

Monitoring the Impact of Urban Physical Development Plans On Old Sites of Cities

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Abstract: Problem statement: The interventional plans are one of the most influential policies which affected the socio-economic and physical fabric of the old parts of the Iranian cities. While the foundation of old areas of many cities are based on the socio-historical values which has unique compatibility with the cultural background, the new urban development plans notably comprehensive and detailed, have not been integrated to such values. **Approach:** This study investigated the impact of urban development plans on the historic structure of Sanandaj city in Kurdistan province by using a descriptive-analytical method. **Results:** The results revealed several different and negative consequences, which included disintegration of the neighborhood organization, erosion of old urban fabric and the decline of identity and attachment to the traditional environment. **Conclusion:** The prevailed interventional policy imposed a modern circulation network into the old sites which now is criticized as copy of Hussian style. The internal parts of the city have experienced physical transition along with urban sprawl during the last 40 years which led to disintegration of social and spatial fabric of the city.

Key words: Physical development, intervention policies, urban old sites, comprehensive and detailed plans

INTRODUCTION

Urban planning has evolved in the shadow of many different theories which paved the way for urban renovation and rehabilitation. The main theories have predominantly been introduced in the last 150 years by renowned scholars such as “eugen violet le duc (1814-1879 BC)”, “John Ruskin (1818-1900 BC)”, “Camillo Boito (1836-1914 BC)”, “Camillo Sitte (1843-1903)”, “Luca Beltrami (1854-1933)”, “Leonardo Benevolo (1933)”, “Ludvico Quaroni (1911-1987)”, “Gustavo Giovanni”, “Patrick Geddes (1854-1984)”, “Aldo Rossi (1931-1997)”, “Christopher Alexander (1936)”, “Constantinos Doxiades (1913-1975)” and “Richard Rodgers (1933)” (Habibi and Ahmad, 2007). Here two of the different approaches will be discussed which provide a good stance to perceive the process of renovation in urban areas.

Camillo Sitte, the Austrian architect and city planner, who’s most important study, was “the art of making cities”. His view on the renaissance cities was an aesthetic look. He was fascinated by the beauty and homogeneity of historical city environments and believed that “New towns are unbeautiful,

disproportionate and artless due to excessive regulatory order, monotony. He introduced artistic solutions through urban restoration which could be explained by following remarks. First he believed that the principals of old urbanism integrate beauty and value of old and new in modern build spaces and also the identity and the real value of each building are depended to its past and whole surrounding environment. Second he tried to keep urban continuity and sustainability by recognizing the regulations of the past to transfer it to new urbanism.

The main principals of Sitte included spatial hierarchy, identity, integration and adaptation, human scale and balance (Habibi and Maqsudi, 2002).

Rodgers was one of the most successful Brittan architects and urban planners of late twentieth century. He believed that urban spaces are flexible. This view is reflected in his joint plan with Renzo Piano for George Pompidou centre. In this plan, he aimed at showing off the extent of flexibility of a city plan which needs to speak out loud and clear. In his opinion, this can be achieved through use of glass and steel. In George Pompidou Center he paid more attention to the accessibility and services as he believed that space

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provides service. His proposal plans in this period convey some sort of a break away from history which tends to ignore the tradition, continuity, constancy/stability and history. It seems Rogers's style is a type of anti urban that instead of complying with environment, tries to confront and defy it. The main characteristics of his theory are:

- Clarity in physical expression
- Reality and identity; high technology can realize the ambitions and reflect the spirit of time in cities
- Visual aspect i.e., embodying the principals for physical effects in the structures

Rodgers's ideas evolved in the second period of 1990s. He reached to the conclusion that the secret of flexibility lies in sustainability which in turn is achievable only through relating to the surrounding environment. Rodgers's restoration ideas related to reinforcement of public spaces and landscapes, prioritizing context over site with flexibility, compatibility with surrounding environment, human-centrism, stability, time sustainability along with emphasis on traces of the past relationship between people and space.

