



Evolution of Office Space in Cinema and Television

Sinema ve Televizyonda Ofis Mekânının Evrimi

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ABSTRACT

After capitalism, the emergence of factories separated home and work from each other. In the early years of capitalism, the workspace was the production space where business used material labour extensively. In the following years, a new workforce -immaterial labour- has emerged with the increase in paperwork and the replacement of human labour with machines in mass production. The workspace of this new workforce has no longer been the production site. Thus, the office has emerged to meet the needs of this workforce. Offices, the workspace of immaterial labour, have evolved in various ways since the early 1900s. As a result of mobility that emerged with globalization, people started to use not only offices but also various places (cafes, airports etc.) as workspaces and the concept of office has become even more flexible. Starting from the mobile era of today, how is the workspace going to be in the future? Is there going to be a workspace called 'the office'? With reference to these questions, the present study focuses on the evolution of office space to draw a perspective on the changes over years. Firstly, the emergence of workspace is mentioned, which is closely tied to capitalist production. Afterwards, the evolution of workspace is analysed historically, and it is visualized with the help of movies and tv series that include office spaces. In addition, future scenario based movies and tv series are examined to create a view about future lifestyle and work life. Finally, there are recommendations for future office spaces that may respond to the needs of flexible and mobile workers.

Keywords: Office spaces; spatial evolution; spatial transformation; work-life in cinema; workspace.

ÖZ

Kapitalizm ile birlikte fabrikaların ortaya çıkmasıyla ev ve iş birbirinden ayrılmış, çalışma mekânı ortaya çıkmıştır. Kapitalizmin ilk yıllarında bu çalışma mekânı, maddi emeğin iş dünyasında yoğun olarak kullanıldığı üretim sahası olmuştur. İlerleyen yıllarda evrak işlerinin artması ve fabrikalardaki seri üretimde insan emeğinin yerini makinelerin almaya başlamasıyla yeni bir iş gücü olan maddi olmayan emek ortaya çıkmıştır. Bu yeni iş gücünün çalışma mekânı artık üretim sahası değildir. Böylelikle bu yeni iş gücünün ihtiyacını karşılamaya yönelik yeni bir mekân olan ofis ortaya çıkmıştır. Maddi olmayan emeğin çalışma alanı olan ofisler, 1900'lü yılların başlarından bu yana çeşitli şekillerde evrilmiştir. Küreselleşme ile ortaya çıkan mobilitenin bir sonucu olarak, insanlar çalışma mekânı olarak sadece ofisleri değil, kafe ve havaalanları gibi çeşitli yerleri de kullanmaya başlamışlardır. Böylece ofis kavramı zamanla daha esnek hale gelmiştir. Artık cevap bulunması gereken bazı sorular vardır. "Bugünün mobil çağından başlayarak, çalışma mekânı gelecekte nasıl olacak? Ofis adı verilen bir çalışma mekânı olacak mı? Bu soruları referans alan bu çalışma, yıllar boyunca yaşanan değişimler üzerinden bir perspektif çizmek için ofis mekânının evrimine odaklanmaktadır. Bu kapsamda ilk olarak, kapitalist üretime dayanan çalışma alanının ortaya çıkışına değinilmiştir. Daha sonra, çalışma mekânının evrimi tarihsel olarak analiz edilmiş ve ofis mekânlarını içeren film ve dizilerin yardımıyla bu evrim görselleştirilmiştir. Ayrıca, gelecekteki yaşam tarzı ve çalışma hayatı hakkında bir bakış açısı oluşturmak için gelecek senaryolu film ve diziler incelenmiştir. Son olarak, gelecekteki ofis mekânları için esnek ve mobil çalışanların ihtiyaçlarına cevap verebilecek önerilerde bulunulmuştur.

Anahtar sözcükler: Ofis mekânı; mekânsal evrim; mekânsal dönüşüm; sinemada iş hayatı; çalışma mekânı.

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Introduction

The workspace that emerged as a result of the Industrial Revolution was primarily the production area where blue-collar workers worked. During the developing phases of capitalism as we know today, while material labour has decreased, immaterial labour has increased due to the increase in paperwork.¹ The office space has emerged where this new workforce can work at a desk, because this new workforce didn't need to work in the production space.

Rising with the technological developments, the information age played an important role in the globalization of the world. In the global era, work-life is forced to be global and outsourced because of the production processes (raw materials, supplier industry, market, know-how, etc.). Globalization eliminated the commitment of immaterial labour to the space with the possibility of the transfer of knowledge and labour from periphery to centre. White-collar workers – the labourers of the information and global era – are expected to be flexible and to have multiple abilities in order to keep up with the change of situations and to be successful in different business fields. They should not only be flexible but also be mobile. Since the production system is based on the centre and periphery understanding, labourers have to travel all around the world.

Mobility has revealed temporary workspaces where labourers have flexible working hours and there is no sense of belonging, instead of fixed workspaces. In this era, where immaterial labour is produced much more than material labour, airports – mostly used for travel – and cafes – like Starbucks, mostly preferred by home-office employees – are the main places for these temporary workspaces. Since people have very limited time, they arrange their works during a coffee break or between two flights. Public spaces such as airports, cafes are now places where business is carried out, meetings are held, and customers are hosted. The workspace that emerged with the Industrial Revolution has been changed with the change of the nature of labour.

The importance of the study is that it elaborates an interesting subject through a condensed discussion on workspaces and its changing form and meaning in the evolution of capitalism. The main objective of this paper is to understand the spatialization of immaterial labour, to analyse the evolution of workspace and to propose

a future office space. At the current stage of capitalism, the workspace has changed with the change of labour, therefore this study aims to examine the office spaces of white-collar workers. In order to analyse the change of the workspace, the history of office space is examined and it is analysed through movies and tv series in order to visualize this change. There are different ways of visualization for the analysis of office space evolution, such as drawings of plans, diagrams, photos of the spaces etc. However, it is hard to find the same type of visuals for every design period. The lack of same type of materials is the limitation of this study, so that this study uses movies and tv series to create a common language between different design periods. Since there are many movies and tv series which take part in office spaces, it is easy to read the change of office interiors from the scenes through this method. In addition, this paper proposes a future office space in the end and again the cinema provides best interfaces that could suggest the future of office spaces.

