Disability and Otherization: Readings on Cinema in The Light of UD Principles

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Abstract

Cinema and architecture are universal with their inclusiveness in the mental process. The mental process is often generated by the sense of sight in modern times. In this sense, cinema, as a visual art, has started to take an active role in the intellectual, conceptual and creative actions of modern man. With the cinema, the realities of the virtual world have become more convincing than the dreams of the real world. It involves person-environment relationships which might not be ours but "look like ours". Universal Design (UD) also puts forward a proactive interaction in-between man and environment. UD is based on equitable, flexible, intuitive, perceptible, tolerant-to-error access with appropriate size and space. While its conceptual basis with its guidelines are commonly constructed on the spatial needs of people with disabilities, it highlights disability does not focus on only permanent, visible, bodily or intellectual (dis)abilities. Every kind of "otherization" creates disability in society. This study aims to investigate how the relationship between architecture and disability in cinema is portrayed by reading through films that are masterpieces covering experiences of different disability groups. Using Visual Analysis method in the study, the codes and categories generated based on the UD Principles are associated with selected visual images and dialogues according to the frames of meaning of the scenes in the films. In this way, this study aims to question the

location of UD parameters in physical and social environment through cinema.

INTRODUCTION

Architecture is evaluated with many art disciplines on the level that contributes to the conceptual development of each discipline by the nature of interdisciplinary studies. Cinema has a closer dialogue with the discipline of architecture since they commonly deal with not only the way of interpretation and representation of facts in space and time contexts but also the way of describing and comprehending lived spaces (Pallasmaa, 2008). They define the multilayered dimensions of (un)real spatial environments while referring or creating experimental stages in life (Pallasmaa, 2008). By this way, they also interpret the objects of the social phenomena. Even, Herein, the context of 'reality' has a significant role on the basis of the benefits of the reciprocal development of these two disciplines. In films, virtual architectural spaces which are not used in reality can be presented, or real architectural spaces can be reproduced in their virtual universe (Tanyeli, 2001). They can create environments in which one can individually experience establishing a new, unknown, and impressive relationship with life matters and occasions. In this sense, the films have a quite effective representative means in the intellectual, conceptual and creative actions of modern man. Therefore, they have potential to promote architecture in terms of advancing new ways of seeing and (re)producing spatial environment (Alkan Bala, 2015). In these basic mechanisms, there are often references to disability, people with disabilities, 'disabled' spaces and social environment. Polat (2011) pointed out by referring Karpf's study (1997) that the image of disability on the television and cinema screen is basically medical in an indisputable and unchangeable appearance. In addition, there has been many studies about disability and cinema such as Reichman and Healey (1983), Keller, Hallahan, McShane, Crowley, and Blandford (1990), Kennedy (2009), Safran (1998), Taggart, McMillan, and Lawson (1999), Dwoskin (1997), Pointon (1997), Morris (1997), Salvesen and Undheim (1994), Hargis, Gickling, and Mahmoud (1974).

Disability is closely related to the spatial experiences of people. These experiences are issued in the films, sometimes as a representation of reality in a critical manner, or as a dream environment in virtual spaces. In each occasion, relationship between the context of disability and experienced space gives crucial messages to architecture, which can contribute to the development of spatial environment in a multilayered manner.

106

This is one of the reasons of reading the films within the context of (dis)abling spaces. While comprehending the films, it is believed in this study that Universal Design (UD) philosophy can respond all boundaries of experiences in the (un)real spaces which even work as leading actors.

UD sees people with disabilities as a part of pluralistic social life. This pluralist view addresses spatial arrangements that respect diversity among individuals. Based on a human-centered context, Universal Design (UD) refers an inclusive environment which is open to its all members. The spatial environment produced on the basis of this approach can guarantee creation of a population who are productive and actively involved in a community (Oliver, 1996). At this point, UD philosophy does not only address the design of physical environment, but also it works as a catalyst for social participation of persons in public life (Barnes and Mercer, 2010).

This study, on the basis of UD philosophy and its seven principles, primarily aims to evaluate the films representing different disability groups within the contexts of *inclusiveness* and *otherization* from physical and social aspects. Visual Analysis method (Collier & Collier 1986) is used as an exploration tool which helps to close link between the films and UD context based on the scenes, images of specific time, and dialogues referring *physical/spatial* and *social/behavioral* circumstances. Six films which are masterpieces in their times are selected with the dimensions that would light on UD Principles: "Tamam Mıyız? (Are We OK)" (2013- Çağan Irmak), My Left Foot (1989- Jim Sheridan), Forrest Gump (1994- Robert Zemeckis), Scent of Women (1992- Martin Brest) and are selected to explore life stories of individuals with physical disabilities; Avatar (2009- James Cameron) and American Beauty (1994- Martin Brest) are selected to understand experiences of marginalized persons and society.

UNIVERSAL DESIGN AND CINEMA

UD is the design of all products and environments that can be used by people of all ages and (dis)abilities at the highest possible level (Story, 2011: 4.3). For UD, it is essential that every element of the physical environment and the communication and information technologies be used by all members of a society as much as possible for their equal participation in public life (Iwarsson and Stahl, 2003: 62; Imrie, 2012: 874). From this point, UD focuses on the inclusivity of the physical environment for a democratic social life (Iwarsson and Stahl, 2003: 62). It is natural that every

107

individual of society has different needs, pleasures and preferences. As long as the design responds to these diverse needs, a democratic and rights-based public environment can be supported and this is the target of UD. This social and democratic view of UD attaches importance to designing spaces that respond to their needs and the same equal presence as everyone else, while highlighting inclusion of individuals (Saltoğlu and Öksüz, 2016; Meşhur, 2013). Additionally, the target of UD covers participation in decision-making process, and all vital activities as well as social life.