Therefore, he followed flexible plans in his second period of professional life. Again the preferred land use was mixed and multi functional. The technique of action was renewing-rebuilding and the method of intervention was contextual-situational.

A study by Tiesdell *et al.* (1996) in the old neighborhoods of pioneer and Pastor of New York and Seattle revealed that a change in commercial land use led to the structural erosion and increase of crime which decreased the general quality of life in these two areas. Tiesdell *et al.* (1996) proposed that to revitalize the areas there need some spiritual and psychological parameters instead of mere economic one.

In a research Milton showed that the results of economic recession created urban conflicts in the old parts of cities and accelerated the decline of their livability in the United States (Mohamadzade, 2000).

Azizi (2000) studied the contemporary process of city development in Iran and aims how intervention policies regarding old city sites have evolved. After reviewing theoretical bases of intervention in urban old sites, his discusses the executive and legal measurements over the 3 distinct periods of:

- Ghajar dynasty to the end of the first Pahlavi era which the main actions were the design of Baharestan square and Toopkhane, implementation of Baladiye (i.e., Municipality) Law in 1930 and making the road network of Buzarjomehri/Khayyam along with removal of old

Tehran Mahallat (i.e., neighborhoods) organization, destruction of the old wall around the city, rectification of road network in 1934 with intensive development of governmental offices by new methods to substitute traditional styles and propagation of Tehran style to substitute the Isfahan style plus its implementation in other municipalities of the country

- Second Pahlavi era up to the victory of the Islamic Revolution from 1941-1979 which the following projects were implemented. The introduction of the comprehensive development plan with the provision of water and electricity, city infrastructures and health/hygiene services, the law of citizen share of 50% in civil development and as a result the increase in class differences in rich cities in the second development plan, propagation of the term old city as opposed to new city, increase of municipalities' dependence on governmental grants, development of typical comprehensive and detailed plans, the failure of detailed plans of revitalization due to lack of public support
- Post Islamic revolution up to the present which includes:
 - The lack of paying attention to the issue of old and historical sites in the first preliminary civil development plan
 - Provision of rehabilitation plan of 1984, impartation of the program for improvement of old city sites in urban neighborhoods in 1988
 - Establishment of cultural heritage organization and the establishment of bureau of urban improvement in the ministry of housing and urban development which aimed to build houses and infill development of cities
 - Special attention paid to old city sites and the intervention policies under rebuilding of existing old sites and collection of plots in urban zones of the country and improvement/rehabilitation of eroded urban sites in the second and third development plans

There was no considerable attention to the old sites before the period of 1888-1906. Nevertheless, Reza shah (king) era can be considered as a turning point in physical intervention which accomplished its desired ideas through government authority. The imposed Iran-Iraq war was the next turning point during which the old historical sites were not only forgotten but also left to further decay. Numerous problems caused by the decay of old sites attracted attention in the highest levels of governmental planning and constituted a great portion of the second development plan's policies and programs (Azizi, 2000).

MATERIALS AND METHODS

The origin of Sanandaj and its physical evolution: Understanding the history of the city and its process of historical changes as well as the influencing factors, would lead to the city's adaptation to time while preserving its historical continuity (Habibi, 1996). Sanandaj is a city that has always kept its conformity with time at any given point in the history and has evolved itself by taking advantage of existing ideas and technologies.

Although the settlement of Kurds in Kurdistan goes back to thousands of years ago, but, it was a village with 11 households of estimated 66 people at the beginning of its formation. It was selected as the capital in 1667 during the King Safi's reign and has evolved from a military fort to the present size during four centuries (Farafza, 1991). "Sanandaj" was actually called "Sineh Dej" or "Saneh Dej" because of the well-built fort that was constructed on top of a hill located in the city center which the remains are still present. There was also a village named "Sineh" in the Southern part of the city. When it was selected as the capital and became a city, the name changed to "Saneh Dej" and "Sanandaj" (Mardukh, 1972) (Fig. 1).