In the study, firstly, the emergence of workspace is considered. Then, with the help of literature, the evolution of office space is analysed, and it is exemplified through the office spaces in movies and tv series. This analysis helps us to understand the social and spatial changes in office spaces and leads us to frame the needs of future workspace for flexible and mobile workers of tomorrow.

The Emergence of Workspace

The Industrial Revolution that emerged at the end of the Eighteenth Century as a result of technological developments has radically changed the social life and structure. This change, which led to the emergence of the modern cities, gave rise to new social bonds. While there were aristocracy and their subjects, the serfs, with the Industrial Revolution serfs began to migrate to the cities and became workers in the modern city. As a result of all these, the bourgeoisie emerged as a new class. With the rise of the bourgeoisie, the aristocracy slowed down, monarchies collapsed, and the nation-states arose. As such, human coexistence has reached a greater population than ever before, which had social consequences inevitably. For example, the birth of sociology is one of the results of this era. In a way, 'The traditional' ended and 'the modern' started.

The mechanization revealed factories and mass production, which led to the process of capitalist production. According to Fülberth (2008, p.17), capitalism is the way of societies that provide the profit and the goods, which are used to obtain this profit by purchasing and selling goods, or by supplying service-based workforce. The emergence of capitalism did not require an expansion or a simple growth of exchange, but a full transformation in

¹ Even though there are different forms of 'immaterial labour' (e.g., non manual labour), this term has found its exact value in the literature. "The concept of immaterial labor was coined by Italian sociologist and philosopher Maurizio Lazzarato in his 1996 essay "Immaterial Labor", published as a contribution to *Radical Thought in Italy* and edited by Virno and Hardt" (Immaterial labor). In addition, Hardt and Negri referred the term in their book *Empire* (2000). According to Hardt and Negri (2000, p.290) "Since the production of services results in no material and durable good, we define the labour involved in this production as immaterial labour—that is, labour that produces an immaterial good, such as a service, a cultural product, knowledge, or communication."

the most basic human relations and practices, a break with the very old patterns of human and nature interaction.

In the industrial society, production is done in giant factories and the enterprise is separated from the family. "Up to the mid-eighteenth century, the household served as the physical center of the economy. In the countryside, families made most of the things they consumed", however during the capitalist production process "home was separated from the workspace" (Sennett, 1998). The factory is the gravity centre of the society and the production and family no longer works together as a unit. Thus, the worker who is detached from his family began to be employed like slaves in factories. The prominent production system of the capitalist era is "Fordism", which is practised in Henry Ford's motor company. It is based on Taylorism principles that were created by mechanical engineer, Frank Taylor, who pursued to maximise industrial efficiency.²

In the post-industrial society, the economic structure has transformed, new classes have risen, and the role of knowledge has grown. The network society in the world of globalization, which is symbolized by the internet, provides rapid access from anywhere to anywhere, regardless of geographical distance. According to Özmen (2017, pp.74-75), the global world economy and its neoliberal policies, which were founded by various international trade agreements and organizations in the 70s, increased the circulation speed of capitalist fund in the world and turned the world into a continuous buy-and-sell session in different geographies. In addition, the strong economies of the world have shifted their operations such as production, distribution and sales from the center to periphery except for know-how, technological innovation and marketing strategy. Because we are in the era of value creating through the symbolic, the world economies use the periphery to do their drudgery works.

In the 2000s, concepts such as digital society, the digital economy, the information economy, and the new economy have been used to define the new era. "In the new informational economy, designated rather fancifully by others as 'weightless' or as 'living on thin air', work in the elite occupations has become a matter of producing a convincing performance, rather than being based on clearly defined rules and practices" (McDowell, 2003, p.106). Labourers who work from their houses have replaced labourers of the giant bureaucratic organizations of the past. It cannot be ignored that the computer technology has left its mark as an important factor in the change and

the internet has started to shape our working relations. The most important function of the internet is to provide free circulation of information by enabling people to interact socially, politically, and economically. Today, people have access to the information they need from all over the world, independent of time and space. Distance no longer matters.

As a place of production where workers are gathered, the factory started to disappear, and production has extended beyond the borders of the factory walls. Labour has been moving away from the form that is defined in industrial societies. Now, every field of life has started to transform into a production space. The role of the material labour of mass-production that creates surplus value is now replaced by immaterial labour-power, which is more intellectual and communicative. Immaterial labour emerges on the basis of intellectual, scientific and technical knowledge. It is more understandable with the role of computers in work and everyday life. According to Yüksel (2008, p.55), the asserting of a real homogenization in labour processes is another consequence of informatics in production and the occurrence of immaterial labour.

According to Zygmunt Bauman (2000), the worker can be really flexible only if the current and future employees lose their educated habits, such as daily work, daily changes, a permanent workspace, and permanent colleagues. In the rapidly changing world, what is expected from production and service is now flexibility. In addition to being flexible, being online and reachable obliges people to work anywhere and anytime. Mobility is the reality of this era and as Bauman (1998, p.50) says, "our bodies are hooked into the networks, the databases, the information highways".

One of the most significant features of contemporary advanced industrial economies is the predominance of employment in the service sector. There is now a huge literature delineating the shift from manufacturing dominance, the spatial distribution of services, conditions of employment and the nature of work in different workspaces, as well as a literature about new forms of flexible industrial production.

