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INVESTIGATING EFFECTS OF NEOLIBERAL POLICIES OF URBAN TRANSPORTATION ON CITIES THROUGH THE CASE OF METU ROAD IN ANKARA, TURKEY

Master of Science Thesis

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ABSTRACT

Aim of this thesis is to investigate the effects of neoliberal policies of urban transportation on cities. 1071 Malazgirt Boulevard in Ankara, Turkey (also known as METU Road) is chosen as a case to explore the effects of neoliberalism on infrastructure, on city and consequently on society. Global markets has become overly influential in shaping the power relations around the world especially in local scale which gives the cities a key role as a mediator between the global and the local. However this transformation causes the decline of the nation state and makes it an institution that manages the local government, civil society and private sector. Within this framework, local authorities as policy makers, gains utmost importance in shaping the cities and their policies on infrastructure becomes an important tool for regulating the capital accumulation within the urban network. In Ankara, similar to the rest of the world, transportation policies has been under the influence of global markets. Latest manifestation of this trend is the 1071 Malazgirt Boulevard, which is a highway that passes through Cukurambar, Cigdem and 100. Yil Isci Bloklari neighborhood and borders the Middle East Technical University. From the beginning of the construction, it caused many conflicts between the inhabitants and local authorities. In the thesis, legitimacy of this road construction in terms of urban planning principles is discussed along with its effects on the neighborhood in multiple levels.

ABSTRACT IN ITALIAN

L'obiettivo di questa tesi è realizzare una ricerca sugli effetti delle politiche neoliberali nel campo del trasporto urbano. Per comprendere gli effetti di tali politiche sulle infrastrutture, la città e quindi sulla società è stata scelto il caso di 1071 Malazgirt Boulevard (conosciuta anche come METU Road) ad Ankara. Il mercato globale è divenuto un fattore estremamente rilevante nella formazione delle relazioni di potere e questo è particolarmente evidente a scala urbana. Anche a causa di un progressivo declino del ruolo dello stato nazionale, la città è diventata una sorta di soggetto mediatore fra interessi globali e locali. In tale contesto il governo urbano ha acquisito sempre più rilevanza e le politiche infrastrutturali, sotto forte influenza dei processi di mercato a livello globale, rivestono un ruolo centrale nei processi di accumulazione della ricchezza a livello locale. Ad Ankara l'ultima manifestazione di tale fenomeno è stata la costruzione di 1071 Malazgirt Boulevard, un'autostrada che passa attraverso i quartieri di Cukurambar, Cigdem, il quartiere 100. Yil Isci Bloklari delimitando i confini della Middle East Technical University. Fin dalle prime fasi di progettazione questa infrastruttura è stata duramente contestata a livello locale. Nella tesi sono discussi sia i processi di legittimazione politica che hanno portato alla progettazione e costruzione dell'infrastruttura, sia i suoi impatti sociali.

CHAPTER I

1. INTRODUCTION

> *"We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein."*
>
> (Foucault, 1984)

Neoliberal urban policies have been shaping cities drastically over the past couple of decades. With the decline of the nation-state, empowering of the local authorities and influences of the global market strategies, cities became the arena of power struggles. Translation of this struggle over space is influential both in shaping urban form and social structure. As capital needs to expand, infrastructure becomes a necessary element for production, distribution and consumption. It is the element that is more under the influence of the public, in the everlasting public-private cooperation of the capitalism which makes it a bigger issue for the social welfare of the citizens. Infrastructure, as a tool of neoliberalism for manifesting itself over space, thus, is an important area of discussion.

Through infrastructure and transportation, verdict for cities, neighborhoods, people is given. Some become an attraction and some become slums. The difference in between comes from power relations of the abler. Social welfare as a leading concept is in imperilment against global market strategies. This, consequently translates to the society and daily lives of the people. How they participate in the social life and how they benefit from the opportunities of the urban lifestyle becomes a product of these mechanisms and when the mechanisms are downgraded into power relations social problems becomes inevitable. Spatial and thus, social segregation, exclusion, gentrification becomes widespread issues within the cities.

Sustainable mobility, within this framework, becomes a tool to contest the deterioration caused by the neoliberal policies in cities. Through planning and policy making, local governments can actually ease the negative effects of uneven distribution of resources caused by capitalism. Giving people equal right to access the opportunities of the urban life is an accurate way to lessen the injustice within the city.

1.1. AIM OF THE STUDY

The aim of our study is to investigate the effects of neoliberal policies of urban transportation on cities and as a case we chose 1071 Malazgirt Boulevard in Ankara, Turkey. The rationale behind this selection is twofold.

Firstly, “high-speed road making” has become an epidemic problem of Metropolitan Municipality of Ankara and this road is one of the manifestations of this problem. Land speculation and developments that are taking place around this infrastructural element and total exclusion of civil initiative from decision making exhibit the typical symptoms of neoliberalism in local level, which is in accordance with the policies of the current government.

Secondly, dissatisfaction of the inhabitants with the new highway passing through the neighborhood was explicit. From the start of the construction; police intervention, local resistance, protests have become a part of the inhabitants’ lives. Now that the road is in use, the abrupt impacts are even more apparent.

Overall, 1071 Malazgirt Boulevard constitutes problems in terms of local governance, urban planning and public welfare. We would like to explore *in what terms these problems affect the surrounding neighborhoods* and *what are the possible solutions to overcome them* through the help of existing literature.

1.2. STRUCTURE OF THE THESIS

The thesis consists of six chapters which intends to unfold the intricacies of the issue in a critical perspective. First being the introduction and last being the conclusion, the chapters cover wide range of discussions about the problems and solutions about the impacts of neoliberalism on transportation, cities and people and case study is introduced cross-referencing the existing literature.

The first chapter provides an introductory framework, explaining the aim and methodology of this study. It gives an overall information about the sequence of examination and creates a general understanding of the issues that are dealt with.

The second chapter focuses on the theoretical framework. It gives comprehensive information on the current debate of neoliberalism and its effect on cities with a focus on the transportation dimension. Tools of neoliberalization for shaping cities are investigated. It is followed by a deeper analysis of infrastructural policies under the influence of neoliberalism and their impacts on the urban structure.

Then we examine the methods, briefly the sustainable mobility policies, developed to cope with the problems that are caused by neoliberal urbanization. Finally, we explain how these transformations occur in Turkey, where our case study is located.

Following chapter aims to give an insight on the city of Ankara for a better understanding of the case study area. It unravels the historical development of the city and how it came to be today in terms of urban planning and social profile. This information is important for understanding the intricate relations between policy makers, citizens and private developments.

In chapter four, we take a closer look on the transportation aspects of Ankara. Development of transportation policies through time are investigated. Afterwards, we take a short look on the issue of shopping malls, which has become a problematic issue also in terms of transportation and social structure in the city over the past 20 years. Then, existing applications of sustainable mobility are compared to the applications that have been going on in Ankara.

The fifth chapter is focused on the case study. After a brief description of the case, we make an in depth investigation on the physical and social profiles of the neighborhoods that the new highway is passing through. Then the road is introduced as an urban planning decision, and its legitimization through development plans of Ankara is explained. Afterwards, we focus on the construction process and the struggles that took place during the realization of the project. Then we explain the effects of the highway in multiple levels, giving a deeper analysis of the social impacts; followed by suggestion of possible solutions.

Finally in the conclusive chapter six, we give a critical evaluation of the study among with the results that are obtained throughout this study.

1.3. METHODOLOGY

After setting the general framework for our thesis, it is necessary to reflect upon our method of investigation and how the data is collected to support our arguments. Mostly an ethnographic approach is adopted and personal participation was key in gathering data. Since main object is to investigate the effects of neoliberal policies of transportation on cities, this research is twofold in terms of parties involved for our data collection on our case study, the 1071 Malazgirt Boulevard.

Firstly, in order to set the scene for investigating the effects; urban planners and academics and other professionals who are competent on the subject are interviewed. Unstructured interviews are held

depending on the persons' proficiencies and areas of interest. Prof.Dr.Baykan Gunay, city planner from Middle East Technical University, who gave the principle urban planning decisions affecting the area in 1980s, was consulted for a deeper understanding of the parties involved and planning processes of METU Road construction. He provided an insight on general urban planning principles, as well as how they are translated to Ankara, the rationale behind the construction and explained physical qualities of the road. Prof.Dr.Adnan Barlas who had assisted Prof.Gunay during planning process was also interviewed within same framework. In order to obtain a deeper understanding on transportation principles and validity of the construction in terms of transportation planning, Erhan Oncu, transportation planner, was interviewed. Since he already had reports and speeches regarding the road construction, interview was reflected on his existing work. Ankara Branch of Chamber of Architects, who filed a law suit against the construction was contacted. Architect Ali Hakkan, former head of the chamber and Gokce Bolat, lawyer of the chamber was interviewed to have further information on opposing arguments and legal processes. Independent filmmaker and researcher of cultural and media studies Asst.Prof.Dr. Ersan Ocak and architect and researcher of urban history and politics Asst.Prof.Dr. Bulent Batuman was interviewed to have multiple professional perspectives on the issue.

Secondly, for investigating the effects of the construction on surrounding neighborhoods, first the local voluntary organization 100.Yil Initiative was contacted. This meeting provided us with relevant information to develop a structured survey (Appendix A) about the effects of the new road. The survey was held among a sample of 30 inhabitants and local tradesmen. All participants were asked the same questions about their relationship with the road, its' effects on their daily lives and their opinions about the future of the neighborhood. Also a meeting of the initiative was observed to have information about the local agenda. In addition to the personal contacts, newspaper articles and a report from Human Rights Association are used for in depth information about the events and police interventions that occurred during construction. We also did a site excursion to observe the physical aspects of the road and investigate possible effects on the neighborhoods.

1.4. LIMITATIONS OF THE STUDY

Sociological survey and interviews were held among a group of people from different social profiles, however, since most were part of the local initiative which is an organization that united against the construction of the road, there is a chance of biased results regarding the outcomes. Also the number of people that we contacted is limited which poses a potential deviation.

Second limitation was about the future of the neighborhood. As the area is not officially declared as an urban transformation zone, indirect effects of the road construction was based on the self-reported data on the area and assumptions derived from the nearby neighborhood which has gone under a similar transformation in the past 20 years. Yet, exemplary transformation was also an unofficial plot by plot transformation, thus, similar prospects were assumed for the future of the existing neighborhoods due to the ongoing processes.

CHAPTER II

2. THEORETICAL FRAMEWORK

We would like to set an insight of neoliberalism and its effect on cities focusing on transportation dimension. Influences of neoliberal policies on infrastructure strategies and how they affect urban sustainability in terms of transportation are investigated through the help of existing literature. First, neoliberalism and its effects on cities is investigated. It is followed by the specific effects of neoliberalization on infrastructure and how these sort of transformation affects the urban system. Then sustainable mobility policies and mechanisms to cope with problems brought by these processes are investigated with the addition of official charters. We finally take a look at how these occurrences translates to Turkish cities.

2.1. NEOLIBERALISM AND CITIES

According to neoliberal ideology, competitive market freed from state interference presents the best possible solution for a growing economy. In compliance, welfare states are seen as incapable of eliminating poverty and it should be eradicated to move people from welfare to work. Additionally, where it does not exist, welfare state should be avoided for a non-monopolized, competitive market. This calls for "active and productive citizens" who will not burden the state or demand entitlements without accepting corresponding responsibilities. Within this framework education becomes a key value and cities are expected to develop their "human capital" for local well-being and global competitiveness (Smith, 2002).

Another aspect of neoliberalism is the scale of economic, political and social organization. With rise of global scale and revitalization of the regional and local level, subsidiarity and solidarity is promoted. Cooperation of various levels of government is required with precedence of the lowest level possible. This gives the cities a key role for performing as a mediator between global and local scales. This also calls for retreat of the state, and governance becomes management of the local government, civil society and the private sector. This is achieved through the partial abandonment of the existing political and institutional affairs for a market oriented framework that calls for commodification and economic growth.

> *"On the one hand, while neoliberalism aspires to create a 'utopia' of free markets liberated from all forms of state interference, it has in practice entailed a dramatic intensification of coercive, disciplinary forms of state intervention in order to impose market rule upon all aspects of social*

life. On the other hand, […] neoliberal political practice has generated pervasive market failures, new forms of social polarization, and a dramatic intensification of uneven development at all spatial scales."

(Brenner and Theodore, 2002)

Cities are engines of economic growth, key centers of economic, political, and social innovation, and key actors in promoting competitiveness. With the transition to post-industrial era and rise of the knowledge-driven economy, increased need for interaction and learning, cities became even more important drivers of innovation and competitiveness. Due to this positioning of cities in the global competition, urban restructuring in local scale is one of the key areas where the effects of neoliberalism can be clearly observed. In order to adjust to the needs of the international market, institutional adjustments takes place within to supply the necessary means to accommodate capital accumulation. "Establishment of cooperative business-led networks in local politics, the mobilization of new forms of local economic development policy that foster interfirm cooperation and industrial clustering, the deployment of community based programs to alleviate social-exclusion, the promotion of new forms of coordination and inter-organizational networking among previously distinct spheres of local state intervention, and the creation of new regional institutions to promote metropolitan-wide place-marketing and intergovernmental coordination" are the most significant institutional realignments adopted by the local authorities (Brenner, Theodore, 2002). These factors generate an urban geography that is uneven in economic distribution, welfare services, social structure etc.

2.2. NEOLIBERAL URBAN POLICY EFFECTS ON NEIGHBORHOOD CHANGE

'A neoliberal policy regime focused on revitalizing cities through deconcentrating poverty and increasing low-income and moderate-income home-ownership has created a new funding and decision environment for the redevelopment of select inner-urban neighborhoods' (Newman and Ashton, 2004). With the growing population in cities and after decades of disinvestments pave the way for change in low-income neighborhoods in the 90's. It can be also called as a type of 'gentrification' which means in general; rehabilitation of low-income neighborhoods, changing the culture of the area replacing the existing residents with middle and middle-high income people. Many researchers claim that there in no one form or process of gentrification and till 60's it has being changing dramatically. By the 1980s and 1990s, the reinvestment that so surprised succession theorists had become commonplace. Since then, the scope of reinvestment has expanded from Berry's (1985) ``islands of renewal in seas of decay'' to Wyly and Hammel's (1999) ``islands of decay in seas of renewal''. Hackworth and Smith (2001) have

subsequently conceptualized the evolution of gentrification processes as waves of reinvestment that expand in relation to economic cycles (Newman, Ashton; 2004).

Thus; after 80's and 90's, gentrification had started to change its dimension both socially and economically. Till 80's it can be said that, the social drawbacks of the gentrification was taken into consideration while inhabitants of an area forced to neighborhood change. However, starting from 80's till today, it can be clearly observed that, the term of 'revitalization' has being shifting with 'reinvestment' policies which mostly targets the capital investment. According to Smith; the policy of "generalization of gentrification in the urban landscape" belies with the existing situation by degrading the social effects of the gentrification and showing it as an acceptable path of neighborhood change (Smith, 2002). This sanction clearly represents how neoliberal policies have changed the phase of the gentrification on neighborhoods.

> *"The new phase of gentrification therefore dovetails with a larger class conquest not only of national power but of urban policy, and by the end of the twentieth century, gentrification, marking a concerted and systematic partnership of public planning with public and private capital, has moved into the vacuum left by the end of liberal urban policy''*
>
> (Smith, 2002).

This changing discourse of gentrification, revitalization, and poverty provides legitimacy for local governments seeking to revitalize their cities and reduce their responsibilities towards the poor (Newman, Ashton; 2004). The local governments argue that by deconcentrating poverty, taking middle and upper middle people back into the cities provides 'social balance' in the society, however; the only goal of this attempt is to retake political and cultural economies, envisioning the alternative futures for their cities. Therefore, instead of creating 'social balance'; social alienation, disintegration and segregation problems raises by the treatment of physical space that ignores the consideration of the social space which should be treated parallel to each other. Although; it seems that the neoliberal policy regimes are driven mostly by private rent-seeking developers, it is the political actors and community development organizations fuel this social transformation in the neighborhoods.

Today, like traditional explanation of 'gentrification', neighborhood changes under the neoliberal policy drives as a class-based process of neighborhood upgrading that transforms the character of a neighborhood and ultimately threatens very-low-income residents. However, unlike the traditionally defined gentrification, the primary actors shaping and implementing the changes are public and

nonprofit rather than for-profit (Newman, Ashton; 2004). The revitalizations made under this policy aim to take the attention of middle and upper-middle class by encouraging their homeownership, on the other hand, totally ignores the poor income people who back all the tension of this transformation. The politically motivated, publicly organized neighborhood change process that is identified has led to the reorganization of the community development sector and neighborhood political constituencies around support for a particular type of redevelopment that eliminates other forms of neighborhood change (Newman, Ashton; 2004).

2.3. INFLUENCES OF NEOLIBERALISM ON INFRASTRUCTURE POLICIES

Due to the fast growth of cities in the past couple of decades, reallocations of functions, changes in urban macroform has occurred. This change can be interpreted as a natural transformation caused by technological developments, changing needs, lifestyles etc. However, the change in urban system creates new forms of distribution of resources; thus, needs a more in-depth analysis of the mechanisms behind them.

Social policies aim to attain a distribution of resources within a social system which usually demands a redistribution because of the presence of underprivileged groups. Extents of this redistribution is a matter of ethical question which has been answered differently by different societies. In order to overcome inequalities, the mechanisms which create these inequalities must be investigated and interfered. However, as Harvey indicates, “hidden mechanisms” of income redistribution in a complex city system usually increase inequalities rather than reduce them (Harvey, 2009).

Accessibility and proximity are considered as important features in urban systems. Accessibility to welfare services, employment opportunities and resources is a measure of overcoming a distance, using time etc. Harvey discusses the non-material aspects of this feature by using the term proximity (Harvey, 2009). It is rather about being close to something than ability to access. He attributes costs to these two phenomenon separately and indicates when spatial form is changed both costs are altered. Either through proximal influence or through the change of accessibility conditions urban infrastructures play an important role in societies. Thus parties involved in decision making processes, for infrastructure that is local authorities, play an important role in defining the new social orders.

Infrastructure networks of all types are deeply embedded and implicated in the process of production, reproduction, and legitimation in a functioning capitalist economy (Hodge, 1990). Based on this idea, Eric Swyngedouw takes it further by saying “changes in mobility and communication infrastructure and

patterns are not neutral processes in the light of given or changing technological-logistical conditions and capabilities. Rather, they are necessary elements in the struggle for maintaining, changing or consolidating social power" (1993). He defines mobility as "one of the arenas in which the struggle for control power is fought". Competitive market is a major party in this struggle, in addition to the civil society and government. Spatial infrastructure, thus, is deep-seated with the neoliberal policies of the government.

2.3.1. Fixity and motion

The production of infrastructure networks to transcend space and time barriers simultaneously requires those infrastructure networks to be geographically fixed in space (Steve and Graham, 2001). David Harvey (1985), inferring from Marx, discusses that the changes in infrastructural networks represents development of new solutions to the basic tensions inherent in capitalism between "fixity" and "motion". Since capitalism needs constant expansion, infrastructure is required to enable production, distribution and consumption. Thus space needs to be "regulated" by the competent parties to enable these activities.

Steve and Graham defines the theoretical goal of capitalism and the key to maximum profits with minimum risk, is therefore *perfect mobility* for labor, goods, capital and information (2001). Swyngedouw calls this "the desire to produce a spaceless world" (1993). It is impossible translate this idea to the real world. All spaces that serve for production and consumption and the networks in between has to be "fixed and embedded in produced space" (Swyngedouw, 1993). Infrastructure "have to be immobilized in space, in order to facilitate greater movement for the remainder" (Harvey, 1985). These "fixings" are what creates the urban environment. Thus, as Swyngedouw indicates "geography is actively produced in a well-defined and relatively immobile physical infrastructural and social way" (1993). The production of territorial organization, a combination of economic, infrastructural and institutional-regulatory practices, is a historical product which simultaneously defines, shapes and transforms social relationships and daily practices (Swyngedouw, 1993). So it is imminent that in contemporary transformation mechanisms and in neoliberal transformations in urban contexts, spaces, infrastructures and power play an important role.

Infrastructure, in this aspect, is a key feature in relation to Swyngedouw's concept of "reshuffling of spatial relations". It originates, re-originates and reorganizes the new configurations between spaces, those of production and consumption.

Fixing of the infrastructure, on the other hand, becomes a barrier in capitalist accumulation. David Harvey says, “the tension between fixity and mobility erupts into generalized crises, when the landscape shaped in relation to a certain phase of development . . . becomes a barrier to further accumulation. The landscape must then be reshaped around new transport and communications systems and physical infrastructures, new centers and styles of production and consumption, new agglomerations of labor power and modified social infrastructures” (1993).

2.3.2. Time-space compression

Infrastructure enables the individual to collapse or reduce barriers of time and space, which Harvey names as “time-space compression” (1989a). This phenomena has its effects on everyday life of the individual supporting “ever-accelerating geographies of production, exchange, and consumption” (Kirsch, 1995).

Production of a fixed infrastructure networks and urban spaces occurs with the struggles between groups, firms, institutions that possess highly uneven social, economic, environmental and cultural power. What might come as a natural process is in fact embodies power relations and reflect highly uneven political-economic struggles between firms, state and public sector organizations and wider social agents, which are involved with the spatial geopolitics of capitalism as a whole (Samarajiva and Shields, 1990).

Complex terrains of winners and losers, woven into the wider social and spatial inequalities of capitalist urbanism, are an inevitable feature of the continual uneven construction, and reconstruction, of infrastructure networks between and within cities. Moreover, the conceived technological logics of powerful firms and their infrastructural suppliers tend to dominate the lived, emotional spaces of human life (Lefebvre, 1984; Kirsch, 1995).

Consequently Harvey’s time-space compression through infrastructural development occurs in an uneven fashion. Power may predominate the factors shaping the infrastructural network. It is an arena to demonstrate social and economic power to construct an identity; “an identity which comes about in and through the command of space and the capacity to move across space. In other words, social power cannot any longer (if it ever could) be disconnected from the power or ability to move quickly over space. The necessary resources to minimize time–space distances and the unquestioned commodification of time–space compressing processes accentuate social, economic and cultural

inequality" (Swyngedouw, 1993). This might be beneficial for society but might as well cause vulnerable groups to be further marginalized.

2.3.3. Decline of the nation state

Another point regarding infrastructure is the effects of globalization. Nowadays in cities, "the changing geometries of infrastructural power tend to be bound up with internationalization, liberalization, privatization and the application of new information technologies" (Steve and Graham, 2001). Thus, especially state power is using its capabilities to regulate the financial flows that goes into infrastructural networks. With the "hollowing out" of the nation state due to globalization, transnational governance institutions gains more importance (Taylor,1994). Harvey names this transition, as the transition from urban managerialism to urban entrepreneurialism. According to him; urban governance has become oriented into creating a "good business climate" and constructing all sorts of lures to bring international capital into town (1989b). He also adds;

Urban entrepreneurialism implies, however, some level of inter-urban competition… To the degree that inter-urban competition becomes more potent, it will almost certainly operate as an "external coercive power" over individual cities to bring them closer into line with the discipline and logic of capitalist development.

(1989b)

This trend favors the higher return and faster turnover. This causes the infrastructural investments to be directed towards high value areas while remaining areas are overlooked. Jones mentions this issue as nation state being "spatially selective" and terms this approach as "strategic localism" (1997). Harvey mentions the consequences of this issue as;

The new urban entrepreneurialism typically rests on a public-private partnership focusing on investment and economic development with the speculative construction of place rather than amelioration of conditions within a particular territory as immediate (though by no means exclusive) political and economic goal.

(1989b)

All this investment decisions, construction cycle and evolving infrastructure network influences the identity shaping around them. Brenner explains the situation as; "scales of capital accumulation, state territorial power, urbanization, societal networks and politico-cultural identities are being continually transformed, disarticulated and recombined in ways that severely undermine this pervasive

naturalization of the national scale of social relations" (1998). He further argues that a new set of social scales are becoming dominant which are in global-local interaction for the sake of power interests (1998). This, in fact contradicts the old Fordist idea of homogenization of spatial practices on a national scale and causes an uneven development.

Ultimately, this causes a tension in the "redistributive role of infrastructure networks in modern welfare states" (Steve and Graham, 2001). "The old welfare state, that once-seeming jewel in the crown of moral progress in democratic societies, is finished, although it has taken twenty years for the gradual erosion to reach the present point of collapse" which causes infrastructures to become a commodity that can be bought and sold in capitalist market (Leonard, 1997).

But the key point is that there are fewer and fewer spaces where pressure for liberalization and/or privatization is not allowing new private infrastructural competitors to begin assailing the coherent urban networks left over from modern infrastructure planning. Crises of both corporatist welfare states and interventionist and developmental states have apparently been wholesale.

(Steve and Graham, 2001)

2.3.4. Tunnel Effect

This makes the organizational qualities of infrastructure over an urban system much more questionable. "To some, these trends mean that the old territorial identity of the city economy, as the heart of its hinterland, has been totally lost; instead 'the city is divided into as many fragments as the networks which transverse it' (qtd. Steve and Graham, 2001). These networks instead becomes a tool to interconnect a system of sub-hubs.

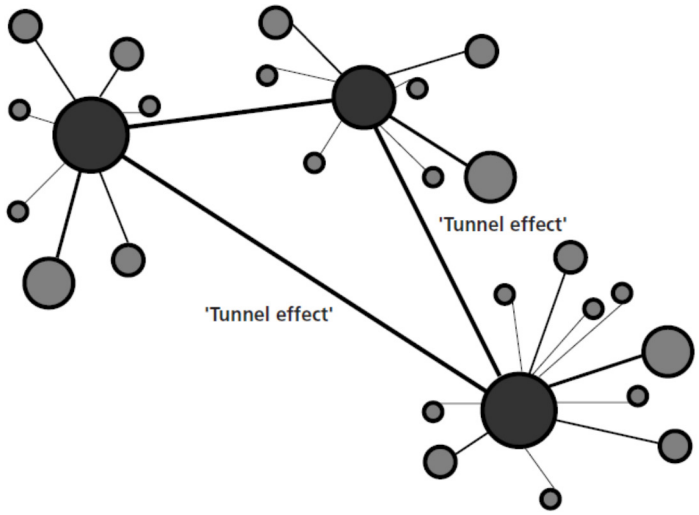


Figure 1. The logic of unbundled infrastructures: a schematic representation of 'hub and spoke' infrastructure networks which use 'tunnel effects' to traverse non-valued territory (Graham and Marvin, 1996).

So infrastructures, instead of creating a homogeneous network which evenly connects parts of a city, binds high value areas to each other creating profound connections while leaving intermediary spaces out of the system which Graham and Marvin names as "tunnel effect" (1996).

Tunnel effect creates collection of spaces that are perfectly interconnected and "preserved" for groups of higher income whereas underprivileged groups are left out of this cluster. Shopping malls, business districts, gated communities, airports, entertainment centers are all interconnected with highways create a "secure" cityscape for those that can afford to utilize these spaces. "The production of such secessionary networked spaces enrolls security, urban design, financial, infrastructural and state practices in combination, to try and separate the social and economic lives of the rich from those of the poor (Steve and Graham, 2001). Rowan Moore defines this new cityscape as;

[It] is manifest in shopping malls, airports, new residential enclaves, and in hybrids like the themed shopping mall or the airport retail area. Each element creates a self-sufficient, artificial, all-embracing experience that is both controlled and controlling. The space between them is seen as background, as something you see through a car window when travelling from one such space to another.

(1999)

These controlled hubs are equipped with various services and leisure activities. Residences with fitness centers, shopping malls with cinemas, business towers with daycare renders the in between, left out

spaces redundant. Cities are being downsized into impermeable mega-buildings with security, air-conditioning etc. and roads become links to be experienced in the comfortable conditions of a car. According to Moore, "[car] is itself a kind of kindred space to the nerveless insides of the shopping malls and airports, so that it becomes possible to lead life as if in a continuous, carpeted, air-conditioned tube" (1999). Hence the city becomes a "spatially compartmentalized" arena.

2.3.5. Role of Real-Estate

One of the mechanisms shaping urban networks is the role of global and local real estate markets. Current approach of the market is in accordance with other mechanisms in terms of bundling of luxury spaces. These spaces embody the image of security against the "perceived threat of incursion, from the new urban poor" (Logan, 1993). In realization of these massive projects, "heavy public subsidies, infrastructural contributions and seductive grants are mobilized by public-private development agencies alike, to lure in the international real estate capital that has the muscle to make such projects work" (Steve and Graham,2001).

Boyer further suggests that state decisions contribute to this compartmentalization. He claims that "the city no longer plans for its physical development; it simply manipulates zoning bonuses and tax incentives that facilitate the building of huge real estate developments in ad hoc locations all over town" (1994). This leads to a development in the form of real estate hubs and infrastructure tunnels in between. It restructures the urban form and lifestyle causing a cluster of high profile spaces and left out spaces.

