canadian Example/ Applied, Screenshot taken from the video of Council For Sustainable Place and Development.

Figure 2. Ukraine Example / Applied, Screenshot taken from the video of Yıldırım Zeynep.

Figure 3. Concept Study, Screenshot taken from the video of Geotech TR youtube user.

In the Canadian and Ukrainian examples shown in Figure 1 and Figure 2, the existing pedestrian crossing elements can be expressed as examples that protect the users. In the Canadian example, the mechanisms at the border of the pedestrian crossing turn the pedestrian crossing signs 90 degrees and force cars to stop. The Ukrainian example, on the other hand, organises the stopping/passing action by providing a visual barrier to the conscious or unconscious user. This example obliges the user to use a visual barrier without the act of knowing.

The unimplemented examples numbered three are designed as pedestrian-protecting examples (Figure 3). Although the applicability of the related study is questionable, it can be stated that the concept includes the pedestrian user in a security unit.

Figure 4 shows a number of examples from the Dementia Friendly Neighbourhoods project in Singapore, showing very large signboards and building numbers. The related case study includes many examples that have been successfully implemented and are known to contain effective results.

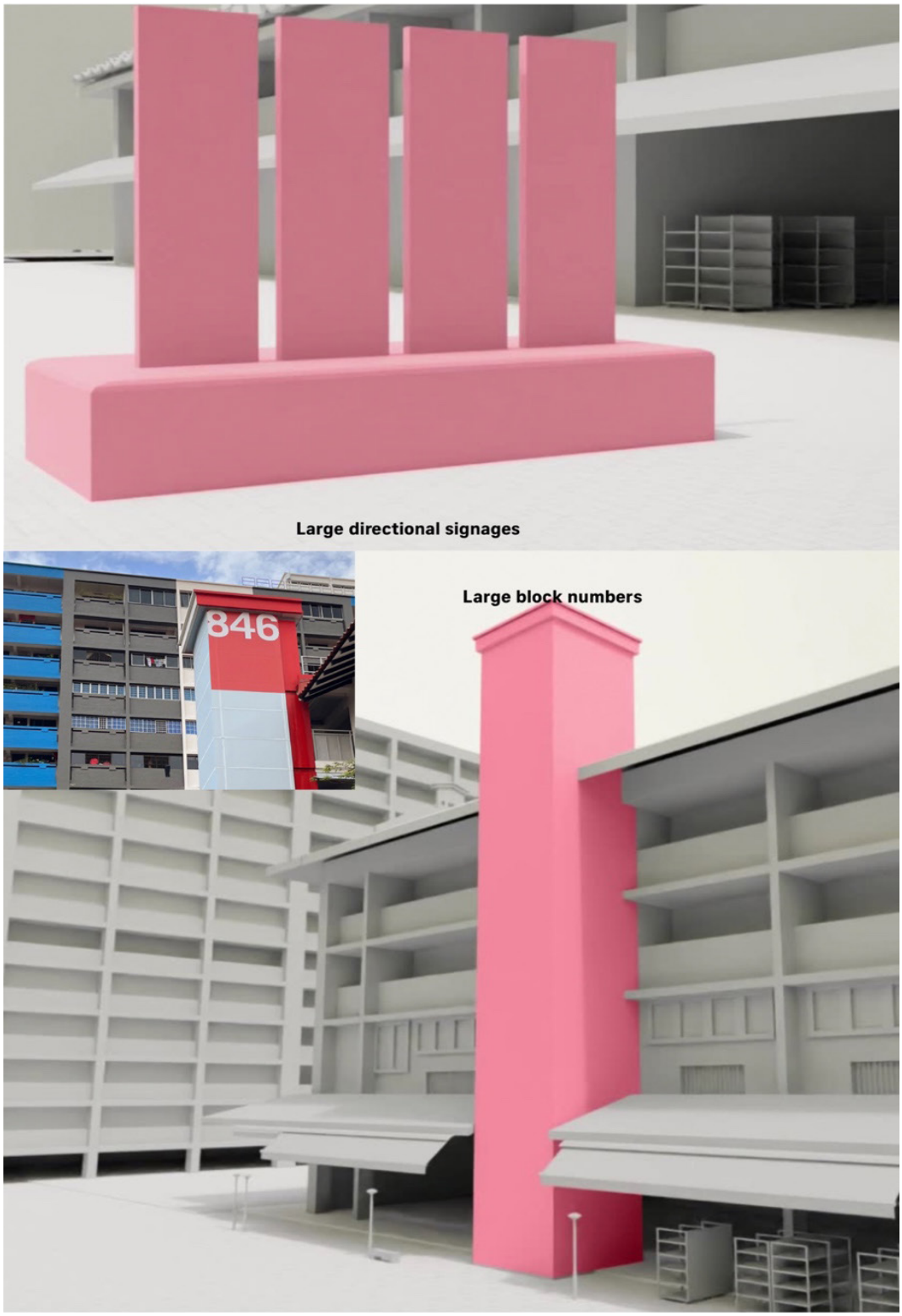

Figure 4. Singapore Example / Applied. Screenshot taken from the video of 3D model of Friendly Neighbourhoods-Singapore Project.

7. Findings

The results encountered in the researches (observation, interview, etc.) and the findings obtained are basically categorised into three parts.

- Obtained from patients,
- Obtained from patient relatives,
- Findings obtained from professionals working in the related field

The findings obtained from the patients were based on observations and information was produced especially on behavioural elements. In the observed relevant moments of sick individuals;

- Established a relationship of trust and attachment with a meta from the past,
- Increased appropriation of commodities,
- Attempts to identify the place and time and/or action through body and head poses,
- Although it shows stagnation and calmness at first, aggression and panic increase at points where there is no answer to uncertainties,
- Contact with familiar people has a calming effect,
- He establishes automatic relationships with furniture even though he does not know where he is and what he is doing (involuntarily taking refuge in the armchair, sitting, etc.),
- Changes in the location and spatial organisation of objects are a serious source of irritation and aggression,
- Increased anger and aggression in the gaze,