Evolution of Office Space

This section focuses on how office space has evolved. This evolution is exemplified through both the historical information from the literature and thorough the movies and tv series with office spaces. Since its original value is to look at the office space from a different perspective and visualize all the change, this study has benefited from movies and tv series in visualization. For this reason, movies and tv series that include office spaces were preferred to reflect the spatial change mentioned in the literature. A selected group of movies and tv series were examined, some of them were eliminated because of them

² This management theory claims that the separation of labour-process has greatly increased efficiency. Thompson and McHugh (2009) states that with the support of bureaucratic rules, Taylorism is a system that controls the work in detail. Moreover, they refer to many arguments about Taylorism which consider the method as a failed theory of motivation in accordance with the discussions on the principles of it, which sees the worker as an economic man.

taking place in the same years, and the ones that have better frames were used to show the space. Accordingly, a cinema and tv analysis has been made to show how the change has occurred over the years.

At the beginning of the capitalist era, the workspace was mostly constituted of the factories with machines and “the factory provided no workers’ housing on the grounds” (Sennett, 1998). Therefore, the workspace and the houses were separated. Because of the change in

business life, while the need for blue-collars decreased, the need for white-collars increased over time. Hence, a new working space emerged for this new type of labourers, which is called the office. The literature based information below (Table 1) shows the historical evolution in the office space.

The first office spaces can be seen in some movies, such as Kafka (1991), which takes place in 1919. People work in a huge space (Figure 13a) that provides easy supervision

Table 1. History of office space

Office Space	Year	Image	Information
Room 40 (The Old Admiralty Office)	1726	 <p>Figure 1. Room 40 - The Old Admiralty Office.</p>	Served for the Royal Navy for meetings and the paperwork
East India House	1729	 <p>Figure 2. East India House.</p>	Headquarters of East India Trading Company (The History of Office Design)
Taylorist workspace	Early 20 th century	 <p>Figure 3. A Taylorist workspace.</p>	<ul style="list-style-type: none"> • Open-plan offices that pursued the principles of Taylorism³ • Controlled workspace based on productivity • Labourers work under the observation

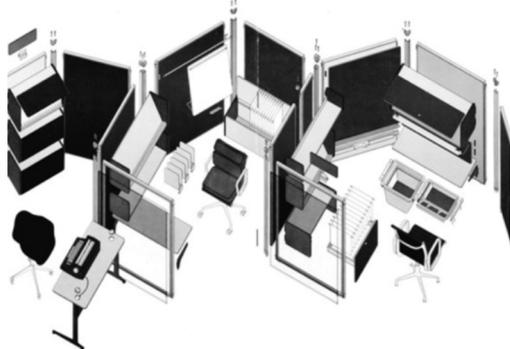
³ Taylorism is a system created by mechanical engineer, Frank Taylor (Thompson and McHugh, 2009), who looked to amplify modern proficiency. Because of neglecting to think about human and social components and con-

centrating only on guaranteeing extreme productivity from the workers, Taylor’s methodology has been criticised so much.

Table 1. History of office space (*continue*)

Office Space	Year	Image	Information
Large skyscrapers	Early 20 th century	 <p data-bbox="500 763 870 795">Figure 4. One of the first Skyscrapers.</p>	<ul style="list-style-type: none"> • New period of office design with the invention of lift and steel frame construction • Became possible with air conditioning, electric, lighting, and telegraph systems • Contain many companies and their staff
The Johnson Wax Company Office – Frank Lloyd Wright	1939	 <p data-bbox="500 1178 935 1210">Figure 5. The Johnson Wax Company Office.</p>	<ul style="list-style-type: none"> • Open-plan office (a blend of private offices in an extensive space)
Bürolandschaft (Office Landscape)	1950s	 <p data-bbox="500 1555 862 1587">Figure 6. Bürolandschaft office plan.</p>  <p data-bbox="500 1934 870 1966">Figure 7. Bürolandschaft office space.</p>	<ul style="list-style-type: none"> • New type open-plan office • Emerged after the WWII and The Great Depression • Individual-based system that is organic and natural • Large spaces that were freed from partitions • Separation with plants instead of partitions • Plants in pots to create an effect of a landscape • More socialization and collaboration between teams • More attention on meeting the needs of the workforce • Less rigid approach to office settlements (The History of Office Design)

Table 1. History of office space (continue)

Office Space	Year	Image	Information
Action Office	1960s	 <p data-bbox="500 683 802 710">Figure 8. Action Office design.</p>  <p data-bbox="500 1087 732 1115">Figure 9. Action Office.</p>	<p data-bbox="1101 306 1243 327">Action Office I:</p> <ul data-bbox="1101 336 1448 491" style="list-style-type: none"> • Alternative work settings for staff • More private workspace • Movement freedom with featured desks and varying height of workspaces <p data-bbox="1101 500 1247 521">Action Office II:</p> <ul data-bbox="1101 529 1495 1002" style="list-style-type: none"> • Personalized space that is more productive • Defined territories that provide privacy • Participation in the events happening outside the personal areas • The components: <ul data-bbox="1101 725 1479 874" style="list-style-type: none"> - easy installation - standardized - interchangeable - flexible for modification according to the needs • “In 1985 the Worldwide design Congress named Action Office the ‘Most Significant Design since 1960’” (Schnädelbach, 2010).
The Cubicle Farm	1980s	 <p data-bbox="500 1561 786 1589">Figure 10. The Cubicle Farm.</p>	<ul data-bbox="1101 1144 1495 1519" style="list-style-type: none"> • Partially enclosed office space • Private working areas separated by around 1,5–1,8 m tall partitions • The purpose was to prevent users from losing their concentration • The employees were isolated from the noises and view of the common working area • Consist of measured components as dividers, drawers, desks, and shelving that can be arranged according to the client’s needs

on workers. In addition, the workers watch each other. The superiors or bosses can watch workers through the glass partitions. Having looked at the individual areas, there is no privacy in the workspace. Moreover, there are typewriters, papers, and phones on the tables but nothing personal, which makes the workspace to be without the sense of belonging (Figure 13b).

In the movie *The Crowd* (1928), there is an insurance company and there are many office workers. Inside the building, there is a highly ordered workspace (Figure 14a).

The workspace makes it easier to supervise the workers. Besides, the atmosphere inside of the office is cold and there is no privacy and no personal stuff on the desks (Figure 14b). Hence, the workers do not belong to the workspace and they leave the office as soon as possible at the end of the regular working hours.