2.3.6. Social Effects

Social implications of these issues are evidently severe. Geographical polarization caused by the infrastructure, in addition to the uneven welfare distribution and polarizing labor markets, consequently leads to a social polarization. "In the social ecology now being created around the globe," says Massey, "affluent people increasingly will live and interact with other affluent people, while the poor increasingly will live and interact with other poor people. The social worlds of the rich and poor will diverge" (1996).

In spite of this divergence, geographical distance of rich and poor seemingly is decreasing in the cities. Rationale behind this is the imposition of the abler through the strategies of real-estate, infrastructure, retail and housing market over areas which were formerly poor. Steve and Graham explains this phenomena as;

The result is attempted piecing together of what we might call hermetically sealed 'secessionary networked spaces'. These intimately combine built spaces and networked infrastructures… The production of such secessionary networked spaces enrolls security, urban design, financial, infrastructural and state practices in combination, to try and separate the social and economic lives of the rich from those of the poor.

(2001)

Problems with transport and the location and delivery of services also contribute to social exclusion by preventing people from participating in work or learning and from accessing healthcare, food shopping and other local activities. People in deprived communities also suffer the worst effects of road traffic through pollution and pedestrian accidents (The Social Exclusion Unit, 2002).

A road might connect two points at the two ends and reduce the time-space between these locations, however, at the same time "roadscapes tend to be physically very divisive in lateral sense" (Steve and Graham, 2001). "The shops may be in full view across the road from the place where you live, but if there is a three-lane dual carriageway in between, and the nearest footbridge is half a mile away, the shops are pretty inaccessible to you" (Hamilton and Hoyle, 1999). This leads to uneven time-space compression among groups. While the ones at the two end are benefiting from the infrastructural element, accessibility of the ones at the sides might be dramatically reduced. It can also cause recession of services and public transport since public transport between profitable spaces are more favorable which causes further exclusion.

"The variation of extensibility according to race, class, age, gender, (dis)ability, and other socially significant categories binds micro-scale biographies to certain macro-level societal processes" (Adams, 1995). Although Adams's take is on telecommunication level, it can as well be applied to transport infrastructures as well. "This is most visible with urban highways, with the production of 'substantial interurban spatial barriers [which] aggressively separate and exclude urban development from the greater urban continuity'" (qtd. Steve and Graham, 2001). Neighborhoods can be cut off from the urban network which reduces accessibility where people are cut off from the urban living.

To conclude, it can be said that transport policies are losing their welfare qualities to open room for unevenly distributed investment opportunities of the market. Under many circumstances, "neoliberal notions of social welfare have triumphed; competition is the means to maximize benefits for all in previous territorial monopolies" (Steve and Graham, 2001). These policies are creating clusters of

segregated spaces for the high income groups and leaving out the ones with lower income. Infrastructure is treated as a commodity which brings profit. Car ownership becomes an important concern for contribution to this system. Public transport does not favor the unprofitable movements of the urban poor. Real estate market further catalyze the transportation problem cycles. The ones that suffer from these complications are usually the underprivileged.

2.4. SUSTAINABLE MOBILITY

In order to overcome these problems more sustainable approaches for urban mobility is necessary. For achieving a sustainable mobility three pillars of sustainability should be considered (Figure). Social dimensions should be examined as well as the economic burdens of travel; time needed for travel, travel costs, efficiency, and environmental impacts of air, water and noise pollution and greenhouse gases should be assessed.

Figure 2. Three pillars of sustainability

While considering the social dimensions, concept of accessibility becomes an important issue. Accessibility is "the ease of reaching goods, services, activities and destinations, which together are called opportunities" (Litman, 2014). Unlike mobility, which refers to the physical movement of the goods or people, the term accessibility has a deeper sense of transportation qualities considering demands of the society.

In order to evaluate accessibility, there are several factors of considerations including; "transportation demand and activity; mobility; transportation options; user information; integration, terminals and parking; affordability; mobility substitutes [ICT]; land use factors; transport network connectivity;

transport management; prioritization and inaccessibility" (Litman, 2014). Litman further summarizes the factors affecting accessibility as follows;

Name	Description	Current Consideration	Improvements
Transport demand	The amount of mobility and access people and businesses would choose	Motorized travel demand is well measured, but non-motorized demand is not	More comprehensive travel surveys, statistics and analysis of travel demands
Mobility	Travel speed and distance	Primarily evaluates motor vehicle traffic speeds and vehicle mileages traveled	More comprehensive evaluation of mobility by other modes
Transport options (modes)	The quality (speed, convenience, comfort, safety, etc,) of transport options including walking, cycling, public transit, etc.	Motor vehicle travel speed and safety are usually considered, but other modes and other travel factors are often overlooked	More multi-modal evaluation (speed, convenience, comfort, safety, etc. of walking, cycling, transit, etc.)
User information	Availability of reliable information on mobility and accessibility options.	Sometimes considered for particular modes or locations, but seldom comprehensive	More comprehensive and integrated planning to improve travelers' ability to connect between system components
Integration	The degree of integration among transport system link and modes	Automobile transport is generally well integrated, but not connections between other modes	More integrated planning to improve travelers' ability to connect between system components
Affordability	The cost to users relative to their incomes	Automobile operating costs and transmit fares are usually considered	Better evaluation of transport costs relative to users incomes
Mobility substitutes	Telecommunications and delivery services that substitute for physical travel	Not usually considered in transport planning	Consider mobility substitutes as part of the transport system
Land use factors	Land use density and mix	Usually considered in land use planning, but less in transport planning	Measure how land use factors affect travel distances and costs
Transport network connectivity	Density of connections between roads and paths, and therefore the directness of travel between destinations	Transport planning is starting to consider roadway connectivity impacts on accessibility	Measure how roadway connectivity affects travel distances and costs
Transport management	How transport management affects accessibility	Limited consideration	Consider how various transport management strategies affect access
Prioritization	Strategies that favor more efficient travel activity	Limited consideration	Consider transport prioritization strategies
Inaccessibility	The value of inaccessibility and isolation	Not generally considered in transport planning	Recognize the value of sometimes limiting access

Table 1. Factors that affect accessibility, how they are currently considered, and potential improvements for more comprehensive planning (Litman, 2014)

Litman's criteria can be used to assess the current applications in transportation policies. They also provide insight on future considerations of sustainable transportation planning.

2.5. ACCEPTED URBAN TRANSPORTATION PRINCIPLES

In order to obtain a frame of reference for the transportation principles, we took three reference points of investigation. European Urban Charter from 1992, Habitat II of United Nations from 1996 and Pedestrian Rights Manifesto of Human Rights Association from 1990 are examined to have accepted points regarding urban transportation.

2.5.1. European Urban Charter 1992

Charter aims to provide a framework for the cities to overcome the problems caused by rapid urbanization in the past century. Although it investigates a wide array of issues concerning urban planning principles to increase quality of life in cities, we would like to focus on the transportation suggestions laid out in the charter. It is also striking that transport and mobility was chosen as the first theme to be covered in the charter among the chapters since it is a prominent factor that defines the urban quality.

"Cars are killing towns". It is stated that since late 19th century cars have been the dominating factor that shaped our cities and they have been severely affecting the modes of living in the urban context. Cars damage the environment through atmospheric pollution and greenhouse effect, damage the economy through depletion of financial resources and predominantly damage the social life through psychological and physical insecurity and loss of amenity and social space. This signifies an overall damage for the sustainability of the transportation, consequently cities itself.

One of the principles suggested in the charter is the reduction of traffic volume in cities, especially those made by private cars. This can be achieved through careful planning of living, working and public components of the city. Another principle is about the cohabitation of different modes of transport. Although cars cannot be eliminated, it is advised to have a rational system that integrates public transport, bicycle and pedestrian movements and reduce the density of the car traffic. Bicycle paths, low-cost and adequate public transport, pedestrian zones and out-of-town parking are among the tools to provide livable environment. Third principle is about the consideration of street as a social arena of the city. Streets should be durable and have high design quality to generate an attractive and safe environment for the inhabitants. Lastly, it is stated that, in order to sustain an effective transportation

system, providing a competent educational system is essential. Local authorities are responsible from raising consciousness of the citizens to develop positive behavioral patterns and contribute to the sustainability of these principles.

2.5.2. Habitat II 1996

Habitat II, the second United Nations conference on human settlements took place in Istanbul in 1996. Objectives of the conference was stated as: "In the long term, to arrest the deterioration of global human settlements conditions and ultimately create the conditions for achieving improvements in the living environment of all people on a sustainable basis, with special attention to the needs and contributions of women and vulnerable social groups whose quality of life and participation in development have been hampered by exclusion and inequality, affecting the poor in general; to adopt a general statement of principles and commitments and formulate a related global plan of action capable of guiding national and international efforts through the first two decades of the next century".

Transportation is listed as one of the key points of consideration to improve the overall quality of life in human settlements. Everybody should have access to basic infrastructure. It is suggested to organize city layout in a way that enables every citizen to freely access public goods, services and public amenities for high livability and extra care should be given to vulnerable groups. Spatial development should be done in a way that reduces transport demand for an environmentally sound, accessible and energy-efficient transportation system. Local authorities should provide adequate mobility through enabling affordable and accessible public transportation. It is an important tool to counteract the socio-economic marginalization of low-income, vulnerable and disadvantaged groups.

It is suggested for local authorities to adopt an integrated transportation policy which explores both technical and management options and pays careful attention to groups with constrained mobility like disabled, elderly, poor etc. A good combination of different modes of transport should be provided through appropriate pricing and spatial settlement policies. Use of private vehicles which is socially, environmentally and economically damaging should be discouraged through pricing, traffic regulation, parking and land-use planning and traffic abatement methods, and by providing or encouraging effective alternative transport methods.

Energy is also an important component of transportation issue. Dependence on non-renewable energy resources may cause climate change, air pollution and consequently affect human health and environment. Sustainable energy use should be encouraged though pricing policies, fuel switching, mass

transit and public awareness. Research and development on renewable energy sources should be enhanced for non-motorized and low-energy transport systems.

2.5.3. Pedestrian Rights Manifesto 1990

This manifesto was published by the Human Right Association, Turkey branch in 1990. It is written to represent all pedestrians in Turkey, with a special emphasis on vulnerable groups. It states that being a pedestrian is a method of transportation which is harmless for other people and environment and in fact beneficial for health. However, pedestrian movements are interrupted gradually by the vehicle movements in the city.

Increase in the number of vehicles and the infrastructural developments that cannot catch up with this trend causes failures in traffic and extorts the rights of pedestrians. It is unjust for pedestrians to be left defenseless against the motor vehicles. Although pedestrians have no responsibility in creation of this problem, they are the ones punished by the consequences of this situation.

All the solutions that are generated are regarding the ease of movements of vehicles. However, this approach renders the problems unsolvable. What should in fact be done is, to find alternative transportation solutions which favors pedestrian movements.

“Us, pedestrians accepted the situation and have forgotten to demand and protect our rights”. It is stated that this manifesto should be a framework for definition, adoption and execution of pedestrian rights for an egalitarian and fair society. Some principles are stated to protect pedestrian rights;

Sidewalks belong to pedestrians: Having a widespread and continuous sidewalk network is a basic pedestrian right. All settlements require sidewalks. Vehicles cannot block the sidewalk. All physical entities on sidewalks should be organized in a way that does not prevent pedestrian movements. All precautions should be taken not to disturb pedestrians through exhaust gases, sound pollution and dirt.

City centers are pedestrian zones: Access of vehicles other than public transportation should be minimized. Pedestrian only zones should be extended within city center and all vehicles should be banned from entry to these zones unless absolutely necessary. Pedestrians should be able to use these areas freely for interaction, cultural activities and recreation.

Priority belongs to pedestrians in pedestrian crossings: Adequate crossing points should be provided to fulfill the needs of pedestrians. Marked crossing areas cannot be invaded by vehicles and signalization

periods should be arranged depending on the walking duration of pedestrians. Ground level belongs to pedestrians and they cannot be forced to use underpasses and overpasses unless absolutely necessary.

Every person has the right to access everywhere through sidewalks: Paths reserved only for pedestrians should always be provided. Every child should be able to access school safely through sidewalks. Local administrations should provide required services and facilities on sidewalks. Bicycle paths should be a part of transportation network. Pedestrian and bicycle movements should be promoted through mass communication and other incentives.

True owners of city life are pedestrians: Being a pedestrian should be encouraged since it contributes to interaction and urban culture. Pedestrians, in cooperation with local authorities, should develop an organization where they can defend their rights and communicate their complaints. Laws and law enforcement units should protect pedestrian rights. Maintenance of pedestrian infrastructure should be done by local administrations, collaborating with pedestrians. Pedestrians have right to participate in decision making processes regarding planning of relevant structures.

2.6. NEOLIBERAL URBANISATION IN TURKEY

After investigating the existing literature regarding the effects of neoliberalism in shaping cities, it is necessary to take a closer look on how it translated into Turkey's development. Neoliberal policies that favored the market economy, quite parallel with the rest of the world, started in 1950s with Democratic Party in Turkey.

Labor market of this period compares to a pyramid; with fordist firms (aristocracy), periphery works (small branches) and informal sector (Ozaksoy, 2005). Informal sector is especially predominant in influencing the urban structure because of the squatter practice they developed. Due to this groups' extensity, high number and their political pressure, government was forced to take new precautions and adopt new policies for participation of these groups to the urban life in 1970s. During this period integration of these areas had become the prime objective of the local authorities. Guzey indicates this urban regeneration process as the major income source for almost all the local municipalities and defines the process to be a "market-oriented through government assistance" (2009). She further describes this shift as; "under decentralization and market-oriented privatization policies, local authorities gained power as economic formations over political formations, and they strengthened and mobilized national, as well as local, forces for the purpose of urban re-structuring" (ibid, 2009). This mechanism was important in terms of reshaping the cities and is in fact an authentic way of

transformation in Turkey. Due to the transformations that rooted in the vast squatter areas, large portions of the cities were embedded into the urban fabric causing an overall rapid urbanization. Sociocultural transformation, on the other hand, was not as fast.

In 1980s, social concerns left its place to economic concerns. Economic policies shifted to an export-oriented phase and unemployment started to become a major problem in cities. With the decline of the nation state and rise of the influences of global economies, cities became important areas for private sector for investments. This led to a fragmentation in the cities depending on the capitalist relationship (Ozaksoy, 2005). Increasing values of the urban land, added to the political conditions, led to suburbanization and emergence of gated communities in Turkish cities. Spatial segregation opened the way to social segregation.

1990s was significant because of rise of the institution that legitimized the public-private partnership in housing, TOKI (Public Housing Administration) which was originally founded in 1984. Although the aim was to create a housing stock for the urban poor, target quickly evolved into middle and high income groups. TOKI produced a single recipe transformation, namely the demolition of squatter houses and construction of point blocks, that was applied all over the country. Guzey describes this process as "government-assisted regeneration and gentrification (2009). This was further supported by the infrastructural developments, causing uneven rent escalations and consequently demographic changes.

What is striking with Turkish urbanization is the fast transition from rural production to urban consumption especially in the big cities. Heavy migration and rapid population growth which lead to squatter; and nation state's answer to this problem by creating a housing stock through public-private partnership took place in very short period of time. This caused poor social integration and created questions about the term "citizenship". Large groups of people were living in the cities but not benefitting from the urban lifestyle. Policies oriented to "house-making" ended up with segregated spaces and groups.

In recent years, in addition to the previously adopted neoliberal urbanization policies, Islamism became a part of the governmental decision making processes due to the current government's political agenda. This brought a religious based social welfare mechanism which eases the impoverishing effects of neoliberalization but creates Islamist networks within the civil society (Batuman, 2012). Religious segregation is also an issue among the Turkish population.

In conclusion, like the worldwide urbanization processes, Turkey is also under the influence of global markets. Urban regeneration, thus construction industry has become the leading force shaping Turkish cities. However the single recipe formulation of TOKI housing, exclusion of old residents, increasing rents and similar problems are causing an uneven urban development neglecting social and cultural identities of groups and areas. Identity crisis has become a social issue, in addition to social segregation and exclusion in Turkish cities.

CHAPTER III

3. ANKARA

First, we would like to give some general information about the city, Ankara.

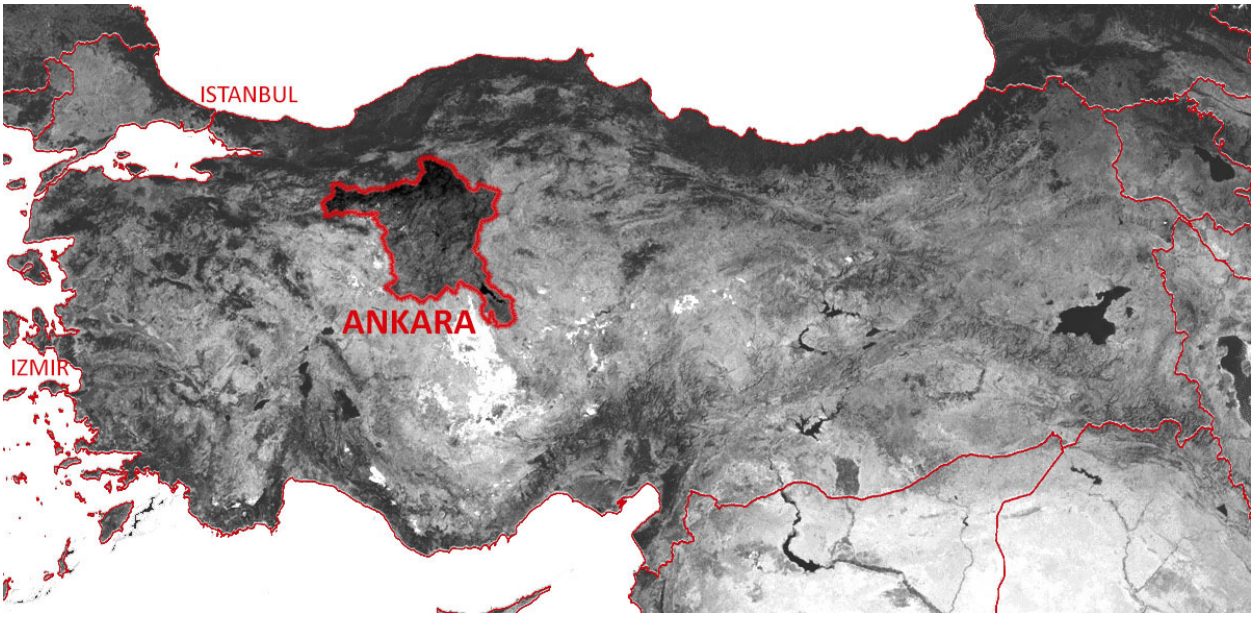


Figure 3. Location of Ankara in Turkey (personal drawing, 2014)

Ankara is located in the Middle Anatolia Region in Turkey and since 1923 it is the capital city of the Turkish Republic. With its roughly 5 million inhabitants it is the second most populated city after Istanbul and is among the 100 most populated cities of the world. As a whole, three cities, Ankara, Istanbul and Izmir, constitute the majority of the population of Turkish Republic (Table 2).

Population statistics according to year of 2012	Address based population	Rate of population to the total population
TURKEY	75.627.384	-
İSTANBUL	13.854.740	% 18,3
İZMİR	4.005.479	% 5,3
ANKARA	4.965.542	% 6,6
TOTAL (of 3 cities)	22.825.761	% 30,2

Table 2. Population rates of three biggest cities with respect to Turkey (TUIK, 2014)

Before proceeding, some basic numerical information about Ankara are given for a deeper understanding of the city. (Table 3)

population	density	migration (2009-2011)	
4431719	1551/km2	inbound	182000
		outbound	38300

hospital	university		museum	
71	92		44	
15849 beds	student	201006	artifact	222393
	academics	17642		

car	bus	minibus	flight line
888703	1687	2230	92

Table 3.Numerical facts (Ankara Kent Atlasi, 2012)

In order to locate Ankara among other world capitals, numerical comparisons of basic data are provided (Table 4).

	ANKARA	PARIS	DELHI	TOKYO	MOSCOW	WASHINGTON D.C.
area km2	2516	2845	1483	2187	1091	335
population person	4,413,719	10,354,000	16,314,000	13,185,502	11,514,330	5,580,000
density person/m2	1728	3,639	11,297	6,027	10,555	3,784
monthly house rent three bedroom apartment $/m2	695	3,070	640	4,469	3,571	3,047
house price three bedroom apartment $/m2	1502	12,192	1,409	17,489	10,505	5,124
metro no. of station	22	301	145	168	185	86
metro annual passenger	310,000	4,500,000	2,066,925	6,330,000	6,550,000	590,625

Table 4. Numerical comparisons with world capitals (Ankara Kent Atlasi, 2012)

3.1. GEOMORPHOLOGY

The most prominent element in defining the macro form of Ankara is its geomorphologic structure. The location of citadel and historic center is at the end of the Enguru Lowland which is on the east-west axis. Ankara bowl is defined by Karyagdi Hills on the north, Mese Mountain and Dikmen Cankaya Hillsides on the south and hilly lands that starts with Huseyin Gazi Mountain on the east. The citadel which is located at the eastern end of the Enguru Lowland determines the historic center of the city and the north-south axis, Ataturk Boulevard, which runs through the western side of the citadel, defines the most crucial spine of Ankara (Ankara Kent Atlasi, 2012).

Figure 4. Relationship of the urban macroform to the geographic bowl (Ankara Kent Atlasi, 2012)

3.2. HISTORY

History of Ankara dates back to prehistoric ages however, as the contemporary capital of the Turkish Republic 1920s should be investigated. Ankara was a small Ottoman town with its 30,000 inhabitants before the First World War. After the fall of Ottoman reign, Turkish republicans who were leading the War of Independence chose Ankara as a base for the national struggle. The motive behind this choice

was the critical location as being in the very heart of Anatolian peninsula. The city was later declared as the capital of the new Turkish Republic in 1923.

With its new identity, Ankara needed to expand its scope to be able to host the new functions and have a modern vision to be able to compete with the European capitals. ”Ankara, is the center of governance which should take a leave from the oriental world and adapt to the rationalist new world. What is expected from this city is not only being a symbol but also being a capital which can fulfill all the functions of understandings of new world and reflect the contemporary way of living. For these reasons, new Ankara should be established independent of the existing historical and organic development of old Ankara” (Tankut, 1994). With this conception, the oil-stain growth of the city around a historical center was abandoned to construct a new city that represents the Turkish Republic.

3.2.1. Lorcher Plan (1924-1932)

In 1924, the first city plan was drawn by a German city planner Carl Christoph Lorcher. While the plans for the old city were not executed, plan of the “new city” -Yenisehir- determined the main decisions about the symbolical center of the city, Kizilay, and its surrounding areas (Cengizkan, 1998). Old city remained as a commercial area for the locals whereas Yenisehir hosted newly constructed governmental buildings and residences. The border between old city and new city was determined by the railway which was constructed in 1893.

3.2.2. Jansen Plan (1932-1957)

Although Lorcher plan has suggested a grid-iron plan with low-rise homogeneous housing, due to the rapid growth and immigration, city started to expand in an unorganized fashion. In order to overcome this issue, an international competition was organized to have a more comprehensive plan. Among the competitors, the German planner Hermann Jansen’s plan was chosen in 1929 because of its feasible approach that also preserves old Ankara. This new plan consists of the preservation of the citadel and its surroundings, improving the main artery that runs along the north-south axis which binds old city to the new one. Having large green areas in and out of the city and providing low-rise houses with gardens for the neighborhoods were among concerns of Jansen. He was also aware of the outcomes of the industrial era which leaded him to make important considerations about the transportation system (Fehmi, 1952).

By 1930s, Ankara started to become an economically and socially attractive city with its cafes, restaurants, cinemas etc. Yenisehir was a very buoyant environment for the inhabitants with its parks, boulevards and new neighborhoods. There was a constant immigration towards the city which was not

affected by the Second World War. However, it caused the city to reach high population rates much sooner than expected. By 1945 the city's population increased from 157,000 in 1940 to 226,000 (Table 2) (Batuman, 2012).

3.2.3. Yucel-Uybadin Plan (1957-1970)

The expected population rate of the Jansen plan was 300,000 for the year 1978 however, as seen above these numbers were reached around 1950s. This was one of the shortcomings of the Jansen plan and it resulted in a widespread squatter settlement -gecekondu- (which literally translates in Turkish as *built-in-a-night*) problem in Ankara. Since the foundation of the republic, Ankara had received huge number of immigration; thus, in 1950's it was the first city to suffer from gecekondu phenomenon (Senyapili, 2004).

This resulted in a need for new and more comprehensive plan which led to another international competition held in 1955 by Municipality of Ankara. The plan prepared by Nihat Yucel and Rasit Uybadin was chosen in 1957. With this plan, the city was surrounded by ring road which anticipated a homogenous oil-stain growth with a single center, avoiding gecekondu settlement. However, the anticipated population of 750,000 for 1985 was reached by 1965 which made this plan another failure. Despite in Lorcher and Jansen plans it was suggested to have low rise buildings with gardens in Yenisehir, in this period high rise buildings without adequate infrastructure appeared in the city silhouette. This resulted in a highly concentrated city center, in Ulus-Kizilay area. Also it did not solve the problem of the uncontrolled growth of the city peripheries which caused further *gecekondu* settlements to appear (ABB, 2014).

3.2.4. 1990 Master Development Plan (1970-2006)

Due to these ongoing problems, the development of the city remained to continue in an uncontrolled fashion which brought out the need for a new plan in 1960s. With a cabinet decree in 1969, Ankara Metropolitan Land Use Plan Office (AMANPB) was established. It was the first attempt to work on a metropolitan scale. Between years 1970-1975 AMANPB developed a land use plan scheme with a 20 year perspective and this scheme was went into effect as Ankara 1990 Land Use Plan in 1982. The main strategy of this plan is the introduction of an east-west axis to provide residential zones to compensate the increasing population (Dogukent 1). This strategy led to the emergence of the contemporary neighborhoods of Ankara which determined the current macroform of the city.

3.2.5. 2015 Structural Plan and 2015 Ankara Transportation Plan (1986-)

During 1980's, city's concentration in a topographic bowl, growing oil stain macroform, disappearance of meteorological ventilation conditions; caused dramatic air pollution. In order to resolve this issue as well as to make provision for increasing traffic problems, Ankara Metropolitan Municipality requested an extensive study on the urban development which will work as a base for a new transportation plan. Upon this request, Middle East Technical University prepared a new structural plan in 1/100,000 scale that targets the year of 2015. 2015 Ankara Transportation Plan (AUAP) was approved in 1994 which is still valid today, although the master plan that AUAP was based on, was not approved. (ABB, 2014)

3.2.6. 2023 Structural Plan (1998-)

Since 1990 Master Development Plan had its limitations on guiding the urban growth and 2015 Structural Plan was not officially approved, there was a need to have an upper scale plan. Thus another plan was prepared by Ankara Metropolitan Municipality in scale of 1/25,000, which was targeting 2023, was approved in 2007. With this plan, it was intended to control speculative developments along east-west axis. However, since it is not comprehensive solution towards the entire city, it is regarded as an unsuccessful plan in terms of infrastructure, transportation and land use.

In the 2023 Structural Plan, it points out the rise of dispersion and segmentation of the city "beyond the decentralization" with fragmented plans and uncontrollable developments without focal points and growth directions (ABB, 2014). Accordingly Kazan, Istanbul Road, Akyurt-Esenboga Road, Samsun Road, Temelli-Eskisehir Road and Konya Road are seen as significant corridors open to the growth. Thus, some of the functions have shifted positions and new districts started to emerge. Mebusevleri, Balgat, Ovecler, Mustafa Kemal, Cukurambar, Cetin Emec Boulevards are seen as the new business districts as a shift from Kizilay and Ulus, which used to be the old business centers.