The connection of this city and its adjacent regions with Arian legendary heroes, speaks of its importance and antiquity. This city is situated on a large hill along the Qeshlaq River called "Pialeh Toosh Nowzar". Its geographical situation is confirmed as a safe and defendable place (Najafi, 1990).



Fig. 1: The old core and location of Sanandaj

Sanandaj started with the fort or the village on its south, but when the capital got transferred from Hasanabad village to the south of the present Sanandaj, it became the domicile for the Kurdistan governor (Soleiman Khan Ardalan) who renovated and expanded it in 1667. In an ancient inscription, the name of the city at the time of becoming the domicile of the governor, which is also considered as the time of its expansion and prosperity, is recorded as "Ghamha". Mardukh (1972) calls searching for such words in an attempt to find the historical name, date of creation and establishment of the city, as opposing to wisdom and theosophy (Mardukh, 1972, quoting Gazrani). According to the written information, the city of Sanandaj next to the village of "Sineh" with 20 meters of height and overlooking the surrounding lands, was built in 1686 by Soleiman Khan the governor of Kurdistan to serve as a political center for military purposes and to home a handful of Feudalistic households, during the reign of King Safi. This fort is now known also as Ferdowsi Fort and Officers' Club. Later, many buildings such as bathrooms, mosques and bazaars were also built in different scale around it (Fig. 1-5).



Fig. 2: The Bazaar



Fig. 3: Church of Sanandaj



Fig. 4: Jami Mosque



Fig. 5: Municipality of the city

A group of canalizations were done in the “Sardnoy” Plains (the present military base) on the west of Sanandaj for the Court of Justice.

At this period the structure of the city consisted of 3 parts:

- Court of Justice: The ruling fort situated in the center of the city on top of a natural hill and overlooking the surrounding region
- “Sharestan”: Residential quarters, bazaars and mosques around the ruling court
- “Rabaz”: Gardens, agricultural lands and villages around the residential places and outside of the city

The structure and form of the city is similar to the ancient Iranian cities and its settlement pattern follows the Safavid era. Different rulers in each period had governmental buildings built among which are: “Sheikh Bridge”, “Qeshlaq Bridge”, “Khosroabad Edifice”, “Salar Saeed House”, “Sanandaj Museum”, “Pir Omar”, “Asef House”, “Hajare Khatoon Mosque”, “Darolhesan Mosque” and “Palangan Fort”. The western explorer “Tavernier”, passed visited Sanandaj in 1364 BC and called it “the land without roads”. Malcolm also traveled to the region in 1800 called its roads very difficult and unusual. He also mentioned canyons full of chestnut trees on the west of Sanandaj that contained scattered states and says “oasis and buildings are hard to find and Sanandaj which is considered as Ardalan’s major oasis, is a small attractive city filled with fruit trees where located in the middle on top of a high hill there is an important luxurious palace” (Hmoon, 1995).

The conflicts and religious dispute between the Safavid and Ottoman governments in this period, Kurdistan was neglected by the Iranian central government. This left the Ottoman free to expand its penetration in the region through its developmental activities. They built a remarkable mosque and school with two tall minarets adjacent to the “Darolhokume”

or the Ruler’s Court which lasted steady for almost a decade. It was ruined by “Karim khan Zand” forces in 1785 due to the Kurdistan ruler’s disobedience, (Sanandaji, 1995). Many others like “Khanikof”, “DeMorgan”, “Nigiten” have visited the city from 1815-1890 BC and have reported similar information.

The oldest map of the city was prepared by a Russian officer in 1851. The map shows three inns, two gates of “Agha Rahim” and “Abol Azim” and major buildings inside and outside of the city. This document of Kurdistan has divided Sanandaj into 3 sections: the city, “Kala Khan” Fort and “Narin” Fort (Mehryar, 1995). Sanandaj was under ruling of the “Ardalan” family from the year of 1746 to 1921 (Safavid and Zandie eras) and there was no significant growth due to tribal and racial conflicts in this period.