Another movie with one of the first office spaces is *Baby Face* (1933) which takes place in a New York skyscraper. It is an open-plan office (Figure 15a, b), but unlike the first two movies, it does not have regular order. Yet, in order to

Table 1. History of office space (continue)

Office Space	Year	Image	Information
Modern Office Systems	2000s	 <p data-bbox="500 693 764 725">Figure 11. Google Office 1</p>  <p data-bbox="500 1123 764 1155">Figure 12. Google Office 2</p>	<ul style="list-style-type: none"> • Offices according to new design principles with the rise of technology companies • Mobility is one of the key factors (Since technology can be used anywhere, new offices have been designed based on mobility.) • Warmer environments with furniture, kitchen, creative areas and leisure spaces

provide supervision, the superiors work in the same room with the workers.

The company in the movie *The Apartment* (1960) is also in a skyscraper. The main workspace (Figure 16a, b) is huge, rectangular and designed in order to supervise the workers easily. The spaces between desks are one-person width, therefore; the workers also supervise each other by being close to each other's desks. It seems that it is not allowed to put personal stuff on desks, so in this place, there is no sense of belonging.

Similar to *The Apartment* movie, in *The Trial* (1962), the main workspace is huge, rectangular and ordered (Figure 17a, b). It is divided into two parts with a large corridor and the desks in those two parts are located with a small gap between them. Likewise, the previous movies, people do not belong to their workspace and leave it collectively as soon as possible. There is not any personal stuff on the desks, there are only typewriters and phones. The change starting from the movie *Kafka* of 1919 to *The Trial* shows that the technology did not develop much. People still

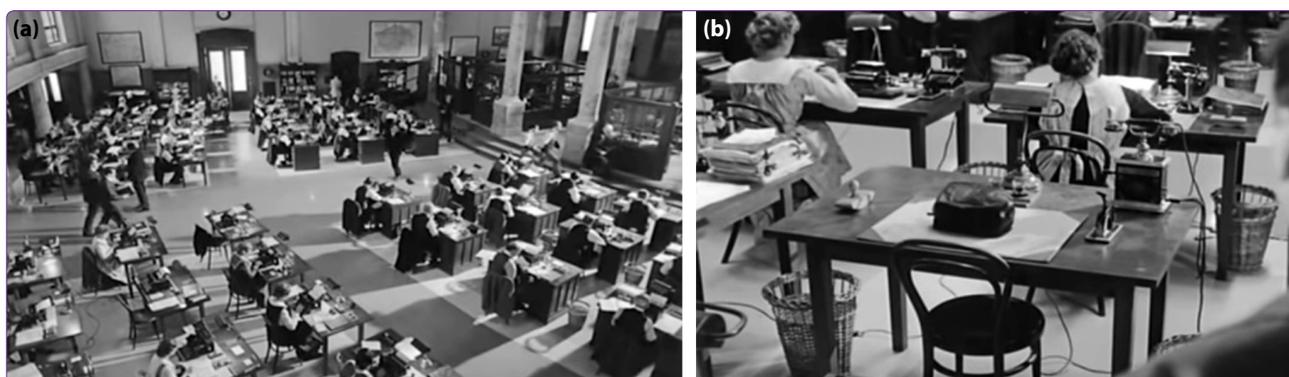


Figure 13. (a) *Kafka* movie – Office space. (b) *Kafka* movie – Work life.

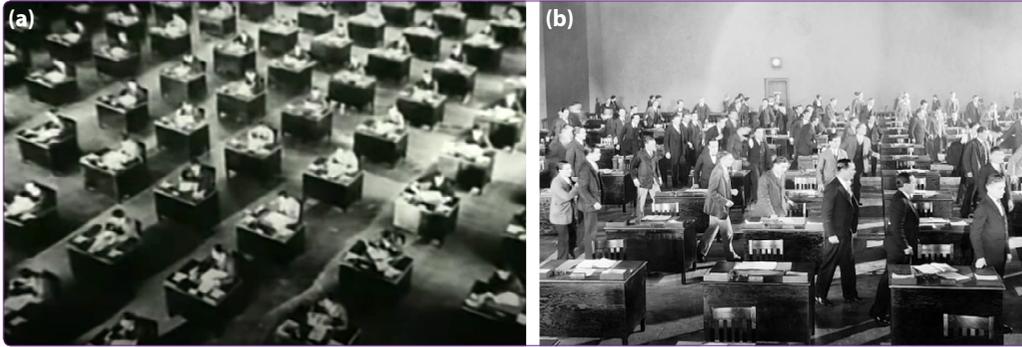


Figure 14. (a) The Crowd movie – Strict order in office space. **(b)** The Crowd movie – Office space.

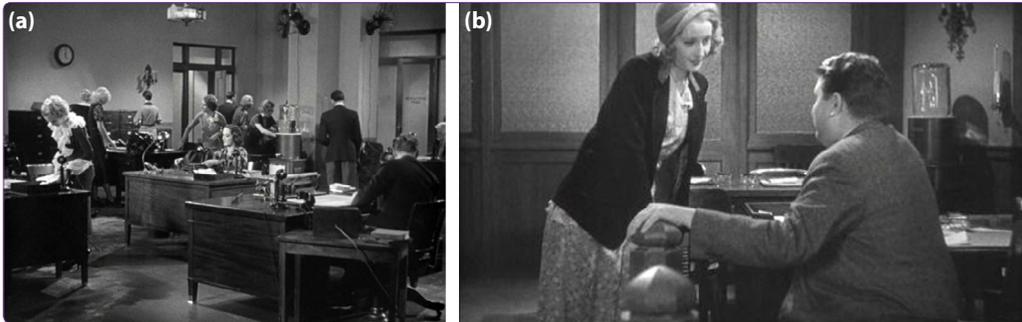


Figure 15. (a) Baby Face movie – Office space 1. **(b)** Baby Face movie – Office space 2.