Inclusion of people with disabilities in society in an equal manner is possible through the *internalization* of the situation. When the needs of people with disabilities in spaces come into concern, we, as architects, are usually engaged in accessibility due to its *compliance*. UD, however, advocates the design *beyond compliance*. "Social Model" of disability has been formed by the right-seeking process emerged with this emphasis. It is clear that 'social view' of disability determines the position of any situation related to disability in society. The development of this intellectual framework has been influential for the realization of an equitable spatial arrangements. There have been important breaking points advancing the development of this point of view. Disability Rights Movement in the 1960s and Independent Living Movement and Quality of Life approach in the 80s and 90s are among the most significant ones. These are reactive formations towards spatial and political problems which seize the right-to-life of people with disabilities and their families. The main purpose of these efforts is to provide equal opportunity for all members of a society involving those with disabilities in all areas of public life (i.e. daily life, work, education, participation in cultural activities, safe access, and social participation). Thanks to those efforts, the voice of questioning and controlling all situations of public life for equalization of opportunities has been started to rise further. From this point of view, it might be said that Social Model has been evolved since the 1960s (Barnes & Mercer, 2010). As a result of this strong civilian response, the political attitude which has to respond to this intellectual framework needs to be changed to protect their rights with laws. For example, following the Disability Rights Movement in the United States, the section which legally supports the participation of people with disabilities in social life added to the Rehabilitation Act of 1973. This forms the basis of the American Disability Act (ADA, 1990). The social and political developments resulting from these reactionary movements has also taken place in the field of architecture. The architectural approach responding to the

108

disability in the view of Social Model has been developed over time with different names in the historical process:

- Design for All,
- Lifelong Design,
- Accessible Design,
- Inclusive Design,
- Universal Design.

Table 1. The Universal Design Principles (*Ostroff, 2011; Story, 2011*)

UD Principles	Descriptions
1. Equitable use	The design is useful and marketable to people with diverse abilities.
2. Flexibility in use	The design accommodates a wide range of individual preferences and abilities.
3. Simple and intuitive use	Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
4. Perceptible information	The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
5. Tolerance for error	The design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. Low physical effort	The design can be used efficiently and comfortably and with a minimum of fatigue.
7. Size and space for approach and use	Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

The philosophy and principles of Universal Design (UD) (Table 1) have been discussed, evaluated and developed in different disciplines since its publication in 1997. It has been continued to present a conceptual framework for scientific studies in different fields such as education, healthcare, social transformations, especially in the fields of architecture, design and planning. The study of UD in different research fields affects its conceptual development. In the literature, intensive use of UD among other regarding concepts depends on its clear framework from theoretical and practical aspects. This precise and clear framework sometimes leads to a deterministic approach, which prevents it from advancing conceptually (Imrie, 2012). Its theoretical development could be advanced with the evidence-based approaches based on man and environment interaction in referring time, population, technological developments, ideological approaches, political environment, working environment, life culture and thereby, the change of lifestyles (Imrie, 2012: 873- 874; Çakmak, 2006). The question of 'what we

do not know' for the development / updating / reproduction of knowledge constitutes the basis of the scientific production approach (Imrie and Hall, 2001). It is believed in this study that reading UD in cinema will contribute to be emerged more ideas questioning many themes above.

Table 2. The Selected films as the object of the Otherization, Disability and Universal Design

Film	Year/ Director	Location	Characters, Stories, Concepts, Subjects, Time, Place, Icons	
Tamam Mıyız? (Are We OK?)	2013, Çağan Irmak	Turkey	Physical disability	**Universal Design Principles** 1. Equitable use 2. Flexibility in use 3. Simple and intuitive use 4. Perceptible information 5. Tolerance for error 6. Low physical effort 7. Size and space for approach and use
Avatar	2009, James Cameron	USA, UK	Physical disability	
American Beauty	1999, Sam Mendes	USA	Otherness	
Forrest Gump	1994, Robert Zemeckis	USA	Mental disability	
Scent of a Woman	1992, Martin Brest	USA	Visual disability	
My Left Foot: The Story of C. Brown	1989, Jim Sheridan	England, Ireland	Physical disability	
CINEMA	⬅➡			**UD**

Cinema and architecture are universal with their inclusiveness in the mental process. Architecture and the city involves, in essence, not only the built environment but also senses, perceptions, and cognition of human being. In this study, the movies of life-stories that are not ours but "look like ours" are evaluated by UD concept which puts forward a proactive interaction man and its physical environment. Responding to the needs, requirements, preferences, and pleasures of people by a tool can be limited by its level of representation. However, movies are the first encounter moments of facts for many of us and film scenarios and characters have the potential to significantly influence the audience's ideas and perceptions. Image and reality, experiences, lifestyles, emotions, actions make the audiences substituted for the actors, which presents an enriching plane for multidimensional handling of the relationship between individual, life and space. Cinema has an important mission at this point.