- In order to produce answers in blurred moments, it was observed that an attempt was made to enter into a relationship with the existing equipment around.

Although the findings obtained from patient relatives were relatively emotional and biased, they played an active role in the necessity of the study. Findings obtained from patient relatives;

- Basically, fatigue, exhaustion and despite this, effort, pity-love emotion-state integrity were observed.
- At some points, relatives of the patients felt guilty,
- There is a state of hesitation in relationships with sick individuals,
- The relatives of the patients sacrificed their own lives and health,
- Fear in moments that require intervention,
- They are able to remain in awkward positions in the face of heavy requirements,
- They feel inadequate,
- Despite these, it was observed that they loved the sick individual as their own child and showed effort.

As a common point, it was encountered that the people caring for the sick parents put the sick individuals as their children. This is a situation expressed verbally by the relatives of the patients. However, during the interviews with the relatives of the patients;

- They are afraid of social reaction,
- Sick individuals are seriously afraid of going out, situations such as injury, disability, accident, etc. that may occur cause anxiety
- Relatively less fear of loss of the sick individual,
- In previously known places and spaces, people are more lenient towards sick individuals,
- It was also discovered that they had fears of not being enough, not being able to intervene, not being able to solve the problem in moments of aggressive crisis;
- The outdoor space is not suitable for sick individuals,
- In our country, there are almost no places that are thought and shaped for these individuals,
- Lack of urban elements even for everyday dynamics,
- It was found that all kinds of shaped environments were built for healthy individuals.

In the interviews with professionals working with Alzheimer's type dementia patients, both doctors and carers were interviewed and more technical expressions of the above information were encountered. However, in addition to this, in the interviews with these people;

- Patient carers (at some points and some of them) can be full of compassion like patient relatives and can establish an emotional bond with the patients concerned,
- Alzheimer's type dementia patients were asked for specially built villages-towns-facilities, and they were asked whether there were such places,
- The relatives of the patients were more panicky and compulsive at first, but they got used to the situation over time,
- It has been found that progressive progression and non-progression in Alzheimer's disease patients are dependent on social factors and environment.