Sanandaj received much attention in Ghajar era as the Kurdistan rulers supported the king “Agha Mohammad Khan” (Sanandaji, 1995). A number of measurements were taken for development of the city and major city elements were renovated and rebuilt. The city structure was revived based on the Safavid era urban planning and some Physical elements such as Jameh mosque, bazaar, neighborhood centers and the main connective roads were constructed. The ruling fort was walled for the security of elite class with four gates named: “Chovarlan Fort Gate” (facing west), “Tapule Gate” (facing north), “Abdolazim Gate” (facing Qeble) and “Agha Rahim Gate” (bazaar, facing east). The major neighborhoods were: “Mian Qale”, “Qatarchian” which has always been home to Kurdistan lawyers, “Joorabad” one of the slums and “Agha Zaman Bazaar” which was home to merchants and other businesses and religious minorities of the city (Sanandaji, 1995). Sanandaj was flourished and experienced a considerable growth. The main structure of the city based on the map made in 1851 by Russian brothers consisted of:

- Governmental fort and its surrounding wall; geometrically centered in the city. There were elements such as “Khan Ahmad Fort”, “Narin Fort”, “Vali Square”, Pilgrimage Site, “Pir Omar”, “Saquerdi Khan Edifice” and Mosque inside the fort
- Residential neighborhoods around the wall of the fort and each contained elements such as Mosque, “Alie Khavanin Edifice”, “Mini Bazaar” and Bathroom
- Gardens, fields, villages and heights around the residential parts of the city which contained: “Khosro Abad Garden”, “Golestan”, “Degaran Village”, “Tush Nowzar” and its smaller heights

and “Abidar”. The central part of the city included bazaars, fort, “Vali Squares”, “Allaf Khan” (Gazerani, 1999)

Sanandaj from the First Pahlavi era (intersectional passageway and Hussmanian surgery): Modernization spread very fast by the beginning of the Pahlavi reign and the government decided to apply extreme changes in the structure and the form of the Iranian cities which underlined the native urbanism of the country. For the first time in the history of the urbanization, city was transforming based on the modernization rooted in the external culture and style.

Modernization is a new way of planning which has its origin in the Industrial Revolution and the invention of machine. In Iran as well, Pahlavi government was experiencing this new style without any appropriate understanding of its process and necessities. As a result, the new buildings did not have much conformity with the form or context of the ancient Iranian cities. The planners were generally French or German engineers who used in a limited extent some of the Sassanid and Hakhmanesh architectural styles in an entirely superficial way.

Sanandaj became the largest and most important city in the province in 1961-1981, as the region approached an administrative stability. The city, up until its contemporary growth, has been limited to old neighborhoods surrounded with gardens and fields and their connection to the outside regions was through irregular roads and necks. There occurred some changes in the physical structure of the city by construction of new streets urban elements, military base, factory, hospital and offices. The new street networks such as Enghelab, Ferdowsi and Taleqani disintegrated the old neighborhoods system and changed the spatial-physical structure of the city (Rasuli, 1993). The plaid-shaped streets divided the bazaar in two sections and created sub-functions on the sites of main bazaar which not was suitable to the physical architecture and declined the socio-economic values of bazaar (Gazerani, 1999).

The legal justification for such street system was the rectification of the passageway network act 1934 which was implemented in the majority of cities in the country such as Tehran, Zanjan, Sanandaj, Orumieh, Hamadan... with a few years delay. The technical office of the Interior ministry provided the first guiding plans me of the cities after a period of recession in 1957. The main designers of the guide plans were the American Peace Corp members. Therefore, once again foreign thoughts and methods which originated from modernism, applied to Iranian traditional cities (Mojtahedzadeh, 1998).