110

METHODOLOGY

In this study, the analysis of films in the light of the concept of UD and its seven principles is made using Visual Analysis method (Collier & Collier 1986). In the analysis of the visual recordings, the dialogue between the researcher and the images should often include two questions of visual analysis; (1) "What do I see?" and (2) "How do I know this?" or "What is the effect of the visual record I see and define?" (Collier & Collier 1986: 171-172). In this way, the Visual Analysis method allows the researcher to reveal unrealized reality. This reality is examined through visual and symbolic materials and dialogue-based meanings with regards to the perceptions of the researcher. In this respect, Visual Analysis method allows the researcher creating a more internalized meaning, a semantic and conceptual language, an expression of relational and critical projections, development of the empathy, and questioning aesthetic sensitivities.

Each of six films selected in this study has potentials to be an object of UD concept in terms of its theme and story (Table 2). The reading of the films in the 80s, 90s and 2000s representing different disability groups is believed to make sheds light on how disability is portrayed in cinema and to question the location of UD criteria in literature and social life. This process was carried out by a collective consciousness with a group of 10 students at the graduate and undergraduate level participating "Readings on Universal Design in the Cinema" studio carried out by the authors in the context of "Thinking with Universal Design" workshop which was held in cooperation with Selçuk University Faculty of Architecture and YEBAM on 3-4 May 2018.

According to the Visual Analysis method, while the films are analyzed in the context of the UD concept, the data sets are primarily coded. The codes and categories created on the basis of UD Principles are associated with selected visual images and texts according to the "frames of meaning" of the scenes of the movies. In this sense, we watched movies repeatedly and keeping notes on the critical scenes, cut the scenes and images by which the data was determined in accordance with the conceptual and theoretical framework of UD and its seven principles. Auditory, visual, and thematic moments associated with UD measures in the selected scenes of the films are analyzed according to four stages below:

1. *Observation and Listening of the Data*: All the data are monitored, listened, deciphered, and evaluated semantically and spatially according to UD criteria;

111

2. *Examination of the Data*: General examination of the contents for the castings and arrangement of the categories for the physical environment based on UD criteria;

3. *Dictation of direction through specific questions*: Having determined and deciphered the visuals and dialogues in the films, the data are subjected to open, axial and then selective coding, respectively, in order to reach the study findings;

4. *Reliability of the Findings*: Scenes, words, the sequence of events, music, venue, light, the movement matched to UD Principles and establishing a concept map revealed the results of the study.

ANALYSIS OF THE FILMS IN THE LIGHT OF UD PRINCIPLES

As pointed by Barnes and Mercer (2010), UD works as a catalyst for social participation of persons in public life in appreciating the design of the physical environment welcoming for all. This two-dimensional interaction can be comprehensively explained as follows (Dinç Uyaroğlu, 2017):

1. Physical- Spatial Aspect: Physical requirements of individuals with disabilities should be enhanced for the fulfillment of their involvement in society in an equal manner. This causes a bilateral development: (1) It contributes to the creation of a productive and peaceful society by supporting individuals' independent and equal participation in society; (2) Spatial environment includes all individual differences and every individual of society is equally benefited from all opportunities of public life.

112

2. Social- Behavioral Aspect: Behavioral situation changes depending on the social and/ or institutional point of view. It has a strong influence on guiding the situations of inclusiveness and otherization. It plays a dominant role in the design of spaces and continues to play an active role in the use and transformation of spaces. The fact that presence of all members of community are equally visible in social life is a proof that social life sustains in a democratic way.

Within this perspective, the films are handled not only in their originality in cinematographic context but also in the light of the interaction between physical (spatial) and social (behavioral) circumstances (Table 3), referring UD Principles.

Tamam Mıyız? (Are We OK?)
"Tamam Mıyız?", directed by Çağan Irmak in 2013, is a film about the emotional story of the unusual friendship of İhsan who is a

paralyzed man and uses a wheelchair and the sculptor Temmuz who always sees himself as the 'other'. Paralyzed Ihsan, who has no legs and arms, is being a guide to July who is trying to stand on his feet and cannot move within the uncertainty of his artistic mind. These two half men will be 'complete' together. Experiences of the characters in terms of their physical and mental impoverishment, are matched with UD criteria throughout the film. Firs instance, after Ihsan and Temmuz become friends, they would like to make a "give me five" movement joyfully by sharing their natural reflexes, but there are no arms of İhsan (Figure 1). This scene finds its meaning towards the end of the film with the movement of knocking their heads together (Figure 2). From UD approach, this shows experiencing diverse (dis)abilities cannot be an obstacle if the relationship (with someone or something) is flexible in endeavoring appropriate positions and possibilities.

Figure 1. The time when İhsan and Temmuz want to make a "give me five" movement.
Figure 2. The movement of knocking their heads together.

The mother of Temmuz who experiences otherization with sensitivities of an artist stated that "Do not be so fragile and emotional! You are crying when ants are crushed, the world is being yours when flower blossoms come out. They are ants, doomed to be crushed." Her statements based on the separation of him from general population display the representation of *otherization*. In the other dialogue, İhsan make a reaction when Temmuz stated he wanted to die, and at the moment, a fly put on the edge of İhsan's mouth, but he was not able to chase it. He said "Why did the God create me like this?". Temmuz with his high empathy ability replies that "We are all the same with our joys, troubles, friendships, capabilities, and inabilities". This dialogue addresses the nature of UD concept in referring its emphasis on "we are all equal with our differences in a society". The statement in the film, "the purest color is white and it consists of a mixture of all other colors", also highlights the pluralistic approach of UD. Moreover, the film covers these social discourses by referring the physical environment. Ihsan with his wheelchair is trying to get on the bus in the city, but he experienced himself as the *other* because of inadequate physical arrangements. This shows the vital necessity of UD's Equitable Use principle on the holistic design of pavement, road, and bus stop. During the film, Ihsan also has many difficulties in reaching, touching and using in spaces where there is no measurement, posture and action analysis (Figure 3). Herein, the emphasis of the UD concept is on

113

everyone's right to equitable use in urban spaces and public vehicles should be addressed.