Figure 16. (a) The Apartment movie – Office space 1. **(b)** The Apartment movie – Office space 2.

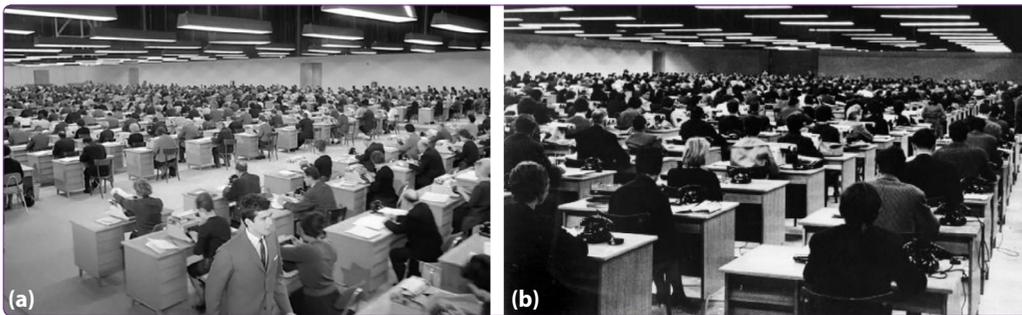


Figure 17. (a) The Trial movie – Office space 1. **(b)** The Trial movie – Office space 2.

work with typewriters and there is a manual paperwork system. The design and the settlement of the workspaces make the workers feel like robots or machine parts.

TV series Mad Men (2007 – 2015) takes place in the 1960s of America. The workspace is an advertising agency that has an open-plan office system. Unlike the previous

examples, there are fewer people working in the same space. Moreover, the working environment is not as strict as the previous ones, hence people have some personal objects (flowerpots, frames etc.) on their desks. However, similarly, there is an order on the settlement of the worktables (Figure 18a). Although, there are separate

offices, they are divided by partitions instead of walls (Figure 18b). These partitions are partially opaque and partially translucent depending on the need of privacy. In this ordered and supervised workspace, employees use typewriters because of being in the constraints of the 60s' technology.

In the movie *All The President's Men* (1976), all employees also use the same space, like *Bürolandschaft* or *Action Office*. In order to create some private areas, there are separations between tables, so that the employees are more focused towards their own job rather than the other things going on. These separations are also used as panels to customize the space (Figure 19a). As individual workspaces are customized with personal belongings, employees feel belonging to space. They do not identify the workspace with working hours and create flexible work

hours. Also in this space, which is more human-oriented compared to the other spaces in the previous movies, the managers supervise the employees (Figure 19b).

Cubicles can be seen in the movie *Swimming with Sharks* (1994) which has an open office system. Here, too, partitions are used to provide private spaces for users. However, the private areas are provided not only by separations placed on the desks but also by partition walls (Figure 20a). Thus, each employee works in his/her own space (Figure 20b). With the effect of developments in computer technology, computers became even more available for public by the late 1980s and early 1990s. This is reflected in the movies of the 90s as it is in *Swimming with Sharks*.

Likewise, the movie *Office Space* (1999) takes part in an office in which employees are separated from each other



Figure 18. (a) *Mad Men* – Office space. (b) *Mad Men* – Separate office.



Figure 19. (a) *All The President's Men* movie – Office space. (b) *All The President's Men* movie – Supervisor's office.



Figure 20. (a) *Swimming with Sharks* movie – Office space. (b) *Swimming with Sharks* movie – Individual working area.

by using modular working areas (Figure 21a). This is also an example of a cubical system, but the compartments here are higher than the previous example, so that employees have to stand up or leave their space to communicate with each other. By these partitions, employees do not work with the feeling that they are under control at any time, and they customize their own spaces as they wish (Figure 21b).

The Office (2005 – 2013) is a tv series that is presented as a documentary. It focuses on the everyday lives of the employees of a paper company. Although it is a 2000s tv series, the design of the space is not under the influence of modern office designs. There is not any comforting space for the employees. However, it is different from the previous examples with its disordered furnishing orientation (Figure 22a). Disorder is not only seen with the furnishing, but also with the entry of personal items into the work area. In addition, messy working style of the users

is also effective in that crowd. The personalization and the feeling of comfort can be seen in plantation (Figure 22b). It can be similed to the understanding of Bürolandschaft.

40 Days and 40 Nights (2002) movie takes part in a modern office that is converted from an old building. The interior is planned as an open office plan according to the working systems of today and it is furnished with modern office furniture. Even though the workspaces in the first movies are open office systems, the employees of them are not allowed to communicate with each other and they are forced to do their jobs. In order to make the employees feel more comfortable and more connected to the place in this movie, there is a kitchen, a gathering area and there are comfortable seats inside the office (Figure 23a, b).

The movie The Intern (2015) takes place in a contemporary office space (Figure 24a). The office is designed around an open office system idea and there is

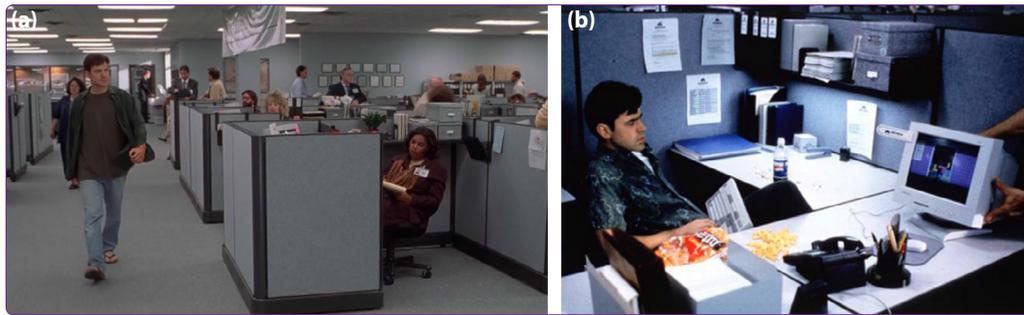


Figure 21. (a) Office Space movie – Office space. (b) Office Space movie – Individual working area.