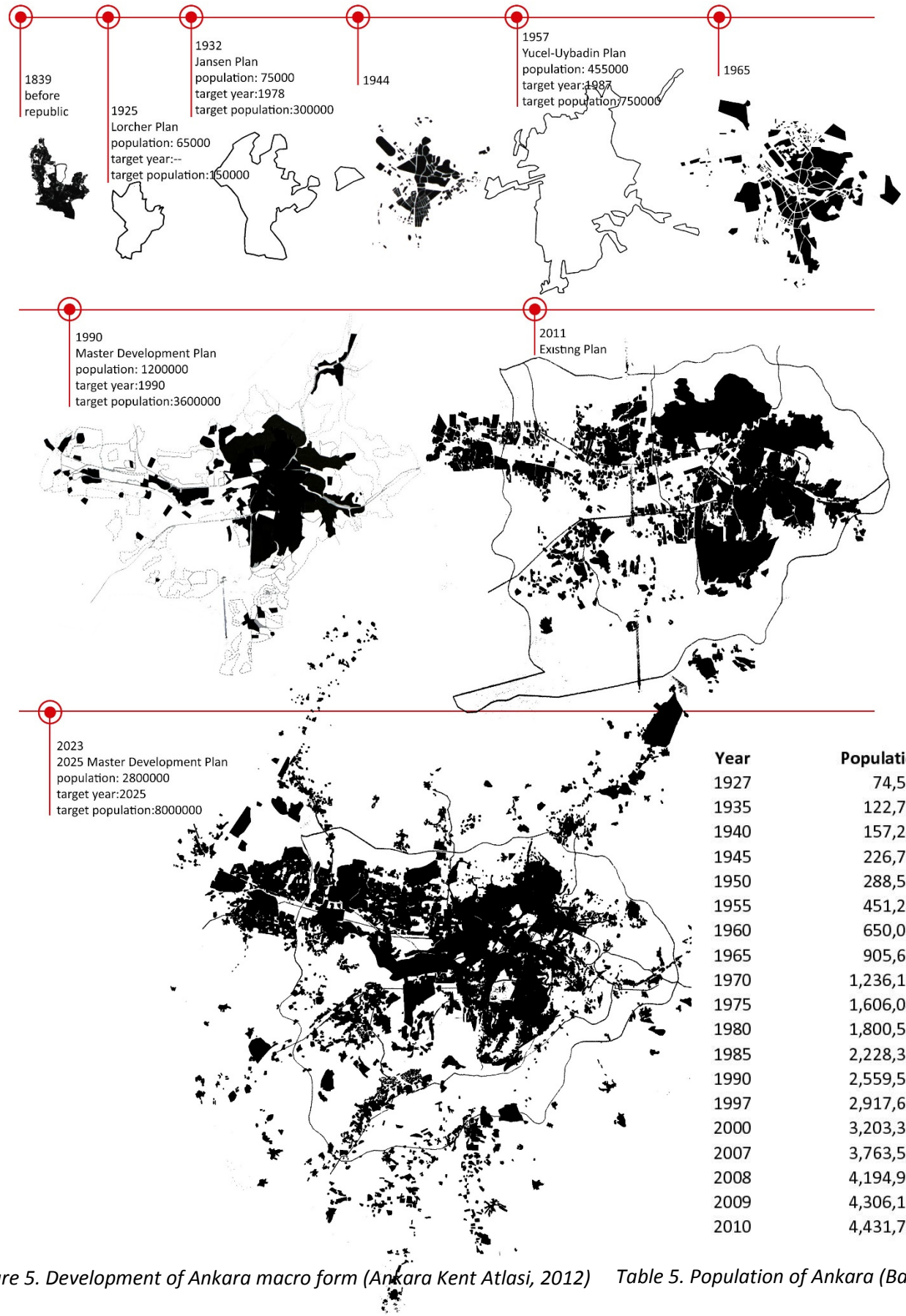


Figure 5. Development of Ankara macro form (Ankara Kent Atlasi, 2012)

Year	Population
1927	74,553
1935	122,720
1940	157,242
1945	226,712
1950	288,536
1955	451,241
1960	650,067
1965	905,660
1970	1,236,152
1975	1,606,040
1980	1,800,587
1985	2,228,398
1990	2,559,511
1997	2,917,602
2000	3,203,362
2007	3,763,591
2008	4,194,939
2009	4,306,105
2010	4,431,719

Table 5. Population of Ankara (Batuman, 2012)

3.3. CONTEMPORARY ANKARA

With its 5 million population and its complex growth pattern, Ankara has become one of the largest capitals of the world ranking 19 among world (Wikipedia, 2014). City developed into an intricate system of multiple focal points, industrial sites, green areas, business districts and interconnecting infrastructure.

Being a capital is the major factor determining the socio-economic status of Ankara. Due to its central status, ¾ of its active population is employed in public sector, trade, telecommunication and other service sectors alike. Outside of the city center, main economic activity is farming. 50% of the lands of the city is used for farming (TUIK, 2014).

Another determining factor is the defense industry. Machine and metal industry has an important position among the industry sectors due to the demand of the defense industry. 40% of all industry in Ankara is on machine and metal industry. Defense industry, in addition to the necessity of qualified personnel and the companies that work in this sector, caused the emergence of large industrial enterprises. Other developing industrial sectors include contracting, furniture and textile. With these advancements Ankara moved away from being a public service city to an industrial one (TUIK, 2014).

	POPULATION	IMMIGRATION	EMMIGRATION	NET MIGRATION
2008-2009	4,650,802	168,193	131,114	37,079
2009-2010	4,771,716	182,845	133,440	49,405
2010-2011	4,890,893	191,864	137,385	54479
2011-2012	4,965,542	160,235	137,834	22,401
2012-2013	5,045,083	186,642	153,791	32,851

Table 6. Migration values for Ankara (TUIK, 2014)

Compared to republican era, contemporary immigration levels in Ankara is much smaller. Overall there is a constant immigration yet there is not a significant increase.

Figure 6. Districts of Ankara with a focus on the central area (personal drawing, 2014)

Ankara has 25 districts in total. However for practical purposes we will focus on 9 central districts where 87% of the total population of the city inhabits for a deeper analysis.

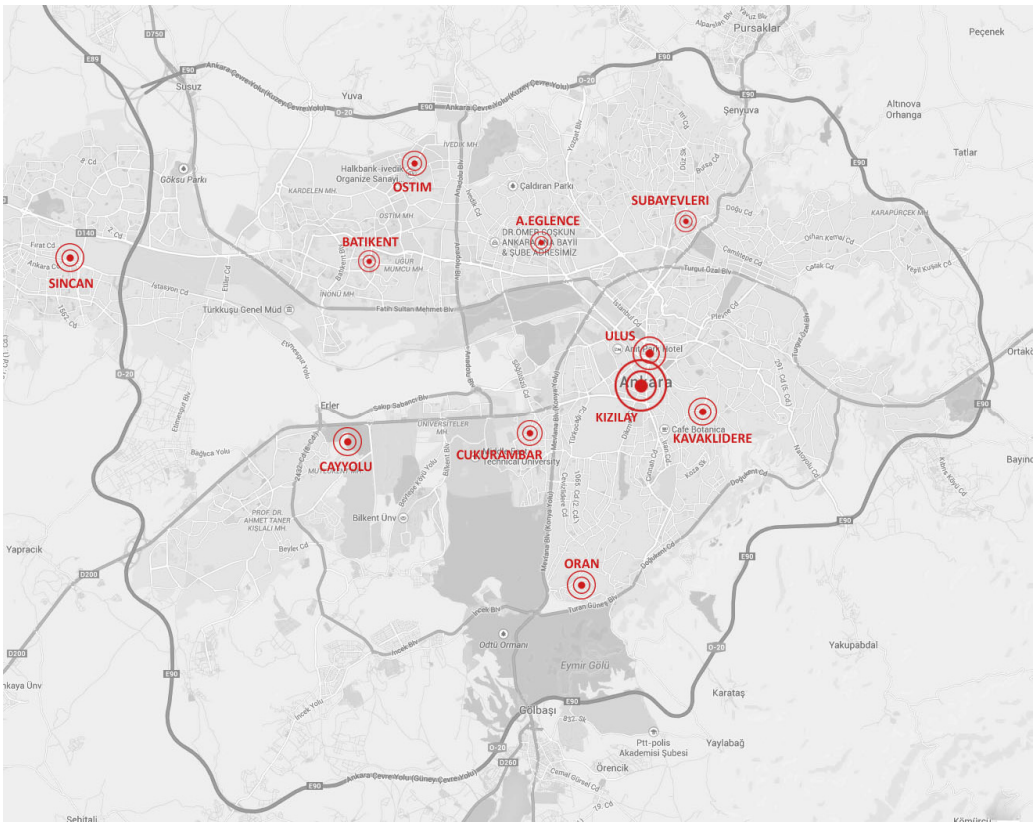


Figure 7. Focal points of Ankara (personal drawing, 2014)

Ankara has become a city with multiple focal points than a concentric city. This is advantageous in terms of transportation since it reduces the need to travel. However, these sub centers are not well interconnected which deteriorates social cohesion and urban identity of the city.

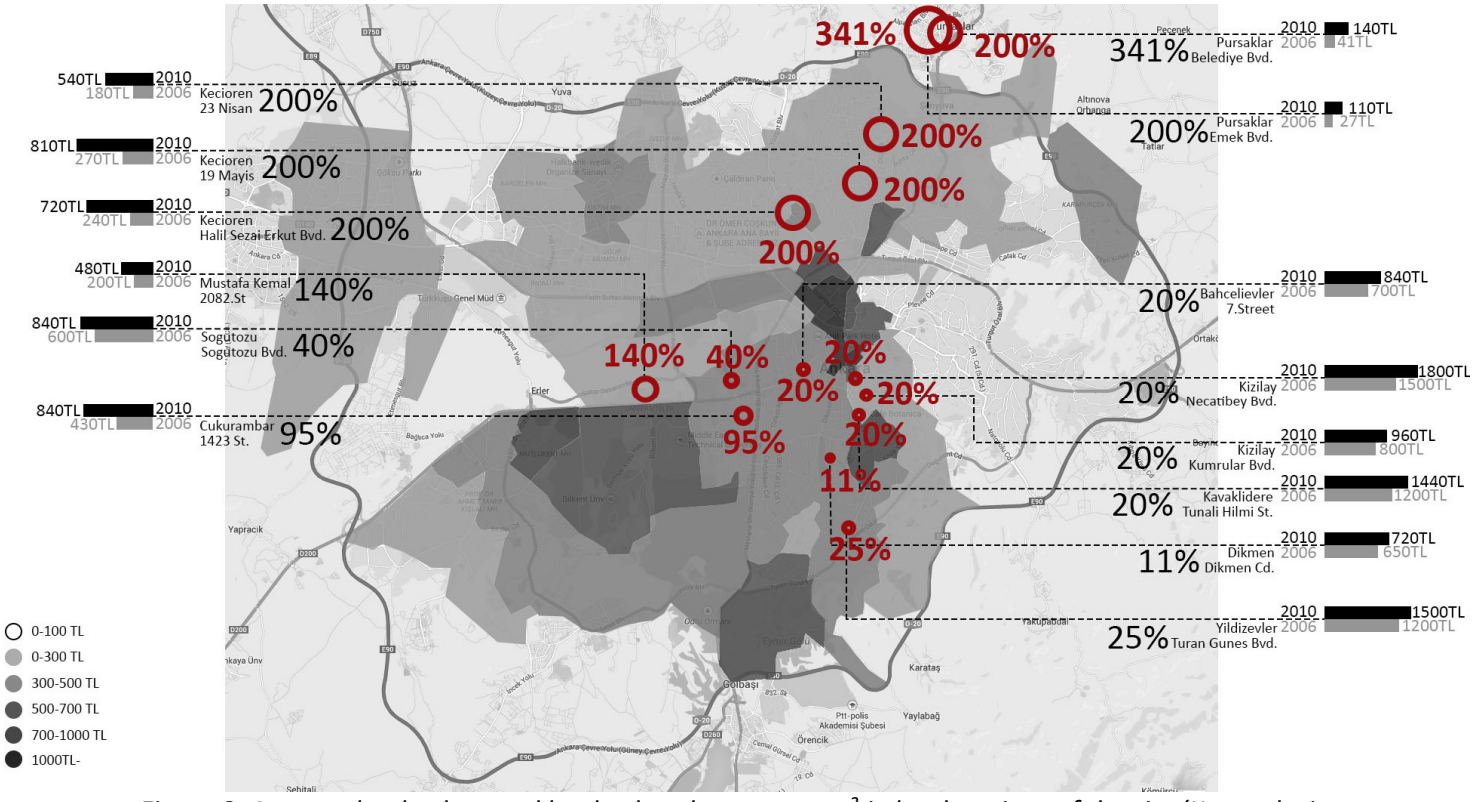


Figure 8. Average land values and land value changes per m² in key locations of the city (Kent atlasi, 2012)

Land values peak at the city center. Demographically lower income populations are agglomerated on north, east and far west of the city center where east is mostly occupied by the squatter settlements. Middle class population is located in south and west of the city center. High income residential zones, Cayyolu and Oran, are in locations relatively farther than the city center with the exception of GOP, which is in close proximity. Due to infrastructural improvements and urban transformation projects, there have been significant rent rises in certain locations in the past ten years. These targeted mainly the north of city center with the biggest urban transformation project “North Ankara Urban Transformation Project”. The transformation, whose construction started in 2005, covers an area of 15.800.000m² and includes 18.000 apartment units and 650.000m² of recreational area (TOBAS, 2014).

Currently there are 45 different urban transformation projects taking place in the city that are mostly located around the external ring road.

	HOUSEHOLD SIZE	RANKING AMONG ALL DISTRICTS
Altindag	3.35	10
Cankaya	2.75	23
Etimesgut	3.25	14
Golbasi	3.49	7
Kazan	3.53	5
Kecioren	3.34	11
Mamak	3.35	9
Sincan	3.54	4
Yenimahalle	3.16	15

Table 7. Average household sizes of districts and their ranking within the city (TUIK, 2014).

Cankaya, the city center, has one of the smallest household sizes among the 25 districts of Ankara. Smaller family sizes and relatively frequent single person dwellings causes a smaller overall household size in the center.

DISTRICT	EDUCATION	Illiterate	Literate but uneducated	Primary School	Middle School	High School	Bachelor	Master	Doctorate	Unknown	TOTAL
Altindag	Person	10,826	11,521	130,962	17,116	59,161	26,666	2,015	547	12,638	271,452
	%	4%	4%	48%	6%	22%	10%	1%	0%	5%	100%
Cankaya	Person	9,968	12,621	141,379	32,504	221,372	252,497	45,343	18,935	27,591	762,210
	%	1%	2%	19%	4%	29%	33%	6%	2%	4%	100%
Etimesgut	Person	5,999	7,600	112,784	20,000	102,996	84,967	9,170	2,082	9,728	355,326
	%	2%	2%	32%	6%	29%	24%	3%	1%	3%	100%
Golbasi	Person	2,151	2,494	32,946	4,780	23,361	16,028	1,853	709	2,839	87,161
	%	2%	3%	38%	5%	27%	18%	2%	1%	3%	100%
Kazan	Person	976	1,147	17,088	1,929	7,496	3,754	253	37	760	33,440
	%	3%	3%	5%	6%	22%	11%	1%	0%	2%	100%
Kecioren	Person	17,678	19,006	254,968	46,628	184,750	101,085	8,414	2,015	20,204	654,748
	%	3%	3%	39%	7%	28%	15%	1%	0%	3%	100%
Mamak	Person	16,316	14,139	192,018	30,499	111,403	49,948	3,411	660	18,224	436,618
	%	4%	3%	44%	7%	26%	11%	1%	0%	4%	100%
Sincan	Person	10,061	10,378	170,713	26,628	92,800	34,610	1,576	306	10,089	357,791
	%	3%	3%	48%	7%	26%	10%	0%	0%	3%	100%
Yenimahalle	Person	10,587	10,358	146,169	28,335	138,329	109,076	11,805	3,122	12,877	470,658
	%	2%	2%	31%	6%	29%	23%	3%	1%	3%	100%
ANKARA	Person	106,686	114,097	1,450,963	237,383	1,046,749	721,875	86,401	28,853	130,354	3,794,776
	%	3%	3%	38%	6%	28%	19%	2%	1%	3%	100%
TURKEY	Person	2643712	3829953	26954174	2828299	12085335	6706780	532757	154180	1683918	57419108
	%	5%	7%	47%	5%	21%	12%	1%	0%	3%	100%

Table 8. Education levels for central districts of Ankara with respect to entire city and country (TUIK, 2014)

Education levels for Ankara are above average levels when compared to Turkey. However, within the city, it is seen that city center Cankaya and the west extension Yenimahalle has significantly higher levels. These values are in parallel with the high rent areas.

DISTRICT	AGE	0-9	10-19	20-34	35-49	50-64	65+	Total
Altindag	Person	57,071	59,208	92,724	79,020	47,765	23,809	359,597
	%	16%	16%	26%	22%	13%	7%	100%
Cankaya	Person	89,614	111,219	242,165	212,160	161,354	97,989	914,501
	%	10%	12%	26%	23%	**18%**	**11%**	100%
Etimesgut	Person	76,972	69,169	131,144	112,543	60,061	19,737	469,626
	%	**17%**	15%	**28%**	**24%**	13%	4%	100%
Golbasi	Person	18,705	19,778	31,272	25,217	14,786	6,168	115,924
	%	16%	**17%**	27%	22%	13%	5%	100%
Kazan	Person	8,342	7,665	12,310	9,924	5,024	2,614	45,879
	%	18%	**17%**	27%	22%	11%	6%	100%
Kecioren	Person	125,965	130,031	214,921	199,446	122,332	55,610	848,305
	%	15%	15%	25%	**24%**	14%	7%	100%
Mamak	Person	86,311	88,295	150,383	133,040	76,515	33,852	568,396
	%	15%	16%	26%	23%	13%	6%	100%
Sincan	Person	84,554	80,851	129,608	107,801	61,231	20,649	484,694
	%	**17%**	**17%**	27%	22%	13%	4%	100%
Yenimahalle	Person	78,677	83,308	150,950	139,015	96,386	43,126	591,462
	%	13%	14%	26%	**24%**	16%	7%	100%
ANKARA	Person	724,331	754,063	846,599	1,153,299	744,857	363,915	5,045,083
	%	14%	15%	17%	23%	15%	7%	100%
TURKEY	Person	12,477,649	12,849,887	19,044,025	15,856,172	10,548,437	5,891,694	76,667,864
	%	16%	17%	25%	21%	14%	8%	100%

Table 9. Distribution of ages of the population with respect to district, city and country (TUIK, 2014).

Ankara has a slightly older population when compared to rest of the country. Within the city, it can be seen that, the city center Cankaya, has an older population than the average where in Etimesgut younger population is accumulated.

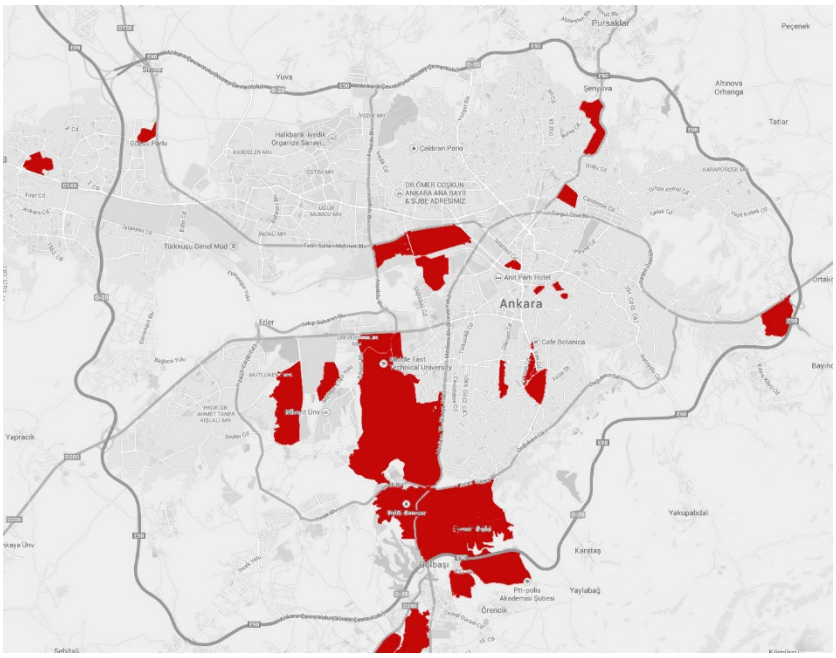


Figure 9. Green areas of Ankara (personal drawing, 2014)

Green areas and city parks are quite rare in Ankara. AOC and METU forests are the two biggest green areas of the city. AOC was partially depleted because of the presidential palace of President Erdogan and now METU forest is under threat of deforestation due to new development projects around Eskisehir Road.

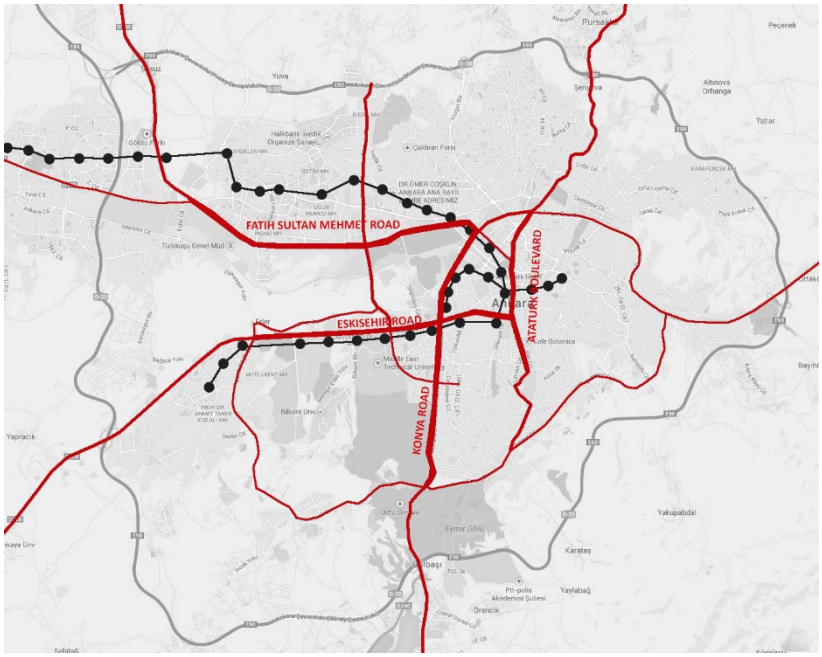


Figure 10. Main axes and metro map of Ankara (personal drawing, 2014)

Ankara has developed within the city center and its two extension axes. Metro lines followed this movement with three lines that intersect in Kizilay. That forces a movement toward Kizilay, which makes the transportation quite inefficient.

3.3.1 Urban Transformation of Ankara

In Turkey, urban regeneration is a primary tool in the restructuring of cities and that it is devised as a government- assisted urban spatial strategy. In this respect, the re-creation of space will be in the hands of the higher income and/ or status groups, with the purpose of increasing and speeding urban capital's fluidity and using urban rent in regeneration in the best way possible(Guzey, 2008). So, urban transformation can be defined as a government-assisted gentrification project and discussed in the context of *neo-liberal urban policy* regimes, the hyper-mobility of global capital and workforces, the expansion of the cosmopolitan class and its increasing welfare (Atkinson and Bridge, 2005) rather than providing physical and social solutions to the urban problems.

In the 1990's, the city of Ankara was re-shaped through urban transformation strategies. The aim of almost all of the projects has been declared at the outset to be the public good; but the direction changes towards mid and high level income groups rather than the residents and in this context gentrification is adopted as a tool of regeneration of the urban locality. For this reason, it will be correct to evaluate the urban regeneration projects in application in Ankara as an extension of the process of government-assisted regeneration and gentrification (Guzey, 2008).

In Ankara, 31 urban transformation projects have been approved and some of them are still in application. As seen in the map, these regeneration areas are split around the city, however, according to its characteristics, location and value; they are shared between the municipality and private sector. Public Housing Administration (TOKI) plays a crucial role in the process of re-designing the city silhouette of Ankara.

Although the characteristics of the project areas are similar in terms of physical features (squatters), there are locational differences with a diversity of pressure and regeneration. According to the location of the project- being on the center or on the edges-; the approach, time periods, conditions and results differ. Generally the prestigious areas are driven by private rent-seeking sectors for middle and upper-middle income neighborhoods and are maintained in short run; on the other hand less prestigious areas wait for the local governments and TOKI.

> *"These efforts of both the municipality and the developers, to increase the physical wealth of project areas, pull in an upper-income population, more mobile in their life-style preferences and ready to gentrify these areas and push out a lower-income population. Thus transformation can be achieved in a very short time"* (Guzey, 2008).

Especially in Ankara, considerable amount of squatter housings are located in the very heart of the city, so they can be considered as valuable areas for the urban structure and for the rent policies. Therefore; the transformation of these areas targets middle and upper-middle income people for residential, commercial and like activities, rather than producing solutions to people living in these squatters. Thus; voluntary or involuntary, lower- income population leave their squatter housings and majority of them prefer to leave the area for various reasons, although some of them are given a new house in that area. In that point, some of them think that they cannot afford the maintenance and costs of the transformed district, whereas, some think that they cannot socially integrate to the neighborhood.

"Lack of re-location policies in Turkey leaves a group of citizens face to face with the problem of finding solutions for themselves to their own issues" (Guzey, 2008).

3.4. CONCLUSION

Overall development of the city, starting from the early Republic days, Ankara followed a trend that shifts away from the controlled growth strategies. From the very beginning Ankara was intended to be a model city of modern development for the entire country which could also compete with European counterparts. However in 1980s with a drastic power shift from the state to local administrations, namely municipalities, created new modes of urban planning. Gradually, capitalist urbanization, liberalist state policies, land speculation and dramatic immigration prevented city from growing with respect to the previous plans that were generated. Urban planning, instead of being a tool for creating welfare for the citizens, became a tool to legitimize rent-seeking activities. Ankara became a "spatial experiment of liberalization project and new spatial practices" (Sahin, 2007).

Following the liberalization trend, metropolitan municipality became the strongest actor to shape the urban macroform. With the addition of the "spontaneous growth-coping with endeavor" mechanism, municipality adopted point solution policies instead of holistic approaches. This method was also used to get around the limitations brought by the city master plans. Last plan in action, 2023 Structural Plan, has been legally unbounding due to its long lasting disputes to be settled in the court. These final evaluations regarding 2023 Structural Plan, are made by Municipality of Ankara under the power of the

president of the municipality, Melih Gokcek, who still retains his status since 1995. He is known for his Islamic fundamentalist and nationalist roots and carries out liberalization politics parallel with the ruling party, Adalet ve Kalkinma Patisi (AKP).

> An overall evaluation of the role played by the municipality in the current urban condition in Ankara reveals the increasing power of the local administration over social relations in the city. The urban regeneration projects and the municipal welfare system emerge as instruments creating an imbalanced power relation between the municipality and the urban residents. Within the urban regeneration processes, the local government assumes the role of an authoritarian executive power rather than being a participatory domain of urban politics. On the one hand it reallocates funds through the distribution of aid and the large scale regeneration projects; on the other, it compensates the living costs of the urban poor with its welfare system. As this redistribution network supports the political hegemony of the Islamist administration, those raising demands regarding issues of collective consumption appear as dissidents harming social coherence (Batuman, 2012).

CHAPTER IV

4. READING ANKARA THROUGH TRANSPORTATION SYSTEM

Transportation system in Ankara has been shaped through the decision making processes of local administrations. Although dominancy of private vehicle ownership has always been a prevailing factor due to inadequacy of public transport system against constant population growths, several modes of public transportation has been developed in Ankara through time. However, recent trend of the local administration is giving priority to private vehicles and solving the traffic problems through improvements in road infrastructure.

4.1. HISTORY

In 1920s, with its 25.000 population Ankara had mostly pedestrian movements with only a few private cars in traffic. In following years, with the increase in population the demand for public transportation system has risen. After the opening of first suburban train line in 1929, some private entrepreneurs started giving bus services. In 1930 all rights to bus, minibus and tram management has been given to municipality. Following this decision, municipality started to expand its bus fleet to serve citizens and private entrepreneurs shifted their services to a more local level.

In 1960s the nationwide decision of prioritizing highways has been influential in Ankara's transportation system and external connections has been improved. Public transportation fleet was not increased in these years causing the percentage of public transport to drop to 30%. This caused people to come up with an informal solution *dolmus*, which are minibuses that act as private taxis carrying multiple customers. *Dolmus* are still one of the most dominant public transportation tools in Ankara.

First transportation analysis for the city was made in 1972 and it suggested the construction of a metro line however, construction was delayed to later periods due to scarcity of funding. Around the same years domestic car production started which caused a burst in the number of private vehicles in Turkey, consequently in Ankara. With the addition of non-increasing number of public transport vehicles, rate of public transportation has dropped below 20%.

In 1978, first bus lanes were put in service. They have increased the efficiency and utilization of the public transport. However due to infrastructural problems, like dents on the roads caused by buses, these lanes were shifted to regular lanes which caused traffic jams. This caused complaints among citizens which was resolved by cancelling the lanes altogether instead of fixing infrastructural problems.

Unlike these decisions which undermined public transportation, some major roads in city center Kizilay, has been pedestrianized in this period. Simultaneously first pedestrian overpasses are built in the city center to accelerate vehicular traffic.