Figure 3. The parts of the scenes indicating inaccessible pavement, road, and bus stop.

My Left Foot

"My Left Foot", directed by Jim Sheridan in 1989, describes the real-life story of Christy Brown, who was born as a paralyzed. Christy Brown, a respected figure in Irish literature, is dependent on a wheelchair and his mother (Figure 4). When Christy realizes that his left foot is not affected by the body stroke, he sees it as an opportunity. He started to focus on writing and painting by using his left foot (Figure 5). This effort generated the emergence of his intelligence and ability hidden within his disabled body. Experiences of Christy matches to UD criteria throughout the film. Christy is ten years old and his mother who is quite overweight is trying to move his son to upstairs with difficulty. Expressions of both mother and son, music, light describe the feeling of suffering, strain, and the suffocated effect of being forced to depend someone. At this movement, her mother feels dizzy and she leaves her son at the top of the staircases for his safety in an instinctive reflex while she falls. Christy follows, with plaintive eyes, the body of her mother who rolls down and stretches without moving in downstairs. He will plan: he pushes his paralyzed body and moves himself by stepping on stairs (Figure 6). In this scene, it deeply highlights the importance of independent access for safety of all users in the physical environment.

114

Figure 4. Christy's mother always assists to him.

Although Christy is a paralyzed and slow-paced person but he is a child and he wants to play games. He has fun with the other children on the street through riding his in a trolley (Figure 7). This scene is an indicator that participating in social life involves different tools. Although the experience in this scene is disputable from different manners, such user experiences gives design ideas on flexible usage of the equipment in the games of children with disabilities.

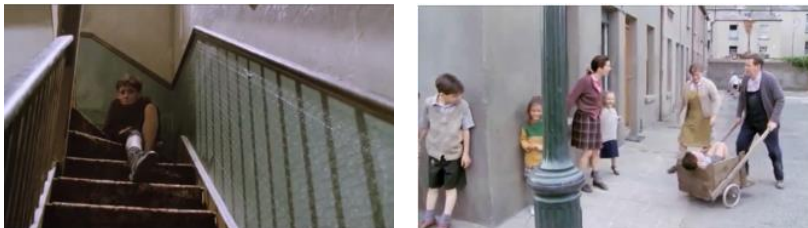**Figure 5.** Christy writes and paints by using his left foot.

Figure 6. Moving himself by stepping on stairs.
Figure 7. He has fun with the children on the street by a trolley.

Forrest Gump

Forrest Gump, a 1994 American film directed by Robert Zemeckis, is a story of the otherization and frustration of a man who uses orthopedic shoes and metal leg braces in his childhood years and mental disabilities throughout his life. To illustrate, Forrest does not want to be taken to the public school because of his mental abilities. His mother usually tries to cope with the prejudiced behaviors of the community, as understood from below dialogue:

> Mrs. Gump: *You are the same as everybody else, you are not different*
> The principal of the elementary public school: *Your boy is different, Mrs. Gump. Now, his I.Q. is seventy-five... The state requires a minimum I.Q. of eighty to attend public school, Mrs. Gump. He's gonna have to go to a special school.*
> Mrs. Gump: *"What does normal mean, anyway? He might be a bit on the slow side, but my boy Forrest is going to get the same opportunities as everyone else.*

His words address what the real problem is. It is primarily based on social behaviors without any consciousness of equal right to access for all in any field of public life as UD appreciates in general.

The film also emerges critical relationships among people with disabilities and the physical environment. For instance, Forrest's brace is caught in a gutter grate when he and his mother walk

across the road. At the same time, two old men sit and stare at them in front of a shop. When she notices them, she says: "What are you all staring at? Haven't you ever seen a little boy with braces on his legs before?". She then talked to her son by changing the paradigm: "Don't ever let anybody tell you they're better than you, Forrest. If God intended everybody to be the same, he'd have given us all braces on our legs." In addition to the social exclusion of Forest with his metal leg braces, urban facilities and urban infrastructure also creates problems of equitable use, flexibility in use, inadequacy in size and space context for use (Figure 8).

Figure 8. Images emphasizing the questions of "Who is normal?" and "The city is for whom?".

Scent of a Woman

One of the most interesting films narrating disabled characters is Scent of a Woman directed by Martin Brest in 1992. It is the story of Col. Frank Slade, who cannot see with his eyes but with his intelligence and senses. There are two main characters in the film: Charlie, a college student, cannot adapt to his rich friends because he is a scholarship student. He is excluded by his friends because of his poverty. Since he needs money, he has to work as a 'babysitting' for a blind man. Col. Frank Slate, retired from American army, is a soldier who is decent, compassionate, sometimes grumpy, even rude, but fighting for justice fearlessly, having strict rules, and skills in many fields. He does not give up his weapons despite being blind, in fact he is a fearless and self-confident character who does not abandon anything about life. Hence, he is motivated to travel to the other side of the world on behalf of his personal expectations. In short, he is disabled but he is competent in accordance with an 'average' person. The film's most striking scene in the context of UD criteria covers the following dialogue (Figure 9):