Figure 22. (a) The Office – Office space 1. (b) The Office – Office space 2.



Figure 23. (a) 40 Days and 40 Nights movie – Common space in the office. (b) 40 Days and 40 Nights movie – Comfort areas in the office.

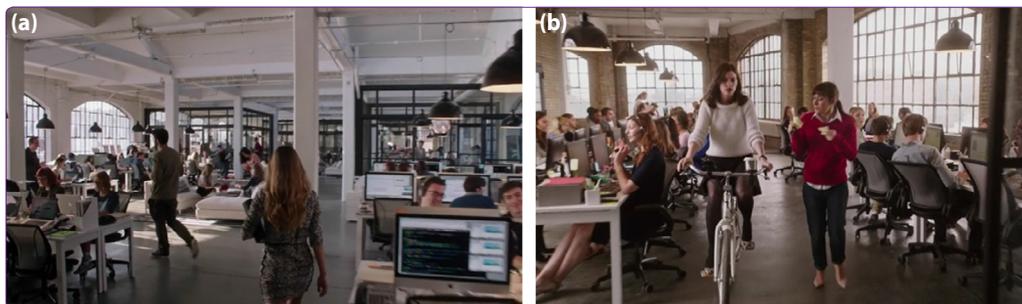


Figure 24. (a) The Intern movie – Office space. (b) The Intern movie – Work life.

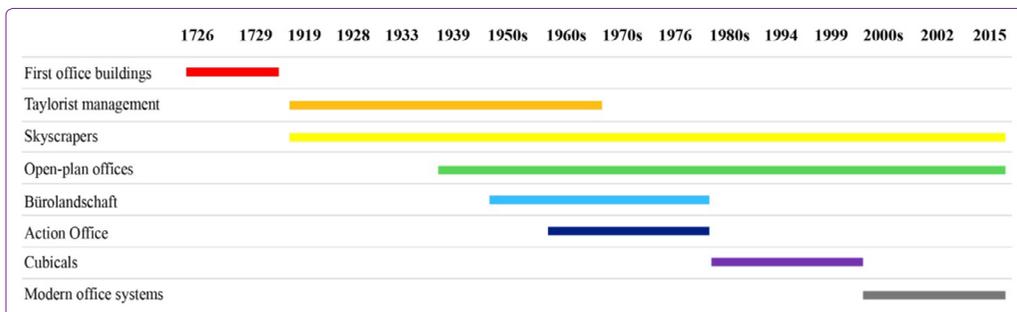


Figure 25. Timetable of the office spaces.

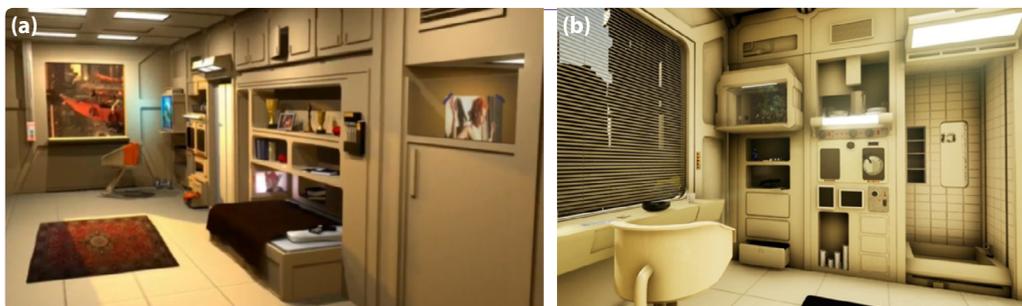


Figure 26. (a) The Fifth Element movie – Transformable interior 1. (b) The Fifth Element movie – Transformable interior 2.

no division between the employees in order to make the employees motivate and interact with each other to make more sales. The boss cycles through the company (Figure 24b), so that she uses the time efficiently and takes care of each of her employees individually. Glass panels surround the meeting room and the executive room to preserve the transparency within the company. It is clearly seen in the movies under the influence of the technological developments of the 2000s that employees can work in various places inside or outside the office thanks to their laptops. Also, through the technological developments, communication can be made with different digital tools, and internal correspondence is provided from online platforms.

As it is shown above, starting from the capitalist production process, office space has been changed according to different management principles or design principles. Although in the first office spaces the labourers

used to work together to be under observation, this idea has changed through years and the workspace has become a comfortable space like home in order to provide the sense of belonging. Figure 25 shows the evolution of the workspace based on the important years in office space history and the years of the analysed movies.

After criticizing the evolution through years, it would be good to approach some movies that include future scenarios. The movie *The Fifth Element* (1997) takes place in the future. Because of being a future space, the design of the space is different from the spaces we are used to. The house of the main character seems like a compartment, there are storages everywhere. Everything is foldable and transformable (Figure 26a, b), so that the unnecessary items can be removed from common area. According to this movie, it is expected that people will live in small spaces like capsules in the future. They will have everything in one space to sleep, eat, clean, etc.

Through the foldable and expandable systems, any space can turn into an office space and people can work from their houses like they are in offices. Moreover, this kind of mechanisms can be used in public spaces, therefore; a cafe or a lounge in an airport can meet different needs of mobile workers.

In the Fifteen Million Merits (2011) episode of Black Mirror, people live in a kind of futuristic cubical (Figure 27a, b), which is surrounded by screens. These screens are used as alarm clock, TV, and game consoles. The episode gives the idea that in the future people may live or work in these kinds of small spaces, between the screens. Because of the different skills and flexible labour people may need to do different works at the same time through the screens. In addition, augmented reality or virtual reality may take place in our work lives, which would allow us to work from our bed.

White Christmas (2014) episode of Black Mirror shows also a futuristic world. A man has an egg-shaped object as a personal assistant. The assistant has the control panel of the house (Figure 28a). In order to fulfil the demands of the man, she accesses everything (Figure 28b). Therefore, when he needs a change in the house environment, she controls it through the buttons on the house plan. This idea shows that in the future, we may not need computers and may only need specialized screens and surfaces for working. With this kind of technological development, it may be easier to work anywhere without using computers or carrying stuff with us. A small object can provide visual materials, meetings etc., hence; the only thing left for a mobile worker is to find a table for her/himself.