In 1985-1987 Ankara Urban Transport Master Plan and Railways Feasibility Survey was prepared. The survey was made by collaboration of Metropolitan Municipality and a group of academics from Middle East Technical University Urban Planning Department with the target year of 2015. This study has analyzed all methods of public transportation in a deeper aspect and investigated their relationship with land use development patterns. It suggested clever solutions for existing public transportation methods with low investment requirements. This report has predicted problems that can be originated by the increase of private vehicles in city center and suggested bus-only lanes to avoid congestions caused by cars. It proposed a city center open to public transport and pedestrian access without private vehicles. However this master plan has never been approved or legalized. Although it suggested policies and planning approaches for all modes of transportation in city, it never became a binding study since it was a principal approach than an implementation project. In following years, many applications were made which contradicted this plan.

Around the same period even though the bus fleet was enlarged, public transportation fall short of the demand. In 1989 first metro construction has started. Due to these factors and ineffectiveness of the previous feasibility survey, Ankara Transportation Master Plan was prepared and approved in 1994 and it is the last approved plan to date. This plan was quite similar in terms of principles with the report that was prepared before. In addition to concrete solutions, principles regarding urban transportation was determined and related administrative, economical and integrative policies were investigated. Although this plan proposed comprehensive transportation solutions, only rail systems were put into implementation. Also it did not suggest short term solutions for traffic and public transportation problems which caused local administrations to give autonomous decisions and make infrastructure investments without an urban integrity which lead to further complications.

In 1992 construction of the first metro line and in 1993 construction of the second metro line started. Planning and funding of these lines were initiated by Mayor Murat Karayalcin. Constructions were completed as planned in 1996 and 1997 respectively in Mayor Melih Gokcek's period.

4.2. TRANSPORTATION SYSTEM IN ANKARA SINCE 1994

This period has been identified with the Mayor Melih Gokcek because of his still lasting mayor status that is expected to last 25 years. Metropolitan Municipality under his presidency has been the principal decision maker that shaped the contemporary Ankara.

4.2.1. Ankara Traffic and Transportation Improvement Survey (1998)

This is the only survey made during Gokcek's period regarding transportation (except the recent survey that is currently being made by Gazi University which is not released yet). It was prepared to fulfill the requirements to obtain loan from World Bank. Study was completed in 1998 and suggested improvements in public transportation, introduction of traffic management methods, signalization system regulations and institutional coordination through contemporary methods. However this survey was never put into action except three interchanges that were built on the ring road. It was followed by series of decisions that did not follow the inferences of the survey.

4.2.2. Pedestrian related regulations

This period is prominent with projects that aimed to improve vehicular transport opposed to the pedestrian movement. No pedestrianization occurred and some of the pedestrianized roads are opened to traffic.

In city center and on many major transport axes of the city, level pedestrian crossings were abandoned to provide continuous vehicle flow and pedestrians were forced to use underpasses and overpasses that are rendered ineffective in high density areas. Accelerating traffic speed was chosen over reducing traffic amount to reduce congestion problems. This contradicts both modern transport planning principles and the principles that were determined in transportation master plans of the city.

Figure 11. Overpass in city center (Trafikhaber, 2010)

Figure 12. Overpass in city center (Oncu, 2009)

In addition to the abandoned level pedestrian crossings, in some locations concrete barriers are added to sides of the roads to prevent pedestrian movement. Consequently, traffic that is accelerated with these adjustments increases the number of fatal accidents.

During the period of the current government, which has been in charge for the past 20 years, neither any pedestrian zones nor pedestrianized roads are added to the existing urban fabric. On the contrary, an already pedestrianized road, Olgunlar Street, was tried to be opened back to the traffic, but then this idea was abandoned due to public reaction. The common practice of pedestrianizing city center and leaving this area as a traffic free zone in all civilized cities is completely neglected in Ankara by easing vehicular access and increasing traffic speeds in the very heart of the city.

4.2.3. Road related regulations

Since 1994 investments in road infrastructures have been prominent. Due to the road-centered principles adopted by the local administration, interchanges of Ankara have become a symbol of the city. The interchanges appear to decrease the waiting times of vehicles; however, they cause a gradual increase in the traffic and further congestions in the following junction points and increase overall journey periods. Citizens who were waiting at the traffic lights are now forced to wait in underpasses of the interchanges.

Due to the increasing traffic problems caused by the interchanges are tried to be solved by constructing further interchanges. Between 1994 and 2009, 109 vehicular bridges and tunnels were built and the main arteries tying the suburbs to the center were regularly widened. Within the same period, 93 pedestrian overpasses were built in the city, 17 of which were within the central hub (Oncu, 2009). With all these constructions, urban texture is compromised and Ankara became a city of cars than a city of people.

Although professional chambers have took legal actions regarding these constructions, due to current administration's methods of getting business done, problems have become irreversible. Most cases resulted against the municipality, however, since constructions are completed before the legal verdict, case results are rendered ineffective as deconstructing is considered to be against public welfare.

4.2.4. Railway systems

Planning of metro lines goes back to 1980s. First metro line whose construction started in 1992 and second metro line whose construction started in 1993 was finished within this period. However two of

the other three metro lines which were planned were not completed until early 2014. These two lines, which were announced to open in 2004, instead opened in 2014. It was completed with the government funding instead of the metropolitan municipality because construction works were handed over to government in 2011 due to lack of municipal budget. These metro lines have been a matter of political campaign promise for the past 20 years.

4.2.5. Bus Transportation System

In 1995, new double decker buses were put into service between the middle-high income residential areas around east-west corridor and city center. These 41 lines were cancelled in 2007 due to the termination of contract. Since municipality showed little effort to overcome this problem, citizens who suffered from long waiting periods and overcrowded buses preferred their private vehicles over public transportation. Municipal administration, who should supply public transportation for journey demand of the citizens, has instead made a new contract in 2008 with a fleet of smaller vehicles, midibuses , with fewer number. In 2014 with the opening of the new metro line, buses that were working along the same axis were cancelled. However, since metro service is not frequent enough and metro carts are inadequate this attracted public reaction. Also the ring buses that worked within neighborhoods to access metro station are not synchronized with metro hours which increases waiting periods and becomes a discouraging factor for public transportation system. This can be seen as an imposition of road-centered policies over public transportation in Ankara.

4.2.6. Conclusion

Attempts of making transport planning in 1972, 1979, 1983 and 1994 are mainly based on long term goals, rail system types, lines and routes. These surveys suggested solutions for modes of urban transportation, institutional organization, administration and supervision; however, they did not suggest short term solutions, regulations and policies.

Except for the rail systems, no planning took place following an integrated approach regarding the entire city. Modifications were based on the decisions of local administrations and implementations are based on the projects of the subcontractors. Especially in the past 20 years, production of comprehensive master plans are specifically avoided to bypass legally binding planning decisions. Modifications that are made, favors road-centered policies and pedestrian movements, an important part of the city traffic, are neglected.

4.3. SHOPPING MALLS: A LOCAL PHENOMENA

Although shopping mall as a typology was born as a result of the suburbanization trend in America in early 20th century, it started to lose its popularity in contemporary cities. Ankara was introduced to this phenomena in 1989 with the opening of Atakule, still one of the most important landmarks of the city, and reached to a number of 10 shopping malls within 10 years with a total closed area of 100.000m2. In the following 10 year period, between 1999 and 2009, 11 new shopping malls opened adding up to a total closed area of 900.000m2 (Oncu, 2009). By the end of 2010, the number of shopping centers reached 28, and while the floor area per 1000 persons in Turkey is 82 m^2, this figure is 215 m^2 for Ankara, which is way higher than all of the European (Batuman, 2012).

It is striking that, although the shopping malls are irregularly scattered around the city, they are agglomerated around high capacity roads in the urban macroform. They are particularly clustered around Eskisehir, Konya and Istanbul Roads.

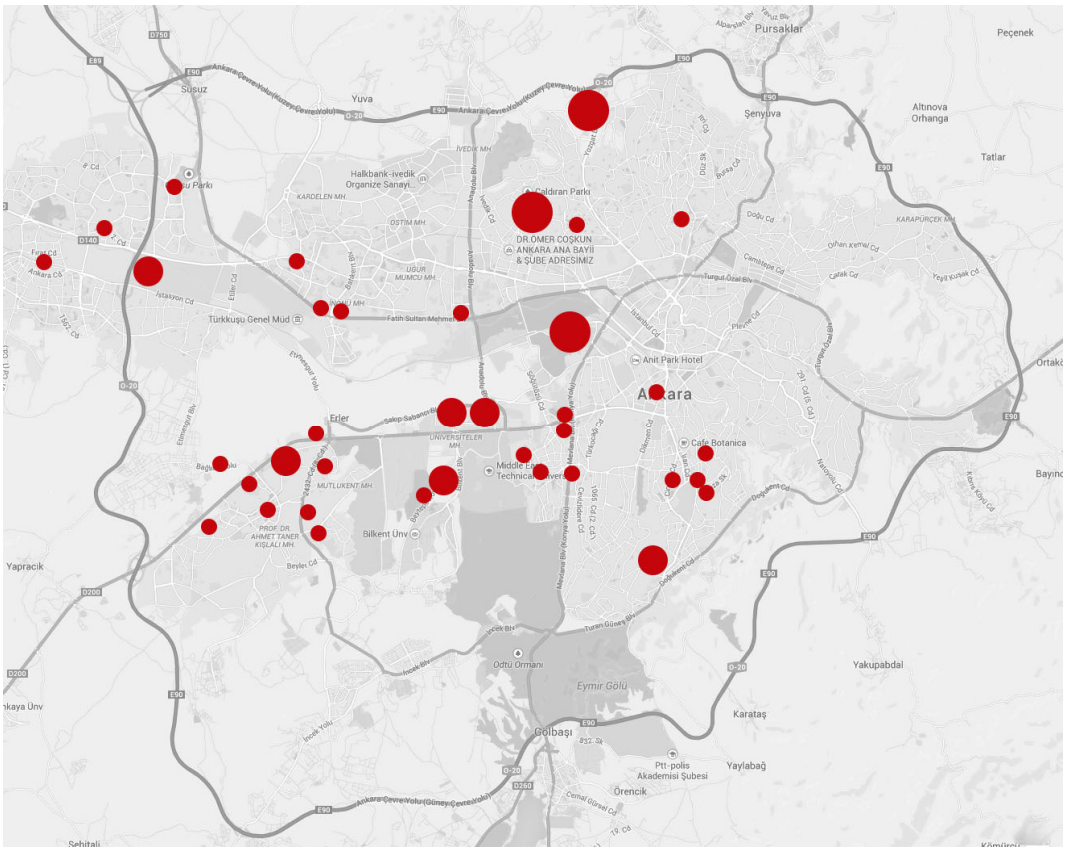


Figure 13. Shopping malls in Ankara by relative size (personal drawing, 2014)

Shopping malls in Ankara not only deplete the importance of traditional commercial zones and central business districts but also create new movements in the city causing modifications in transportation habits. Since many people are attracted to these centers, journeys towards city center decreases. This can be regarded as a positive aspect since it reduces the amount of vehicles within the city center. On the other hand, people who prefer relatively peripheral shopping malls which are not well interconnected with public transportation system, over well connected city center, favor use of private cars. This increases the amount of vehicles in the traffic.

Smaller scale malls attract mainly local residents. However, bigger shopping malls, which are not few in number, attract inhabitants from all over the city which causes an extra burden on overall journeys. In addition, due to lack of preplanning some of the shopping malls, which are adjacent to the main arteries of the city, lead to traffic jams at the entrance points causing blockages at the key axes of the city during peak hours.

In conclusion it can be stated that short term consequences of malls occurs in their immediate surroundings with increased vehicles and traffic jams. However, their long term consequences are more compelling. Going to shopping mall as a pass-time activity, as a mode of commercial preference alters behavioral patterns of citizens encouraging the use of privately owned vehicles and reduces street activities and interactions.

4.4. AN EVALUATION OF ANKARA AGAINST ACCEPTED URBAN TRANSPORTATION PRINCIPLES

It is quite obvious that when compared to accepted urban transportation principles, applications in Ankara are quite contradictory. Due to economic benefits and lack of vision, local authorities neglect the principles that developed over years through trial and error. Ankara citizens are forced to go through the problems whose solutions are well known due to ill planning.

Minimizing the use of privately owned vehicles is a key principle which is accepted by many planning authorities. Manhattan in New York, Champs Elysees in Paris, Shibuya in Tokyo are all heavily utilized areas yet there is not a single interchange on the roads and all pedestrian crossings are on ground level. However, in Ankara private cars have become the core of the planning. Even on the main spine of the city which passes through city center, Ataturk Boulevard, there are many interchanges forcing pedestrians to use underpasses and overpasses. Pedestrian movements on street level are completely neglected to create a high speed vehicle movement. This promotes privately owned vehicle usage which

makes the issue a downward spiral. More cars are added to the traffic, more interchanges are built but at the end of the day congestions are unavoidable.

In Ankara, streets are not considered as a space of social interaction. Maintenance of sidewalks, pedestrian zones are not a priority for local administrations. Elderly, disabled and other vulnerable groups are not considered as an input for design, overpasses are used as a common solution to all pedestrian movements. Public squares are turned into road junctions disabling social gatherings and events. This contributes to the identity problems of the city.

Providing a well-integrated public transport system is one of the duties of local authorities. However in Ankara, public transportation is mostly inadequate and ill planned. Public night transportation is unavailable, metro carts are inadequate, bus frequencies are not organized to meet the public demand. Some bus lines are too frequent that the buses are not used efficiently, some are too rare that there is overcrowding.

Going to city center, Kizilay, is a must to reach any area of the city. People from the recently formed NGO, Ankara Transportation Solidarity, has prepared a petition to demand a new bus line between Batikent and Eskisehir Boulevard (Image 14).

Figure 14. Poster prepared by Ankara Transportation Solidarity for the petition for a new bus line (Ankara Transportation Solidarity, 2014) (Translates as: Pythagoras did it 2500 years ago, we still cannot do it!)

Bicycles are not seen as a part of transportation system in Ankara. There are also some geographical limitations for bicycle users in Ankara since the city has a rugged terrain however within the city center and east west corridor, there is a possibility for bicycle transportation. Also within residential neighborhoods bicycle transportation is possible. However, Ankara does not have a single bicycle path separated from the vehicular traffic. A countrywide NGO, Thursday Night Cyclers, have been cycling around the city every week to raise awareness for the past 5 years. Nonetheless their efforts are still not acknowledged by the authorities.

Ankara needs an overall transformation in policy making level since current authorities have adopted a car-centered policy over a people-centered one. Otherwise “Cars are going to kill Ankara” like the foreseen consequences in European Urban Charter. A lifestyle centered on privately owned cars is being imposed on the citizens which causes an alteration in behavior patterns which makes the problem even more unsolvable.

CHAPTER V

5. CASE STUDY: METU ROAD

As a case study, we have chosen 1071 Malazgirt Boulevard, also known as METU Road, to investigate the effects of neoliberal policies in urban transportation. We believe this road is a manifestation of neoliberal policies in Ankara due to several reasons that are going to be discussed in this chapter. First the spatial, social and economic properties of the neighborhoods that the highway is passing through will be examined. Then the planning and construction processes will be presented, followed by a deep analysis of its effects in multiple levels. Finally, we will present possible solutions on the existing scheme to make the area more livable by the inhabitants.

5.1. SURROUNDING AREAS

The new highway passes through four different areas. Those are Middle East Technical University (METU), Cukurambar Neighborhood, Cigdem Neighborhood, 100.Yil Isci Bloklari Neighborhood.

5.1.1 Middle East Technical University

Middle East Technical University (METU) which was established in 1956 is a public technical university located in Ankara, Turkey. With its 5 faculties and 42 academic departments, METU is one of the best global universities with its high scores in 'World University Rankings' and 1st place within Turkey with its worldwide based on indicators of teaching, research, influence, innovation, and international character (on the list of 'The Times Higher Education World University Rankings 2014-2015' it takes place on 85). Apart from its academic success, the university plays a crucial role on Turkey's political, social and cultural life.

By 1960's the university had started forming it's today settlement in a harmony with its site plan that came into existence as a result of a competition. METU with its large amount of officially registered green area: is an oasis which is 11 km in length and 6.5 km in width on south Ankara including its natural and archeological sites (figure 15).

Figure 15. Location of METU, Ankara (personal drawing, 2014)

5.1.1.1. Location

Today, METU campus located on 4000 ha where, 3400 ha of this area is forestland that makes it one of the most valuable 'green zones' of Ankara. It is between the main 2 transportation axes: Ankara-Eskisehir and Ankara-Konya. On the east part of the campus, public institution buildings and dense housing areas (management building of ministry of agriculture and rural areas, foot and mouth diseases institute, 100.yıl housing area, Oran housing area, TRT); on the west , public institution buildings and housing areas (Bilkent University, Universiteliler neighborhood and Bilkent 3 housing area) are established. On the other hand, the campus ends by Ankara ring road and Golbası district on the south. In the beginning of 2000's, Incek Boulevard which is connected with Ankara ring road, passes METU campus on east-west axes and joins to Yildiz neighborhood and Cankaya district (figure 16).

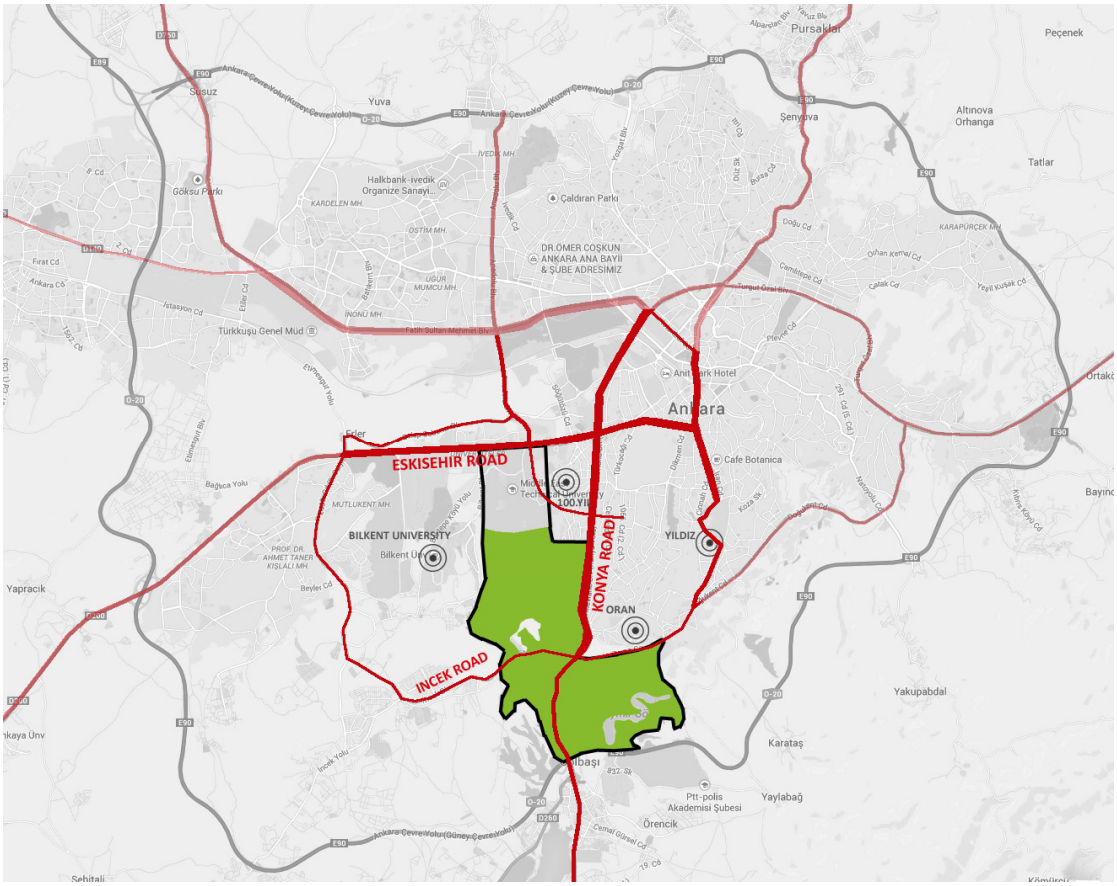


Figure 16. Location of METU with its green spots and relation to main axes (personal drawing, 2014)

As seen from the map, METU land constitutes the backbones of the one of the most critical transportation axes of Ankara. Besides, its huge natural protected green spot; it hosts Eymir Lake which covers 110 ha area serves to inhabitants of Ankara with its walking, cycling paths; sport activities; bars and restaurants.

5.1.1.2. Spatial Development

The first site and architectural plans of METU were designed by Architect Behruz- Altug Cinici and construction started in 1962. The general strategy of this plan is separating educational buildings and dormitory buildings from each other with a green belt. This green belt is supported by sport activities. The educational buildings are located on north-west axis which is the main pedestrian road and vehicle transportation system is supplied by a ring road. In the very center of the educational buildings, there are rectorship building, cafeteria, library and triple lectures hall which are reached by a vehicle and pedestrian road from the dormitory and sport areas. By 1975, the campus was almost completed according to that first structural plan (Ozgenel; qtd in Culculoglu, 2013).

In early 1980's, there was a need of new buildings like faculty of education, faculty of biology and an indoor swimming pool. Until this time, the campus was not in the municipality borders and plans. Therefore; in this period, first decisions started to appear on 1/5000 scaled Ankara Structural Plan. In 1990's with the new requirements and improvements needed, 1/5000 Ankara Structural Plan was revised including METU land and in 1994 it was approved by Ankara Metropolitan Municipality. After this plan, campus area started to improve on west direction. Many faculty buildings were built on this improving west axis; whereas in late 90's on south axis, dormitory extensions and guesthouses were constructed.

5.1.1.3 Access and Transportation

METU Campus is located on Ankara- Eskisehir road. Today, access of the campus is provided by 3 entrances: A1 (Eskisehir Road), A4 (100.yıl area) and A7 (Yok Road) (Figure 6).

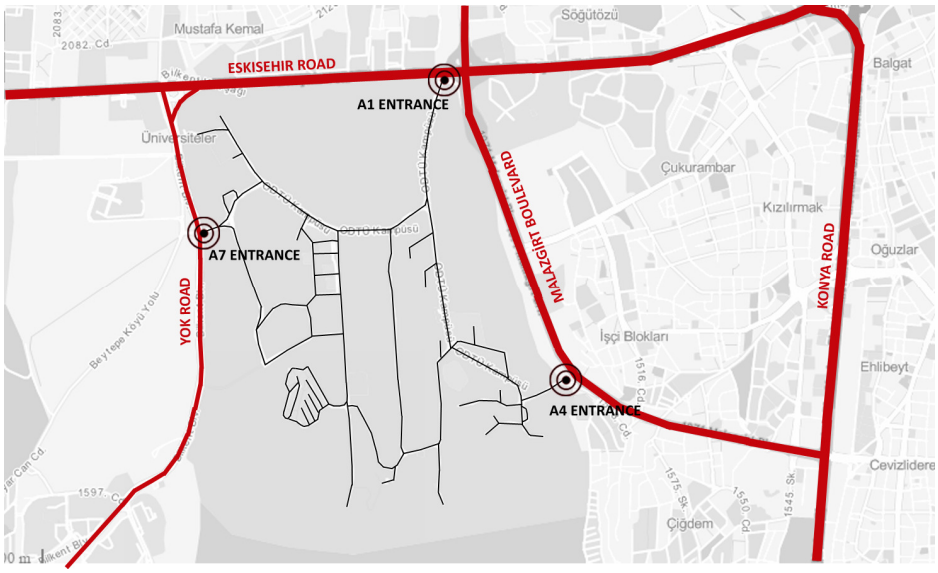


Figure 17. Entrances of METU (personal drawing, 2014)

Kizilay- Umitkoy metro line passes from the north side of the campus and have a stop in relation with A1 entrance. Besides, ring buses from some important centers (Kizilay, Asti, Tunus, Ulus) give service to campus users to go from and come back to METU. There are also public buses to METU that work during daytime schedule.

Although, the campus (inside) is bicycle friendly; it is almost impossible and dangerous to reach campus by bicycle because of high speed traffic on Ankara- Eskisehir road.

5.1.2. Cukurambar and Kizilirmak Neighborhood

Cukurambar is one of the most improving neighborhoods of Ankara since 2000's. The district is also called the same name with the neighborhood. Onder Senyapili -professor, writer, journalist- works on the origins of the names of the districts of Ankara and in his description Cukurambar (dip-storehouse) is; 'the area was used to known with its fertile grain lands that was geographically located on a dip land' (Dundar, 2010).

However, today's Cukurambar and Kizilirmak are the most luxurious districts of Ankara with its 'fertile' high rise buildings. In the area where there are high densities of residential and business units, it is assumed that about 50.000 people are dwelling. According to the data taken from neighborhood unit of 'Cukurambar'; the population of the district is composed from %54,37 men, %44,63 women, %45 single, %54 married, %1 widow, %5 college graduate and %10 college student. Besides, many politicians prefer living in this district because of its dramatic development and critical location (Dundar, 2010).

5.1.2.1 Location

Cukurambar and Kizilirmak district is located on south-west part of the city and perfectly surrounded by 2 main transportation axes of Ankara and the newly constructed road. On the north, Ankara-Eskisehir; on the east, Ankara- Konya; on the west and south Malazgirt Boulevard maintains the area. Approximately, it is 3.5 km from the main center of the city, Kizilay.

METU Campus takes place on the west side of the neighborhood, whereas, there are Isci Bloklari neighborhood on the south-west and Cigdem neighborhood on the south (Figure 18). Cankaya University and Ufuk University also have their campuses on the district.

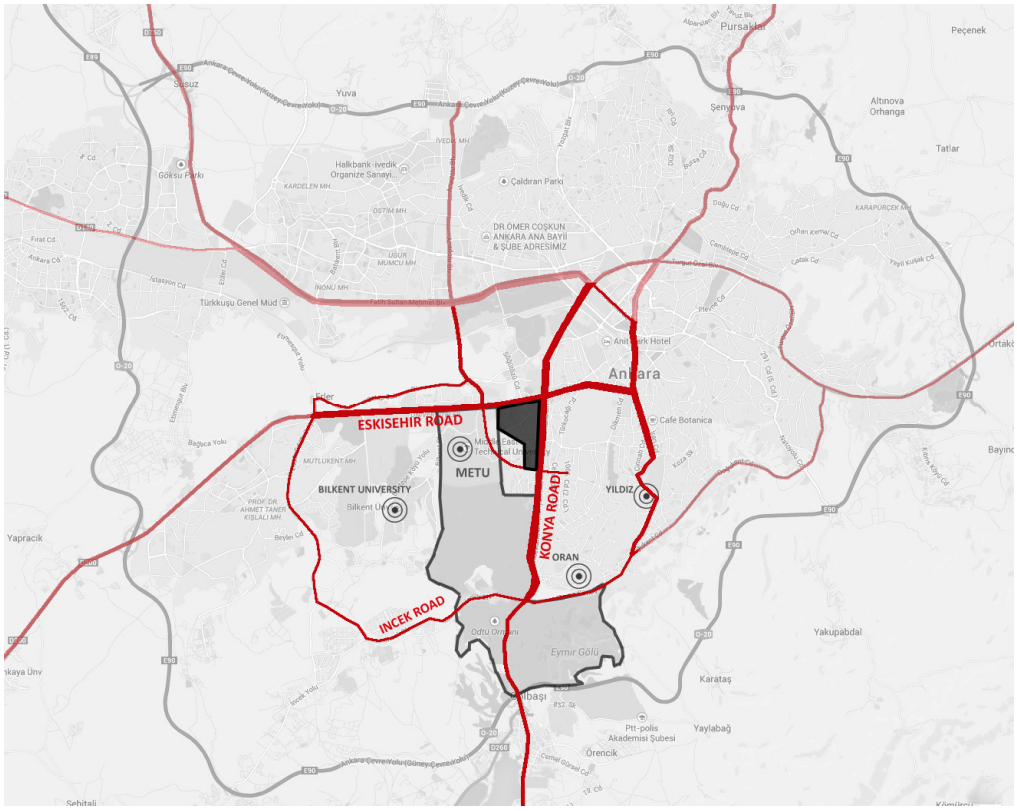


Figure 18. Location of Cukurambar and Kizilirmak Neighborhoods (personal drawing, 2014)

5.1.2.2 Spatial Development

As mentioned before, Cukurambar and Kizilirmak neighborhoods were an important agriculture lands which were producing grains till 60's. After being capital city, Ankara had incredible amount of immigrants and city started to grow in an uncontrolled way. Cukurambar and Kizilirmak were the points that hosted 'gecekondu' growth. As a natural result of this growth, an organic pattern appeared with maximum two-storey buildings with gardens, paths and social areas that were created unofficially by inhabitants. This organic path with its dead end streets and unorganized public areas were social interaction points for children to play, people to share (Figure 19). Till 2000's, the growth of the district went parallel with the construction techniques that was legally running around the city (Gokce, 2007).