The government prepared physical development plans for some cities and Sanandaj as the capitalistic relationships further modernized and expanded in the country by relying on the forth principle of Truman. The street of Salaheddin Ayyubi crossed Shohada Street along with 3 streets of Ferdowsi, Keshavarz and Abidar were connected to Azadi (liberty) Square in the southwest (Gazerani, 1999). This situation invaded not only the valuable southern city lands but also triggered the inefficiency process of old sites. The last heavy intervention of the “Alton” plan was the construction of Kurdistan Axis Boulevard as main arterial road in addition to the “Dey 28th” and “Be’sat” boulevards. Later these new additions further disintegrated the ancient structure of Sanandaj in the old sites of “Ghatarchian”, “Aghazaman”, “Charbagh” and destroyed the city’s historical integrity and identity. The economic value of the traditional bazaar of Sanandaj was declined by construction and reinforcement of the present Pasdaran axis, Ferdowsi and Abidar. Creation of these multifunctional axes became a showcase of modernism at the cost of handicrafts industry decline. This is an example of changes which started in this time and was accomplished in the next period.

The relationship between past and present of the city disconnected by the surgical knife of husmanian in this period and turned into a tool for displaying modernism and planning which were in conflict with context. This trend that started in 1925 still goes on after 80 years despite the claims of so called sophisticated understanding of this issue. The implementation of western style of modernization started from the Pahlavi era harmed the identity and the endogenous architecture. The pattern derived from Hussmanian experiences has been imposed upon Iranian cities which had its root in abroad and so it led to the mal growth of cities. The 1933 act was the main tool and initiative for street widening and development (Habibi, 1996).

The city of Sanandaj and the Land Reform (intensive physical surgery): Urbanism entered a new era and the urban physical growth transformed the old sites in this period. The city experienced a rapid economic and political transition due to Land Reform, implementation of physical development plans and rural migration which all led to an unprecedented growth. The physical growth of the city was as high as during 17 years, it has expanded equal to the 350 year history of the city and the population from 50,000 in reached to 95,000 in 1976. The main impact of Land Reforms was the influx of rural peoples to the city, moreover the windfall of oil income accompanied by implementation of urban projects such as providing

water and roads created an explosive growth. Since the majority of migrants were poor, the new neighborhoods were sprawled with poor utilities and services which multiplied the urban problems. The internal parts of the city were occupied by the newcomers of rural hinterlands as the city is located in a mountainous area where the topography is a natural obstacle for physical growth. Its physical appearance is represented by irregular, radial neighborhoods with narrow, slanted alleys going up and down. This situation had two results as in first step most of the slopes were developed intensively especially in the north and eastern parts of the city and the second the existed urban infrastructures could not cope with the pressure which was imposed by the migrants and so the city moved towards a serious decay and physical deterioration.

The Sanandaj comprehensive plan contract was ratified by the High Council of Town planning and Architecture in 1975 in order to prepare a suitable context for the natural growth of the city. This plan emphasized on the plaid-shaped street pattern for the new neighborhoods such as Sharifabad, Khosroabad, Hasanabad, Jandarmeri without considering the physical-spatial values of the old site. The plaid pattern for new neighborhoods provided wide streets to increase the traffic maneuver and became the main base for the expansion of new neighborhoods of city outskirt. The right-angled intersection network in these neighborhoods represents a distinct/specific physical contradiction with the natural layout of the land and the organic pattern of the old sites and in fact it can be considered the third impact of modernization on organic pattern of the city.