8. Discussion

Design; in the most basic sense, it contains a context formed between the object and the subject. Regardless of the scale, this context exists due to the principle of function. In simple terms, the target audience, which can be called "user", is the determinant of most of the design parameters. In other words, the designer always creates designs at the scale of the product, the scale of the space and the scale of the city with a foreknowledge, in other words, he/she designs by imagining the relationship that the user will establish with the design and how he/she will use it, and depending on this imagination, he/she is involved in a scenario. Within this scenario, the relationships between paradigms are foreseen and organised. The form language of the product can be mentioned as a core that makes this situation more user-oriented. The form language gives the user direct information about a perceived way of use. For example, the fact that an individual who has never used a computer before perceives that the mouse will sit in the palm of the hand when he first sees it can be expressed as an example of instant and automatic information given by this form language. The geometrical overlap of the formalism existing in the outer surface pattern of the mouse and the concave formalism existing in the palm of the hand reveals this data. Design elements such as form language etc. actually provide qualities that can be developed regardless of scale and bring closeness to the product-user relationship.

The relationship established with the user includes different contexts and paradigms from ergonomics to culture, from anthropometry to aesthetics. Memory, which is the generator of contexts such as experience, perception and interpretation, is one of these paradigms.

Private, public, urban, rural, etc. memory, which is formed by many different memories as a whole, can be described as responsible for many different phenomena from purchasing preferences to tastes, from judgements to goals. This situation also exists in urban life. An individual's memory is full of the cafes he/she visits, the streets he/she walks, the people he/she greets, the benches he/she sits on. Millions of visuals seen, sounds heard, wind felt on the way from home to work are part of the memory. In other words, the daily dynamics of urban life, its relations with the formalised environment and its equipment, and its relations with other living beings exist within memory and, in the most basic sense, constitute the reality in which one lives, the perception of that reality, and the living of that reality.

Individuals who are named as appropriate-normal within modern medicine, psychology or social norms actually express memories that are compatible with this reality and function pragmatically. All kinds of daily-practical actions such as stopping at a red light - passing on green, resting on a bench, waiting at the bus stop to get on the bus, etc. exist within this compatibility and pragmatic relationship. These action patterns, which seem very simple and even natural to us, which we perform without even thinking about it, basically contain a prior knowledge and exist with the provision of prior knowledge.

Prior knowledge can be learnt socially as well as individually. The knowledge that one should stop at red lights can be learnt at school, in the family, etc. The act of giving way in traffic, even if it is not obligatory, can be learnt on a social scale (in both examples, it can be

learnt both individually and socially). These teachings, blended with concepts such as morality, ethics, culture and rules, are subject to the existence of a certain prior knowledge. In a lesson, the teacher's statement "stop at a red light" is a prior knowledge for the student who stops at a red light in traffic. It is learnt, understood (and even interpreted) and applied.

In a fiction in which we send a 40-year-old individual to a country where he/she is given the prior knowledge that the red light is to pass, he/she will try to perform the action of passing the green light despite the people waiting around him/her. However, perhaps if we construct the same example through a child who has not been given any prior knowledge of "red green - do not pass, do not stop", we can predict that the child will simply adapt to the social movement without attributing any meaning to any colour. At this point, it is possible to talk about the existence of the foreknowledge of trusting the social movement on compliance.

On the other hand, what happens when the same sample is constructed in a reality without any foreknowledge; without any knowledge of colour, road, traffic, passing or stopping? As a real and even more major version of this example, when not only the absence of pragmatic foreknowledge but also a state of complete unawareness is imagined; if an example is constructed in which there is no access to data such as where one is, where one is going, what one is doing or even who one is, in other words, one does not have any knowledge of the reality one is in, this example can be called "fantasy or science fiction". This seemingly utopian existence is in fact a frequently encountered reality of the modern world. Dementia diseases have features that enable this utopian scenario to be realised in reality.