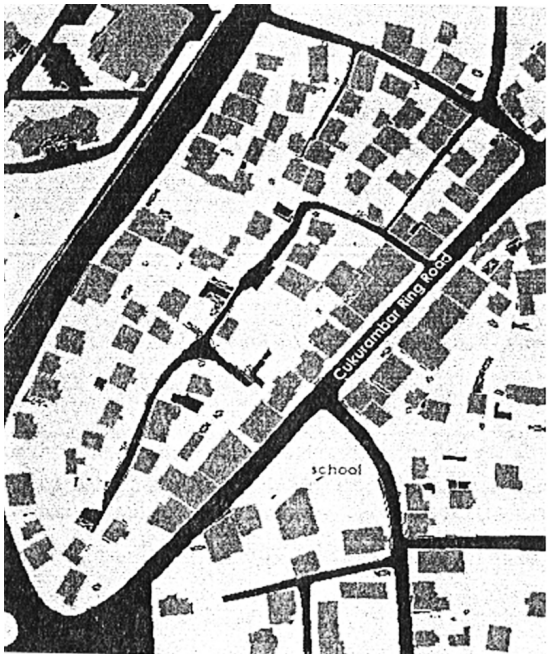


Figure 19. 'Gecekondu' area with its organic patterns (Ersahin, 2002; taken from Gokce, 2007*)*

Since 2000's, with the policies of urban transformation; Cukurambar and Kizilirmak neighborhoods have been reconstructed in a dramatic way. This process is called 'Cukurambar Urban Transformation and Improvement Project' which was approved on 16.02.2007 by Ankara Metropolitan City Council, involves 255 ha land (Chamber of Architects of Ankara, 2014). Its location, being in the middle of most crucial city axes, makes it inevitably valuable lands and serves for the rent politics in recent years.

When looking at Cukurambar district in general, it is composed of approximately 34 m buildings which are generally housing. Ogretmenler Street and Ufuk University Street creates the main pattern of the Cukurambar neighborhood. 'Cukurambar ring road', was renamed in recent years as 'Muhsin Yazıcıoglu Street' who was a politician died in 2009, can be considered as the main arterial road of both Cukurambar and Kizilirmak districts (Figure 20).

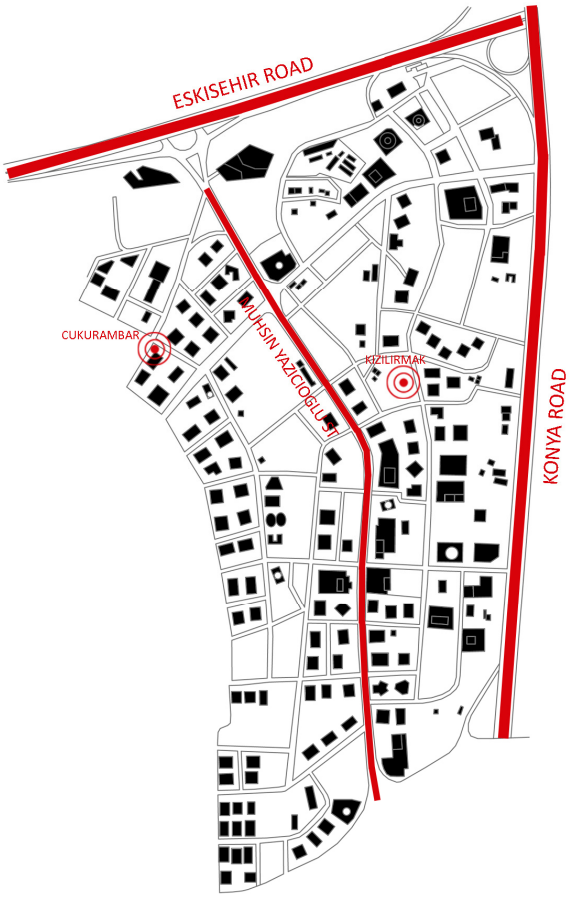


Figure 20. Main axes relation map of Cukurambar and Kizilirmak (personal drawing, 2014)

This street is overloaded compared to its capacity by the dense activities taking place. It can also be easily deduced from the Ersahin's data that; before the transformation period, it was 170 inhabitants per 1 ha in the neighborhood, however, now it is three times higher. Thus, in the long term this will cause inevitable social and spatial problems (Ersahin, 2002). Along the way, there are high buildings with mostly commercial activities on the ground floor which creates an intense traffic at almost all hours. The highest building of Ankara-Nova Tower, 40 storey- (in construction), residential buildings with 28 storey (Hayat Sebla) and generally 34 m high apartments compose the identity of this street (Figure 21, 22). As ground floor activity, luxurious cafes and restaurants address new profile inhabitants of the neighborhood that also changed with the urban transformation of the district. This shift from '*gecekondu* to towers' has created both spatial and social chaos. Once, it was a green neighborhood with its children playing on the streets, today it is a concrete jungle which works for rent policies without any people on the streets.

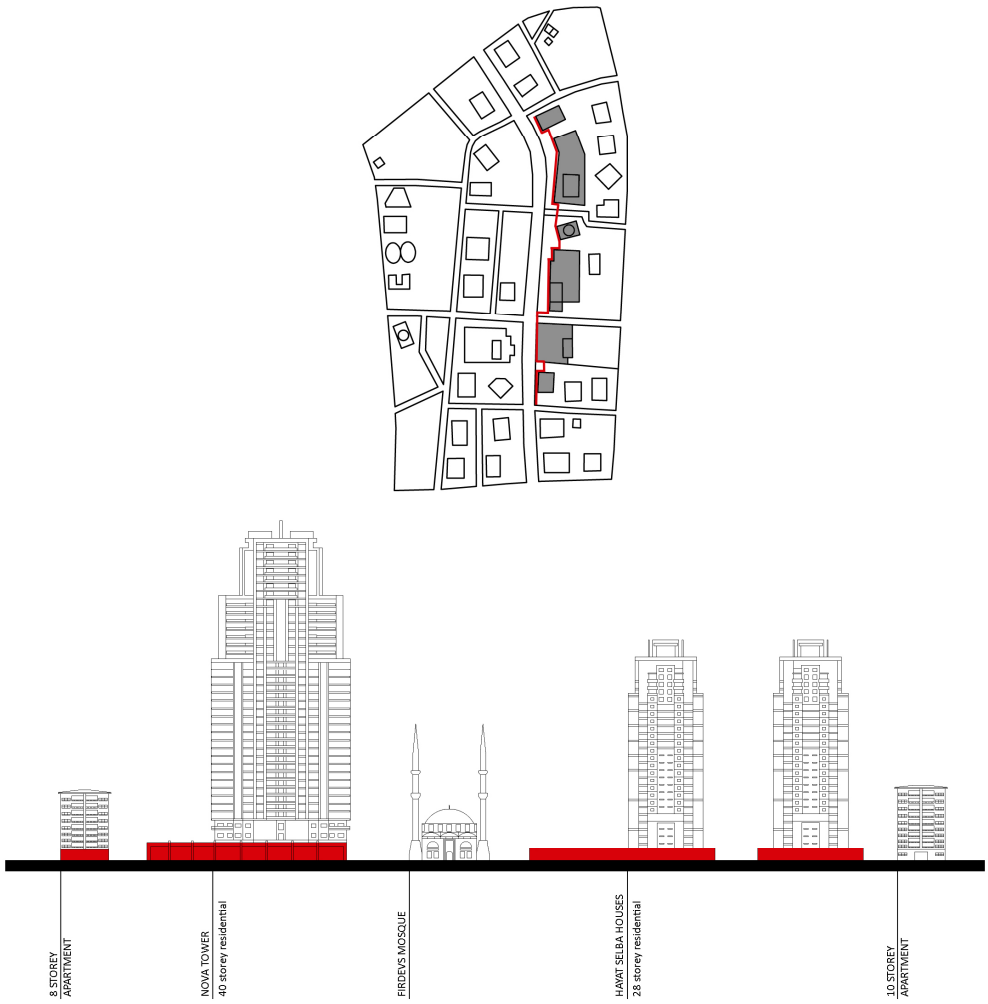


Figure 21. Permeability of the ground floor is showed by red along the street (personal drawing, 2014)

Whereas, Kizilirmak neighborhood, apart from its highly dense residential buildings, is becoming an attraction point for high rise business towers day by day. Paragon Tower, Next Level, Farilya Business Center are among the several high rise buildings of the area.

Figure 22. The silhouette of the district (Soyak, 2014)

The term of 'storytelling neighborhood' described by Sandra J. Ball-Rokeach, Yong-Chan Kim and Sorin Matei refers to 'act of constructing an identity as a member of a residential neighborhood'. It is a communication process through which people go from being occupants of a house to being member of a neighborhood. According to their paper, there are some components that create this communication action context: physical, psychological, sociocultural, economic and technological features. So as to understand how these neoliberal transformations affect the neighborhood sociologically, we need to examine the situation under the scope of these five features.

Physical feature is about 'how an area is laid out (e.g., streets and freeways) and relative presence of communication- incipient places or places that bring people together (e.g., parks, quality grocery stores, movie theaters, or libraries)' (Ball-Rokeach, Kim, Matei 2001) .

When analyzed, how the neighborhood is settled, has almost no relation with its past, apart from city blocks. The main element that creates the pattern of the district is high rise buildings with fences around them. In terms of scale and city blocks, buildings have almost the same architectural qualities: simple, dense, uncreative. The city blocks follow the traces of old squatters' outlines. However, there is no relation between the buildings and public spaces around them. According to Dr. Sonay Cevik; streets, dead ends, stairs, under canopies, doorsteps are the possible places to enhance social relationships of dwellers: to see, to talk, to play, to sit, to rest, to meet, to watch, to

participate (1992). However, new organization of the area with closed fences creates introverted lifestyles with also decreases the social interaction and sense of 'belonging' to the neighborhood.

According to definition of 'Storytelling Neighborhood'; psychological features concern whether people feel free to engage one another, such as their level of fear and comfort.

Researchers have been investigating the direct relationship between neighborhood characteristics and psychological well- being, strengthening the evidence that neighborhood factors have an impact on mental health outcomes above and beyond individual characteristics and social aspects. Neighborhood disorganizations may lead to social cohesion, trust and power problems, feeling of social isolation, mistrust and powerlessness. Hence, lack of informal social networks and feeling socially isolated in a disordered neighborhoods can also increase individuals' feeling of fear and mistrust (Ross& Jang, 2000).

So, what makes neighborhoods ordered and safe is generally passes from its physical organization. The planning of the neighborhoods should enhance the social interaction with its social areas, green areas and building typologies. As more introverted environments created, less sense of belonging to a neighborhood will occur.

Also, Frances Kuo, who is the founder of Human- Environment Research Laboratory (HERL) with William Sullivan study the relationship between people and physical environment, reveals that communities that live in buildings close to green areas have stronger sense of being a membership of the community. They have fewer tendencies towards aggression and violence (Ackerman, 2006).

Socio- cultural features include degree of class, ethnic and cultural similarity and inclinations toward individualism or collectivism.

Contextual explanations for individual behavior argue that individual preferences and actions are influenced through social interaction and social interaction is structured by the social composition of the individual's environment (Huckfeldth, 1983). The composition of race, class or other parameters creates mixed neighborhoods which prevents chaos and decreases social isolation in neighborhoods.

Almost half of the dwellers of Cukurambar and Kizilrimak neighborhoods are the landholder of the squatters before the transformation. Most of them sell their property because they cannot compensate the new luxurious lifestyle, and the minority group that tries to survive in this district cannot keep in step with the neighborhood. Thus, identity conflicts and incompatibility occur among the people from different social classes. Cukurambar Transformation Project aims to satisfy high income people physically and socially, whereas, ignores the requirements of the local residents who

used to live there for long years. So, new organization of the district does not give those people opportunity to lead their lives in neighborhood which creates social isolation and segregation.

Economic features of communication action context include the time and resources available to engage in everyday conversation.

'The economic stratification of neighborhoods creates a link between cross-sectional and inter-temporal inequality' (Durlauf, 1996). However, as Talen summarizes in her article called 'The Social Goals of New Urbanism' that 'When this diversity happens in a place such as a neighborhood, it is possible that diverse populations can find something they share in common, since they occupy a shared world'. Under that scope, it becomes important to create the opportunity for social interaction among people of different incomes and ethnicities and somehow create mix-income neighborhoods.

In Cukurambar and Kizilirmak neighborhoods, there is a mixture of two different groups of people with economic inequalities; those who live in the areas have already transformed, and the others that are in process of transformation. However, there is no attempt in the district to create a social interaction between these two groups, on the contrary, new spatial developments of the area catalyzes the polarization between inhabitants of the area. As a result, the majority of the people that were used to live in this district, are forced to move other parts of the city.

Technological features include access to communication technologies and the available transportation systems (e.g. car based or mass transit).

According to 'The Leadership Conference on Civil and Human Rights'; transportation equity is a civil and human right. Wade Henderson, president and CEO of the conference says; "When decisions are made about transportation resources and funding, those decisions are rarely made in consultation with or in consideration of low-income people who tend to rely heavily on public transportation as their main access to services" (Kambitsis, 2011).

This district is a mainly automobile based neighborhood, where you can see cars everywhere rather than people walking on the streets. The available transportation system of the district is discussed in the upcoming passage.

5.1.2.3 Access and Transportation

Although being on the intersection point of the main axes of Ankara, it is not so easy to reach this area without private car. There is a metro stop (Sogutozu) on Kızılay-Cayyolu direction where Ankara-Eskisehir road intersects the Muhsin Yazicioglu Street which doesn't have a regular ring service to neighborhood. Besides the metro, there are buses coming from the city center during daytime schedule, however some of them were canceled with the opening of metro. After the transformation of the district, the neoliberal urban policies have formed a car based neighborhood where people come to plazas and skyscrapers by their own cars. The organic pattern of pathways and grain lands were deleted from the district.

5.1.3. 100. Yil İsci Bloklari Neighborhood

100. Yil İsci Bloklari Neighborhood is composed of cooperative apartment blocks constructed for employee families to become homeowner for cheap prices in 1970's. The name of the district, '100. Yil' -which means 100th year-, comes from the 100th birthday of Mustafa Kemal Atatürk who is the founder of Turkish Republic and on the other hand, Isci Bloklari refers to apartment blocks for labor.

There are 4906 houses that are located in 2 types of apartment blocks in the area: 5 floors and 15 floors. They are simply designed social housing blocks to meet basic requirements of working class groups. Today, the neighborhood has 20.000 inhabitants who are mostly retired employees and college students of METU.

5.1.3.1. Location

Like Cukurambar and Kizilirmak neighborhoods, 100. Yil Isci Blokları neighborhood is located near the intersection of the main two axes of Ankara, between Cukurambar and Karakuskunlar neighborhoods. On the south-west, the area is wrapped up by the new road: Malazgirt Boulevard and the campus area of METU (Figure 23).

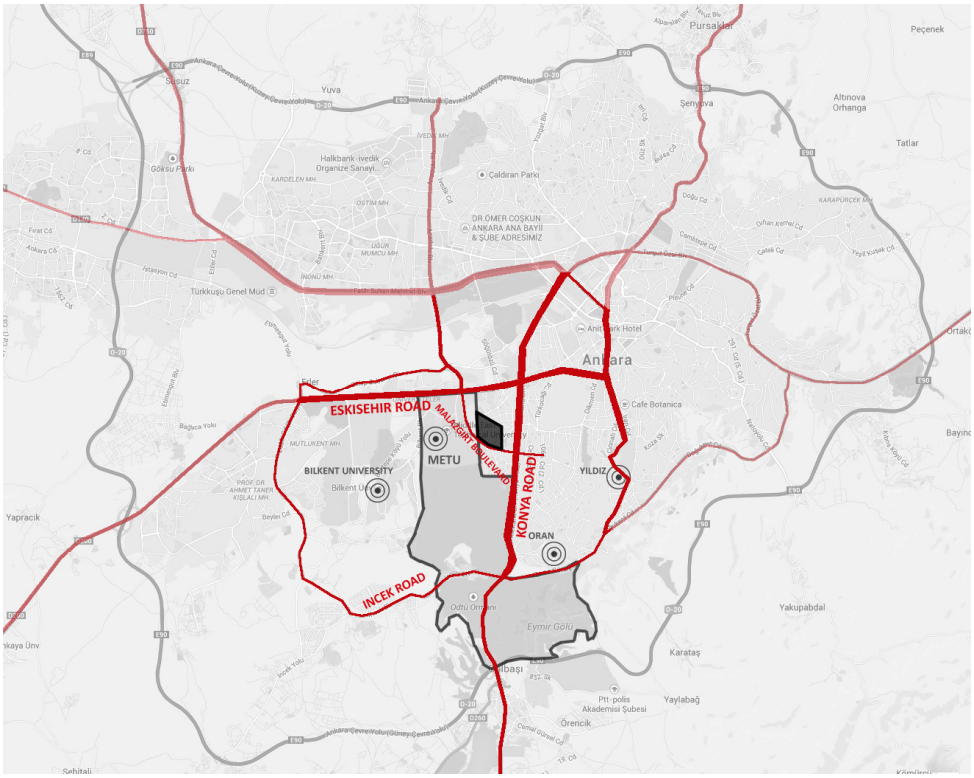


Figure 23. Location of 100. Yil Isci Blokları Neighborhood (personal drawing, 2014)

5.1.3.2. Spatial Development and Demographic Structure

The construction of the apartments was completed in 1980 by the company INTUR Incorporated Company with the cooperation of French and German partners. After this period, the developments continued in the neighborhood by different subcontractors.

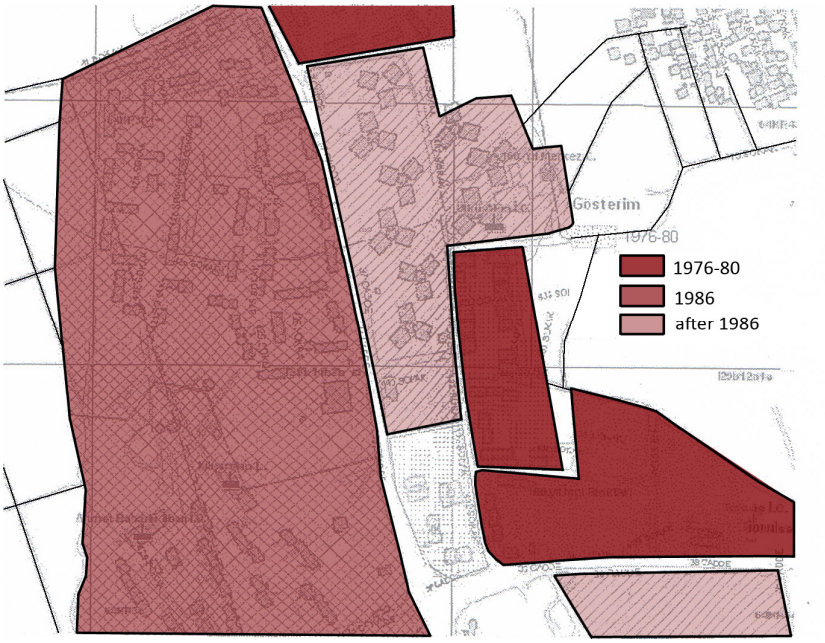


Figure 24. Spatial development of 100. Yil Isci Bloklari (personal drawing, 2014)

The neighborhood is composed of 5 and 15 storey apartment blocks, commercial and service units, school and a market place. The first constructed 15 storey apartment blocks includes 3 blocks inside have star-shaped organization on their plans and the circulation are provided from the inner courtyard; whereas other high rises have the same plan organization except from their circulations. Entrances of the 3 blocks are separated in those types. The high rise blocks (15 storey) are organized in the same islands, next to each other. On the other hand, 5 storey blocks are organized with the consideration of creating public spaces. The housing units on both typologies have 2 bedrooms and 1 living room with different balconies. The buildings are organized around common fields as groups of two or three. These commons are used as car parks, parks, basketball court, etc. The spaces are connected to each other with organic pathways (Baskaya, Yalciner and Yilmaz, 2005).

On the other hand, in terms of psychological and social features, it is one of the surviving traditional neighborhoods in Ankara. As mentioned before, Ankara is in a fast transformation process since 1980's and the pattern of traditional Turkish neighborhoods has started to disappear under the capitalist order. Low and low-middle income settlements provide stronger relationships with each other through more social spaces such as coffee houses, markets, mosques, etc. (Erkip, 2008). In the neighborhood; people engage with each other in the common areas, have social activities around the market area which is the heart of the neighborhood, meet through the initiative of the district and

also protest to protect their district. According to surveys, 'neighborliness' is an important phenomenon which creates the strongest social interaction in the district. Apart from %34 (which is most probably the college students); it seen that majority of the dwellers are willing to engage relationship with their neighborhoods and %41 clearly express that, neighborliness is an important feature to establish a mutual relation. Park (%25), stairs (%18), market (%11), bazaar (%7) are the main places that they create their social interactions (Baskaya, Yalciner and Yilmaz, 2005).

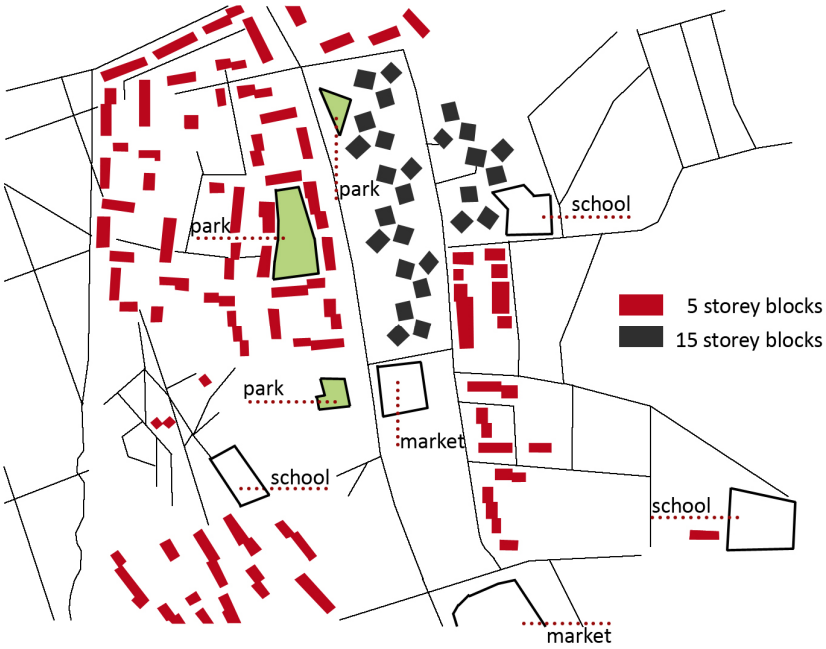
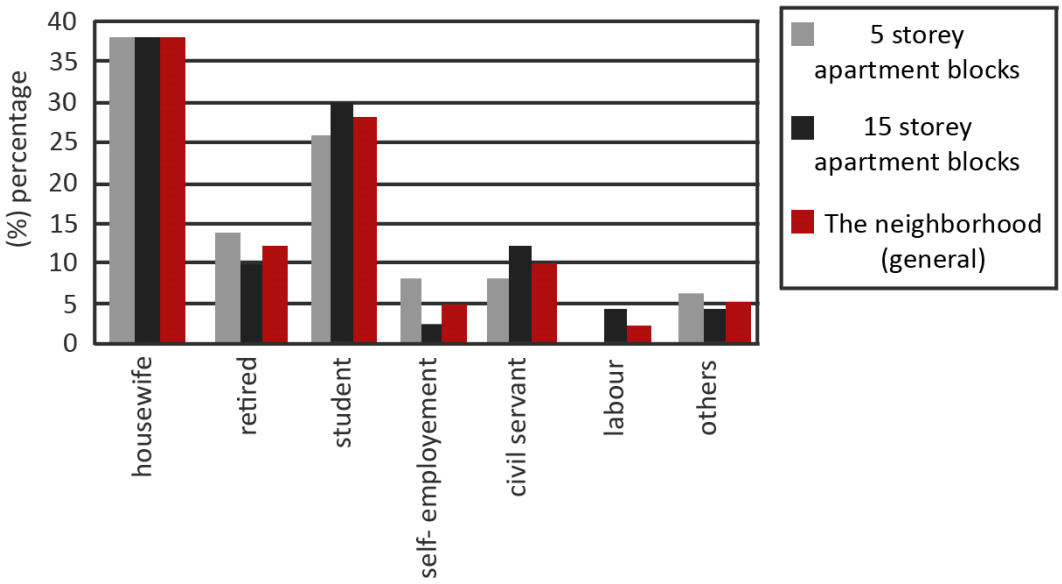


Figure 25. Function map of 100. Yil Isci Bloklari (personal drawing, 2014)

Looking at the demographical structure of the neighborhood; as it was constructed for working class groups; low, low- middle and middle income population take their place in the neighborhood who are retired people that bought their house during the 80's. Today, according to the data; approximately half of the population is under the age of 30, the other half, is over 30. This situation can be explained by the presence of the university students of METU. Using the locational advantage, students of the university choose this neighborhood for accommodation which provides a dynamic structure to the neighborhood. Therefore; retired working class population and students form a dual characteristic in the neighborhood which is quiet and dynamic on the optimum balance.



Graph 1. Occupational distribution over building types (Baskaya, Yalciner and Yilmaz, 2005)

%37 of the dwellers have being living in the area more than 10 years, also %41 add that before this neighborhood, they were used to live in the districts which are around. It can be deducted that, the choice of the neighborhood is not a random selection for the inhabitants. Analyzing the different typologies of the apartment blocks; %58 of the occupants of the 5 storey buildings are the landlords, whereas, for the 15 storey buildings this ratio decreases to %38. Therefore; tenancy rate (%50) is higher in the high-rises in compare to low-rise ones (%42). Some of the reasons of choosing this district are; appropriate prices (the low-rise %14, high-rise %26); closeness to the campus (the low-rise %16, high-rise %22) *(Baskaya, Yalciner and Yilmaz, 2005).*

Figure 26. View of 5 storey apartment blocks (personal archieve, 2014).

Due to the fact that, the housing units are small (2 bedrooms and 1 living room); they address to nuclear families and the students to share. All in all, the modest prices of the houses, social structure of the neighborhood with market and bazaar areas, the locational advantages makes this district valuable and attractive although its low maintained physical conditions.

Number of the children	%
No child	44
1-2	39
3- 3+	17
Total	100

Table 10. Percentages of the children (Baskaya, Yalciner and Yilmaz, 2005).

5.1.3.3. Access and Transportation

In terms of public transportation, it is not different from the other surrounding neighborhoods. The closest metro stop is on the Eskisehir road where Muhsin Yazicioglu Street intersects with it. There is no regular shuttle buses connecting the metro and the neighborhoods and the schedule of the existing busses do not synchronize with the arrival metro. The buses number EGO 132, 133, 408, 479 connect the neighborhood to the some city centers during day time, however; with the opening of metro, the municipality cancelled EGO 132 and EGO 133 buses which received a big reaction from the neighborhood.

5.1.4 Cigdem Neighborhood

Although, Cigdem Neighborhood existed since 1970's; the official establishment of the neighborhood dates back to 1988. With its approximately 30,000 inhabitants; it is a high density residential district composed of gated communities which were transformed from the squatters.

5.1.4.1. Location

The neighborhood is located on the Ankara- Konya arterial road, south Ankara. The distance between the district and the main city center (Kizilay) is 5km, to Ulus 11 km. The south and west of the neighborhood is covered by the METU forest. The east border of the neighborhood merges with the

Konya road. The north side of the district was used to connect with 100. Yil Neighborhood, however, today, 1071 Malazgirt Boulevard surrounds Cigdem Neighborhood along the north axis.