> *Frank Slate: Would you like to learn to tango, Donna?*
> *Donna: Right now?*
> *Frank Slate: I am offering you my services… Charlie, I am gonna need some coordinates here, son.*
> *Charlie: The floor is about 20 by 30 and you are at the long end. There is tables on the outside. The band is on the right.*

116

Figure 9. Frank's tango scene

Frank's tango scene emerges inspiring ideas for architects and designers to think and live with UD, especially in terms of equitable, simple, intuitive, and perceivable use (Figure 9). Finnish architect and architectural theorist Juhani Pallasmaa (2005), referring to the "raising the quality of life" feature of architecture in his work "Eyes of the Skin: Architecture and the Senses", emphasizes that the primary task of architecture is mental accommodation and integration. This approach might well explain the nature of the film's messages. The ultimate meaning of any building has many multifaceted dimensions. When the built environment is inclusively designed, our consciousness will also be transformed into the one in the desired world. For example, when architects/planners design a high-speed road, they design competition, noise, speed, and horn sound within the defined area. They also offer different life experiences for all when designing pedestrian network with diverse textured stones on the ground, trees on both sides of the road, bird sounds, safety, and urban equipment for recreation and socialization.

In the relationship between man and environment, users of spaces spontaneously establish ownership, spatial values, and collective memory belonging to the life. In this respect, architects are responsible for designing spaces in appreciating various senses of individuals to enhance a real community life. Therefore, architecture needs a holistic approach including a comprehensive evaluation of the perception of spaces with sight, hearing, and touching (Dinç Uyaroğlu, 2010). It should be mentioned here that all senses, even including vision, are extensions of the sense of touching, referring to Pallasmaa (2005).

The other two films selected in this study are American Beauty and Avatar, which depict relationship patterns that covers difficulties about otherization and social participation in society, although they do not involve the representation of persons with mental or physical disabilities. Since the nature of UD concept

117

addresses the embodiment of both social and physical spatial experiences of all people in a holistic approach, it also serves a reliable framework in evaluating those.

American Beauty

American Beauty is a 1999 American drama film directed by Sam Mendes. It is a film about a closer look at fallacy, falsity, and confusion of the middle-class American suburban life. The success of the film depends on its perfection on dealing with the issues of ordinary everyday experiences of unusual conflicts in family and business life. The issues of competition, pedophilia, repressed homosexuality and associated homophobia are covered in these relations.

Figure 10-11. The shift of the power as a reflection of otherization.

Individuals who are alienated to their own soul are exposed to otherization in society throughout the film. A red rose throughout the film is an object that actually masks the oppression and destruction experienced in social life. It is displayed as a dream with an obvious sign of inaccessibility, power, legitimacy, falsity, and fragile aspects of the consumer society. For instance, the red roses are seen on the dinner table when Lester is silenced under the dominance of his wife (Figure 10). In the other scene, the roses on the table are removed when Lester lives in a kind of enlightenment and thereby opposing the rules imposed to him and focusing on his personal desires and preferences as equal as the others in the family (Figure 11). The shift of the power displayed by two scenes are subjected to the dignity and equitable way of behavioral approach towards members of a family as well

as a public environment. This is vital for the success of the democratic public life as supported by UD concept.

119

Figure 12. The only space he freely uses for his bodily exercises is the garage.

The film displays American suburban life morphology with two-storey and human-sized houses very close to each other and regular paths in an over-thought-out, over-sterile and highly fictional way. The neighbors follow each other by confrontations in the outdoor spaces, front gardens, and in front of the semi-public garages and even controls each other from a distance by fretless and louvred windows of their houses. 'Abnormal' persons in these spatial settings are humiliated and labelled as the 'other'. Lester is unable to find a place in the home as a result of the oppression of her wife who holds more money and thereby has a unique power in their life. At the beginning of the film, the only space where Lister can feel free as a member of the house is the bathroom. Then, he tries to search for a place of his own with the revolt against this order. Her wife is so dominant and repressive that he can find a space for his bodily exercises, to feel freedom and strengthen his combative spirit, in the outside of the house, a garage (Figure 12).

Figure 13-14. Otherization is symbolized by framing the character and capturing it behind the fence.

Another living space where American beauty is described outside the home is Lester's office. A space in which Lester is left alone and excluded in a space by the hegemony of business life due to inappropriate size and space for approach and use, referring UD (Figure 13). This type of otherization has also been emphasized in many parts of the film by framing the character and capturing it behind the fence (Figure 14).

Figure 15. Lester's workspace in the message of "look closer".

The space of work and business relations produced by the modern society is an open-office system. It does not care about the personal assets and privacy of the individual, rather, it only prioritizes the work and control of the individual. Social prestige and spatial power of middle-class men have been significantly decreased with this mechanism. In the film, the director emphasizes the message of "look closer" especially to the audience by addressing cramped spaces and life in referring to appropriate size and approach in the Lester's work environment (Figure 15).

Avatar

"Avatar," directed by James Cameron in 2009, is a film about contradictions in between two different worlds, Earth and Pandora. Jake Sully, a paraplegic marine, is dispatched to the Pandora as avatar for a unique mission. While the film depicts the matriarchal, blue, green and colorful nature of the Na'vi people in the Pandora planet in which abstract values such as empathy, love, protection, and communion are considered as wealth, it critically highlights patriarchal, materialistic, selfish, destructive, militarist, and pressure systems and human in the World.