The last movie, which proposes a future space, is, Workspace of the future: How will you work in 2030? When the user enters the office there are some interfaces

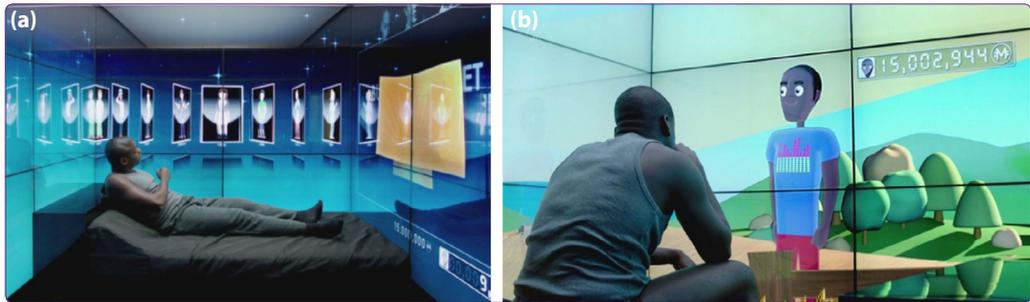


Figure 27. (a, b) Fifteen Million Merits /Black Mirror – Futuristic cubical.

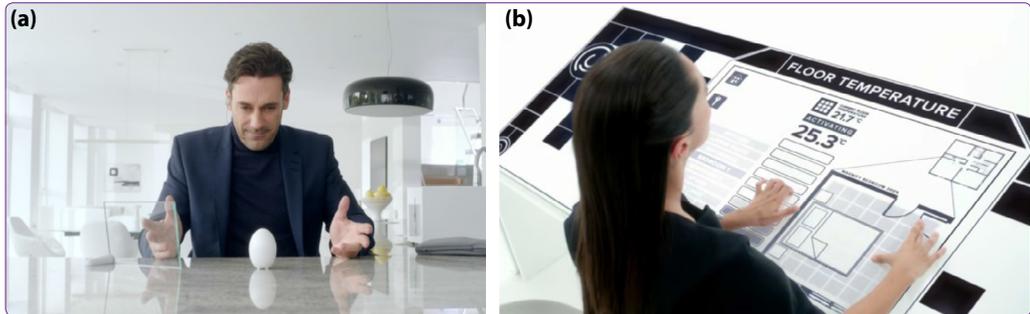


Figure 28. (a) White Christmas / Black Mirror – Glass screen. (b) White Christmas / Black Mirror – Personal assistant.

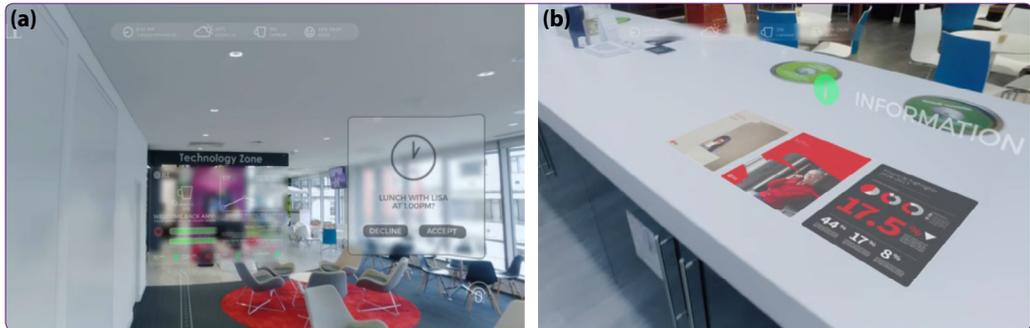


Figure 29. (a) How will you work in 2030? – Information interfaces 1. (b) How will you work in 2030? – Information interfaces 2.



Figure 30. How will you work in 2030? – Private rooms.

that occur and give some information (Figure 29a, b). When we continue to the movie, the user gets into another space with private rooms. There is also information on the façade of the rooms in order to mention if the room is available or not (Figure 30). In the end, there is a special surface, on which a keyboard occurs, and this surface is used as a computer (Figure 31a). Moreover, the papers are also sent to this surface (Figure 31b) and after signed it can be reloaded to the system.

This movie contains a future office scenario and gives many ideas. Especially the surface used as a computer and used for the formal procedures would make it easy to work from all around the world. This really would remove the distances. Mobile workers who benefit from the possibilities of technology in this way will be able to make effective use of the limited time they have. The production and transfer of information will be very easy and jobs that prolong the process can be handled in a short time. Making surfaces usable will reduce the use of equipment and provide the opportunity to work from any environment. However, in this movie, although there are many technologies, the office space remains the same as offices of today.

Conclusion

The age of enlightenment, which resulted with the

Industrial Revolution, revealed the capitalist mode of production. In the process of capitalism, the workspace has emerged as the production moves from home to the factory. Because of mechanization and the increase in paperwork with the developing phases of capitalism, the working space evolved over time and the office space emerged. The offices of which the employees are white-collars were under sharp order and control during the first years of capitalism. However, over time, the office space has evolved. These evolutions occurred in order to increase efficiency or to increase control. As can be seen in the examined office spaces, employees have become more important in time and some attempts have been made to make them feel more comfortable and work efficiently.

In the movies and tv series from 1919 to 1962, which were analysed within the context of this study, the arrangement of the tables in the office space and the regular rules show that the organization of those workspaces are based on Taylorism management principles. As a result of these, the workers do not belong to their workspace, so they leave it immediately at the end of working hours, which is scheduled regularly. Since the 1970s, there is a change in the office space and there are individual workspaces with the influence of Action Office and Cubicals.