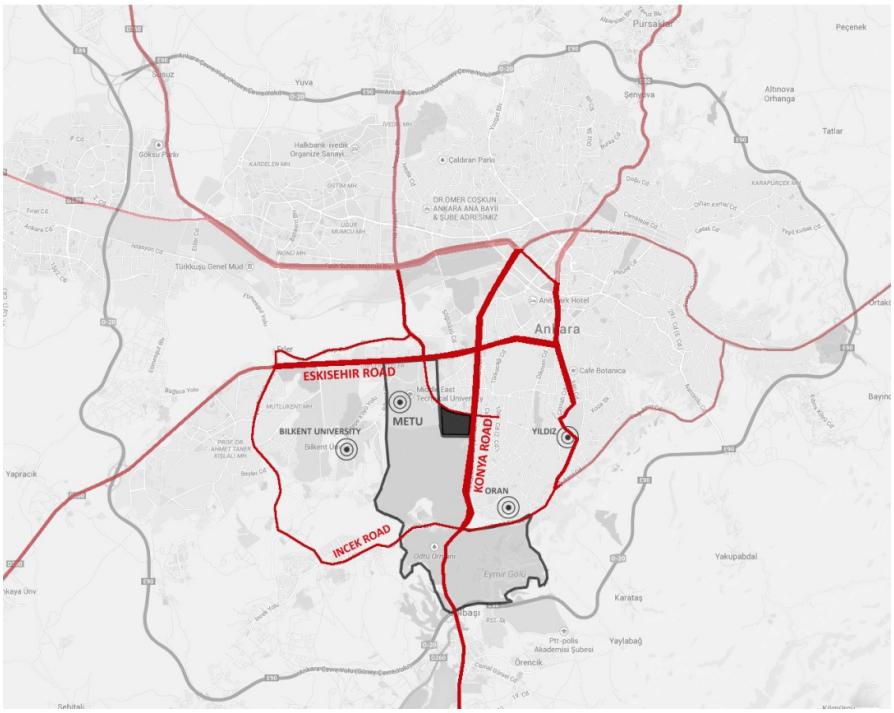


Figure 27. Location of Cigdem Neighborhood (personal drawing, 2014)

5.1.4.2 Spatial Development

"The new lifestyle offered by a gated community was the main selling point for only a brief period, starting in the 1980s. […]This is important historically because of inflation. It seems that gated communities are also preferred by those with high disposable incomes for speculative reasons, as the price and rent of dwellings are twice the values in the city" (Erkip, 2008). Cigdem Neighborhood is known with its modern gated communities which dominate the area. The first gated communities that were constructed in 1988 are Ebru and Gokkusagı housings. Besides the high density of the gated communities; by 90's, private primary and high schools carried their educational buildings in this district. Thus, the neighborhood welcomes middle-high income people with high standard housings, educational and commercial activities. Besides, one of the biggest shopping mall 'Taurus Mall', which addresses middle-high and high income groups, took its place in the neighborhood by 2014.

"High-income groups living in the city center and in the gated community tend to avoid the same areas of Ankara, all of which are low-income districts. Spatial segregation in the Turkish city has long been present with invisible boundaries; gates and guards simply make them more visible" (Erkip,

2008). The physical features and the capitalist services of the district cause social segregation between dwellers who are from different social classes and incomes.

Figure 28. View of Cigdem Neighborhood (Celik, 2005).

5.1.4.3 Access and Transportation

The accessibility problems of the area are almost the same with 100. Yil İsci Bloklari neighborhood. The public transportation is weak according to the capacity of the neighborhood and the neoliberal development of the district has being encouraging the dwellers to be private car owner.

5.2. PLANNING OF THE ROAD

There are these large pieces of metal hurtling around at high speed in residential areas. They are such a menace to life and limb that every journey made by any other means is chiefly spent dodging these monstrous objects. They are the single biggest cause of atmospheric pollution and global warming. They are the largest market for the warmongering oil industry. Their noise is the noise of the city. These 'cars' are so central to the organization of this society, especially the organization of work, that an illusion has to be maintained that nobody sees anything wrong with the ever increasing number of cars.

(Wall, 1991)

Planning of the road dates back to 1980s, the preparation of 1990 Master Development Plan of Ankara. Road was planned as an urban boulevard that is part of a ring road system that takes the example of many developed cities with concentric ring road structures like Milan, Moscow, Delhi, Shanghai etc.

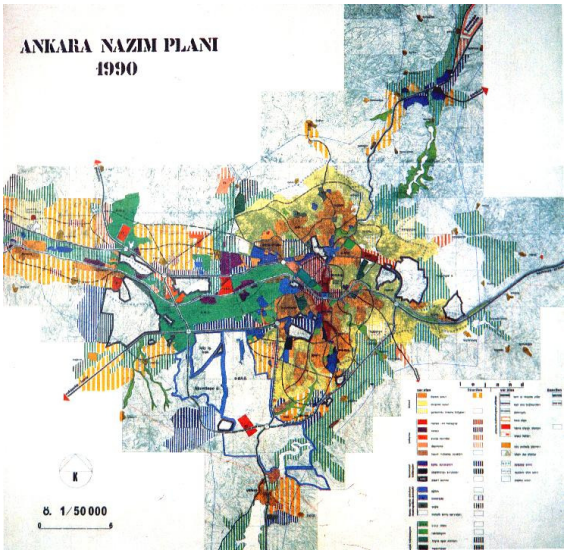


Figure 29. 1990 Master Development Plan (Gunay, 2014)

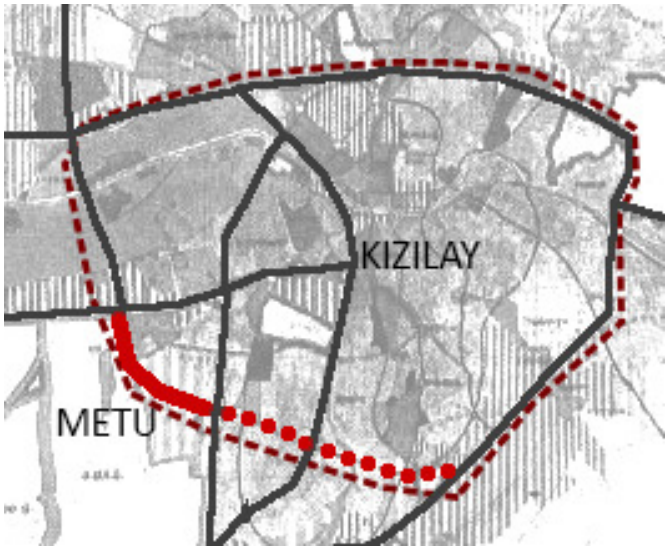


Figure 30. A zoom in area and anticipated ring road (personal drawing, 2014)

This road is also planned and anticipated in 2015 Ankara Transportation Plan which was approved in 1994. Road was placed with the result of a travel demand forecasting analysis. It was planned as a ring road passing through Middle East Technical University, 100. Yil Isci Bloklari Neighborhood and bordering Cukurambar Neighborhood with two interchanges at the two ends. Rest of the crossings were planned as leveled passages (Figure 31).

The rationale behind this planned axis was to connect the residential areas in Cankaya with new residential and business districts forming around Istanbul Road on one end and to new residential areas developing around Mamak on the other end. This was a decision to reduce the traffic density in the city center.

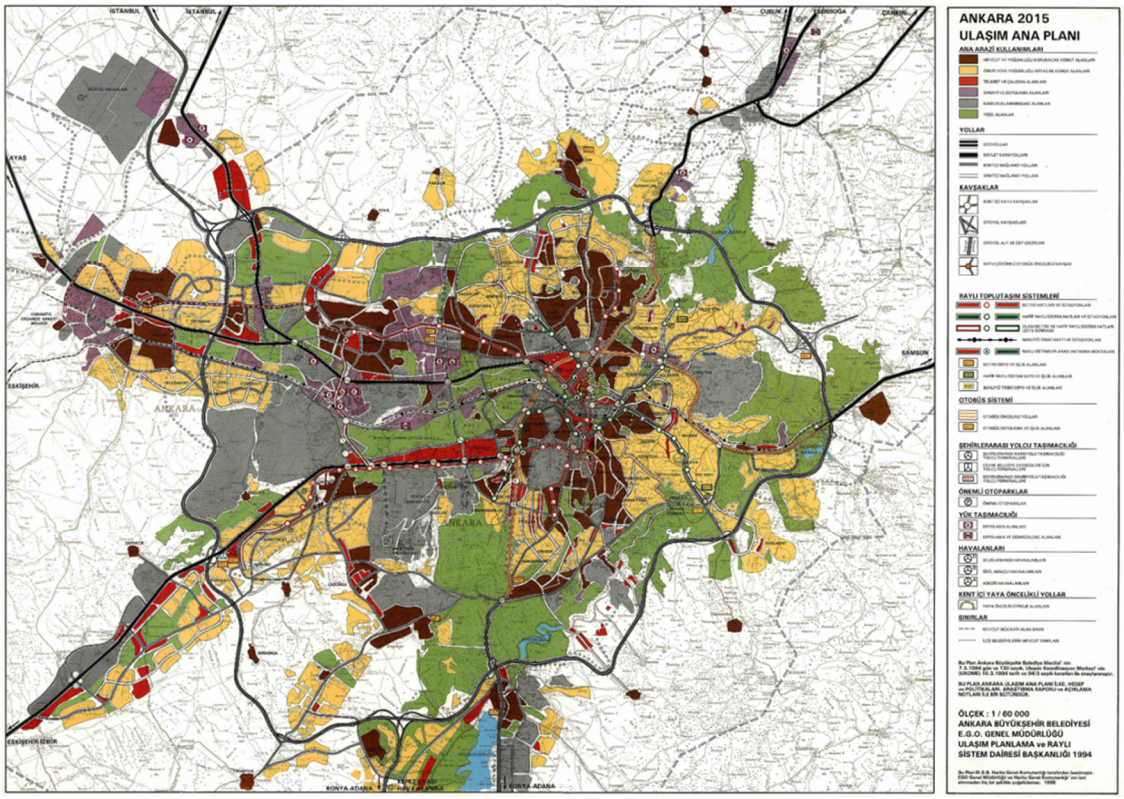


Figure 31. 2015 Ankara Transportation Plan (Gunay, 2014)

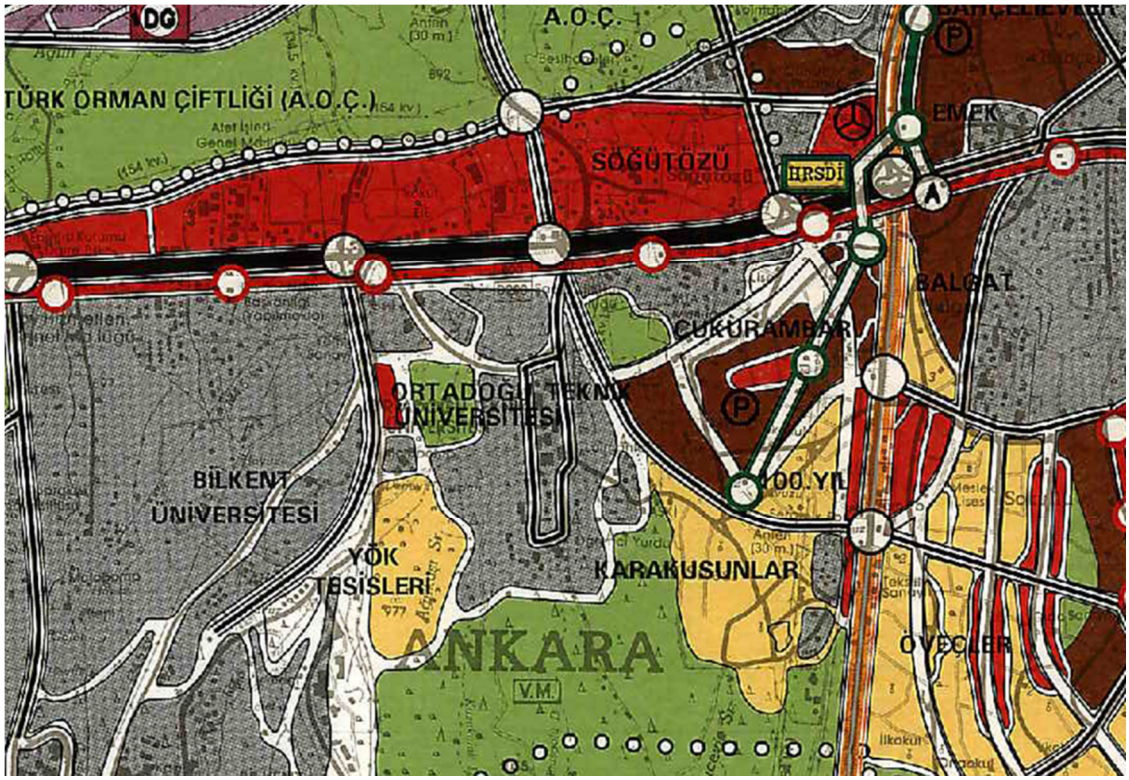


Figure 32. A zoom in the area and anticipated ring road *(Gunay, 2014)*

Another problem with the planning process is regarding the section of the road which passes through the METU grounds. This area was declared as a 1st Degree Protected Natural Area in 1995 by Cultural and Natural Heritage Preservation Board due to the existing forest. Technically, after this declaration, all master plans previously prepared in this area becomes invalid. It becomes obligatory to take extra permissions and prepare a master plan regarding the current natural habitat of the area referring to the Environmental Effect Evaluation Regulations (CED). However, this decision was completely neglected and 2023 Structural Plan was prepared ignoring the area status. Objections were refused by the municipality assembly.

In 2023 Structural Plan, which was approved in 2007, scale of the road was increased to access controlled highway with two additional interchanges without making a travel demand forecasting (Figure 33). This decision was given to reduce traffic jams that occur on Eskisehir Road during peak hours. Structural plan was seen as an adequate framework, but this renders the transportation plans useless. Transportation plans are asked to be prepared by municipalities for making detailed analysis of transport demands, traffic movements and densities etc. Since this decision was based on a structural plan, it does not follow a scientific approach. Anticipated result of reducing traffic was

also not based on a scientific analysis. This does not comply with contemporary urban planning principles (Oncu,2013).

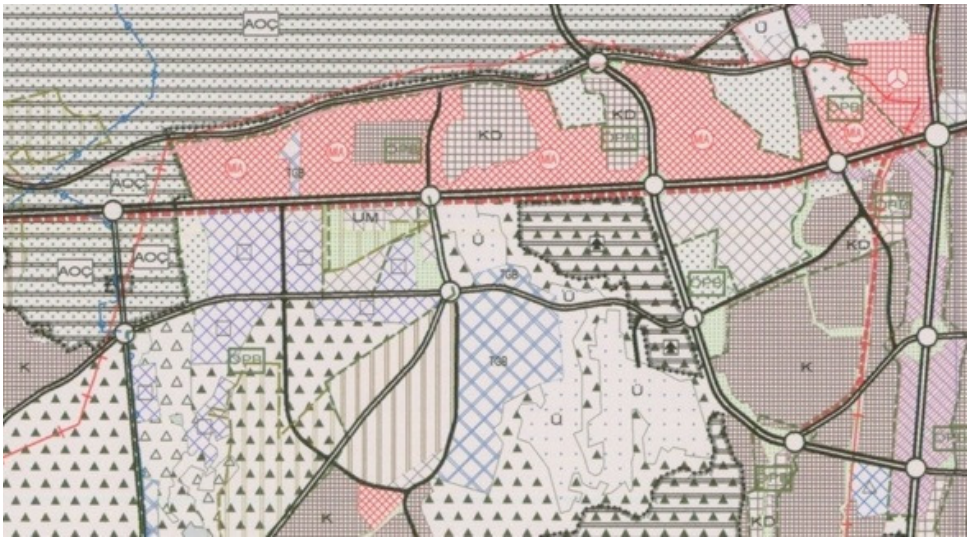


Figure 33. Area in 2023 Structural Plan

5.3. CONSTRUCTION PROCESS

Ignoring all the legal conflicts, Ankara Metropolitan Municipality initiated the road construction and completed the entire construction process in eight months. It is one of the fastest executions of the municipality and also one of the most disputable one, considering the physical and financial scale. Now the road is in use up to a certain point and execution date for the rest of the construction is yet unknown.

5.3.1. Timeline

Construction has begun in June 2013 with the viaduct located in 100.Yil neighborhood. It proceeded throughout the summer with the fixing of terrain and laying of the asphalt. Construction bordered Middle East Technical University in early September. After facing a strong public resistance, in September 6, construction team accompanied by police entered the forest. Around 2400 trees were uprooted in the following days. On September 8, Metropolitan Municipality was sued to suspend the execution. However, construction proceeded rapidly during the winter and road was open to service in 25 February 2014.

5.3.2. Local resistance and police intervention

"Road protest is far from new, but has waxed and waned since the time of the introduction of the internal combustion engine." (Wall, 1999)

Countries such as Australia, Ireland, Germany, France, Holland, Eastern Europe and North America have been experiencing many movements, dramatic protests, resistance examples on practical struggles for environmental and social change for many years. Internationally, many green activists have established organizations such as *Earth First!*, the anti- roads campaigns.

On the other hand; Turkey has been witnessing serious protests and movements in recent years. One of the most crucial resistances of the history of Turkey; *Gezi Park protests* started on May, 2013, which was a nationwide resistance to prevent to construction of a shopping mall instead of in place of the last green parks in Taksim, Istanbul. However, it was more than a greenery issue; it was for the citizens' right to city and freedom of expression towards authoritarian government. Consequently; not only Istanbul, but in many cities of Turkey and other countries, different levels of protests appeared. In *Gezi Park* protests lasted intensely around 2 months, 8 people died and thousands of protestors got injured by the harsh police intervention.

Figure 34. Gezi Park protests, Castello Sforzesco, Milan (personal archive, 2013)

METU road construction, just like '*Gezi Park* resistance' is way different than all other examples with its social and physical reactions. About the METU Road issue; the speech of the metropolitan major of Ankara, Melih Gokcek, summarizes the situation clearly: "Why we should ask community to construct a road? Till today have we never asked someone to construct a road which takes place in the metropolitan urban plan?". So, it became more than a resistance towards to the construction of the road, it was the moment for people to unite together and give voice against the government, which does not have the tendency to make a compromise and ignore the urban planning policies. In other words, it is a huge attempt from '*not-in-my-backyard* 'thinking to create a civil federation.

In august 2013; just after the starting of the construction, one of the most active associations of that period had formed which is called: *100.Yil Initiative*. It is a voluntary, civil organization which involves dwellers of the neighborhood regardless of age, gender, occupation, etc. The major reason of establishment of this association was to protest against the construction of the road. However; for the first time, inhabitants of the neighborhood had experienced; although they were not successful or powerful enough to prevent the construction of the road, they got the awareness of their rights as a citizen.

However, apart from the construction of the road, what are the other main factors that rebel people against that road? What does this road mean for METU and the neighborhood?
In the handout that was prepared by 100. Yil Initiative in 2013, the primary reasons are lined as follows:
"

1. Thousands of trees will be cut in the METU forest.
2. 100. Yil and Cigdem neighborhoods will be divided into two.
3. Our neighborhood, which is silent and peaceful, will be under the exhaust fumes and the noise of the road that will host 40.000 cars in a day.
4. As a result of rent policies, our neighborhood will transform into huge concrete blocks that do not have any greenery inside. In other words, it will be 'Cukurambaralized'. Because of the increase in the house-rents, renters will be expelled from the neighborhood.
5. Isci Bloklari neighborhood will be announced as 'urban transformation area'. However, this situation will not benefit the landlords. They will suffer from the loans.
6. METU forest, which works as lungs of the city, will be potentially available for the new roads that will demolish the forest.

7. Moreover, this road will not solve the general traffic problems.

Well, why?

1. The traffic problems of the big cities can be only solved by the improved public transportation systems. Firstly; construction of metro to the main arteries and integration of metro systems to other transportation vehicles should be planned.
   However, Gokcek has not completed even 1 meter of metro since 1997, he has encouraged people to use automobiles with meaningless under- over passes. This is the main reason of the problem.
2. Despite, the public transportation has not improved enough, as a part of unplanned urban transformation applications, an overdose of shopping mall constructions on the main arterial roads, caused growing traffic problems. Therefore, the main solution is not constructing a road; it is the urban planning that is supposed to be improved."

(2014)

During the process of the construction; a group of people including *100. Yil Initiative*, inhabitants from the surrounding neighborhoods, students of METU had resisted the cutting down of the trees and construction of the road. Many protests had faced harsh police intervention. It was named as the 'second round' of *Gezi Park* protests.

> *"September 6, 2013. The official opening of the horrible performance that was being prepared with cooperation for a while had been made. Again gas bombs, again policemen, again riot control vehicles (TOMA). And hundreds of construction and engineering vehicles which were being protected by those. Day and night, they had destroyed the first obstacle for the road (which is actually a highway) that would pass from inside METU forest. In the morning, they had tried to smooth out the venue so as not to leave any trace behind. I, on the other hand; sat to write this caption with a burn in my lungs that was caused by the gas bombs, in my house, which was also under the effects of the gas bombs" (Ozel, 2013).*

On 6th of September, the day that they had cut 2388 trees by working day and night; 19 people including METU students and dwellers -who were watching out for the trees in turn since 25th of August- were detained by policemen. On the following days, the protests had finished by intense police interventions as well. The government on the other hand, never hesitated to show violence towards the protests

which were going peacefully with the cooperation of dwellers and students and kept constructing the road with ‘undue haste’.

Figure 35. Protesters of METU Forest resistance (Emine Kart, 2013)

Figure 36. Policemen against protesters of METU Forest resistance (Emine Kart, 2013)

It was not an individual protest!

It was not only the problem of the neighborhoods that would be affected by the demolishing of METU forest and constructing of the road; it was the problem of the every single citizen of Ankara who has right to city.

In this period, Ankara had witnessed different kind of protests, which were rationalist and humorous to attract more attention and support from the public. One of them was *'standing car protest*', to show real chaos that cars can cause. The intention was to support to resisters by shutting off the engine on the main entrance gate of METU (A1 gate) on the main arterial road of Ankara (Ankara-Eskisehir road) and protest against the policies of the government. It was to remind that; the government should exist for the community and they are not the master of the community and the nature. Although, there were not enough cars around to realize the demonstration against tens of police cars and vehicle removal trucks; people supported this protest with the sound their horns. Policemen removed the standing cars with vehicle removal trucks and fined all the cars that supported the demonstration by horning.

Another protest named as 'Football is fine not in stock market but on a piece of land' was a different and unique demonstration. The groups of the fans from different football teams decided to make a symbolic match, to protest in a way that they can perform the best, which is playing football. They met inside the campus of METU and walked to the construction site. Inevitably, policemen stopped them and tried to prevent them from playing football. The fans did not enter to the construction site; they just played their game near the site in peace. People that were watching them shout slogans such as 'Police don't stand, take the ball to the students'; 'Let federation be destroyed and construct football field'; etc. In the end, they red their media text; planted their tillers and said that;

> *"Even though we could not manage to prevent trees from being cut, we approved one more time that; by cooperation, everything can be solved in a peace" (Genclerbirligi-KaraKizil, 2013),*
> (Figure, 37).

Today, as dwellers could not prevent the road construction, they had started experiencing the new road and its concomitant effects on their neighborhoods. *100. Yil Initiative* still plays an active role for the

social network and tries to raise the awareness of inhabitants about the possible future of their neighborhood.

Figure 37. Fans of the different football teams (Emine Kart, 2013)

5.3.3. Naming: A political imposition

> *"Embedded into the urban experience and the imagining of the city, [street names] belong to the societal discourse of history. The celebration of a certain version of history and its reification through its commemoration on street signs does not imply that this version of history is a feature of fundamental societal consensus, even though this may well be the case. What is significant here is the measure in which commemorative street names not only evince and substantiate a particular version of history, but are also instrumental in introducing it into spheres of social communication that seem to be outside of the realm of political control and manipulation."*
>
> (Azaryahu 1995)

Street names are a concealed political manifestation of the abler of the time. They are part of the local identity that is shaped by the political struggles and it constitutes a folkloric commemoration. They "are important memorial landscapes that play a key but under-analyzed role in the contested process of

attaching meaning to the past" and also attaching meaning to the place (Alderman, 2003). In case of Turkey, since current government is known for their appreciation of the Ottoman and Seljuk periods due to their anti-secularist, islamist ideologies and their power; most of the new constructions, new universities and establishments are named after symbolic dates, events and names of the era. This approach is the opposite of the applications of the previous governments, who usually chose names referring to the republican era of the secularist nation.

Talking about the road construction, which was previously referred as METU Road by the inhabitants, press and general public; was afterwards officially named as 1071 Malazgirt Boulevard by the Metropolitan Municipality. This name is particularly significant due to its meaning. Battle of Manzikert (Malazgirt War) which dates 1071 is considered as the first date that the Turkish entered the Anatolian peninsula. Since METU and Isci Bloklari neighborhood are known for their relatively leftist stance, this naming is taken as a symbolic political imposition of the government by the locals and attracted public reaction. However, municipality further chose Seljuk period references for the names of the interchanges and bridges that are built along the road. Sultan Alparslan Bridge, 1st Izzettin Keykavus Pedestrian Overpass, 1st Kilic Arslan Bridge are the names of the other infrastructural elements and are all referencing to the Seljuki rulers. This approach is symbolic for both government and civil society; and intensifies the struggle between local authorities and the inhabitants by making the internalization of the road even harder.

5.4 METU Road (Malazgirt Boulevard)

The aim of the following chapters is to analyze the existing METU road spatially, ecologically, economically and socially to figure out the undeniable effects of the road to METU and the surrounding neighborhoods. Having this knowledge will provide to illustrate some possible solutions and suggestions to perceive the road as a 'connector' rather than 'detacher' by *domesticating* design solutions.

5.4.1 Spatial Aspects

According to the reports of 'Chamber of Urban and Regional Planning of Ankara'; regarding the today's conditions; the road is not well scaled, its design principles are conflicting and incoherent when compared to its existing plans. In the 2015 Transportation Plan of Ankara; although it was an urban road that has connections with the surrounding neighborhoods; today it is an 8 lanes and 50 meters width road for the transit passes and high speed traffic. It is a 'connector' between Eskisehir and Konya roads which are the main arteries of Ankara, around 4 km length and 1.8 km of this road passes from

the METU land. Also in the report, it is indicated that; for the need of 600 cars per an hour in that district which 1 lane of road can resist this capacity; 4 lanes of road in each direction were constructed instead. It might as well be interpreted as, the scale of the road was changed intentionally considering the future improvement plans for the district.

If we analyze the road deeply in terms of its physical aspects; we can talk about its 3 features: the wall, pedestrian overpass, interchanges. Along the 4 km of Malazgirt Boulevard; 3 bridges and many interchange elements are present (Figure 38).

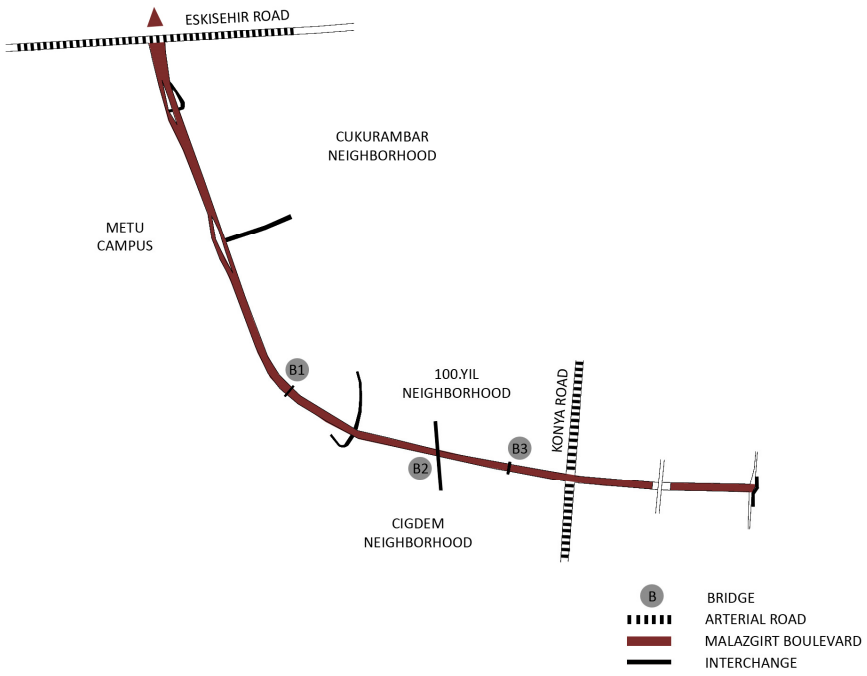


Figure 38. *Physical elements of Malazgirt Boulevard (personal drawing, 2014)*

The element named as 'the wall' is an engineering solution to level the ground which the road passes (Cihanger, 2014). The walls on the both sides of the road are very close to the housing blocks (Isci Bloklari) which are 5 floor buildings. At some places, they reach up to the third floor of these buildings. Inhabitants, who used to see the METU forest from their windows, now face with the concrete wall that also blocks their sunlight.

Figure 39. The wall (Duygu Cihanger, 2014)

When we look at the issue of pedestrian overpass, the only pedestrian overpass along the way is the bridge that is shown in the Figure 38 as B1. It is mainly used by the students who are living in the surrounding neighborhoods to provide access to the METU Campus.