Figure 16. In Pandora, every part of the environment is connected in a unified consciousness.

In Pandora, the Na'vi have designed spaces and equipment that are inclusively used by all without segregation with regards to their status, sex, and age. They live in a total harmony with their environment and they acknowledge that every part of the environment is connected in a unified consciousness (Figure 16). From this manner, it gives reference to the Neolithic period when we had to use our senses in contact with our body and our hands while engaging in hunting. We had perceived the environment by smelling, touching, and experiencing and finding ourselves to capture the point of internalizing the outside world. However, now, we are reaching out the information by digital databases. The transfer of the information composed of virtual images and data and the kind of perception of the world transforms a human towards being 'as if'. In this manner, our productions in the world are also emerged as being 'as if'. Avatar gives rise to the thought of what real and virtual is in comparison with human and Na'vi. At this point, it might emerge ecological aspects on the bilateral relationships between user and its environment. Since the 60s, the main focus of the studies regarding the problems of the relationship among human being and the environment is to explore solutions to create a harmony in between them (Göregenli, 2018). As a part of this efforts, UD is based on normative design principles aiming at the accomplishment of social and spatial harmony to create a livable environment. Referring it, the success of Pandora reflects a network of 'oneness': Spaces, spatial equipment and tools integrated with the nature are very flexible according to Na'vis' needs. For specifically, the organic structure of the trees and plants flexibly works as a

sleeping unit that respond to the needs of both an individual and family (Figure 17). Man, on the other hand, might move the modest sleeping action far beyond functionality and flexibility on account of different sociological and symbolic beliefs (Figure 18).

Figure 19-20. Comparison of the leaves of the plants and glass in terms of their ways of responding to individual needs.

As displayed above examples, in Pandora, the spatial attributes are formed as parts of the nature in harmony: they are easy to understand, flexible, sophisticated, simple, and instinctive so the physical power is minimal. The deep ties with the nature make it necessary to focus on the sense of tasting, hearing and touching. These features of the Pandora natural environment are very much linked to UD principles, equitable use, flexibility in use, simple and intuitive use, low physical effort. For instance, the leaves of the plants that are used to drink liquid can be well matched with UD concept with its principles of flexibility, simplicity and low physical effort when compared to glasses (Figure 19-20). In general, while the designs are universe and sufficiently minimalist in keeping with all UD parameters in the avatar universe, the designs are unnecessarily exaggerated without concerning anthropometric criteria in the human universe.

Figure 17-18. Comparison of the spaces for sleeping in Pandora and our world.

Table 3. Analysis of Movies with UD Principles

UD Principles	Films	Event series matched with UD Principles
Equitable use		Ihsan with his wheelchair is trying to get on the bus in the city, but because of the inadequate physical arrangements, he experienced himself as the "other". This shows the vital necessity of application of UD's Equitable Use principle on the design of pavement, road, and bus stop.
Flexibility in use		In the film, it is seen that Ihsan with the wheelchair and her mother have severe physical difficulties in urban public routes and vehicles. The infrastructure of the cities should flexibly respond to the various needs of each individual in public pedestrian ways.
Low physical effort	TAMAM MIYIZ? (ARE WE OK?)	
Size and space for approach and use		During the film, Ihsan has difficulties in reaching, touching and using spaces where there is no measurement, posture and action analysis. In analyzing those, the emphasis of the UD concept on low physical effort as well as equitable access in urban spaces and public vehicles should be concerned.
Equitable use		The only possibility to go upstairs is the staircases prevent Christy and his mother from equitable way of access in their house.
Flexibility in use		If suitable environments and equipments are enhanced, Christy can also be a productive person in the field of art as well as others in the society. This is also valid when Christy takes part in the children's game at the street by the trolley.
Low physical effort	MY LEFT FOOT	Due to inaccessible parts of the house, Christy's mother has to carry on him, which needs a huge effort, which results in physical and psychological deformation of them as well as the decrease of their self-esteem and values as human beings.
Tolerance to Error		The scene of falling of the mother from upstairs and Christy's effort of descending the stairs to help his mother shows that staircase as well as other parts should respond to these facts to preserve and sustain vitality in housing environments.
Size and space for approach and use		When suitable environment was provided according to (dis)abilities and body measurements of Christy, he could make his paintings and novels freely.
Equitable use		Forrest's brace is caught in a gutter grate when he and his mother cross the street. For safe and equitable access in the city, the urban infrastructure should be designed in a maximum level of tolerance to error.
Tolerance for error	FORREST GUMP	
Equitable use		Forrest's braces are difficult to be utilized due to its high level of physical strength. The design of assistive devices as well as spaces is an important theme for providing low physical effort to people with disabilities.
Low physical effort		