New neighborhoods separate from intersection network, contain buildings with metal and steel frameworks which have thoroughly surrounded the old site and have even penetrated in it. In this period, the physical-spatial organization of Sanandaj can be divided into three parts:

- Old neighborhoods: These neighborhoods have a high population density which consists of Aghazaman, Joorabad, Charbagh, Qatarchian, despite the transport and access problems; they enjoy all urban services like water, electricity and sewage
- New neighborhoods: These neighborhoods with right-angled pattern and plaid network developed according to planned programs. All new built environment using fresh material especially metal skeleton and have a medium population density. Some of them are stretched on the acute slopes and

attached to the old neighborhoods like Jandarmeri, Sharifabad, Hasanabad and Khosroabad

- Marginal and self-made neighborhoods: These areas are occupied by rural migrants and poor families who created the first core of Sanandaj shanty town. The area is a major center of social and economic disorders and absorbs the new potential migrants. The built environment in these neighborhoods is a mixture of old and traditional materials like mud, wood, steel and iron. Neighborhoods such as Abbasabad, Taqtaqan, Kanikozle, Forje, Hajiabad, have based their original cores in this period on top of the steep and reversed slope hills. Sanandaj has kept its mono-centered pattern in the limits of Enqelab Square and the bazaar as the socio-economic and cultural spine in this era against the heavy presence of streets. The majority of the economical functions were transferred to the sides of the streets such as Cyrus, Enqelab, Ferdowsi and Taleqani, which gradually weakened the vital role of bazaar

In fact the physical-spatial structure of the city is included from an old site receiving urban services and a set of developing new sites. The old site with its rows, alleys, squares and urban functions, has still kept its dynamics, as mirror of the city's spatial identity (Rasuli, 1993).

The City of Sanandaj from the Islamic Revolution to the present (Accelerated urban growth): The Islamic Revolution of 1979 has influenced all aspects of the Iranian societies. The prior task of the new Islamic government was naturally to settle down the socio-economic and political unrests in the first few years. Urbanization has entered a new era as the Islamic Revolution had to realize many of its promises to the mass urban and rural poor. The city became a focal point and the main destination of rural migration in this time which the lack of any planned urban projects fuelled urban problems. Moreover, Kurdistan province has experienced a different periods compared to the regions of the country as the area faced to much transitions by the imposed Iraq-Iran war and regional political conflicts. These two issues led to rapid urban growth and spatial changes of the Sanandaj city.

The sudden influx of migrants to the city has caused a mushroom-like growth next to the villages around the city and its margins. These sites were formed by new comers seeking housing and jobs, without any scheme beyond the prospects of the city comprehensive plan and were based according to the original rural migrants' needs that mostly chose the heights around the city. Heights that with little

organization could be used as natural landscapes went under intensive construction. The result was creation of an undesirable physical structure due to use of unresisting building materials. These sites have no positive identity and represent only the place where the residents live. From the physical point of view these sites are formed on the slopes and the intersections are radial along the inclination of the hills (Fig. 1). The main residential land use is mix used and the one story buildings are common. Following the high natural growth of the population, the majority of the constructions have been done outside the city limits of the comprehensive plan. The physical growth of the city has been twice the prospects of the previous comprehensive plan in 1985 based on the samples taken by Farafza Consulting Engineers.

Following the explosive growth of the city, the city officials decided to prepare suitable grounds in the form of ready plans so that the physical development of the city will be based on pre approved plans. The most of the fertile agricultural lands and gardens were used for physical development as the city is surrounded by heights and the land preparation usually costs much by excavation. This problem becomes more evident when the land is made of stone and therefore, provision of infrastructural facilities and services faces special problems for instance Qaradian and Tekyechaman. The major form of the new developed areas is linear along the main arterial roads. The new 3 parts of the city have the least urban infrastructural facilities and services compared to the central core, except for a couple of small local stores, these sites depend on the central part of the city for their daily needs.

The old sites however enjoy the maximum services and infrastructural facilities but are considered mostly as decayed areas due to lack of any special plan for its physical-spatial renovation. The most common intervention in these sites is imposing of the wide streets by destruction of the physical, social, cultural and economical bases of the city. Therefore, Sanandaj in this period is a group of neighborhoods (old sites, marginal sites and sites formed based on a spatial plan) with a mono-core pattern (Enqelab Square), formation of new functional axis (the streets of Cyrus, Ferdowsi, Imam Khomeini, Taleqani, Pasdaran) and new urban elements (transport terminals and stations, offices and parks).