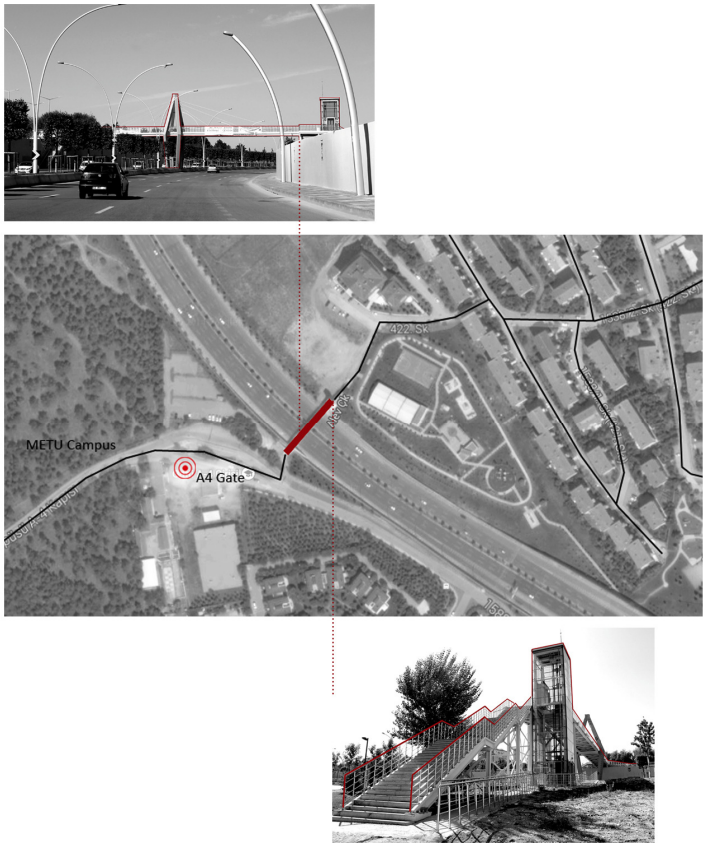


Figure 40. The footbridge on Malazgirt Boulevard (personal drawing and archieve, 2014)

Finally, as a definition the term of *the interchange* refers to 'a junction at which smaller roads meet a main road' (dictionary, Cambridge). Along the Malazgirt Boulevard, there are several interchanges that provide different connections. Two of them, which are on the urban pattern of the neighborhoods, will be analyzed below.

The first interchange along the road is designed to connect A1 Gate of METU Campus with Eskisehir arterial road. So, in order to reach Eskisehir Road from A1 Gate, one needs to have 1.2 km extra journey and according to Oncu, it will affect to the economy of the citizens, government and city negatively (Oncu, 2013).

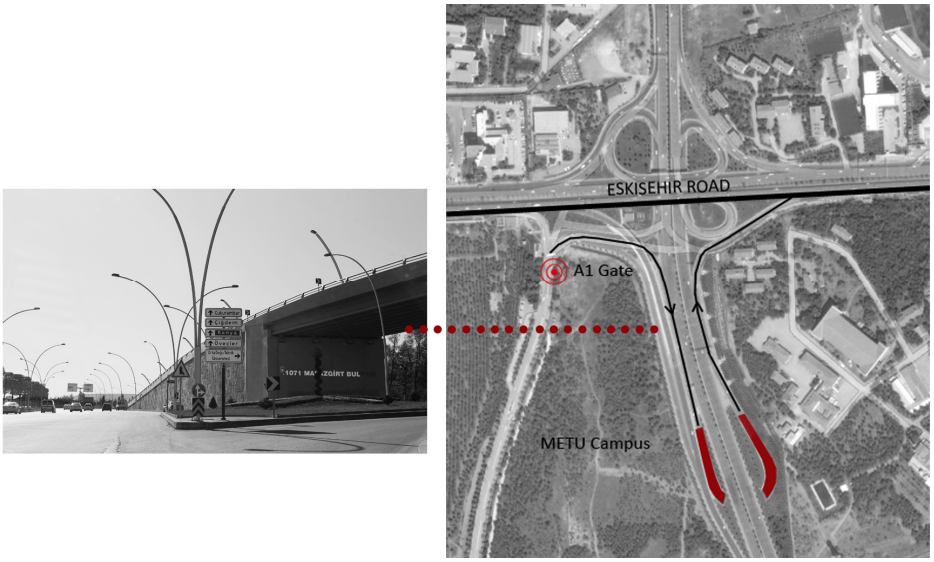


Figure 41. The first interchange on Malazgirt Boulevard (personal drawing and archieve, 2014)

The second interchange which is just after the pedestrian foot bridge is located in between the two neighborhoods: 100. Yil Isci Bloklari and Cigdem. This is the only interchange which provides a physical access between the two neighborhoods and a connection between the neighborhood and the campus. However, in terms of accessibility, user comfort and safety of the pedestrians and cyclers were not taken under consideration in the design of the interchange, even though it is the single element in the area which creates a connection. According to Oncu, this interchange which has quite high viaducts and a wide crossing is not appropriate design solution for a pedestrian based neighborhood (2013). Besides

its physical inaccessibility for pedestrians and cyclers, the underpass also causes safety problems and discomfort for the users.

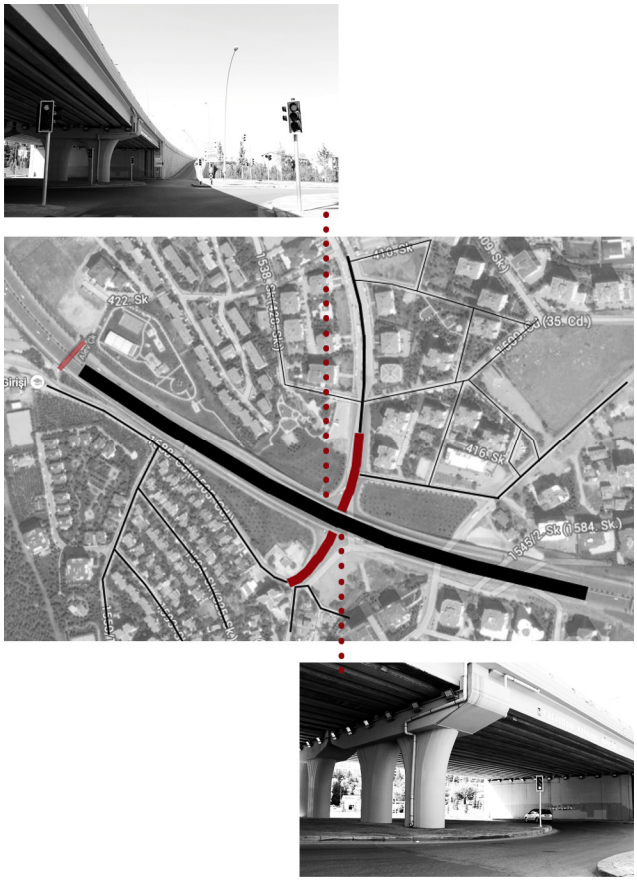


Figure 42. The second interchange on Malazgirt Boulevard (personal drawing and archieve, 2014)

> *"The road construction plans of Ankara Metropolitan Municipality is the result of their 'more speed, more road, more consumption of improved land' theme and their policy on encouraging car ownership"*
>
> (Chamber of Urban and Regional Planning, 2014).

Malazgirt Boulevard today, is one of the examples of this attitude in urban transportation planning. Even though, this road exists on the urban plans of Ankara since 80's; the approach, both in the planning process and the construction process, are not appropriate considering the contemporary planning

principles. In brief, in terms of physical aspects, the road destroyed some part of the METU forest, erected a rigid wall between 100.Yil and Cigdem Neighborhoods, ruined the organic patterns and pathways of the neighborhoods. Other ecological, economic and social consequences will be analyzed deeply on the following chapters.

5.4.2 Ecological Effects

> *"There are these large pieces of metal hurtling around at high speed in residential areas. They are such a menace to life and limb that every journey made by any other means is chiefly spent dodging these monstrous objects. They are the single biggest cause of atmospheric pollution and global warming. They are the largest market for the warmongering oil industry. Their noise is the noise of the city. These 'cars' are so central to the organization of this society, especially the organization of work, that an illusion has to be maintained that nobody sees anything wrong with the ever increasing number of cars." (Wall, 1991; qtd in 1999)*

Every citizen has the right to live in a healthy and peaceful neighborhood. Several recent studies have shown that sharp pollutant gradients exist near highways. "While it is clear that automobiles are significant sources of air pollution, the exposure of near-highway residents to pollutants in automobile exhaust has only recently begun to be characterized" (Brugge, Durant and Rioux, 2007). Therefore, it is essential to analyze the effects of the highway exposures and their possible consequences.

1071 Malazgirt Boulevard, passing through the METU forest has had many impacts both on the neighborhood and the city of Ankara. METU and AOC (Ataturk Orman Ciftligi) are the remarkable green areas of the city with their uniqueness and huge size. In other words, they are the 'lungs' of the city. Moreover, METU forest is the biggest ecosystem which is created by human hands. Apart from thousands of trees, it provides a life space to many animals such as rabbits, birds, foxes, etc. However, under the influence of neoliberal policies, the city is becoming more and more concrete and unfortunately this virus has started to spread into the last green areas of Ankara. The last attempt of destroying the green to "reevaluate" the ground as road was, the construction of METU road. Both in the construction process and after construction, the road has many side effects to the neighborhoods that it passes nearby.

The construction process of the road started in June, 2013 with the viaduct works in 100. Yil neighborhood and the construction lasted till February, 2014. As it is seen, according to the properties and the scale of the road which is around 4 km with its elevated interchanges, it was one of the fastest constructions of the city. So as to have a better understanding of this process, 2 issues need to be analyzed: 'How were the people affected? 'and 'How was the nature affected?' from this operation. During the construction, which was a very intense period, the noise and the dust had made almost impossible for inhabitants to live in their houses which are 10m away from the construction area at certain locations. People not only suffered from the noise and the dust, but also from the water and electricity cuts that lasted days and nights in the neighborhoods.

Furthermore; September, 6 which might as well be regarded as 'massacre of 3000 trees' was the most dramatic night of the process. According to the reports of METU, Metropolitan Municipality of Ankara destroyed 2388 tress including 292 pine, 133 ash tree, 916 wild pear, 293 almond, 58 poplar and 696 other type of tress in one night (Gumusel, 2013).

> "*The next day, the road route was totally cleaned from the trees. While approximately one thousand people came to the old forest area with saplings on their hands to protest; they figured out the level of the attack from the tree roots that stumble on their legs and 40- 50 years old the tree trunks that were forgotten at the site. It was not only the trees that were destroyed, it was the fauna of the forest. As a matter of fact; in the morning of that horrible night, screams of the mice were clearly heard from the construction site"*
>
> (interview with 100. Yil Initiative, 2014).

Figure 43. The trees were cut during the construction (Ottekin, 2013)

This falls parallel with the experiences of Marshall Berman, an American philosopher, who grew up in Bronx, New York. He tells his experiences about the modernity in his book called 'All That Is Solid Melts Into Air' (1982). He was a child in Bronx and one of the witnesses of the Cross- Bronx Expressway construction in his neighborhood. According to his experiences; when the construction of the road was done, the real ruin of the neighborhoods had just begun just like what happened in Ankara;

"Miles of the streets alongside the road were chocked with dust and fumes and deafening sound- most strikingly, the roar of trucks of a size and power that the Bronx had never seen, hauling heavy cargoes through the city, bound for Long Island or New England, for New Jersey and all points south, all through the day and night". (Berman, 1982)

Since February 25, 2014; the METU road is serving to the range of vehicles mainly for transit passes from the neighborhood. After the construction, the road has become a new potential for transit passes instead of outer ring roads of Ankara. According to the counting; between %10 and %25 of the vehicles are commercial trucks which damage the environment even more than cars (Oncu, 2013). Considering the distance between the road and the houses which goes down to 10m at certain places, there is a huge problem of dust, fume and noise in the neighborhood, especially the ones near the road. It is also clear from our survey that; almost all inhabitants of the neighborhood have been suffering from the dust, fume and noise coming from the road.

> "*I'm living in this neighborhood for 30 years with my wife and I am retired. We used to leave our windows open during the summer. It was such a safe and peaceful neighborhood here. Best*

thing was waking up with the woodnote coming from the forest. One day, we woke up, there was no more birds around; now car voices even don't let us open our windows"

(anonymous, our survey, 2014).

On the other hand, the side effects of the highway pollutants are undeniable on people in terms of their physical and psychological health. " There is growing evidence of a distinct set of freshly-emitted air pollutants downwind from major highways, motorways, and freeways that include elevated levels of ultrafine particulates (UFP), black carbon (BC), oxides of nitrogen (NOx), and carbon monoxide (CO)". People living or spending time within about 200 m of highways are exposed to these pollutants more than other people, even the one living on busy urban streets (Brugge, Durant and Rioux; 2007). When comparing the number of 200 m with 10 m which is the distance between the road and the houses in the neighborhood; it is obvious that in the long term, the road can cause serious health problems which will be expanded in the subsequent chapters.

5.4.3 Economic Effects

"Intervention tilts towards areas of unearned rent, and that, in the hands of the local authorities and the private sector, regeneration is targeted from slum areas towards offices and prestigious housing areas"

(Fainstein, 1995; qtd. in Thomas and Herbert, 2012).

In the past ten years, especially Cukurambar and Kizilirmak neighborhoods, along with the Cigdem neighborhood are among the most transforming districts of Ankara. The location being in the intersection of the main two arterial roads of Ankara, had made this area quite valuable and caused many commercial, business and political party headquarter buildings to concentrate in this area. With the construction of Malazgirt Boulevard, the area is fully surrounded by infrastructure elements on every side. At the same time; the road had opened the way for development of transformation projects for '100. Yil Isci Bloklari' neighborhood.

100. Yil İsci Blokları neighborhood is composed of simple 5 storey buildings, which were constructed for working class in 80's. Today, the neighborhood preserves its characteristics, however, it is poorly maintained and there is no attempt from the government to improve the area. On the other side, there is a high level of pressure from the private sector in Cukurambar and government policies intend to

revive this area which is called by locals as '*Cukurambarization*' dedicated to the processes that has taken place there.

> *"I guess it was 1987, I was staying in my sister's house in 100.Yil neighborhood so as to be close to the campus. Those who know the houses of 100.Yil neighborhood remembers, they were not like the houses of today in terms of heating, size, comfort, etc. They are the collective housing of the cold war years. Despite their ugliness, they successfully provide shelter for numbers of people and have too many memories for everyone: first love, New Year's Eve, police operations and so on… The place that we grew up. During last 40 years, with the traces of people had lived there, today, it was one of the best neighborhoods, inside the trees with its silent, intimate, traditional neighborhood atmosphere; (!) until the government constructed the road of 'rent' to this area"*
>
> (Kilic, 2013).

Rise of the skyscrapers and new high income population in Cukurambar has been figuratively forcing the borders of 100. Yil neighborhood to the process of transformation. The METU road that was constructed is preparing the proper infrastructural platform for this areal transformation. Nowadays, the landlords of the houses are asked to sell their houses by the lawyers of the government. As it can be clearly understood; the main intension is to achieve an urban transformation for rent policies instead of rehabilitation of this district. If this urban transformation is realized, dwellers of the neighborhood will face possible physical, psychological, socio-cultural, economic and technological problems as previously analyzed in Cukurambar case.

1) Possible physical problems: Since 80's, the neighborhood is quite simple and modest with its artisans, markets, restaurants, etc. It is a neighborhood with old pedestrians walking, children playing on the streets. With a possible transformation, 5 storey modest buildings made for working class will be replaced with multi storey luxurious buildings and gated communities. All the traces of the neighborhood will be erased as it already happened in Cukurambar. Instead of the public areas, dead ends, empty lands which the dwellers are using for social purposes; commercial restaurants and cafes, shopping malls will be built.

2) Possible psychological problems: 100. Yil İsci Blokları is one of the last neighborhoods in Ankara that one can really feel the traditional neighborhood culture. According to the dwellers, they are worried about losing this feeling and comfort.

3) Possible socio- cultural problems: Socio-cultural features include class, ethnic and cultural background, inclinations toward individualism or collectivism. With a possible transformation of the neighborhood, the retired working class and students of the METU will be replaced with high- middle and high income people which will cause a social exclusion in the neighborhood. The new capitalist organization of the neighborhoods would not let working class to live their lives in comfort and peace, thus, most of them would have the tendency to move to another district where they can find people from their class and same shared culture.

4) Possible economic problems: If the district is officially declared as 'urban renewal area' (current applications prove this inclination), people will be forced to incur a debt to have a new house, which they cannot even afford the maintenance fees because of luxurious housing style, or move from their neighborhood where they used to live for years, to outskirts of the city.

5) Possible technological problems: This is regarding communication technologies and available transportation systems. As mentioned before, the new neoliberal urbanization style of the neighborhoods; skyscrapers, shopping malls, residences are killing the neighborhood culture of being pedestrian on the streets and encourages car ownership. Today, in Cukurambar the mobility is mostly concentrated on private vehicles and pedestrians are hardly seen on the streets. In addition, with the opening of the metro, some bus lines were cancelled which causes problems of access. Even today, the dwellers are suffering from the inadequate transportation systems.

When the possible effects of such an urban renewal are considered, it is clear why the dwellers of the neighborhood resist towards this '*Cukurambarization*'. According to the inhabitants of the neighborhood, the government does not want to crush their homes; want destroy their moral values and traditions.

"Every time my doorbell rings, I am afraid to go to door. I am afraid that, they are going to take my house from me. It is the only place that I can live; I used to go my market, grocery, hairdresser by walking. We are like brothers and sisters. I love my neighborhood but I don't know what to do"

(anonymous, our survey, 2014).

Not only dwellers, but also the owners of the small shops are under the risk of this transformation. As a case of Cukurambar, instead of small traditional shops of the neighborhood, now there are two big shopping malls in the district. During the construction process; many small shops that were along the construction route, had to close them and some of them were even demolished. The ones that survived until today, are not as strong to compete with that capitalist fiction. Even though, there is an inevitable final for the neighborhood, people are still resisting and trying to gain the consciousness of their rights on their houses and the neighborhood. In this process, '*100. Yil Initiative'* plays a crucial role; organizing meetings and lectures to dwellers about their rights on their houses and the process of urban transformation.

Another economic effect that also needs to be considered is if the ineffective use of the public funding and the ineffective use of natural sources. Firstly, as it was mentioned in the 'spatial aspect' section, Malazgirt Boulevard is constructed in a higher capacity than what is needed for the area. Although, one lane for both ways was enough for that corridor, 4 lane road in each direction which has complex interchanges was constructed which is a waste of public funding. Besides, these highways with the elements that fastens the speed limits and the insufficient level of public transportation; encourage people to be car owners and use their cars to travel. "The relationship between vehicle ownership and non-work travel could very well be interrelated with neighborhood type. In particular, pedestrian-oriented, mixed use neighborhoods might reduce the need to own a second or third family vehicle, which in turn could reduce more non-auto trip-making for neighborhood convenience shopping and other more discretionary trips" (Cervero and Radish; 1995). Each construction and each car leads to consumption and it has a high damage on household income, public funding and the natural sources.

5.4.4 Social Effects

"Cities are places where people meet, where social life is more intense and complex, where culture is produced, where economic developments together with technical and scientific

changes are more evident. Some cities are well managed and "working well": they provide a good quality of life and a good way of living. Others have all kinds of difficulties: decline of inner cities, pollution of different kinds, social and health problems, high rate of unemployment and also lack of safety" (AGIS, 2006).

Although in modern urban life, traditional relationships in the cities and neighborhoods have been disappearing, social and family relations are always an important value among Turkish people. The findings shows that; Turkish people gets the highest satisfaction from their family life, in contrast to a lower satisfaction from their standards of living, education, health (Rose and Ozcan, 2007). Another study of Ankara's residential areas, with different demographic and socio-economic characteristics, indicated that relations with family, relatives and neighbors were still important for most urban inhabitants (Erkip, 2008).

Isci Blokları Neighborhood is one of the last districts of Ankara preserving the traditional neighbor relationships. The findings of the survey show that, majority of dwellers are satisfied with their lives in the neighborhood and they have the feeling of being a member of this community. Satisfaction with the dwelling was found to be related to the quality of the neighbors, and it was defined by harmony rather than by the frequency of interaction. Low-income groups have more interactions with their neighbors in general (Imamoglu, 1995; qtd in Erkip 2008). "In the social ecology now being created around the globe," says Massey, "affluent people increasingly will live and interact with other affluent people, while the poor increasingly will live and interact with other poor people. The social worlds of the rich and poor will diverge" (1996). On the other hand, high-middle and high income populations prefer to live in gated communities which are more introverted and the number of these gated communities and tendency of people to live in these communities are increasing day by day. Therefore, it seems that the neighborhood relations have been changing, especially more in metropolitan cities under neoliberal policies. So,

How does Malazgirt Boulevard (METU Road) affect the neighborhood in terms of social aspects?

So as to answer this question the neighborhood needs to be analyzed under four features: accessibility, safety and health.

5.4.4.1 Accessibility

A road may connect two districts at the two ends and reduce the time-space between the locations, however, at the same time "roadscapes tend to be physically very divisive in lateral sense" (Steve and Graham, 2001).

Malazgirt Boulevard works as a 'connector' between Eskisehir and Konya main roads passing through the METU Campus, 100. Yil İsci Blokları and Cigdem neighborhoods. However, while the road connects two ends which are the arterials of the city with the main commercial centers and shopping malls, it is not designed for the benefit of the neighborhoods it is passing through and creates a 'tunnel effect' for them. The road theoretically needs to enhance the accessibility; however in contrast creates several accessibility problems for the neighborhoods. According to Carmona, the term of 'accessibility' can be analyzed under 3 main subtitles: visual accessibility, symbolic accessibility and physical accessibility (2010).

To begin with, the term visual accessibility refers to feeling of safety and comfort provided by visual connection (Carmona, 2010). "Visibility allows people to see their way (and thus avoid dangerous situations) as well as to be seen as they use public spaces, thus making spontaneous surveillance possible. Visibility also facilitates the task of police or other forms of surveillance" (AGIS, 2006). People tend to use spaces that they can perceive well, feel comfortable and can be seen by the others. If we evaluate the concept of visual accessibility in the neighborhood; 'the blind wall' near the road that extends till the 3rd floor of the buildings, blocks the visual connection, sunlight in and creates 'desolate' spaces which engender unsafe feeling to the dwellers. The wall got many reactions by the neighbors for both social and visual reasons. The houses which were used to face the METU forest now are confronted by the concrete wall which is very close to the buildings.

OCTOBER, 2012

JANUARY, 2013

OCTOBER, 2013

APRİL 2014

Duygu Cihanger

Figure 44. The process of the wall captured from the 5 storey blocks (Cihanger, 2014)

Secondly, symbolic accessibility is related to the power relations upon a space. Governments want to have the control of public sphere, try to materialize their power by limiting the accessibility of people that points to excluding from the society (Carmona, 2010). It can be said that; METU Road creates a social exclusion by separating two neighborhoods (100. Yil Isci Blokları and Cigdem neighborhoods) and breaking the relationship between the METU students and the campus. While the ones at the two end are benefiting from the infrastructural element, accessibility of the ones at the sides are reduced. It can also cause recession of services and public transport to this area since public transport between profitable spaces at the two ends of the road are more favorable which causes further exclusion. An important part of the dwellers of the neighborhood consisted of the students of the METU campus as renters. These students of the neighborhood, who are well- educated people, embrace the neighborhood and increase the level of awareness. Besides, they have very good relations with the other inhabitants. One reason of the government's intention of breaking this relation between the campus and the students can be interpreted as physically separating this powerful and educated group from the neighborhood. This process can pave the way of transforming of the area.

Lastly, physical accessibility is an important determinant for maintaining an overall accessibility for the inhabitants of an area;

> *"The shops may be in full view across the road from the place where you live, but if there is a three-lane dual carriageway in between, and the nearest footbridge is half a mile away, the shops are pretty inaccessible to you" (Hamilton and Hoyle, 1999).*

Besides the visual and symbolic accessibility, there are huge physical accessibility problems along the 1071 Malazgirt Boulevard. Apart from separating two neighborhoods and breaking the relation between the neighborhood and the campus; the road does not offer opportunities for the alternative public transportation, pedestrians and bike users. Also, according to our research; although one of the main aims to construct this road was reducing the load of Eskisehir road, Malazgirt Boulevard does not solve the traffic problems of Ankara (Oncu, 2013).

Starting with the analysis of the pattern of the neighborhoods; there was an organic pattern consisting the unofficial pathways that people created in time. Two neighborhoods, 100. Yil Isci Blokları and Cigdem neighborhoods which are intense housing districts with a specific urban pattern were used to be structurally attached to each other. Today, Malazgirt Boulevard is passing in between of these two

neighborhoods and divides them both physically and socially (Figure 45). There is just one interchange in this area which has quite high viaducts and a wide crossing that connects Eskisehir road to the area and the connection between the neighborhoods and the campus are provided by this interchange. The road creates a very solid and rigid boundary between the neighborhood and the campus. Considerable amount of the population in the neighborhood is the student of METU because of its locational advantages. However, today both neighbors and the students are suffering from the disadvantages of the design of the interchange which does not offer sidewalks and cycle path.

Figure 45. Organic pattern of the neighborhood and the effect of the road (personal drawing, 2014)

> *"For example, Tripp utilized environmental themes to argue for the segregation of road vehicles and pedestrians, suggesting that city precincts should cease to be maelstroms of noise and confusion, and become companionable places, with an air of leisure and repose; such streets will provide a real promenade for the town dweller and a rest for jaded nerves. We shall be getting back to Merrie England." (qtd. in Wall, 1999)*

During the process of the construction and also after; the dwellers and the students who do not have their own cars have being agonizing from inaccessible conditions. Although, there is one footbridge in

this section of the road which the students can use to pass the highway; it does not fulfill the needs of the area.

On the other hand, as discussed in 'Sustainable Mobility' chapter, according to Litman; in order to evaluate accessibility, there are several factors of considerations including; transportation demand and activity; mobility; transportation options; user information; integration, terminals and parking; affordability; mobility substitutes [ICT]; land use factors; transport network connectivity; transport management; prioritization and inaccessibility. Also as Oncu mentions in his report about the road, a comprehensive travel demand analysis was not done in the area before the realization of the project. Although the capacity of the road is even higher than the demand, it does not comply with the transport needs of the neighborhoods. Besides, transportation modes which concern the quality (speed, convenience, comfort, safety, etc,) of transport options including walking, cycling, public transit, etc. given to the neighbors are limited. Even the new organization of the transportation network aggravates the quality of the dwellers' travels. With the introduction of 'highway' to the neighborhood, the transportation opportunities of pedestrians, cyclers have decreased dramatically in terms of speed, comfort and safety. Public transit of the neighborhood on the other hand is quite insufficient and majority of the inhabitants suffer from this situation. They do not have public transportation system which work 24 hours. Recently, Ankara citizens formed a new NGO, 'Ankara Transportation Solidarity', where the initiative of the neighborhood is also a participant, is also protesting against their right to have adequate transportation as a citizen of a metropolitan city.
All in all, the neoliberal policies applied on the transportation networks in the neighborhood and in general Ankara do not enhance the public transportation and on the contrary, encourage private car ownership. Infrastructure is treated as a commodity which brings profit and once again the unprivileged suffer from these applications.

5.4.4.2 Safety

> *"Cities are the places where the effects of globalization – also those related to unsafety, fear of crime and changes in crime occurrence – appear in the clearest way. This fact represents a great challenge for cities, that are now increasingly in search of new ways to tackle these kind of problems"*
>
> (AGIS, 2006).

100. Yil Isci Bloklari was used to be the safe, pleasant and modest district in the traditional Turkish neighborhood frame. With the construction of the road, several safety problems have been occurred in the area. According to a survey was made in 2004; it is seen that %74 of neighbors feel comfortable when they are going out during the night hours. This data shows that, people were used to feel safe in the neighborhood. Whereas, according to the survey that was applied under this thesis research shows that, %60 of dwellers mention their feeling of unsafety that occurred after the construction of the road (Yilmaz, Yalciner, Baskaya; 2005). As it can be understood from the comparison; Malazgirt Boulevard had caused some direct and indirect safety problems. The reasons of the main problems can be investigated in three ways; visibility, physical characteristics of the road and fear of crime.

So as to afford the safety in the neighborhoods; public spaces, streets should be designed considering the *'visibility'*: "be visible from adjoining buildings (windows and storefronts), have clear sightlines, not have visual obstacles and closed views (solid parapets, sharp corners, screens, bushes etc.)" (AGIS, 2006). According to Jane Jacobs; most of the safety problems can be solved by proper environmental design (1961). Her theories can be summarized in two concepts: The eye on the street (the pre-sense of activity, of movement, of buildings opening onto the street, of windows overlooking it) is the primary safety factor; urban safety depends upon territorial identity: a person defends and respects a place which belongs to him (AGIS, 2006).

According to the handbook (AGIS); continuity of the street pattern, vitality of the street, avoiding the places that there is 'no eye on the street', providing good accessibility of the public transportation system increase the feeling of safety. With the construction of METU road the organic continuity of the existing city structure was destroyed. The roads and the pathways which create the connection between the two neighborhoods faced with the blind wall that was made to support the high way. As stated by Jacobs, the dead ends and blind walls are the potential places to commit a crime and have an unsafe feeling on people's psychology (2006). The wall had created dead ends, left over spaces and desolated spaces that decrease the vitality of the neighborhood.