Simple and intuitive use		When Forest used metal leg braces at the first time, he adapted to it in a short time. Its use was so simple and intuitive that he does not require prior knowledge according to UD paradigms.
Equitable use	**SCENT OF A WOMAN**	Blind persons can use the spaces like all persons if the environment gives equal opportunities for all.
Perceptible information		Col. Frank Slade independently uses the spaces for various activities as equal as others with the necessary information that Charlie gave him. Herein, it is essential that the spaces have a clear layout for orientation to enhance simple and intuitive use.
Simple and intuitive use		
Size and space for approach and use		The boundaries in spaces in which different types of behaviors are made should be clearly defined in size and approach in order to allow people with visual disabilities to use spaces independently.
Equitable use	**AMERICAN BEAUTY**	The shift of the power is subjected to the dignity and equitable way of behavioral approach towards members of a family as well as a public environment. This is vital for the success of democratic public life as supported by UD concept. Power struggle symbolized by the Red Rose is due to the need for physically and socially equitable access in the society.
Flexibility in use		Transforming the garage space into the fitness space flexibly gives opportunities of private activities in the house.
Size and space for approach and use		The space organization on the basis of the authority and hierarchy among the individuals is symbolized by the size and location of the fittings in a space. More specifically, spatial dimensions of size, approach and use in modern offices are expressed by the hegemony in business life.
Equitable use	**AVATAR**	In Pandora, the Na'vis live real democratic life in which spaces and fittings can be used by everyone in an equal manner without excluding any status, sex, and age. They adopt 'oneness', the belief of being whole and being together.
Flexibility in use		Referring a network of 'oneness', spatial fittings integrated with the nature are very flexible according to Na'vis' needs. The organic structure of the trees and plants is flexibly used as a sleeping unit that respond to the needs of both an individual and family.
Simple and intuitive use		In Pandora, spatial equipments are formed as parts of the nature in harmony. They are easy to understand, flexible, sophisticated, simple, and instinctive so the physical power is minimal. The leaves of the plants that are used to drink liquid are matched with UD principles of flexibility, simplicity and low physical effort.
Low physical effort		

124

CONCLUSION

Equitable life obviously needs turning onto being 'normal'; however, the subject in this thought is not an 'individual' but a 'social and physical environment'. Universal design mainly appreciates *oneness* and *harmony* among spaces and its users in rejecting *otherization*. Hence, equality, respect to freedom, justice, support of diversity, and even democratic environment are the concerns of UD (Alkan Bala, 2016). From this manner, social and political structure of modern life should be considered by expanding the scope. Those structural mechanisms mostly live in the films in terms of real or virtual manner. It is believed in this study that reading on the films gives an opportunity to deal with the themes of otherization and inclusion from different manners they comprise in a bounded time but expanded story.

Architecture and cinema are an interpreter and referrer of experiences, preferences, wishes, pains, and horrors of human being. Although they share the same goal in that sense, architecture have a role beyond those values. It is, unquestionably, at the center of building, transforming, developing or disordering community life in real world. As seen from above analysis, referring to the architectural attributes, the films can obviously present physical needs of people with disabilities in the built environment. For instance, how a blind person can perceive the spatial attributes or how spaces create difficulties for an autistic individual are clearly and comprehensively represented in the films. The language of the behaviors in the scenes show that there is a deep relationship of people and its environment. This relationship changes according to the differences of people. Spatial environment created by ignoring these differences incontestably causes unfair social life, which then affects the health, peace, and even presence of the community. In this sense, while involving various and many-sided experimental facts, they address how physical design affects their inclusion in social life. The dominance of the thought which focuses on the 'inabilities' far beyond 'competencies' in adhering to the physical image of individuals is the greatest obstacle for the realization of an equitable social life for all. This way of approach is frequently emphasized in the films "Tamam mıyız?", "My Left Foot", and "Forrest Gump", additionally "Scent of a Woman", "American Beauty", and "Avatar" especially from social aspects.

Moreover, having been addressed in the discussions on the films, public perceptions on disability formed with social and institutional prejudices excludes the power of ability. Although they are based on intellectual facts, they appear by spatial

structures supporting those misconceptions. To exemplify, in the films, women, especially mothers are tackled with the problems of otherization due to the prejudices of the society and they try to find solutions intuitively to overcome the physical and social limitations. The mother of Forest Gump, for instance, labels his leg support as a "magic feet" although the doctors insist on its insolubility. Also, Forest's girlfriend, even she is a child, triggers a realization of a miracle by giving the 'run' command against the children's misbehaviors. In "My Left Foot", constructive effects of social and physical supports and faith of Christy's mother towards him are seen. In Avatar, Na'vi woman's efforts to teach Jack about the beliefs and lifestyles in Pandora displays empathetic, facilitating, helpful, and consequently citizen-friendly attitudes.

REFERENCES

Alkan Bala, H. (2015) "Reading of the Architectural Identity via Cinema." *CINEJ Cinema Journal,* 4(1): 79-109.

Alkan Bala, H. (2016). "Kifayetli Engelliler Ve Engelli Yetkinler", *II. Ulusal Engellileştirilenler Sempozyumu*, 7-8-9 April 2016, Konya, Turkey.

Barnes, C. and Mercer, G. (2010). *Exploring Disability: A Sociological Introduction*. Cambridge: Polity.

Collier, J. and Collier, M. (1986). *Visual Anthropology: Photography as a Research Method*. Albuquerque: University of New Mexico Press.

Çakmak Yılmaz, B. (2006). "Engellilerin Sosyal Hayata Katılmasında Fiziksel Çevre Düzenlemelerinin Rolü", *ÖZ-VERİ Dergisi* (T.C. Başbakanlık Özürlüler İdaresi Başkanlığı Hakemli-Süreli yayın) ISSN: 1304-8082 pp: 863-879, Ankara.

Demerath, N. J. III. (1981). "Through a Double- Crossed Eye: Sociology and the Movies", *Teaching Sociology, 9 (1):* 69-82.