Despite the fact that bazaar has still kept its major economic functions in the city, but it lost much of the socio-cultural importance in the face of strong presence of the new streets for ever. At the present, a new strong functional axis (the commercial-recreational center, Ferdowsi St, Azadi Square, Pasdaran Street) has formed against the bazaar. For example the most the valuable

traditional handicrafts shops moved to the showcase shops in new streets. It seems that bazaar declines its important role further by the complementation of the several commercial complexes in Pasdaran Street in a near few years.

RESULTS

The first guide plan which caused rapid physical-spatial changes in Sanandaj was prepared and implemented by the American Consultant, Alten in 1957. This plan disintegrated the old physical fabric of the city due to that the construction of Salaheddin Ayyubi Street in right angle with Shohada Street has gradually helped to decline the values and functions of the old city sites.

The destructive impact of Alten's plan along with the demographical changes, migrations intensified the irregular developments of the city in the next 15 years. The city was confronted with an unplanned physical development especially in the north and eastern directions as result of urbanization growth, incompatibility between physical structure with spatial needs, which was itself a consequence of land reform and rural migration. It was expected that preparation of the comprehensive plan in 1973 would control the physical development but the plan had an obvious contradiction with the old urban site by providing neighborhoods such as Sahrifabad, Khosroabad, Shalman and Jandarmeri with plaid-shaped intersections. In other words, for the third time, the urban development plan with the claim to solve the urban problems has attacked the physical spaces of the city and has injured the already injured body of the city even more. In addition, the city faced more problems by the continuous rural migrations and the political and economical changes of the years 1977-1984 have all made Sanandaj to host migrants who made their homes heedless to the rules and principles of the comprehensive plan. They occupied the hills and the heights around the city without paying attention to factors such as topography, land gradient; direction of gradient. These problems lead to the preparation of the second comprehensive plan of Sanandaj in 1984 in order to control and guide the marginal constructions. The agricultural lands of were considered for new developments mostly in the southern parts due to the irregularity of lands. The physical changes of this period not only included the city margins but also overshadowed the old sites as well. As an example, Besat Boulevard divided the old and historical neighborhoods of Aghazaman, Charbagh and Pirmohammad in two parts.

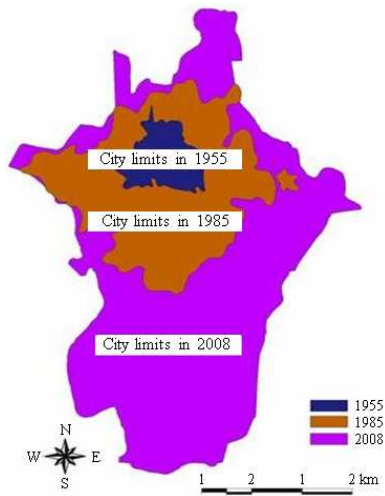


Fig. 6: The physical expansion of Sanandaj

The executive lines of the comprehensive plan of 1984 along with the consultant's detailed plan in 1993 became widespread. The city has expanded from 1252 hectare in 1985-3600 hectare in 2001 due to the post war stability, population increase and the implementation of first and second national development plans (Fig. 6).

Therefore, the old and new sites with single core patterns along with formation of new axis of growth formed and economical performance centers (Ferdowsi, Pasdaran...) administrative (Pasdaran, Safari...) recreational (Pasdaran, Shahrak Noor...) industrial (Basij Mostazafin Boulevard...) with communications network development system, have brought about significant physical changes in the face of the city. Making new sites of Phase 1 and 2 of Saa'di, Keshavarz, Noor, Baharan, Farhangian, Be'sat, Shahrdari, Qeshlaq, have all been the fruits of performance changes in the period of 1985-2001 (Habibi, 2000). To sum it up, we can say that from the 1928 plan to 1993 plan the city of Sanandaj, faced with continuous turbulences of administration, planning and imposed developments or expanded by unsuitable quality and disorder.