It is quite possible and common for a person with dementia to experience this state of unconsciousness at some point during a daily walk in a very healthy and conscious state. In this moment, the person with dementia has no idea about his/her own existence, nor about the beings and actions he/she is involved in. He/she may lack all basic or high level awareness. This moment, which exists without any prior knowledge about the realities, action patterns, equipment and dangers of the city, can be expressed as a frightening moment in which the person is in the middle of all these realities in a confused, unaware, helpless and unaware state. Of course, this occurrence is characterised by emotions such as anxiety and fear.

9. Conclusion

The reality we are in has been designed and/or formed with this prior knowledge and prior knowledge condition. Both at the city scale and at the product scale, the designer uses this foreknowledge as the parameters of the design. On the other hand, there is also the reality of moments when there is no access to this prior knowledge. Due to diseases such as dementia and Alzheimer's disease, individuals who exist in the shaped physical environment and reality without any foreknowledge are also a part of this reality. In these moments when only the most basic motives and orientations dominate, all kinds of scenarios and action patterns that are included in use with foreknowledge are frightening and dangerous for sick individuals. This situationality can also create dangerous occurrences for non-patient individuals at the point of uncontrolled disruption of the existing order.

At this point, the question of whether there is a way beyond the fact that the realities of physical equipment, action patterns and the existence of experience are designed solely on the basis of foreknowledge is a question asked to ensure that individuals with illness and normal individuals who encounter them can live more accurately and without danger. At this point, the designer should be able to create designs that are usable with basic motivations and orientations, understandable/perceivable without the need for foreknowledge, and can be safely adapted to sick individuals. The great increase of related diseases in modern societies and the reality of this situation reveals and necessitates this design core. These designs, just like designs that provide instant information about the perception of form and the use of form, will be able to make people safe and adaptable in moments without prior knowledge. Dementia patients, which is an active field of study within the scale of product design, is unfortunately not sufficiently studied at the urban scale. When designing at the urban scale, instead of designing

with prior knowledge, designing the city, streets, urban furniture, physical equipment, axes with basic colour, form codings, surface patterns, etc. (as in the same form language) with subconscious perception and codes, motivations, elements that can appeal to reflexes, and qualities that can allow correct use. Designs made with this logic can be used in every field from simple abilities and incapacities to complex relationships. For example, when a red light is on, an individual with Alzheimer's disease does not think with the foreknowledge of that light and continues to walk and therefore accidents occur. On the contrary, the design can evolve into a form that will actually prevent the passage and stop the person who will pass, instead of turning on the red light and waiting for the user to stop at red. A simple elevation, a simple wetting action, creating images that give a sense of closure and impassability with a 3D visual, etc. These examples, which can be reproduced, contain qualities that people can respond reflexively and instinctively, not with their prior knowledge.

In the future; examples where barrier-free design cores and design concepts for everyone can be applied on a city scale may cease to be utopian. In this context, it will be effective for designs structured without prior knowledge to exist in the cities of the future. In the same scenarios, it will be more possible to see the existence of designs without prior knowledge in functional solutions where automations are indispensable in daily life. It can be said that the organisation of urban life can evolve into a more accurate, less discriminatory and more livable design. The evaluation of urban design elements in this context can both enable the lives of sick individuals, who occupy a larger and larger part of the society, and enable normal individuals to live more comfortably and easily, away from accidents and undesirable situations.

At this point, considering both the value of each life and the increasing population and age averages; it can be stated that regardless of scale, the reason and form of execution and methodology of design should be rethought. It can be said that the designer should reconsider the reality shaped by capital economies and transform it into a humane form.

As one of the main results of this study and as a new method suggestion; it can be stated that design should evolve from a reality that is shaped only within foreknowledge and certain parameters to a reality that can be met at first glance. This situation, which can be seen through the example of Alzheimer's patients, is a concept that should be rethought not only for sick individuals but also within the general logic and methodology of design.

The designer should design for the lesser number of individuals (less material gain) of the society by keeping the value given to the asset above the material value, instead of caring about the purchase preference of non-patients (the majority of the society) and designing only with these parameters. Therefore, it should also create the perceptible qualities that this segment needs without prior knowledge.

Conflict of Interests and ethics

No potential conflict of interest was reported by the author.

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