> *"The infrastructures linked to a project should avoid creating physical barriers, enclaves and waste lands in order to avoid places where safety is difficult to attain. Infrastructure routes should be well integrated into the urban structure: they should be designed in a way that allows*

connections between the different parts of the existing urban fabric and that avoids breaks in the streets pattern or empty and deserted spaces"

(AGIS,2006).

Secondly the highway causes some safety problems because of its physical qualities. Ankara Metropolitan Municipality designed a highway that has dramatic physical characteristics with 8 lanes width, grade junctions and pedestrian accessibility blocks. Malazgirt Boulevard accommodates this physical specifications which encourage cars owners to drive 120 km/h or higher speeds however, the government and municipality justifies themselves by defining 50 km/h or 70 km/h speed limits on the road (Oncu, 2013). The conditions of the road encourage people, especially young drivers, to violate the rules and create unsafe situations within the neighborhood, also for the drivers of the road. It is not an appropriate inner city road that can serve for the pedestrian and the cyclers due to speed limits. Considering the social structure (pedestrian oriented community) and the age range of the neighborhood; the road puts a risk on people's security of life.

Besides, as discussed before; Malazgirt Boulevard suggests trucks a shortcut for transit passes instead of driving all outer ring road of Ankara. This situation magnetizes boxcars, cargo carrier vehicles and trucks into the neighborhood where used to be pedestrians on the street. To sum up, the inappropriate physical conditions ignoring the pedestrian access opportunities increases the safety problems in the district.

Lastly, fear of crime should be considered as a problem as serious as the crime itself. It causes withdrawal of citizens from the urban life, which eventually causes bigger problems. According to the survey, majority of the dwellers have been living in the neighborhood for more than ten years. Except from the students, the neighborhood has a stereotyped group of people who used to know each other. According to inhabitants, there were almost no crimes committed in the district such as robbery, kidnapping, harassment during the last ten years before the construction. Nowadays, although there is no evidence or data confirming the increase on the crime percentages of the neighborhood, the neighbors complain about their fear of crime. They remark that, they see uncanny people around that they have never seen before; hear at least one break-in almost every day and lastly a case of kidnapping of the two girls occurred in the neighborhood in October 2014. Again without any evidence, the dwellers think that this is the municipality's shenanigans to disincline them from the neighborhood by creating an

unsafe district perception. So that, they will decide to move from the district and this will ease the realization of urban transformation process of the neighborhood.

5.4.4.3 Health

In the 'Ecological effects' chapter, we have already made general arguments about the destruction of the green area which affected psychological and spiritual health of people and side effects of the highways because of their exposures. Now, it is critical to ask what is known about the effects of the green areas on the neighborhoods and near-highway exposures and their possible health consequences.

Starting with the possible effects of the destruction of METU forest; there are several researches about the benefits of green areas on the well-being of the psychology, reduction of the crime rates, supporting the level of success and etc. Frances Kuo who is the founder of the 'Human-Environment Research Laboratory' studies the relationship between people and the physical environment. In 2006, she founded the Landscape and Human Health Laboratory to focus on the relationship between the human health and the green space. With respect to her researches; increasingly, the benefits of the nature have been measured objectively rather than relying the surveys that have been made on people. The scientific reports; blood pressure, performance on neurocognitive tests, physiological measures of immune system functioning and the police crime reports illustrates that the green areas have an absolute benefits on the human health (Kuo, 2010).

100. Yil Isci Blokları neighborhood was perfectly located on the edge of the METU forest which is one of the biggest green areas of Ankara. With the construction of the road, the forest was broken away from the neighborhood and the Malazgirt Boulevard was located in between with its 8 lane width. Apart from the exposures of the highway; the visible, symbolic and physical access to nature of the neighbors has been cut dramatically.

> *"Access to nature, whether it is in the form of bona fide natural areas or in bits or views of nature, impacts psychological, as well as social functioning. Greater access to green views and green environments yields better cognitive functioning; more proactive, more effective patterns of life functioning; more self-discipline and more impulse control; greater mental health overall; and greater resilience in response to stressful life events. Less access to nature is linked to*

exacerbated attention deficit/hyperactivity disorder symptoms, more sadness and higher rates of clinical depression" (Kuo, 2010)

Although, it is impossible to observe the health effects of the road as it has only been six months since it was opened to the use of traffic; it is not so impossible to predict the possible effects of the road by analyzing the sample cases. Also according to our survey; people feel sad and desperate about their broken relationship with the nature.

Secondly, with the introduction of the highway which is amazingly close to the neighborhood causes exposures and lead way to their possible health consequences. "It is well known that motor vehicle exhaust is a significant source of air pollution. The most widely reported pollutants in vehicular exhaust include carbon monoxide, nitrogen and sulfur oxides, unburned hydrocarbons (from fuel and crankcase oil), particulate matter, polycyclic aromatic hydrocarbons, and other organic compounds that derive from combustion". Several lines of evidence now suggest that steep gradients of certain pollutants exist next to heavily traveled highways and that living within these elevated pollution zones can have detrimental effects on human health. (Brugge, Durant and Rioux; 2007).

According to the same research, the highways expose several pollutants to the surrounding areas which are especially located in 200 m radius and these pollutions can cause serious health problems on dwellers. Due to the fact that, the high way is just constructed, it is not possible to see the tangible effects of the road on the neighborhoods, however with the observation of the cases around the world, it is possible to compare and understand possible results in the future.

The road cases that are given on the chart from different countries show the pollutant measured and average pollution gradient according to the traffic intensity measured by the number of vehicles per a day or an hour. It is accepted that; there is a homogeneity in the types and the amounts of the vehicles. By predicting the traffic intensity according to the capacity of 1071 Malazgirt Boulevard; we can choose a similar case and investigate the possible health problems due to the relative level of pollution gradient has caused. Considering the physical properties and the capacity of the road; it is composed of 8 lanes where each of the lane can accommodate 1000 vehicles per one hour. Currently, road is used under capacity and it can be assumed that 2 lanes of the road are being used full capacity. Let's assume that, with the rent oriented transformations around the city, the intensity of the road had doubled (it is a very

optimistic assumption!) which means there will be 4000 vehicles per hour and 96.000 vehicles per a day with the maximum capacity. Looking at the chart, the Netherland case which is colored red, seems to be similar to our case. Comprising with the sample cases, this case has considerably high pollution gradient which shows the possible future conditions of the neighborhood.

Location	**Highway traffic intensity[a]**	**Pollutant measured[b]**	**Observed Pollution Gradient[c]**
Birmingham, UK	30,000 veh/d	UFP+ FP (10-10^4 nm)	2- 100 m [c]
Los Angeles; Freeway 710	12,180 veh/h	UFP, CO, BC	17- 300 m [c]
Los Angeles; Freeway 405	13,900 veh/h	UFP, CO, BC	30- 300 m [c]
Brisbane (Austr.)	2,130-3,400 veh/h	UFP+ FP, $PM_{2.5}$	15- 375 m [c]
Amsterdam	<3,000- 30,974 veh/d	$PM_{2.5}$, PM_{10}, PPAH, VOCs	NA
Netherlands	80,000- 125,000 veh/d	$PM_{2.5}$, PM_{10}, BC, VOCs, NO_2	15-330 m [c]
Netherlands	40,000- 170,000 veh/d	$PM_{2.5}$, VOCs, NO_2	< 400 m [c]

[a] *veh/d= vehicles per day; veh/h=vehicle per hour*

[b] *UFP=* ultrafine particles; FP = fine particles; $PM_{2.5}$ = particles with aerodynamic diameter ≤ 2.5 um; PM_{10} = particles with aerodynamic diameter ≤ 10 um; BC = black carbon; PPAH = particle-bound polycyclic aromatic hydrocarbons; VOCs = volatile organic compounds

[c] Pollutant measurements were made along a transect away from the highway
NA = not applicable; measurements were not made.

Table 11. The relation between the traffic density and pollution gradient (Brugge, 2007; taken from Brugge, Durant, Rioux; 2007).

The first predictable health problems that can occur from the pollutants can be asthma, lung cancer, allergy, etc., however; “results from clinical, epidemiological, and animal studies are converging to indicate that short-term and long-term exposures to traffic-related pollution, especially particulates, have adverse cardiovascular effects. Short-term exposure to fine particulate pollution exacerbates

existing pulmonary and cardiovascular disease and long-term repeated exposures increases the risk of cardiovascular disease and death" (Brugge, Durant, Rioux; 2007). In the chart, according to the traffic intensity, pollutants measured and distance from highway, the health outcomes are illustrated below. Considering the assumed traffic intensity of the road for the future and the distance between the road and the neighborhood which narrows down to 10m in certain places; the neighborhood can be under the risk of serious health problems in the future.

Location	Highway traffic intensity[a]	Pollutants measured[b]	Distance from highway	Health outcomes	Statistical association[e]
Boston	NA	$PM_{2.5}$, BC, CO	NA	Heart rate variability	Decreases in measures of heart rate variability
Netherlands	NA	BC, NO_2	Continuous[d]	Cardio-pulmonary mortality, lung cancer	1.41 OR for living near road
Nottingham, UK	NA	NA	Continuous[d]	Wheezing in children	1.08 OR for living w/in 150 m of road
San Francisco	90,000 – 210,000 veh/d	PM, BC, NO_x	School sites	Childhood asthma	1.07 OR for high levels of NO_x
Netherlands	80,000 – 152,000 veh/d	PM_{10}, NO_2	Continuous[d]	Lung function	Decreased FEV with proximity to high truck traffic
Amsterdam	>10,000 veh/d	NA	NA	Cancer	Multiple associations

[a]As defined in article cited (veh/d = vehicles per day; veh/h = vehicles per hour).
[b]UFP = ultrafine particles; FP = fine particles; $PM_{2.5}$ = particles with aerodynamic diameter ≤ 2.5 um; PM_{10} = particles with aerodynamic diameter ≤ 10 um; BC = black carbon; PPAH = particle-bound polycyclic aromatic hydrocarbons; VOCs = volatile organic compounds
[c]Pollutant measurements were made along a transect away from the highway
[d]Proximity of each participant to a major road was calculated using GIS software
[e]Statistical association between proximity to highway or exposure to traffic-generated pollutants and measured health outcomes
NA = not applicable; measurements were not made.

Table 12. Possible health overcomes (*Brugge, 2007; taken from Brugge, Durant, Rioux; 2007).*

All in all, the high way passing through the two neighborhoods which have a high density of housing, is like a grenade in the district. In our opinion, broken relation between the nature and the neighborhood and the possible side effects of the highway pollutants put risks on people's life and it is one of the most crucial issues that needs to be addressed.

5.4.5. POSSIBLE SOLUTIONS: TOWARDS A SUSTAINABLE MOBILITY

In order to ease the effects of the new highway that are previously presented, a new approach for mobility in the area is necessary. Solutions can be thought in two levels. One is in policy making level, to organize the mobility options and increase the accessibility of the surrounding areas with respect to the road and location within the urban network. The second is in physical level, to diminish the brutal presence of the highway and rethink this infrastructural element as a city boulevard as it was supposed to be at the first place.

In order to provide a better accessibility for the surrounding neighborhoods within the urban network, an overall approach for sustainable mobility is required. We have discussed that policy makers in Ankara are in favor of personal car usage and high speed road making. In order to develop a livable urban environment, this standpoint has to be changed.

Transport demand has to be analyzed to determine the transportation needs of the people in the neighborhood to regulate the public transport services that reach the area. From our observations and interviews, we have derived that different modalities of transportation, in this case, metro and bus system are not well integrated. A bus service that connects the neighborhood to the nearest metro station would provide an optimal accessibility for people, especially for the vulnerable groups, provided that ticket and pricing is also integrated. In addition, introducing bicycle paths to the area would extend the options for modes of transportation in an environmentally friendly fashion. Another solution can be

the physical improvement of the streets that lead to the metro station. Through provision of a well maintained route with adequate lighting and comfortable physical conditions; walking can be promoted as a mode of transportation. Transport network connectivity was another factor that determines accessibility. With introduction of the new highway, it was seen that inter-neighborhood networks were deteriorated. In order to retain these connections, multiple pedestrian passages should be considered along the road. This would also contribute to the slowing down of the traffic, which is a desired condition in a city scale road.

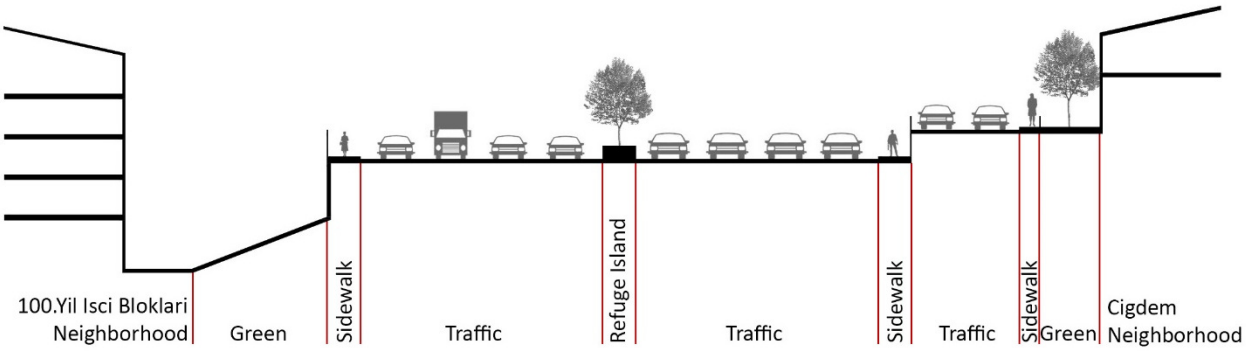


Figure 46. Existing road section (personal drawing, 2014)

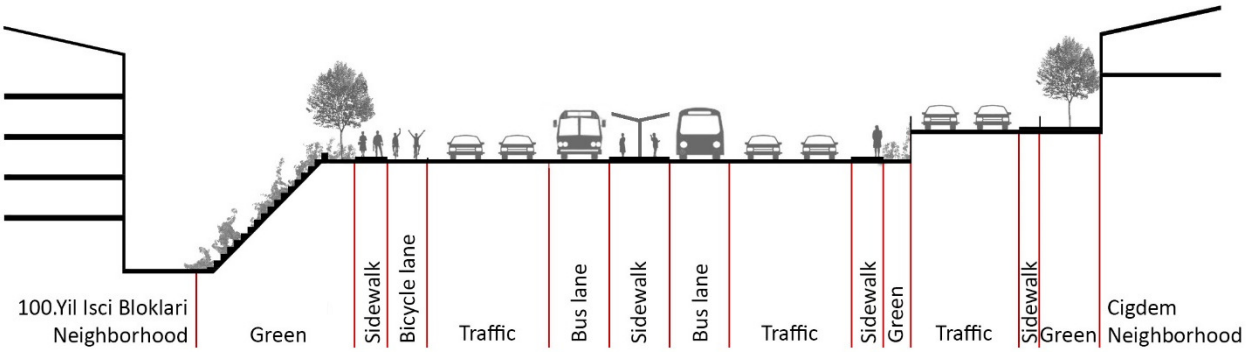


Figure 47. Proposed road section (personal drawing, 2014).

When the spatial aspects were analyzed it was indicated that the number of lanes on the highway was over the required capacity (Figure 46). Instead of having four lane high speed traffic on each direction, low speed two lane for car traffic is more than enough. Through this adjustment, one lane can be reserved for public transport to increase modalities of transportation for the area. The second extra lane can be organized to accommodate a bicycle path and more sidewalk space for pedestrian usage. When the road is converted to a low speed city boulevard, problems of noise and air pollution would be significantly reduced. Thus high retaining walls would no longer be needed. Thus, steep walls can be

converted to green walls to decrease spatial impact of the highway and have a better overall visual connection (Figure 47).

Another problem with the spatial qualities of the existing highway is the underpass. Although it is an important passage within the neighborhood, currently it is an untreated area which poses spatial and safety problems (Figure 48). In order reduce the effects of the underpass, this area can be utilized as a public space, increasing the 'eyes on the street' and have a natural surveillance throughout the day (Jacobs, 1961).

Figure 48. Underpass located at the area (personal archive, 2014)

In order to increase the vitality at the underpass, this space can be used for commercial activities. With a commercial window front, area can gain vitality and natural surveillance for a safer space instead of being a dark, vulnerable area. Making this route safer would also provide a better connection between the two sides of the road.

Figure 49. Pedestrian overpass (personal archive, 2014)

Figure 50. Pedestrian overpass (personal archive, 2014)

Another physical problem is with the pedestrian crossing (Figures 3-4). Due to the poor architectural quality of the existing pedestrian crossing, utilization of this element is especially hard for the elderly and disabled. Also one pedestrian crossing is not enough to meet the demand of the area which was previously well connected through unofficial paths. Since we suggest this route as a low speed city boulevard, several traffic lights with leveled pedestrian crossings would be more in compliance with the contemporary urban planning principles.

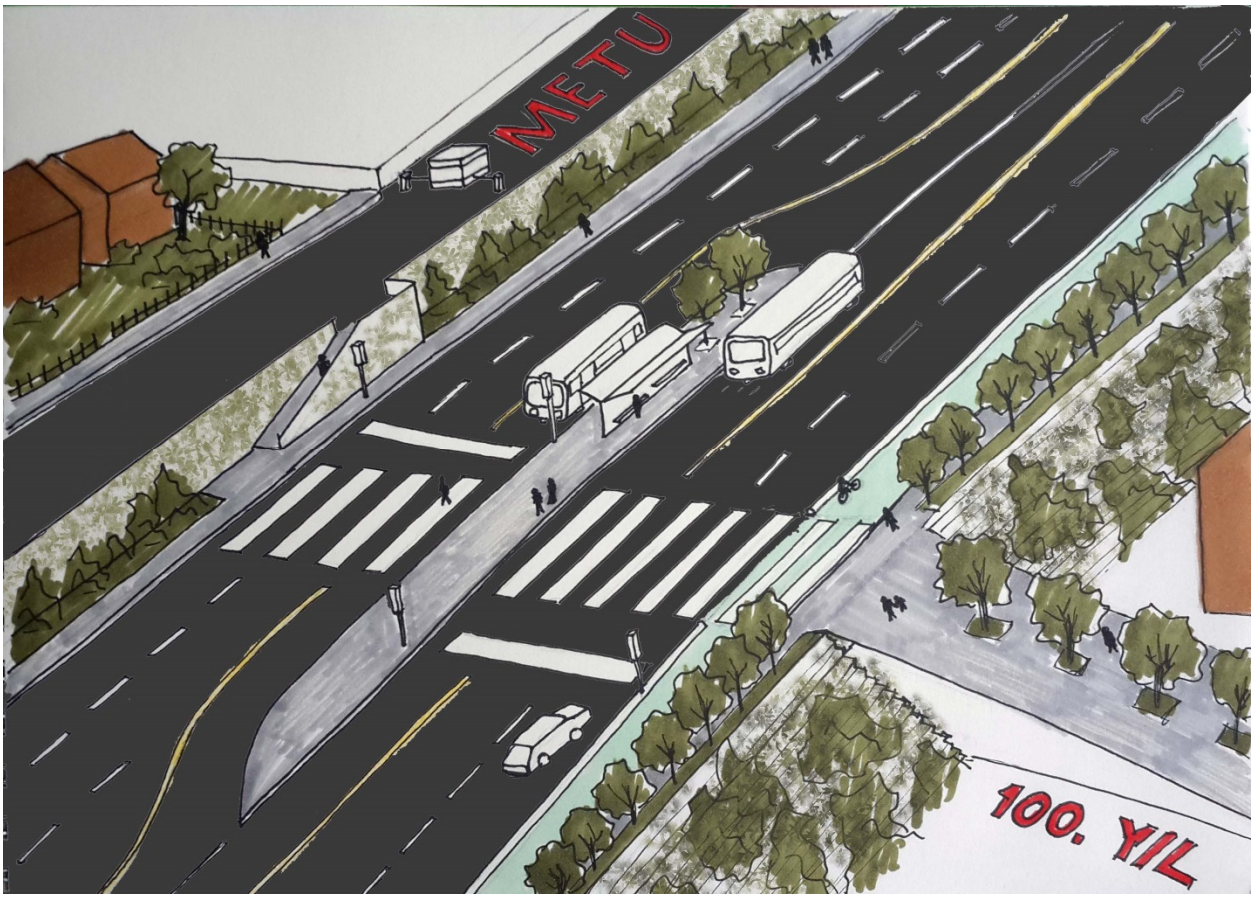


Figure 51. Proposed organization (personal drawing, 2014)

CHAPTER VI

6. CONCLUSION

"Some, who might once have supported the idea of motorway planning at an abstract strategic level, suddenly found that the result threatened their home or their neighborhood."

(Hall, 1980; qtd in Wall, 1999)

Neoliberalism suggests that a competitive market when liberated from the state is the optimum way of providing a growing economy. This calls the retreat of national state and gives greater power to the local government as an authority to determine the accumulation of capital within the urban network. What is reflected as a natural process of urban development is rarely a product of spontaneous events. It is a result of many underlying mechanisms that includes population growth, lifestyle changes, technological developments and most importantly, the power relations. In our globalizing world, power of international market strategies over local agendas is prominent. Benefit of the market is embodied in local scale through the hands of the policy makers. Local authorities embrace neoliberal policies of urban development for the sake of the profit and public welfare usually comes later in terms of degree of importance.

Within this framework, infrastructure becomes an important tool to execute and effectuate the global market strategies because infrastructure is in fact necessary for commodities to be produced, distributed and consumed. Thus urban network systems are produced to pursue the capital movement in the most desirable way, making sure that the desire is of the powerful. This mechanism gives shape to the urban geography and who suffers from the implications of the process is usually the urban poor. Social outcomes of this spatial reorganization is consequently severe.

While the spaces that appeal to the high income groups are clustered together through a sterile network, leftover spaces are mostly abandoned by the welfare state, or seen as an opportunity for further development, thus gentrification. Private car ownership becomes a necessity to participate in the urban lifestyle and those who cannot afford are excluded. When the accessibility of the vulnerable groups are limited due to uneven distribution of urban network and lack of mobility options, eventually further social problems occur such as exclusion, segregation or polarization. In addition to the socio-economic effects, environmental impacts, safety and health problems are all overtaken by these marginalized groups.

Derived from our research, the situation in Turkey is no different. Under the regime of the current government, neoliberalism is adopted as a tool for urban development and economic growth. Consequently this affects the territorial organizations within the Turkish cities as well as the preexisting social relations and daily life. Full-fledged implications of neoliberalism in Turkey started in 1980s and continued to be in effect with a growing influence. Single recipe formulation of TOKI housing, which is one of the biggest public-private partnership formed in Turkey, infrastructural investments and economic readjustments are all in favor of the global markets.

Ankara, as the capital city of the country, is also following the same trend. The mechanisms for coping with the fast urbanization and constant population growth is found through neoliberal policies by the local government. TOKI induced urban transformations of large urban areas that are scattered around the borders of the metropolitan city and unplanned growth causes a spatial segregation which effects the urban geography. High-speed road-making and car oriented development are the predominant applications of the Metropolitan Municipality to resolve this expansion and to provide mobility. Improving public transportation modes and providing integrated sustainable mobility options, on the other hand, is not a priority. All attempts of NGOs to draw attention to the existing transportation problems were left unanswered with further road and interchange constructions. Pedestrians and cyclers are not seen as a part of the urban network and all further operations focus on the private vehicle mobility.

1071 Malazgirt Boulevard, our case study, is also a result of these ongoing processes. With the impacts of the neoliberal policies in urban transportation and infrastructure, a planned legitimate road has become a grotesque highway that slashes through a forest and several neighborhoods where some of them had managed to still preserve their traditional Turkish neighborhood practices until today. It is not surprising that this operation faced strong public reaction from the inhabitants but their efforts were brutally suppressed by the police intervention. After all, when the current situation is examined, Metropolitan Municipality of Ankara deemed an eight lane, high speed highway suitable for an urban situation as such. Complemented with several large-scale interchanges, high refuge islands and one single pedestrian overpass, 1071 Malazgirt Boulevard can be listed as one of the best examples of neoliberalization manifesting itself within urban geographies.

Implications following the construction are also in compliance with the existing critique. Land speculation was an instant outcome, with lawyers and contractors going around in the 100. Yil Isci

Bloklari Neighborhood for buying the houses to pave the way of a future transformation in the area. Inhabitants, who are under constant risk of gentrification, are facing the threat to lose their sense of belonging and find it harder to maintain their existing daily practices.

In addition to the highway construction, with the recession of certain public transportation services, inhabitants of the area are further excluded from reaching the opportunities and welfare services of the city. Isci Bloklari Neighborhood which is characterized by its retired worker and student population are practically cut off from the urban network, unless they own a private car. While on the short term, it is harder to observe the impacts of this issue, for the longer term, it surely is going to have severe socio-economic effects. Free from the urban transformation that is expected to take place, if the inhabitants are not connected to the urban network, they will eventually lose the opportunities they need to sustain their social status which would cause social polarization.

Safety is another issue that is affected by this neoliberal approach. Damaging the organic networks of the neighborhood, making these areas fortressed by huge retaining walls of the highway and creating uncanny underpasses, neighborhood becomes more vulnerable to crime than before. Even the numbers did not suggest a significant increase in crime rate yet, feeling of insecurity is first step that leads to criminal behavior for the future. Community values and social identity of the groups are retracted because of this issue and peace of the neighborhood is alleviated reducing the livability of the area.

Last implication that we discovered is regarding health. With the huge area that is deforested and replaced with a highway, neighborhoods are no longer facing a forest but a high speed highway. Thus, instead of benefitting from the psychological and physiological effects of the forest, they are now exposed to large amounts of dangerous pollutants. Outcomes of this problem, again, will not be possible to observe in short term but as the existing literature and examples suggest, it will cause serious health problems in the future. In addition, high speed traffic poses a threat for both the users of the road and pedestrians around.

So, reflecting to our research question, neoliberal policies on urban transportation has effects on multiple dimensions including economical, ecological and social. In case of social problems, apart from the socio-economic issues and problems caused within the society like the problems of social cohesion, exclusion and polarization; issues regarding accessibility, safety and health have impacts on the social structure. In order to overcome these problems, we proposed sustainable mobility practices considering the existing studies on this issue.

Part of these solutions demand a more comprehensive approach in policy making level, namely adopting sustainable mobility policies, unlike the one of road making in Ankara. Pre-evaluating land use factors within the city, providing a well-integrated, affordable public transportation system that answer the demands of the areas, considering the needs of vulnerable groups, providing different modes of transportation are among the solutions for giving the citizens higher accessibility. In addition we suggested some physical improvements to reduce the brutal impact of the highway and made some changes to reevaluate this road as a city boulevard as it was supposed to be. We believe through our suggestions, the effects of these infrastructural elements would be reduced for a livable environment.

For our final words, we would like to reflect upon a survey made in 2004 in 100.Yil Isci Bloklari Neighborhood, the last question asked to the participants about their dreams and expectations about their neighborhood was; 'What is the view that you want to see from the window of your house?'. The result of the survey showed that; %30 of the participants answered as 'park' and %49 answered as 'the nature, forest and water' (Baskaya, Yalciner and Yilmaz, 2005). Today what we see has become the exact opposite.

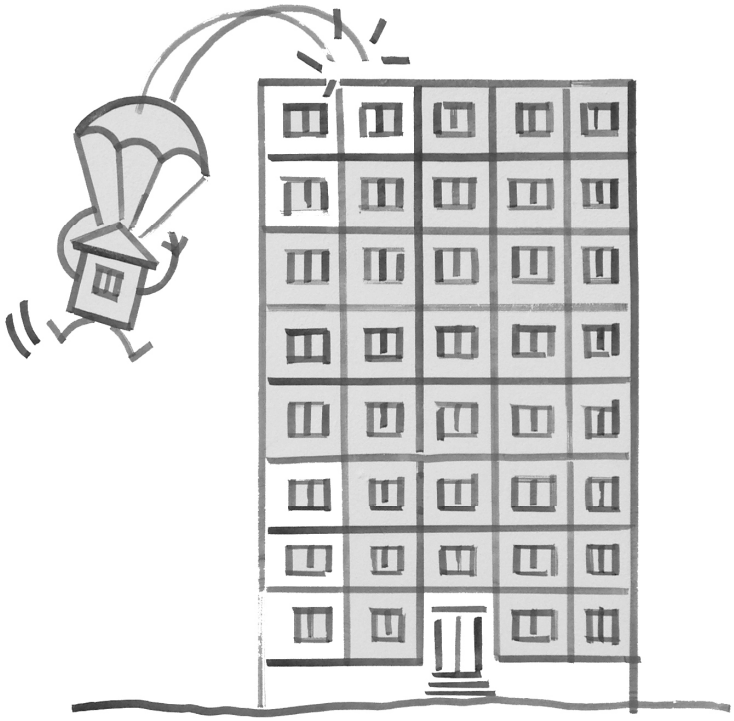


Figure 52. Escaping from the high rise (personal archieve, Venice Biennale, 2014)

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