DISCUSSION

Now by the reviewing the history urban planning we can discuss that the physical-spatial structure of the old site of Sanandaj is found in the quadruple axis intersecting the bazaar. The major elements or the determining essence of the old Sanandaj are: bazaar, residential sites and the ruling fort the old city contained three main land uses: Ruling Fort

(Kohandej), inner section (Sharestan) and the outer section (Rabaz). The main function of the Kohandej was military, administrative and residential for the ruler class. The inner section land use was commercial the presence of bazaar, Jami mosque and smaller mosques around the bazaar. Also some the middle income groups lived in this area who were connected through the main and sideways to the fort section. The type of land use was agricultural fields, gardens and scattered residential spots in the outer zone. Therefore there existed a spatial hierarchy as coordinated according to the class power and distinction. This structural framework continued until 1921 was damaged when the first signs of modernization movement (Reza shah era) changed the form instead of content and the spatial essence of the city fell apart by the disintegration of neighborhood organization. The physical-spatial structure of the city was transformed by the injection of new streets in the old core where the street side profit was an economic incentive for commercial activities. In practice, the old city structure was undermined and therefore the urban land market became determinant of how city grew and developed.

The contemporary urban projects accelerated the process irregular growth. The mobile transformation of the urban public land uses has also continually damaged the spatial stability of the city. From 1979 onward, despite the change of concepts and values, the old site continued to be neglected. Since the old city sites were already falling behind from their natural historical make over (historical discontinuity) even before the Islamic Revolution, no particular measurement was taken to revive this make over and the old city confronted the influx of rural migrants and as a result it went under faster functional physical-spatial destruction and decline.

CONCLUSION

The process of structural decline becomes more important when the context for urban development (in the peripheral parts) is prepared following abstract patterns and the old sites on the other hand despite having all facilities are left to be forgotten. Streets in the old site offer an individualistically new face while it is declining and becoming hollow from the inside. Although some new construction has been done which are disproportional with the body site, the derelict and abandoned spaces are continuously increasing. In general, the morphology of Sanandaj and its old site particularly due to topographical and natural situation of the city and the irregular influx and habitation of migrants in city margins, especially in composition with

urbanization plans and projects, contains variable plaid, spider and radial forms. In other words, some of the new sites are plaid and some are radial due to land limitations and steepness. Construction material used in old buildings is relatively monotonous and adds to the beauty of the paths and building façades in the old sites and creates a sort of homogeneity. The new site on the other hand, due to lack of order and proportionality in the new constructions compared to the old site, suffers from lack of identity. Despite the few numbers of vehicles, the mono-centric pattern of the city, convergence of its connection network, lack of order in the access network system and city pathways and lack of a rational hierarchy have all lead to various problems including congestion in the Central Business District (CBD).

In the other hand, the pedestrian and vehicle movement in the city does not follow a particular order and actually interfere with each other. In this section, the highest congestion of pedestrian and vehicle traffic is evident to the extent that during the day, the quadruple intersections of the bazaar are filled with this type of traffic. In short, rapid growth, lack of infrastructural facilities, lack of proper land to cope with expedited physical expansion, implementation of dictated, cliché and incompatible urban development plans with real urban needs, disorderliness of the form relations of the networks of pathways, road, movement of pedestrians and vehicles, imbalanced growth and placement of urban service centers, shortage of open urban spaces and increasing congestion of construction have all made Sanandaj city to be an environment far from comfort and serenity needs of people. In the opinion of the researcher, perhaps if none of the quadruple urban development plans of 1928, 1958, 1973, 1984 were not implemented, the physical, spatial and vital situation of the city would have not been worse than today. Apparently there has been no productive and planned goal for these urban development plans.

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