In the 2000s, individual workspaces disappear again. However, the idea here is instead of observing the employees, making them to influence each other. There are also some opportunities to make people feel at home and comfortable, in order to make them belong to their workspace.

In real-life, Google is the best example of that. Many Google office videos on the web show us a wonderful workspace in which everybody wants to work. There are leisure areas, sleeping areas, restaurants, laundry, etc. in these offices; in addition, they provide cars to their employees when they need to go outside the campus. The question here is, are Google offices flexible? Or are they only with full of opportunity, funny but fixed? Do the workers really belong to the company? Or are they charmed because of those opportunities? Does Google

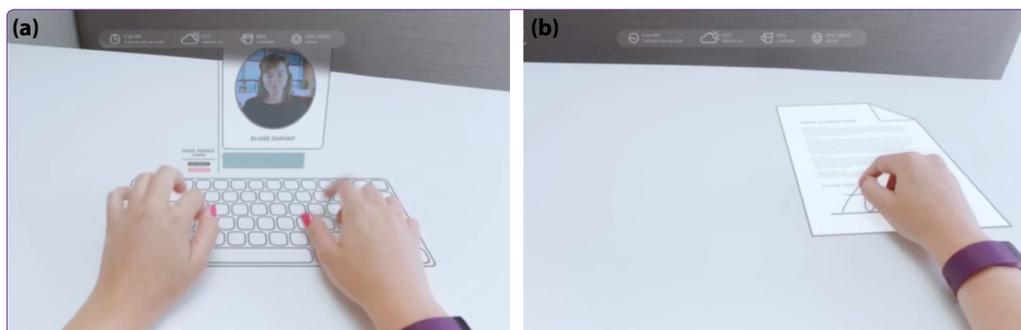


Figure 31. (a) How will you work in 2030? – Workspace surface 1. (b) How will you work in 2030? – Workspace surface 2.

really care about their employees? Or do they want them not to leave the campus, so the employees can work for longer hours?

In the current stage of capitalism, with the effect of globalization, employees work outside the office and they are constantly on the move. The production process is now mobile. Because of mobile production, employees have to be mobile. They also have to be flexible to keep up with the changing economy. Flexible labour is an important issue in late capitalism. Employees have to develop different skills to be present in business life, create variations in society with their diversity. Everything is in rapid change and architecture must adapt to this rapid change and diversity.

Even though it uses capitalist means of production, architecture does not seem to create the flexibility that capitalism needs. According to the pioneers of parametric design, architecture should guide the diversified society and frame communication through parametric design. Parametric design is a design method that consists of combinations of different algorithmic systems and creates designs that can be shaped according to different inputs. When considered within the scope of this study, designs that can adapt to the needs of different users and different environmental conditions can be created by parametric design. By generating algorithms based on different inputs, parametric design may create the complex spaces that is needed in the capitalist world and architects can serve as social ideologues.

This study evaluated the existing office spaces and monitored the evolution of them, which have changed according to the different understandings of working styles, management and design strategies. There is still an ongoing change today. This change promises new areas of research and development. Architecture as one of them can create solutions for expected changes. If this approached is considered in the context of the workspace, there can be new designs of flexible workspaces in airports, cafes, etc. that will provide motivation and comfort for the users and it can be transformable according to the needs. Hereby, people may practise the transformations they need in the workspace with the contribution of kinetic architecture. Kinetic architecture is a design approach that uses systems that allow a part or whole of the building to move. In this context, spaces that can be shaped and

transformed according to the needs with the help of various movements and that can serve mobile users can be designed with kinetic architecture. Thus, mobile workers can work in these convertible spaces that will create the environment required for them.

In addition to all, people may be able to work in these new workspaces without the need for extra items by using some special surfaces as foreseen in the movies. In this sense, architecture should contribute to the development of new technologies and materials.

References

- Bauman, Z. (1998). *Globalization: The Human Consequences*. Cambridge: Polity Press.
- Bauman, Z. (2000). Social Issues of Law and Order. *British Journal of Criminology*, 40(2), 205-221. doi: 10.1093/bjc/40.2.205
- Fülberth, G. (2008). *Kleine Geschichte des Kapitalismus, Kapitalizmin Kısa Tarihi*, trans. S. Usta (2010) İstanbul: Yordam Kitap.
- Hardt, M., Negri, A. (2000). *Empire*. Massachusetts: President and Fellows of Harvard College.
- Immaterial labor. [https://en.wikipedia.org/wiki/Immaterial_labor] Date of access (28.04.2020).
- Lazzarato, M. (1996). Immaterial labor. *Radical Thought in Italy : A Potential Politics*, eds. P. Virno, M. Hardt, University of Minnesota Press; 142-157.
- Mcdowell, L. (2003). Cultures of labour - work, employment, identity and economic transformations, *Handbook of Cultural Geography*, eds. K. Anderson, M. Domosh, S. Pile, N. Thrift, Sage Publications, London; 98-115.
- Özmen, Z. (2017). *Nasıl Beyaz Yakalı Olunur? Beyaz Yakalı Yaşam Tarzları: İstanbul ve Ankara Örneğinde Nitel Bir Analiz*. Ankara: Phoenix Yayınevi.
- Schnädelbach, H. (2010). Adaptive Architecture - A Conceptual Framework, *MediaCity: Interaction of Architecture, Media and Social Phenomena*, eds. J. Geelhaar, F. Eckardt, B. Rudolf, S. Zierold, M. Markert, 523-556.
- Sennett, R. (1998). *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*. New York: W. W. Norton and Company.
- The History of Office Design. [<https://k2space.co.uk/knowledge/history-of-office-design/>] Date of access (01.04.2019).
- Thompson, P., McHugh, D. (2009). Taylor, Weber and the bureaucratization of the workspace, *Work Organisations: A Critical Introduction*, Palgrave, New York; 28-41.
- Yüksel, Y. (2008). *Esnek Kapitalizm ve Maddi Olmayan Emek Üreticileri*, Ph.D. Mimar Sinan Güzel Sanatlar Üniversitesi, İstanbul.