Dinç Uyaroğlu, İ. (2010). "Design Preferences of People with Visual Disabilities in an Urban District of Ankara, Turkey", pp. 257-262 in *1st international Graduate Symposium on the Built Environment*, edited by S. T. Elias-Ozkan; B. Z. Çakmaklı; F. Summers. Ankara: METU Faculty of Architecture.

Dinç Uyaroğlu, İ. (2017). "Accessibility and Inclusion of Students with Disabilities in University Campus Spaces", *Arts and Design Studies*, 50: 14-22.

Dowd, J. J. (1999). "Waiting for Louis Prima: On the Possibility of a Sociology of Film", *Teaching Sociology,* 27 (4): 324-342.

126

Dwoskin, S. (1997). "Whose Film?", pp. 214-217 in *Framed Interrogating Disability in the Media,* edited by A. Pointon and C. Davies. London: BFE Publishing.

Göregenli, M. (2018). *Çevre Psikolojisi: İnsan Mekan İlişkileri*. İstanbul: İstanbul Bilgi Üniversitesi Yayınları.

Hargis, C. H., Gickling, E. E., and Mahmoud C. C. (*1975)*. "The Effectiveness of TV in Teaching Sight Words to Students with Learning Disabilities", *Journal of Learning Disabilities,* 8 (1): 37-39.

Imrie R. (2004). "Disability, embodiment and the meaning of the home", *Housing Studies*, 19(5): 745-763.

Imrie, R. (2012). "Universalism, universal design, equitable access to the built environment", *Disability & Rehabilitation, 34*(10): 873-882.

Imrie, R. and Hall, P. (2001). *Inclusive Design: Designing and Developing Accessible Environments.* London: Spon Press.

Iwarsson, S. and Ståhl, A. (2003). "Accessibility, usability and universal design--positioning and definition of concepts describing person-environment relationships", *Disability Rehabilitation*, 25(2): 57-66.

Karpf, A. (1997). "Crippling Images", pp. 79-84 in *Framed Interrogating Disability in the Media,* edited by A. Pointon, C. Davies. London: BFE Publishing.

Keller, C. E., Hallahan D. P., McShane, E. A., Crowley, E. P., and Blandford, B. J. (1990). "The Coverage of Persons with Disabilities in American Newspapers", *The Journal of Special Education,* 24(3): 271-282.

Kennedy, H. (2009). "Going the Extra Mile: Emotional and Commercial Imperatives in New Media Work", *Convergence. The International Journal of Research into New Media Technologies,* 15(2): 177-196.

Meşhur Alkan, F. (2013). "Accessibility for People with Disabilities in Urban Spaces: A Case Study of Ankara, Turkey," *Archnet-IJAR,* 7(2): 43-60.

Morris, J. (1997). "A Feminist Perspective", pp. 21-31 in *Framed Interrogating Disability in the Media*, edited by A. Pointon, C. Davies. London: BFE Publishing.

Oliver, M. (1996). *Understanding Disability from Theory to Practice*. London: Macmillan Press.

Ostroff, E. (2011). "Universal Design: An Evolving Paradigm", pp. 1.3-1.11 in *Universal Design Handbook,* edited by W. Preise and K. Smith. New York: McGraw-Hill.

Pallasmaa, J. (2005). *The eyes of the skin: Architecture and the senses*. Chichester: Wiley-Academy.

Pallasmaa, J. (2008) *The Architecture of Image: Existential Space in Cinema*. Helsinki: Rakennustieto Publishing.

127

Pointon, A. (1997). "Disability and Documentary", pp. 84-93 in *Framed Interrogating Disability in the Media*, edited by A. Pointon and C. Davies. London: BFE Publishing.

Polat, Ç. S. (2011). "Engelli Bireylere İlişkin Kültürel Tanımlamaların *Başka Dilde Aşk* Filmi Üzerinden İncelenmesi", Yüksek Lisans Tezi, Ankara: Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü.

Reichman, J. and Healey, W. C. (1983). "Learning Disabilities and Conductive Hearing Loss Involving Otitis Media", *Journal of Learning Disabilities,* 16 (5): 272-278.

Safran, S. P. (1998). "The First Century of Disability Portrayal in Film: An Analysis of the Literature", *The Journal of Special Education,* 31(4): 467- 479.

Salmen, J. (2011). "U.S. Accessibility Codes and Standards: Challenges for Universal Design", pp. 6.1-6.7 in *Universal Design Handbook,* edited by W. Preise and K. Smith. New York: McGraw-Hill.

Saltoğlu, S. and Aydin Öksüz, A. (2016). "Bir İktidar ve İdeoloji Sorunu Olarak Mimaride "Engel" Kavramı", *II. Ulusal Engellileştirilenler Sempozyumu*, 7-8-9 April, pp. 154-164, Konya, Turkey.

Salvesen, K. Å. and Undheim, J. O. (1994). "Screening for Learning Disabilities with Teacher Rating Scales", *Journal of Learning Disabilities,* 27(1): 60-66.

Story, M. F. (2011). "Principles of Universal Design", pp. 4.3-4.12 in *Universal Design Handbook,* edited by W. Preise and K. Smith. New York: McGraw-Hill.

Taggart, L., McMillan, R. and Lawson A. (2008). "Women with and without Intellectual Disability and Psychiatric Disorders: An Examination of the Literature", Journal of Intellectual Disabilities, 12(3): 191-211.

Tanyeli, U. (2001). "Sinema ve Mimarlık- Temsiliyet Nesnenin Temsili Sanatın Sanallıkla İfadesi, *Arredamento Mimarlık*, 141.

128

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129